Title

Detector Controlled Illuminating System

Preliminary Class

362

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

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For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as

set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/357,549	01/24/2012	Yechezkal Evan Spero	

CONFIRMATION NO. 1905

FORMALITIES LETTER

37268
YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

OC00000053505723

Date Mailed: 04/03/2012

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

An application number and filing date have been accorded to this application. The item(s) indicated below, however, are missing. Applicant is given **TWO MONTHS** from the date of this Notice within which to file all required items below to avoid abandonment. Extensions of time may be obtained by filing a petition accompanied by the extension fee under the provisions of 37 CFR 1.136(a).

SUMMARY OF FEES DUE:

Total fee(s) required within **TWO MONTHS** from the date of this Notice is $**155** for a small entity

- The specification and drawings submitted electronically contain the equivalent of more than 100 pages. Applicant owes $**155** for **7** pages in excess of **100** pages for a small entity in compliance with 37 CFR 1.27.

Replies should be mailed to:

Mail Stop Missing Parts
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Alexandria VA 22313-1450

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/hteffera/

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/357,549

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	95		N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	310		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	125		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	26 minus 20 =	* 6	x 30 =	180	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	4 minus 3 =	* 1	x 125 =	125			
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			155			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	990		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.

** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".

*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".

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Typed or printed name of person signing Certificate

37268
Registration Number, if applicable

972 8 996-0324
Telephone Number

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
13/357,549	01/24/2012	Yechezkal Evan Spero	

CONFIRMATION NO. 1905

37268
YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

FORMALITIES LETTER

OC000000053505723

Date Mailed: 04/03/2012

NOTICE TO FILE MISSING PARTS OF NONPROVISIONAL APPLICATION

FILED UNDER 37 CFR 1.53(b)

Filing Date Granted

Items Required To Avoid Abandonment:

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Document Description: Fee Worksheet (PTO-875)

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD
Substitute for Form PTO-875

Application or Docket Number

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY FEE ($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	x =		OR	x =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	x =			x =	
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))			N/A			N/A	
			TOTAL			TOTAL	

* If the difference in column 1 is less than zero, enter "0" in column 2.

APPLICATION AS AMENDED – PART II

AMENDMENT A

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE ($)	SMALL ENTITY ADDITIONAL FEE ($)	OR	OTHER THAN SMALL ENTITY RATE ($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

AMENDMENT B

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)		RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
Application Size Fee (37 CFR 1.16(s))									
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					N/A		OR	N/A	
					TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 13/357,549

APPLICATION AS FILED - PART I

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EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	125		N/A	
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MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	990		TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
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	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
13/357,549	01/24/2012	2875	1055		26	4

CONFIRMATION NO. 1905

UPDATED FILING RECEIPT

37268
YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

OC000000054122018

Date Mailed: 05/08/2012

Receipt is acknowledged of this non-provisional patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF APPLICANT, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection. Please verify the accuracy of the data presented on this receipt. **If an error is noted on this Filing Receipt, please submit a written request for a Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections**

Applicant(s)

Yechezkal Evan Spero, Moshav Tifrach, ISRAEL;

Assignment For Published Patent Application

Yechezkal Evan Spero, Moshav Tifrach, ISRAEL

Power of Attorney: None

Domestic Priority data as claimed by applicant

This application is a CIP of 10/604,360 07/14/2003 PAT 8100552
and claims benefit of 61/535,981 09/17/2011

Foreign Applications (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.)

If Required, Foreign Filing License Granted: 02/03/2012

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 13/357,549**

Projected Publication Date: 08/16/2012

Non-Publication Request: No

Early Publication Request: No
**** SMALL ENTITY ****

Title

Detector Controlled Illuminating System

Preliminary Class

362

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

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For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4158).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

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set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

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NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
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CONFIRMATION NO. 1905

37268
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PUBLICATION NOTICE

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NOTICE OF PUBLICATION OF APPLICATION

The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 10/10/2014

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EXAMINER	
LOTTER, DAVID E	
ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
10/10/2014	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *3/27/2012*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-26* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-26* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☒ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *1/24/2012* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Specification

The disclosure is objected to because of the following informalities: paragraph [0118] appears to show an incomplete part “HLMP25-ED-xxxx”. Appropriate correction is required.

Claim Objections

Claim 16 is objected to because of the following informalities: “…and the controller process the information a communicates the camera obtained information to a second device.” “a communicates" appears to be a typo. The Examiner interprets “a” to mean “and”. Appropriate correction is required.

Claim 25 is objected to because of the following informalities: The acronym “SAD” should be spelled out. The Examiner interprets SAD to mean “seasonal affective disorder.” Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(f):

> (f) Element in Claim for a Combination. – An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the

> corresponding structure, material, or acts described in the specification and equivalents thereof.

The following is a quotation of pre-AIA 35 U.S.C. 112, sixth paragraph:

> An element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof.

Claim 4 recites the following limitation: "*the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex…*"

The claim limitation uses the term "detector" as a substitute for "means". In other words, the term is used as placeholder.

The placeholder is modified by functional language: "*detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex…*"

The placeholder is not modified by sufficient structure or material or acts for performing their respective claimed functions. In other words, a detector alone is insufficient structure to achieve "detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex." Since the above limitation invokes 35 U.S.C. 112, sixth paragraph, the limitation is interpreted to cover the corresponding structure described in the specification that achieves the claimed function, and equivalents thereof.

A review of the specification shows insufficient structure sufficient for achieving the claimed function is described in the specification (see generally paragraph [0246], Fig. 23). There is insufficient description explaining how the detector detects an

individual's age or sex. Specifically, the Specification states in paragraph [0246] that "using image recognition algorithms and artificial intelligence techniques known in the art, based on the appearance and movements of the occupants, the camera vision system will automatically guess their age and sex. The processor runs the computer vision routines to determine an occupants age or sex and sends instruction to a building's utility devices to provide individualized services such as heating and lighting on basis of age or sex." There are no algorithms or routines found that describe how the camera system will guess one's age or sex. The flow chart found in Fig. 23 states "run lighting algorithms to determine best practice illumination levels" but omits describing the corresponding algorithm.

If applicant wishes to provide further explanation or dispute the examiner's interpretation of the corresponding structure, applicant must identify the corresponding structure with reference to the specification by page and line number, and to the drawing, if any, by reference characters in response to this Office action.

If applicant does not intend to have the claim limitation(s) treated under 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112 , sixth paragraph, applicant may amend the claim(s) so that it/they will clearly not invoke 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph, or present a sufficient showing that the claim recites/recite sufficient structure, material, or acts for performing the claimed function to preclude application of 35 U.S.C. 112(f) or pre-AIA 35 U.S.C. 112, sixth paragraph.

For more information, see MPEP § 2173 *et seq.* and *Supplementary Examination Guidelines for Determining Compliance With 35 U.S.C. 112 and for Treatment of Related Issues in Patent Applications*, 76 FR 7162, 7167 (Feb. 9, 2011).

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112(a):

> (a) IN GENERAL.—The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor or joint inventor of carrying out the invention.

The following is a quotation of the first paragraph of pre-AIA 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4 is rejected under 35 U.S.C. 112(a) or 35 U.S.C. 112 (pre-AIA), first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor or a joint inventor, or for pre-AIA the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 4

The claim is construed in accordance with 35 USC 112, 6th paragraph as noted above. There is insufficient written description of a structure sufficient to achieve the

claimed function "*detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex…*" Thus the claim fails convey to one of ordinary skill in the art the invention had possession of the claimed invention. There is no description of structure by which the detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex… There is insufficient corresponding structure that detects information regarding an individual's age or sex. Paragraph [0246] states "using image recognition algorithms and artificial intelligence techniques known in the art, based on the appearance and movements of the occupants, the camera vision system will automatically guess their age and sex. The processor runs the computer vision routines to determine an occupants age or sex and sends instruction to a building's utility devices to provide individualized services such as heating and lighting on basis of age or sex."

The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 20 and 25 are rejected under 35 U.S.C. 112(b) or 35 U.S.C. 112 (pre-AIA), second paragraph, as being indefinite for failing to particularly point out and

distinctly claim the subject matter which the inventor or a joint inventor, or for pre-AIA the applicant regards as the invention.

Claim 20 recites in part the limitation "…and feeding that information to a controller; a controller for adjusting…" It is unclear if the second controller recited is the same controller previously cited or a second controller.

Claim 25 recites in part "the radiation may be any of… and (iii) light therapy for SAD and other disorders." Radiation related to light therapy for SAD and other disorders renders the claim vague and indefinite. First, light therapy for SAD is not defined. Second, the light therapy for "other disorders" renders the entire claim indefinite.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3, 5-24, 26 are rejected under pre-AIA 35 U.S.C. 102(b) as being anticipated by Spero (US 2004/0105264).

Regarding claim 1 Spero discloses an illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture (paragraph [0045], Fig. 13A) including a multiplicity of directional light sources (paragraph [0045], Fig. 13A) including at least two light sources pointing in different directions (paragraph [0045], Fig. 13A), the light sources having at least one of controllable light intensity and spectral light distribution (paragraphs [0089], [0099]); a controller (paragraphs [0070], [0089]) for adjusting at least one of a light intensity and light spectrum of the directional light sources (paragraph [0089]); one or more detectors (paragraphs [0045], [0100]) for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller (paragraphs [0045], [0099], [0153]); a processor (paragraph [0070]) for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence (paragraph [0164]), pattern recognition (paragraph [0164]), video analytics, and look-up tables (paragraph [0149]) and for directing the controller to adjust the directional light sources to meet the illumination requirement (paragraphs [0045], [0099], [0149]).

Regarding claim 2 Spero discloses the illuminating device of claim 1 where the detector is comprising at least one of (i) a camera (paragraphs [0100]-[0101]) being a photo sensor array coupled with an optical lens (paragraph [0152]), (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

Regarding claim 3 Spero discloses the illumination device of claim 1, wherein the illuminated area is indoors (paragraph [0040]) and further comprising a detector (paragraph [0045]) for detecting variable illumination from daylight and/or sunlight entering indoors (paragraph [0157]), wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement (paragraphs [0089], [0157]).

Regarding claim 5 Spero discloses the illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor (paragraph [0166], the Examiner interprets "..to initially lock-on and recognize a target attribute as is known in the art as object tracking" and "instantaneous control of almost infinite variation of spectrum and intensity" as reading on this claim language).

Regarding claim 6 Spero discloses an illuminating device having automatic control of the light provided to an illuminated area comprising: a structure (paragraph [0045], Fig. 1, at 4) for incorporating illuminating device elements (paragraph [0097], Fig. 1, at 3); one or more light sources incorporated in the structure (paragraph [0045]) and in communication with a power source (paragraph [0097], Fig. 1, at 10); electronic

circuitry apparatus (paragraphs [0097]-[0099], Fig. 1, at 7) for the controlled powering of the light source and other illuminating device elements (paragraph [0045], paragraph [0099], Fig. 1, at 7A); one or more cameras (paragraph [0152]) placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements (paragraph [0152]); a controller (paragraphs [0070], [0089], [0152], Fig. 1, at 7) integrated with the structure (paragraph [0045], Fig. 1, at 7), in communication with the light source controlling power circuitry (paragraph [0045], Fig. 1, at 7 and 10), said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area (paragraph [0089]).

Regarding claim 7 Spero discloses the illumination device of claim 6, wherein the one or more detectors (paragraph [0195], “camera”) are configured to sense a presence of glare on a person's eyes (paragraph [0195]) in the illuminated area, and wherein the controller (paragraph [0195], “computer logic system”) is programmed to adjust an intensity of the directional light sources to reduce the glare (paragraph [0195]).

Regarding claim 8 Spero discloses an illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture (paragraph [0097], Fig. 1, at 2) including a multiplicity of directional light sources (paragraph [0097], Fig. 1, at 3, Fig. 13A) including at least two directional light sources pointing in different directions (paragraph [0097],

Fig. 1, at 2, Fig. 13A), the light fixture having movable structure (paragraph [0152]) for aiming the directional light sources mounted thereon in a defined direction; a camera (paragraph [0166]) for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector (paragraph [0099]), (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector (paragraph [0097]) for sensing at least one of work surfaces and road objects and at least one of vehicles and people (paragraph [0171]); a controller (paragraph [0097], Fig. 1, at 7) for adjusting a light intensity (paragraph [0099]) and a direction (paragraphs [0099], [0152]) of each of the directional light sources (paragraph [0097], Fig. 1, at 3); a processor (paragraph [0097], Fig. 1, at 7) with stored algorithms (paragraph [0097], Fig. 1, at 7A) and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people (paragraph [0166]), (iii) frequency of area usage by people (paragraph [0097]), (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles (paragraph [0171]), and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities (paragraph [0099], Fig. 1, at 7, 7A).

Regarding claim 9 Spero discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (paragraphs [0099], [0152]-[0153]).

Regarding claim 10 Spero discloses the illuminating device of claim 8, adjustable by an installer (paragraph [0081]) based on room geometry and/or usage further comprising the light fixture having adjustable arms (paragraphs [0084]) on which directional light sources are mounted for aiming the directional light sources within the illuminated area (paragraphs [0084]), where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings (paragraph [0152]).

Regarding claim 11 Spero discloses the illumination device of claim 8, wherein the controller (paragraph [0164]) receives real time information (paragraph [0164]) from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity (paragraph [0166]), (ii) the spectral light distribution (paragraph [0166]) and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located (paragraphs [0164], [0166]), (ii) what object the person is viewing and (iii) what visual task the person needs to perform (paragraph [0166]).

Regarding claim 12 Spero discloses the illumination device of claim 8, further comprising at least one of the directional light sources (paragraphs [0160]) mounted on the movable structure (paragraph [0152]) where the movement of the light source direction is automatically controlled by the controller (paragraph [0166]).

Regarding claim 13 Spero discloses the illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area (paragraph [0166]).

Regarding claim 14 Spero discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph [0181]).

Regarding claim 15 Spero discloses the illumination device of claim 8, further comprising at least one of the directional light sources on an automatic swivel joint (paragraph [0113]) and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area (paragraphs [0113], [0181]-[0182]).

Regarding claim 16 Spero discloses the illumination device of claim 8, further comprising a controller (paragraph [0160]) with communication capability to other devices, where the camera (paragraph [0156]) in one location obtains information and the controller process the information a communicates the camera obtained information to a second device (paragraphs [0160]).

Regarding claim 17 Spero discloses the illumination device of claim 16, where the illuminated area is a road (paragraph [0171]) and the second device to where the camera obtained information is communicated to is a lighting fixture (paragraph [0171]).

Regarding claim 18 Spero discloses the illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements (paragraph [0171]).

Regarding claim 19 Spero discloses the illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle (paragraphs [0191]-[0192]), and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare (paragraphs [0177]-[0178], [0191]-[0192]).

Regarding claim 20 Spero discloses an automated irradiating device (paragraph [0045]) for providing radiation to individuals within an area intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture (paragraph [0045]) including one or more directional radiation sources (paragraph [0153]) where the radiation is in a defined direction (paragraph [0045]); at least one detector (paragraph [0045]) for sensing a location of individuals in the area and feeding that information to a controller (paragraph [0153]); a controller (paragraph [0070]) for adjusting at least one of (i) a radiation intensity (paragraph [0045]), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (paragraph [0153]).

Regarding claim 21 Spero discloses the automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions (paragraph [0045], Fig. 13A); the detector being a camera (paragraph [0152]) with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals (paragraph [0166], “identify and track…”), and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for

identifying the individual based on the camera information (paragraph [0166]), and (iv) an identified individual's personal preferences (paragraph [0153]).

Regarding claim 22 Spero discloses the automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction (paragraph [0166]); the at least one detector(paragraph [0045] capable of providing information on the present location of individuals in the area (paragraph [0166]); the controller (paragraph [0166]) programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals (paragraph [0166]).

Regarding claim 23 Spero discloses the irradiation device of claim 21, further comprising; the detector being a camera paragraph [0166]) capable of providing images of different parts of the body of individuals to the controller for image processing (paragraph [0166], the Examiner interprets the object detection of a person or a part of a person as “object tracking”); the radiation sources being able to direct radiation to different parts of the body (paragraph [0166]) and the controller further programmed to run the image recognition algorithms to identify different parts of the body (paragraph [0166]), to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body (paragraph [0166]).

Regarding claim 24 Spero discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices (paragraph [0153]), (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory (paragraph [0153]) and (iv) commands input from an input device (paragraph [0153]).

Regarding claim 26 Spero discloses the automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light (paragraph [0064]) and one or more of the irradiating sources is designed to substantially radiate heat ([paragraph [0065] the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraph [0045]).

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 4 as best understood is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Spero (US 2004/0105264) as applied to claim 1 above, and further in view of Kiyohara (US 2006/0222213).

Regarding claim 4 Spero discloses the illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

Spero does not disclose wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or

spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

Kiyohara discloses wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Spero in accordance with the teaching of Kiyohara regarding image processing data (Kiyohara, paragraph [0014]) in order to use image processing data with (Kiyohara, paragraph [0012]).

Claim 25 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Spero (US 2004/0105264) as applied to claim 21 above, and further in view of Savage (US 2004/0138726).

Regarding claim 25 Spero discloses the irradiation device of claim 21. Spero also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (paragraphs [0164], [0166]).

Spero does not disclose where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders.

Savage discloses where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders (paragraphs [0014], [0021]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Spero in accordance with the teaching of Savage regarding light therapy (Savage, paragraph [0003]) in order to use an illuminating system for light therapy (Savage, paragraph [0016]).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID LOTTER whose telephone number is (571)270-7422. The examiner can normally be reached on Monday-Friday 7:30am-5PM (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alex Taningco can be reached on 571-272-8048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID LOTTER/
Examiner, Art Unit 2844

/ALEXANDER H TANINGCO/
Supervisory Patent Examiner, Art Unit 2844

Notice of References Cited	Application/Control No. 13/357,549	Applicant(s)/Patent Under Reexamination SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	Art Unit 2844	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0047628	04-2002	Morgan et al.	315/291
*	B	US-6,379,022	04-2002	Amerson et al.	362/231
*	C	US-6,385,352	05-2002	Roustaei, Alexander	382/324
*	D	US-2002/0057340	05-2002	Fernandez et al.	348/143
*	E	US-6,394,614	05-2002	Chang, Chia-Jung	359/604
*	F	US-5,785,243	07-1998	Cross, Andrew	236/47
*	G	US-2002/0022927	02-2002	Lemelson et al.	701/301
*	H	US-5,994,844	11-1999	Crawford et al.	315/151
*	I	US-6,166,496	12-2000	Lys et al.	315/316
*	J	US-2004/0105264	06-2004	Spero, Yechezkal Evan	362/276
*	K	US-2004/0138726	07-2004	Savage et al.	607/088
*	L	US-2006/0222213	10-2006	Kiyohara et al.	382/115
	M	US-			

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	**Art Unit**
	DAVID LOTTER	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014								
	1	✓								
	2	✓								
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	4	✓								
	5	✓								
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	25	✓								
	26	✓								

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CONFIRMATION NO. 1905

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/357,549	01/24/2012 RULE	315	2844	

APPLICANTS

INVENTORS

Yechezkal Evan Spero, Moshav Tifrach, ISRAEL;

**** CONTINUING DATA ***************************

This application is a CIP of 10/604,360 07/14/2003 PAT 8100552
and claims benefit of 61/535,981 09/17/2011

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
02/03/2012

Foreign Priority claimed	☐ Yes ☑ No	☐ Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No					
Verified and Acknowledged	/DAVID E LOTTER/ Examiner's Signature	Initials	ISRAEL	24	26	4

ADDRESS

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

TITLE

Detector Controlled Illuminating System

FILING FEE RECEIVED		
1055	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1	("6,385,352").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 19:59
L2	259	("3819938" | "3876900" | "4017732" | "4115703" | "4306147" | "4402017" | "4542528" | "4570057" | "4578571" | "4647766" | "4686363" | "4758717" | "4804949" | "4818847" | "4841132" | "4850009" | "4900907" | "5010241" | "5073954" | "5099110" | "5107100" | "5130520" | "5135160" | "5187356" | "5196684" | "5206492" | "5291009" | "5349172" | "5354977" | "5378882" | "5471533" | "5484994").PN. OR ("6385352").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 20:01
L3	652	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor	US-PGPUB; USPAT	OR	ON	2014/09/26 20:03
L4	191	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor and vehicle	US-PGPUB; USPAT	OR	ON	2014/09/26 21:29
S1	1	(13/357549).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/04/04 13:40
S2	1845	h05b37/02.cpc.	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:41
S3	755	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:42
S4	3092	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:42
S5	326099	(light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:44
S6	201063	(light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:45

S7	788	(315/152).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S8	2665127	S4 or "76"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S9	3849	S4 or S7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S10	3483	((315/152).ccls. or h05b37/02.cpc.) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:47
S11	295	S10 and (light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:47
S12	305	S10 and (light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:48
S13	295	S12 AND ((H05B37/02 OR H05B37/029 OR H05B37/0245 OR H05B37/0254 OR H05B33/0857 OR H05B33/0803 OR H05B37/0272 OR H05B33/0863 OR H05B39/041 OR H05B39/044 OR H05B37/0227 OR H05B39/085 OR H05B41/3922 OR H05B33/0818 OR H05B33/0839 OR H05B37/0218 OR H05B33/0842 OR H05B39/09 OR H05B33/0827 OR H05B33/0869 OR H05B39/042 OR H05B41/36 OR H05B35/00 OR H05B33/0872 OR H05B37/034 OR H05B33/0848 OR H05B33/0854 OR H05B33/086 OR H05B39/088 OR H05B33/0806 OR H05B33/0845 OR H05B37/0263 OR H05B33/0815 OR H05B41/3921 OR H05B33/083 OR H05B33/0851 OR H05B37/03 OR H05B33/0866 OR H05B33/089 OR H05B41/00 OR H05B41/39 OR	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:50

		H05B33/0812 OR H05B33/0824 OR H05B33/0884 OR H05B37/00 OR H05B41/02).CPC.)				
S14	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/05/12 16:37
S15	1	("20040105264").PN.	US-PGPUB; USOCR	OR	OFF	2014/05/12 16:37
S16	759	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/05/12 16:39
S17	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/12 15:25
S18	2215	(362/276,234).ccls.	US-PGPUB; USPAT	OR	OFF	2014/08/12 15:27
S19	6	spero.in. near yechezkal	US-PGPUB; USPAT	OR	OFF	2014/08/12 15:28
S20	98064	(B60Q1/04 or B60Q1/085 or B60Q1/1423 or F21K9/13 or F21K9/135 or F21S4/008 or F21V19/02 or F21V23/0464 or F21V23/0471 or F21V23/0478 or H05B33/0812 or H05B33/0857 or H05B33/0863 or H05B37/02 or B60Q2300/054 or B60Q2300/112 or B60Q2300/116 or B60Q2300/122 or B60Q2300/134 or B60Q2300/142 or B60Q2300/21 or B60Q2300/23 or B60Q2300/312 or B60Q2300/314 or B60Q2300/322 or B60Q2300/41 or B60Q2300/42 or F21S48/10 or F21V21/02 or F21V21/30 or F21V29/2206 or F21W2101/10 or F21W2111/023 or F21W2111/027 or F21W2111/08 or F21W2131/103 or F21W2131/40 or F21Y2101/02 or F21Y2113/00 or Y02B20/343 or Y02B20/383).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:47
S21	70342	h05b37/02.ipc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/08/19 20:47
S22	160737	S20 or S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/08/19 20:47
S23	3620	(315/152).ccls. or (362/276,234).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:49
S24	163028	S22 or S23	US-PGPUB;	OR	ON	2014/08/19

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			20:49
S25	1415652	(lamp or light or luminaire or led or solid adj2 state or light adj2 diode or fluorescent) and ($5control$3 or processor or cpu or fpga or computer) and (detector or sensor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:55
S26	15703	S24 and S25	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:56
S27	8806	S24 and S25 and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:56
S28	12977	S24 and S25 and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:58
S29	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 15:18
S30	1	("6,498,440").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 16:41
S31	1	("5537433").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 16:42
S32	1	("6379022").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 17:18
S33	23990	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and (@ad<"20030714" or @rlad<"20030714")	US-PGPUB; USPAT	OR	ON	2014/08/24 17:23
S34	14102	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and (@ad<"2002071" or @rlad<"20020712")	US-PGPUB; USPAT	OR	ON	2014/08/24 17:24
S35	6538	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and intensity and (@ad<"2002071" or	US-PGPUB; USPAT	OR	ON	2014/08/24 17:25

		@rlad<"20020712")				
S36	28972	(B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008 F21V19/02 F21V23/0464 F21V23/0471 F21V23/0478 H05B33/0812 H05B33/0857 H05B33/0863 H05B37/02 B60Q2300/054 B60Q2300/112 B60Q2300/116 B60Q2300/122 B60Q2300/134 B60Q2300/142 B60Q2300/21 B60Q2300/23 B60Q2300/312 B60Q2300/314 B60Q2300/322 B60Q2300/41 B60Q2300/42 F21S48/10 F21V21/02; F21V21/30 F21V29/2206 F21W2101/10 F21W2111/023 F21W2111/027 F21W2111/08 F21W2131/103 F21W2131/40 F21Y2101/02 F21Y2113/00 Y02B20/343 Y02B20/383).cpc.	US-PGPUB; USPAT	OR	ON	2014/08/24 17:27
S37	98165	(B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008 F21V19/02 F21V23/0464 F21V23/0471 F21V23/0478 H05B33/0812 H05B33/0857 H05B33/0863 H05B37/02 B60Q2300/054 B60Q2300/112 B60Q2300/116 B60Q2300/122 B60Q2300/134 B60Q2300/142 B60Q2300/21 B60Q2300/23 B60Q2300/312 B60Q2300/314 B60Q2300/322 B60Q2300/41 B60Q2300/42 F21S48/10 F21V21/02; F21V21/30 F21V29/2206 F21W2101/10 F21W2111/023 F21W2111/027 F21W2111/08 F21W2131/103 F21W2131/40 F21Y2101/02 F21Y2113/00 Y02B20/343 Y02B20/383).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/24 17:27
S38	306	S35 and S37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/24 17:27
S39	1	("6483439").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:07
S40	2	(("6820998") or ("6227679")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:10
S41	1	("5,803,579").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:42
S42	1	("6,528,954").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:43
S43	1	("20020047628").PN.	US-PGPUB; USOCR	OR	OFF	2014/08/24 19:03
S44	1709072	(light or led or luminaire or solid adj2	US-PGPUB;	OR	ON	2014/08/25

		state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer)	USPAT			10:46
S45	7838	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (detect$4 or sens$3)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:47
S46	13	S45 and (B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008 F21V19/02 F21V23/0464 F21V23/0471 F21V23/0478 H05B33/0812 H05B33/0857 H05B33/0863 H05B37/02 B60Q2300/054 B60Q2300/112 B60Q2300/116 B60Q2300/122 B60Q2300/134 B60Q2300/142 B60Q2300/21 B60Q2300/23 B60Q2300/312 B60Q2300/314 B60Q2300/322 B60Q2300/41 B60Q2300/42 F21S48/10 F21V21/02; F21V21/30 F21V29/2206 F21W2101/10 F21W2111/023 F21W2111/027 F21W2111/08 F21W2131/103 F21W2131/40 F21Y2101/02 F21Y2113/00 Y02B20/343 Y02B20/383).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:48
S47	5956	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection))	US-PGPUB; USPAT	OR	ON	2014/08/25 10:52
S48	1	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (315/152).ccls.	US-PGPUB; USPAT	OR	ON	2014/08/25 10:52
S49	5660	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:54
S50	480	(light or led or luminaire or solid adj2 state or light adj2 diode).ti,ab. and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:55
S52	13980	(food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06

S53	319	(food adj (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06
S54	8	(food adj (sense or sensor or detector or detection)).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06
S55	352	(facial adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:21
S56	1304	(image adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:22
S57	1	("7765231").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/25 11:25
S58	12	S56 and sex and controller	US-PGPUB; USPAT	OR	ON	2014/08/25 12:11
S59	92	(facial adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917") and age	US-PGPUB; USPAT	OR	ON	2014/08/25 12:13
S60	45	(facial adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917") and age and controller	US-PGPUB; USPAT	OR	ON	2014/08/25 12:14
S61	0	(camera and anti-glare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:37
S62	0	(camera and antiglare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:37
S63	2	(camera and glare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:38
S64	4	(camera and glare) with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:39
S65	101	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj mount$3)	US-PGPUB; USPAT	OR	ON	2014/08/25 13:22
S66	99	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj mount$3) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:23
S67	60	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj light) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:27
S68	50	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (movable adj light) and (@ad<"20110917" or	US-PGPUB; USPAT	OR	ON	2014/08/25 13:28

		@rlad<"20110917")				
S69	22128	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:53
S70	9041586	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and automobile adj3 light(@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:54
S71	73	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and automobile adj3 light and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:54
S72	428	radiation adj device and heating and sensor and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:55
S73	68	(radiation adj device) and (sensor near5 heat$3) and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:57
S74	730	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:59
S75	161	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917") and (heater or heating).ti,ab.	US-PGPUB; USPAT	OR	ON	2014/08/25 14:00
S76	9	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917") and (heater or heating).ti,ab. and HVAC	US-PGPUB; USPAT	OR	ON	2014/08/25 14:04
S77	11264	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:16
S78	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712")with led	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2014/09/08 18:17

			IBM_TDB			
S79	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") with led	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:17
S80	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") with light$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:17
S81	0	(image adj2 (recognition or detection)) and (@ad<"20020712" or @rlad<"20020712") with (light$3 or led or solid adj2 state)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:18
S82	28717	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and (light$3 or led or solid adj2 state) with (control$3 or cpu or copmputer or processor or microprocessor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:19
S83	31612	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or luniaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:20
S84	31612	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:20
S85	9386	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:21
S86	5176	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:22
S87	4270	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and	US-PGPUB; USPAT;	OR	ON	2014/09/08 18:22

		(@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab.	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S88	6	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and food	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:23
S89	318	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:26
S90	319	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store or merchandise)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:26
S91	146	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store or merchandise) and camera	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:26
S92	276	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:45
S93	151	S92 not S91	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:46
S94	6	(("6379022") or ("6340868") or ("5577832") or ("6498440") or ("6483439") or ("6820998")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/08 20:53
S95	7	heater with directed with people	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:28
S96	12	heater with directed with motion	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:29
S97	12	S96 not S95	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:29
S98	3270	heat$3 with motion with detect$3	US-PGPUB;	OR	OFF	2014/09/25

			USPAT			16:29
S99	361	heat$3 with motion with detect$3 and @pd<"20020712"	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:30
S100	16	("4360856" | "4386275" | "4485864" | "4992701" | "5127575" | "5281961" | "5476221").PN. OR ("5785243").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/25 16:42
S101	2678	led and network and camera and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:34
S102	386	led and network and camera.ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:34
S103	524	light$3.ti,ab. and network and camera.ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:37
S104	153	light$3.ti,ab. and network.ti,ab. and camera and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:38
S105	14	adamson.in. and @pd<"20020712"	US-PGPUB	OR	ON	2014/09/26 15:50
S106	296	glare with detect$4 and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 17:30
S107	11	glare.ti,ab. with detect$4 and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 17:51
S108	14	$5glare.ti,ab. with detect$4 and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 17:53
S109	10	"5,785,243"	US-PGPUB; USPAT	OR	ON	2014/09/26 18:06
S110	1	("5,785,243").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 18:06
S111	1	("6,385,352").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 18:18
S112	11697	(object and detect$4).ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 18:38
S113	2664	(object and detect$4).ti,ab. and @pd<"20020712" and controller	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39
S114	1619	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39
S116	89	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor and lighting	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39

EAST Search History (Interference)

<This search history is empty>

9/26/2014 9:52:04 PM
C:\Users\dlotter\Documents\EAST\Workspaces\13357549.wsp

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	DAVID LOTTER	2844

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
315	152	8/19/2014	dl
362	276, 234	8/19/2014	dl

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search	8/19/2014	dl
class subclass search	8/19/2014	dl
text search	8/19/2014	dl

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Monday, January 12, 2015
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Office Action dated Oct. 10, 14

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **January 12, 2015**.

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed Oct. 10, 14, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions, the light sources having at least one of controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (Original) The illumination device of claim 6, wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the

illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

10. (Original) The illuminating device of claim 8, adjustable by an installer based

on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

12. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

13. (Original) The illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

14. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

15. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources on an automatic swivel joint and providing spot

lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

16. (currently amended) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

17. (Original) The illumination device of claim 16, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

18. (Original) The illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

19. (Original) The illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

20. (currently amended) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and ~~feeding~~ transferring that information to a controller; ~~a~~ where said controller ~~for adjusting~~ adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation

based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

21. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

22. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

23. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

24. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

25. (Currently Amended) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for ~~SAD and other~~ disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

26. The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested. Claims 1- 26 are rejected in this application.

In reply to point 1: Specification (The disclosure is objected to because of the following informalities: paragraph [0118] appears to show an incomplete part "HLMP25-ED-xxxx". Appropriate correction is required.)

The Applicant respectfully points out that the part number is not incomplete as the HLMP25-ED is the major catalog heading for the LED part, it is so designated by the manufacturer and is sufficient for fully describing the construction of a dimmable LED lighting fixture. (The "xxxx" is the "bin" part of the catalog number and refers to the small differences in LED intensity and color performance which are insignificant to the inventive device's operation. Binning is a manufacturing sorting process which bins simlar LEDs into groups). Should the examiner prefer the "xxxx" may be removed.

In reply to point 2: Claim Objections

1) Claim 16 is objected to because of the following informalities: "a communicates" appears to be a typo.... The Examiner interprets "a" to mean "and". Appropriate correction is required.

The examiner is correct and the correction has been made in the new listing of claims.

→ Claim 16 has been currently amended changing the "a" to "and" and marked-up in the full list of claims.

2) Claim 25 is objected to because of the following informalities: The acronym "SAD" should be spelled out. Appropriate correction is required.

→ Claim 25 has been currently amended where SAD" is spelled out and marked-up in the full list of claims.

3) In reply to point 3: Claim Rejections - 35 USC § 112

"The following is a quotation of 35 U.S.C. 112(f): (f) Element in Claim for a Combination. Claim 4 recites the following limitation: "the one or more detectors detects information regarding one or more individuals within

the illuminated area, said information is at least one of (1) age, (ii) sex..." ... In other words, a detector alone is insufficient structure to achieve "detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex." ... A review of the specification shows insufficient structure sufficient for achieving the claimed function is described in the specification (see generally paragraph [O246], Fig. 23)."

The Applicant respectfully disputes non-compliance with USC 112(f) or AIA 35 sixth paragraph and argues that recital of structure, material, or acts in support of how the detector "detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex." are to found in the specification. The applicant herein quotes the relevant paragraph numbers followed by the actual text from the specification (applicant could not find line numbers in the publication so as to effectively communicate agreed line numbers with the examiner). The structure used to "detect" the age, sex of a person is a digital camera that communicates data to a processor which runs machine learning algorithms that it has stored in a memory device enabling it to perform image recognition using neural networks and other machine learning techniques known-in-the-art which after training is able to make a probabilistic guess that the image recognized person is belonging to group of people whose age is a factor in correct lighting practice and recall their data from memory. (Perhaps there was a misinterpretation of the term "age" as it is not necessary in lighting practice to know the real age in terms of exact years as the eye degradation is a continual process that anyway varies between individuals and thus even an approximation obtained from image recognition is useful for the logical controller to use with the lookup table which has a different lux value above for above 50 years.)

More specifically the specification support for: The processor, memory storage and sensor device is described in paragraph *[0101] the term "logical controller, controller or computer" can be broadly defined to encompass any device having control circuitry or a processor which executes instructions from a memory medium.* Where the integrated circuitries operation to run algorithms is shown in Fig 1 and described paragraph [0130] *In a preferred embodiment the DLF contains logic control electronics unit 7. Logic control electronics unit, 7, receives input and/or feedback from motion, intensity and/or spectral sensors 8... The control unit may include a DSP or computer with storage*

media, computer algorithms, signal input and output electronics, analog to digital converters, and communications elements to carry out intensity, distribution, dimming and color balance control. Computer algorithms and instruction sets 7A are induced by the logical controller to manipulate data, calculate results generate output signals and maintain the operating parameters within the specifications. Measured parameters are checked against the stored parameters and the control circuitry adjusts the power to SLS. The camera is disclosed in paragraph *[0131] Sensors 8 include any of the following: ... the detector may be a detector array of photodiode pixels.* The illuminating devices with a camera and controller depicted in Fig. 18 A and Fig 22 and described in paragraph *[0245] ... the camera chip transfers the image information to the logical controller. Using real time image processing methodologies with image and scene recognition technology known in the art, room or outdoor area elements, objects and people are identified. Using face recognition techniques an individual may be identified and personal lighting preferences or functions can be provided by the luminaire.* They are arranged to carry out the image recognition and control as further described in paragraph [0260] … *The block diagram illustrates the power and communication connections between the elements. ... The logical controller 454 receives information from the input communications and sensors 453 and provides instructions to the power controls 455.* Thus in paragraph *[0262] The logical controller 454 ... calculates, using computer programs such as FIG. 23, how to best provide required illumination based on algorithms run on the processor 454 pulling stored lookup-data from the data storage of 454 ...* where the computer recognition techniques were disclosed earlier in paragraph *[0196] ...In the preferred embodiment, the addition of a machine vision system with pattern recognition capabilities as is known in the art, easily deduces room occupancy and usage. ... Pattern recognition methods known in the art, including neural networks, can provide a generalized stored application library of usages to the controller or the controller is an artificial intelligence controller and can learn the actual room usage with time. Outputs from the CCD arrays are analyzed by appropriate computational means employing trained pattern recognition technologies, to classify, identify or locate the contents. These techniques known in the art are covered in texts such as: Schalkhoff, Pattern Recognition, statistical, structural and neural approaches, John Wiley and Sons,*

New York, 1992 and Neural Networks for Pattern Recognition by Christopher M. Bishop, Chris Bishop, Oxford University Press; (January 1996) included herein by reference. Thus, the controller with or without human intervention will program the ADLF lighting system to carry out lighting within the realm of correct lighting practice. Advanced robotic vision techniques including object segmentation and selective-attention modeling (Itti, Visual attention and target detection in cluttered natural scenes in Optical Engineering, Vol. 40 No. 9, September 2001 included herein by reference) will aid in identifying various room objects and the lighting program 7A will associate with their location the visual tasks and recommended lighting characteristics.

The techniques for face recognition and training, learning and classification into common attribute sets such as age are known in the art. In his book, *Pattern Recognition, Statistical, Structural and Neural Approaches, Schalkhoff* writes on page 6: "The structure of a typical pattern recognition system is shown in Figure 2.

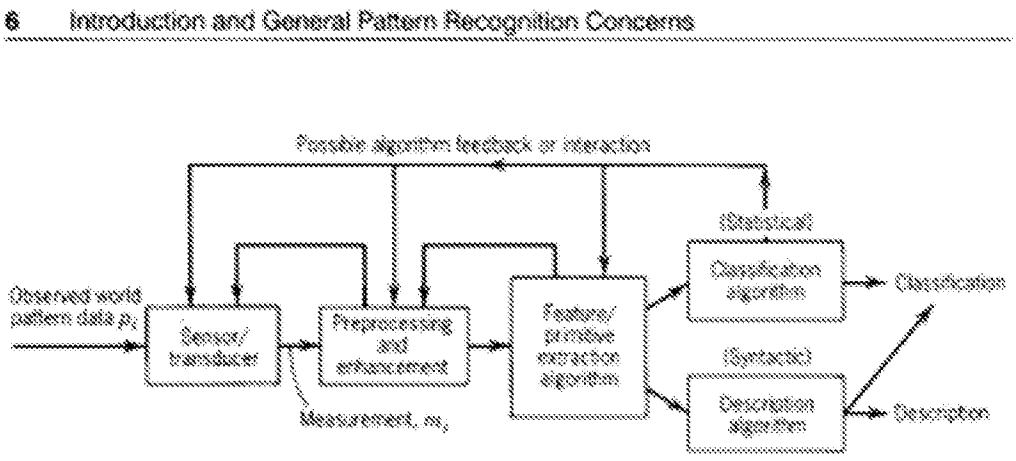


Figure 2. Typical pattern recognition system structures.

Notice that it consists of a sensor (an image sensor or camera, for example), a feature extraction mechanism (algorithm), and a classification or description algorithm (depending on the approach). In addition, usually some data that have already been classified or described are assumed available in order to train the system (the so-called training set)."

The applicant thus submits that the support in other sections of the specification shows sufficient structure allowing pattern recognition learning programs known in the art to achieve the claimed "detects" age function as described in the specification *[0246] A further capability of the digital lighting fixture using image recognition methodology known in the art that it can recognize the individuals and provide personal preference lighting conditions or determine the optimal lighting parameters as required by their age.*

4) In reply to point Claim Rejections - 35 USC § 112 (page 5 of OA)

"Claim 4 is rejected as failing to comply with the written description requirement."

The applicant respectfully disputes non-compliance with USC 112(a) or pre AIA 35 first paragraph and argues that recital of structure, material, or acts in support of how the detector "detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex." are to found in the specification as covered in the section above. If in the section above the applicant's quoted structure recital arguments are insufficient for consideration under the sixth paragraph, and a claim revision is required for so as not to invoke 35 USC 112(f); the pro se applicant requests under MPEP § 707.07(j) the aid of the examiner in re-drafting claim 4 to be allowed if incorporated in the application by amendment.

5) In reply to point Claim Rejections - 35 USC § 112(b) (page 6 of OA) Conclusion. - The specification shall conclude ...Claims 20 and 25 are rejected under 35 USC § 112(b) as being indefinite... Claim 20 it is unclear second controller ...

→The applicant has amended claim 20 and marked "currently amended" in the full list of claims showing changes with markups

... Claim 25 recites in part "the radiation may be any of... light therapy for SAD and other disorders renders the claim indefinite"

→The applicant has amended claim 25 by using a Markush type of listing per MPEP § 2173.05(h) and marked it "currently amended" in the full list of claims showing changes with markups.

Point 6 –(page 7) Claim Rejections - 35 USC § 102 Claims 1-3 5-24, 26 are rejected

102(b) The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action: A continuation-in-part is an application filed during the lifetime of an earlier nonprovisional application, …

The applicant points to section CROSS REFERENCE TO RELATED APPLICATIONS in US 2004/0105264 paragraph [0001] … *this application is a continuation-in-part application of, and claims the benefit under 35 U.S.C. § 120 from, co-pending U.S. patent application Ser. No. 10/604,360, entitled "Multiple Light-Source Illuminating System" filed on Jul. 14, 2003, ….*

The examiner is respectfully asked to please note that the January 24th 2012 filing date is the same as the US 2004/0105264 issuance date (I do seem to remember asking the Inventors Assistance Center advisor and receiving advice that as long as the CIP was filed before issuance of the first patent on the 24th 2012 it would be considered pending).

According to MPEP 201.08: Continuation-in-Part Application (the bold type is the applicants emphasis)

- (B) The alleged continuation-in-part application was "**filed before the patenting** or abandonment of or termination of proceedings on the first application or an application similarly entitled to the benefit of the filing date of the first application"; and

35 U.S.C. 120 Benefit of earlier filing date in the United States.

An application for patent for an invention disclosed in the manner provided by the first paragraph of section 112 of this title in an application previously filed in the United States, or as provided by section 363 of this title, which is filed by an inventor or inventors named in the previously filed application **shall have the same effect, as to such invention, as though filed on the date of the prior application, if filed before the patenting** or abandonment of or termination of proceedings on the first application or on an application similarly entitled to the benefit of the filing date of the first application and if it contains or is amended to contain a specific reference to the earlier filed application.

The applicant thus respectfully requests that the material of US 2004/0105264 not be cited as prior art to the present daughter CIF and that the claims be allowed.

Point 7 - page 18 Claim 4 rejected... MPEP § 2173.05(h) 35 USC 103(a) Claim 4 ... rejected ... as being unpatentable over Spero (US 2004/0105264) as applied to claim 1 above, and further in view of Kiyohara US 20060222213 - Image processing apparatus, image processing system and recording medium for programs therefor. Kiyohara discloses wherein ... said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual... It would have been obvious...

The Applicant respectfully traverses the 103 rejection of claim 4 regarding Spero as explained above in point number 3. The Applicant respectfully traverses the 103 rejection of claim 4 regarding Kiyohara's patent with Spero for the following reasons: For an invention to be anticipated, it must be demonstrated that each and every element of the claimed invention is present in the "four corners" of a single prior art, either expressly described therein or under the principle of inherency. Kiyohara discloses *an image processing apparatus for processing an image captured by an imager device to output the processed image*- and no more. His intent is to provide *means for generating an output image based on the processed features.* The whole imaging and results process is in the virtual world - as are most of the new computer based advances in the world which remain virtual. A person knowledgeable in the art having a lighting fixture with a camera for occupancy detection would not, without a non-obvious, inventive-step connect the Kiyohara "age, sex" image recognition knowledge of to its intensity control which is certainly a new use. Note, the word control or anything practical doesn't appear in the entire Kiyohara patent.

Point 8 - page 19 Claim 25 rejected... AIA 35 USC 103(a)

Claim 25 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Spero (US 2004/0105264) as applied to claim 21 above, and further in view of Savage (US 2004/0138726).

The Applicant respectfully traverses the 103(a) rejection of claim 25 regarding Savage's patent with Spero for the reasons detailed below.

Savage discloses *A portable light-emitting device for delivering light to the blood supply of a human body of a subject through a non-ocular area of skin on the body, comprising: (a) a light delivery unit having multiple spaced-apart apertures therein for positioning on a portion of the body*

The present disclosure it is exactly an innovative attempt to escape the handheld therapy device described by Savage and free the occupant to receive therapy while they continue their daily activity. The at a distance operation is described in paragraph *[0314] As a further customization of the illumination characteristics, when utilizing the light source aim-ability feature of the FALM, one occupant of the room could receive controlled exposure to lighting conducive to melatonin production while other occupants in the room at the same time receive a normal, fuller spectrum illumination. Thus the right side spot light 544 could be of melatonin friendly light wavelengths for the individual receiving its light while a second individual in the second bed receives a full spectrum of light for reading from the left side spot light 549. And paragraph [0315] … As described earlier the spot light source 544 can be moved by actuators under the control of the logical controller 541 much as a moving head stage light follows actors on the stage. This is a unique feature of a computer/machine vision capable FAML irradiating device which can follow and irradiate the patient while they are carrying out their daily activities and is of major benefit….*

Conclusion

The applicant has revised the objected claims and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant

requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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January 12, 2015

Electronic Acknowledgement Receipt

EFS ID:	21189137
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	12-JAN-2015
Filing Date:	24-JAN-2012
Time Stamp:	19:28:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	First_Reply_Non_Final_OA_10-10-14.pdf	207436 5795f3ef44a972f3cbdd23efc7b35d18d57975d4	no	17

Warnings:	
Information:	

Total Files Size (in bytes):	207436

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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37268 e 2015-01-15

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102 ISRAEL

Paper No.

Application No.:	**13/357,549**	**Date Mailed:**	**2015-01-15**
First Named Inventor:	Spero, Yechezkal, Evan	Examiner:	LOTTER, DAVID E
Attorney Docket No.:		Art Unit:	2844
Confirmation No.:	1905	Filing Date:	2012-01-24

Please find attached an Office communication concerning this application or proceeding.

Commissioner for Patents

PTO-90c (Rev.08-06)

Notice of Non-Compliant Amendment (37 CFR 1.121)	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN
		Art Unit 2600

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

The amendment document filed on *12 January, 2015* is considered non-compliant because it has failed to meet the requirements of 37 CFR 1.121 or 1.4. In order for the amendment document to be compliant, correction of the following item(s) is required.

THE FOLLOWING MARKED (X) ITEM(S) CAUSE THE AMENDMENT DOCUMENT TO BE NON-COMPLIANT:

- ☐ 1. Amendments to the specification:
  - ☐ A. Amended paragraph(s) do not include markings.
  - ☐ B. New paragraph(s) should not be underlined.
  - ☐ C. Other _____.
- ☐ 2. Abstract:
  - ☐ A. Not presented on a separate sheet. 37 CFR 1.72.
  - ☐ B. Other _____.
- ☐ 3. Amendments to the drawings:
  - ☐ A. The drawings are not properly identified in the top margin as "Replacement Sheet," "New Sheet," or "Annotated Sheet" as required by 37 CFR 1.121(d).
  - ☐ B. The practice of submitting proposed drawing correction has been eliminated. Replacement drawings showing amended figures, without markings, in compliance with 37 CFR 1.84 are required.
  - ☐ C. Other _____.
- ☒ 4. Amendments to the claims:
  - ☐ A. A complete listing of all of the claims is not present.
  - ☐ B. The listing of claims does not include the text of all pending claims (including withdrawn claims)
  - ☒ C. Each claim has not been provided with the proper status identifier, and as such, the individual status of each claim cannot be identified. Note: the status of every claim must be indicated after its claim number by using one of the following status identifiers: (Original), (Currently amended), (Canceled), (Previously presented), (New), (Not entered), (Withdrawn) and (Withdrawn-currently amended).
  - ☐ D. The claims of this amendment paper have not been presented in ascending numerical order.
  - ☒ E. Other: *See claim 26*.
- ☐ 5. Other (e.g., the amendment is unsigned or not signed in accordance with 37 CFR 1.4): For further explanation of the amendment format required by 37 CFR 1.121, see MPEP § 714.

TIME PERIODS FOR FILING A REPLY TO THIS NOTICE:

1. Applicant is given **no new time period if the non-compliant amendment is an** after-final amendment or an amendment filed after allowance, or a drawing submission (only) If applicant wishes to resubmit the non-compliant after-final amendment with corrections, the **entire corrected amendment** must be resubmitted.

2. Applicant is given **two months** from the mail date of this notice to supply the correction, if the non-compliant amendment is one of the following: a preliminary amendment, a non-final amendment (including a submission for a request for continued examination (RCE) under 37 CFR 1.114), a supplemental amendment filed within a suspension period under 37 CFR 1.103(a) or (c), and an amendment filed in response to a Quayle action. If any of above boxes 1 to 4 are checked, the correction required is only the corrected section of the non-compliant amendment in compliance with 37 CFR 1.121.

Extensions of time are available under 37 CFR 1.136(a) only if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action.

Failure to timely respond to this notice will result in:

Abandonment of the application if the non-compliant amendment is a non-final amendment or an amendment filed in response to a *Quayle* action; or

Non-entry of the amendment if the non-compliant amendment is a preliminary amendment or supplemental amendment.

Legal Instruments Examiner (LIE), if applicable /NICHELE PETERSON/ Telephone No: (571)272-7273

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/357,549	Filing Date 01/24/2012	☒ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT

01/12/2015	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 26	Minus	** 26	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/NICHELE PETERSON/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Monday, March 16, 2015
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Notice of Non-compliant Amendment dated Jan. 12, 2015

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Notice of Non-compliant Amendment dated Jan. 12, 2015, "*each claim has not been provided proper status identifier See Claim 26"* the following corrected set of claims with amendment to the claims 26 is re-submitted"

Amendments to the Claims begin on page 2 of this Amendment.

Very respectfully,

/ Yechezkal Evan Spero/

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Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **March 16, 2015**.

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions, the light sources having at least one of controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (Original) The illumination device of claim 6, wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the

illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

10. (Original) The illuminating device of claim 8, adjustable by an installer based

on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

12. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

13. (Original) The illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

14. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

15. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources on an automatic swivel joint and providing spot

lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

16. (currently amended) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

17. (Original) The illumination device of claim 16, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

18. (Original) The illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

19. (Original) The illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

20. (currently amended) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and ~~feeding~~ transferring that information to a controller; ~~a~~ where said controller ~~for adjusting~~ adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation

based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

21. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

22. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

23. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

24. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

25. (Currently Amended) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for ~~SAD and other~~ disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

26. (Original) The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

Conclusion

The applicant has revised the claim identifier and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Very respectfully,

/ Yechezkal Evan Spero/

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March 16, 2015

Electronic Patent Application Fee Transmittal

Application Number:	13357549
Filing Date:	24-Jan-2012
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Filer:	Yechezkal Evan Spero
Attorney Docket Number:	

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
			Total in USD ($)	**100**

Electronic Acknowledgement Receipt

EFS ID:	21775855
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	16-MAR-2015
Filing Date:	24-JAN-2012
Time Stamp:	13:05:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$100
RAM confirmation Number	11098
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Transmittal Letter	Certificate_Trans_Correction.pdf	211205 4d7c3289b98744f92b6cb4883d6e928ef83519a2	no	2
Warnings:					
Information:					
2	Extension of Time	aia0022_time_Ext.pdf	162148 1b297be5bb060db0e86d6ac66940308c0b075a81	no	2
Warnings:					
Information:					
3		Correction_Non-Compliant_Reply_OA_10-10-14.pdf	74858 6443da9c00e0cda2919dd0a2729ef8643ad6ec1c	yes	9

Multipart Description/PDF files in .zip description

Document Description	Start	End
Miscellaneous Incoming Letter	1	1
Claims	2	9

Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	29742 786b08c28822d93778e8ad3a0e83513457b38389	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	477953		

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

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PTO/SB/97 (07-09)
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on 03/16/2015 .
Date

/Yechezkal Spero/
Signature

Yechezkal Evan Spero
Typed or printed name of person signing Certificate

37268
Registration Number, if applicable

+972-8-9960-324
Telephone Number

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/AIA/22 (03-13)
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PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)

Docket Number (Optional)

Application Number 13/357,549

Filed 24 January 2012

For One Month Time Extension

Art Unit 2844

Examiner Lotter, David E

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above-identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	Fee	Small Entity Fee	Micro Entity Fee	
☑ One month (37 CFR 1.17(a)(1))	$200	$100	$50	$ 100
☐ Two months (37 CFR 1.17(a)(2))	$600	$300	$150	$
☐ Three months (37 CFR 1.17(a)(3))	$1,400	$700	$350	$
☐ Four months (37 CFR 1.17(a)(4))	$2,200	$1,100	$550	$
☐ Five months (37 CFR 1.17(a)(5))	$3,000	$1,500	$750	$

☑ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number _____.

☑ Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☑ applicant.

☐ attorney or agent of record. Registration number _____.

☐ attorney or agent acting under 37 CFR 1.34. Registration number _____.

?Yechezkal Spero/ — Signature

3/16/2015 — Date

Yechezkal Evan Spero — Typed or printed name

+972-996-0324 — Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.

☐ * Total of 1 forms are submitted.

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4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/357,549	Filing Date 01/24/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	03/16/2015	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 26	Minus	** 26	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/CAROL BARNES/

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 06/23/2015

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

EXAMINER	
LOTTER, DAVID E	

ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
06/23/2015	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
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Status

1)☒ Responsive to communication(s) filed on *1/12/2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-26* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-26* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *1/24/2012* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of 35 U.S.C. 112(b):
(b) CONCLUSION.—The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the inventor or a joint inventor regards as the invention.

The following is a quotation of 35 U.S.C. 112 (pre-AIA), second paragraph:
The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 7 recites the limitation "...intensity of the directional light sources". There is insufficient antecedent basis for this limitation in the claim. Independent claim 6 recites “one or more light sources incorporated in the light structure.” The Examiner interprets claim 7 as reading “one or more light sources incorporated in the light structure" as recited in claim 6.

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646).

Regarding claim 1 Morgan discloses an illuminating device (e.g. paragraph 0019) which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture (paragraph 0019) including a multiplicity of light sources (Fig. 1, at 36A, 38A, 40A, paragraph 0020), the light sources having at least one of controllable light intensity and spectral light distribution (e.g., paragraphs 0040-0042); a controller (Fig. 1, at 26A) for adjusting at least one of a light intensity and light spectrum of the directional light sources (paragraph 0040); one or more detectors (Fig. 1, at 42) for sensing at least one of objects, surfaces and people (paragraph 0022) within the illuminated area and of passing the sensed information to the controller (paragraph 0022); a processor (Fig. 1, at 22) for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence (paragraph 0025), pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement (e.g. paragraph 0020).

Morgan discloses a light fixture but Morgan arguably may not explicitly disclose a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions.

Lys discloses a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional LEDs (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 3 Morgan further discloses the illumination device of claim 1, wherein the illuminated area is indoors (paragraph 0023) and further comprising a detector (paragraphs 0023-0024) for detecting variable illumination from daylight and/or sunlight entering indoors (paragraph 0023), wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement (paragraph 0023).

Claim 2 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Amerson (US 6,379,022).

Regarding claim 2, Morgan as modified above discloses the illumination of claim 1. Morgan discloses a light sensor (paragraph 0022).

Morgan does not explicitly disclose where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

Amerson discloses where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor (column 3, lines 17-26), (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Claim 4 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Kinjo (US 2002/0046100).

Regarding claim 4 Morgan discloses the illuminating device of claim 1. Morgan further discloses wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements

from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory (paragraph 0036), and (iv) commands received by the controller from an input device (paragraphs 0036-0037).

Morgan does not explicitly disclose wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs.

Kinjo discloses wherein the one or more detectors (Fig. 1, at 12) detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age (paragraph 0012), (ii) sex (paragraph 0012), and (iii) recognition of an individual for matching with stored data about that individual's needs (e.g., paragraphs 0010-0013, Fig. 2). 3

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Kinjo regarding customer detection methods (Kinjo, paragraphs 0010-0012) in order to detect characteristics of a person (Kinjo, paragraph 0010).

Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475).

Regarding claim 5 Morgan as modified discloses the illuminating device of claim 1. Morgan also discloses a processor (Fig. 1, at 22) and a detector (Fig. 1, at 42).

Morgan does not explicitly disclose a device for optimally displaying food, wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

Zampini discloses a device for optimally displaying food, wherein the controller adjusts the light intensity and/or spectrum of the illumination (paragraphs 0053-0054) on the one or more foods based on illumination requirements from the processor (paragraph 0055).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Zampini regarding detecting and controlling illumination requirements (Zampini, paragraphs 0053-0054) in order to improve marketability and enhance brand recognition (Zampini, paragraph 0002).

Lys in view of Zampini does not disclose wherein the one or more detectors detect an identity of one or more foods.

Bolle discloses wherein the one or more detectors detect an identity of one or more foods (Bolle, column 7, lines 37-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Zampini regarding detecting and controlling illumination requirements and in further accordance with the teachings of Bolle regarding one or more detectors detecting an identity of one or more foods (Bolle, column 7, lines 37-48) in order to recognize objects such as produce (Bolle, column 5, lines 50-51).

Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022).

Regarding claim 6 Morgan discloses an illuminating device having automatic control of the light provided to an illuminated area comprising:

a structure (Fig. 2, at 26) for incorporating illuminating device elements;

one or more light sources (e.g., Fig. 2, at 52A) incorporated in the structure and in communication with a power source (Fig. 2, at 44);

electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements (Fig. 2, at 50);

a controller (Fig. 2, at controller) integrated with the structure, in communication with the light source controlling power circuitry.

Morgan does not disclose one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; said controller arranged to processes the

information communicated from the camera and automatically control the light provided to the illuminated area.

Amerson discloses one or more cameras (Amerson, column 3, lines 17-26) placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements (Amerson, column 3, lines 17-26); said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area (Amerson, column 3, lines 17-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022) as applied to claim 6 above, and further in view of Chang (US 2002/0039238).

Regarding claim 7 Morgan in view of Amerson discloses the illumination device of claim 6.

Morgan in view of Amerson does not disclose wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area,

and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

Chang discloses wherein the one or more detectors (Fig. 2, at 10) are configured to sense a presence of glare on a person's eyes (Fig. 2, at 114) in the illuminated area, and wherein the controller (Fig. 2, at 110) is programmed to adjust an intensity of the directional light sources to reduce the glare (Fig. 2, at 12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Chang regarding preventing glare (Chang, paragraph 0001) in order to automatically block out glare (Chang, paragraph 0005).

Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022).

Regarding claim 8 Morgan discloses an illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising:

a light fixture (Fig. 2, at 24) including a multiplicity of light sources (Fig. 2, at 36A, 38A, 40A, paragraph 0020), a controller (paragraph 0022) for adjusting a light intensity (paragraph 0040) and a direction (paragraphs 0019-0020) of each of the directional light sources;

a processor (Fig. 2, at 22) with stored algorithms (paragraph 0040) and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people (paragraph 0022), (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence (paragraph 0025), pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities (paragraph 0020).

Morgan discloses two light sources but may not explicitly disclose including at least two directional light sources pointing in different directions.

Lys discloses including at least two directional light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206) the light fixture having movable structure for aiming the light sources mounted thereon in a defined direction (e.g. Fig 90A, at 2010, paragraphs 0325-0326)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Morgan does not disclose a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources.

Amerson discloses a camera (column 3, lines 17-26) for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (column 3, lines 17-26) (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 9 Morgan further discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (e.g., paragraphs 0020-0023).

Regarding claim 10 Morgan discloses the illuminating device of claim 8.

Morgan may not explicitly disclose the illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

Lys discloses an adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms (paragraphs 0325-0326) on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback (e.g., paragraphs 0256, 0281) to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings (paragraphs 0281, 0325-0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 11 Morgan further discloses the illumination device of claim 8.

Morgan does not disclose wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs

the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) and wherein the processor (column 3, lines 14-25), using image recognition capability, directs the controller to adjust at least one of (i) the intensity (column 2, lines 27-38), (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 12 Morgan discloses the illumination device of claim 8.

Morgan may not explicitly disclose at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

Lys discloses at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller (paragraphs 0325-0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraphs 0206, 0325-0326) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 13 Morgan further discloses the illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the sensor adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area (paragraph 0019).

Morgan discloses using sensors but does not explicitly disclose using a camera.

Amerson discloses using a camera (Amerson, column 3, lines 17-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 14 Morgan further discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph 0018 – the Examiner interprets “outdoor environments" as reading on this claim).

Regarding claim 15 Morgan discloses the illumination device of claim 8.

Morgan does not disclose at least one of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting but Morgan discloses other light source that provide general illumination to the illuminated area (paragraph 0023).

Lys discloses at least one of the directional light sources on an automatic swivel joint (e.g., Fig. 90A, at 2034) and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area (paragraphs 0256, 0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and spot lights (paragraph 0326) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 16 Morgan discloses the illumination device of claim 8.

Morgan does not explicitly disclose a controller with communication capability to other devices, where the camera in one location obtains information and the controller

process the information and communicates the camera obtained information to a second device.

Lys discloses a controller (Fig. 90A, at 2012) with communication capability to other devices (paragraph 0328), where the camera (paragraph 0327) in one location obtains information and the controller process the information and communicates the camera obtained information to a second device (paragraphs 0326-0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and cameras (Lys, paragraph 0327) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) in improve the accuracy of such systems (Lys, paragraph 0327).

Regarding claim 17 Morgan as modified further discloses the illumination device of claim 16 where the illuminated area is a road (paragraph 0018 “outdoor environments”).

Morgan does not disclose where the second device to where the camera obtained information is communicated to is a lighting fixture.

Lys discloses where the illuminated area is a road (paragraph 0245) and where the second device to where the camera obtained information is communicated to is a lighting fixture (Fig. 90A, paragraphs 0326-0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and cameras (Lys, paragraph 0327) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) and improve the accuracy of such systems (Lys, paragraph 0327).

Claims 18-19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) as applied to claim 17 above, and further in view of Lemelson (US 5,983,161).

Regarding claim 18 Morgan discloses the illumination device of claim 17,

Morgan as modified may not disclose where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

Lemelson discloses where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to

adjust the directional light sources to meet the illumination requirements (e.g., column 20, line 55 – column 21, line 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources and cameras and in further accordance with Lemelson regarding cameras used in identifying traffic requirements in order to optimize the prevention of injury or damage (Lemelson, column 1, lines 45-50).

Regarding claim 19 Morgan as modified discloses the illumination device of claim 18.

Morgan may not disclose wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

Lemelson discloses wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle (e.g., column 20, line 55 – column 21, line 14), and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources and cameras and in further accordance with Lemelson regarding cameras used in identifying traffic requirements in order to optimize the prevention of injury or damage (Lemelson, column 1, lines 45-50).

Claims 20-26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646).

Regarding claim 20 Morgan discloses an automated irradiating device for providing radiation to individuals within an area intended to provide a desired radiation in a sub-area proximate to the individuals, comprising:

an irradiation fixture (Fig. 2, at 36A) including one or more directional radiation sources (paragraph 0023) where the radiation is in a defined direction (paragraph [0045]); at least one detector (Fig. 2, at 42) for sensing a location of individuals in the area and transferring that information to a controller (paragraph 0023);

where said controller (Fig. 2, at 26A) for adjusting at least one of (i) a radiation intensity (paragraph 0020), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (paragraph 0020).

Morgan discloses a light fixture but Morgan arguably may not explicitly disclose directional light sources.

Lys discloses a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the

teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 21 Morgan as modified discloses the automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area.

Morgan may not explicitly disclose: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

Lys discloses: at least two directional heat radiation sources pointing in different directions (e.g., Fig. 28C); the detector being a camera (paragraph 0327) with capability for sensing at least one of (i) a presence of one or more individuals in the heated area (paragraph 0326), (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one

of (i) algorithms to calculate radiation parameters (paragraphs 0326-0327), (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences (paragraph 0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 22 Morgan discloses the automated irradiating device of claim 20.

Morgan may not explicitly disclose one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

Lys discloses one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction (e.g., Fig. 28C); the at least one detector (paragraph 0321) capable of providing information on the present location of individuals in the area (paragraph 0367); the controller (paragraph 0315) programmed to process the detector information and move the radiating sources so as to follow the one or more

individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals (paragraph 0314).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 23 Morgan discloses the irradiation device of claim 21.

Morgan may not explicitly disclose wherein the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing the radiation sources being able to direct radiation to different parts of the body and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

Lys discloses wherein the detector being a camera (paragraph 0327) capable of providing images of different parts of the body of individuals to the controller for image processing (paragraph 0360), the radiation sources being able to direct radiation to different parts of the body (paragraph 0361) and the controller further programmed to run the image recognition algorithms to identify different parts of the body (paragraphs 0309-0310), to compute the desired radiation level to the different parts of the body and

to adjust the radiation from sources directed at the different parts of the body (paragraphs 0309, 0362).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 24 Morgan further discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory, and (iv) commands input from an input device (paragraphs 0016-0024).

Regarding claim 25 Morgan discloses the irradiation device of claim 21. Morgan also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (e.g. paragraphs 0016-0024).

Morgan does not disclose where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders.

Lys discloses where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, and other disorders (paragraph 0360).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 26 Morgan discloses the automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light (e.g., paragraphs 0016-0024, Fig. 2, at 36A) and one or more of the irradiating sources is designed to substantially radiate heat (paragraphs 0016-0024) the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraphs 0016-0024).

Response to Arguments

Applicant's arguments, see pages 9-17, filed 1/15/2015, with respect to the rejection(s) of claim(s) 1-26 have been fully considered and are persuasive. Therefore,

the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of the references cited in the office action above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Karnieli (US 2002/0022774) discloses identification of food items using photographic means.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID LOTTER whose telephone number is (571)270-7422. The examiner can normally be reached on Monday-Friday 7:30am-5PM (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alex Taningco can be reached on 571-272-8048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID LOTTER/
Examiner, Art Unit 2844

/ALEXANDER H TANINGCO/
Supervisory Patent Examiner, Art Unit 2844

Notice of References Cited	Application/Control No. 13/357,549	Applicant(s)/Patent Under Reexamination SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	Art Unit 2844	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-2002/0047628	04-2002	Morgan et al.	315/291
*	B	US-5,983,161	11-1999	Lemelson et al.	701/301
*	C	US-2004/0105264	06-2004	Spero, Yechezkal Evan	362/276
*	D	US-2002/0047646	04-2002	Lys et al.	315/312
*	E	US-6,379,022	04-2002	Amerson et al.	362/231
*	F	US-2002/0039238	04-2002	Chang, Chia-Jung	359/604
*	G	US-2006/0222213	10-2006	Kiyohara et al.	382/115
*	H	US-2004/0138726	07-2004	Savage et al.	607/088
*	I	US-5,546,475	08-1996	Bolle et al.	382/190
*	J	US-5,969,754	10-1999	Zeman, Herbert D.	348/136
*	K	US-2002/0022774	02-2002	Karnieli, Eddy	600/300
*	L	US-2002/0046100	04-2002	Kinjo, Naoto	705/14
*	M	US-2008/0136356	06-2008	Zampini et al.	315/308

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

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CONFIRMATION NO. 1905

SERIAL NUMBER	FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
13/357,549	01/24/2012 RULE	315	2844	

APPLICANTS

INVENTORS

Yechezkal Evan Spero, Moshav Tifrach, ISRAEL;

**** CONTINUING DATA ***************************

This application is a CIP of 10/604,360 07/14/2003 PAT 8100552
and claims benefit of 61/535,981 09/17/2011

**** FOREIGN APPLICATIONS ***************************

**** IF REQUIRED, FOREIGN FILING LICENSE GRANTED **** ** SMALL ENTITY **
02/03/2012

Foreign Priority claimed	☐ Yes ☑ No	☐ Met after Allowance	STATE OR COUNTRY	SHEETS DRAWINGS	TOTAL CLAIMS	INDEPENDENT CLAIMS
35 USC 119(a-d) conditions met	☐ Yes ☑ No					
Verified and Acknowledged	/DAVID E LOTTER/ Examiner's Signature	Initials	ISRAEL	24	26	4

ADDRESS

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

TITLE

Detector Controlled Illuminating System

FILING FEE RECEIVED		
1055	FEES: Authority has been given in Paper No._____ to charge/credit DEPOSIT ACCOUNT No._____ for following:	☐ All Fees ☐ 1.16 Fees (Filing) ☐ 1.17 Fees (Processing Ext. of time) ☐ 1.18 Fees (Issue) ☐ Other _____ ☐ Credit

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	DAVID LOTTER	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014	01/15/2015							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
	7	✓	✓							
	8	✓	✓							
	9	✓	✓							
	10	✓	✓							
	11	✓	✓							
	12	✓	✓							
	13	✓	✓							
	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
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	21	✓	✓							
	22	✓	✓							
	23	✓	✓							
	24	✓	✓							
	25	✓	✓							
	26	✓	✓							

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	1	(13/357549).APP.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/04/04 13:40
S2	1845	h05b37/02.cpc.	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:41
S3	755	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:42
S4	3092	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:42
S5	326099	(light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:44
S6	201063	(light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:45
S7	788	(315/152).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S8	2665127	S4 or "76"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S9	3849	S4 or S7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/04/04 13:46
S10	3483	((315/152).ccls. or h05b37/02.cpc.)	US-PGPUB;	OR	ON	2014/04/04

		and @pd<"20110917"	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			13:47
S11	295	S10 and (light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/04/04 13:47
S12	305	S10 and (light or lamp or luminaire or led or (light adj diode) or ccfl) and controller and (detector or sensor) and (processor or mcu or microprocessor or cpu) and @pd<"20110917"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:48
S13	295	S12 AND ((H05B37/02 OR H05B37/029 OR H05B37/0245 OR H05B37/0254 OR H05B33/0857 OR H05B33/0803 OR H05B37/0272 OR H05B33/0863 OR H05B39/041 OR H05B39/044 OR H05B37/0227 OR H05B39/085 OR H05B41/3922 OR H05B33/0818 OR H05B33/0839 OR H05B37/0218 OR H05B33/0842 OR H05B39/09 OR H05B33/0827 OR H05B33/0869 OR H05B39/042 OR H05B41/36 OR H05B35/00 OR H05B33/0872 OR H05B37/034 OR H05B33/0848 OR H05B33/0854 OR H05B33/086 OR H05B39/088 OR H05B33/0806 OR H05B33/0845 OR H05B37/0263 OR H05B33/0815 OR H05B41/3921 OR H05B33/083 OR H05B33/0851 OR H05B37/03 OR H05B33/0866 OR H05B33/089 OR H05B41/00 OR H05B41/39 OR H05B33/0812 OR H05B33/0824 OR H05B33/0884 OR H05B37/00 OR H05B41/02).CPC.)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/04/04 13:50
S14	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/05/12 16:37
S15	1	("20040105264").PN.	US-PGPUB; USOCR	OR	OFF	2014/05/12 16:37
S16	759	h05b37/02.cpc. and @pd<"20110917"	US-PGPUB; USPAT	OR	OFF	2014/05/12 16:39
S17	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/12 15:25
S18	2215	(362/276,234).ccls.	US-PGPUB; USPAT	OR	OFF	2014/08/12 15:27
S19	6	spero.in. near yechezkal	US-PGPUB; USPAT	OR	OFF	2014/08/12 15:28
S20	98064	(B60Q1/04 or B60Q1/085 or B60Q1/1423 or F21K9/13 or F21K9/135 or F21S4/008 or	US-PGPUB; USPAT; USOCR;	OR	ON	2014/08/19 20:47

		F21V19/02 or F21V23/0464 or F21V23/0471 or F21V23/0478 or H05B33/0812 or H05B33/0857 or H05B33/0863 or H05B37/02 or B60Q2300/054 or B60Q2300/112 or B60Q2300/116 or B60Q2300/122 or B60Q2300/134 or B60Q2300/142 or B60Q2300/21 or B60Q2300/23 or B60Q2300/312 or B60Q2300/314 or B60Q2300/322 or B60Q2300/41 or B60Q2300/42 or F21S48/10 or F21V21/02 or F21V21/30 or F21V29/2206 or F21W2101/10 or F21W2111/023 or F21W2111/027 or F21W2111/08 or F21W2131/103 or F21W2131/40 or F21Y2101/02 or F21Y2113/00 or Y02B20/343 or Y02B20/383).cpc.	FPRS; EPO; JPO; DERWENT; IBM_TDB			
S21	70342	h05b37/02.ipc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/08/19 20:47
S22	160737	S20 or S21	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2014/08/19 20:47
S23	3620	(315/152).ccls. or (362/276,234).ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:49
S24	163028	S22 or S23	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:49
S25	1415652	(lamp or light or luminaire or led or solid adj2 state or light adj2 diode or fluorescent) and ($5control$3 or processor or cpu or fpga or computer) and (detector or sensor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:55
S26	15703	S24 and S25	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:56
S27	8806	S24 and S25 and @pd<"20110917"	US-PGPUB; USPAT;	OR	ON	2014/08/19 20:56

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S28	12977	S24 and S25 and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/19 20:58
S29	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 15:18
S30	1	("6,498,440").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 16:41
S31	1	("5537433").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 16:42
S32	1	("6379022").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 17:18
S33	23990	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and (@ad<"20030714" or @rlad<"20030714")	US-PGPUB; USPAT	OR	ON	2014/08/24 17:23
S34	14102	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and (@ad<"2002071" or @rlad<"20020712")	US-PGPUB; USPAT	OR	ON	2014/08/24 17:24
S35	6538	(light or led or luminaire or solid adj2 state or light adj2 diode) and controller and processor and spectrum and intensity and (@ad<"2002071" or @rlad<"20020712")	US-PGPUB; USPAT	OR	ON	2014/08/24 17:25
S36	28972	(B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008 F21V19/02 F21V23/0464 F21V23/0471 F21V23/0478 H05B33/0812 H05B33/0857 H05B33/0863 H05B37/02 B60Q2300/054 B60Q2300/112 B60Q2300/116 B60Q2300/122 B60Q2300/134 B60Q2300/142 B60Q2300/21 B60Q2300/23 B60Q2300/312 B60Q2300/314 B60Q2300/322 B60Q2300/41 B60Q2300/42 F21S48/10 F21V21/02; F21V21/30 F21V29/2206 F21W2101/10 F21W2111/023 F21W2111/027 F21W2111/08 F21W2131/103 F21W2131/40 F21Y2101/02 F21Y2113/00 Y02B20/343 Y02B20/383).cpc.	US-PGPUB; USPAT	OR	ON	2014/08/24 17:27
S37	98165	(B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008	US-PGPUB; USPAT;	OR	ON	2014/08/24 17:27

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S38	306	S35 and S37	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/24 17:27
S39	1	("6483439").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:07
S40	2	(("6820998") or ("6227679")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:10
S41	1	("5,803,579").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:42
S42	1	("6,528,954").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/24 18:43
S43	1	("20020047628").PN.	US-PGPUB; USOCR	OR	OFF	2014/08/24 19:03
S44	1709072	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer)	US-PGPUB; USPAT	OR	ON	2014/08/25 10:46
S45	7838	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (detect$4 or sens$3)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:47
S46	13	S45 and (B60Q1/04 B60Q1/085 B60Q1/1423 F21K9/13 F21K9/135 F21S4/008 F21V19/02 F21V23/0464 F21V23/0471 F21V23/0478 H05B33/0812 H05B33/0857 H05B33/0863 H05B37/02 B60Q2300/054 B60Q2300/112 B60Q2300/116 B60Q2300/122 B60Q2300/134 B60Q2300/142 B60Q2300/21 B60Q2300/23 B60Q2300/312 B60Q2300/314 B60Q2300/322 B60Q2300/41	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/08/25 10:48

		B60Q2300/42 F21S48/10 F21V21/02; F21V21/30 F21V29/2206 F21W2101/10 F21W2111/023 F21W2111/027 F21W2111/08 F21W2131/103 F21W2131/40 F21Y2101/02 F21Y2113/00 Y02B20/343 Y02B20/383).cpc.				
S47	5956	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection))	US-PGPUB; USPAT	OR	ON	2014/08/25 10:52
S48	1	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (315/152).ccls.	US-PGPUB; USPAT	OR	ON	2014/08/25 10:52
S49	5660	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:54
S50	480	(light or led or luminaire or solid adj2 state or light adj2 diode).ti,ab. and (controller or processor or microprocessor or cpu or computer) and (food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 10:55
S52	13980	(food near10 (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06
S53	319	(food adj (sense or sensor or detector or detection)) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06
S54	8	(food adj (sense or sensor or detector or detection)).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:06
S55	352	(facial adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:21
S56	1304	(image adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 11:22
S57	1	("7765231").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/08/25 11:25
S58	12	S56 and sex and controller	US-PGPUB; USPAT	OR	ON	2014/08/25 12:11
S59	92	(facial adj recognition).ti,ab. and (@ad<"20110917" or	US-PGPUB; USPAT	OR	ON	2014/08/25 12:13

		@rlad<"20110917") and age				
S60	45	(facial adj recognition).ti,ab. and (@ad<"20110917" or @rlad<"20110917") and age and controller	US-PGPUB; USPAT	OR	ON	2014/08/25 12:14
S61	0	(camera and anti-glare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:37
S62	0	(camera and antiglare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:37
S63	2	(camera and glare).ti,ab. with glare near5 controller	US-PGPUB; USPAT	OR	OFF	2014/08/25 12:38
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S65	101	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj mount$3)	US-PGPUB; USPAT	OR	ON	2014/08/25 13:22
S66	99	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj mount$3) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:23
S67	60	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (adjustable adj light) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:27
S68	50	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (movable adj light) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:28
S69	22128	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:53
S70	9041586	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and automobile adj3 light(@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:54
S71	73	(light or led or luminaire or solid adj2 state or light adj2 diode) and (controller or processor or microprocessor or cpu or computer) near10 (traffic) and automobile adj3 light and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:54

S72	428	radiation adj device and heating and sensor and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:55
S73	68	(radiation adj device) and (sensor near5 heat$3) and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:57
S74	730	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917")	US-PGPUB; USPAT	OR	ON	2014/08/25 13:59
S75	161	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917") and (heater or heating).ti,ab.	US-PGPUB; USPAT	OR	ON	2014/08/25 14:00
S76	9	(radiation adj device or heater) and (sensor near5 heat$3) and (sensor near (people or person or individual)) and detection and (@ad<"20110917" or @rlad<"20110917") and (heater or heating).ti,ab. and HVAC	US-PGPUB; USPAT	OR	ON	2014/08/25 14:04
S77	11264	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712")	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:16
S78	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712")with led	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:17
S79	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") with led	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:17
S80	0	(image adj2 (recognition or detection)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") with light$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:17
S81	0	(image adj2 (recognition or detection)) and (@ad<"20020712" or @rlad<"20020712") with (light$3 or led or solid adj2 state)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:18

S82	28717	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and (light$3 or led or solid adj2 state) with (control$3 or cpu or copmputer or processor or microprocessor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:19
S83	31612	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or luniaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:20
S84	31612	(image adj2 (recognition or detect$3 or sens$3)) and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:20
S85	9386	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:21
S86	5176	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@ad<"20020712" or @rlad<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:22
S87	4270	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:22
S88	6	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and food	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:23
S89	318	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:26
S90	319	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and	US-PGPUB; USPAT;	OR	ON	2014/09/08 18:26

		(@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store or merchandise)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S91	146	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store or merchandise) and camera	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:26
S92	276	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab. and (restaurant or store)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:45
S93	151	S92 not S91	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2014/09/08 18:46
S94	6	(("6379022") or ("6340868") or ("5577832") or ("6498440") or ("6483439") or ("6820998")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/08 20:53
S95	7	heater with directed with people	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:28
S96	12	heater with directed with motion	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:29
S97	12	S96 not S95	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:29
S98	3270	heat$3 with motion with detect$3	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:29
S99	361	heat$3 with motion with detect$3 and @pd<"20020712"	US-PGPUB; USPAT	OR	OFF	2014/09/25 16:30
S100	16	("4360856" | "4386275" | "4485864" | "4992701" | "5127575" | "5281961" | "5476221").PN. OR ("5785243").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/25 16:42
S101	2678	led and network and camera and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:34
S102	386	led and network and camera.ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:34
S103	524	light$3.ti,ab. and network and camera.ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:37
S104	153	light$3.ti,ab. and network.ti,ab. and camera and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 15:38
S105	14	adamson.in. and @pd<"20020712"	US-PGPUB	OR	ON	2014/09/26 15:50
S106	296	glare with detect$4 and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 17:30
S107	11	glare.ti,ab. with detect$4 and	US-PGPUB;	OR	ON	2014/09/26

		@pd<"20020712"	USPAT			17:51
S108	14	$5glare.ti,ab. with detect$4 and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 17:53
S109	10	"5,785,243"	US-PGPUB; USPAT	OR	ON	2014/09/26 18:06
S110	1	("5,785,243").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 18:06
S111	1	("6,385,352").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 18:18
S112	11697	(object and detect$4).ti,ab. and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2014/09/26 18:38
S113	2664	(object and detect$4).ti,ab. and @pd<"20020712" and controller	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39
S114	1619	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39
S116	89	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor and lighting	US-PGPUB; USPAT	OR	ON	2014/09/26 18:39
S117	1	("6,385,352").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 19:59
S118	259	("3819938" | "3876900" | "4017732" | "4115703" | "4306147" | "4402017" | "4542528" | "4570057" | "4578571" | "4647766" | "4686363" | "4758717" | "4804949" | "4818847" | "4841132" | "4850009" | "4900907" | "5010241" | "5073954" | "5099110" | "5107100" | "5130520" | "5135160" | "5187356" | "5196684" | "5206492" | "5291009" | "5349172" | "5354977" | "5378882" | "5471533" | "5484994").PN. OR ("6385352").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/09/26 20:01
S119	652	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor	US-PGPUB; USPAT	OR	ON	2014/09/26 20:03
S120	191	(object and detect$4).ti,ab. and @pd<"20020712" and controller and sensor and processor and vehicle	US-PGPUB; USPAT	OR	ON	2014/09/26 21:29
S122	2202	camera and (photo adj2 sensor array or optical adj lens or photo adj sensor or ultrasound adj transducer or microwave adj transducer or pyroelectric) and (led or light adj2 diode or solid adj state) and @pd<"20020712" and controller and processor	US-PGPUB; USPAT	OR	ON	2014/09/30 11:29
S123	265	camera and (photo adj2 sensor adj array or optical adj lens or photo adj sensor or ultrasound adj transducer or microwave adj transducer or pyroelectric) and (led or light adj2 diode or solid adj state) and @pd<"20020712" and controller and processor	US-PGPUB; USPAT	OR	ON	2014/09/30 11:39

S124	366	spero.in.	US-PGPUB; USPAT	OR	ON	2014/09/30 11:55
S125	2970	seasonal adj affective adj disorder	US-PGPUB; USPAT	OR	ON	2014/10/01 18:35
S126	185	seasonal adj affective adj disorder with light adj therapy	US-PGPUB; USPAT	OR	ON	2014/10/01 18:36
S127	1	("5,562,719").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/10/01 18:38
S128	313782	lighting network with heating	US-PGPUB; USPAT	OR	ON	2014/10/01 20:18
S129	771	lighting with network and network with heating	US-PGPUB; USPAT	OR	ON	2014/10/01 20:18
S130	46	lighting with network and network with heating and heat$3.ti,ab.	US-PGPUB; USPAT	OR	ON	2014/10/01 20:20
S131	4752	heat$3.ti,ab. and heat$3 with network and heat$3 with direct$3	US-PGPUB; USPAT	OR	ON	2014/10/01 20:24
S132	907	infrared with filament with lamp	US-PGPUB; USPAT	OR	ON	2014/10/01 20:33
S133	2942299	infrared with filament with lamp and detect$3 or sens$4	US-PGPUB; USPAT	OR	ON	2014/10/01 20:37
S134	534	infrared with filament with lamp and (detect$3 or sens$4)	US-PGPUB; USPAT	OR	ON	2014/10/01 20:38
S135	94	infrared with filament with lamp and (detect$3 or sens$4) and network	US-PGPUB; USPAT	OR	ON	2014/10/01 20:38
S136	120	(infrared or ir) with filament with lamp and (detect$3 or sens$4) and network	US-PGPUB; USPAT	OR	ON	2014/10/01 20:38
S137	242	(infrared or ir) with filament with (lamp or luminaire or light$3) and (detect$3 or sens$4) and network	US-PGPUB; USPAT	OR	ON	2014/10/01 20:38
S138	793	(infrared or ir) with filament with (lamp or luminaire or light$3) and (detect$3 or sens$4) and (network$3 or connect$4)	US-PGPUB; USPAT	OR	ON	2014/10/01 20:39
S139	797	(infrared or ir) with filament with (lamp or luminaire or light$3) and (detect$3 or sens$4) and (network$3 or connect$4 ot HVAC)	US-PGPUB; USPAT	OR	ON	2014/10/01 20:39
S140	793	(infrared or ir) with filament with (lamp or luminaire or light$3) and (detect$3 or sens$4) and (network$3 or connect$4 or HVAC)	US-PGPUB; USPAT	OR	ON	2014/10/01 20:39
S141	603	(infrared or ir) with filament with (lamp or luminaire or light$3) and (detect$3 or sens$4) and (network$3 or connect$4 or HVAC) and @pd<"20110917"	US-PGPUB; USPAT	OR	ON	2014/10/01 20:40
S142	50	(sense or detect) with (age sex) with camera	US-PGPUB; USPAT	OR	ON	2014/10/01 21:23
S143	272	("3805238" | "3949741" | "4516262" | "4858000" | "4885702" | "4975969" | "5012522" | "5163094" | "5164992" | "5331544" | "5465308").PN. OR ("5781650").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/10/01 21:25
S144	2	(sense or detect) with (age and sex)	US-PGPUB;	OR	ON	2014/10/01

		with camera	USPAT			21:27
S145	19	(sense or detect) with (age and sex) with (camera or image)	US-PGPUB; USPAT	OR	ON	2014/10/01 21:28
S146	1	("20060222213").PN.	US-PGPUB	OR	OFF	2014/10/01 21:29
S147	2	(sens$3 or detect$3) with food with lighting with network	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:54
S148	268586	food and (illuminat$3 or light$3 or XXX)	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:56
S149	17067	food with (illuminat$3 or light$3 or XXX)	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:57
S150	2921110	food with (illuminat$3 or light$3 or XXX) with detect$3 or sens$3	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:57
S151	917	food with (illuminat$3 or light$3 or XXX) with (detect$3 or sens$3)	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:57
S152	917	food with (illuminat$3 or light$3) with (detect$3 or sens$3)	US-PGPUB; USPAT	OR	OFF	2014/10/02 10:58
S153	4	2004/0138726	US-PGPUB; USPAT	OR	OFF	2014/10/02 18:36
S154	1	"20040138726"	US-PGPUB; USPAT	OR	OFF	2014/10/02 18:36
S155	0	(2004/0138726).CCLS.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/10/02 18:36
S156	1	("20040138726").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2014/10/02 18:36
S157	1	("8100852").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/01/12 17:20
S158	1	("8100552").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/01/12 17:20
S160	1	("6016038").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/01/15 15:09
S161	10	(color adj kinetics).as. and @pd<"20020712"	US-PGPUB; USPAT	OR	OFF	2015/01/15 15:13
S162	296	spero.in.	US-PGPUB; USPAT	OR	OFF	2015/01/15 15:16
S163	1	("6553296").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/01/15 16:21
S164	166	color.as. with kinetic$2	US-PGPUB; USPAT	OR	OFF	2015/03/09 17:33
S165	95642	(led or light adj2 diode or ssl or solid adj2 state).ti,ab.	US-PGPUB; USPAT	OR	OFF	2015/03/09 17:34
S166	4344	(image adj2 (recognition or detect$3 or sens$3)).ti,ab. and (@pd<"20020712") and ((light$3 or led or solid adj2 state or lumiaire or lamp) with (control$3 or cpu or computer or processor or microprocessor)).ti,ab.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2015/03/09 17:35
S167	19372	(led or light adj2 diode or ssl or solid adj2 state).ti,ab. and	US-PGPUB; USPAT	OR	OFF	2015/03/09 17:35

		@pd<"20020712"				
S168	84	S167 AND ((H01L2924/12041).CPC.)	US-PGPUB; USPAT	OR	OFF	2015/03/09 17:36
S169	49	S167 AND ((F21V23/0442 OR F21W2111/02).CPC.)	US-PGPUB; USPAT	OR	OFF	2015/03/09 17:39
S170	1	("6340868").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/09 17:45
S171	3	(("6340868") or ("5577832") or ("6498440")).PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/09 17:46
S172	1	("6483439").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/09 19:03
S173	1	("6227679").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/09 19:05
S174	1	("6820998").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/09 19:07
S175	40366	kobayashi.in.	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:37
S176	1340	kobayashi.in. and collision	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:38
S178	19	kobayashi.in. and collision and auto and light	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:39
S179	3570	kobayashi.in. and auto$5 and (light or lamp)	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:48
S180	4539	kobayashi.in. and auto$6 and (light or lamp)	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:48
S181	3794	kobayashi.in. and auto$6 and (light or lamp) and control$3	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:49
S182	291	kobayashi.in. and auto$6.ti,ab. and (light or lamp) and control$3	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:49
S183	63969	auto$6.ti,ab. and (light or lamp) and control$3 and detect$3	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:53
S184	0	auto$6.ti,ab. and (light or lamp).ti,ab. and control$3,ti,ab. and detect$3.ti,ab. and object.ti,ab.	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:54
S185	0	auto$6.ti,ab. and (light or lamp).ti,ab. and control$3,ti,ab. and detect$3.ti,ab. and object	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:54
S186	0	auto$6.ti,ab. and (light or lamp).ti,ab. and control$3,ti,ab. and detect$3 with object	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:54
S187	1052	auto$6.ti,ab. and (light or lamp).ti,ab. and control$3.ti,ab. and detect$3 with object	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:54
S188	225	auto$6.ti,ab. and (light or lamp).ti,ab. and control$3.ti,ab. and detect$3.ti,ab. with object.ti,ab.	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:55
S189	84	(vehicle or car or automobile).ti,ab. and (light or lamp).ti,ab. and control$3.ti,ab. and detect$3.ti,ab. with object.ti,ab.	US-PGPUB; USPAT	OR	OFF	2015/03/10 15:56
S190	91	("3663937" | "3668625" | "3930735" |	US-PGPUB;	OR	OFF	2015/03/10

		"4214265" | "4433325" | "4490851" | "4709264" | "4847772").PN. OR ("5161107").URPN.	USPAT; USOCR			15:58
S191	20	(grocery or butcher) same image same light$3 same detect$4	US-PGPUB; USPAT	OR	ON	2015/03/25 10:46
S192	234	(grocery or butcher) same light$3 same detect$4	US-PGPUB; USPAT	OR	ON	2015/03/25 10:50
S193	214	S192 not S191	US-PGPUB; USPAT	OR	ON	2015/03/25 10:50
S194	2757	(grocery or butcher or supermarket or market) same light$3 same detect$4	US-PGPUB; USPAT	OR	ON	2015/03/25 11:10
S195	2543	S194 not S193	US-PGPUB; USPAT	OR	ON	2015/03/25 11:10
S196	563	(supermarket or market) same image same light$3 same detect$4	US-PGPUB; USPAT	OR	ON	2015/03/25 11:11
S197	118	(supermarket) same image same light$3 same detect$4	US-PGPUB; USPAT	OR	ON	2015/03/25 11:22
S198	7940	(supermarket or grocery or butcher$4) and (image or object) same detect$4 and light$3	US-PGPUB; USPAT	OR	ON	2015/03/25 11:38
S199	18117	(382/100,103,218,317).ccls.	US-PGPUB; USPAT	OR	ON	2015/03/25 11:43
S200	718	S199 AND ((G06K9/00362 OR G06K9/46 OR G06K2209/19 OR G06K9/00221 OR G06K9/00456 OR G06K9/4661 OR G06T2207/10004).CPC.)	US-PGPUB; USPAT	OR	ON	2015/03/25 11:46
S201	1	("5,546,475").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2015/03/25 17:31
S202	85382	(age or sex or fac$3) adj2 (object or detect$3)	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:02
S203	15416	(age or sex or fac$3) adj2 (object or detect$3) same (look$3 adj up or data)	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:02
S204	861	(age or sex or fac$3) adj2 (object or detect$3) same (look$3 adj up or data) same controller	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:03
S205	92	(age or sex or fac$3) adj2 (object or detect$3) same (look$3 adj up or data) same controller and @pd<"20020712"	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:04
S206	1911	(age or sex or fac$3) adj2 (object or detect$3) same (look$3 adj up or data) and @pd<"20020712"	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:12
S207	68	(age or sex or fac$3) adj2 (object or detect$3) same (look$3 adj up or data) same (light$3 or illuminat$4 or luminat$4) same (intensity or spectrum or dim$4) and @pd<"20020712"	US-PGPUB; USPAT; USOCR	OR	ON	2015/03/25 18:13
S208	8015	(supermarket or grocery or butcher$4) and (image or object) same detect$4 and light$3	US-PGPUB; USPAT; USOCR	OR	ON	2015/04/03 21:34
S209	0	lys.inv. and object adj2 detection	US-PGPUB; USPAT	OR	OFF	2015/04/27 14:50

S210	233	lys.inv.	US-PGPUB; USPAT	OR	OFF	2015/04/27 14:51
S211	1348	object adj2 detect$3 and ("382"/$.ccls.) and @pd<"20020712"	US-PGPUB; USPAT; USOCR	OR	ON	2015/04/27 14:54
S212	114	S211 and (food or sex or age)	US-PGPUB; USPAT; USOCR	OR	ON	2015/04/27 14:54
S213	143	guess with age	US-PGPUB; USPAT	OR	OFF	2015/05/28 14:50
S214	11665	(estimat$3 or predict$3) with age and (pattern or camera or image)	US-PGPUB; USPAT	OR	OFF	2015/05/28 14:56
S215	714	(estimat$3 or predict$3) with age and (pattern or camera or image) and @pd<"20020712"	US-PGPUB; USPAT	OR	OFF	2015/05/28 14:57
S216	851	(estimat$3 or predict$3) with age and (pattern or camera or image) and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2015/05/28 14:57
S217	304	(estimat$3 or predict$3) with food and (pattern or camera or image) and @pd<"20020712"	US-PGPUB; USPAT	OR	ON	2015/05/28 16:22

EAST Search History (Interference)

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5/28/2015 7:29:11 PM
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	DAVID LOTTER	2844

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
315	152	8/19/2014	dl
362	276, 234	8/19/2014	dl

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search	8/19/2014	dl
class subclass search	8/19/2014	dl
text search	8/19/2014	dl
consulted TQAS regarding priority date	1/21/2015	dl
second search	3/9/2015	dl

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/DAVID LOTTER/ Examiner.Art Unit 2844	

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Wednesday, September 23, 2015
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Office Action dated June 23, 15

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **Sept. 23, 2015**.

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed June 23, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions, the light sources having at least one of controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (currently amended) The illumination device of claim 6, <u>where one or more light sources are directional</u> wherein the one or more detectors are configured to

sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

10. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

12. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

13. (Original) The illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

14. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

15. (Original) The illumination device of claim 8, further comprising at least one

of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

16. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

17. (Original) The illumination device of claim 16, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

18. (Original) The illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

19. (Original) The illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

20. (Original) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information to a controller; a where said controller for adjusting

adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

21. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

22. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

23. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

24. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

25. (Original) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

26. The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1: Claim Rejections - 35 USC § 1 12(b): distinctly claiming the subject matter … Claim 7 recites the limitation "...intensity of the directional light sources". There is insufficient antecedent basis for this limitation in the claim. Independent claim 6 recites "one or more light sources incorporated in the light structure." The Examiner interprets claim 7 as reading "one or more light sources incorporated in the light structure" as recited in claim 6.

The Applicant has amended claim 7 and a marked up version with the words "where one or more light sources are directional" to better claim the glare reduction feature disclosed in the specification. An example of a preferred embodiment is described in [0249]: *In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system comprised of the digital camera 429 and logical controller 428 having computer algorithms for performing computer vision and has the capability of identifying the eyes of occupants in a room* and is *… capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.*

In reply to point 2: Claim Rejections - 35 USC §103(a) which forms the basis for all obviousness rejections … Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) … and further in view of Amerson (US 6,379,022)..

To point out the non-obviousness, the applicant presents an informal introduction to help better understand the innovative aspects of the device claimed able "to meet an illumination requirement of an illuminated area" of the present disclosure. In prior art, to illuminate an area correctly and efficiently (see para. [0009] for definition of "correct") a human designer in a calculated design process, knowing the distances and the angles from the light fixture to the surfaces to be illuminated and using the defining laws of physics, Lambert's-Law and the Inverse-square Law, $E = \frac{I \cos\theta}{D^2}$ arranges light-sources relative to the surfaces to be illuminated. These light-sources have a pre-defined spatial light distribution and are placed in the room at specific locations to correctly meet expected illumination requirements for the visual tasks typically carried out in the specific area to be illuminated. Based on this combined spatial and visual tasks knowledge and in addition, knowledge of the intended room usage such as the age, sex, personal preferences of the users, the colors of the furniture placed therein etc. a designer can adjust light source placement, intensity, spectrum, and angle of incident light to achieve a more correct illumination. Because surface illumination varies with the distance

squared from the light source, is very difficult to achieve high light-utilization efficiencies using prior art monolithic light sources and most often, near the light fixtures there is a greater illuminance intensity that what is required while furthest away, there is a deficiency and the lighting in not "correct".

Each sub-area in a room can have its specific use and optimal illumination level. This task lighting requirement is served today by having a separate light fixture e.g. table lamp, or spot from above and a manually adjusted dimmer to meet changes in the local illumination requirements. Most room lighting applications require a combination of general and task lighting. As opposed to area or task lighting, in a point lighting application such as for camera flash or stage lighting application, the lighting is pointed at the object to be illuminated and has different considerations.

However, in the real world, light usage is dynamic and theoretically, to do it right, a designer would need to be on the scene to see the immediate lighting requirements and rearrange the light source aiming's, intensity spectrum etc. to meet the changes. While an advanced system (per Morgan) could use - networked sensors to detect the occurrence of an event, such as a change in the environment or occupancy and communicate (per Lys) to a networked plurality of LEDs in a "three-dimensional structure 4024" - to alter the illumination, it would still not substantially improve on meeting the actual illumination requirements unless it was controlling correctly arranged light sources. Even if those light sources were (per Amerson) arranged to provide an adjustable color temperature they would not produce spectrally correct illumination to meet an illumination requirement for an area (for a non-area, spot lighting application, yes, but to correctly illuminate an area where the distance and the angle to the surfaces from the LED vary, no)

A more accurate and convenient light fixture system based on actual room-occupant location and usage would use sensors to provide information to a processor running algorithms to determine the occupant's illumination requirements in real-time and correctly drive properly arranged light sources of controlled light distribution to provide the correct illumination that is required to fulfill those requirements. The first inventive step is to use more than one spatially differentiated light source to correctly illuminate each sub-area. The second inventive step would be to have spatially differentiated sensors to obtain the necessary information to grant the processor knowledge necessary to determine the requirements of each sub-area and a third non-obvious step would be to program the processor to "know" which light source illuminates that area (versus another sub-area that it does not illuminate) and to power it as necessary to meet the illumination requirement for that area. Each inventive step generated the need for the next step where the solution was not obvious. In some cases at the outset, the necessary technology did not exist and certainly, the combination of steps necessary to yield this unique resulting functionality could not have been foreseen by one of ordinary skill in the art. Only in

hindsight, is it apparent that the claimed device, comprised of a unique combination of hardware and software, actually mimics best lighting practice as performed by a human designer it in real time. The applicant below will show that the mere combination of the cited prior art patents would not lead to the apparatus nor functionality of the claimed device.

Therefore, the disclosure of a sensor controlled illuminating device that: a) has at least two light sources, arranged such that each light source illuminates a different area of the room and where b) that sensor has spatially differentiated detection means and c) where the processor running code uses the detected information to "know" the area of the room that requires a specific type of illumination versus those that do not require that illumination and d) the processor, using instruction sets, then "knows" which of the "directional-light-sources" deliver light to the area to be illuminated and then e) the processor using code determines the intensities to drives those specific sources to obtain the specific, localized-effect, so as to fulfill the sensor detected illumination requirement according to best practice – surely comprises a non-obvious, new to the world device. A device capable of differentiated delivery of energy or mass within a room, synergistically equipped with a sensor such as a camera capable of providing location coordinate information to a processor to operate localized delivery, (versus the prior-art's, non-spatially-differentiated sensor and light delivery apparatus) provides unpredictable functional and/or energy saving benefit well beyond a combination of prior art systems.

More specifically: regarding Claims 1 and 3 are rejected ... as being unpatentable over Morgan in view of Lys the applicant respectfully points out that, although per Morgan (abstract) the "Individual light sources or groups of light sources may be controlled independently of one another based on data transported throughout the network from sensors", and in view of Lys, Fig. 28C para. [0206] "the modular LED unit 4000, may be flexible, so as to permit the light module 4002 to conform to an environment within which it is placed" do not disclose the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the effect to an *illuminated area* as is disclosed numerous times in the specification. For example, Fig 12 is described: [0183] *The adaptive or intelligent DLF 190 shown in FIG. 12 has multiple light sources 191 placed about the body 192 having a geometric shape... a photodetector array which is equipped with a lens which can be a 360 degree lens or a fisheye lens is placed with a field of view of the area to be illuminated. ... such that an asymmetric lighting pattern is produced for the provision of a non-circular lighting pattern in a typically rectangular room; and [0184] Spatially differentiated motion detectors.* Therefore, without disclosing a geometrically coordinated sensor Morgan in view of Lys would not teach towards the inventiveness of the present invention in Claim 1.

For illumination to reach an area to be illuminated in a substantially required amount (just not some approximation but a design goal) its directionality of light distribution would need to be known and it would need to be positioned and aimed at that area and when there are more than one light sources the controller would need to "know" which light source under its control illuminates what area. The *directional light sources*" of Claim 1 per Spero [0280] has the *"capability of delivering spatially differentiated illumination".* Again, nowhere within the disclosure does Lys' device teach the physical requirement of Claim 1 in order to derive the desired controllable lighting effect*:" to meet an illumination requirement of an illuminated area ... a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions".* The unplanned placement of Morgan's light sources of Fig. 1-3, and Lys' in Fig. 28C while uniquely addressable, are not physically arranged to produce any degree of an area-specific illumination which must follow Lamberts Law in relation to the angle and distance of the surface to be illuminated. In the present disclosure the system's manually and even automatic spatial ascertaining capability is described as how the controller will "know" which local area each of the multiple light sources illuminates. *[0196] In a preferred embodiment, using pattern recognition techniques ... An automatic routine as in 7A uses timed firing of a coordinate-specific light source, or array of light sources and the following reading of the camera detector of light reflected to that specific coordinates pixel, or set of pixels to corroborate action between light sources and the detectors.* Without this spatially differentiated sensing and delivering capacity and the novel corroboration of the area sensed with the area served by the directional light source, there is no way an inferred Morgan in view of Lys system could perform as Claim 1 and Claim 3. In Claim 3, *the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.* This inventive step, where on the fly a system can sense a sub-areas specific requirement and coordinate it to an illumination delivery device that illuminate that area according to a new requirement is clearly missing from the Morgan in view of Lys disclosures.

In the present disclosure the light fixture has [0054]) *...one or more discrete light sources in an integrated illuminating element where the overall lighting effect is the result of the combination of these multiple sources.* Instead, Morgan, Lys and other prior art, deal with either: 1) monolithic general lighting or 2) spot lighting concepts. It can be noted that even where there are multiple light sources, a) they often cover the same area, as do Morgan's light sources of Figs. 1-3, or b) the separate sources are arranged such that there is an uncontrolled melding of light from one light source with that of another. That is, the effect of the light sources is not substantially exclusive to an *illuminated area* within a room. In the referenced spot lighting concepts, which provide accent to a specific stage performer or features in the room the individual spots are not arranged to combine build

an overall room illumination. Nowhere in the disclosure do either Morgan or Lys mention the inventive step of controlling an area-specific illumination effect by using *directional-light-sources* that have a focused, localized or directional aspect. Such a teaching is, a prerequisite for the novel, spatial controllability of the present inventive device see Fig 2b, allowing it to "meet the illumination requirement of an illuminated area". Instead, Lys' device Figs. 28, other than when used as a spot light will not correctly illuminate an area. To the contrary, for an average illumination requirement, it illuminates areas with greater than needed intensity closer to the light source and less intensity further away. Morgan in view of Lys would illuminate well beyond the localized lighting needed for a detected individual of Morgan. The applicant also suggests that in most probability, Lys' "conform to an environment" statement in para. [0206] is referring to solving an electronics packaging problem, not the illumination requirements of surfaces in the environment. This, as Lys uses a positioner to illuminate the material of interest directly-on angle and light distribution properties are not mentioned in the entire disclosure. Similarly, nowhere in the Morgan disclosure is the word direction, area, aim, spatial distribution or sub-area mentioned and there would be nothing to teach anyone skilled in the art the localization capability of the present disclosure. As there is no teaching or suggestion supporting the combination in the cited prior art references, Morgan in view of Lys should not be deemed obvious and the applicant respectfully requests allowance of the claim.

Regarding Claim 2 is rejected ... as being unpatentable over Morgan in view of Lys as applied to claim 1 above, and further in view of Amerson (US 6,379,022).
Amerson is using the LED light sources to provide an adjustable color temperature. The camera mentioned by Amerson uses the spectrally corrected light for a camera flash function. The only sensor use of the camera mentioned Column 3 Line 17 "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" does not teach towards a spatially differentiated sensing. That is a capability to measure the "current light" in one area of the scene versus measuring the "current light" in a second area of the scene. Therefore, as Amerson's camera is disclosed only as a spectral sensor of the "current light" it does not teach towards the spatially differentiated sensors of claim 2 of the present disclosure. Any practitioner skilled in the art who would want to use a camera to gain the coordinates of the sensed event would need first a spatially differentiated delivery device to want to have a spatially differentiated sensor and computer programs to assess the data. Then they would require apparatus and software to correlate the sensed coordinates to the delivery coordinated. Any suggestion to any of these inventive steps are missing and therefore the present disclosure is non-obvious.

Regarding Claim 4 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Kinjo (US 2002/0046100). The applicant does not claim to have invented

pattern recognition, nor does Kinjo, who is using the information derived from images [0002] to enhance an advertisement effect, by which advertisement contents are switched in accordance with the viewer so as to display an advertisement suitable for the viewer of the advertisement. It should be noted that the application for Kinjo's detected characteristic remains in the virtual world [0010] ... and switching an image displayed on an image display medium in accordance with the first characteristic of the extracted person. This new use for a known pattern recognition process is typical of recent technological advances where "virtual" product development outpaces "physical" product developments which are often more difficult to foresee and implement. In the case of these cited references which primarily deal with control signal and networks would actually teach away from the device because the cost of the added physical device, wiring, networking complexity.

In addition, the prior-art use of image recognition developed security purposes in identifying terrorists was conceptually limited at the time of the disclosure to systems making use of the information for the observers benefit, often at the expense of the person being observed. That is, the information on the observed individual is used by the observing entity for its own benefit be it security or advancing sales. In the present disclosure the pattern recognition is being used by the user themselves to gain a personalized non-virtual illumination benefit per [0051] *A number of unique illuminating device embodiments are achievable using the basic elements presented above...as well as the ability to provide individualized lighting to each person.*

The applicant submits that certainly, a disclosure of a lighting fixture which is able to automatically tailor the illumination to the person it is illuminating for, is a case of an improvement patent. The applicant submits that this new development would not be obvious to a "person of ordinary skill in the art", even if that person had prior knowledge of all the documentation available in the world at the time of the application in the many different arts that are needed for this device to be constructed to produce the desired result. This is because a "person of ordinary skill in the art", refers to a practitioner of one art, not a practitioner of all the arts. In this claimed novel illumination device, the individual inventor's combination of skills in electronics, programming, artificial intelligence, human factors engineering and lighting science that need to be combined in order to contrive a machine capable of automatically illuminating in accordance with good lighting practice is non-ordinary.

In addition regarding Kinjo's use of personal characteristics for advertising it is claimed that [0196] *the addition of a machine vision system with pattern recognition capabilities as is known in the art,* combined with a physically differentiated lighting apparatus with using skills of multiple arts qualifies under 35 U.S.C. 100(b) as a new use of a known process, machine, manufacture. The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to

combine the relevant prior art teachings to the new use of the known processes in the manner claimed. To conclude, there is nothing in the cited prior art of Morgan or Kinjo that would have incited towards the concept of a pattern recognition based processor knowing data controlling and correctly controlling an illuminating device. As stated by Winner Int'l Royalty Corp. v. Wang, 202 F.3d. 1340, 1348 (Fed. Cir., 2000), there must be a suggestion or teaching in the prior art to combine elements shown in the prior art in order to find a patent obvious.

Regarding Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475).
The applicant argues that the claimed area-specific food-illumination system for use in dynamic settings such as restaurants for *optimally displaying food,* is not obvious from the prior art for the illumination objects in a display case. From the specification: [0282] *The lighting fixture 490 has means to illuminate separate portions at a table comprised of directable or aim-able lighting modules 491. The lighting fixture 490 also has computational means of providing the optimal color and intensity of light so as to render people, food, objects in their best light as well as to build a dining room ambience through lighting according to recommended practice or user preferences.* Zampini in his disclosure for a solution states: [0007] The present solution described herein provides systems and methods to coordinate and control the lighting of areas of a display . The area inside the case is fixed and is not dynamic in terms of persons, objects and activities carried out. Zampini's detector is not spatially differentiated such as a multi-pixel photodetector array capable of producing coordinate information necessary for a room illumination system able to focus on a food and render it under optimal lighting. And again, Zampini does not disclose the corroboratory area sensing and delivery routine necessary to have an imaging detection routine drive a specific light source to illuminate food on a restaurant table located anywhere in the room. The present disclosure can identify and illuminate anywhere in the living space and not just in a display case which is a totally different lighting application. Regarding Bolle who describes an apparatus that uses image processing to recognize objects such as produce within a scene which is indeed pattern recognition prior art that the disclosure relied upon. The combination of the cited references would not suggest the presently disclosed robust system of Fig. 26. Its unique structure offers a complete restaurant lighting application solution where: *[0280] As an example of the luminaire's benefits and agility to provide correct lighting where it is needed at minimal energy consumption, an embodiment of the invention, a spatially and spectrally adjustable restaurant lighting fixture is presented in FIG. 26. In a restaurant lighting application it would be beneficial for the customer experience if those dining, the food and ambience would all appear at their best.* The present application discloses a complete solution beyond the simple display and food recognition application by operating area specific within a larger area comprising people as well as food and other

objects each identified for its optimal illumination. Thereby, the camera based system is uniquely capable of illuminating food within a living space which an application not taught by the combination of cited references.

Regarding Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022).

The applicant respectfully differs with the examiner's interpretation of the term camera used throughout by Amerson and instead sees it once used as a light sensor column 3, line 18, to control the instantaneous color temperature of a camera flash that does not teach towards an area illumination application. Amerson describes in the Field of the Invention, column 1 lines 6-8 "The present invention relates generally to digital cameras and more specifically to an auxiliary illuminating device that has an adjustable color temperature". One will note that even in the days of film cameras, the camera used a light meter to control the flash and using it to detect spectrum is a stepwise improvement. The applicant views the present disclosure as a further significant inventive step moving from the camera of Amerson , column 3, lines 17-26 …. "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" to the multifarious camera of claim 6 used to supply information to a *"controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area".*

Amerson's illumination is point illumination for a specific digital camera lighting application and is not expanded by Morgan's networked sensors beyond that functionality. One must note that in a flash application the user points the camera at the limited scene to be captured by the camera. The flash will not evenly cover an area larger than the limited field of view. However, in a room illumination application with a fixed sensor placement the processor program to efficiently *"automatically control the light provided to the illuminated area"* must be arranged and programmed to obtain pertinent information from the area to be illuminated.. This is disclosed in the specification for example in an embodiment: [0184] *Spatially differentiated motion detectors…. The DLF controller acts to provide heightened lightning to the occupants' present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area.* Even had a camera sensor technique been used to improve the camera flash, a person of ordinary skill in the art of illuminating for cameras would not recognize that it could improve area lighting devices in the same way, as an area based algorithmic processing step would also be needed, a step whose actual application would be beyond their ordinary skill. The applicant therefore traverses the claimed obviousness as there is no provision or suggestion in either of the cited references for "*said controller arranged to processes the information communicated from the camera".*

Regarding Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022) as applied to claim 6 above, and further in view of Chang (US 2002/0039238).

The applicant respectfully points out that Chang uses a detector of radiation on the rearview mirror; as per paraa. [0005] Accordingly, the primary object of the present invention is to provide a vehicle automatic anti-glare device, wherein a rear-view mirror is provided for which automatically blocks out glare, in accordance with the intensity of the light cast upon the mirrors. Nowhere in Chang's disclosure is sensing the existence of glare reaching the eyes mentioned. The word eye does not appear in the entire specification and there is nothing in the combination of the cited references to teach to a system of the present disclosure which *[0249] In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system.... The camera vision system is capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.* Chang's simple system actually teaches away from the use of an expensive camera to determine the disturbing glare event via the rear view mirror. Thus in a non-obvious development, the very same logic system which controls an illumination device that helps people to see as well as creating glare now has been configured to be able to illuminate without glare. This is a radical improvement over prior art and there is no teaching, suggestion, or motivation in the cited references that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner of claim 7. The applicant thus respectfully request allowance of claim 7.

Regarding Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022).

Claim 8 and its dependents are referring to an invention (an example of which is disclosed in Fig. 24 and in the specification) of an automated illuminating device capable meeting *illumination requirements of the visual activities.* Disclosed in para. *[0273] In another embodiment one or more light sources, acting as a spot light 482 of limited beam angle... The controller 454 receiving input from the camera and using computational image recognition algorithms in a program as in FIG. 23 ....where computer vision is used ... recognize activities as they happen in real-time which enables the controller to determine any of the following: a change in the persons activity, in what direction the eyes may be directed, what objects the person is viewing and what visual task the person needs to perform. Based on that information the controller 454 powers the spot light sources 482 and general lighting sources 472 to provide the correct lighting for the specific visual task undertaken, be it reading a book or watching TV.* The applicant points out that Mogan discloses a (title) Methods and apparatus for controlling devices in a networked

lighting system. In a thorough reading of the Morgan patent application the applicant could not find any reference to the directional light sources (paragraphs 0019-0020) or a processor (Fig. 2, at 22) with stored algorithms (paragraph 0040) or any equivalent apparatus to recognize and deliver activity specific illumination per Claim 8 "visual *activities... said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities*. Again, a thorough reading of the Lys and Amerson patent applications finds no description of a device that can calculate *required illumination parameters* per detected visual activity. In Lys, even the re-positionable light fixture having movable structure for aiming the light sources mounted thereon in a defined direction (e.g. Fig 90A, at 2010, paragraphs 0325-0326) is typical of point lighting applications with the addition of sensed data controlling the positioning device. It does not teach towards the apparatus of Claim 8 where the applicant discloses *at least two directional light sources pointing in different directions* a necessary criterion for a novel, automated combined task and area illuminating system which is a different illumination art operating under a different set of defining equations.

As the disclosed system as claimed has spatially differentiated detection, calculating means and spatially differentiated delivery of illumination and none of the cited reference teach any of those necessary features necessary to fulfill *illumination requirements of the visual activities.* The applicant respectfully submits that the present invention is totally unpredictable under the prior art references. Therefore it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17- 26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33) and Claims 8-17 should be allowed.

Regarding claim 9 Morgan further discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (e.g., paragraphs 0020-0023). While Morgan states in [0023] According to one embodiment of the invention in which one or more sensors are employed, a networked lighting system may be implemented to facilitate automated computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. For example, automated lighting applications for home, office, retail environments and the like may be implemented based on a variety of feedback stimuli (e.g., changes in temperature or natural ambient lighting, sound or music, human movement or other motion, etc.) as shown earlier Morgan does not illustrate nor disclose apparatus for spatially differentiated detection or illumination resulting from direction light sources of Claim 8 where the illumination result is more functionally correct, convenient and energy saving. An example of this disclosed in the specification para. [0265] *In a preferred embodiment of the invention the logical controller 454 receiving image input from the camera 453 and running pattern recognition software will identify what is the visual task a person is*

trying to perform. The computer routine receives images from the camera and by determining the proximity of persons to objects such as books, newspapers, computer screens, telephones, televisions, cereal bowls, a writing pad, etc that are recognized by the computer vision techniques predicts what visual task the user is trying to perform. The logical controller 454 then drives the light sources 457 according to recommended lighting practice levels stored in its data storage. ... Unique to this invention, people are able to choose the lighting that suits them best and the fixture, having differentiated light delivery, can provide a first user with one type of chromacity and/or intensity and a second type for a different user in a different area.

The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 9 should be allowed.

Regarding claim 10 Morgan discloses the illuminating device ... Lys discloses an adjustable by an installer based on room geometry... to conform to an environment (Lys, paragraph 0206). Amerson .... Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) .... using image recognition capability, directs the controller to adjust ....

The applicant has stated above in arguments for claims 1-9 the difference between a networked system that uses a camera as a light sensor for a scene for use with a single point flash light source (vs. area illumination) which is a different art with a different information set needed to automatically solve the defining equations. As far as the to conform to an environment of Lys, as there is no spatially differentiated illumination device described as well as no image recognition capability in Amerson such that the present disclosure functionality and structure would not be obvious. As can be seen from an example of the needed considerations for an area lighting application as claimed, cite the specification: [0267] *Yet another feature of the present invention logical controller and software is that the lighting fixture 450 has apparatus to check the illumination level of the lighting set-up upon installation and provide feedback so that manually made aimings are directed to obtain a desired illumination or luminance. The camera 453 serving as a light meter obtains luminance readings on surfaces in the living space. It inputs data to the controller 454 which provides readout either on a display on the FAML 450 or communicated to another device having a display. The installer using a calibrated reference reflective sheet of known color and reflectance values placed on surfaces at particular aimings will check if the desired illumination and chromacity is being provided. The reference sheets can also be used to calibrate the room surfaces for future camera sensor 453 readings by storing in 454 the actual surface readings vs. those of the reference sheet. Once the camera 453 is calibrated as to the reflectance and color of room surfaces the FAML 450, in a servomechanism enabled embodiment, with automatically movable light sources 457, will perform its own re-configuration to reach optimal light provision. The calibration is affected by using the camera array 453 to*

detect luminance as a measure of the lighting fixture instantaneous illuminance in that direction vs. the power level at which the light source is being driven. To calibrate the illumination system, the logical controller 454 can use a given LED installed on the fixture which serves as a light source standard when driven at known voltage and current. Alternately, an additional light sensor of superior accuracy stability is provided for in the sensor pack 453 and can be used to calibrate the camera sensor array.
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 10 should be allowed.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

Regarding claim 11 Morgan further discloses the illumination device of claim 8. Morgan does not disclose wherein the controller receives real time information ...Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) and wherein the processor (column 3, lines 14-25), using image recognition capability.
As the applicant has shown above in claims 1-10 there is no mention in Amerson's cited reference of image recognition routines. (column 3, lines 14-25), "For the array of LEDs to simulate the color temperature of the ambient light, the type of illumination to be matched must be known. One way is for the user to select the type of lighting from a list of choices. Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination. Once the type of illumination to be matched has been determined, the amount of light coming from each set of color LEDs is adjusted such that the total amount of light coming from the LED array is a calorimetric match to the ambient illumination source. Each type of ambient light source would typically have a different ratio of light coming from the sets of color LEDs. The inventive step regarding Claim 11 may be seen in the disclosure: *[0196] In a preferred embodiment, using pattern recognition techniques the ADLF 190 is semi or fully automatic in programming itself to correctly function where installed. The DLFs or ADLFs will adapt to the seating arrangement of room occupants* ***in real time****. In the preferred embodiment, the addition of a machine vision system with pattern recognition capabilities as is known in the art, easily deduces room occupancy and usage.*
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 11 should be allowed.

Regarding claim 12 Morgan ... Lys discloses at least one of the directional light sources mounted on the movable structure ...in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206). The applicant points out that Lys is conforming to a geometrical environment in terms of the illuminating deviceas stated in para.s [0209]-[0246] a" Another such environment" and again in [0251] "In fact, the housing 703 could take any geometric configuration appropriate for a particular illumination or display environment" and not a geometric environment or visual task as it related to illumination. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 12 should be allowed.

Regarding claim 13 Morgan further discloses the illumination device of claim 12, providing a different illumination to a sub-area... based on usage wherein the controller interpreting images (paragraph 0019).
The Applicant quotes Morgan [0019] "Accordingly, one embodiment of the present invention is directed generally to networked lighting systems, and to various methods and apparatus for computer-based control of various light sources and other devices that may be coupled together to form a networked lighting system. In one aspect of the invention, conventional light sources are employed in combination with LED-based (e.g., variable color) light sources to realize enhanced lighting effects. For example, in one embodiment, one or more computer-controllable (e.g., microprocessor-based) light sources conventionally used in various space-illumination applications and LED-based light sources are combined in a single fixture (hereinafter, a "combined" fixture), wherein the conventional light sources and the LED-based sources may be controlled independently. In another embodiment, dedicated computer-controllable light fixtures including conventional space-illumination light sources and LED-based light fixtures, as well as combined fixtures, may be distributed throughout a space and coupled together as a network to facilitate computer control of the fixtures." The applicant fails to discern any sub-area capability of Morgan's devices. In the present disclosure it would refer to a capability of direction light sources to illuminate in a sub-area where an occupant may be located vs. an illumination in the rest of the room. Per an example from the specification *[0184] Spatially differentiated motion detectors 200 are provided on the Adaptive Digital Lighting Fixture along with the light sources 191 and light sensors 196. Typically motion detectors have been associated with lighting in motel rooms to shut off the lighting if there is no activity. There is another level of control that can include matching the lighting to type and amount of activity. Taken to the extreme, one or more limited field-of-view motion detectors 200, or camera 197, can be used to follow the whereabouts of room occupants. The DLF controller acts to provide heightened lightning to the occupants" present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area. .* This is especially evident unless the use of non-monolithic directional light sources are indicated. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited

prior art teachings to construct the disclosed device and therefore Claim 13 should be allowed.

Regarding claim 14 Morgan further discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph 0018 - the Examiner interprets "outdoor environments" as reading on this claim).
The applicant traverses the rejection based on the fact that the networked light sources of Morgan are not taught as being directional and being capable of illuminating in substantially different directions. Neither is there a spatially differentiated a camera sensor nor a processor with algorithms for detecting objects. An example of such a device from the specification backing the claim is *[0203] When artificial intelligence methods known in the art is combined with the fine control and functional flexibility of the DLF additional advantages are realized. A detector or camera 258 in concert with a logic controller 246 is capable of providing the road lighting needs to a driver or group of drivers in according to the time of day, needs of the roadway layout and usage at any moment.*
If the examiner's rejection is based on 35 U.S. Code § 102 – Novelty, the applicant submits that Morgan as prior at does not read on claim 14 and the applicant respectfully request its allowance. If the rejection is based on obviousness the applicant submits respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 14 should be allowed.

Regarding claim 15 Morgan... Lys, paragraph 0206).
The applicant has shown in arguments regarding claim 8 above that Morgan, while having more than one light source does not teach towards spatially differentiated sensors and illumination so as to provide concurrent general and task lighting thereby substantially meeting the "*illumination requirement of an illuminated area*". An esoteric illumination example is brought from the specification *[0251] Actual vision and perception is not only a function of the illuminance falling on the object being observed but also of the luminance of surfaces in the surround, spectral distributions of the object and background and the general illuminance level to which the eye has adapted. Veiling luminance and veiling reflections may even be as interfering so as to disturb the ability to see. Described is a method of using the an embodiment of multiple light source lighting fixture of the present invention with finely controlled light delivery to assist people to better see objects or carry out visual tasks such as reading. The method comprises altering the intensity and/or color of the illumination delivered to the task versus other surfaces in the visual surround (that is they are in the viewer's field of view) such that the luminance of the object, the luminance of the background, the contrast and the veiling reflections are controlled so as to produce optimal vision conditions. To accomplish the spatially differentiated light delivery to the object of the visual task such as a book or*

computer screen the light sources to produce task lighting have multiple, narrow beams with minimal spill light. The limited coverage area of each beam and sharp cutoff is such that the lighting fixture controller can target a book while not substantially illuminating the desk. Other light sources illuminate the desk and other surfaces in the visual surround at an optimal background level luminance. The background level is determined by factors such as whether it is an office environment where others are present and a dark office is unpleasant or if the reading is at home and a lower background can be tolerated. .While Lys does show a moveable spot light source it is also not in conjunction with other spatially light sources nor is there disclosure of a spatially differentiated sensor and controller with the necessary processing. The applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys and therefore respectfully requests the allowance of claim 15.

Regarding claim 16 Morgan discloses the illumination device of claim 8. Lys discloses a controller (Fig. 90A, at 2012) with communication capability to other devices ... process the information and communicates the camera obtained information to a second device (paragraphs 0326-0328).

The applicant read but could not find the inter lighting-fixture camera-data communication-functionality disclosure for Lys' "robotic camera" in the referenced paragraphs or anywhere else in the disclosure. However, even if it did mention one, it would not teach towards the present invention's gainful illumination delivery usage of the communications anyway as shown in an exemplary embodiment *[0192] According to the teachings of the present disclosure, the room lighting needs are provided by one or more DLFs or ADLFs including satellites or combinations thereof placed such that they are capable of providing lighting at the correct non-glaring angles for the lighting tasks at hand. The ADLFs and DLF can communicate with each other and an ADLF can control a DLF and vise versa so that level lighting is accomplished in the room. Two or more DLFs can share in the illumination requirements of a location located between them. The DLF turns off its illumination towards a specific location, reads the ambient luminance and then correctly powers the SLS to provide the additional illumination.* The communications requirement is unique as a result of the controlled light distribution resulting from the directional light sources arranged to illuminate a local area. The independent illumination capability of each fixture would require such a communication of spatially differentiated sensor data which as has been pointed out is lacking from the Morgan and Lys disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary

skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 16 should be allowed.

Regarding claim 17 Morgan as modified further discloses the illumination device of claim 16 Lys discloses where the illuminated area is a road (paragraph 0245) and where the second device to where the camera obtained information is communicated to is a lighting fixture (Fig. 90A, paragraphs 0326-0328).
To better understand the difference between the Morgan and Lys prior art and the present invention the applicant quotes from the specification: *[0203] ....In an alternate embodiment the roadway lighting can be dimmed if there are no approaching vehicles. The detector or camera 258 is capable of detecting oncoming and retreating traffic. The headlights and backlights are used or more sophisticated pattern recognition is used to determine traffic on the roadway. ...Taken to the extreme the controllability of the DLFs or series of communicating DLF street lights allows for the lighting to precede the vehicle by the stopping distance, say 300 ft. at 65 MPH (91 meters), and dim the unused lighting behind the driver if it is not necessary for other drivers.* In its own right the use of image processing to illuminate before a driver but not behind them thereby saving energy is a novel development and cannot be imagined from either of the disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 17 should be allowed.

Regarding Claims 18-19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) as applied to claim 17 above, and further in view of Lemelson (US 5,983,161).
Regarding Morgan and Lys the applicant has explained in claims 16 and 17 why they would not teach to the present disclosure. Regarding Amerson the applicant has explained in claims 2 and others regarding the specific flash usage of the sensor. Regarding Lemelson "discloses where the processor uses information obtained from the cameras and exchanged between fixtures." The applicant has read Lemelson (US 5,983,161) titled: GPS vehicle collision avoidance warning and control system and method. The camera is mounted on a vehicle and not a light fixture; column 20 Lines 55-56, A television camera(s) 54 having a wide angle lens is mounted at the front of the vehicle. Communication of traffic data between vehicles used for traffic vehicle avoidance is a totally different art as explained above regarding obviousness in claim 4 above. Regarding claim 19 the concept of real-time lighting and illumination control is not mentioned in the paragraphs cited and where it is mentioned it refers to a GPS location based lighting of the vehicles

healdlamps. In the entire disclosure and the word "glare" does not appear anywhere and therefore Lemeoson's GPS vehicle collision avoidance warning and control system cannot teach towards the present disclosure .
The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the relevant prior art teachings to the new use of the known processes in the manner claimed. As there is nothing in the cited prior art of Morgan in view of Lys in further view of Amerson as applied to claim 17 above, and further in view of Lemelson that would have incited towards the concept of a sensor based processor in a lighting fixture "knowing" visual task data and correctly controlling a multiple directional light source illuminating device, the applicant requests that claim 18 be allowed.

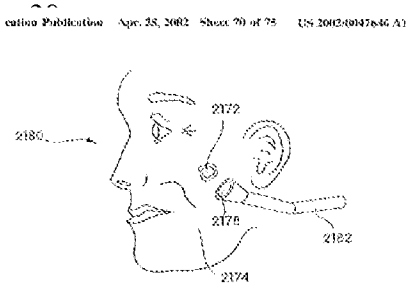
Regarding Claims 20-26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646)… claim 20 Morgan discloses an automated irradiating device for providing radiation to individuals within an area. The applicant submits that Morgan is referring to a radiation device para. 0023 in the visible light spectrum used for seeing and not heating. [0023] … computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. Lys discloses a light fixture including a multiplicity of directional light sources. The applicant finds no spatially differentiated sensor or computational mechanism in Lys that would allow his light source to provide "radiation in a sub-area proximate to the individuals" and certainly not for a heating application. From the present disclosure one example of the heating application shown in Fig. 23 is *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. The heat radiation sources can be infrared filament lamps or infrared LEDs in addition to other wavelengths. The irradiating devices 472 mounted on the irradiation fixture can provide general area heating or spot heating 482 to people or objects.* Another is *"[0246] Light entering the digital camera 429 through its lens 427 is converted into electric signals… The processor runs the computer vision routines to determine an occupants age or sex and sends instruction to a building's utility devices to provide individualized services such as heating and lighting on basis of age or sex.* Therefore, it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) and the applicant requests that claim 20 be allowed.

Regarding claim 21 Morgan as modified discloses … Lys discloses: the detector being a camera (paragraph 0327) with capability for sensing at least one of … The applicant has read Lys

[0327] An embodiment of the illumination system can be used for taking photomicrographs. In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. Different lighting conditions can have a dramatic effect on such vision systems. permits a higher resolution by the robotic camera of the image required for robotic vision", the applicant submits that Lys is not using the camera as a detector but an alternate use for the "Lighting entertainment system" to "improve the quality of robotic vision applications" Therefore, as Lys does not teach towards a "sensing detector" and it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding "sensing detector" (Lys, paragraph 0327) and the applicant requests that claim 21 be allowed.

Regarding claim 22 Morgan discloses and Lys discloses one or more directional radiation sources capable of being moved …
The applicant submits that in order for Lys's device, Fig. 90 to track a moving individual in the room there would need to be a camera detector with said camera detector providing coordinate data to a processor running algorithms to follow or track the individual around the room. As this is missing from Lys's disclosure as explained in claim 21 the applicant submits that claim 22 is not obvious and asks that it be allowed.

Regarding claim 23 Morgan discloses, Lys discloses directed at the different parts of the body (paragraphs 0309, 0362).The applicant submits that the presently disclosed system is not similar. As claimed, it is able "*to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body*". From Fig. 24 and specification *[0274] … The camera and controller processor system can use image recognition to identify parts of the body and the controller can provide a different radiation level to the head vs. the rest of the body. Other people feel the cold in the legs etc.*



The cited Fig. 94 from Lys shown to the right clearly shows that it is referring specifically to a single irradiation device which is designed to perform on a predetermined part of the body. The applicant points out that nowhere in the Morgan or Lys disclosures is there any description of multiple spatially differentiated radiation delivery sources controlled by a processor running algorithms to analyze data from a spatially differentiated sensor, aka camera, *to identify parts of the body*. As these capabilities are missing from the referenced disclosures as explained in claim 21 and in preceding claims, the applicant submits that claim 23 is not obvious to one of ordinary

skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys and asks that it be allowed.

Regarding claim 24 Morgan further discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory, and (iv) commands input from an input device (paragraphs 0016- 0024).

The applicant first explains what claim 24 is referring to by quoting an exemplary embodiment from the specification *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. Using face recognition algorithms and stored personal preferences from the data storage, the logical controller 454 will aim the heating rays specifically where on their body they prefer to be heated as well as in what amount and at what times. The camera 475 has sensors sensitive to infra-red wavelengths around 12 μm (micrometers) radiated from people. The controller obtaining the information from the body temperature sensor will run algorithms to calculate radiation parameters and will control the irradiation in time and intensity on the individual to maintain comfortable heating per best practice standards, drawing on stored data of heating practices, or personally input preferences.* The applicant submits that in the Morgan disclosure the word "heating" is not to be found (heat is found 3 times in reference to a heat sensor but there is no reference to a device for providing heat). As in addition, Morgan has not disclosed the computer vision hardware and logic system of claim 24 nor the heating application, the applicant respectfully submits that the claim should be allowed.

Regarding claim 25 Morgan discloses the irradiation device of claim 21. Morgan also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (e.g. paragraphs 0016-0024).

Lys discloses where the irradiation instead of for heat is for therapeutic purposes

The applicant respectfully submits that as explained above in claims 21, 22, 23 Lys does not show or describe a system capable of identifying the location of the individual "where the controller aims the radiation sources to the location where the individual is located" Lys has no spatially differentiated sensor or processor running image recognition programs. (Lys in [0327] mentions robotic vision in terms of illumination "...In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. As explained in claim 2 Morgan does not teach towards spatial differentiation and has no idea where in area an individual is located to aim anything towards them.

Therefore, the applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy in order to improve a patient's health or well-being. The applicant respectfully submits that claim 25 should be allowed.

Regarding claim 26 Morgan discloses ... the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraphs 0016-0024).

The applicant respectfully submits that the novel system is capable of concurrently delivering both the heat and visible light. *[0275] "In an embodiment of the FAML the infrared radiation sources are added to the light source and can work together when necessary to provide heat and light. Thus in a living room fixture where the house heating has been turned down to energy saving levels an individual can receive concentrated light for reading as well as concentrated beam of infrared heating."* Even if the Examiner views light sources as heat sources, they are the same light functionality, the same "art". This novel and beneficial combination of two functionalities is a unique inventive step as the expensive camera vision system is now providing for simultaneous functionalities needed in the same space by the same or different individuals. The applicant submits that it would not have been obvious to one of ordinary skill in the art of either heating or illumination at the time of the invention to develop the presently claimed combinational and new use device and the applicant requests that claim 26 be allowed.

Conclusion

The applicant has revised the objected claim and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the

undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

/ Yechezkal Evan Spero/

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September 23, 2015

Electronic Acknowledgement Receipt

EFS ID:	23585850
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
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Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	Reply_NF_OA_06-23-15.pdf	246193 e9c060c482968300ed9a63eaa529b618111e47ca	no	29

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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Wednesday, September 23, 2015
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Office Action dated June 23, 15

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **Sept. 23, 2015**.

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed June 23, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions, the light sources having at least one of controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (currently amended) The illumination device of claim 6, <u>where one or more light sources are directional</u> wherein the one or more detectors are configured to

sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

10. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

12. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

13. (Original) The illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

14. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

15. (Original) The illumination device of claim 8, further comprising at least one

of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

16. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

17. (Original) The illumination device of claim 16, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

18. (Original) The illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

19. (Original) The illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

20. (Original) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information to a controller; a where said controller for adjusting

adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

21. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

22. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

23. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

24. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

25. (Original) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

26. The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1: Claim Rejections - 35 USC § 1 12(b): distinctly claiming the subject matter … Claim 7 recites the limitation "...intensity of the directional light sources". There is insufficient antecedent basis for this limitation in the claim. Independent claim 6 recites "one or more light sources incorporated in the light structure." The Examiner interprets claim 7 as reading "one or more light sources incorporated in the light structure" as recited in claim 6.

The Applicant has amended claim 7 and a marked up version with the words "where one or more light sources are directional" to better claim the glare reduction feature disclosed in the specification. An example of a preferred embodiment is described in [0249]: *In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system comprised of the digital camera 429 and logical controller 428 having computer algorithms for performing computer vision and has the capability of identifying the eyes of occupants in a room* and is *… capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.*

In reply to point 2: Claim Rejections - 35 USC §103(a) which forms the basis for all obviousness rejections … Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) … and further in view of Amerson (US 6,379,022)..

To point out the non-obviousness, the applicant presents an informal introduction to help better understand the innovative aspects of the device claimed able "to meet an illumination requirement of an illuminated area" of the present disclosure. In prior art, to illuminate an area correctly and efficiently (see para. [0009] for definition of "correct") a human designer in a calculated design process, knowing the distances and the angles from the light fixture to the surfaces to be illuminated and using the defining laws of physics, Lambert's-Law and the Inverse-square Law, $E = \frac{I \cos\theta}{D^2}$ arranges light-sources relative to the surfaces to be illuminated. These light-sources have a pre-defined spatial light distribution and are placed in the room at specific locations to correctly meet expected illumination requirements for the visual tasks typically carried out in the specific area to be illuminated. Based on this combined spatial and visual tasks knowledge and in addition, knowledge of the intended room usage such as the age, sex, personal preferences of the users, the colors of the furniture placed therein etc. a designer can adjust light source placement, intensity, spectrum, and angle of incident light to achieve a more correct illumination. Because surface illumination varies with the distance

squared from the light source, is very difficult to achieve high light-utilization efficiencies using prior art monolithic light sources and most often, near the light fixtures there is a greater illuminance intensity that what is required while furthest away, there is a deficiency and the lighting in not "correct".

Each sub-area in a room can have its specific use and optimal illumination level. This task lighting requirement is served today by having a separate light fixture e.g. table lamp, or spot from above and a manually adjusted dimmer to meet changes in the local illumination requirements. Most room lighting applications require a combination of general and task lighting. As opposed to area or task lighting, in a point lighting application such as for camera flash or stage lighting application, the lighting is pointed at the object to be illuminated and has different considerations.

However, in the real world, light usage is dynamic and theoretically, to do it right, a designer would need to be on the scene to see the immediate lighting requirements and rearrange the light source aiming's, intensity spectrum etc. to meet the changes. While an advanced system (per Morgan) could use - networked sensors to detect the occurrence of an event, such as a change in the environment or occupancy and communicate (per Lys) to a networked plurality of LEDs in a "three-dimensional structure 4024" - to alter the illumination, it would still not substantially improve on meeting the actual illumination requirements unless it was controlling correctly arranged light sources. Even if those light sources were (per Amerson) arranged to provide an adjustable color temperature they would not produce spectrally correct illumination to meet an illumination requirement for an area (for a non-area, spot lighting application, yes, but to correctly illuminate an area where the distance and the angle to the surfaces from the LED vary, no)

A more accurate and convenient light fixture system based on actual room-occupant location and usage would use sensors to provide information to a processor running algorithms to determine the occupant's illumination requirements in real-time and correctly drive properly arranged light sources of controlled light distribution to provide the correct illumination that is required to fulfill those requirements. The first inventive step is to use more than one spatially differentiated light source to correctly illuminate each sub-area. The second inventive step would be to have spatially differentiated sensors to obtain the necessary information to grant the processor knowledge necessary to determine the requirements of each sub-area and a third non-obvious step would be to program the processor to "know" which light source illuminates that area (versus another sub-area that it does not illuminate) and to power it as necessary to meet the illumination requirement for that area. Each inventive step generated the need for the next step where the solution was not obvious. In some cases at the outset, the necessary technology did not exist and certainly, the combination of steps necessary to yield this unique resulting functionality could not have been foreseen by one of ordinary skill in the art. Only in

hindsight, is it apparent that the claimed device, comprised of a unique combination of hardware and software, actually mimics best lighting practice as performed by a human designer it in real time. The applicant below will show that the mere combination of the cited prior art patents would not lead to the apparatus nor functionality of the claimed device.

Therefore, the disclosure of a sensor controlled illuminating device that: a) has at least two light sources, arranged such that each light source illuminates a different area of the room and where b) that sensor has spatially differentiated detection means and c) where the processor running code uses the detected information to "know" the area of the room that requires a specific type of illumination versus those that do not require that illumination and d) the processor, using instruction sets, then "knows" which of the "directional-light-sources" deliver light to the area to be illuminated and then e) the processor using code determines the intensities to drives those specific sources to obtain the specific, localized-effect, so as to fulfill the sensor detected illumination requirement according to best practice – surely comprises a non-obvious, new to the world device. A device capable of differentiated delivery of energy or mass within a room, synergistically equipped with a sensor such as a camera capable of providing location coordinate information to a processor to operate localized delivery, (versus the prior-art's, non-spatially-differentiated sensor and light delivery apparatus) provides unpredictable functional and/or energy saving benefit well beyond a combination of prior art systems.

More specifically: regarding Claims 1 and 3 are rejected ... as being unpatentable over Morgan in view of Lys the applicant respectfully points out that, although per Morgan (abstract) the "Individual light sources or groups of light sources may be controlled independently of one another based on data transported throughout the network from sensors", and in view of Lys, Fig. 28C para. [0206] "the modular LED unit 4000, may be flexible, so as to permit the light module 4002 to conform to an environment within which it is placed" do not disclose the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the effect to an *illuminated area* as is disclosed numerous times in the specification. For example, Fig 12 is described: [0183] *The adaptive or intelligent DLF 190 shown in FIG. 12 has multiple light sources 191 placed about the body 192 having a geometric shape... a photodetector array which is equipped with a lens which can be a 360 degree lens or a fisheye lens is placed with a field of view of the area to be illuminated. ... such that an asymmetric lighting pattern is produced for the provision of a non-circular lighting pattern in a typically rectangular room; and [0184] Spatially differentiated motion detectors.* Therefore, without disclosing a geometrically coordinated sensor Morgan in view of Lys would not teach towards the inventiveness of the present invention in Claim 1.

For illumination to reach an area to be illuminated in a substantially required amount (just not some approximation but a design goal) its directionality of light distribution would need to be known and it would need to be positioned and aimed at that area and when there are more than one light sources the controller would need to "know" which light source under its control illuminates what area. The *directional light sources*" of Claim 1 per Spero [0280] has the *"capability of delivering spatially differentiated illumination".* Again, nowhere within the disclosure does Lys' device teach the physical requirement of Claim 1 in order to derive the desired controllable lighting effect*:" to meet an illumination requirement of an illuminated area ... a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions".* The unplanned placement of Morgan's light sources of Fig. 1-3, and Lys' in Fig. 28C while uniquely addressable, are not physically arranged to produce any degree of an area-specific illumination which must follow Lamberts Law in relation to the angle and distance of the surface to be illuminated. In the present disclosure the system's manually and even automatic spatial ascertaining capability is described as how the controller will "know" which local area each of the multiple light sources illuminates. *[0196] In a preferred embodiment, using pattern recognition techniques ... An automatic routine as in 7A uses timed firing of a coordinate-specific light source, or array of light sources and the following reading of the camera detector of light reflected to that specific coordinates pixel, or set of pixels to corroborate action between light sources and the detectors.* Without this spatially differentiated sensing and delivering capacity and the novel corroboration of the area sensed with the area served by the directional light source, there is no way an inferred Morgan in view of Lys system could perform as Claim 1 and Claim 3. In Claim 3, *the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.* This inventive step, where on the fly a system can sense a sub-areas specific requirement and coordinate it to an illumination delivery device that illuminate that area according to a new requirement is clearly missing from the Morgan in view of Lys disclosures.

In the present disclosure the light fixture has [0054]) *...one or more discrete light sources in an integrated illuminating element where the overall lighting effect is the result of the combination of these multiple sources.* Instead, Morgan, Lys and other prior art, deal with either: 1) monolithic general lighting or 2) spot lighting concepts. It can be noted that even where there are multiple light sources, a) they often cover the same area, as do Morgan's light sources of Figs. 1-3, or b) the separate sources are arranged such that there is an uncontrolled melding of light from one light source with that of another. That is, the effect of the light sources is not substantially exclusive to an *illuminated area* within a room. In the referenced spot lighting concepts, which provide accent to a specific stage performer or features in the room the individual spots are not arranged to combine build

an overall room illumination. Nowhere in the disclosure do either Morgan or Lys mention the inventive step of controlling an area-specific illumination effect by using *directional-light-sources* that have a focused, localized or directional aspect. Such a teaching is, a prerequisite for the novel, spatial controllability of the present inventive device see Fig 2b, allowing it to "meet the illumination requirement of an illuminated area". Instead, Lys' device Figs. 28, other than when used as a spot light will not correctly illuminate an area. To the contrary, for an average illumination requirement, it illuminates areas with greater than needed intensity closer to the light source and less intensity further away. Morgan in view of Lys would illuminate well beyond the localized lighting needed for a detected individual of Morgan. The applicant also suggests that in most probability, Lys' "conform to an environment" statement in para. [0206] is referring to solving an electronics packaging problem, not the illumination requirements of surfaces in the environment. This, as Lys uses a positioner to illuminate the material of interest directly-on angle and light distribution properties are not mentioned in the entire disclosure. Similarly, nowhere in the Morgan disclosure is the word direction, area, aim, spatial distribution or sub-area mentioned and there would be nothing to teach anyone skilled in the art the localization capability of the present disclosure. As there is no teaching or suggestion supporting the combination in the cited prior art references, Morgan in view of Lys should not be deemed obvious and the applicant respectfully requests allowance of the claim.

Regarding Claim 2 is rejected ... as being unpatentable over Morgan in view of Lys as applied to claim 1 above, and further in view of Amerson (US 6,379,022).
Amerson is using the LED light sources to provide an adjustable color temperature. The camera mentioned by Amerson uses the spectrally corrected light for a camera flash function. The only sensor use of the camera mentioned Column 3 Line 17 "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" does not teach towards a spatially differentiated sensing. That is a capability to measure the "current light" in one area of the scene versus measuring the "current light" in a second area of the scene. Therefore, as Amerson's camera is disclosed only as a spectral sensor of the "current light" it does not teach towards the spatially differentiated sensors of claim 2 of the present disclosure. Any practitioner skilled in the art who would want to use a camera to gain the coordinates of the sensed event would need first a spatially differentiated delivery device to want to have a spatially differentiated sensor and computer programs to assess the data. Then they would require apparatus and software to correlate the sensed coordinates to the delivery coordinated. Any suggestion to any of these inventive steps are missing and therefore the present disclosure is non-obvious.

Regarding Claim 4 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Kinjo (US 2002/0046100). The applicant does not claim to have invented

pattern recognition, nor does Kinjo, who is using the information derived from images [0002] to enhance an advertisement effect, by which advertisement contents are switched in accordance with the viewer so as to display an advertisement suitable for the viewer of the advertisement. It should be noted that the application for Kinjo's detected characteristic remains in the virtual world [0010] ... and switching an image displayed on an image display medium in accordance with the first characteristic of the extracted person. This new use for a known pattern recognition process is typical of recent technological advances where "virtual" product development outpaces "physical" product developments which are often more difficult to foresee and implement. In the case of these cited references which primarily deal with control signal and networks would actually teach away from the device because the cost of the added physical device, wiring, networking complexity.

In addition, the prior-art use of image recognition developed security purposes in identifying terrorists was conceptually limited at the time of the disclosure to systems making use of the information for the observers benefit, often at the expense of the person being observed. That is, the information on the observed individual is used by the observing entity for its own benefit be it security or advancing sales. In the present disclosure the pattern recognition is being used by the user themselves to gain a personalized non-virtual illumination benefit per [0051] *A number of unique illuminating device embodiments are achievable using the basic elements presented above...as well as the ability to provide individualized lighting to each person.*

The applicant submits that certainly, a disclosure of a lighting fixture which is able to automatically tailor the illumination to the person it is illuminating for, is a case of an improvement patent. The applicant submits that this new development would not be obvious to a "person of ordinary skill in the art", even if that person had prior knowledge of all the documentation available in the world at the time of the application in the many different arts that are needed for this device to be constructed to produce the desired result. This is because a "person of ordinary skill in the art", refers to a practitioner of one art, not a practitioner of all the arts. In this claimed novel illumination device, the individual inventor's combination of skills in electronics, programming, artificial intelligence, human factors engineering and lighting science that need to be combined in order to contrive a machine capable of automatically illuminating in accordance with good lighting practice is non-ordinary.

In addition regarding Kinjo's use of personal characteristics for advertising it is claimed that [0196] *the addition of a machine vision system with pattern recognition capabilities as is known in the art,* combined with a physically differentiated lighting apparatus with using skills of multiple arts qualifies under 35 U.S.C. 100(b) as a new use of a known process, machine, manufacture. The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to

combine the relevant prior art teachings to the new use of the known processes in the manner claimed. To conclude, there is nothing in the cited prior art of Morgan or Kinjo that would have incited towards the concept of a pattern recognition based processor knowing data controlling and correctly controlling an illuminating device. As stated by Winner Int'l Royalty Corp. v. Wang, 202 F.3d. 1340, 1348 (Fed. Cir., 2000), there must be a suggestion or teaching in the prior art to combine elements shown in the prior art in order to find a patent obvious.

Regarding Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475).
The applicant argues that the claimed area-specific food-illumination system for use in dynamic settings such as restaurants for *optimally displaying food,* is not obvious from the prior art for the illumination objects in a display case. From the specification: [0282] *The lighting fixture 490 has means to illuminate separate portions at a table comprised of directable or aim-able lighting modules 491. The lighting fixture 490 also has computational means of providing the optimal color and intensity of light so as to render people, food, objects in their best light as well as to build a dining room ambience through lighting according to recommended practice or user preferences.* Zampini in his disclosure for a solution states: [0007] The present solution described herein provides systems and methods to coordinate and control the lighting of areas of a display . The area inside the case is fixed and is not dynamic in terms of persons, objects and activities carried out. Zampini's detector is not spatially differentiated such as a multi-pixel photodetector array capable of producing coordinate information necessary for a room illumination system able to focus on a food and render it under optimal lighting. And again, Zampini does not disclose the corroboratory area sensing and delivery routine necessary to have an imaging detection routine drive a specific light source to illuminate food on a restaurant table located anywhere in the room. The present disclosure can identify and illuminate anywhere in the living space and not just in a display case which is a totally different lighting application. Regarding Bolle who describes an apparatus that uses image processing to recognize objects such as produce within a scene which is indeed pattern recognition prior art that the disclosure relied upon. The combination of the cited references would not suggest the presently disclosed robust system of Fig. 26. Its unique structure offers a complete restaurant lighting application solution where: *[0280] As an example of the luminaire's benefits and agility to provide correct lighting where it is needed at minimal energy consumption, an embodiment of the invention, a spatially and spectrally adjustable restaurant lighting fixture is presented in FIG. 26. In a restaurant lighting application it would be beneficial for the customer experience if those dining, the food and ambience would all appear at their best.* The present application discloses a complete solution beyond the simple display and food recognition application by operating area specific within a larger area comprising people as well as food and other

objects each identified for its optimal illumination. Thereby, the camera based system is uniquely capable of illuminating food within a living space which an application not taught by the combination of cited references.

Regarding Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022).

The applicant respectfully differs with the examiner's interpretation of the term camera used throughout by Amerson and instead sees it once used as a light sensor column 3, line 18, to control the instantaneous color temperature of a camera flash that does not teach towards an area illumination application. Amerson describes in the Field of the Invention, column 1 lines 6-8 "The present invention relates generally to digital cameras and more specifically to an auxiliary illuminating device that has an adjustable color temperature". One will note that even in the days of film cameras, the camera used a light meter to control the flash and using it to detect spectrum is a stepwise improvement. The applicant views the present disclosure as a further significant inventive step moving from the camera of Amerson , column 3, lines 17-26 …. "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" to the multifarious camera of claim 6 used to supply information to a *"controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area".*

Amerson's illumination is point illumination for a specific digital camera lighting application and is not expanded by Morgan's networked sensors beyond that functionality. One must note that in a flash application the user points the camera at the limited scene to be captured by the camera. The flash will not evenly cover an area larger than the limited field of view. However, in a room illumination application with a fixed sensor placement the processor program to efficiently *"automatically control the light provided to the illuminated area"* must be arranged and programmed to obtain pertinent information from the area to be illuminated.. This is disclosed in the specification for example in an embodiment: [0184] *Spatially differentiated motion detectors…. The DLF controller acts to provide heightened lightning to the occupants' present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area.* Even had a camera sensor technique been used to improve the camera flash, a person of ordinary skill in the art of illuminating for cameras would not recognize that it could improve area lighting devices in the same way, as an area based algorithmic processing step would also be needed, a step whose actual application would be beyond their ordinary skill. The applicant therefore traverses the claimed obviousness as there is no provision or suggestion in either of the cited references for "*said controller arranged to processes the information communicated from the camera".*

Regarding Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022) as applied to claim 6 above, and further in view of Chang (US 2002/0039238).

The applicant respectfully points out that Chang uses a detector of radiation on the rearview mirror; as per paraa. [0005] Accordingly, the primary object of the present invention is to provide a vehicle automatic anti-glare device, wherein a rear-view mirror is provided for which automatically blocks out glare, in accordance with the intensity of the light cast upon the mirrors. Nowhere in Chang's disclosure is sensing the existence of glare reaching the eyes mentioned. The word eye does not appear in the entire specification and there is nothing in the combination of the cited references to teach to a system of the present disclosure which *[0249] In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system.... The camera vision system is capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.* Chang's simple system actually teaches away from the use of an expensive camera to determine the disturbing glare event via the rear view mirror. Thus in a non-obvious development, the very same logic system which controls an illumination device that helps people to see as well as creating glare now has been configured to be able to illuminate without glare. This is a radical improvement over prior art and there is no teaching, suggestion, or motivation in the cited references that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner of claim 7. The applicant thus respectfully request allowance of claim 7.

Regarding Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022).

Claim 8 and its dependents are referring to an invention (an example of which is disclosed in Fig. 24 and in the specification) of an automated illuminating device capable meeting *illumination requirements of the visual activities.* Disclosed in para. *[0273] In another embodiment one or more light sources, acting as a spot light 482 of limited beam angle... The controller 454 receiving input from the camera and using computational image recognition algorithms in a program as in FIG. 23 ....where computer vision is used ... recognize activities as they happen in real-time which enables the controller to determine any of the following: a change in the persons activity, in what direction the eyes may be directed, what objects the person is viewing and what visual task the person needs to perform. Based on that information the controller 454 powers the spot light sources 482 and general lighting sources 472 to provide the correct lighting for the specific visual task undertaken, be it reading a book or watching TV.* The applicant points out that Mogan discloses a (title) Methods and apparatus for controlling devices in a networked

lighting system. In a thorough reading of the Morgan patent application the applicant could not find any reference to the directional light sources (paragraphs 0019-0020) or a processor (Fig. 2, at 22) with stored algorithms (paragraph 0040) or any equivalent apparatus to recognize and deliver activity specific illumination per Claim 8 "visual *activities... said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities*. Again, a thorough reading of the Lys and Amerson patent applications finds no description of a device that can calculate *required illumination parameters* per detected visual activity. In Lys, even the re-positionable light fixture having movable structure for aiming the light sources mounted thereon in a defined direction (e.g. Fig 90A, at 2010, paragraphs 0325-0326) is typical of point lighting applications with the addition of sensed data controlling the positioning device. It does not teach towards the apparatus of Claim 8 where the applicant discloses *at least two directional light sources pointing in different directions* a necessary criterion for a novel, automated combined task and area illuminating system which is a different illumination art operating under a different set of defining equations.

As the disclosed system as claimed has spatially differentiated detection, calculating means and spatially differentiated delivery of illumination and none of the cited reference teach any of those necessary features necessary to fulfill *illumination requirements of the visual activities.* The applicant respectfully submits that the present invention is totally unpredictable under the prior art references. Therefore it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17- 26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33) and Claims 8-17 should be allowed.

Regarding claim 9 Morgan further discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (e.g., paragraphs 0020-0023). While Morgan states in [0023] According to one embodiment of the invention in which one or more sensors are employed, a networked lighting system may be implemented to facilitate automated computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. For example, automated lighting applications for home, office, retail environments and the like may be implemented based on a variety of feedback stimuli (e.g., changes in temperature or natural ambient lighting, sound or music, human movement or other motion, etc.) as shown earlier Morgan does not illustrate nor disclose apparatus for spatially differentiated detection or illumination resulting from direction light sources of Claim 8 where the illumination result is more functionally correct, convenient and energy saving. An example of this disclosed in the specification para. [0265] *In a preferred embodiment of the invention the logical controller 454 receiving image input from the camera 453 and running pattern recognition software will identify what is the visual task a person is*

trying to perform. The computer routine receives images from the camera and by determining the proximity of persons to objects such as books, newspapers, computer screens, telephones, televisions, cereal bowls, a writing pad, etc that are recognized by the computer vision techniques predicts what visual task the user is trying to perform. The logical controller 454 then drives the light sources 457 according to recommended lighting practice levels stored in its data storage. ... Unique to this invention, people are able to choose the lighting that suits them best and the fixture, having differentiated light delivery, can provide a first user with one type of chromacity and/or intensity and a second type for a different user in a different area.

The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 9 should be allowed.

Regarding claim 10 Morgan discloses the illuminating device ... Lys discloses an adjustable by an installer based on room geometry... to conform to an environment (Lys, paragraph 0206). Amerson .... Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) .... using image recognition capability, directs the controller to adjust ....

The applicant has stated above in arguments for claims 1-9 the difference between a networked system that uses a camera as a light sensor for a scene for use with a single point flash light source (vs. area illumination) which is a different art with a different information set needed to automatically solve the defining equations. As far as the to conform to an environment of Lys, as there is no spatially differentiated illumination device described as well as no image recognition capability in Amerson such that the present disclosure functionality and structure would not be obvious. As can be seen from an example of the needed considerations for an area lighting application as claimed, cite the specification: [0267] *Yet another feature of the present invention logical controller and software is that the lighting fixture 450 has apparatus to check the illumination level of the lighting set-up upon installation and provide feedback so that manually made aimings are directed to obtain a desired illumination or luminance. The camera 453 serving as a light meter obtains luminance readings on surfaces in the living space. It inputs data to the controller 454 which provides readout either on a display on the FAML 450 or communicated to another device having a display. The installer using a calibrated reference reflective sheet of known color and reflectance values placed on surfaces at particular aimings will check if the desired illumination and chromacity is being provided. The reference sheets can also be used to calibrate the room surfaces for future camera sensor 453 readings by storing in 454 the actual surface readings vs. those of the reference sheet. Once the camera 453 is calibrated as to the reflectance and color of room surfaces the FAML 450, in a servomechanism enabled embodiment, with automatically movable light sources 457, will perform its own re-configuration to reach optimal light provision. The calibration is affected by using the camera array 453 to*

detect luminance as a measure of the lighting fixture instantaneous illuminance in that direction vs. the power level at which the light source is being driven. To calibrate the illumination system, the logical controller 454 can use a given LED installed on the fixture which serves as a light source standard when driven at known voltage and current. Alternately, an additional light sensor of superior accuracy stability is provided for in the sensor pack 453 and can be used to calibrate the camera sensor array.
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 10 should be allowed.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

Regarding claim 11 Morgan further discloses the illumination device of claim 8. Morgan does not disclose wherein the controller receives real time information ...Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) and wherein the processor (column 3, lines 14-25), using image recognition capability.
As the applicant has shown above in claims 1-10 there is no mention in Amerson's cited reference of image recognition routines. (column 3, lines 14-25), "For the array of LEDs to simulate the color temperature of the ambient light, the type of illumination to be matched must be known. One way is for the user to select the type of lighting from a list of choices. Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination. Once the type of illumination to be matched has been determined, the amount of light coming from each set of color LEDs is adjusted such that the total amount of light coming from the LED array is a calorimetric match to the ambient illumination source. Each type of ambient light source would typically have a different ratio of light coming from the sets of color LEDs. The inventive step regarding Claim 11 may be seen in the disclosure: *[0196] In a preferred embodiment, using pattern recognition techniques the ADLF 190 is semi or fully automatic in programming itself to correctly function where installed. The DLFs or ADLFs will adapt to the seating arrangement of room occupants* ***in real time****. In the preferred embodiment, the addition of a machine vision system with pattern recognition capabilities as is known in the art, easily deduces room occupancy and usage.*
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 11 should be allowed.

Regarding claim 12 Morgan ... Lys discloses at least one of the directional light sources mounted on the movable structure ...in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206). The applicant points out that Lys is conforming to a geometrical environment in terms of the illuminating deviceas stated in para.s [0209]-[0246] a" Another such environment" and again in [0251] "In fact, the housing 703 could take any geometric configuration appropriate for a particular illumination or display environment" and not a geometric environment or visual task as it related to illumination. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 12 should be allowed.

Regarding claim 13 Morgan further discloses the illumination device of claim 12, providing a different illumination to a sub-area... based on usage wherein the controller interpreting images (paragraph 0019).
The Applicant quotes Morgan [0019] "Accordingly, one embodiment of the present invention is directed generally to networked lighting systems, and to various methods and apparatus for computer-based control of various light sources and other devices that may be coupled together to form a networked lighting system. In one aspect of the invention, conventional light sources are employed in combination with LED-based (e.g., variable color) light sources to realize enhanced lighting effects. For example, in one embodiment, one or more computer-controllable (e.g., microprocessor-based) light sources conventionally used in various space-illumination applications and LED-based light sources are combined in a single fixture (hereinafter, a "combined" fixture), wherein the conventional light sources and the LED-based sources may be controlled independently. In another embodiment, dedicated computer-controllable light fixtures including conventional space-illumination light sources and LED-based light fixtures, as well as combined fixtures, may be distributed throughout a space and coupled together as a network to facilitate computer control of the fixtures." The applicant fails to discern any sub-area capability of Morgan's devices. In the present disclosure it would refer to a capability of direction light sources to illuminate in a sub-area where an occupant may be located vs. an illumination in the rest of the room. Per an example from the specification *[0184] Spatially differentiated motion detectors 200 are provided on the Adaptive Digital Lighting Fixture along with the light sources 191 and light sensors 196. Typically motion detectors have been associated with lighting in motel rooms to shut off the lighting if there is no activity. There is another level of control that can include matching the lighting to type and amount of activity. Taken to the extreme, one or more limited field-of-view motion detectors 200, or camera 197, can be used to follow the whereabouts of room occupants. The DLF controller acts to provide heightened lightning to the occupants" present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area. .* This is especially evident unless the use of non-monolithic directional light sources are indicated. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited

prior art teachings to construct the disclosed device and therefore Claim 13 should be allowed.

Regarding claim 14 Morgan further discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph 0018 - the Examiner interprets "outdoor environments" as reading on this claim).
The applicant traverses the rejection based on the fact that the networked light sources of Morgan are not taught as being directional and being capable of illuminating in substantially different directions. Neither is there a spatially differentiated a camera sensor nor a processor with algorithms for detecting objects. An example of such a device from the specification backing the claim is *[0203] When artificial intelligence methods known in the art is combined with the fine control and functional flexibility of the DLF additional advantages are realized. A detector or camera 258 in concert with a logic controller 246 is capable of providing the road lighting needs to a driver or group of drivers in according to the time of day, needs of the roadway layout and usage at any moment.*
If the examiner's rejection is based on 35 U.S. Code § 102 – Novelty, the applicant submits that Morgan as prior at does not read on claim 14 and the applicant respectfully request its allowance. If the rejection is based on obviousness the applicant submits respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 14 should be allowed.

Regarding claim 15 Morgan... Lys, paragraph 0206).
The applicant has shown in arguments regarding claim 8 above that Morgan, while having more than one light source does not teach towards spatially differentiated sensors and illumination so as to provide concurrent general and task lighting thereby substantially meeting the "*illumination requirement of an illuminated area*". An esoteric illumination example is brought from the specification *[0251] Actual vision and perception is not only a function of the illuminance falling on the object being observed but also of the luminance of surfaces in the surround, spectral distributions of the object and background and the general illuminance level to which the eye has adapted. Veiling luminance and veiling reflections may even be as interfering so as to disturb the ability to see. Described is a method of using the an embodiment of multiple light source lighting fixture of the present invention with finely controlled light delivery to assist people to better see objects or carry out visual tasks such as reading. The method comprises altering the intensity and/or color of the illumination delivered to the task versus other surfaces in the visual surround (that is they are in the viewer's field of view) such that the luminance of the object, the luminance of the background, the contrast and the veiling reflections are controlled so as to produce optimal vision conditions. To accomplish the spatially differentiated light delivery to the object of the visual task such as a book or*

computer screen the light sources to produce task lighting have multiple, narrow beams with minimal spill light. The limited coverage area of each beam and sharp cutoff is such that the lighting fixture controller can target a book while not substantially illuminating the desk. Other light sources illuminate the desk and other surfaces in the visual surround at an optimal background level luminance. The background level is determined by factors such as whether it is an office environment where others are present and a dark office is unpleasant or if the reading is at home and a lower background can be tolerated. .While Lys does show a moveable spot light source it is also not in conjunction with other spatially light sources nor is there disclosure of a spatially differentiated sensor and controller with the necessary processing. The applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys and therefore respectfully requests the allowance of claim 15.

Regarding claim 16 Morgan discloses the illumination device of claim 8. Lys discloses a controller (Fig. 90A, at 2012) with communication capability to other devices ... process the information and communicates the camera obtained information to a second device (paragraphs 0326-0328).

The applicant read but could not find the inter lighting-fixture camera-data communication-functionality disclosure for Lys' "robotic camera" in the referenced paragraphs or anywhere else in the disclosure. However, even if it did mention one, it would not teach towards the present invention's gainful illumination delivery usage of the communications anyway as shown in an exemplary embodiment *[0192] According to the teachings of the present disclosure, the room lighting needs are provided by one or more DLFs or ADLFs including satellites or combinations thereof placed such that they are capable of providing lighting at the correct non-glaring angles for the lighting tasks at hand. The ADLFs and DLF can communicate with each other and an ADLF can control a DLF and vise versa so that level lighting is accomplished in the room. Two or more DLFs can share in the illumination requirements of a location located between them. The DLF turns off its illumination towards a specific location, reads the ambient luminance and then correctly powers the SLS to provide the additional illumination.* The communications requirement is unique as a result of the controlled light distribution resulting from the directional light sources arranged to illuminate a local area. The independent illumination capability of each fixture would require such a communication of spatially differentiated sensor data which as has been pointed out is lacking from the Morgan and Lys disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary

skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 16 should be allowed.

Regarding claim 17 Morgan as modified further discloses the illumination device of claim 16 Lys discloses where the illuminated area is a road (paragraph 0245) and where the second device to where the camera obtained information is communicated to is a lighting fixture (Fig. 90A, paragraphs 0326-0328).
To better understand the difference between the Morgan and Lys prior art and the present invention the applicant quotes from the specification: *[0203] ....In an alternate embodiment the roadway lighting can be dimmed if there are no approaching vehicles. The detector or camera 258 is capable of detecting oncoming and retreating traffic. The headlights and backlights are used or more sophisticated pattern recognition is used to determine traffic on the roadway. ...Taken to the extreme the controllability of the DLFs or series of communicating DLF street lights allows for the lighting to precede the vehicle by the stopping distance, say 300 ft. at 65 MPH (91 meters), and dim the unused lighting behind the driver if it is not necessary for other drivers.* In its own right the use of image processing to illuminate before a driver but not behind them thereby saving energy is a novel development and cannot be imagined from either of the disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 17 should be allowed.

Regarding Claims 18-19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) as applied to claim 17 above, and further in view of Lemelson (US 5,983,161).
Regarding Morgan and Lys the applicant has explained in claims 16 and 17 why they would not teach to the present disclosure. Regarding Amerson the applicant has explained in claims 2 and others regarding the specific flash usage of the sensor. Regarding Lemelson "discloses where the processor uses information obtained from the cameras and exchanged between fixtures." The applicant has read Lemelson (US 5,983,161) titled: GPS vehicle collision avoidance warning and control system and method. The camera is mounted on a vehicle and not a light fixture; column 20 Lines 55-56, A television camera(s) 54 having a wide angle lens is mounted at the front of the vehicle. Communication of traffic data between vehicles used for traffic vehicle avoidance is a totally different art as explained above regarding obviousness in claim 4 above. Regarding claim 19 the concept of real-time lighting and illumination control is not mentioned in the paragraphs cited and where it is mentioned it refers to a GPS location based lighting of the vehicles

healdlamps. In the entire disclosure and the word "glare" does not appear anywhere and therefore Lemeoson's GPS vehicle collision avoidance warning and control system cannot teach towards the present disclosure .
The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the relevant prior art teachings to the new use of the known processes in the manner claimed. As there is nothing in the cited prior art of Morgan in view of Lys in further view of Amerson as applied to claim 17 above, and further in view of Lemelson that would have incited towards the concept of a sensor based processor in a lighting fixture "knowing" visual task data and correctly controlling a multiple directional light source illuminating device, the applicant requests that claim 18 be allowed.

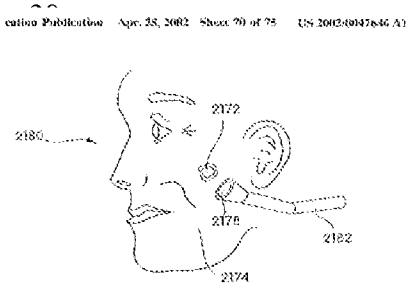
Regarding Claims 20-26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646)… claim 20 Morgan discloses an automated irradiating device for providing radiation to individuals within an area. The applicant submits that Morgan is referring to a radiation device para. 0023 in the visible light spectrum used for seeing and not heating. [0023] … computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. Lys discloses a light fixture including a multiplicity of directional light sources. The applicant finds no spatially differentiated sensor or computational mechanism in Lys that would allow his light source to provide "radiation in a sub-area proximate to the individuals" and certainly not for a heating application. From the present disclosure one example of the heating application shown in Fig. 23 is *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. The heat radiation sources can be infrared filament lamps or infrared LEDs in addition to other wavelengths. The irradiating devices 472 mounted on the irradiation fixture can provide general area heating or spot heating 482 to people or objects.* Another is *"[0246] Light entering the digital camera 429 through its lens 427 is converted into electric signals… The processor runs the computer vision routines to determine an occupants age or sex and sends instruction to a building's utility devices to provide individualized services such as heating and lighting on basis of age or sex.* Therefore, it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) and the applicant requests that claim 20 be allowed.

Regarding claim 21 Morgan as modified discloses … Lys discloses: the detector being a camera (paragraph 0327) with capability for sensing at least one of … The applicant has read Lys

[0327] An embodiment of the illumination system can be used for taking photomicrographs. In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. Different lighting conditions can have a dramatic effect on such vision systems. permits a higher resolution by the robotic camera of the image required for robotic vision", the applicant submits that Lys is not using the camera as a detector but an alternate use for the "Lighting entertainment system" to "improve the quality of robotic vision applications" Therefore, as Lys does not teach towards a "sensing detector" and it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding "sensing detector" (Lys, paragraph 0327) and the applicant requests that claim 21 be allowed.

Regarding claim 22 Morgan discloses and Lys discloses one or more directional radiation sources capable of being moved …
The applicant submits that in order for Lys's device, Fig. 90 to track a moving individual in the room there would need to be a camera detector with said camera detector providing coordinate data to a processor running algorithms to follow or track the individual around the room. As this is missing from Lys's disclosure as explained in claim 21 the applicant submits that claim 22 is not obvious and asks that it be allowed.

Regarding claim 23 Morgan discloses, Lys discloses directed at the different parts of the body (paragraphs 0309, 0362).The applicant submits that the presently disclosed system is not similar. As claimed, it is able "*to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body*". From Fig. 24 and specification *[0274] … The camera and controller processor system can use image recognition to identify parts of the body and the controller can provide a different radiation level to the head vs. the rest of the body. Other people feel the cold in the legs etc.*



The cited Fig. 94 from Lys shown to the right clearly shows that it is referring specifically to a single irradiation device which is designed to perform on a predetermined part of the body. The applicant points out that nowhere in the Morgan or Lys disclosures is there any description of multiple spatially differentiated radiation delivery sources controlled by a processor running algorithms to analyze data from a spatially differentiated sensor, aka camera, *to identify parts of the body*. As these capabilities are missing from the referenced disclosures as explained in claim 21 and in preceding claims, the applicant submits that claim 23 is not obvious to one of ordinary

skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys and asks that it be allowed.

Regarding claim 24 Morgan further discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory, and (iv) commands input from an input device (paragraphs 0016- 0024).

The applicant first explains what claim 24 is referring to by quoting an exemplary embodiment from the specification *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. Using face recognition algorithms and stored personal preferences from the data storage, the logical controller 454 will aim the heating rays specifically where on their body they prefer to be heated as well as in what amount and at what times. The camera 475 has sensors sensitive to infra-red wavelengths around 12 μm (micrometers) radiated from people. The controller obtaining the information from the body temperature sensor will run algorithms to calculate radiation parameters and will control the irradiation in time and intensity on the individual to maintain comfortable heating per best practice standards, drawing on stored data of heating practices, or personally input preferences.* The applicant submits that in the Morgan disclosure the word "heating" is not to be found (heat is found 3 times in reference to a heat sensor but there is no reference to a device for providing heat). As in addition, Morgan has not disclosed the computer vision hardware and logic system of claim 24 nor the heating application, the applicant respectfully submits that the claim should be allowed.

Regarding claim 25 Morgan discloses the irradiation device of claim 21. Morgan also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (e.g. paragraphs 0016-0024).

Lys discloses where the irradiation instead of for heat is for therapeutic purposes

The applicant respectfully submits that as explained above in claims 21, 22, 23 Lys does not show or describe a system capable of identifying the location of the individual "where the controller aims the radiation sources to the location where the individual is located" Lys has no spatially differentiated sensor or processor running image recognition programs. (Lys in [0327] mentions robotic vision in terms of illumination "...In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. As explained in claim 2 Morgan does not teach towards spatial differentiation and has no idea where in area an individual is located to aim anything towards them.

Therefore, the applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy in order to improve a patient's health or well-being. The applicant respectfully submits that claim 25 should be allowed.

Regarding claim 26 Morgan discloses ... the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraphs 0016-0024).

The applicant respectfully submits that the novel system is capable of concurrently delivering both the heat and visible light. *[0275] "In an embodiment of the FAML the infrared radiation sources are added to the light source and can work together when necessary to provide heat and light. Thus in a living room fixture where the house heating has been turned down to energy saving levels an individual can receive concentrated light for reading as well as concentrated beam of infrared heating."* Even if the Examiner views light sources as heat sources, they are the same light functionality, the same "art". This novel and beneficial combination of two functionalities is a unique inventive step as the expensive camera vision system is now providing for simultaneous functionalities needed in the same space by the same or different individuals. The applicant submits that it would not have been obvious to one of ordinary skill in the art of either heating or illumination at the time of the invention to develop the presently claimed combinational and new use device and the applicant requests that claim 26 be allowed.

Conclusion

The applicant has revised the objected claim and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the

undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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September 23, 2015

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Wednesday, September 23, 2015
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Office Action dated June 23, 15

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **Sept. 23, 2015**.

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed June 23, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions, the light sources having at least one of controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects, surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the at least one of objects and people using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (currently amended) The illumination device of claim 6, <u>where one or more light sources are directional</u> wherein the one or more detectors are configured to

sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

10. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

12. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

13. (Original) The illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

14. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

15. (Original) The illumination device of claim 8, further comprising at least one

of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

16. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

17. (Original) The illumination device of claim 16, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

18. (Original) The illumination device of claim 17, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

19. (Original) The illumination device of claim 18, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

20. (Original) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information to a controller; a where said controller for adjusting

adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

21. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

22. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

23. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

24. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

25. (Original) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

26. The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1: Claim Rejections - 35 USC § 1 12(b): distinctly claiming the subject matter … Claim 7 recites the limitation "...intensity of the directional light sources". There is insufficient antecedent basis for this limitation in the claim. Independent claim 6 recites "one or more light sources incorporated in the light structure." The Examiner interprets claim 7 as reading "one or more light sources incorporated in the light structure" as recited in claim 6.

The Applicant has amended claim 7 and a marked up version with the words "where one or more light sources are directional" to better claim the glare reduction feature disclosed in the specification. An example of a preferred embodiment is described in [0249]: *In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system comprised of the digital camera 429 and logical controller 428 having computer algorithms for performing computer vision and has the capability of identifying the eyes of occupants in a room* and is *… capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.*

In reply to point 2: Claim Rejections - 35 USC §103(a) which forms the basis for all obviousness rejections … Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) … and further in view of Amerson (US 6,379,022)..

To point out the non-obviousness, the applicant presents an informal introduction to help better understand the innovative aspects of the device claimed able "to meet an illumination requirement of an illuminated area" of the present disclosure. In prior art, to illuminate an area correctly and efficiently (see para. [0009] for definition of "correct") a human designer in a calculated design process, knowing the distances and the angles from the light fixture to the surfaces to be illuminated and using the defining laws of physics, Lambert's-Law and the Inverse-square Law, $E = \frac{I \cos\theta}{D^2}$ arranges light-sources relative to the surfaces to be illuminated. These light-sources have a pre-defined spatial light distribution and are placed in the room at specific locations to correctly meet expected illumination requirements for the visual tasks typically carried out in the specific area to be illuminated. Based on this combined spatial and visual tasks knowledge and in addition, knowledge of the intended room usage such as the age, sex, personal preferences of the users, the colors of the furniture placed therein etc. a designer can adjust light source placement, intensity, spectrum, and angle of incident light to achieve a more correct illumination. Because surface illumination varies with the distance

squared from the light source, is very difficult to achieve high light-utilization efficiencies using prior art monolithic light sources and most often, near the light fixtures there is a greater illuminance intensity that what is required while furthest away, there is a deficiency and the lighting in not "correct".

Each sub-area in a room can have its specific use and optimal illumination level. This task lighting requirement is served today by having a separate light fixture e.g. table lamp, or spot from above and a manually adjusted dimmer to meet changes in the local illumination requirements. Most room lighting applications require a combination of general and task lighting. As opposed to area or task lighting, in a point lighting application such as for camera flash or stage lighting application, the lighting is pointed at the object to be illuminated and has different considerations.

However, in the real world, light usage is dynamic and theoretically, to do it right, a designer would need to be on the scene to see the immediate lighting requirements and rearrange the light source aiming's, intensity spectrum etc. to meet the changes. While an advanced system (per Morgan) could use - networked sensors to detect the occurrence of an event, such as a change in the environment or occupancy and communicate (per Lys) to a networked plurality of LEDs in a "three-dimensional structure 4024" - to alter the illumination, it would still not substantially improve on meeting the actual illumination requirements unless it was controlling correctly arranged light sources. Even if those light sources were (per Amerson) arranged to provide an adjustable color temperature they would not produce spectrally correct illumination to meet an illumination requirement for an area (for a non-area, spot lighting application, yes, but to correctly illuminate an area where the distance and the angle to the surfaces from the LED vary, no)

A more accurate and convenient light fixture system based on actual room-occupant location and usage would use sensors to provide information to a processor running algorithms to determine the occupant's illumination requirements in real-time and correctly drive properly arranged light sources of controlled light distribution to provide the correct illumination that is required to fulfill those requirements. The first inventive step is to use more than one spatially differentiated light source to correctly illuminate each sub-area. The second inventive step would be to have spatially differentiated sensors to obtain the necessary information to grant the processor knowledge necessary to determine the requirements of each sub-area and a third non-obvious step would be to program the processor to "know" which light source illuminates that area (versus another sub-area that it does not illuminate) and to power it as necessary to meet the illumination requirement for that area. Each inventive step generated the need for the next step where the solution was not obvious. In some cases at the outset, the necessary technology did not exist and certainly, the combination of steps necessary to yield this unique resulting functionality could not have been foreseen by one of ordinary skill in the art. Only in

hindsight, is it apparent that the claimed device, comprised of a unique combination of hardware and software, actually mimics best lighting practice as performed by a human designer it in real time. The applicant below will show that the mere combination of the cited prior art patents would not lead to the apparatus nor functionality of the claimed device.

Therefore, the disclosure of a sensor controlled illuminating device that: a) has at least two light sources, arranged such that each light source illuminates a different area of the room and where b) that sensor has spatially differentiated detection means and c) where the processor running code uses the detected information to "know" the area of the room that requires a specific type of illumination versus those that do not require that illumination and d) the processor, using instruction sets, then "knows" which of the "directional-light-sources" deliver light to the area to be illuminated and then e) the processor using code determines the intensities to drives those specific sources to obtain the specific, localized-effect, so as to fulfill the sensor detected illumination requirement according to best practice – surely comprises a non-obvious, new to the world device. A device capable of differentiated delivery of energy or mass within a room, synergistically equipped with a sensor such as a camera capable of providing location coordinate information to a processor to operate localized delivery, (versus the prior-art's, non-spatially-differentiated sensor and light delivery apparatus) provides unpredictable functional and/or energy saving benefit well beyond a combination of prior art systems.

More specifically: regarding Claims 1 and 3 are rejected ... as being unpatentable over Morgan in view of Lys the applicant respectfully points out that, although per Morgan (abstract) the "Individual light sources or groups of light sources may be controlled independently of one another based on data transported throughout the network from sensors", and in view of Lys, Fig. 28C para. [0206] "the modular LED unit 4000, may be flexible, so as to permit the light module 4002 to conform to an environment within which it is placed" do not disclose the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the effect to an *illuminated area* as is disclosed numerous times in the specification. For example, Fig 12 is described: [0183] *The adaptive or intelligent DLF 190 shown in FIG. 12 has multiple light sources 191 placed about the body 192 having a geometric shape... a photodetector array which is equipped with a lens which can be a 360 degree lens or a fisheye lens is placed with a field of view of the area to be illuminated. ... such that an asymmetric lighting pattern is produced for the provision of a non-circular lighting pattern in a typically rectangular room; and [0184] Spatially differentiated motion detectors.* Therefore, without disclosing a geometrically coordinated sensor Morgan in view of Lys would not teach towards the inventiveness of the present invention in Claim 1.

For illumination to reach an area to be illuminated in a substantially required amount (just not some approximation but a design goal) its directionality of light distribution would need to be known and it would need to be positioned and aimed at that area and when there are more than one light sources the controller would need to "know" which light source under its control illuminates what area. The *directional light sources*" of Claim 1 per Spero [0280] has the *"capability of delivering spatially differentiated illumination".* Again, nowhere within the disclosure does Lys' device teach the physical requirement of Claim 1 in order to derive the desired controllable lighting effect*:" to meet an illumination requirement of an illuminated area ... a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions".* The unplanned placement of Morgan's light sources of Fig. 1-3, and Lys' in Fig. 28C while uniquely addressable, are not physically arranged to produce any degree of an area-specific illumination which must follow Lamberts Law in relation to the angle and distance of the surface to be illuminated. In the present disclosure the system's manually and even automatic spatial ascertaining capability is described as how the controller will "know" which local area each of the multiple light sources illuminates. *[0196] In a preferred embodiment, using pattern recognition techniques ... An automatic routine as in 7A uses timed firing of a coordinate-specific light source, or array of light sources and the following reading of the camera detector of light reflected to that specific coordinates pixel, or set of pixels to corroborate action between light sources and the detectors.* Without this spatially differentiated sensing and delivering capacity and the novel corroboration of the area sensed with the area served by the directional light source, there is no way an inferred Morgan in view of Lys system could perform as Claim 1 and Claim 3. In Claim 3, *the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.* This inventive step, where on the fly a system can sense a sub-areas specific requirement and coordinate it to an illumination delivery device that illuminate that area according to a new requirement is clearly missing from the Morgan in view of Lys disclosures.

In the present disclosure the light fixture has [0054]) *...one or more discrete light sources in an integrated illuminating element where the overall lighting effect is the result of the combination of these multiple sources.* Instead, Morgan, Lys and other prior art, deal with either: 1) monolithic general lighting or 2) spot lighting concepts. It can be noted that even where there are multiple light sources, a) they often cover the same area, as do Morgan's light sources of Figs. 1-3, or b) the separate sources are arranged such that there is an uncontrolled melding of light from one light source with that of another. That is, the effect of the light sources is not substantially exclusive to an *illuminated area* within a room. In the referenced spot lighting concepts, which provide accent to a specific stage performer or features in the room the individual spots are not arranged to combine build

an overall room illumination. Nowhere in the disclosure do either Morgan or Lys mention the inventive step of controlling an area-specific illumination effect by using *directional-light-sources* that have a focused, localized or directional aspect. Such a teaching is, a prerequisite for the novel, spatial controllability of the present inventive device see Fig 2b, allowing it to "meet the illumination requirement of an illuminated area". Instead, Lys' device Figs. 28, other than when used as a spot light will not correctly illuminate an area. To the contrary, for an average illumination requirement, it illuminates areas with greater than needed intensity closer to the light source and less intensity further away. Morgan in view of Lys would illuminate well beyond the localized lighting needed for a detected individual of Morgan. The applicant also suggests that in most probability, Lys' "conform to an environment" statement in para. [0206] is referring to solving an electronics packaging problem, not the illumination requirements of surfaces in the environment. This, as Lys uses a positioner to illuminate the material of interest directly-on angle and light distribution properties are not mentioned in the entire disclosure. Similarly, nowhere in the Morgan disclosure is the word direction, area, aim, spatial distribution or sub-area mentioned and there would be nothing to teach anyone skilled in the art the localization capability of the present disclosure. As there is no teaching or suggestion supporting the combination in the cited prior art references, Morgan in view of Lys should not be deemed obvious and the applicant respectfully requests allowance of the claim.

Regarding Claim 2 is rejected ... as being unpatentable over Morgan in view of Lys as applied to claim 1 above, and further in view of Amerson (US 6,379,022).
Amerson is using the LED light sources to provide an adjustable color temperature. The camera mentioned by Amerson uses the spectrally corrected light for a camera flash function. The only sensor use of the camera mentioned Column 3 Line 17 "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" does not teach towards a spatially differentiated sensing. That is a capability to measure the "current light" in one area of the scene versus measuring the "current light" in a second area of the scene. Therefore, as Amerson's camera is disclosed only as a spectral sensor of the "current light" it does not teach towards the spatially differentiated sensors of claim 2 of the present disclosure. Any practitioner skilled in the art who would want to use a camera to gain the coordinates of the sensed event would need first a spatially differentiated delivery device to want to have a spatially differentiated sensor and computer programs to assess the data. Then they would require apparatus and software to correlate the sensed coordinates to the delivery coordinated. Any suggestion to any of these inventive steps are missing and therefore the present disclosure is non-obvious.

Regarding Claim 4 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Kinjo (US 2002/0046100). The applicant does not claim to have invented

pattern recognition, nor does Kinjo, who is using the information derived from images [0002] to enhance an advertisement effect, by which advertisement contents are switched in accordance with the viewer so as to display an advertisement suitable for the viewer of the advertisement. It should be noted that the application for Kinjo's detected characteristic remains in the virtual world [0010] ... and switching an image displayed on an image display medium in accordance with the first characteristic of the extracted person. This new use for a known pattern recognition process is typical of recent technological advances where "virtual" product development outpaces "physical" product developments which are often more difficult to foresee and implement. In the case of these cited references which primarily deal with control signal and networks would actually teach away from the device because the cost of the added physical device, wiring, networking complexity.

In addition, the prior-art use of image recognition developed security purposes in identifying terrorists was conceptually limited at the time of the disclosure to systems making use of the information for the observers benefit, often at the expense of the person being observed. That is, the information on the observed individual is used by the observing entity for its own benefit be it security or advancing sales. In the present disclosure the pattern recognition is being used by the user themselves to gain a personalized non-virtual illumination benefit per [0051] *A number of unique illuminating device embodiments are achievable using the basic elements presented above...as well as the ability to provide individualized lighting to each person.*

The applicant submits that certainly, a disclosure of a lighting fixture which is able to automatically tailor the illumination to the person it is illuminating for, is a case of an improvement patent. The applicant submits that this new development would not be obvious to a "person of ordinary skill in the art", even if that person had prior knowledge of all the documentation available in the world at the time of the application in the many different arts that are needed for this device to be constructed to produce the desired result. This is because a "person of ordinary skill in the art", refers to a practitioner of one art, not a practitioner of all the arts. In this claimed novel illumination device, the individual inventor's combination of skills in electronics, programming, artificial intelligence, human factors engineering and lighting science that need to be combined in order to contrive a machine capable of automatically illuminating in accordance with good lighting practice is non-ordinary.

In addition regarding Kinjo's use of personal characteristics for advertising it is claimed that [0196] *the addition of a machine vision system with pattern recognition capabilities as is known in the art,* combined with a physically differentiated lighting apparatus with using skills of multiple arts qualifies under 35 U.S.C. 100(b) as a new use of a known process, machine, manufacture. The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to

combine the relevant prior art teachings to the new use of the known processes in the manner claimed. To conclude, there is nothing in the cited prior art of Morgan or Kinjo that would have incited towards the concept of a pattern recognition based processor knowing data controlling and correctly controlling an illuminating device. As stated by Winner Int'l Royalty Corp. v. Wang, 202 F.3d. 1340, 1348 (Fed. Cir., 2000), there must be a suggestion or teaching in the prior art to combine elements shown in the prior art in order to find a patent obvious.

Regarding Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475).
The applicant argues that the claimed area-specific food-illumination system for use in dynamic settings such as restaurants for *optimally displaying food,* is not obvious from the prior art for the illumination objects in a display case. From the specification: [0282] *The lighting fixture 490 has means to illuminate separate portions at a table comprised of directable or aim-able lighting modules 491. The lighting fixture 490 also has computational means of providing the optimal color and intensity of light so as to render people, food, objects in their best light as well as to build a dining room ambience through lighting according to recommended practice or user preferences.* Zampini in his disclosure for a solution states: [0007] The present solution described herein provides systems and methods to coordinate and control the lighting of areas of a display . The area inside the case is fixed and is not dynamic in terms of persons, objects and activities carried out. Zampini's detector is not spatially differentiated such as a multi-pixel photodetector array capable of producing coordinate information necessary for a room illumination system able to focus on a food and render it under optimal lighting. And again, Zampini does not disclose the corroboratory area sensing and delivery routine necessary to have an imaging detection routine drive a specific light source to illuminate food on a restaurant table located anywhere in the room. The present disclosure can identify and illuminate anywhere in the living space and not just in a display case which is a totally different lighting application. Regarding Bolle who describes an apparatus that uses image processing to recognize objects such as produce within a scene which is indeed pattern recognition prior art that the disclosure relied upon. The combination of the cited references would not suggest the presently disclosed robust system of Fig. 26. Its unique structure offers a complete restaurant lighting application solution where: *[0280] As an example of the luminaire's benefits and agility to provide correct lighting where it is needed at minimal energy consumption, an embodiment of the invention, a spatially and spectrally adjustable restaurant lighting fixture is presented in FIG. 26. In a restaurant lighting application it would be beneficial for the customer experience if those dining, the food and ambience would all appear at their best.* The present application discloses a complete solution beyond the simple display and food recognition application by operating area specific within a larger area comprising people as well as food and other

objects each identified for its optimal illumination. Thereby, the camera based system is uniquely capable of illuminating food within a living space which an application not taught by the combination of cited references.

Regarding Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022).

The applicant respectfully differs with the examiner's interpretation of the term camera used throughout by Amerson and instead sees it once used as a light sensor column 3, line 18, to control the instantaneous color temperature of a camera flash that does not teach towards an area illumination application. Amerson describes in the Field of the Invention, column 1 lines 6-8 "The present invention relates generally to digital cameras and more specifically to an auxiliary illuminating device that has an adjustable color temperature". One will note that even in the days of film cameras, the camera used a light meter to control the flash and using it to detect spectrum is a stepwise improvement. The applicant views the present disclosure as a further significant inventive step moving from the camera of Amerson , column 3, lines 17-26 …. "Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination" to the multifarious camera of claim 6 used to supply information to a *"controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area".*

Amerson's illumination is point illumination for a specific digital camera lighting application and is not expanded by Morgan's networked sensors beyond that functionality. One must note that in a flash application the user points the camera at the limited scene to be captured by the camera. The flash will not evenly cover an area larger than the limited field of view. However, in a room illumination application with a fixed sensor placement the processor program to efficiently *"automatically control the light provided to the illuminated area"* must be arranged and programmed to obtain pertinent information from the area to be illuminated.. This is disclosed in the specification for example in an embodiment: [0184] *Spatially differentiated motion detectors…. The DLF controller acts to provide heightened lightning to the occupants' present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area.* Even had a camera sensor technique been used to improve the camera flash, a person of ordinary skill in the art of illuminating for cameras would not recognize that it could improve area lighting devices in the same way, as an area based algorithmic processing step would also be needed, a step whose actual application would be beyond their ordinary skill. The applicant therefore traverses the claimed obviousness as there is no provision or suggestion in either of the cited references for "*said controller arranged to processes the information communicated from the camera".*

Regarding Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022) as applied to claim 6 above, and further in view of Chang (US 2002/0039238).

The applicant respectfully points out that Chang uses a detector of radiation on the rearview mirror; as per paraa. [0005] Accordingly, the primary object of the present invention is to provide a vehicle automatic anti-glare device, wherein a rear-view mirror is provided for which automatically blocks out glare, in accordance with the intensity of the light cast upon the mirrors. Nowhere in Chang's disclosure is sensing the existence of glare reaching the eyes mentioned. The word eye does not appear in the entire specification and there is nothing in the combination of the cited references to teach to a system of the present disclosure which *[0249] In a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system.... The camera vision system is capable of detecting glare causing visual discomfort on the eyes of room occupants caused by the lighting fixture and the logical controller will accordingly reduce the intensity of the illumination reaching the eyes from the responsible light source.* Chang's simple system actually teaches away from the use of an expensive camera to determine the disturbing glare event via the rear view mirror. Thus in a non-obvious development, the very same logic system which controls an illumination device that helps people to see as well as creating glare now has been configured to be able to illuminate without glare. This is a radical improvement over prior art and there is no teaching, suggestion, or motivation in the cited references that would have led a person of ordinary skill in the art to combine the relevant prior art teachings in the manner of claim 7. The applicant thus respectfully request allowance of claim 7.

Regarding Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022).

Claim 8 and its dependents are referring to an invention (an example of which is disclosed in Fig. 24 and in the specification) of an automated illuminating device capable meeting *illumination requirements of the visual activities.* Disclosed in para. *[0273] In another embodiment one or more light sources, acting as a spot light 482 of limited beam angle... The controller 454 receiving input from the camera and using computational image recognition algorithms in a program as in FIG. 23 ....where computer vision is used ... recognize activities as they happen in real-time which enables the controller to determine any of the following: a change in the persons activity, in what direction the eyes may be directed, what objects the person is viewing and what visual task the person needs to perform. Based on that information the controller 454 powers the spot light sources 482 and general lighting sources 472 to provide the correct lighting for the specific visual task undertaken, be it reading a book or watching TV.* The applicant points out that Mogan discloses a (title) Methods and apparatus for controlling devices in a networked

lighting system. In a thorough reading of the Morgan patent application the applicant could not find any reference to the directional light sources (paragraphs 0019-0020) or a processor (Fig. 2, at 22) with stored algorithms (paragraph 0040) or any equivalent apparatus to recognize and deliver activity specific illumination per Claim 8 "visual *activities... said processer, upon calculating the required illumination parameters, directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities*. Again, a thorough reading of the Lys and Amerson patent applications finds no description of a device that can calculate *required illumination parameters* per detected visual activity. In Lys, even the re-positionable light fixture having movable structure for aiming the light sources mounted thereon in a defined direction (e.g. Fig 90A, at 2010, paragraphs 0325-0326) is typical of point lighting applications with the addition of sensed data controlling the positioning device. It does not teach towards the apparatus of Claim 8 where the applicant discloses *at least two directional light sources pointing in different directions* a necessary criterion for a novel, automated combined task and area illuminating system which is a different illumination art operating under a different set of defining equations.

As the disclosed system as claimed has spatially differentiated detection, calculating means and spatially differentiated delivery of illumination and none of the cited reference teach any of those necessary features necessary to fulfill *illumination requirements of the visual activities.* The applicant respectfully submits that the present invention is totally unpredictable under the prior art references. Therefore it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17- 26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33) and Claims 8-17 should be allowed.

Regarding claim 9 Morgan further discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (e.g., paragraphs 0020-0023). While Morgan states in [0023] According to one embodiment of the invention in which one or more sensors are employed, a networked lighting system may be implemented to facilitate automated computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. For example, automated lighting applications for home, office, retail environments and the like may be implemented based on a variety of feedback stimuli (e.g., changes in temperature or natural ambient lighting, sound or music, human movement or other motion, etc.) as shown earlier Morgan does not illustrate nor disclose apparatus for spatially differentiated detection or illumination resulting from direction light sources of Claim 8 where the illumination result is more functionally correct, convenient and energy saving. An example of this disclosed in the specification para. [0265] *In a preferred embodiment of the invention the logical controller 454 receiving image input from the camera 453 and running pattern recognition software will identify what is the visual task a person is*

trying to perform. The computer routine receives images from the camera and by determining the proximity of persons to objects such as books, newspapers, computer screens, telephones, televisions, cereal bowls, a writing pad, etc that are recognized by the computer vision techniques predicts what visual task the user is trying to perform. The logical controller 454 then drives the light sources 457 according to recommended lighting practice levels stored in its data storage. ... Unique to this invention, people are able to choose the lighting that suits them best and the fixture, having differentiated light delivery, can provide a first user with one type of chromacity and/or intensity and a second type for a different user in a different area.

The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 9 should be allowed.

Regarding claim 10 Morgan discloses the illuminating device ... Lys discloses an adjustable by an installer based on room geometry... to conform to an environment (Lys, paragraph 0206). Amerson .... Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) .... using image recognition capability, directs the controller to adjust ....

The applicant has stated above in arguments for claims 1-9 the difference between a networked system that uses a camera as a light sensor for a scene for use with a single point flash light source (vs. area illumination) which is a different art with a different information set needed to automatically solve the defining equations. As far as the to conform to an environment of Lys, as there is no spatially differentiated illumination device described as well as no image recognition capability in Amerson such that the present disclosure functionality and structure would not be obvious. As can be seen from an example of the needed considerations for an area lighting application as claimed, cite the specification: [0267] *Yet another feature of the present invention logical controller and software is that the lighting fixture 450 has apparatus to check the illumination level of the lighting set-up upon installation and provide feedback so that manually made aimings are directed to obtain a desired illumination or luminance. The camera 453 serving as a light meter obtains luminance readings on surfaces in the living space. It inputs data to the controller 454 which provides readout either on a display on the FAML 450 or communicated to another device having a display. The installer using a calibrated reference reflective sheet of known color and reflectance values placed on surfaces at particular aimings will check if the desired illumination and chromacity is being provided. The reference sheets can also be used to calibrate the room surfaces for future camera sensor 453 readings by storing in 454 the actual surface readings vs. those of the reference sheet. Once the camera 453 is calibrated as to the reflectance and color of room surfaces the FAML 450, in a servomechanism enabled embodiment, with automatically movable light sources 457, will perform its own re-configuration to reach optimal light provision. The calibration is affected by using the camera array 453 to*

detect luminance as a measure of the lighting fixture instantaneous illuminance in that direction vs. the power level at which the light source is being driven. To calibrate the illumination system, the logical controller 454 can use a given LED installed on the fixture which serves as a light source standard when driven at known voltage and current. Alternately, an additional light sensor of superior accuracy stability is provided for in the sensor pack 453 and can be used to calibrate the camera sensor array.
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 10 should be allowed.

11. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

Regarding claim 11 Morgan further discloses the illumination device of claim 8. Morgan does not disclose wherein the controller receives real time information ...Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) and wherein the processor (column 3, lines 14-25), using image recognition capability.
As the applicant has shown above in claims 1-10 there is no mention in Amerson's cited reference of image recognition routines. (column 3, lines 14-25), "For the array of LEDs to simulate the color temperature of the ambient light, the type of illumination to be matched must be known. One way is for the user to select the type of lighting from a list of choices. Another way is for the camera or an auxiliary device to measure the current light in the scene and determine the type of illumination. Once the type of illumination to be matched has been determined, the amount of light coming from each set of color LEDs is adjusted such that the total amount of light coming from the LED array is a calorimetric match to the ambient illumination source. Each type of ambient light source would typically have a different ratio of light coming from the sets of color LEDs. The inventive step regarding Claim 11 may be seen in the disclosure: *[0196] In a preferred embodiment, using pattern recognition techniques the ADLF 190 is semi or fully automatic in programming itself to correctly function where installed. The DLFs or ADLFs will adapt to the seating arrangement of room occupants* ***in real time****. In the preferred embodiment, the addition of a machine vision system with pattern recognition capabilities as is known in the art, easily deduces room occupancy and usage.*
The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 11 should be allowed.

Regarding claim 12 Morgan ... Lys discloses at least one of the directional light sources mounted on the movable structure ...in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206). The applicant points out that Lys is conforming to a geometrical environment in terms of the illuminating deviceas stated in para.s [0209]-[0246] a" Another such environment" and again in [0251] "In fact, the housing 703 could take any geometric configuration appropriate for a particular illumination or display environment" and not a geometric environment or visual task as it related to illumination. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 12 should be allowed.

Regarding claim 13 Morgan further discloses the illumination device of claim 12, providing a different illumination to a sub-area... based on usage wherein the controller interpreting images (paragraph 0019).
The Applicant quotes Morgan [0019] "Accordingly, one embodiment of the present invention is directed generally to networked lighting systems, and to various methods and apparatus for computer-based control of various light sources and other devices that may be coupled together to form a networked lighting system. In one aspect of the invention, conventional light sources are employed in combination with LED-based (e.g., variable color) light sources to realize enhanced lighting effects. For example, in one embodiment, one or more computer-controllable (e.g., microprocessor-based) light sources conventionally used in various space-illumination applications and LED-based light sources are combined in a single fixture (hereinafter, a "combined" fixture), wherein the conventional light sources and the LED-based sources may be controlled independently. In another embodiment, dedicated computer-controllable light fixtures including conventional space-illumination light sources and LED-based light fixtures, as well as combined fixtures, may be distributed throughout a space and coupled together as a network to facilitate computer control of the fixtures." The applicant fails to discern any sub-area capability of Morgan's devices. In the present disclosure it would refer to a capability of direction light sources to illuminate in a sub-area where an occupant may be located vs. an illumination in the rest of the room. Per an example from the specification *[0184] Spatially differentiated motion detectors 200 are provided on the Adaptive Digital Lighting Fixture along with the light sources 191 and light sensors 196. Typically motion detectors have been associated with lighting in motel rooms to shut off the lighting if there is no activity. There is another level of control that can include matching the lighting to type and amount of activity. Taken to the extreme, one or more limited field-of-view motion detectors 200, or camera 197, can be used to follow the whereabouts of room occupants. The DLF controller acts to provide heightened lightning to the occupants" present locations. The controller has stored look-up-tables, instruction sets and algorithms which it uses to processes the information communicated from the sensors or a camera and in response control the light provided to the illuminated area. .* This is especially evident unless the use of non-monolithic directional light sources are indicated. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited

prior art teachings to construct the disclosed device and therefore Claim 13 should be allowed.

Regarding claim 14 Morgan further discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph 0018 - the Examiner interprets "outdoor environments" as reading on this claim).
The applicant traverses the rejection based on the fact that the networked light sources of Morgan are not taught as being directional and being capable of illuminating in substantially different directions. Neither is there a spatially differentiated a camera sensor nor a processor with algorithms for detecting objects. An example of such a device from the specification backing the claim is *[0203] When artificial intelligence methods known in the art is combined with the fine control and functional flexibility of the DLF additional advantages are realized. A detector or camera 258 in concert with a logic controller 246 is capable of providing the road lighting needs to a driver or group of drivers in according to the time of day, needs of the roadway layout and usage at any moment.*
If the examiner's rejection is based on 35 U.S. Code § 102 – Novelty, the applicant submits that Morgan as prior at does not read on claim 14 and the applicant respectfully request its allowance. If the rejection is based on obviousness the applicant submits respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 14 should be allowed.

Regarding claim 15 Morgan... Lys, paragraph 0206).
The applicant has shown in arguments regarding claim 8 above that Morgan, while having more than one light source does not teach towards spatially differentiated sensors and illumination so as to provide concurrent general and task lighting thereby substantially meeting the "*illumination requirement of an illuminated area*". An esoteric illumination example is brought from the specification *[0251] Actual vision and perception is not only a function of the illuminance falling on the object being observed but also of the luminance of surfaces in the surround, spectral distributions of the object and background and the general illuminance level to which the eye has adapted. Veiling luminance and veiling reflections may even be as interfering so as to disturb the ability to see. Described is a method of using the an embodiment of multiple light source lighting fixture of the present invention with finely controlled light delivery to assist people to better see objects or carry out visual tasks such as reading. The method comprises altering the intensity and/or color of the illumination delivered to the task versus other surfaces in the visual surround (that is they are in the viewer's field of view) such that the luminance of the object, the luminance of the background, the contrast and the veiling reflections are controlled so as to produce optimal vision conditions. To accomplish the spatially differentiated light delivery to the object of the visual task such as a book or*

computer screen the light sources to produce task lighting have multiple, narrow beams with minimal spill light. The limited coverage area of each beam and sharp cutoff is such that the lighting fixture controller can target a book while not substantially illuminating the desk. Other light sources illuminate the desk and other surfaces in the visual surround at an optimal background level luminance. The background level is determined by factors such as whether it is an office environment where others are present and a dark office is unpleasant or if the reading is at home and a lower background can be tolerated. .While Lys does show a moveable spot light source it is also not in conjunction with other spatially light sources nor is there disclosure of a spatially differentiated sensor and controller with the necessary processing. The applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys and therefore respectfully requests the allowance of claim 15.

Regarding claim 16 Morgan discloses the illumination device of claim 8. Lys discloses a controller (Fig. 90A, at 2012) with communication capability to other devices ... process the information and communicates the camera obtained information to a second device (paragraphs 0326-0328).

The applicant read but could not find the inter lighting-fixture camera-data communication-functionality disclosure for Lys' "robotic camera" in the referenced paragraphs or anywhere else in the disclosure. However, even if it did mention one, it would not teach towards the present invention's gainful illumination delivery usage of the communications anyway as shown in an exemplary embodiment *[0192] According to the teachings of the present disclosure, the room lighting needs are provided by one or more DLFs or ADLFs including satellites or combinations thereof placed such that they are capable of providing lighting at the correct non-glaring angles for the lighting tasks at hand. The ADLFs and DLF can communicate with each other and an ADLF can control a DLF and vise versa so that level lighting is accomplished in the room. Two or more DLFs can share in the illumination requirements of a location located between them. The DLF turns off its illumination towards a specific location, reads the ambient luminance and then correctly powers the SLS to provide the additional illumination.* The communications requirement is unique as a result of the controlled light distribution resulting from the directional light sources arranged to illuminate a local area. The independent illumination capability of each fixture would require such a communication of spatially differentiated sensor data which as has been pointed out is lacking from the Morgan and Lys disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary

skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 16 should be allowed.

Regarding claim 17 Morgan as modified further discloses the illumination device of claim 16 Lys discloses where the illuminated area is a road (paragraph 0245) and where the second device to where the camera obtained information is communicated to is a lighting fixture (Fig. 90A, paragraphs 0326-0328).
To better understand the difference between the Morgan and Lys prior art and the present invention the applicant quotes from the specification: *[0203] ....In an alternate embodiment the roadway lighting can be dimmed if there are no approaching vehicles. The detector or camera 258 is capable of detecting oncoming and retreating traffic. The headlights and backlights are used or more sophisticated pattern recognition is used to determine traffic on the roadway. ...Taken to the extreme the controllability of the DLFs or series of communicating DLF street lights allows for the lighting to precede the vehicle by the stopping distance, say 300 ft. at 65 MPH (91 meters), and dim the unused lighting behind the driver if it is not necessary for other drivers.* In its own right the use of image processing to illuminate before a driver but not behind them thereby saving energy is a novel development and cannot be imagined from either of the disclosures. Lys' disclosure would need to mention sensor obtained data for analysis by the processor and the concept of multiple spatially differentiated sensors in order to teach towards meaningful sensor communications and it does not. Therefore it would not have been obvious to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys. The applicant respectfully submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the cited prior art teachings to construct the disclosed device and therefore Claim 17 should be allowed.

Regarding Claims 18-19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) as applied to claim 17 above, and further in view of Lemelson (US 5,983,161).
Regarding Morgan and Lys the applicant has explained in claims 16 and 17 why they would not teach to the present disclosure. Regarding Amerson the applicant has explained in claims 2 and others regarding the specific flash usage of the sensor. Regarding Lemelson "discloses where the processor uses information obtained from the cameras and exchanged between fixtures." The applicant has read Lemelson (US 5,983,161) titled: GPS vehicle collision avoidance warning and control system and method. The camera is mounted on a vehicle and not a light fixture; column 20 Lines 55-56, A television camera(s) 54 having a wide angle lens is mounted at the front of the vehicle. Communication of traffic data between vehicles used for traffic vehicle avoidance is a totally different art as explained above regarding obviousness in claim 4 above. Regarding claim 19 the concept of real-time lighting and illumination control is not mentioned in the paragraphs cited and where it is mentioned it refers to a GPS location based lighting of the vehicles

healdlamps. In the entire disclosure and the word "glare" does not appear anywhere and therefore Lemeoson's GPS vehicle collision avoidance warning and control system cannot teach towards the present disclosure .
The applicant submits that there is no teaching, suggestion, or motivation that would have led a person of ordinary skill in the art to combine the relevant prior art teachings to the new use of the known processes in the manner claimed. As there is nothing in the cited prior art of Morgan in view of Lys in further view of Amerson as applied to claim 17 above, and further in view of Lemelson that would have incited towards the concept of a sensor based processor in a lighting fixture "knowing" visual task data and correctly controlling a multiple directional light source illuminating device, the applicant requests that claim 18 be allowed.

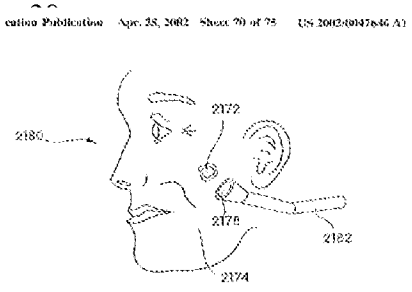
Regarding Claims 20-26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646)… claim 20 Morgan discloses an automated irradiating device for providing radiation to individuals within an area. The applicant submits that Morgan is referring to a radiation device para. 0023 in the visible light spectrum used for seeing and not heating. [0023] … computer-controlled operation of multiple light sources and devices in response to various feedback stimuli, for a variety of space-illumination applications. Lys discloses a light fixture including a multiplicity of directional light sources. The applicant finds no spatially differentiated sensor or computational mechanism in Lys that would allow his light source to provide "radiation in a sub-area proximate to the individuals" and certainly not for a heating application. From the present disclosure one example of the heating application shown in Fig. 23 is *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. The heat radiation sources can be infrared filament lamps or infrared LEDs in addition to other wavelengths. The irradiating devices 472 mounted on the irradiation fixture can provide general area heating or spot heating 482 to people or objects.* Another is *"[0246] Light entering the digital camera 429 through its lens 427 is converted into electric signals… The processor runs the computer vision routines to determine an occupants age or sex and sends instruction to a building's utility devices to provide individualized services such as heating and lighting on basis of age or sex.* Therefore, it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) and the applicant requests that claim 20 be allowed.

Regarding claim 21 Morgan as modified discloses … Lys discloses: the detector being a camera (paragraph 0327) with capability for sensing at least one of … The applicant has read Lys

[0327] An embodiment of the illumination system can be used for taking photomicrographs. In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. Different lighting conditions can have a dramatic effect on such vision systems. permits a higher resolution by the robotic camera of the image required for robotic vision", the applicant submits that Lys is not using the camera as a detector but an alternate use for the "Lighting entertainment system" to "improve the quality of robotic vision applications" Therefore, as Lys does not teach towards a "sensing detector" and it would not have been obvious to one of ordinary skill in the art of illumination at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding "sensing detector" (Lys, paragraph 0327) and the applicant requests that claim 21 be allowed.

Regarding claim 22 Morgan discloses and Lys discloses one or more directional radiation sources capable of being moved …
The applicant submits that in order for Lys's device, Fig. 90 to track a moving individual in the room there would need to be a camera detector with said camera detector providing coordinate data to a processor running algorithms to follow or track the individual around the room. As this is missing from Lys's disclosure as explained in claim 21 the applicant submits that claim 22 is not obvious and asks that it be allowed.

Regarding claim 23 Morgan discloses, Lys discloses directed at the different parts of the body (paragraphs 0309, 0362).The applicant submits that the presently disclosed system is not similar. As claimed, it is able "*to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body*". From Fig. 24 and specification *[0274] … The camera and controller processor system can use image recognition to identify parts of the body and the controller can provide a different radiation level to the head vs. the rest of the body. Other people feel the cold in the legs etc.*



The cited Fig. 94 from Lys shown to the right clearly shows that it is referring specifically to a single irradiation device which is designed to perform on a predetermined part of the body. The applicant points out that nowhere in the Morgan or Lys disclosures is there any description of multiple spatially differentiated radiation delivery sources controlled by a processor running algorithms to analyze data from a spatially differentiated sensor, aka camera, *to identify parts of the body*. As these capabilities are missing from the referenced disclosures as explained in claim 21 and in preceding claims, the applicant submits that claim 23 is not obvious to one of ordinary

skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys and asks that it be allowed.

Regarding claim 24 Morgan further discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory, and (iv) commands input from an input device (paragraphs 0016- 0024).

The applicant first explains what claim 24 is referring to by quoting an exemplary embodiment from the specification *[0274] An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. Using face recognition algorithms and stored personal preferences from the data storage, the logical controller 454 will aim the heating rays specifically where on their body they prefer to be heated as well as in what amount and at what times. The camera 475 has sensors sensitive to infra-red wavelengths around 12 μm (micrometers) radiated from people. The controller obtaining the information from the body temperature sensor will run algorithms to calculate radiation parameters and will control the irradiation in time and intensity on the individual to maintain comfortable heating per best practice standards, drawing on stored data of heating practices, or personally input preferences.* The applicant submits that in the Morgan disclosure the word "heating" is not to be found (heat is found 3 times in reference to a heat sensor but there is no reference to a device for providing heat). As in addition, Morgan has not disclosed the computer vision hardware and logic system of claim 24 nor the heating application, the applicant respectfully submits that the claim should be allowed.

Regarding claim 25 Morgan discloses the irradiation device of claim 21. Morgan also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (e.g. paragraphs 0016-0024).

Lys discloses where the irradiation instead of for heat is for therapeutic purposes

The applicant respectfully submits that as explained above in claims 21, 22, 23 Lys does not show or describe a system capable of identifying the location of the individual "where the controller aims the radiation sources to the location where the individual is located" Lys has no spatially differentiated sensor or processor running image recognition programs. (Lys in [0327] mentions robotic vision in terms of illumination "...In another embodiment of the present invention, the illumination system 2020 may be used to improve the quality of robotic vision applications. As explained in claim 2 Morgan does not teach towards spatial differentiation and has no idea where in area an individual is located to aim anything towards them.

Therefore, the applicant submits that it would not have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy in order to improve a patient's health or well-being. The applicant respectfully submits that claim 25 should be allowed.

Regarding claim 26 Morgan discloses ... the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraphs 0016-0024).

The applicant respectfully submits that the novel system is capable of concurrently delivering both the heat and visible light. *[0275] "In an embodiment of the FAML the infrared radiation sources are added to the light source and can work together when necessary to provide heat and light. Thus in a living room fixture where the house heating has been turned down to energy saving levels an individual can receive concentrated light for reading as well as concentrated beam of infrared heating."* Even if the Examiner views light sources as heat sources, they are the same light functionality, the same "art". This novel and beneficial combination of two functionalities is a unique inventive step as the expensive camera vision system is now providing for simultaneous functionalities needed in the same space by the same or different individuals. The applicant submits that it would not have been obvious to one of ordinary skill in the art of either heating or illumination at the time of the invention to develop the presently claimed combinational and new use device and the applicant requests that claim 26 be allowed.

Conclusion

The applicant has revised the objected claim and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the

undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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EXAMINER
LOTTER, DAVID E

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *9/23/2015*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-26* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☐ Claim(s) _____ is/are allowed.

7)☒ Claim(s) *1-26* is/are rejected.

8)☐ Claim(s) _____ is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☒ The drawing(s) filed on *1/24/2012, 1/24/2012* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of pre-AIA 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646).

Regarding claim 1 Morgan discloses an illuminating device (e.g. paragraph 0019) which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture (paragraph 0019) including a multiplicity of light sources (Fig. 1, at 36A, 38A, 40A, paragraph 0020), the light sources having at least one of controllable light intensity and spectral light distribution (e.g., paragraphs 0040-0042); a controller (Fig. 1, at 26A) for adjusting at least one of a light intensity and light spectrum of the directional light sources (paragraph 0040); one or more detectors (Fig. 1, at 42) for sensing at least one of objects, surfaces and people (paragraph 0022) within the illuminated area and of passing the sensed information to the controller (paragraph 0022); a processor (Fig. 1, at 22) for processing the sensed information and determining

illumination requirements of the at least one of objects and people using at least one of artificial intelligence (paragraph 0025), pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement (e.g. paragraph 0020).

Morgan discloses a light fixture but Morgan arguably may not explicitly disclose a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions.

Lys discloses a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional LEDs (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 3 Morgan further discloses the illumination device of claim 1, wherein the illuminated area is indoors (paragraph 0023) and further comprising a detector (paragraphs 0023-0024) for detecting variable illumination from daylight and/or sunlight entering indoors (paragraph 0023), wherein the controller taking into consideration the area now illuminated by the daylight and/or sunlight adjusts the light

intensity of the directional light sources to meet the varied illumination requirement (paragraph 0023).

Claim 2 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Amerson (US 6,379,022).

Regarding claim 2, Morgan as modified above discloses the illumination of claim 1. Morgan discloses a light sensor (paragraph 0022).

Morgan does not explicitly disclose where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

Amerson discloses where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor (column 3, lines 17-26), (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Claim 4 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Kinjo (US 2002/0046100).

Regarding claim 4 Morgan discloses the illuminating device of claim 1. Morgan further discloses wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory (paragraph 0036), and (iv) commands received by the controller from an input device (paragraphs 0036-0037).

Morgan does not explicitly disclose wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs.

Kinjo discloses wherein the one or more detectors (Fig. 1, at 12) detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age (paragraph 0012), (ii) sex (paragraph 0012), and (iii) recognition of an individual for matching with stored data about that individual's needs (e.g., paragraphs 0010-0013, Fig. 2).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the

teaching of Kinjo regarding customer detection methods (Kinjo, paragraphs 0010-0012) in order to detect characteristics of a person (Kinjo, paragraph 0010).

Claim 5 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475).

Regarding claim 5 Morgan as modified discloses the illuminating device of claim 1. Morgan also discloses a processor (Fig. 1, at 22) and a detector (Fig. 1, at 42).

Morgan does not explicitly disclose a device for optimally displaying food, wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

Zampini discloses a device for optimally displaying food, wherein the controller adjusts the light intensity and/or spectrum of the illumination (paragraphs 0053-0054) on the one or more foods based on illumination requirements from the processor (paragraph 0055).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Zampini regarding detecting and controlling illumination requirements (Zampini, paragraphs 0053-0054) in order to improve marketability and enhance brand recognition (Zampini, paragraph 0002).

Lys in view of Zampini does not disclose wherein the one or more detectors detect an identity of one or more foods.

Bolle discloses wherein the one or more detectors detect an identity of one or more foods (Bolle, column 7, lines 37-48).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Zampini regarding detecting and controlling illumination requirements and in further accordance with the teachings of Bolle regarding one or more detectors detecting an identity of one or more foods (Bolle, column 7, lines 37-48) in order to recognize objects such as produce (Bolle, column 5, lines 50-51).

Claim 6 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022).

Regarding claim 6 Morgan discloses an illuminating device having automatic control of the light provided to an illuminated area comprising:

a structure (Fig. 2, at 26) for incorporating illuminating device elements;

one or more light sources (e.g., Fig. 2, at 52A) incorporated in the structure and in communication with a power source (Fig. 2, at 44);

electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements (Fig. 2, at 50);

a controller (Fig. 2, at controller) integrated with the structure, in communication with the light source controlling power circuitry.

Morgan does not disclose one or more cameras placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements; said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

Amerson discloses one or more cameras (Amerson, column 3, lines 17-26) placed on the structure for detecting information about the illuminated area, said camera in communication with power and control device elements (Amerson, column 3, lines 17-26); said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area (Amerson, column 3, lines 17-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Claim 7 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Amerson (US 6,379,022) as applied to claim 6 above, and further in view of Chang (US 2002/0039238) and in further view of Lys (US 2002/0047646).

Regarding claim 7 Morgan in view of Amerson discloses the illumination device of claim 6.

Morgan in view of Amerson does not disclose wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

Chang discloses wherein the one or more detectors (Fig. 2, at 10) are configured to sense a presence of glare on a person's eyes (Fig. 2, at 114) in the illuminated area, and wherein the controller (Fig. 2, at 110) is programmed to adjust an intensity of the directional light sources to reduce the glare (Fig. 2, at 12).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Chang regarding preventing glare (Chang, paragraph 0001) in order to automatically block out glare (Chang, paragraph 0005).

Morgan as modified discloses a light fixture but Morgan arguably may not explicitly disclose directional light sources.

Lys discloses where one or more light sources are directional (e.g., Fig. 28C, paragraph 0206).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the

light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022).

Regarding claim 8 Morgan discloses an illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, comprising:

a light fixture (Fig. 2, at 24) including a multiplicity of light sources (Fig. 2, at 36A, 38A, 40A, paragraph 0020), a controller (paragraph 0022) for adjusting a light intensity (paragraph 0040) and a direction (paragraphs 0019-0020) of each of the directional light sources;

a processor (Fig. 2, at 22) with stored algorithms (paragraph 0040) and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people (paragraph 0022), (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence (paragraph 0025), pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters,

directs the controller to adjust the directional light sources to meet the illumination requirements of the visual activities (paragraph 0020).

Morgan discloses two light sources but may not explicitly disclose including at least two directional light sources pointing in different directions.

Lys discloses including at least two directional light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206) the light fixture having movable structure for aiming the light sources mounted thereon in a defined direction (e.g. Fig 90A, at 2010, paragraphs 0325-0326)

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Morgan does not disclose a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources.

Amerson discloses a camera (column 3, lines 17-26) for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (column 3, lines 17-26) (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector

for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 9 Morgan further discloses the illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area (e.g., paragraphs 0020-0023).

Regarding claim 10 Morgan discloses the illuminating device of claim 8.

Morgan may not explicitly disclose the illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

Lys discloses an adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms (paragraphs 0325-0326) on which directional light sources are mounted for aiming the directional light

sources within the illuminated area, where said detector and processor combination provides feedback (e.g., paragraphs 0256, 0281) to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings (paragraphs 0281, 0325-0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 11 Morgan further discloses the illumination device of claim 8.

Morgan does not disclose wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

Amerson discloses wherein the controller receives real time information from the camera (column 1, lines 11-12) and wherein the processor (column 3, lines 14-25), using image recognition capability, directs the controller to adjust at least one of (i) the intensity (column 2, lines 27-38), (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are

located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 12 Morgan discloses the illumination device of claim 8.

Morgan may not explicitly disclose at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

Lys discloses at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller (paragraphs 0325-0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraphs 0206, 0325-0326) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 13 Morgan further discloses the illumination device of claim 12, providing a different illumination to a sub-area based on usage wherein the controller

interpreting images from the sensor adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area (paragraph 0019).

Morgan discloses using sensors but does not explicitly disclose using a camera.

Amerson discloses using a camera (Amerson, column 3, lines 17-26).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Amerson regarding cameras used with LEDs (Amerson, column 3, lines 17-26) in order to vary the light output of the LEDs (Amerson, column 2, lines 29-33).

Regarding claim 14 Morgan further discloses the illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs (paragraph 0018 – the Examiner interprets “outdoor environments" as reading on this claim).

Regarding claim 15 Morgan discloses the illumination device of claim 8.

Morgan does not disclose at least one of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting but Morgan discloses other light source that provide general illumination to the illuminated area (paragraph 0023).

Lys discloses at least one of the directional light sources on an automatic swivel joint (e.g., Fig. 90A, at 2034) and providing spot lights of limited beam angle for task

lighting while other light source provide general illumination to the illuminated area (paragraphs 0256, 0326).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and spot lights (paragraph 0326) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 16 Morgan discloses the illumination device of claim 8.

Morgan does not explicitly disclose a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

Lys discloses a controller (Fig. 90A, at 2012) with communication capability to other devices (paragraph 0328), where the camera (paragraph 0327) in one location obtains information and the controller process the information and communicates the camera obtained information to a second device (paragraphs 0326-0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and cameras (Lys, paragraph 0327) in order to permit the light module to conform to an environment

within which it is placed (Lys, paragraph 0206) in improve the accuracy of such systems (Lys, paragraph 0327).

Regarding claim 17 Morgan as modified further discloses the illumination device of claim 16 where the illuminated area is a road (paragraph 0018 “outdoor environments”).

Morgan does not disclose where the second device to where the camera obtained information is communicated to is a lighting fixture.

Lys discloses where the illuminated area is a road (paragraph 0245) and where the second device to where the camera obtained information is communicated to is a lighting fixture (Fig. 90A, paragraphs 0326-0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources (Lys, paragraph 0206) and cameras (Lys, paragraph 0327) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206) and improve the accuracy of such systems (Lys, paragraph 0327).

Claims 18-19 is rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) as applied to claim 17 above, and further in view of Lemelson (US 5,983,161).

Regarding claim 18 Morgan discloses the illumination device of claim 17,

Morgan as modified may not disclose where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

Lemelson discloses where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements (e.g., column 20, line 55 – column 21, line 14).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources and cameras and in further accordance with Lemelson regarding cameras used in identifying traffic requirements in order to optimize the prevention of injury or damage (Lemelson, column 1, lines 45-50).

Regarding claim 19 Morgan as modified discloses the illumination device of claim 18.

Morgan may not disclose wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

Lemelson discloses wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle (e.g., column 20, line 55 – column 21, line 14), and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional light sources and cameras and in further accordance with Lemelson regarding cameras used in identifying traffic requirements in order to optimize the prevention of injury or damage (Lemelson, column 1, lines 45-50).

Claims 20-26 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646).

Regarding claim 20 Morgan discloses an automated irradiating device for providing radiation to individuals within an area intended to provide a desired radiation in a sub-area proximate to the individuals, comprising:

an irradiation fixture (Fig. 2, at 36A) including one or more directional radiation sources (paragraph 0023) where the radiation is in a defined direction (paragraph

[0045]); at least one detector (Fig. 2, at 42) for sensing a location of individuals in the area and transferring that information to a controller (paragraph 0023);

where said controller (Fig. 2, at 26A) for adjusting at least one of (i) a radiation intensity (paragraph 0020), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (paragraph 0020).

Morgan discloses a light fixture but Morgan arguably may not explicitly disclose directional light sources.

Lys discloses a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions (e.g., Fig. 28C, paragraph 0206).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the lighting network disclosed by Morgan in accordance with the teaching of Lys regarding directional lights (Lys, paragraph 0206) in order to permit the light module to conform to an environment within which it is placed (Lys, paragraph 0206).

Regarding claim 21 Morgan as modified discloses the automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area.

Morgan may not explicitly disclose: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at

least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

Lys discloses: at least two directional heat radiation sources pointing in different directions (e.g., Fig. 28C); the detector being a camera (paragraph 0327) with capability for sensing at least one of (i) a presence of one or more individuals in the heated area (paragraph 0326), (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters (paragraphs 0326-0327), (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences (paragraph 0328).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient’s health or well-being (Lys, paragraph 0361).

Regarding claim 22 Morgan discloses the automated irradiating device of claim 20.

Morgan may not explicitly disclose one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

Lys discloses one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction (e.g., Fig. 28C); the at least one detector (paragraph 0321) capable of providing information on the present location of individuals in the area (paragraph 0367); the controller (paragraph 0315) programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals (paragraph 0314).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 23 Morgan discloses the irradiation device of claim 21.

Morgan may not explicitly disclose wherein the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing the radiation sources being able to direct radiation to different parts of the body and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

Lys discloses wherein the detector being a camera (paragraph 0327) capable of providing images of different parts of the body of individuals to the controller for image processing (paragraph 0360), the radiation sources being able to direct radiation to different parts of the body (paragraph 0361) and the controller further programmed to run the image recognition algorithms to identify different parts of the body (paragraphs 0309-0310), to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body (paragraphs 0309, 0362).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 24 Morgan further discloses the irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and

intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory, and (iv) commands input from an input device (paragraphs 0016-0024).

Regarding claim 25 Morgan discloses the irradiation device of claim 21. Morgan also discloses where controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation (e.g. paragraphs 0016-0024).

Morgan does not disclose where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders.

Lys discloses where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, and other disorders (paragraph 0360).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the illuminating system disclosed by Morgan in accordance with the

teaching of Lys regarding light therapy (Lys, paragraph 0360) in order to improve a patient's health or well-being (Lys, paragraph 0361).

Regarding claim 26 Morgan discloses the automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light (e.g., paragraphs 0016-0024, Fig. 2, at 36A) and one or more of the irradiating sources is designed to substantially radiate heat (paragraphs 0016-0024) the Examiner views light sources as heat sources) whereby the device is capable of providing both a desired light and heat radiation to the individuals (paragraphs 0016-0024).

Response to Arguments

Applicant's arguments filed 9/23/2015 have been fully considered but they are not persuasive.

First, the claims are read with the broadest reasonable interpretation. For Example, regarding claim 1 the Examiner notes the recited claimed language "1. An illuminating device which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture including a multiplicity of directional light sources including **at least two light sources** pointing in different directions, the light sources having **at least one of** controllable light intensity and spectral light distribution; a controller for adjusting at least one of a light intensity and light spectrum of the directional light sources; one or more detectors for sensing at least one of objects,

surfaces and people within the illuminated area and of passing the sensed information to the controller; a processor for processing the sensed information and determining illumination requirements of the **at least one of** objects and people using **at least one of** artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the directional light sources to meet the illumination requirement" is interpreted much more narrowly than is appropriate.

The multiple uses of the language "**at least one of**" greatly expands the scope of the claim. Furthermore, the recitation "a light fixture including a multiplicity of directional light sources including at least two light sources pointing in different directions" is an example of language that can be broadly interpreted. The claimed language merely requires a light fixture with two lights pointed in different directions. The Applicant appears to suggest a more complex lighting device in the Specification but the claims as written are too broad.

For another example Applicant argues on page 9 that claim 7 is amended by adding the recitation "where one or more light sources are directional" to describe the features recited in the Specification [paragraph 0249] where "in a preferred embodiment of this invention the lighting fixture is equipped with a camera vision system comprised of the digital camera and logical controller having computer algorithms for performing computer vision and has the capability of identifying eyes of occupants in a room…". The Examiner suggests adding the features described in [paragraph 0249] directly into claim 7. The amended claim language "where one or more light sources are directional" does not describe the features found in paragraph 0249 of the Specification as argued

by the Applicant. Also, amending the claim to add “where one or more light sources are directional” is not novel. Directional lighting is universal.

These examples are meant as general guidance.

Continuing to the Response to Arguments:

Regarding claims 1 and 3 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 11, at lines 31-37) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant’s argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, regarding Applicant's argument that there is no motivation to combine the Examiner notes that the Applicant is reading the Specification into the claim. Furthermore, the

Examiner maintains the all of the original motivations to combine provided in the most recent Office Action sent June 23, 2015.

Regarding claim 2 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 13, at lines 29-30 re: "spatially differentiated sensors") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 4 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 14, at lines 19-21) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 4 in response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385

(2007). In this case, pattern recognition is knowledge generally known in the art. The use of pattern recognition in combination with a lighting network merely requires a matching of a data input to a data output.

Regarding claim 5 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 15, at lines 14-19) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993

Regarding claim 6 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 16, at lines 30-34) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 7 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 17, at lines 12-16) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Furthermore, the applicant argues that Chang does not

mention the word “glare" but the title of Chang’s patent publication states "Vehicle Automatic Anti-Glare Device".

Regarding claims 8-17 in response to applicant's argument that the references fail to show “two directional light sources pointing in a different direction" the Examiner respectfully notes that the broadest reasonable interpretation of the recited claim language merely requires two lights pointing in a different direction.

Regarding claim 9 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 18, at lines 40-42) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 10 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 19, at lines 26-41) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 11 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 20, at lines 33-38) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the

specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Regarding Applicant's argument that there is no motivation to combine the Examiner notes that the Applicant is reading the Specification into the claim.

Regarding claim 12 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 17, at lines 12-16) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 13 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 21, at lines 30-40) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 14 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 22, at lines 10-15) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 15 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 21, at lines 29-41) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 16 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 23, at lines 23-31) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 17 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 24, at lines 9-16) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claims 18-19 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 25, at lines 8-11 re: "a light fixture knowing") are not recited in the rejected claim(s). Although the claims are interpreted in light of the

specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Regarding the Applicant's argument that the word "glare" does not appear anywhere the Examiner notes the recited claimed language " wherein the controller is programmed to adjust **at least one of** (i) increase illumination with an approach of a vehicle (e.g., column 20, line 55 – column 21, line 14), and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare."

Regarding claims 20-26 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 24, at lines 23-34) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 21 in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., page 26, at lines 7-8 re: "sensing detector") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Regarding Applicant's argument that there is no motivation to combine the Examiner notes that the Applicant is reading the Specification into the claim. Furthermore, the Examiner does not follow the reasoning outlined by the Applicant on page 26, lines 5-7 concerning that "the robotic vision" is an

alternate use of “the lighting entertainment system”. Lys discloses the robotic vision system as a separate and distinct concept from the lighting entertainment system.

Regarding claim 22 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 26, at lines 16-18 re: “providing coordinate data to a processor running algorithms to follow or track around the room”) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Finally, the claim recites in part " with capability for sensing **at least one of**...". The Applicant is arguing features that are missing because the claim requires only one of the recited claimed features - not all.

Regarding claim 23 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 26, at lines 25-28) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Regarding claim 24 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 27, at lines 11-21) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993). Regarding Applicant's argument that there is no device that produces heat the Examiner under the broadest reasonable interpretation of the claims interprets the “irradiation device” as a lighting device. Lighting devices produce heat.

Regarding claim 25 in response to applicant's argument that the references fail to show certain features of applicant’s invention the Examiner notes that Applicant’s arguments regarding claims 21-23 are unclear or in error. Furthermore, the Applicant refers to claim 2 regarding "spatial differentiation". The arguments provided for claim 2 applies here.

Regarding claim 26 in response to applicant's argument that the references fail to show certain features of applicant’s invention, it is noted that the features upon which applicant relies (i.e., page 28, at lines 14-18) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID LOTTER whose telephone number is (571)270-7422. The examiner can normally be reached on Monday-Friday 7:30am-5PM (off every other Friday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Alex Taningco can be reached on 571-272-8048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/DAVID LOTTER/
Examiner, Art Unit 2844

/ALEXANDER H TANINGCO/
Supervisory Patent Examiner, Art Unit 2844

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	DAVID LOTTER	2844

CPC- SEARCHED		
Symbol	Date	Examiner

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
315	152	8/19/2014	dl
362	276, 234	8/19/2014	dl

SEARCH NOTES		
Search Notes	Date	Examiner
inventor search	8/19/2014	dl
class subclass search	8/19/2014	dl
text search	8/19/2014	dl
consulted TQAS regarding priority date	1/21/2015	dl
second search	3/9/2015	dl

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	**Art Unit**
	DAVID LOTTER	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014	01/15/2015	09/25/2015						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	✓	✓	✓						
	14	✓	✓	✓						
	15	✓	✓	✓						
	16	✓	✓	✓						
	17	✓	✓	✓						
	18	✓	✓	✓						
	19	✓	✓	✓						
	20	✓	✓	✓						
	21	✓	✓	✓						
	22	✓	✓	✓						
	23	✓	✓	✓						
	24	✓	✓	✓						
	25	✓	✓	✓						
	26	✓	✓	✓						

Electronic Patent Application Fee Transmittal

Application Number:	13357549
Filing Date:	24-Jan-2012
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Filer:	Yechezkal Evan Spero
Attorney Docket Number:	

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	2251	1	100	100
Miscellaneous:				
		Total in USD ($)		**100**

Electronic Acknowledgement Receipt

EFS ID:	24531550
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	05-JAN-2016
Filing Date:	24-JAN-2012
Time Stamp:	16:04:10
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$100
RAM confirmation Number	2564
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Fee Worksheet (SB06)	fee-info.pdf	29742 2ab78e52835b45fd2f7350433200e95786473927	no	2

Warnings:

Information:

Total Files Size (in bytes):	29742

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Friday, February 5, 2016
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Final Office Action dated October 5, 2015

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **Feb 5, 2016**.

Signature

/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed October 5, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Currently amended) A~~n~~ light fixture ~~illuminating device which produces light to meet~~ for illuminating an area to be lit capable of automatically meeting specific ~~an~~ illumination requirements of different sub-areas within the area to be lit ~~an illuminated area~~, comprising:
   a. a ~~light fixture including~~ multiplicity of independently controllable ~~directional~~ light sources, including at least two light sources ~~pointing in different directions~~of directional light output, such that each said source substantially illuminates a different sub-area within the area to be lit, the light sources having at least one of controllable light intensity and spectral light distribution;
   b. a controller for adjusting at least one of a light intensity and light spectrum of the light sources;
   c. one or more detectors for sensing at least one of objects, surfaces and ~~people~~ beings within the ~~illuminated~~ area to be lit including the specific sub-area location information and of passing the sensed information to the controller;
   d. a processor for processing the sensed information and determining illumination requirements of the at least one of objects, surfaces and ~~people~~ beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave

transducer and sensor, and (v) pyroelectric detectors.

3. (Currently amended) The illumination device of claim 1, wherein the illuminated area is indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the intensity variations over the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Currently amended) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods in a sub-area and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Currently amended) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating

device elements; one or more cameras placed on the structure for detecting coordinate-specific information about the illuminated area, said camera in communication with power and control device elements; a controller integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (currently amended) The illumination device of claim 6, where one or more light sources are directional wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Currently amended) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, where different sub-areas of the illuminated area need to be illuminated at a different intensity and/or at a different spectrum than another sub-area of the illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions thereby illuminating different sub-areas of the illuminated area, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road

objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters according to best practice standards, directs the controller to adjust the directional light sources that illuminates the specific sub-areas to meet the illumination requirements of the visual activities.

~~9.~~(Canceled) The illuminating device of claim 8, further comprising the illumination requirement that different parts of the illuminated area to be illuminated at a different intensity and/or at a different spectrum than another part of the illuminated area.

~~10~~9. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

~~11~~10. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

~~12~~11. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

~~13~~12. (Original) The illumination device of claim ~~12~~11, providing a different

illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

~~14~~13. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

~~15~~14. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

~~16~~15. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

~~17~~16. (Original) The illumination device of claim ~~16~~15, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

~~18~~17. (Original) The illumination device of claim ~~17~~16, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

~~19~~18. (Original) The illumination device of claim ~~18~~17, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a

vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

~~20~~19. (Original) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information to a controller; a where said controller for adjusting adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

~~21~~20. (Original) The automated irradiating device of claim 20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

~~22~~21. (Original) The automated irradiating device of claim 20, further comprising: One or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

~~23~~22. (Original) The irradiation device of claim 21, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

~~24~~23. (Original) The irradiation device of claim 21, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

~~25~~24. (Original) The irradiation device of claim 21 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

~~26~~25. The automated irradiating device of claim 20 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1: Claim Rejections *Claims 1 and 3 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646). Regarding claim 1 Morgan discloses an illuminating device (e.g. paragraph 0019) which produces light to meet an illumination requirement of an illuminated area, comprising: a light fixture (paragraph 0019) including a multiplicity of light sources…*

The applicant has amended claim 1 to explicitly differentiate it from the prior art of Morgan and Lys by stating the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the specifically required lighting or irradiation effect to **a specific sub-area within the overall area to be lit by the lighting fixture as detected by the coordinate specific detection device.** These capabilities are novel to the novel invention and are not obvious form the prior art.

In reply to point 2 **Regarding** *Claim 2 is rejected as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) as applied to claim 1 above, and further in view of Amerson (US 6,379,022). Claim 4 is rejected of Kinjo (US 2002/0046100). and further in view of Zampini (US 2008/0136356) and in further view of Bolle (US 5,546,475). Regarding claim 5, Bolle discloses … Claim 6 is rejected in view of Amerson (US 6,379,022). Regarding claim 7 … Chang discloses*

The applicant has amended claim 1 and thus the dependent claims to explicitly differentiate it from the prior art of Morgan and Lys, Amerson, Zampini, Bolle and Chang by stating the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the specifically required lighting or irradiation effect to **a specific sub-area within the overall area to be lit.** These capabilities are novel to the novel invention and are not obvious form the prior art.

Regarding Claims 8-17 are rejected under pre-AIA 35 U.S.C. 103(a) as being unpatentable over Morgan (US 2002/0047628) in view of Lys (US 2002/0047646) in further view of Amerson (US 6,379,022) above, and further in view of Lemelson (US 5,983,161).

The applicant has amended claim 8 and thus the dependent claims to explicitly differentiate it from the prior art of Morgan and Lys, Amerson, Lemelson and Chang by stating the requisite spatially differentiated sensing and physical light distribution apparatus needed for the localization of the specifically required lighting or irradiation effect to **a specific sub-area within the overall area to be lit.** These capabilities are novel to the novel invention and are not obvious form the prior art. The applicant has canceled claim 9.

Regarding claim 18 -*25 Morgan discloses the illumination device of claim 17, Morgan as modified may not disclose where the processor uses information obtained from the cameras and exchanged*

The applicant has amended the basic claim and thus the dependent claims to explicitly differentiate it from the prior art of Morgan and Lys, etc. The applicant submits that it would not have been obvious to one of ordinary skill in the art of either heating or illumination at the time of the invention to develop the presently claimed combinational and new use device and the applicant requests that claim 26 be allowed.

Conclusion

The applicant has revised the objected claim and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the

undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

/ Yechezkal Evan Spero/

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February 5, 2016

Electronic Acknowledgement Receipt

EFS ID:	24831407
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	05-FEB-2016
Filing Date:	24-JAN-2012
Time Stamp:	09:58:36
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	ReplytoFinal_OA_Oct-5-15.pdf	92649 034770af0feb28342a6f04e8c5827fb81967c e0e	no	11

Warnings:	
Information:	

Total Files Size (in bytes):	92649

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New Applications Under 35 U.S.C. 111

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/357,549	Filing Date 01/24/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **02/05/2016**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 26	Minus	** 26	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
/CHARRISSA BROWN/

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 02/26/2016

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

EXAMINER	
LOTTER, DAVID E	

ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
02/26/2016	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Advisory Action Before the Filing of an Appeal Brief	**Application No.** 13/357,549	**Applicant(s)** SPERO, YECHEZKAL EVAN	
	Examiner DAVID LOTTER	**Art Unit** 2844	**AIA (First Inventor to File) Status** No

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 05 February 2016 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance;

(2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☒ The period for reply expires *3* months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires months from the mailing date of *the prior Advisory Action* or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANT'S FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because
   a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
   b) ☐ They raise the issue of new matter (see NOTE below);
   c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
   d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicant's reply has overcome the following rejection(s): _____.

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:

_____.

13. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____

14. ☐ Other: _____.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: .
Claim(s) objected to: .
Claim(s) rejected: 1-26.
Claim(s) withdrawn from consideration: .

/ALEXANDER H TANINGCO/ Supervisory Patent Examiner, Art Unit 2844	/DAVID LOTTER/ Examiner, Art Unit 2844

Continuation of 3. The newly proposed claims submitted 2/05/2016 would require a new search and/or consideration for determining novelty.Furthermore, the claims after cancelled claim 9 are not properly presented. Specifically, claims 10-26 should not be renumbered. They should remain claims 10-26.

DO NOT ENTER: /D.L./

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Friday, February 5, 2016
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Lotter, David E
Art Unit: 2844

Reply to Final Office Action dated October 5, 2015

Mailstop: Amendment

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on **Feb 5, 2016**.

Signature

/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed October 5, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	26	-	20	=	0
Independent	4	-	4	=	0

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	15/357,549	Filing Date	2012-01-24	Docket Number (if applicable)		Art Unit	2844
First Named Inventor	Yechezkal Evan Spero			Examiner Name	David E. Lotter		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☒ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____

☐ Other _____

☐ Enclosed

☐ Amendment/Reply

☐ Information Disclosure Statement (IDS)

☐ Affidavit(s)/ Declaration(s)

☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____
(Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☐ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No _____

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

Patent Practitioner Signature

X Applicant Signature

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Applicant Signature			
Applicant 1		Remove	
Signature	/Yechezkal Evan Spero /	Date (YYYY-MM-DD)	2016-05-26
Name	Yechezkal Evan Spero		
Click ADD for additional Applicant Signature		Add	

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	13357549
Filing Date:	24-Jan-2012
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Filer:	Yechezkal Evan Spero
Attorney Docket Number:	

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
Request for Continued Examination	2801	1	600	600
		Total in USD ($)		**600**

Electronic Acknowledgement Receipt

EFS ID:	25901271
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	26-MAY-2016
Filing Date:	24-JAN-2012
Time Stamp:	17:52:25
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	Credit Card
Payment was successfully received in RAM	$600
RAM confirmation Number	4555
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	sb0030e_RCE-13-357549.pdf	697615 1e5b4171093b465864e30927d773c3c2b238c2ab	no	3
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	30079 917371afd2fd31d69056a6f039dca755ee5e075b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	727694		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 08/15/2016

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

EXAMINER
LE, TUNG X

ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
08/15/2016	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner TUNG X. LE	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05/26/2016*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-25* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☒ Claim(s) *8-18* is/are allowed.

7)☒ Claim(s) *1,2,5-7,19,21 and 25* is/are rejected.

8)☒ Claim(s) *3,4,20 and 22-24* is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

This Office Action is in response to the Applicant's request for continued examination (RCE) filed on May 26, 2016. In virtue of this filing, claims 1-25 are now pending in the instant application.

Continued Examination

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 05/26/2016 has been entered.

Claim Objections

2. Claims 1 and 20-25 are objected to because of the following informalities:

Claim 1, in line 16, --and-- should be inserted after "controller;"

Claim 20, in line 1, "claim 20" should be changed to --claim 19--;

Claim 21, in line 1, "claim 20" should be changed to --claim 19--;

Claim 21, in line 2, "One" should be changed to --one--;

Claims 22-24, in line 1, "claim 21" should be changed to --claim 20--;

Claim 25, in line 1, "claim 20" should be changed to --claim 19--;

Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2, 5-7, 19 and 21-25 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Kuhlman et al. – US 2012/0287493.

With respect to claim 1, Kuhlman discloses in figure 1 a light fixture for illuminating an area (24) to be lit capable of automatically meeting specific illumination requirements of different sub-areas (22A-22C) within the area to be lit (figure 1), comprising a. multiplicity of independently controllable light sources (12A-12C), including at least two light source (12A-12B) of directional light output (D1-D2), such that each said source substantially illuminates a different sub-area within the area to be lit (see figure 1), the light sources having at least one of controllable light intensity and spectral light distribution (paragraph 0021, e.g., “a pattern of light formed by light distribution patterns 22A-22C may be varied by the controller 16”); b. a controller (16) for adjusting at least one of a light intensity and light spectrum of the light sources (paragraph 0021); c. one or more detectors (40) for sensing at least one of objects (42); surfaces and beings (58) within the area to be lit including the specific sub-area location

information and of passing the sensed information to the controller (figures 1 and 2); d. a processor (paragraph 0016, e.g., the controller 16 may include a processor, not shown") for processing the sensed information and determining illumination requirements of the at least one of objects (42), surfaces and beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement (see paragraphs 0021-0023).

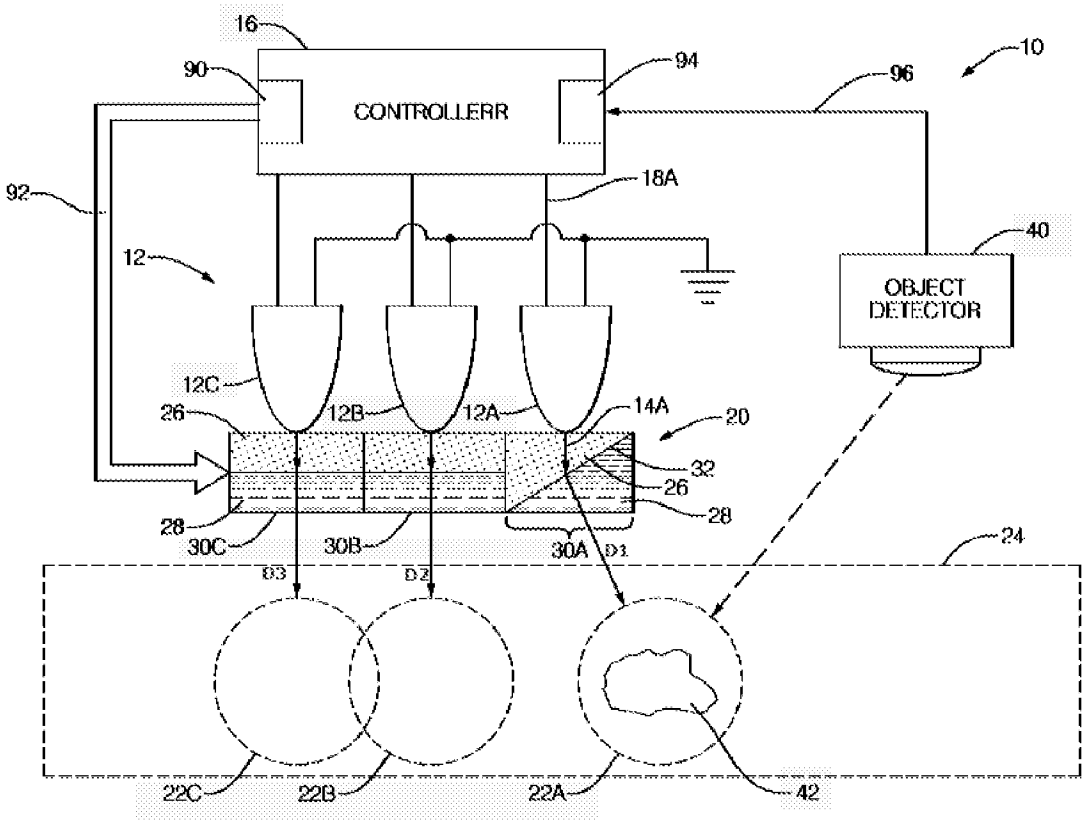


FIG. 1

With respect to claim 2, Kuhlman discloses that where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii)

a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors (figure 1, e.g., 40 is a camera photo sensor).

With respect to claim 5, Kuhlman discloses that for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods in a sub-area and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor (paragraphs 0017-0018, e.g., the lighting system 10 is being used in indoor or outdoor environment areas).

With respect to claim 6, Kuhlman discloses in figure 1 an illuminating device having automatic control of the light provided to an illuminated area (24) comprising: a structure (10) for incorporating illuminating device elements (12A-12C); one or more light sources (12A) incorporated in the structure and in communication with a power source (having a power supply, not shown, to provide power to light the light sources 12A-12B); electronic circuitry apparatus (12, 26, 40) for the controlled powering of the light source and other illuminating device elements (see figure 1); one or more cameras (40) placed on the structure for detecting coordinate-specific information about the illuminated area (figure 1, e.g., detecting an object 42 or figure 2, e.g., detecting an object 58), said camera in communication with power and control device elements (figure 1 and paragraph 0015); a controller (16) integrated with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area (see paragraphs 0015-0016).

With respect to claim 7, Kuhlman discloses that where one or more light sources are directional wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area (figure 2, e.g., a person 58), and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare (paragraph 0016).

With respect to claim 19, Kuhlman discloses in figure 1 an automated irradiating device for providing radiation to individuals (22A-22C) within an area (24), intended to provide a desired radiation in a sub-area (22A) proximate to the individuals, comprising: an irradiation fixture (12) including one or more directional radiation sources (12A-12C) where the radiation is in a defined direction (D1); at least one detector (40) for sensing a location (at location 22A) of individuals in the area and feeding transferring that information to a controller (having a sensing signal 96 to provide information to the controller 16); a where said controller (16) for adjusting adjusts at least one of (i) a radiation intensity (paragraph 0005, e.g., "the output is configured for outputting a control signal to an electrowetting lens operable to vary a light distribution pattern of light from a light source arriving in the area …"), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (paragraph 0005).

With respect to claim 21, Kuhlman discloses that further comprising one or more directional radiation sources (30A-30C) capable of being moved so as to direct radiation in a defined direction (see figure 1); the at least one detector capable of providing information on the present location of individuals in the area (figure 1); the

controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals (paragraph 0016, e.g., “the controller 16 may include a processor, not shown, ... memory, not shown, ... such as electrically erasable programmable read-only memory, EEPROM, for storing one or more routines, thresholds and captured data... "), whereby the desired radiation is provided in a sub-area substantially proximate to the individuals (see figure 1).

With respect to claim 25, Kuhlman discloses that further comprising where one or more of the irradiating sources (30A-30C) is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat (see figure 1) whereby the device is capable of providing both a desired light and heat radiation to the individuals (see paragraph 0017).

Allowable Subject Matter

5. Claims 8-18 are allowed.

6. Claims 3-4 and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

7. The following is a statement of reasons for the indication of allowable subject matter:

Prior art of record fails to disclose or fairly suggest the following limitations:

An illuminating …, comprising … “a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of

people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters according to best practice standards, directs the controller to adjust the directional light sources that illuminates the specific sub-areas to meet the illumination requirements of the visual activities", in combination with the remaining claimed limitations as claimed in independent claim 8 (claims 9-18 would be allowable as being dependent on claim 8).

Response to Arguments

8. Applicant's arguments with respect to claims 1-2, 5-7, 19 and 21-25 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Doublet – US 2011/0211110

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUNG X. LE whose telephone number is (571)272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUNG X. LE/
Primary Examiner, Art Unit 2844
August 12, 2016

Notice of References Cited	Application/Control No. 13/357,549	Applicant(s)/Patent Under Reexamination SPERO, YECHEZKAL EVAN	
	Examiner TUNG X. LE	Art Unit 2844	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2012/0287493 A1	11-2012	KUHLMAN; FREDERICK F.	B60Q1/085	359/228
*	B	US-2011/0211110 A1	09-2011	Doublet; Antoine	H04N7/188	348/370
	C	US-				
	D	US-				
	E	US-				
	F	US-				
	G	US-				
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	**Art Unit**
	TUNG X. LE	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014	01/15/2015	09/25/2015	08/12/2016					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	O					
	4	✓	✓	✓	O					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	=					
	9	✓	✓	✓	=					
	10	✓	✓	✓	=					
	11	✓	✓	✓	=					
	12	✓	✓	✓	=					
	13	✓	✓	✓	=					
	14	✓	✓	✓	=					
	15	✓	✓	✓	=					
	16	✓	✓	✓	=					
	17	✓	✓	✓	=					
	18	✓	✓	✓	=					
	19	✓	✓	✓	✓					
	20	✓	✓	✓	O					
	21	✓	✓	✓	✓					
	22	✓	✓	✓	O					
	23	✓	✓	✓	O					
	24	✓	✓	✓	O					
	25	✓	✓	✓	✓					

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L7	84215	(H05B37/02$2 or H05B33/08$2 or B60Q1/04).CPC.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/12 00:23
L8	13382	315/77,152,307,312.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/12 00:23
L9	411	8 and ((camera or photo) near2 sensor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/12 00:23
S1	2	"13357549"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 14:56
S2	714	(light$3 near2 (system or network or fixture)) and ((motion near2 sensor) with (object or people or user)) and (area or location or environment) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 15:06
S3	372	S2 and ((camera or photo) near2 sensor)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 15:08
S4	354	S3 and program$7	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 15:12
S5	69	S3 and program$7 and irradiat$3	US-PGPUB;	OR	ON	2016/08/10

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:13
S6	285	S4 not S5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 15:25
S7	342	S2 not S3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 16:37
S8	50	("20020047628" | "20040105264" | "5785243" | "6166496" | "20020039238" | "20080136356" | "20020022927" | "5983161" | "6394614" | "20040138726" | "5994844" | "6379022" | "6385352" | "20020046100" | "20020047646" | "20020057340" | "20060222213" | "20020022774" | "5546475" | "5969754").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 18:53
S9	8	S8 and ((sens$3 or detect$3) near3 motion)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 18:56
S10	16	"8100552".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/10 18:59
S11	81	("20010014019" | "5561346" | "5577832" | "5749646" | "5921660" | "6149283" | "6227679" | "6340868" | "6379022" | "6483439" | "6498440" | "6499860" | "6820998").PN. OR ("8100552").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/08/10 19:02
S12	18436	(light$3 near2 (system or network or fixture)) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 10:55
S13	2476	S12 and ((sens$3 or detect$3) with (motion or object or people or person) with (area or (sub adj1 area) or zone or location))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2016/08/11 10:57

			IBM_TDB			
S14	524	S13 and ((first or second) near2 (lamp or (light near2 source)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 10:58
S15	715	(light$3 near2 (system or network or fixture)) and ((motion near2 sensor) with (object or people or user)) and (area or location or environment) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 10:59
S16	437	S14 not S15	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 10:59
S17	29	("20020138156" | "20030040815" | "20040207342" | "20050090907" | "20050132408" | "20060173560" | "20070208460" | "20080079568" | "20080265799" | "20090160354" | "20110270446" | "20110276193" | "20110320013" | "20120206050" | "20120212138" | "20130030589" | "20130079911" | "20130321637" | "20140006506" | "20140217903" | "3898643" | "5962989" | "6069926" | "7734356" | "7774073" | "7948189" | "8055386" | "8265776" | "8884203").PN. OR ("9414464").URPN.	US-PGPUB; USPAT; USOCR	OR	ON	2016/08/11 11:53
S18	386	S12 and ((sens$3 or detect$3) with (motion or object or people or person) with (area or (sub adj1 area) or zone or location) with camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 12:15
S19	386	S18 and ((sens$3 or detect$3) with (motion or object or people or person) with (area or (sub adj1 area) or zone or location))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 12:16
S20	97	S19 and ((first or second) near2 (lamp or (light near2 source)))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2016/08/11 12:16
S21	289	S19 not S20	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2016/08/11 12:24

			EPO; JPO; DERWENT; IBM_TDB			

8/ 12/ 2016 12:33:07 AM
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	TUNG X. LE	2844

CPC- SEARCHED		
Symbol	Date	Examiner
H05B: 33/08, 37/02	08/12/2016	TXL
B60Q1/04	08/12/2016	TXL

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
315	77, 152, 307, 312	08/12/2016	TXL

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see search history printout)	08/12/2016	TXL
CPC and USPC Searches	08/12/2016	TXL

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/DAVID LOTTER/ Examiner.Art Unit 2844	

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Monday, January 16, 2017
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Le Tung X
Art Unit: 2844

Reply to Non-Final Office Action dated Aug. 15, 2016

Mailstop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on Jan. 16, 2017
Signature
/Yechezkal Evan Spero/
Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed October 5, 15, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	25	-	25	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Currently amended) A light fixture for illuminating an area to be lit capable of automatically meeting specific illumination requirements of different sub-areas within the area to be lit, comprising:
   a. a multiplicity of independently controllable light sources, including at least two light sources of directional light output, such that each said source substantially illuminates a different sub-area within the area to be lit, the light sources having at least one of controllable light intensity and spectral light distribution;
   b. a controller for adjusting at least one of a light intensity and light spectrum of the light sources;
   c. one or more detectors for sensing at least one of objects, surfaces and beings within the area to be lit including the specific sub-area location information and of passing the sensed information to the controller and;
   d. a processor for processing the sensed information and determining illumination requirements of the at least one of objects, surfaces and beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is

indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the intensity variations over the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods in a sub-area and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting coordinate-specific information about the illuminated area, said camera in communication with power and control device elements; a controller integrated

with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (Original) The illumination device of claim 6, where one or more light sources are directional wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, where different sub-areas of the illuminated area need to be illuminated at a different intensity and/or at a different spectrum than another sub-area of the illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions thereby illuminating different sub-areas of the illuminated area, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters

according to best practice standards, directs the controller to adjust the directional light sources that illuminates the specific sub-areas to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

10. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

11. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

12. (Original) The illumination device of claim 11, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

13. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

14. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

15. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

16. (Original) The illumination device of claim 15, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

17. (Original) The illumination device of claim 16, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

18. (Original) The illumination device of claim 17, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

19. (Original) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information

to a controller; a where said controller for adjusting adjusts at least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

20. (Currently Amended) The automated irradiating device of claim ~~19~~20 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

21. (Currently Amended) The automated irradiating device of claim ~~20~~19, further comprising: ~~One~~one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

22. (Currently Amended) The irradiation device of claim ~~21~~20, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

23. (Currently Amended) The irradiation device of claim ~~21~~20, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

24. (Currently Amended) The irradiation device of claim ~~21~~20 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

25. (Currently Amended) The automated irradiating device of claim ~~20~~19 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1 Claim Objections

1) Claim 1, in line 16, --and-- should be inserted after "controller;"

The examiner requested corrections have been made in the new listing of claims.

→ Claim 1 has been currently amended by adding "and" after the word *"controller"* and marked-up in the full list of claims.

2) Claim 20, in line 1, "claim 20" should be changed to --claim 19

The examiner requested correction has been made in the new listing of claims.

→ Claim 20 has been currently changed to Claim19 and marked-up in the full list of claims.

3) Claim 21, in line 1, "claim 20" should be changed to --claim 19

The examiner requested correction has been made in the new listing of claims.

→ Claim 21 has been currently amended and marked-up in the full list of claims.

4) Claim 21, in line 2, "One" should be changed to --one--;

→ Claim 21 has been currently amended and marked-up in the full list of claims.

5) Claims 22-24, in line 1, "claim 21" should be changed to --claim 20--;

→ Claims 22-24 have been currently amended and marked-up in the full list of claims.

6) Claim 25, in line 1, "claim 20" should be changed to --claim 19--;

→ Claim 25 has been currently amended and marked-up in the full list of claims.

Claim Rejections - 35 USC § 102

***In reply to point* 3:** The following is a quotation of of pre-AIA 35 U.S.C. 102 basis for the rejections in this Office action:

A person shall be entitled to a patent unless —(e) the invention was described in (1) an

> application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent…

The applicant wishes to note, that the present application is a Continuation in Part, CIP of a Patent Titled "Multiple light source illumination system" filed on July 14, 2003 and published in June 3, 2004. The applicant respectfully asks if the filing date of the Kuhlman et al. — US 2012/0287493 which is from May 12, 2011 can anticipate material in the CIP that was filed on an earlier date. If it cannot, the applicant asserts that Kuhlman, besides not reading on the content of the present application because of being a different apparatus (as explained in point 4 below), is not anticipatory regarding the invention Claimed 1 and 2. The content of those claims in the CIP are already contained in the specification of the 2003 disclosure. In that patent application, the multiple light sources are controlled by a processor to illuminate sub-areas of the room differently based on usage as detected. From paragraph [0164] *"This includes providing the correct illumination in real-time based on occupant whereabouts, activity being performed and outside factors"*. The applicant therefore submits that based on the earlier filing date of the parent application, Kuhlman could have had the present applicant's specification before him when developing his invention and therefore could not qualify under 35 USC § 102 as prior art. The applicant submits that the claimed device is a novel machine and requests that the claims and their dependent claims be allowed.

In reply to point 4

> Claims 1-2, 5-7, 19 and 21-25 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Kuhlman et al. — US 2012/0287493. With respect to claim 1,

Regarding claims 1 & 2 the applicant undertakes to describe the difference in the apparatuses disclosed: While Kuhlman accomplishes the same goal of illumining different sub-areas of a room differently based on the detection of a person in an area, Kuhlman does it with a dynamic light refracting element he calls an "electrowetting lens". The present disclosure uses multiple LEDs having fixed refracting optics at different angular aiming to accomplish the sub-area illumination task as in Fig. FIG. 2B described in para. *[0143]: … the light distribution can be nonsymmetrical and tailored to the needs of the room. The screw base 17 has a detent or pin 26 that coincides with the stop point on the socket, which is mounted in a specific location radially around the lamp at an angle .beta., 27 in reference to pin 26 and a design start point on the circumference of body 24. The SLS are placed at an angle .beta. horizontally and vertically angled .alpha. to illuminate specific areas and also have their own spatial light distribution angle .theta.1 28A.*

The controller's algorithms can use the one or more LEDs aimed at the sub-area to change the intensity and spectrum of the light as is required by the visual task at hand: *[0056] The present invention also relates to lighting fixtures comprised of many directional light*

sources that are mounted with different aimings so as to correctly illuminate an area. This unique apparatus uses camera obtained information supplied to the artificial intelligence logic to control in real time per [0059] *To effect the provision of lighting that is in concert with the actual illumination needs at a given time,... a camera serves as a sensor capable of detecting light, color and contents of the living space. The fixture is equipped with a logical controller. Using computer vision technology to recognize people, objects and surroundings the lighting fixture can provide the lighting requirements needed in the room at that moment in time. The computer vision system has been taught to recognize different visual tasks such as an individual operating a machine, reading a book or watching TV. The logical controller has instruction sets as to what color lighting at what intensity is preferable for that specific visual task. Thus if no one is in the room the lighting is off or a dimmed, aesthetic lighting is provided for the good feeling of those looking in. When people enter the room, immediately general room lighting is turned on and following that, specific task lighting is provided and adjusted to the right level and color based on where they are in the room and what they are doing.* In the present disclosure, to accomplish dynamism of the light distribution pattern, in place of a variable "electrowetting lens" it uses mechanical movement as per paragraph [200] of the present disclosure ([0168] of the 2003 disclosure): *In a preferred embodiment the DLF or ADLF is rotated about an axis... The positionally correlated timed firings of the rotating DLF will illuminate as need per location per usage requirements in real time.* While Kuhlman's device and the one in the present disclosure can do many of the same things using a camera or similar detector, the present invention is a totally different physical apparatus that was not described in the prior art. The applicant requests that the claims 1 and 2 be allowed.

In reply to With respect to claim 5, Kuhlman discloses that for optimally displaying food, where ... based on illumination requirements from the processor (paragraphs 0017-0018, e.g., the lighting system 10...

The present disclosure describes apparatus and method for optimally displaying food. E.g.: [0280] *Using programmed scene recognition algorithms, the luminaire's computer vision system comprised of the camera sensor 496 and logical controller 494 identifies the food on the plate, looks-up in storage the recommended CCT and powers each of the different colored LED chips aimed thereon at the correct power level in order to provide the optimal color illumination.* The applicant could not find any description of a new use for their device to optimally display food in the cited paragraphs nor in the entire specification. The "indoor use" alone would not describe the control logic nor apparatus needed to effect the illumination. These capabilities are unique to the novel invention and are not taught by Kuhlman's disclosure. The applicant therefore requests that the claim 5 be allowed.

In reply to: With respect to claim 6, Kuhlman discloses in figure 1 an illuminating device having automatic control of the light provided to an illuminated area (24) comprising: a structure ...said

controller arranged to processes … from the camera and automatically control the light provided to the illuminated area (see paragraphs 0015-0016).

The applicant submits that as in reply to point 3 above that the multiple LED device of the present CIP disclosure has an earlier filing date than that of Kuhlman and askes that claim 6 be allowed.

Regarding: claim 7, Kuhlman discloses that where one or more light sources are directional …detectors are configured to sense a presence of glare on a person's eyes in the illuminated area (figure 2, e.g., a person 58), and wherein the controller is programmed to ….reduce the glare (paragraph 0016).

The present disclosure mentions glare 101 times and has numerous arrangements of physical light sources processing devices and algorithms to prevent glare. For example para. [0266] : *The logical controller 454 provides its own feedback by checking in real time via the sensors 453 if the illumination provided by driving the light sources at the current setting is in accordance with recommended lighting levels and chromacity. In addition by using pattern recognition and knowing the location of the user's eyes the logical controller can determine if the illumination is causing glare discomfort or veiling reflections. The logical controller by comparing new images with previous images detects if there is a change in the lighting requirements. If changes have occurred, the illumination determining process of FIG. 23 is repeated and a new configuration of driver settings and/or light source aimings is obtained.*

The applicant has searched Kuhlman, the cited paragraph as well as the rest of the specification for an apparatus arranged to detect disabling illumination such as glare and found no mention. The new use for the detector and optical apparatus of claim 7 explicitly differentiates it from the prior art of Kuhlman whose disclosure lacks the requisite sensing and physical light distribution apparatus needed to reduce glare. The present invention is a totally new use for a lighting apparatus that was not described in the prior art. The applicant requests that the claim 7 be allowed.

Regarding: With respect to claim 19, Kuhlman discloses in figure 1 an automated irradiating device for providing radiation to individuals (22A-22C) within an area (24), intended to provide a desired radiation in a sub-area (22A) proximate to the individuals, comprising: an irradiation fixture (12)

The applicant submits that the use of the device for infrared heating in a sub-area as described in the present disclosure is not covered in the prior art of Kuhlman.

The specification describes in Fig 23 and para. [0274] *An irradiation device embodiment of this FAML invention can use the computer vision and aim-ability function to provide infrared heating to individuals in indoor and outdoor settings. The heat radiation sources can be infrared filament lamps or infrared LEDs in addition to other wavelengths. The irradiating devices 472 mounted on the irradiation fixture can provide general area heating or spot heating 482 to people or objects. … It is to be understood that the irradiating source can be supplying UV radiation, visible light, or any other Kuhlman for*

therapeutic, pleasure or manufacturing purposes such as UV, EB or heat curing adhesives etc.

Nowhere in the Kuhlman specification is radiation, heat or UV to be found and for good reason. The applicant contends that space heating and other irradiation is not possible using the device described by Kuhlman in para. [0014] *The system 10 may include an electrowetting lens 20 operable to vary a light distribution pattern 22A of light from the light source 12A into an area 24. In general, electrowetting lenses, also known as liquid lenses, contain two fluids: an aqueous fluid, commonly referred to as the water layer and indicated as water 26; and a hydrophobic dielectric fluid, commonly referred to as the oil layer and indicated as oil 28.* The amount of energy absorbed by the liquid lens would cause it to boil. Using UV radiation would not be possible as it is absorbed in the liquid lens, Thus the use of radiation for heating and health applications would not be anticipated in Kuhlman's invention. The applicant therefore submits that the new use of the sub-area delivery device for irradiation is novel and requests that claim 19 be allowed.

Regarding: With respect to claim 21, Kuhlman discloses that further comprising one or more directional radiation sources (30A-30C) capable of being moved

The present specification describes in para. [0274] *The irradiating devices 472 mounted on the irradiation fixture can provide general area heating or spot heating 482 to people or objects. Just as moveable head stage lighting follows the performer about the stage the camera/controller vision system follows the person around the room or outdoors and keeps them warm with an infra-red lamp 482.* As described relating to claim 19 the heating application with a moving distribution effected by a liquid lens could not be foreseen by Kuhlman as the physics involved would prevent it from working. Therefore the necessary words of description for radiation or heat are not to be found in the specification or any figure.

Thus as the apparatus of the present specification is totally different machine with fixed refractors and the new use of radiation for heating and health applications could not be anticipated in Kuhlman's invention the applicant requests that claim 21 be allowed.

Regarding: With respect to claim 25, Kuhlman discloses that further comprising where one or more of the irradiating sources (30A-30C) is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat (see figure 1) …

The claim is of a combined dual spectrum radiation device for providing both heat and light focused on a detected room resident per para. *[0275] In an embodiment of the FAML the infrared radiation sources are added to the light source and can work together when necessary to provide heat and light.* As described earlier relating to claim 19, the heating application with effected by a liquid lens could not be foreseen by Kuhlman as

the physics involved would prevent it from working. Therefore the necessary words of description for radiation or heat are not to be found in the specification or any figure. Thus as the apparatus of the present specification is totally different machine with fixed refractors, with combined dual radiation sources mounted coaxially and the new use of radiation for heating applications could not be anticipated in Kuhlman's invention the applicant requests that claim 25 be allowed.

In reply to Point 6. Claims 3-4 and 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The pro-se applicant is not familiar enough with the re-writing of the claims for allowance and would like to discuss it with the examiner in the next office action.

Conclusion

The applicant has revised the objected claims and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,

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Monday, January 16, 2017

Electronic Patent Application Fee Transmittal

Application Number:	13357549
Filing Date:	24-Jan-2012
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Filer:	Yechezkal Evan Spero
Attorney Docket Number:	

Filed as Small Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	2253	1	700	700
Miscellaneous:				
			Total in USD ($)	**700**

Electronic Acknowledgement Receipt

EFS ID:	28072871
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	16-JAN-2017
Filing Date:	24-JAN-2012
Time Stamp:	19:59:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	$700
RAM confirmation Number	011717INTEFSW20050500
Deposit Account	
Authorized User	
The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	Reply_OA_Aug-15-16.pdf	141415 7ebdc88b84281a38e3f1cfc3276d08daa11312ea	no	14
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	29784 c7a779bab990783bf263078bd57d398da3578435	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	171199		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/357,549	Filing Date 01/24/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT	01/16/2017	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 25	Minus	** 26	= 0	X $40 =	0
	Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $210 =	0
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	0

AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
ALLYSON PURNELL

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 05/01/2017

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74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

EXAMINER
LE, TUNG X

ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
05/01/2017	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner TUNG X. LE	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01/16/2017*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-25* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☒ Claim(s) *1-18* is/are allowed.

7)☒ Claim(s) *19 and 25* is/are rejected.

8)☒ Claim(s) *20-24* is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

This Office Action is in response to the Applicant's amendment submitted on January 16, 2017. In virtue of this amendment, claims 1-25 are now pending in the instant application.

Claim Objections

1. Claim 19 is objected to because of the following informalities:

In line 6, "a where said controller for adjusting adjusts" should be changed to --wherein said controller for adjusting--

Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "power and control device elements" recited in line 8 of claim 6 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 19 and 25 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Mueller et al. (US 2004/0052076).

With respect to claim 19, Mueller discloses in figures 9 and 39 an automated irradiating device for providing radiation to individuals within an area (3804, e.g., a counter or workspace described in paragraph 0268), intended to provide a desired radiation in a sub-area (figure 39 shows each of light fixtures 100 provides a desired radiation in a sub-area itself) proximate to the individuals, comprising: an irradiation

fixture (100, e.g., a lighting unit) including one or more directional radiation sources (LED01-LED05) where the radiation is in a defined direction (D); at least one detector (124) for sensing a location of individuals in the area (paragraph 0185, e.g., the sensor is a motion sensor for sensing the environment conditions) and feeding transferring that information to a controller (102, e.g., a processor for receiving the sensing information from the sensor 124); a where said controller for adjusting adjusts at least one of (i) a radiation intensity (paragraph 0300, e.g., “a closed loop system can read spectral properties and adjust color rendering index, color temperature, color, intensity, or other lighting characteristics"), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (see paragraph 0178).

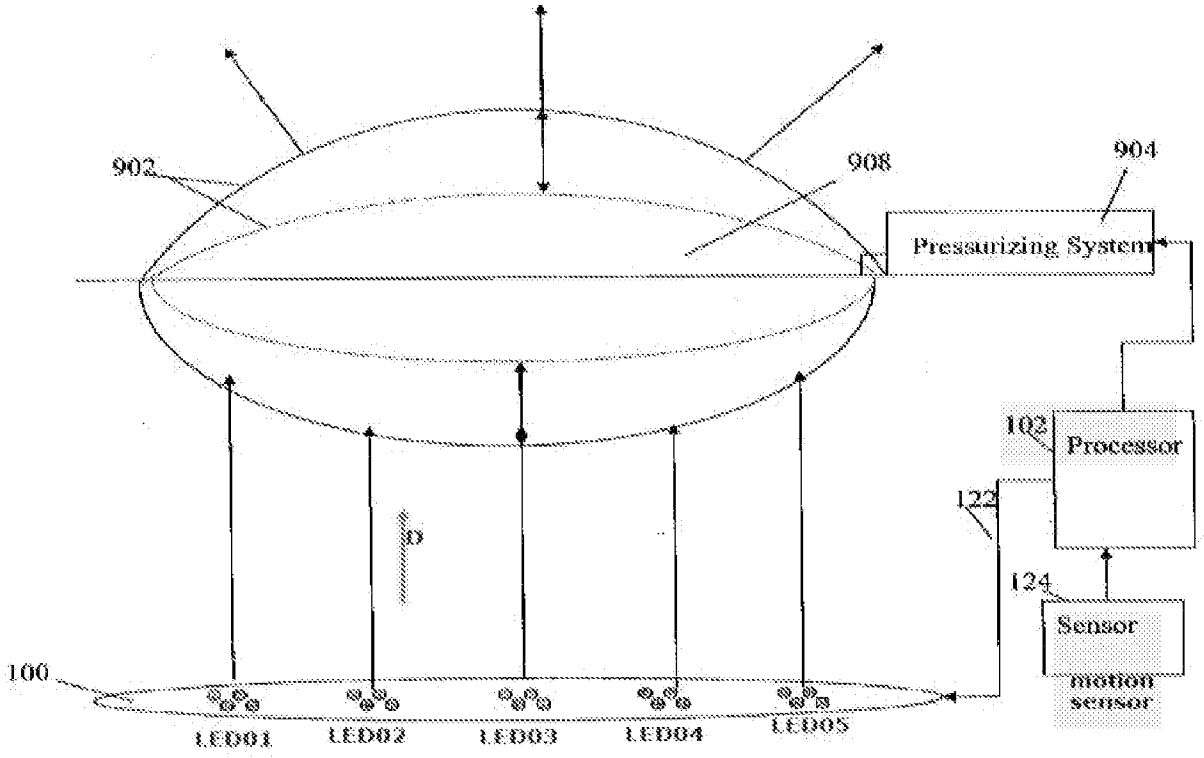


Fig. 9

With respect to claim 25, Mueller discloses that further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals (see paragraph 0224).

Allowable Subject Matter

5. Claims 1-5, 8-18 are allowed.

6. Claims 6-7 would be allowable if overcome the objection set forth above.

7. Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. The following is a statement of reasons for the indication of allowable subject matter:

Prior art of record fails to disclose or fairly suggest the following limitations:

- A light fixture for illuminating an area to be lit capable of automatically meeting specific illumination requirements of different sub-areas within the area to be lit, comprising … “d. a processor for processing the sensed information and determining illumination requirements of the at least one of objects, surfaces and beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement”, in combination with the remaining claimed limitations as claimed in independent claim 1 (claims 2-5 would be allowable as being dependent on claim 1).

- Reasons for indicating the allowable subject matter of claims 8-18 were provided in the previous office action.

Response to Arguments

9. Applicant's arguments with respect to claims 19 and 25 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUNG X. LE whose telephone number is (571)272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUNG X. LE/
Primary Examiner, Art Unit 2844
April 26, 2017

Notice of References Cited	Application/Control No. 13/357,549	Applicant(s)/Patent Under Reexamination SPERO, YECHEZKAL EVAN	
	Examiner TUNG X. LE	Art Unit 2844	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-2004/0052076 A1	03-2004	Mueller, George G.	F21V23/0442	362/293
	B	US-				
	C	US-				
	D	US-				
	E	US-				
	F	US-				
	G	US-				
	H	US-				
	I	US-				
	J	US-				
	K	US-				
	L	US-				
	M	US-				

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	TUNG X. LE	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014	01/15/2015	09/25/2015	08/12/2016	04/26/2017				
	1	✓	✓	✓	✓	=				
	2	✓	✓	✓	✓	=				
	3	✓	✓	✓	O	=				
	4	✓	✓	✓	O	=				
	5	✓	✓	✓	✓	=				
	6	✓	✓	✓	✓	=				
	7	✓	✓	✓	✓	=				
	8	✓	✓	✓	=	=				
	9	✓	✓	✓	=	=				
	10	✓	✓	✓	=	=				
	11	✓	✓	✓	=	=				
	12	✓	✓	✓	=	=				
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	14	✓	✓	✓	=	=				
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	22	✓	✓	✓	O	O				
	23	✓	✓	✓	O	O				
	24	✓	✓	✓	O	O				
	25	✓	✓	✓	✓	✓				

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S26	20207	(light$3 near2 (system or network or fixture)) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:39
S27	5837	S26 and ((sens$3 or detect$3) near3 (object or motion))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:40
S28	1363	S26 and (((sens$3 or detect$3) near3 (object or motion)) with camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:41
S29	770	S28 and (area or zone or location or surface or region) and table	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:43
S30	5	S29 and (adjust$4 near2 (intensity and spectr$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:44
S31	576	S29 and (adjust$4 near2 (intensity or brightness or spectr$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 11:46
S32	85153	(light$3 or lamp) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 16:23
S33	85153	(light$3 or lamp) and ($5processor or $5controller) and (adjust$3 with (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 17:55
S34	19501	S33 and ((sens$3 or detect$3) near3 (object or motion))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 17:56
S35	10126	S34 and (area or zone or location or surface or region) and table	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 17:57

S36	3759	S33 and (((sens$3 or detect$3) near3 (object or motion)) with camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:08
S37	2629	S36 and ((area or zone or location or surface or region) with camera)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:10
S38	1683	S37 and (adjust$4 near2 (intensity or brightness or spectr$3))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:10
S39	383	S37 and (adjust$4 near2 (intensity or brightness or spectr$3)) and glare	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:20
S40	242	S37 and ((adjust$4 near2 (intensity or brightness or spectr$3)) with (area or location or zone))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:45
S41	217	S40 not S39	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 18:46
S42	2177	(light$3 near2 fixture) and ($5processor or $5controller) and (adjust$3 near2 (intensity or brightness or spectral or spectrum))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 22:43
S43	897	S42 and ((sens$3 or detect$3) near3 (object or motion))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 22:43
S44	361	S43 and radiat$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/25 22:44
S45	897	(light$3 near2 fixture) and ($5processor or $5controller) and (adjust$3 near2 (intensity or brightness or spectral or spectrum)) and ((sens$3 or detect$3) near3 (object or motion))	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/04/26 07:30

4/26/2017 10:38:11 AM
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Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	Art Unit
	TUNG X. LE	2844

CPC- SEARCHED		
Symbol	Date	Examiner
H05B: 33/08, 37/02	08/12/2016	TXL
B60Q1/04	08/12/2016	TXL

CPC COMBINATION SETS - SEARCHED		
Symbol	Date	Examiner

US CLASSIFICATION SEARCHED			
Class	Subclass	Date	Examiner
315	77, 152, 307, 312	08/12/2016	TXL

SEARCH NOTES		
Search Notes	Date	Examiner
EAST (see search history printout)	08/12/2016	TXL
CPC and USPC Searches	08/12/2016	TXL
EAST (see search history printout)	04/25/2017	TXL

INTERFERENCE SEARCH			
US Class/ CPC Symbol	US Subclass / CPC Group	Date	Examiner

/DAVID LOTTER/ Examiner.Art Unit 2844	

In the United States Patent and Trademark Office

Application/CN: 13/357,549 Tuesday, August 1, 2017
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Le Tung X
Art Unit: 2844

Reply to Non-Final Office Action dated May 1, 17

Mailstop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

Certificate of Transmission Under 37 C.F.R. § 1.8

I hereby certify that this correspondence is being deposited electronically with the U.S. Patent and Trademark Office using the United States Patent and Trademark Office's EFS-Web system on August 1, 2017

Signature
/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed May 1, 17, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Remarks begin on page 9 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	25	-	25	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) A light fixture for illuminating an area to be lit capable of automatically meeting specific illumination requirements of different sub-areas within the area to be lit, comprising:
   a. a multiplicity of independently controllable light sources, including at least two light sources of directional light output, such that each said source substantially illuminates a different sub-area within the area to be lit, the light sources having at least one of controllable light intensity and spectral light distribution;
   b. a controller for adjusting at least one of a light intensity and light spectrum of the light sources;
   c. one or more detectors for sensing at least one of objects, surfaces and beings within the area to be lit including the specific sub-area location information and of passing the sensed information to the controller and;
   d. a processor for processing the sensed information and determining illumination requirements of the at least one of objects, surfaces and beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is

indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the intensity variations over the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods in a sub-area and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting coordinate-specific information about the illuminated area, said camera in communication with power and control device elements; a controller integrated

with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (Original) The illumination device of claim 6, where one or more light sources are directional wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, where different sub-areas of the illuminated area need to be illuminated at a different intensity and/or at a different spectrum than another sub-area of the illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions thereby illuminating different sub-areas of the illuminated area, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said processer, upon calculating the required illumination parameters

according to best practice standards, directs the controller to adjust the directional light sources that illuminates the specific sub-areas to meet the illumination requirements of the visual activities.

9. (Original) The illuminating device of claim 8, adjustable by an installer based on room geometry and/or usage further comprising the light fixture having adjustable arms on which directional light sources are mounted for aiming the directional light sources within the illuminated area, where said detector and processor combination provides feedback to the installer so as to aim the light sources such that the illumination requirements can be met by the re-adjusted light source aimings.

10. (Original) The illumination device of claim 8, wherein the controller receives real time information from the camera and wherein the processor, using image recognition capability, directs the controller to adjust at least one of (i) the intensity, (ii) the spectral light distribution and, (iii) the direction of the light sources based on at least one of (i) where people requiring illumination are located, (ii) what object the person is viewing and (iii) what visual task the person needs to perform.

11. (Original) The illumination device of claim 8, further comprising at least one of the directional light sources mounted on the movable structure where the movement of the light source direction is automatically controlled by the controller.

12. (Original) The illumination device of claim 11, providing a different illumination to a sub-area based on usage wherein the controller interpreting images from the camera adjusts the moveable light sources such that they provide the required illumination in a sub-area proximate to the individuals as they move around in the illuminated area.

13. (Original) The illumination device of claim 8, wherein the illuminated area is a road and the objects include road signs.

14. (Original) The illumination device of claim 8, further comprising at least one of

the directional light sources on an automatic swivel joint and providing spot lights of limited beam angle for task lighting while other light source provide general illumination to the illuminated area.

15. (Original) The illumination device of claim 8, further comprising a controller with communication capability to other devices, where the camera in one location obtains information and the controller process the information and communicates the camera obtained information to a second device.

16. (Original) The illumination device of claim 15, where the illuminated area is a road and the second device to where the camera obtained information is communicated to is a lighting fixture.

17. (Original) The illumination device of claim 16, where the processor uses information obtained from the cameras and exchanged between fixtures for identifying traffic requirements in the illuminated area and from the vehicles locations and geometry determining the illumination requirements of the illumination area thereby directing the controller to adjust the directional light sources to meet the illumination requirements.

18. (Original) The illumination device of claim 17, wherein the controller is programmed to adjust at least one of (i) increase illumination with an approach of a vehicle, and (ii) change beam cut-off levels as the vehicle advances toward the lighting fixture to eliminate glare.

19. (Currently Amended) An automated irradiating device for providing radiation to individuals within an area, intended to provide a desired radiation in a sub-area proximate to the individuals, comprising: an irradiation fixture including one or more directional radiation sources where the radiation is in a defined direction; at least one detector for sensing a location of individuals in the area and feeding transferring that information to a controller; a ~~where~~ wherein said controller for adjusting, adjusts at

least one of (i) a radiation intensity, and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area.

20. (Original) The automated irradiating device of claim 19 intended to provide a desired heating to one or more individuals in an area, further comprising: at least two directional heat radiation sources pointing in different directions; the detector being a camera with capability for sensing at least one of (i) a presence of one or more individuals in the heated area, (ii) the identity of the individuals, and (iii) a body temperature of individuals present in the heated area; the controller further having processing capability for determining the heating requirements of the individuals in the area from at least one of (i) algorithms to calculate radiation parameters, (ii) stored data of heating practices, (iii) image recognition algorithms for identifying the individual based on the camera information, and (iv) an identified individual's personal preferences.

21. (Original) The automated irradiating device of claim19, further comprising: one or more directional radiation sources capable of being moved so as to direct radiation in a defined direction; the at least one detector capable of providing information on the present location of individuals in the area; the controller programmed to process the detector information and move the radiating sources so as to follow the one or more individuals, whereby the desired radiation is provided in a sub-area substantially proximate to the individuals.

22. (Original) The irradiation device of claim 20, further comprising; the detector being a camera capable of providing images of different parts of the body of individuals to the controller for image processing; the radiation sources being able to direct radiation to different parts of the body; and the controller further programmed to run the image recognition algorithms to identify different parts of the body, to compute the desired radiation level to the different parts of the body and to adjust the radiation from sources directed at the different parts of the body.

23. (Original) The irradiation device of claim 20, further comprising the controller programmed to control the irradiation in time and intensity on the individual to maintain comfortable heating based on at least one of (i) best practices, (ii) feedback from the heat detector configured to detect body temperature of different parts of a body, (iii) personal preferences input to the controller and stored in memory and (iv) commands input from an input device.

24. (Original) The irradiation device of claim 20 where the irradiation instead of for heat is for therapeutic purposes and the radiation may be any of (i) UV radiation, (ii) red light therapy in the 620-660 nm range, and (iii) light therapy for SAD and other disorders selected from the group consisting of seasonal affective disorder, sleep disorders, circadian rhythm disorders, delayed sleep phase syndrome, vitamin D deficiency and skin disorders, where the controller aims the radiation sources to the location where the individual is located and controls the time and intensity of the radiation.

25. (Original) The automated irradiating device of claim 19 further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals.

REMARKS

Favorable reconsideration of this application, in light of the remarks and following amendments, is respectfully requested.

In reply to point 1 Claim Objections:

1) *Claim 19 is objected to because of the following informalities: In line 6, "a where said controller for adjusting adjusts" should be changed to -wherein said controller for adjusting- Appropriate correction is required*

The examiner requested corrections have been made in the new listing of claims set forth above per 37 CFR 1.121.

→ Claim 1 has been currently amended by replacing "where" with "wherein" as well as adding a comma after the word adjusting and marked-up in the full list of claims.

In reply to point 2 Drawings:

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "power and control device elements" recited in line 8 of claim 6 must be shown or the feature(s) canceled

It is not clear to the applicant as to if is a specific drawing that is being objected to or in general. Claim 6 describes a lighting fixture with a camera used as a sensor to control light sources *"said camera in communication with power and control device elements"*. There are a number of embodiments including Fig.s 12, 18, 20A and 31 which are constructed with this arrangement is shown and numbered and where block diagram Fig. 22 indicates connectivity between the sensors, logical controller processor and power control gear driving the light-source. The applicant respectfully submits that the item description in the specification and claim 6 is shown in Fig. 12 as item 195. Per paragraph [0183], *The adaptive or intelligent DLF 190 shown in*

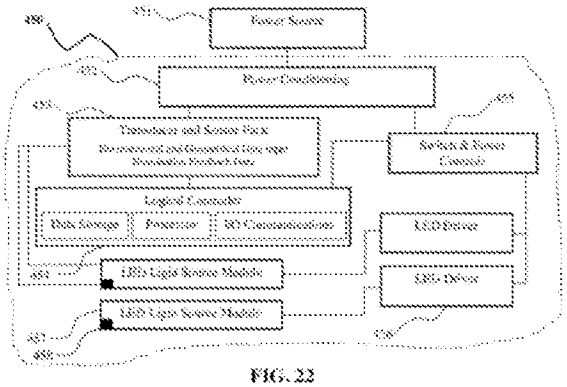


FIG. 22

FIG. 12 has multiple light sources 191…. The ADLF is equipped with an electronic power supply, computer control and communications unit 195.

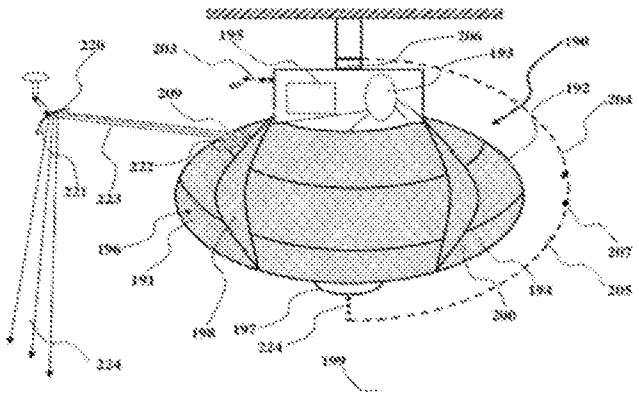


Figure 12

Again in Fig. 31 the power and control items are listed this time separately as logical controller 541 and power equipment 542. Thus per paragraph [0308] of the specification: *FIG. 31 is a perspective view of a multiple light source adjustable luminaire with added irradiation functionality.* device. *A fully featured FAML embodiment would be comprised of: a logical controller 541 having means for processing algorithms, data storage, communications and control capability for the task of influencing sleep cycles; power conditioning means 542."*

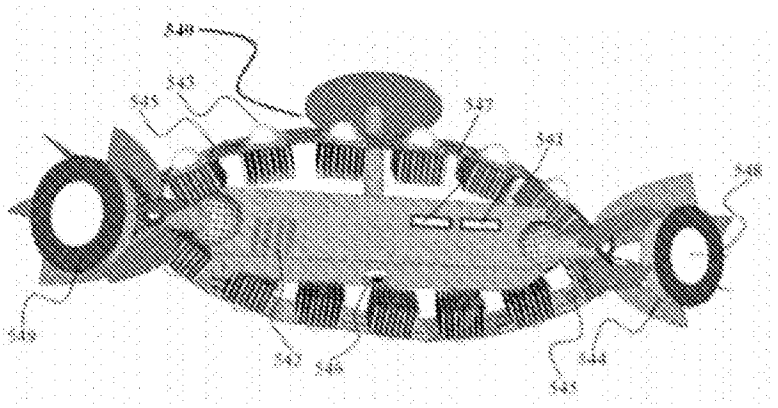


FIG. 31

If a shown in these examples the objection that drawings are not sufficiently showing the feature of the invention, the applicant would be willing to correct any drawing per the specification as instructed by the examiner.

In reply to point 3 Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis…A person shall be entitled to a patent unless - (e) the invention was described in (1) an application for patent,

Claims 19 and 25 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Mueller et al. (US 2004/0052076).

The allowance of claims 1-18 is appreciated and the applicant believes that the technical issues claim 6 and 7 are in order as explained above or if not can be made in order by knowing which drawing is in question.

However, the applicant respectfully requests reconsideration of allowing claim 19 as presently written or corrected in some form as suggested by the examiner to the pro-se applicant after I present the arguments as to why the cited prior art is not relevant in the following paragraphs.

The applicant is familiar with the authors of the patent application cited US 2004/0052076 and the technology avaible to Mueller. Lys et al at the time of the disclosure does not enable their multiple light source devices to perform as can the real-time user coordinates based device present invention.

With respect to claim 19, Mueller discloses in figures 9 and 39 an automated irradiating device for providing radiation to individuals within an area (3804, e.g., a counter or workspace described in paragraph 0268), intended to provide a desired radiation in a sub-area (figure 39 shows each of light fixtures 100 provides a desired… ., the sensor is a motion sensor for sensing the environment conditions)

The applicant has reviewed the paragraphs in question and most of the rest of Mueller's patent and claim 19 (basically in the specification the device of Fig. 31) does not read on the prior art. Their disclosure is for methods and systems for providing controlled lighting, including optical facilities for modifying light from a lighting unit. The present device of claim 19 has apparatus for providing radiation to a sub-area of a room based on 1) a sensor detection of not only of the presence of a person in a room (such as from the motion detector of Mueller) but the coordinates of the room occupant in a specific sub-area of that room and 2) the device must have control-logic to determine how the focused radiation source is to be driven in order to irradiate in a substantially limited fashion the sub-area proximate to the occupant. So whereas the flexible "optical facility" to change configuration under the control of a processor is a desirable feature in theory in moving radiation within an area there is no disclosure of how to dynamically determine where the radiation is needed on a real time basis and apparatus to specifically coordinate the delivery proximate thereto. Nowhere in Mueller's disclosure is the apparatus or method for the necessary location or coordinate information described or hinted at. Combined apparatus for obtaining the coordinates and bringing a radiation source specifically to the individual is neither trivial nor obvious.

The applicant therefore submits that based on the Mueller disclosure, even one practiced in the art would not have been capable of developing the present invention and therefore could not qualify under 35 USC § 102 as prior art. The applicant requests that the claim 19 and its dependent claims be allowed.

Should the examiner not find these arguments convincing and cannot suggest minor corrective terminology to maintain the independent claim 19 the applicant would be willing to accept the examiners allowance suggestion in the Office Action of January 1, 2017: *Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be*

allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

If I understand correctly I would need to merge claim 19 into claim 20 and then base the subsequent claims on that claim or would each claim need to be an independent claim? If they are independents then I would pay the extra fee. Please advise.

In reply to point 4

With respect to claim 25, Mueller discloses that further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals (see paragraph 0224).

The applicant has read paragraph 0224 and if I am not mistaken Mueller is referring to heat in terms of sensing or sending information as a diganl but not the radiation of heat from a device specially constructed to substantially radiate heat vs. light spectrum.

> [0224] Many types of signal source 124 can be used, for sensing any condition or sending any kind of signal, such as temperature, force, electricity, heat flux, voltage, current, magnetic field, pitch, roll, yaw, acceleration, rotational forces, wind, turbulence, flow, pressure, volume, fluid level, optical properties, luminosity, electromagnetic radiation, radio frequency radiation, sound, acoustic levels, decibels, particulate density, smoke, pollutant density, positron emissions, light levels, color, color temperature, color saturation, infrared radiation, x-ray radiation, ultraviolet radiation, visible spectrum radiation, states, logical states, bits, bytes, words, data, symbols, and many others described herein, described in the documents incorporated by reference herein, and known to those of ordinary skill in the arts.

The present disclosure describes how apparatus can be built for the combined, real-time occupant location-based irradiation of light and heat where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat.

These capabilities are unique to the novel invention and are not taught by Mueller's disclosure. The applicant therefore requests that the claim 25 be allowed.

Conclusion

The applicant has revised the objected claim and requests that the above claims now be amended as in the new list of claims. The applicant submits that the claims are now in proper form to place the case in condition for allowance which action he respectfully solicits.

Conditional Request for Constructive Assistance

Should the examiner still prefer to have these or any or any other claims amended to more clearly highlight the uniqueness of the present invention, the pro se applicant requests under M.P.E.P. § 2173.02 and §707.07(j) that the examiner should draft one or more claims for the applicant and indicate in his or her action that such claims would be allowed if incorporated in the application by amendment. This request is in order that the undersigned can place this application in allowable condition as soon as possible and without the need for further proceedings.

Very respectfully,
/ Yechezkal Evan Spero/

Yechezkal Evan Spero
20 Rashi St
Tifrach 85102
Israel
Tel: +972-54-440-7280
Fax: +972-8-998-7638
yspero@netvision.net.il

Tuesday, August 1, 2017

Electronic Acknowledgement Receipt

EFS ID:	29954610
Application Number:	13357549
International Application Number:	
Confirmation Number:	1905
Title of Invention:	Detector Controlled Illuminating System
First Named Inventor/Applicant Name:	Yechezkal Evan Spero
Customer Number:	37268
Filer:	Yechezkal Evan Spero
Filer Authorized By:	
Attorney Docket Number:	
Receipt Date:	01-AUG-2017
Filing Date:	24-JAN-2012
Time Stamp:	19:45:42
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Applicant Arguments/Remarks Made in an Amendment	Reply_Non_F_May-1-17.pdf	565792 0731dbaa952a953f5fac56a01af28b795cc485ff	no	13

Warnings:

Information:	
Total Files Size (in bytes):	565792

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
Approved for use through 1/31/2014. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 13/357,549	Filing Date 01/24/2012	☐ To be Mailed

ENTITY: ☐ LARGE ☒ SMALL ☐ MICRO

APPLICATION AS FILED – PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*	X $ =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*	X $ =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED – PART II

AMENDMENT **08/01/2017**

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	* 25	Minus	** 26	= 0	X $40 =	0
Independent (37 CFR 1.16(h))	* 4	Minus	***4	= 0	X $210 =	0
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	0

AMENDMENT

	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE ($)	ADDITIONAL FEE ($)
Total (37 CFR 1.16(i))	*	Minus	**	=	X $ =	
Independent (37 CFR 1.16(h))	*	Minus	***	=	X $ =	
☐ Application Size Fee (37 CFR 1.16(s))						
☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
					TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.

LIE
LASHAWN MORGAN

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
13/357,549	01/24/2012	Yechezkal Evan Spero		1905

37268 7590 08/11/2017

YECHEZKAL EVAN SPERO
74 MOSHAV TIFRACH
M. P. HANEGEV, 85102
ISRAEL

EXAMINER
LE, TUNG X

ART UNIT	PAPER NUMBER
2844	

MAIL DATE	DELIVERY MODE
08/11/2017	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 13/357,549	Applicant(s) SPERO, YECHEZKAL EVAN	
	Examiner TUNG X. LE	Art Unit 2844	AIA (First Inventor to File) Status No

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08/01/2017*.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5)☒ Claim(s) *1-25* is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6)☒ Claim(s) *1-18* is/are allowed.

7)☒ Claim(s) *19 and 25* is/are rejected.

8)☒ Claim(s) *20-24* is/are objected to.

9)☐ Claim(s) _____ are subject to restriction and/or election requirement.

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to PPHfeedback@uspto.gov.

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date _____.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

4) ☐ Other: _____.

The present application is being examined under the pre-AIA first to invent provisions.

DETAILED ACTION

This Office Action is in response to the Applicant's amendment submitted on August 01, 2017. In virtue of this amendment, claims 1-25 are pending in the instant application.

Claim Objections

1. Claim 19 is objected to because of the following informalities:

In line 6, "a" should be deleted

Appropriate correction is required.

Note: "a" in line 6 of claim 19 stands by itself to make the claim not clear what is "a" Applicant intended to be?

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of pre-AIA 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 19 and 25 are rejected under pre-AIA 35 U.S.C. 102(e) as being anticipated by Mueller et al. (US 2004/0052076 of record).

With respect to claim 19, Mueller discloses in figures 9 and 39 an automated irradiating device for providing radiation to individuals within an area (3804, e.g., a counter or workspace described in paragraph 0268), intended to provide a desired radiation in a sub-area (figure 39 shows each of light fixtures 100 provides a desired radiation in a sub-area itself) proximate to the individuals, comprising: an irradiation fixture (100, e.g., a lighting unit) including one or more directional radiation sources (LED01-LED05) where the radiation is in a defined direction (D); at least one detector (124) for sensing a location of individuals in the area (paragraph 0185, e.g., the sensor is a motion sensor for sensing the environment conditions) and feeding transferring that information to a controller (102, e.g., a processor for receiving the sensing information from the sensor 124); a where said controller for adjusting adjusts at least one of (i) a radiation intensity (paragraph 0300, e.g., “a closed loop system can read spectral properties and adjust color rendering index, color temperature, color, intensity, or other lighting characteristics"), and (ii) a direction of the irradiation based on sensed location, whereby the desired radiation is provided proximate to individuals in the area (see paragraph 0178).

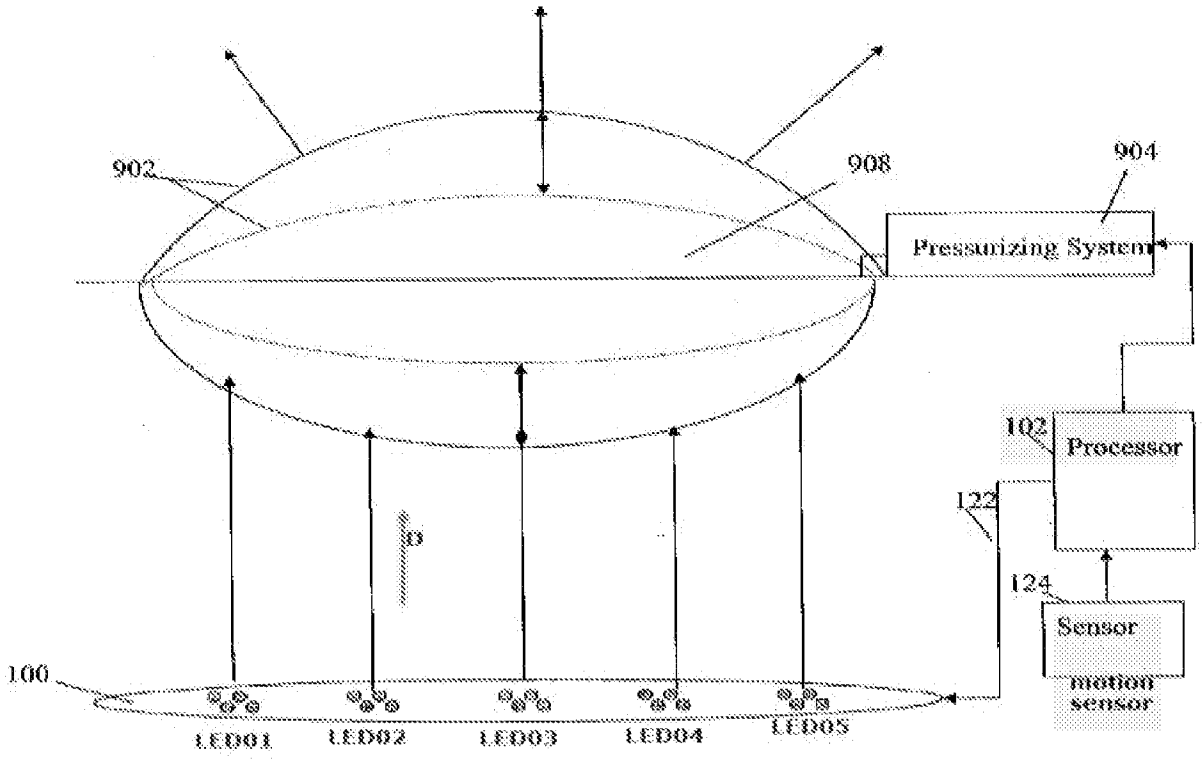


Fig. 9

With respect to claim 25, Mueller discloses that further comprising where one or more of the irradiating sources is radiating visible light and one or more of the irradiating sources is designed to substantially radiate heat whereby the device is capable of providing both a desired light and heat radiation to the individuals (see paragraph 0224).

Allowable Subject Matter

4. Claims 1-18 are allowed.

5. Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter:

- Reasons for indicating the allowable subject matter of claims 1-18 were provided in the previous office action.

Response to Arguments

7. Applicant's arguments filed 08/01/2017 have been fully considered but they are not persuasive.

Applicant argued that the Mueller disclosure, even one practiced in the art would not have not been capable of developing the present invention and therefore could not qualify under USC 102 as prior art.

Examiner respectfully disagrees as following reasons:

- Figures 9 and 39 of Mueller shows every limitation in claims 19 and 25 as addressed out in the office action above.
- Applicant did not point out what limitations, in the claims, have not been taught by the reference of Mueller.
- There is differences between the figures 12, 22 and 31 of the instant application and the figures of 9 and 39 of Mueller, but the different features are not described in the claim 19.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TUNG X. LE whose telephone number is (571)272-6010. The examiner can normally be reached on 8:30 AM - 5:30 PM.

Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas Owens can be reached on 571-272-1662. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/TUNG X. LE/
Primary Examiner, Art Unit 2844
August 9, 2017

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	13357549	SPERO, YECHEZKAL EVAN
	Examiner	**Art Unit**
	TUNG X. LE	2844

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	08/12/2014	01/15/2015	09/25/2015	08/12/2016	04/26/2017	08/09/2017			
	1	✓	✓	✓	✓	=	=			
	2	✓	✓	✓	✓	=	=			
	3	✓	✓	✓	O	=	=			
	4	✓	✓	✓	O	=	=			
	5	✓	✓	✓	✓	=	=			
	6	✓	✓	✓	✓	=	=			
	7	✓	✓	✓	✓	=	=			
	8	✓	✓	✓	=	=	=			
	9	✓	✓	✓	=	=	=			
	10	✓	✓	✓	=	=	=			
	11	✓	✓	✓	=	=	=			
	12	✓	✓	✓	=	=	=			
	13	✓	✓	✓	=	=	=			
	14	✓	✓	✓	=	=	=			
	15	✓	✓	✓	=	=	=			
	16	✓	✓	✓	=	=	=			
	17	✓	✓	✓	=	=	=			
	18	✓	✓	✓	=	=	=			
	19	✓	✓	✓	✓	✓	✓			
	20	✓	✓	✓	O	O	O			
	21	✓	✓	✓	✓	O	O			
	22	✓	✓	✓	O	O	O			
	23	✓	✓	✓	O	O	O			
	24	✓	✓	✓	O	O	O			
	25	✓	✓	✓	✓	✓	✓			

UNITED STATES PATENT AND TRADEMARK OFFICE

USPTO Automated Interview Request (AIR)

Nov 9 2017

This paper requesting to schedule and/or conduct an interview is appropriate because:

This submission is requested to be accepted as an authorization for this interview to communicate via the internet. Recognizing that Internet communications are not secure, I hereby authorize the USPTO to communicate with the undersigned concerning scheduling of the interview via video conference, instant messaging, or electronic mail, and to conduct the interview in accordance with office practice including video conferencing.

Name(s):
Yechezkal Evan Spero

S-signature:
/Yechezkal Evan Spero/

Registration Number:
37268

U.S. Application Number:
13357549

Confirmation Number:
1905

E-mail Address:
yspero@netvision.net.il

Phone Number:
9725444072

Proposed Time of Interview:
11-17-2017 8:30 AM ET

Prefered Interview Type:
Telephonic

I am the applicant or applicant's representative for this application.

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Doc Code: M865 or FAI.REQ.INTV

PTOL-413A (07-16)
Approved for use through 08/31/2016. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 13357549 First Named Applicant: Evan Spero
Examiner: Le Tung X Art Unit: 2844 Status of Application: Final OA with claims 1-25 pending

Tentative Participants:
(1) Examiner Le Tung X (2) Applicant Evan Spero
(3) _____ (4) _____

Proposed Date of Interview: All day Sept 11 or Sept 13 or Sept 12 bT 9:00 **Proposed Time:** 8:30 - 5:30 (⊙AM⊙PM)

Type of Interview Requested:
(1) ☑ Telephonic (2) ☐ Personal (3) ☐ Video Conference

Exhibit To Be Shown or Demonstrated: ☑ YES ☐ NO
If yes, provide brief description: Revised claims 1-25 5. Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in indepe

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) Amendments	20-25		☐	☐	☐
(2)			☐	☐	☐
(3)			☐	☐	☐
(4)			☐	☐	☐

☐ Continuation Sheet Attached ☑ Proposed Amendment or Arguments Attached

Brief Description of Arguments to be Presented: Per Examiners recommendation I Amended the Claims 20-24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form

An interview was conducted on the above-identified application on _____

NOTE: This form should be completed and filed by applicant in advance of the interview (see MPEP § 713.01). If this form is signed by a registered practitioner not of record, the Office will accept this as an indication that he or she is authorized to conduct an interview on behalf of the principal (37 CFR 1.32(a)(3)) pursuant to 37 CFR 1.34. This is not a power of attorney to any above named practitioner. See the Instruction Sheet for this form, which is incorporated by reference. By signing this form, applicant or practitioner is certifying that he or she has read the Instruction Sheet. After the interview is conducted, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible. This application will not be delayed from issue because of applicant's failure to submit a written record of this interview.

/Yechezkal Evan Spero/ Yechezkal Evan Spero
Applicant/Applicant's Representative Signature

Examiner/SPE Signature

Yechezkal Evan Spero
Typed/Printed Name of Applicant or Representative

Applicant's/Applicant's Representative's Telephone Number

37268 Tel +972 54- 440-7280
Registration Number, if applicable

This collection of information is required by 37 CFR 1.133. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 24 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS.
If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Mercedes 1002, Part 2 of 3
U.S. Patent No. 9,955,551

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Interview Request

Certificate of Transmission under 37 CFR 1.8

Art Unit 2844 - Examiner Tung X. LE

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office

on 11/09/2017
Date

/Yechezkal Evan Spero/ Yechezkal Evan Spero
Signature

Yechezkal Evan Spero
Typed or printed name of person signing Certificate

37268
Registration Number, if applicable

+972-54-440-7280
Telephone Number

Faxed to: 571 273-8300

Note: Each paper must have its own certificate of transmission, or this certificate must identify each submitted paper.

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If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

In the United States Patent and Trademark Office

Application/CN: 13/357,549 November 13, 2017
Application Filed: 24 January 2012
Applicant: Spero, Yechezkal Evan
Title: Detector Controlled Illuminating System
Examiner: Le Tung X
Art Unit: 2844

Reply to Non-Final Office Action dated Aug 13, 17

Mailstop: Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

The application is being prosecuted by the Applicant pro se.

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/Yechezkal Evan Spero/

Yechezkal Evan Spero

AMENDMENT UNDER 37 C.F.R. §1.111

In response to the Office Action mailed Aug. 11, 17, the following amendments and remarks are respectfully submitted in connection with the above-identified application.

Amendments to the Claims begin on page 2 of this Amendment.

Amendments to the Specification begin on page 9 of this Amendment.

Remarks begin on page 10 of this Amendment.

Record the substance of the Examiner interview begins on page 11 of this Amendment.

	Claims remaining after Amendment		**Highest number previously paid for**		**Present extra**
Total	25	-	25	=	0
Independent	4	-	4	=	0

AMENDMENTS TO THE CLAIMS

The following is a complete, marked-up listing of revised claims with a status identifier in parenthesis, underlined text indicating insertions, and strike through indicating deletions.

Full list of claims per 37 CFR 1.121

1. (Original) A light fixture for illuminating an area to be lit capable of automatically meeting specific illumination requirements of different sub-areas within the area to be lit, comprising:
    a. a multiplicity of independently controllable light sources, including at least two light sources of directional light output, such that each said source substantially illuminates a different sub-area within the area to be lit, the light sources having at least one of controllable light intensity and spectral light distribution;
    b. a controller for adjusting at least one of a light intensity and light spectrum of the light sources;
    c. one or more detectors for sensing at least one of objects, surfaces and beings within the area to be lit including the specific sub-area location information and of passing the sensed information to the controller and;
    d. a processor for processing the sensed information and determining illumination requirements of the at least one of objects, surfaces and beings using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables and for directing the controller to adjust the light source for that sub-area to meet the specific illumination requirement.

2. (Original) The illuminating device of claim 1 where the detector is comprising at least one of (i) a camera being a photo sensor array coupled with an optical lens, (ii) a photo sensor, (iii) an ultrasound transducer and sensor, (iv) microwave transducer and sensor, and (v) pyroelectric detectors.

3. (Original) The illumination device of claim 1, wherein the illuminated area is

indoors and further comprising a detector for detecting variable illumination from daylight and/or sunlight entering indoors, wherein the controller taking into consideration the intensity variations over the area now illuminated by the daylight and/or sunlight adjusts the light intensity of the directional light sources to meet the varied illumination requirement.

4. (Original) The illuminating device of claim 1, wherein the one or more detectors detects information regarding one or more individuals within the illuminated area, said information is at least one of (i) age, (ii) sex, and (iii) recognition of an individual for matching with stored data about that individual's needs and wherein the controller adjusts the light intensity and/or spectrum of the illumination provided to the one or more individuals based on illumination requirements from at least one of (i) best practices looked up and calculated from stored data, (ii) age and/or sex of the individual, (iii) personal preferences input to the controller and stored in memory, and (iv) commands received by the controller from an input device.

5. (Original) The illuminating device of claim 1 for optimally displaying food, wherein the one or more detectors detect an identity of one or more foods in a sub-area and wherein the controller adjusts the light intensity and/or spectrum of the illumination on the one or more foods based on illumination requirements from the processor.

6. (Original) An illuminating device having automatic control of the light provided to an illuminated area comprising: a structure for incorporating illuminating device elements; one or more light sources incorporated in the structure and in communication with a power source; electronic circuitry apparatus for the controlled powering of the light source and other illuminating device elements; one or more cameras placed on the structure for detecting coordinate-specific information about the illuminated area, said camera in communication with power and control device elements; a controller integrated

with the structure, in communication with the light source controlling power circuitry, said controller arranged to processes the information communicated from the camera and automatically control the light provided to the illuminated area.

7. (Original) The illumination device of claim 6, where one or more light sources are directional wherein the one or more detectors are configured to sense a presence of glare on a person's eyes in the illuminated area, and wherein the controller is programmed to adjust an intensity of the directional light sources to reduce the glare.

8. (Original) An illuminating device which provides light to meet an illumination requirement of an illuminated area in which visual activities are performed, where different sub-areas of the illuminated area need to be illuminated at a different intensity and/or at a different spectrum than another sub-area of the illuminated area, comprising: a light fixture including a multiplicity of directional light sources including at least two directional light sources pointing in different directions thereby illuminating different sub-areas of the illuminated area, the light fixture having movable structure for aiming the directional light sources mounted thereon in a defined direction; a camera for obtaining images of the illuminated area functioning as a detector for at least one of (i) a light detector (ii) a spectrum detector, (iii) a motion detector, (iv) a measuring detector for sensing a geometry of the illuminated area, and (v) a detector for sensing at least one of work surfaces and road objects and at least one of vehicles and people; a controller for adjusting a light intensity and a direction of each of the directional light sources; a processor with stored algorithms and data for identifying at least one of (i) tasks being carried out by people, (ii) location of people, (iii) frequency of area usage by people, (iv) traffic density in the illuminated area from the sensed geometry, (v) work surfaces, (vi) road objects, people and/or vehicles, and (vii) roadway surface luminance any of which is used by said processor for determining illumination within the illuminated area using at least one of artificial intelligence, pattern recognition, video analytics, and look-up tables wherein said