

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Hisense USA Corporation

Petitioner,

v.

Brightplus Ventures LLC,

Patent Owner

Case No. IPR2023-01311

U.S. Patent No. 8,177,382

**PATENT OWNER'S CONTINGENT MOTION TO AMEND UNDER 37
C.F.R. § 42.121**

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I. INTRODUCTION

Patent Owner Brightplus Ventures LLC (“Brightplus” or “Patent Owner”) respectfully submits this contingent request to substitute challenged claim 1 of U.S. Patent No. 8,177,382 (the “’382 Patent”). In the instituted trial, the Petitioner Hisense USA Corporation (“Hisense” or “Petitioner”) has challenged the patentability of claims 1-20 as obvious under 35 U.S.C. § 103, as follows:

- Claims 1-3, 7, 9, and 11-15 as obvious over Kobayashi in view of the Knowledge of a POSITA (Ground 1).
- Claims 10 and 16 as obvious over Kobayashi and Kirita in view of the Knowledge of a POSITA (Ground 2).
- Claim 8 as obvious over Kobayashi and Lim in view of the Knowledge of a POSITA (Ground 3).
- Claims 4 and 17 as obvious over Kobayashi and Tabito in view of the Knowledge of a POSITA (Ground 4).
- Claims 18 and 20 as obvious over Kobayashi, Tabito, and Onishi in view of the Knowledge of a POSITA (Ground 5).
- Claim 19 as obvious over Kobayashi, Tabito, Onishi, and Epstein in view of the Knowledge of a POSITA (Ground 6).

- Claims 1-2, 7-8, and 11-15 as obvious over Schiavoni and Lim in view of the Knowledge of a POSITA (Ground 7).
- Claim 9 as obvious over Schiavoni, Lim, and Kobayashi in view of the Knowledge of a POSITA (Ground 8).
- Claims 10 and 16 as obvious over Schiavoni, Lim, and Kirita in view of the Knowledge of a POSITA (Ground 9).
- Claims 4 and 17 as obvious over Schiavoni, Lim, and Tabito in view of the Knowledge of a POSITA (Ground 10).
- Claims 18 and 20 as obvious over Schiavoni, Lim, Tabito, and Onishi in view of the Knowledge of a POSITA (Ground 11).
- Claim 19 as obvious over Schiavoni, Lim, Tabito, Onishi, and Epstein in view of the Knowledge of a POSITA (Ground 12).

Patent Owner submits that this Motion satisfies the statutory and regulatory requirements for a motion to amend the claim under 35 U.S.C. § 316(d) and 37 C.F.R. § 42.121 because the proposed amendment: (i) does not enlarge the scope of the claims or introduce new subject matter; (ii) is responsive to at least one ground of patentability instituted in this proceeding; (iii) is supported by the disclosure of the originally-filed application; and (iv) is patentable over the closest known prior art Kobayashi, Tabito, Kirita, Onishi, Epstein, Schiavoni, and Lim references asserted in the Petition.

II. MOTION TO AMEND IS CONTINGENT

Patent Owner submits that this Motion is contingent upon a finding in a final written decision that challenged claim 1 is unpatentable. Specifically, Patent Owner requests the following contingencies:

- if claim 1 is found to be unpatentable, substitute proposed amended claim 21.
- if claim 17 is found to be unpatentable, substitute proposed amended claim 22.

III. MOTION TO AMEND PILOT PROGRAM

Patent Owner requests that this Motion be subject to the MTA Pilot Program (84 F.R. 9497). This proceeding was instituted on Feb 27, 2024, *see* Paper 8, and thus qualifies for the MTA Pilot Program effective on March 15, 2019. Patent Owner requests preliminary guidance from the Board on this Motion and whether to file a revised motion to amend. Patent Owner reserves its right to file a revised motion to amend subject to the Board's preliminary guidance.

IV. A REASONABLE NUMBER OF CLAIMS ARE AMENDED

Under 37 C.F.R. §42.121(a)(3), a motion to amend may propose a reasonable number of substitute claims for each challenged claim. Generally,

it is presumed “that only one substitute claim would be needed to replace each challenged claim,” but that presumption may be rebutted upon a showing of need. 37 C.F.R. § 42.121(a)(3); *Lectrosonics, Inc. v. Zaxcom, Inc.*, IPR2018-01129, Paper 15 at 4-5 (PTAB Feb. 25, 2019). “An amendment under this subsection may not enlarge the scope of the claims of the patent or introduce new matter.” 35 U.S.C. § 316(d)(3); *Pulse Elecs., Inc. v. U.D. Elec. Corp.*, No. 3:20-cv-01676-BEN-DEB, 2021 U.S. Dist. LEXIS 69938, at *22 (S.D. Cal. 2021). Patent Owner submits that this Motion complies with the requirement because Patent Owner proposes 2 substitute claims for 2 original claims. The proposed substitute claims do not include new matter.

V. THE PROPOSED AMENDMENTS RESPOND TO A GROUND OF UNPATENTABILITY INVOLVED IN THIS TRIAL

Under 37 C.F.R. § 42.121(a)(2)(i), the amendment(s) to the claims must be responsive to at least one ground of unpatentability involved in the trial. In the Institution Decision, the Board determined—in regard to each respective Ground—that:

- (i) “In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of showing that claims 1–3 and 11–15 would have been obvious over Kobayashi. At this stage, however, we are not persuaded by Petitioner’s showing for

claims 7 and 9.” (Institution Decision at 32)

- (ii) “In view of the foregoing, we determine that Petitioner has demonstrated a reasonable likelihood of showing that claims 1–3, 7, 8, and 11–15 would have been obvious over Schiavoni and Lim.” (Institution Decision at 54)

As set forth below, the amendment recited in proposed substitute claim 21 adds further new limitations that render the claim patentable over the closest known prior art—Kobayashi; the combination of Schiavoni, Lim, and Kobayashi; Kirita, Onishi, and Epstein cited in the Petition. Therefore, Patent Owner submits that the amendment recited in proposed substitute claim 21 is directly responsive to the grounds of unpatentability involved in the trial.

VI. THE PROPOSED AMENDMENTS DO NOT SEEK TO ENLARGE THE SCOPE OF THE CHALLENGED CLAIMS

The proposed amendments to the challenged claim of the ’382 Patent is listed in **Appendix A** below. The proposed amendments are indicated with underlining for the additional limitations that have been added and strikethroughs for deletions. Under 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii), a motion to amend may not seek to enlarge the scope of the challenged claims. This Motion satisfies the requirement because the

amendment recited in proposed substitute claim 21 adds further new limitations to the challenged claim and, thus, further narrow the scope of this claim.

With respect to substitute claim 21, independent claim 1 has been rewritten to include the addition of the claim limitation “wherein the second distance comprises a distance greater than the third distance and less than 1.5 times the third distance” which further limits the claim’s scope to require the second distance to comprise a distance more than the third distance and less than 1.5 times the third distance.

Claim 22 includes the limitation that “a multiplane light diffuser including a first diffusion plane that is a first distance from the bottom of the plurality of solid state emitters and a second diffusion plane that is a second distance from the bottom of the plurality of solid state emitters that is different from the first distance.” By specifying that specifying that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters, respectively, the amendments in proposed substitute claim 22 are narrowing.

Patent Owner submits that the proposed amendments recited in substitute claims 21 and 22 further narrow the scope of original challenged

claim 1 and 17, and therefore comply with the statutory and regulatory requirements of 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii).

VII. THE PROPOSED AMENDMENTS DO NOT INTRODUCE NEW SUBJECT MATTER

Under 35 U.S.C. § 316(d)(3) and 37 C.F.R. § 42.121(a)(2)(ii), a motion to amend may not introduce new subject matter. Patent Owner submits this requirement is satisfied because the claim limitations recited in proposed substitute claims 21 and 22 find support in the specification of the '382 Patent.

A. Proposed Substitute Claims 21 and 22 Are Supported by the Specification of the '382 Patent

Support for the amendments in proposed substitute claims 21 and 22 can be found in the '382 Patent at Figs. 3 and 5A; 2:10-12; 2:52-59; 6:28-30; and 8:41-43. As seen in the Figures, the second distance 148 (i.e., the distance between the solid state emitters and a first side of the second diffusion plane) comprises a distance greater than the third distance and less than 1.5 times the third distance 149. Further, lines 2:52-59 provide unequivocal support for the proposed amendment.

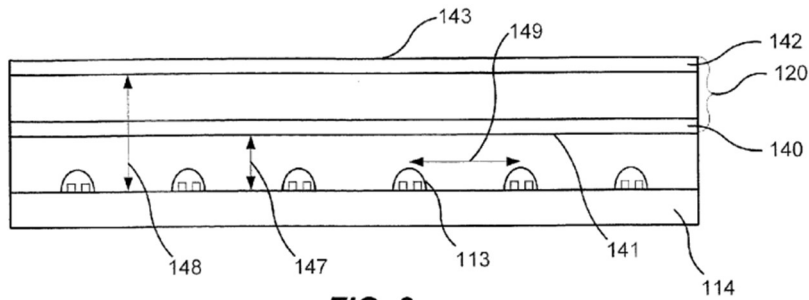


FIG. 3

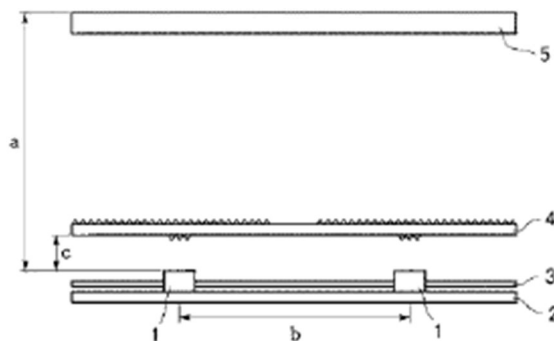
Further, the proposed amendment specifies that the first and second diffusion planes are defined by respective distances from the bottom of the light emitters. This is supported by Figure 3 as shown above.

VIII. PROPOSED SUBSTITUTE CLAIMS 21 AND 22 ARE PATENTABLE

A. Claims 21 and 22 Compared to Kobayashi, Tabito, Kirita, Onishi, Epstein, Schiavoni and Lim

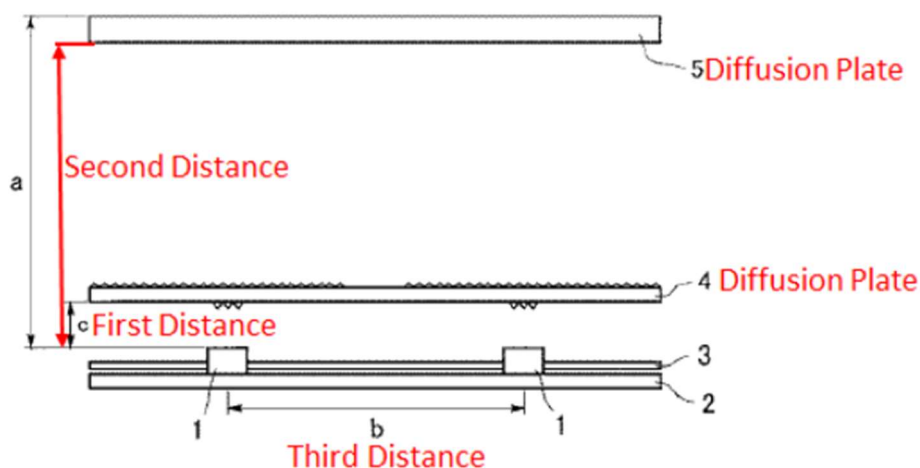
Kobayashi is a published JP Patent application titled “Backlight Unit.” Kobayashi is directed to a “a backlight unit for display devices... [where] multiple LEDs 1 are placed on the base 2” Kobayashi, Abstract.

[FIG. 1]



As shown in Fig. 1 above, Kobayashi discloses LEDs 1 placed on the base 2 at equal intervals, a “diffusing plate 4” placed on the side close to the LED 1, and a “diffuser plate 5” placed on the side far from the LED 1. EX 1006 at Abstract and ¶0018.

Kobayashi only teaches that distance a is 10 mm or more, distance b is 10 to 100mm, and the ratio of distance a to distance b is 0.2 to 1.0. EX 1006 at ¶0020. Kobayashi explicitly states the if distance b is over 1.0, then “the distance from LED 1 to the diffusing plate is sufficient, and it is difficult to demonstrate the superiority of the units of the present invention.” *Id.* Further, as shown below in Fig. 1, Petitioner described the “a minus the thickness of the diffusion plate 5 is the second distance.” Petition at pg. 19. Petitioner’s expert asserted that “[w]hen [Kobayashi’s distances] a and b are 10 mm, then $a/b = 1$,” which means that “the third distance is almost exactly the same as the second distance ([distance] a minus the thickness of the diffusion plate 5).” EX 1003 ¶ 70.



Kobayashi Fig. 1 (Petitioner Annotations)

This is not the same as the '382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.*

Further, Kobayashi does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters.

Patent Owner submits that Kobayashi, by teaching the third distance being exactly the same as the second distance and teaching away from the ratio of a/b being greater than 1.0, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, by not specifying that the first and second distances from the bottom of the solid state light emitters, Kobayashi fails to render proposed substitute claim 22 obvious.

Tabito is a published U.S. Patent application titled “Backlight Devices and Liquid Crystal Display Apparatus.” Tabito is directed to a light transmitting LCD apparatus formed by several rows of light emitting elements, as well as a reflecting section formed by a number of reflective sheet pieces and a reflective plate secured to the reflective plate supports. EX 1007, Abstract.

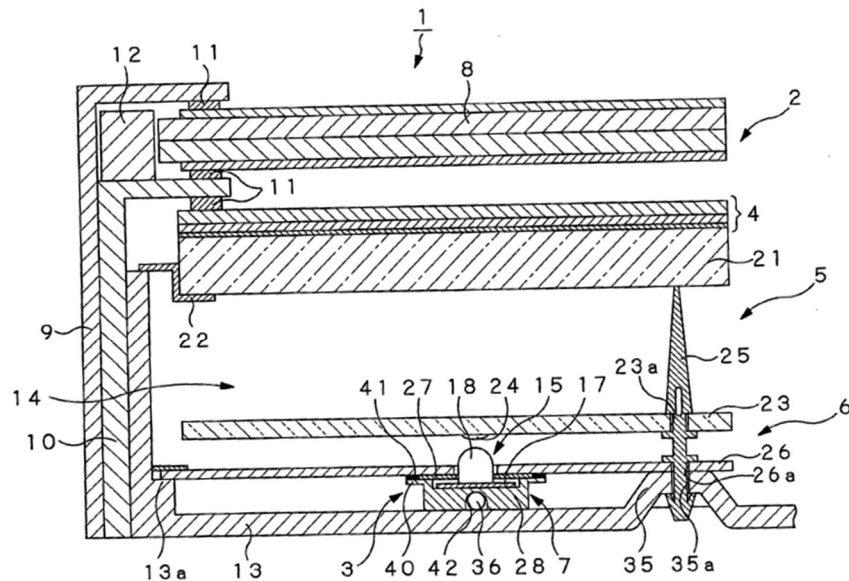


FIG. 2

As shown in Fig. 2 above, Tabito discloses a diffusing plate 23, a light diffusing conductive plate 21, and LEDs 18. EX 1007 ¶¶ 0051, 0059, 0060.

Tabito is silent about the distance between LEDs 18 and the distance between LEDs 18 and the light diffusing plate 21. Additionally, Tabito does not describe any relationship of distances between the different elements.

This is the exact opposite of the invention of the '382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.*

Patent Owner submits that Tabito, by being wholly silent on a second distance and a third distance and any relation between the two distances, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, Tabito does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Kirita is a published U.S. Patent application titled "Liquid Crystal Display." Kirita is directed to a LCD having a wide color reproduction range. EX 1008, Abstract.

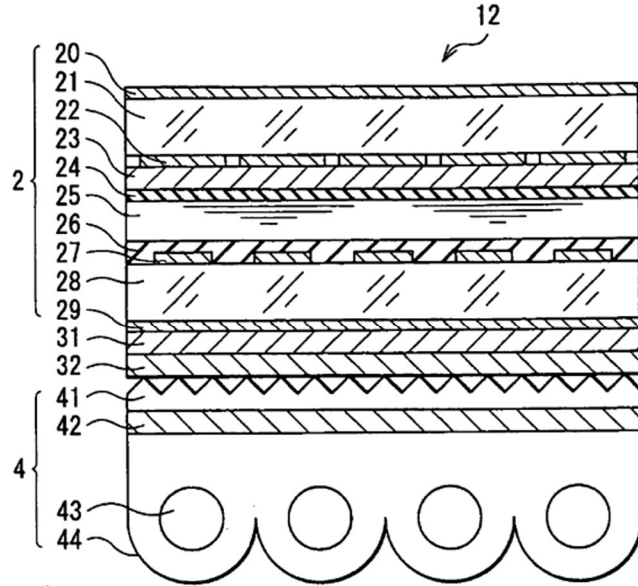


FIG. 11

As shown in Fig. 11 above, Kirita discloses that the LCD comprises a CCFL 43, diffusion sheet 42, and diffusion sheet 31. EX 1008, ¶ 0098.

Kirita is silent about the distance between CCFLs 43 and the distance between CCFLs 43 and the light diffusing sheet 31. Additionally, Kirita does not describe any relationship of distances between the different elements. This is the exact opposite of the invention of the '382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.*

Patent Owner submits that Kirita, by being wholly silent on a second distance and a third distance and any relation between the two distances, does not render obvious proposed substitute claim 21, which specifically recites

those elements. Further, Kirita does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Onishi is a published U.S. Patent application titled “Lighting System Image Display Apparatus Using The Same and Light Diffusion Plate Used Therefor.” Onishi is directed to “a lighting system, a reflector, light sources and a light control member [which] are sequentially disposed from a light incident side to a light outgoing side.” EX 1009, Abstract.

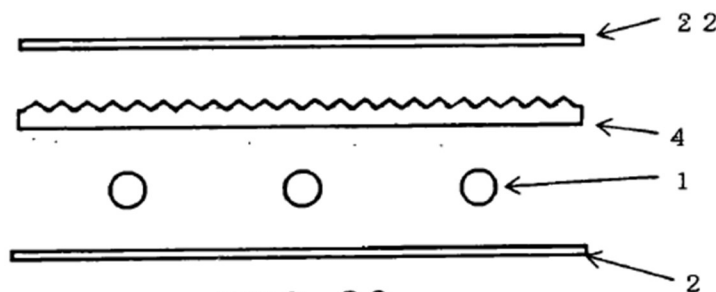


FIG. 20

As shown in Fig. 20 above, Onishi discloses a diffusion sheet 22, a light control member 4 and light source 1. *Id.* at ¶¶ 0160, 0235.

Onishi is silent about the distance between light sources 1 and diffusion sheet 22, nor does it teach any relationship between that distance and the distance between light sources 1, or a second distance as described by the ‘382 Patent. This is the exact opposite of the invention of the ’382 Patent,

wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.*

Patent Owner submits that Onishi, by being wholly silent on the distance between the light sources and the second diffusion sheet, and the relationship between that distance and the distance between the light sources, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, Onishi does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Epstein is a published U.S. Patent application titled “Optical Film Having Microeplicated Structures; and Methods.” Epstein is directed to an optical film for use in transparent displays, such as reflective LCDs. EX 1010, Abstract.

Epstein only describes an optical film and is wholly silent regarding a distance between light emitters, and a distance between light emitters and a diffuser. This is the exact opposite of the invention of the '382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.* Patent Owner submits that Epstein, by being wholly silent

on the distance between light emitters and a diffuser, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, Epstein does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Schiavoni is a published International Patent application titled “Optical System for Lighting Device, Lighting Device and Method of Controlling the Device.” Schiavoni is directed to an optical system for a lighting device that consists of lighting emitting diodes, and a planer optical element to be installed between a planar diffuser and the light sources. EX 1012, Abstract.

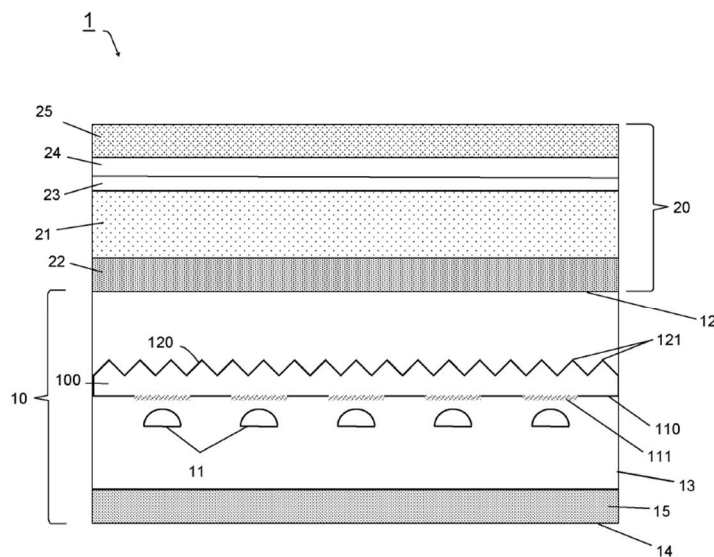


Figure 1a

As shown in Fig. 1a above, Schiavoni discloses a planar optical element 100, a substantially planar diffuser 22, and light source 11. EX 1012 at pgs.

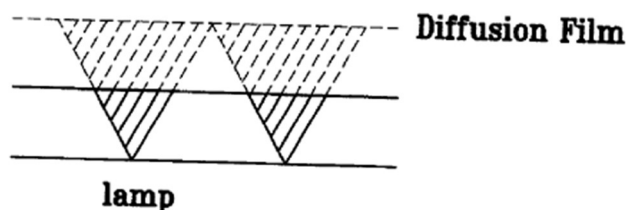
14-15. Schiavoni is silent about a second distance between the light sources 11 and the planar diffuser 22, nor does Schiavoni describe a relationship between a second distance and the distance between the light sources. For example, Petitioner acknowledges that Schiavoni does not disclose the second distance with respect to the specified third distance, “The Schiavoni-Lim combination does not expressly disclose the second distance comprises a distance in a range between the third distance and 1.5 times the third distance” Petition, pg. 65. This is the exact opposite of the invention of the ’382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.* Patent Owner submits that Schiavoni, by being wholly silent on a relationship between the second distance and the distance between the light sources, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, Schiavoni does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Lim is a published U.S. Patent application titled “Backlighting Unit in Liquid Crystal Display.” Lim is directed to a backlight unit in an LCD

enabling high brightness over 2000 nit and to provide a thin backlight unit.

EX 1013, Abstract.

FIG.4A



As shown in Fig. 4a above, Lim discloses a relationship between the Diffusion Film with respect to lamps. EX 1012 at ¶¶ 0057-0059. Lim, however, is silent about a second distance. Lim does not describe a relationship between a second distance and the distance between the light sources. For example, Petitioner acknowledges that Lim does not disclose the second distance with respect to the third distance, “The Schiavoni-Lim combination does not expressly disclose the second distance comprises a distance in a range between the third distance and 1.5 times the third distance” Petition, pg. 65. This is the exact opposite of the invention of the '382 Patent, wherein the second distance is in a range between the third distance and 1.5 times the third distance. *Id.* Patent Owner submits that Lim, by being wholly silent on a relationship between a second distance and the distance between

the light sources, does not render obvious proposed substitute claim 21, which specifically recites those elements. Further, Lim does not disclose that the first diffusion and second diffusion planes are first and second distances from the bottom of the solid state light emitters. It, therefore, also fails to render proposed amended claim 22 obvious.

Additionally, the prior art cited in Grounds 1-12 in combination does not render proposed amended claims 21 or 22 obvious as none of the prior art discloses or suggests the proposed amendments.

B. The Advantages of the Amendment Recited in Proposed Substitute Claims 21 and 22

There are many advantages to the features recited in the amendment set forth in this Motion. For example:

- One significant advantage of the amendment recited in claim 21 is that the specified second distance ensures LEDs backlighting units have optimal lighting uniformity and proper heat dissipation. (*See*, '382 Patent at 1:13-30 and 6:28-30).
- One significant advantage of the amendment recited in claim 22 is that specific parameters for measuring the distance between first diffusion plane and the plurality of solid state emitters and the second diffusion plane and the plurality of solid state emitters provides

greater consistency.

IX. PRIORITY

The proposed substitute claims contain subject matter included in and supported by the original disclosure of the '382 Patent and, therefore, claim priority to the original disclosure.

X. REQUEST FOR PRELIMINARY GUIDANCE

Patent Owner requests preliminary guidance from the Board. Patent Owner understands this will be provided by a date four weeks after Due Date 2.

XI. CONCLUSION

For the reasons set forth herein, Patent Owner submits that proposed substitute claims 21 and 22 satisfy all of the statutory requirements for a motion to amend set forth in paragraphs (1) and (3) of 35 U.S.C. § 316(d) and paragraphs (a)(1), (a)(2), (a)(3), (b)(1) and (b)(2) of 37 C.F.R. § 42.121 and respectfully requests the Motion be granted contingent upon a finding that the challenged claim 1 is unpatentable.

Respectfully Submitted,

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CERTIFICATE OF SERVICE

Pursuant to 37 C.F.R. § 42.6(e), the undersigned certifies that the above- captioned Mandatory Notice was served on counsel of record for the Petitioner by filing this document through the Patent Review Processing System as well as by delivering a copy via electronic mail to:

MFerrario@kilpatricktownsend.com (Lead Counsel)
MMorlock@kilpatricktownsend.com (Back-Up Counsel)

Dated May 21, 2024

/Neal Massand/
Neal Massand (Reg. No.
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APPENDIX A

(Proposed Amendment)

1.(original) A solid state lighting panel, comprising:

a plurality of solid state light emitters that are configured to emit light; and

a multiplane light diffuser including a first diffusion plane that is a first distance from the plurality of solid state emitters and a second diffusion plane that is a second distance from the plurality of solid state emitters that is different from the first distance, the multiplane light diffuser including first side that corresponds to the first plane and that is configured to receive the light emitted from the plurality of solid state light emitters and a second side that corresponds to the second plane and that is configured to transmit diffused light,

wherein the multiplane light diffuser comprises a diffuser plate that includes the first side of the multiplane light, the diffuser plate configured to define the first diffusion plane, and

wherein the plurality of solid state emitters comprise a third distance between adjacent ones of the plurality of solid state light emitters, and wherein the first distance is a function of the third distance.

17. (Original) A display comprising:

a backlighting panel comprising

a plurality of solid state light emitters arranged in a substantially planar configuration including a third distance between adjacent ones of the plurality of solid state light emitters,

a first diffusion plane that is configured to receive light from the plurality of solid state light emitters and to transmit first diffused light, the first diffusion plane including a diffuser plate that is positioned a first distance from the plurality of solid state light;

a second diffusion plane that is configured to receive the first diffused light and to transmit second diffused light

a plurality of diffuser supports configured to support a first diffuser plane structure at a first distance from the plurality of solid state light emitters and to support a second diffuser plane structure at a second distance from the plurality

of solid state light emitters, wherein the second distance is greater than the first distance; and

a LCD display panel that is configured to receive the second diffused light and selectively transmit received light as display content,

wherein the first distance is a function of the third distance.

21. (proposed substitute for Claim 1) A solid state lighting panel, comprising:

a plurality of solid state light emitters that are configured to emit light; and

a multiplane light diffuser including a first diffusion plane that is a first distance from the plurality of solid state emitters and a second diffusion plane that is a second distance from the plurality of solid state emitters that is different from the first distance, the multiplane light diffuser including first side that corresponds to the first plane and that is configured to receive the light emitted from the plurality of solid state light emitters and a second side that corresponds to the second plane and that is configured to transmit diffused light,

wherein the multiplane light diffuser comprises a diffuser plate that includes the first side of the multiplane light, the diffuser plate configured to define the first diffusion plane, and

wherein the plurality of solid state emitters comprise a third distance between adjacent ones of the plurality of solid state light emitters, and wherein the first distance is a function of the third distance, and

wherein the second distance comprises a distance in greater than the third distance and less than 1.5 times the third distance.

22. (proposed substitute for Claim 17) A solid state lighting panel, comprising:

a plurality of solid state light emitters that are configured to emit light; and

a multiplane light diffuser including a first diffusion plane that is a first distance from the bottom of the plurality of solid state emitters and a second diffusion plane that is a second distance from the bottom of the plurality of solid state emitters that is different from the first distance, the multiplane light diffuser including first side that corresponds to the first plane and that is configured to receive the light emitted from the plurality of solid state light emitters and a second side that corresponds to the second plane and that is configured to transmit diffused light,

wherein the multiplane light diffuser comprises a diffuser plate that includes the first side of the multiplane light, the diffuser plate configured to define the first diffusion plane, and

wherein the plurality of solid state emitters comprise a third distance between adjacent ones of the plurality of solid state light emitters, and wherein the first distance is a function of the third distance.