

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. IPR2023-01410

U.S. Patent No. 8,294,075

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

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II. INTRODUCTION

Patent Owner Brightplus Ventures LLC (“Brightplus” or “Patent Owner”) respectfully submits this contingent request to substitute challenged claims 1 and 2 of U.S. Patent No. 8,294,075 (the “’075 Patent”). In the instituted trial, the Petitioner Hisense USA Corporation (“Hisense” or “Petitioner”) has challenged the patentability of claims 1-7 and 9-12 as obvious under 35 U.S.C. § 103, as follows:

- Claims 1-7 and 9-12 as obvious in view of Mok, Holman, and Lamb in view of the Knowledge of a POSITA (Ground 1).
- Claims 1-7 and 9-12 as obvious over Epstein, Holman, and Lamb in view of the Knowledge of a POSITA (Ground 2).

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

III. MOTION TO AMEND IS CONTINGENT

Patent Owner submits that this Motion is contingent upon a finding in a final written decision that challenged claims 1 and 2 are unpatentable. Specifically, Patent Owner requests the following contingencies:

- if claims 1 and 2 are found to be unpatentable, substitute proposed amended claims 34 and 35.

IV. 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 Jan 23, 2024, *see* Paper 7, 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.

V. 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. None of the proposed substitute claims include new matter.

VI. 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) “[W]e conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 1... [and] claims 2-5, 9, 11, and 12 are unpatentable as obvious over the combination of Mok, Holman, and Lamb.” (Institution Decision at 35-36)
- (ii) “[W]e conclude that Petitioner has demonstrated a reasonable likelihood that it would prevail in showing that claim 1... [and] claims 2-6, 11, and 12 are unpatentable as obvious over the combination of Epstein, Holman, and Lamb.” (Institution Decision at 57)

As set forth below, the amendments recited in proposed substitute claims 34

and 35 add further new limitations that render the claims patentable over the closest known prior art—the combination of Mok with Holman and Lamb, and Epstein with Holman and Lamb cited in the Petition. Therefore, Patent Owner submits that the amendments recited in proposed substitute claims 34 and 35 are directly responsive to the grounds of unpatentability involved in the trial.

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

The proposed amendments to the challenged claims of the '075 Patent are 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 amendments recited in proposed substitute claims 34 and 35 add further new limitations to the challenged claims and, thus, further narrow the scope of these claims.

With respect to substitute claim 34, independent claim 1 has been rewritten to include the addition of the claim limitation “wherein the reflector is extended and angled with respect to the surface of the substrate” which further limits the claim’s scope to require the reflector to extend and angle with respect to the substrate surface.

With respect to substitute claim 35, original claim 2 has been substituted with

a dependent claim from proposed substitute independent claim 34. The limitation “wherein the reflector forms a reflective optical cavity around at least one solid state lighting device” further limits the claim’s meaning to require the reflector to form a reflective optical cavity around at least one solid state lighting device.

Patent Owner submits that the proposed amendments recited in substitute claims 34 and 35 further narrow the scope of original challenged claims 1 and 2, 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).

VIII. 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 34 and 35 find support in the specification of the ’075 Patent.

A. Proposed Substitute Claim 34 Is Supported by the Specification of the ’075 Patent

Support for the amendment in this proposed substitute claim can be found in the ’075 Patent at Figs. 5A and 7; 11:19-23; and 11:25-26. The ’075 Patent’s inventions are not limited to a flat reflector, instead as seen in the Figures, the reflector 50 is extended and angled with respect to surface of substrate 10.

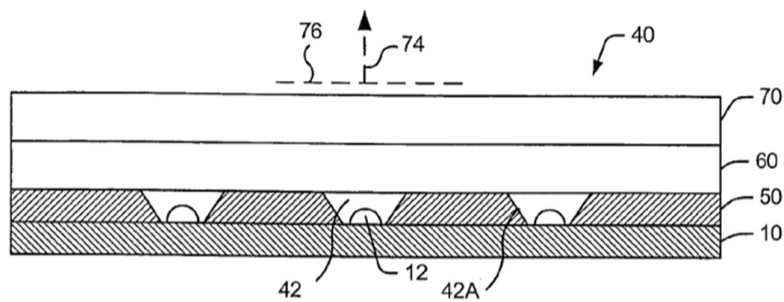


FIGURE 5A

This is further supported by the written description of the specification. For example, the '075 Patent states that “reflector sheet 50 may include a plurality of apertures 42 there, which apertures 42 may align with the lighting elements 12 on the tile 10.” *Id.* at 11:10-12. Furthermore, “the apertures 42 may be circular apertures, and may have a sidewall 42A that is angled with respect to the surface of tiles 10”. *Id.* at 11:24-27. As such, the additional limitation added in proposed substitute claim 34 do not constitute new matter.

B. Proposed Substitute Claim 35 Is Supported by the Specification of the '075 Patent

Proposed substitute claim 35 which depends from proposed substitution claim 34 includes the added limitation in claim 34 as well as the claim limitation “wherein the reflector forms a reflective optical cavity around at least one solid state lighting device.” Support for the additional limitation in claim 35 can be found in the '075 Patent at Figs. 5A, 7; 3:31-39; and 11:10-27. Specifically, the '075 Patent demonstrates that the reflector can form at least one reflective optical cavity around at least one solid state lighting device. For example, the specification states “the

apertures 42 may be circular apertures, and may have a sidewall 42A that is angled with respect to the surface of tiles 10, thereby forming reflective optical cavities around the lighting elements 10.” *Id.* at 11:24-27. As such, the additional limitation added in proposed substitute claim 35 do not constitute new matter.

IX. THE PROPOSED SUBSTITUTE CLAIMS 34 AND 35 ARE PATENTABLE

C. Claim 34 Compared to Mok, Holman, Lamb, and Epstein

Mok is a published U.S. Patent application titled “Light Emitting Panel.” Mok is directed to a light emitting panel including a plurality of light emitting elements and “one or more lighting conditioners... receive and condition light produced by the light emitting elements.” Mok, Abstract.

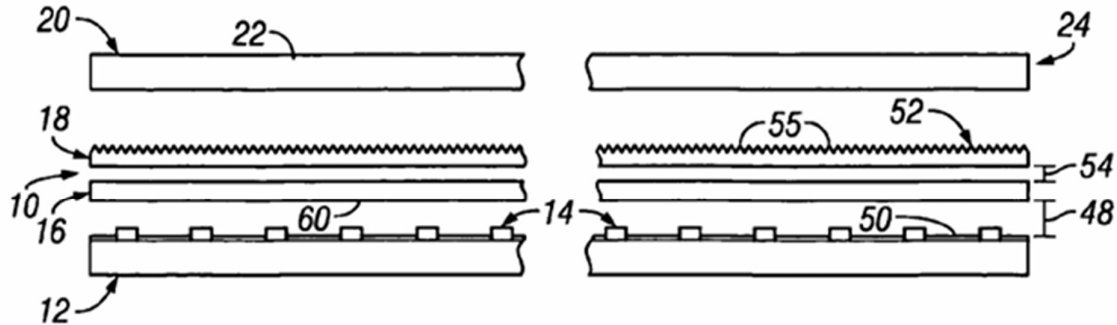


FIG. 1

As shown in Fig. 1 above, Mok discloses a “reflective surface 50” provided on the base panel 12. EX 1005 at ¶0021.

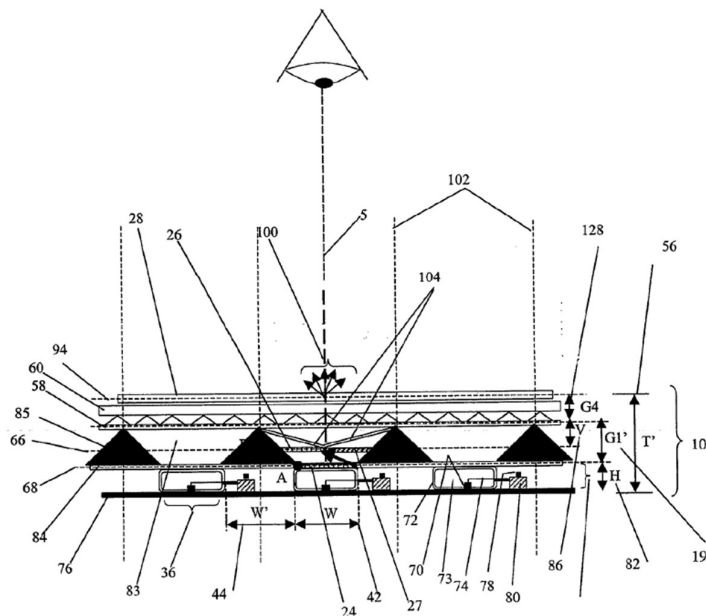
Mok is silent about a reflector that is angled with respect to the base panel. EX 2001 at ¶ 48. As shown in Fig. 1 above, the reflector surface 50 is only shown as being flat or parallel with respect to the base panel 12. *Id.* This is the exact

opposite of the inventions of the '075 Patent, wherein the reflector 50 is angled and extended with respect to the substrate 10. *Id.*

Patent Owner submits that Mok, by being wholly silent on the reflector being angled and extending with respect to the base panel 12, does not render obvious proposed substitute claim 34, which specifically recites those elements.

Holman is a published international application titled “Uniform Illumination System.” Holman is directed to multi-layered LED light source array the employs reflectors, elevated prismatic films, and polarization converting films to collimate light for optical illumination of an LCD Panel.

FIG. 7



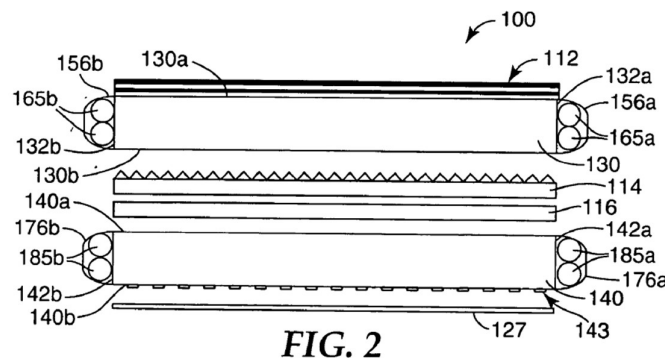
As shown in Fig. 7 above, Holman discloses a “reflecting layer 76.” EX 1006 at pp. 37-38.

Holman is silent about a reflector that is angled with respect to the base panel.

EX 2006 at ¶ 41. As shown in Fig. 7 above, the reflecting layer 76 is only shown as being flat. *Id.* This is the exact opposite of the invention of the '075 Patent, wherein the reflector 50 is angled and extended with respect to the substrate 10.

Patent Owner submits that Holman, by being wholly silent on the reflect sheet being angled, does not render obvious proposed substitute claim 34, which specifically recites those elements.

Lamb is a published U.S. Patent application titled “Multiple Lightguide Backlight.” Lamb is directed to a side lighting or edge lighting systems using cold cathode fluorescent lamps. EX 1007 at ¶ [0034].



As shown in Fig. 2 above, Lamb discloses that the backlight system 100 includes a “diffuser sheet 116 and a reflector sheet 127.” *Id.* at ¶ 0048.

First, Lamb does not teach a reflector mounted to a substrate. EX 2006 at ¶ 42. Second, Lamb does not describe a reflector that is extended or angled with respect to a substrate. *Id.* As shown in Fig. 2 above, reflector sheet 127 is only shown as being flat. To the extent that one would argue that Fig. 1 (shown below) discloses the proposed amendment, Patent Owner argues that the shaped reflector

17 is not angled and extended with respect to a substrate.

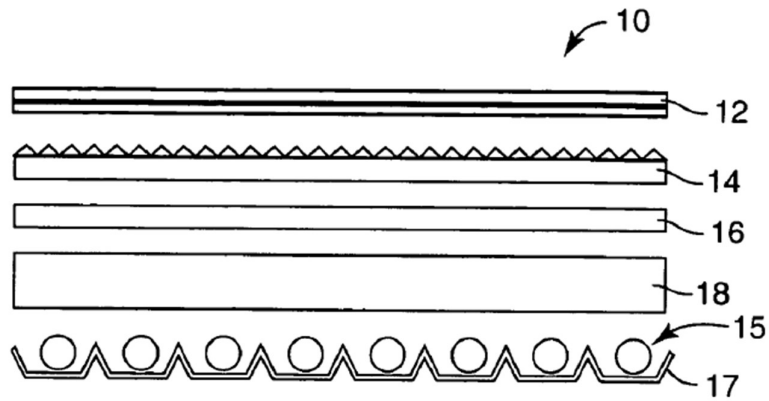


FIG. 1
PRIOR ART

This is the exact opposite of the invention of the '075 Patent, wherein the reflector 50 is angled and extended with respect to the substrate 10. Patent Owner submits that Lamb, being wholly silent on the reflector being angled and extending with respect to a substrate does not render obvious proposed claim 34, which specifically recites those elements.

Epstein is a published U.S. Patent application titled "LED Array Systems." Epstein is directed to an array of LEDs on a substrate over which an intermediate layer and a guiding layer are arranged. EX 1008 at ¶0005.

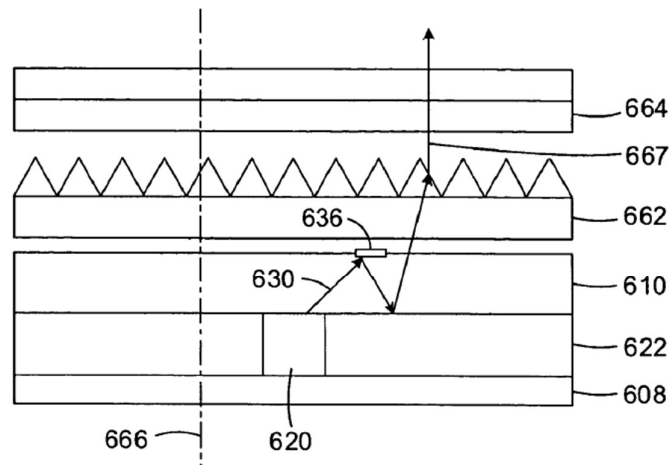


FIG. 11

As shown in Fig. 1 above, Epstein discloses an “intermediate layer 622, which may be a reflecting film” provided on the substrate 608. *Id.* at ¶0067.

Epstein is silent about a reflector that is angled with respect to the base panel. EX 2006 at ¶ 39. As shown in Fig. 11 above, the intermediate layer 622 is not shown to be angled and extended with respect to substrate 608. *Id.* This is the exact opposite of the invention of the ’075 Patent, wherein the reflector 50 is angled and extended with respect to the substrate 10. Patent Owner submits that Epstein by being wholly silent on the reflect sheet being angled and extending with respect to substrate 608 does not render obvious proposed substitute claim 34, which specifically recites those elements.

A. Claims 35 Compared to Mok, Holman, Lamb, and Epstein

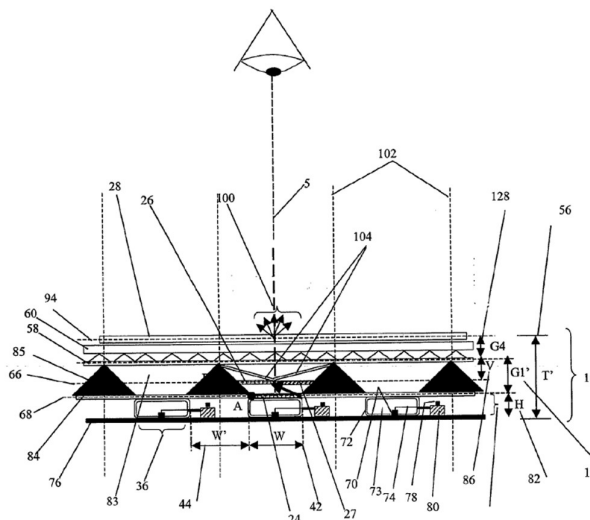
Mok is discussed above, and the summary provided is incorporated by reference. Mok is silent about the reflector forming reflective optical cavities. EX 2006 at ¶ 38. In Fig. 1 of Mok, the light emitting elements 14 protrude above the

flat reflector 50. However, Fig. 5A of the '075 Patent illustrates an optical cavity 42 around the lighting element.

Patent Owner submits that Mok does not demonstrate optical cavities as taught by the '075 Patent, and therefore does not render obvious proposed substitute claim 35, which specifically recites that the reflector forms one or more optical cavities around at least one solid state lighting device.

Holman is discussed above, and the summary provided is incorporated by reference.

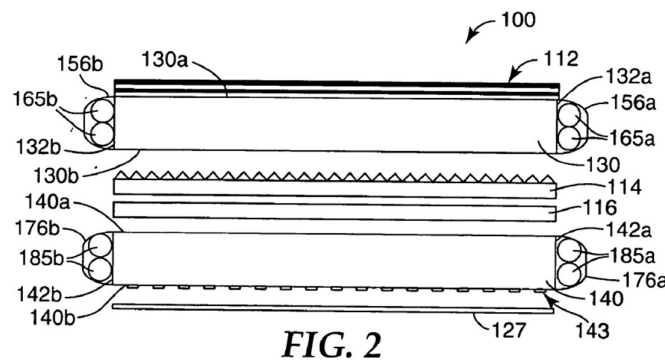
FIG. 7



As shown in Fig. 7 above, Holman discloses a “reflecting layer 76.” EX 1006 at pp. 37-38. Holman is silent about the reflecting layer 76 forming reflective optical cavities. EX 2006 at ¶ 41. As shown above, the reflecting layer 76 is flat and is not around the light elements. *Id.* For clarity, the confining structure 72 is not a part of the reflecting layer and is a separate component. *Id.*

Patent Owner submits that Holman does not demonstrate optical cavities as taught by the '075 Patent, and therefore does not render obvious proposed substitute claim 35, which specifically recites that the reflector forms one or more optical cavities around at least one solid state lighting device.

Lamb is discussed above, and the summary provided is incorporated by reference.



As shown in Fig. 2 above, Lamb discloses that the backlight system 100 comprises “a reflector sheet 127.” EX 2006 at ¶ 0043. Lamb is silent about the reflector sheet 127 forming reflective optical cavity(s), as it is flat and is not around the light element as demonstrated in the '075 Patent. *Id.*

Patent Owner submits that Lamb does not demonstrate optical cavities as taught by the '075 Patent, and therefore does not render obvious proposed substitute claims 35, which specifically recites that the reflector forms one or more optical cavities around at least one solid state lighting device.

Epstein is discussed above, and the summary provided is incorporated by reference.

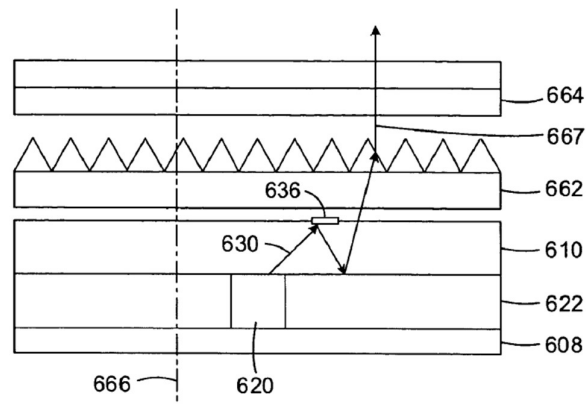


FIG. 11

As shown above in Fig. 11, Epstein discloses an intermediate layer with an LED inserted within. Epstein further teaches that guiding layer includes “apertures 423, also referred to as vias,” EX 1008 at ¶ 0048. However, an aperture is not equivalent to the optical cavities as taught by the ‘075 Patent. EX 2006 at ¶ 39. For example, Fig. 5A of the ‘075 Patent illustrates a reflector that forms an optical cavity around at least one solid state lighting device.

Patent Owner submits that Epstein by only contemplating apertures in the intermediate layer, does not render obvious proposed substitute claim 35, which specifically recites that the reflector forms one or more optical cavities around at least one solid state lighting device.

B. The Advantages of the Amendments Recited in Proposed Substitute Claims 34 and 35

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

- One significant advantage of the amendment recited in claim 34 is that

the reflector being angle and extended with respect to the substrate better disperses incident light so that it is reflected randomly, which ultimately improves light uniformity of the lighting panel. (*See*, '075 Patent at 11:19-23)

- One significant advantage of the amendment recited in claim 35 is that the optical cavities help reflect all the light emitted from the solid state lighting device, which ultimately helps improve light recycling and uniformity. EX2006 at ¶ 38.

X. PRIORITY

All of the proposed substitute claims contain subject matter included in and supported by the original disclosure of the '075 Patent and, therefore, claim priority to the original disclosure.

XI. REQUEST FOR PRELIMINARY GUIDANCE

As discussed in the call with the Board, Patent Owner requests preliminary guidance from the Board. Patent Owner understands this will be provided by a date four weeks after Due Date 2.

XII. CONCLUSION

For the reasons set forth herein, Patent Owner submits that proposed substitute claims 34 and 35 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 claims 1 and 2

are 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 June 25, 2024

/Neal Massand/

Neal Massand (Reg. No.
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APPENDIX A

(Proposed Amendments)

1.(original) A lighting panel, comprising:

at least one substrate having a first side parallel to a principal plane of the lighting panel;

a plurality of solid state lighting devices arranged on the first side of the at least one substrate and configured to emit light;

a reflector sheet on the first side of the at least one substrate;

a brightness enhancement film on the reflector sheet, wherein the reflector sheet is arranged between the at least one substrate and the brightness enhancement film and the brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel; and

a diffuser sheet between the reflector sheet and the brightness enhancement film, wherein the reflector sheet, the diffuser sheet and brightness enhancement film extend and are arranged parallel to the principal plane of the lighting panel.

2. (original) The lighting panel of claim 1, wherein the reflector sheet is configured to reflect and disperse light incident thereon.

34. (proposed substitute for Claim 1) A lighting panel, comprising:

at least one substrate having a first side parallel to a principal plane of the lighting panel;

a plurality of solid state lighting devices arranged on the first side of the at least one substrate and configured to emit light;

a reflector sheet on the first side of the at least one substrate, wherein the reflector is extended and angled with respect to the surface of the substrate;

a brightness enhancement film on the reflector sheet, wherein the reflector sheet is arranged between the at least one substrate and the brightness enhancement film

and the brightness enhancement film is configured to preferentially emit light having a first orientation from the lighting panel and to preferentially reflect light having a second orientation, different from the first orientation, back into the lighting panel; and

a diffuser sheet between the reflector sheet and the brightness enhancement film, wherein the reflector sheet, the diffuser sheet and brightness enhancement film extend and are arranged parallel to the principal plane of the lighting panel.

35. (proposed substitute for Claim 2) The lighting panel of claim 341, ~~wherein the reflector sheet is configured to reflect and disperse light incident thereon.~~ wherein the reflector forms a reflective optical cavity around at least one solid state lighting device.