

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DELAWARE DISPLAY GROUP LLC and
INNOVATIVE DISPLAY TECHNOLOGIES
LLC,

Plaintiffs,

v.

LENOVO GROUP LTD.,
LENOVO HOLDING CO., INC., and
LENOVO (UNITED STATES) INC.,

Defendants.

Civil Action No. 13-2108-RGA

DELAWARE DISPLAY GROUP LLC and
INNOVATIVE DISPLAY TECHNOLOGIES
LLC,

Plaintiffs,

v.

LG ELECTRONICS, INC.,
LG ELECTRONICS U.S.A., INC.,
LG DISPLAY CO., LTD., and
LG DISPLAY AMERICA, INC.,

Defendants.

Civil Action No. 13-2109-RGA

DELAWARE DISPLAY GROUP LLC and
INNOVATIVE DISPLAY TECHNOLOGIES
LLC,

Plaintiffs,

v.

VIZIO, INC.,

Defendant.

Civil Action No. 13-2112-RGA

MEMORANDUM OPINION

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November 6, 2015


ANDREWS, U.S. DISTRICT JUDGE:

Presently before the Court is the issue of claim construction of multiple terms in U.S. Patent Nos. 7,434,974 (“the ’974 patent”); 7,537,370 (“the ’370 patent”); 8,215,816 (“the ’816 patent”); and 7,914,196 (“the ’196 patent”). The Court has considered the Parties’ Joint Claim Construction Brief. (D.I. 74).¹ The Court heard oral argument on October 27, 2015. (D.I. 90).

I. BACKGROUND

On December 31, 2013, Plaintiffs Delaware Display Group LLC and Innovative Display Technologies LLC filed seven related patent infringement lawsuits against Amazon.com, Inc. (C.A. No. 13-2106), HTC Corporation, et al. (C.A. No. 13-2107), Lenovo Group Ltd., et al. (C.A. No. 13-2108), LG Electronics, Inc., et al. (C.A. No. 13-2109), Pantech Co., Ltd., et al. (C.A. No. 13-2110), Sony Corporation, et al. (C.A. No. 13-2111), and Vizio, Inc. (C.A. No. 13-2112). The cases against Amazon (CA No. 13-2106 D.I. 19), HTC (CA No. 13-2107 D.I. 23), and Sony (C.A. No. 13-2111 D.I. 69) were dismissed by agreement. On May 6, 2015, I stayed the action against Pantech pending the conclusion of bankruptcy proceedings. (C.A. No. 13-2110 D.I. 39). On October 21, 2015, following a hearing on a joint motion to stay pending *inter partes* review, Plaintiffs elected to dismiss without prejudice all claims pertaining to three patents that were currently subject to instituted *inter partes* review proceedings. (D.I. 88, 89). Following that dismissal, I denied the joint motion to stay. (D.I. 90).

Relevant to this claim construction is the fact that most of the terms in dispute were litigated twice previously in Texas. In *Innovative Display Technologies LLC v. Acer Inc.*, 2014 WL 4230037 (E.D. Tex. Aug. 26, 2014) (“First Texas Markman”), Magistrate Judge Payne

¹ Unless otherwise noted, citations to the docket are to C.A. 13-2108.

issued a claim construction order construing three of the eight terms at issue here.² In *Innovative Display Technologies LLC v. Hyundai Motor Co.*, 2015 WL 2090651 (E.D. Tex. May 4, 2015) (“Second Texas Markman”), Judge Gilstrap issued a claim construction order construing seven of the eight terms at issue here.³

II. LEGAL STANDARD

“It is a bedrock principle of patent law that the claims of a patent define the invention to which the patentee is entitled the right to exclude.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312 (Fed. Cir. 2005) (en banc) (internal quotation marks omitted). “[T]here is no magic formula or catechism for conducting claim construction.’ Instead, the court is free to attach the appropriate weight to appropriate sources ‘in light of the statutes and policies that inform patent law.’” *SoftView LLC v. Apple Inc.*, 2013 WL 4758195, at *1 (D. Del. Sept. 4, 2013) (quoting *Phillips*, 415 F.3d at 1324). When construing patent claims, a court considers the literal language of the claim, the patent specification, and the prosecution history. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977–80 (Fed. Cir. 1995) (en banc), *aff’d*, 517 U.S. 370 (1996). Of these sources, “the specification is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.” *Phillips*, 415 F.3d at 1315 (internal quotation marks and citations omitted).

“[T]he words of a claim are generally given their ordinary and customary meaning. . . . [Which is] the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date of the patent application.”

² Magistrate Judge Payne construed “transition region,” “predetermined,” and “pass through a liquid crystal display with low loss.” (D.I. 75, Ex. 1 at 2).

³ Judge Gilstrap construed “transition region,” “predetermined,” “pass through a liquid crystal display with low loss,” “in close proximity,” “positioned near/positioning a film near,” “optical elements,” and “more in the width direction.” (D.I. 75, Ex. 2 at 2).

Id. at 1312–13 (internal quotation marks and citations omitted). “[T]he ordinary meaning of a claim term is its meaning to [an] ordinary artisan after reading the entire patent.” *Id.* at 1321 (internal quotation marks omitted). “In some cases, the ordinary meaning of claim language as understood by a person of skill in the art may be readily apparent even to lay judges, and claim construction in such cases involves little more than the application of the widely accepted meaning of commonly understood words.” *Id.* at 1314 (internal citations omitted).

When a court relies solely upon the intrinsic evidence—the patent claims, the specification, and the prosecution history—the court’s construction is a determination of law. *See Teva Pharm. USA, Inc. v. Sandoz, Inc.*, 135 S. Ct. 831, 841 (2015). The court may also make factual findings based upon consideration of extrinsic evidence, which “consists of all evidence external to the patent and prosecution history, including expert and inventor testimony, dictionaries, and learned treatises.” *Phillips*, 415 F.3d at 1317–19 (internal quotation marks and citations omitted). Extrinsic evidence may assist the court in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Id.* Extrinsic evidence, however, is less reliable and less useful in claim construction than the patent and its prosecution history. *Id.*

“A claim construction is persuasive, not because it follows a certain rule, but because it defines terms in the context of the whole patent.” *Renishaw PLC v. Marposs Societa’ per Azioni*, 158 F.3d 1243, 1250 (Fed. Cir. 1998). It follows that “a claim interpretation that would exclude the inventor’s device is rarely the correct interpretation.” *Osram GmbH v. Int’l Trade Comm’n*, 505 F.3d 1351, 1358 (Fed. Cir. 2007) (internal quotation marks and citation omitted).

III. ANALYSIS

A. THE ’370 PATENT

Claim 1 is representative and reads:

A light emitting panel assembly comprising at least one light source, an optical panel member having at least one input edge for receiving light from the at least one light source, the panel member having front and back sides and a greater cross sectional width than thickness, both the front and back sides having a pattern of light extracting deformities that are projections or depressions on or in the sides to cause light to be emitted from the panel member in a predetermined output distribution, where the pattern of light extracting deformities on or in at least one of the sides varies along at least one of the length and width of the panel member and at least some of the light extracting deformities on or in one of the sides are of a different type than the light extracting deformities on or in the other side of the panel member, and at least one film, sheet or substrate overlying at least a portion of one of the sides of the panel member to change the output distribution of the emitted light such that the light will pass through a liquid crystal display with low loss.

('370 patent, col. 9, ll. 9–26).

1. “transition region”
 - a. *Plaintiffs’ proposed construction*: “a region configured to transmit light”
 - b. *Defendants’ proposed construction*: “a region configured to transmit light from a light source to a light emitting area”
 - c. *Court’s construction*: “a region configured to transmit light from a light source to a light emitting area”

Plaintiffs argue that Defendants’ proposed construction imports additional language that the claim does not require. (D.I. 74 at p. 13). In response, Defendants argue that a “transition region” should specify what the “transition” is from and to. (*Id.* at pp. 14–15). Defendants further argue that Plaintiffs’ construction is overbroad, as it does not adequately identify the region claimed. (*Id.*).

In the First Texas Markman, Innovative Display Technologies (the only plaintiff in that case) proposed adopting the plain and ordinary meaning of “transition region,” but also proposed in the alternative: “an area used to make the transition from the light source to the light emitting

area of the panel member.” (D.I. 75, Ex. 1 at 18). It remains unclear why Plaintiffs now oppose a construction they once urged a court to adopt.

I agree with Judge Gilstrap’s analysis in the Second Texas Markman. An appropriate construction should “specify what the ‘transition’ is from and to.” (D.I. 75, Ex. 2 at 16). The specification of the ’370 patent, specifically Figures 3 and 10, indicates that the region serves as a transition between a light source to a light emitting area. (’370 patent, fig.3, fig.10). I therefore construe “transition region” to mean “a region configured to transmit light from a light source to a light emitting area.”

2. “predetermined”

- a. *Plaintiffs’ proposed construction:* “fixed”
- b. *Defendants’ proposed construction:* “fixed beforehand”
- c. *Court’s construction:* No construction necessary

At the claim construction hearing, in response to a suggestion by the Court, the parties agreed that no construction was necessary for this term. (D.I. 90 at 11–12).

I accordingly decline to construe “predetermined,” finding that no construction is necessary.

3. “pass through a liquid crystal display with low loss”

- a. *Plaintiffs’ proposed construction:* Does not limit the claims in which it appears
- b. *Defendants’ proposed construction:* Term is indefinite under 35 U.S.C. § 112 ¶ 2
- c. *Court’s construction:* Does not limit the claims in which it appears

Plaintiffs argue that this term is akin to a so-called “whereby” clause, which “merely states the result of the limitations in the claim [and] adds nothing to the patentability or substance of the claim.” (D.I. 74 at p. 19 (quoting *Tex. Instruments Inc. v. U.S. Int’l Trade Comm’n*, 988

F.2d 1165, 1172 (Fed. Cir. 1993)). Plaintiffs argue that the essence of the invention is that it “provide[s] for better control of the light output from the [generally known] panel assemblies and for more efficient utilization of light, which results in greater light output from the . . . assemblies.” (*Id.* at p. 24 (quoting ’370 patent, col. 1, ll. 23–28)). It should therefore follow, Plaintiffs contend, that “low loss” is a descriptor which refers to the effect or result of the claimed invention. (*Id.* at pp. 23–24).

Defendants respond that the phrase is limiting because it states “the structural requirements of the claimed ‘film, sheet or substrate.’” (*Id.* at p. 20 (quoting ’370 patent, col. 9, ll. 21–26)). Defendants additionally place reliance on the general principle that “claims are interpreted with an eye toward giving effect to all terms in the claim.” (*Id.* at p. 21); *Bicon Inc. v. Staumann Co.*, 441 F.3d 945, 950–51 (Fed. Cir. 2006). At the hearing, Defendants buttressed this argument with evidence from the prosecution history. (D.I. 90 at 15–18). The disputed term originally appeared in dependent claim 12. After the language of dependent claim 12 was transferred to independent claim 1, the examiner issued a Notice of Allowance. (D.I. 75, Ex. 20 at 3, 4, 13; D.I. 60, Ex. GG). Defendants further argue that the use of the phrase “low loss” renders the term indefinite, since the specification provides “no objective basis . . . by which a person of ordinary skill can judge the metes and bounds of the claims.” (D.I. 74 at p. 21). In so arguing, Defendants contend that the patent provides no guidance as to how “low” loss may be distinguished from “moderate” or “high” loss. (*Id.*).

I agree with the reasoning of both Magistrate Judge Payne and Judge Gilstrap in the Texas cases. (D.I. 75, Ex. 1 at 52–54; D.I. 75, Ex. 2 at 25). Claims may contain surplusage under certain circumstances. *Decisioning.com, Inc. v. Federated Dep’t Stores, Inc.*, 527 F.3d 1300, 1312 n.6 (Fed. Cir. 2008). The term describes a result of the invention, rather than a

structural limitation. This is consistent with the goals of the invention as described in the specification. ('370 patent, col. 1, ll. 23–28). Defendants' prosecution history argument does not belie this conclusion. The disputed term is just one part of the larger accompanying claim language originally appearing in dependent claim 12. (D.I. 75, Ex. 20 at 3). This additional language recites clear structural limitations distinct from the whereby clause beginning with "such that." (*Id.*).

I therefore conclude that the phrase "pass through a liquid crystal display with low loss" does not limit the claims in which it appears.

4. "optical elements"

- a. *Plaintiffs' proposed construction*: Plain meaning
- b. *Defendants' proposed construction*: Term is indefinite under 35 U.S.C. § 112 ¶ 2
- c. *Court's construction*: Plain meaning

The parties apparently agree that there is, within the field of optics, a recognized meaning for "optical elements" generally.⁴ Defendants argue, however, that the term is indefinite within the context of the patent. Defendants' argument hinges on the proposition that since both "deformities" and "optical elements" appear in the patent claims, they must have different meanings. (D.I. 74 at pp. 43–44). The term "deformities" is defined in the specification "to mean any change in the shape or geometry of the panel surface and/or coating or surface

⁴ Defendants' expert Dr. Escuti stated in his deposition: "I know what it means. . . . [I]t could be fairly applied to any structure material or potentially device in general that has light going through it or does something to the light." (D.I. 75, Ex. 12 at 27:2–16). Defendants' expert in the Second Texas Markman, Dr. Smith-Gillespie, stated that "optical elements" can refer to "a broad spectrum of . . . components," and further: "it's an element that's placed in a - - in a light path to do something to the light, to condition the light in some form." (D.I. 75, Ex. 2 at 36). Plaintiffs' expert Dr. Giesselmann stated in his declaration: "Entry-level engineering classes discusses the physics of optical elements such as a lens, prism, or mirror." (D.I. 75, Ex. 6 ¶ 42). Defendants explicitly concede in their briefing that "a person of ordinary skill in the art may understand the term 'optical elements' in general," while arguing that, "a person of ordinary skill in the art would not be able to understand the term as used in the '370 Patent." (D.I. 74 at p. 44).

treatment that causes a portion of the light to be emitted.” (’370 patent, col. 4, ll. 37–40). Plaintiffs assert that deformities is defined “similarly to how . . . one of skill [in the art] may define ‘optical elements.’” (D.I. 74 at p. 44). Plaintiffs therefore conclude that—since “deformities” and “optical elements” must have distinct meanings—“optical elements” is indefinite. (*Id.*).

Plaintiffs, relying on their expert and the concessions of Defendants’ expert, posit that the term is generally known in the art. (*Id.* at pp. 44–45). Plaintiffs contend that “optical elements” is not rendered indefinite by the fact that the narrower, specific term “deformities” is defined. (*Id.* at pp. 45–46). Plaintiffs reference this excerpt from the specification:

Print patterns of light extracting deformities 21 may vary in shapes such as dots, squares, diamonds, ellipses, stars, random shapes, and the like, and are desirably 0.006 square inch per *deformity/element* or less. Also, print patterns that are 60 lines per inch or finer are desirably employed, thus making the deformities or shapes 21 in the print patterns nearly invisible to the human eye in a particular application thereby eliminating the detection of gradient or banding lines that are common to light extracting patterns utilizing larger *elements*.

(’370 patent, col. 5, ll. 34–42 (emphasis added)). Plaintiffs argue that this passage amounts to a definition of “elements,” and that one of ordinary skill would understand this to refer to “optical elements.” (D.I. 74 at p. 42).

I concur with the analysis of Judge Gilstrap in the Second Texas Markman. (D.I. 75, Ex. 2 at 35–37). A person having ordinary skill in the art would recognize that deformities, as specifically defined, are a type of optical element.

I therefore reject Defendants’ indefiniteness argument and adopt the plain meaning of the term as its construction.

B. THE ’974 PATENT

Claim 1 is representative and reads:

A light emitting panel assembly comprising at least a light emitting panel member having a light entrance surface and a light emitting surface, at least one LED light source positioned near or against the light entrance surface, and a tray or housing having a cavity or recess in which the panel member is entirely received, wherein the panel member has a pattern of light extracting deformities on or in at least one surface to cause light to be emitted from the light emitting surface of the panel member, and the tray or housing includes end walls and side walls that act as end edge reflectors and side edge reflectors for the panel member to reflect light that would otherwise exit the panel member through an end edge and/or side edge back into the panel member and toward the pattern of light extracting deformities for causing additional light to be emitted from the light emitting surface of the panel member, wherein the tray or housing provides structural support to the panel member and has posts, tabs, or other structural features that provide a mount for mounting of the assembly into a larger assembly or device.

(’974 patent, col. 9, ll. 9–27; Oct. 14, 2008 Certificate of Correction).

1. “positioned near” or “positioning a film near”
 - a. *Plaintiffs’ proposed construction*: Plain meaning
 - b. *Defendants’ proposed construction*: Term is indefinite under 35 U.S.C. § 112 ¶ 2
 - c. *Court’s construction*: Plain meaning

Defendants argue that the term is indefinite because it is a term of degree without an accompanying “standard for measuring that degree.” (D.I. 74 at pp. 37–38); *Enzo Biochem, Inc. v. Applera Corp.*, 599 F.3d 1325, 1332 (Fed. Cir. 2010). Defendants contend that the specification is devoid of any “objective boundaries” or other guidance as to what constitutes “near.” (*Id.* at p. 37 (quoting *Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1370–71 (Fed. Cir. 2014))). Without such explicit guidance, Defendants argue, the term falls within *Nautilus’* impermissible “zone of uncertainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

Plaintiffs respond that the specification provides several examples of what constitutes “positioned near.” (D.I. 74 at p. 36). Figures 1–3 show a light source positioned near a light entrance surface. (*Id.* at pp. 36, 39). Figures 3 and 5 show a film positioned near the light

emitting surface of the panel. (*Id.* at p. 39). Additionally, Plaintiffs assert that the subject matter and context of the invention would inform one of skill in the art as to the scope of the term. (*Id.* at pp. 39–40; D.I. 75, Ex. 6 ¶ 128).

Terms of degree are not by themselves impermissible. *See Interval Licensing LLC v. AOL, Inc.*, 766 F.3d 1364, 1374 (Fed. Cir. 2014). The patent must, however, provide “enough” certainty” within the “context of the invention.” *Id.* at 1370. The properties and purpose of the invention, together with the examples provided by the specification, would apprise an ordinary-skilled artisan of the scope of the invention. Therefore, I need not impose more restrictive boundaries on this term. *See Acumed LLC v. Stryker Corp.*, 483 F.3d 800, 806 (Fed. Cir. 2007). That the patent does not state how close is close enough does not render the claim indefinite. *PPG Indus. v. Guardian Indus. Corp.*, 156 F.3d 1351, 1355 (Fed. Cir. 1998).

I therefore reject Defendants’ indefiniteness argument and adopt the plain meaning of the term as its construction.

C. THE ’196 PATENT

Claim 1 is representative and reads:

A light redirecting film system comprising a backlight including at least one input edge for receiving light from a light source, and at least one light output surface for emitting light, the backlight having deformities that cause most of the light entering the input edge to be emitted from the light output surface at relatively low angles, and a light redirecting film in close proximity to the light output surface for receiving light emitted from the light output surface, the light redirecting film having a pattern of individual optical elements of well-defined shape that vary at different locations on the film to redistribute the light emitted from the light output surface toward a direction normal to the film.

(’196 patent, col. 14, ll. 14–25).

1. “in close proximity”
 - a. *Plaintiffs’ proposed construction*: Plain meaning

- b. *Defendants' proposed construction:* Term is indefinite under 35 U.S.C. § 112 ¶ 2
- c. *Court's construction:* Plain meaning

Defendants argue, similarly to the previous term, that this term of degree is indefinite.

That is, Defendants contend that “close” is a term of degree and that the intrinsic record provides no guidance as to the bounds of that term. (D.I. 74 at p. 30).

Plaintiffs assert, in response, that the specification provides several examples of figures indicating a film “in close proximity” to the light output surface of a backlight. (*Id.* at p. 29). As with the previous term, Plaintiffs argue that a person of ordinary skill in the art would be guided by the subject matter of the invention and the goals of the patent. (*Id.* at pp. 33–34).

I concur with the reasoning articulated by Judge Gilstrap in the Second Texas Markman. (D.I. 75, Ex. 2 at 29–31). In the context of the surrounding claim language and specification, along with the purpose of the invention, the term “inform[s] those skilled in the art about the scope of the invention with reasonably certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014).

I therefore reject Defendants’ indefiniteness argument and adopt the plain meaning of the term as its construction.

2. “relatively low angles”

- a. *Plaintiffs' proposed construction:* Plain meaning
- b. *Defendants' proposed construction:* Term is indefinite under 35 U.S.C. § 112 ¶ 2
- c. *Court's construction:* Term is indefinite under 35 U.S.C. § 112 ¶ 2

Defendants argue that while the claims make clear that light emitted in a “direction normal to the light redirecting film” is different from light emitted “at relatively low angles from

the backlight,” the scope of the latter is indefinite. (D.I. 74 at p. 65). In so arguing, Defendants state that neither the specification nor the claims provide any objective guidance as to what “relatively low angles” are. (*Id.*). Further, while the specification notes that “the backlight BL itself may be designed to emit more of light rays at lower angles,” there is no explanation as to what the “relatively” in the claim is relative to. (*Id.* at p. 66 (quoting ’196 patent, col. 7, ll. 33–35)). Additionally, while Figures 1 and 2 show light rays being emitted from “the upper surface of backlight BL at various angles, none of [those angles] can be readily identified by a person of ordinary skill in the art as ‘relatively low.’” (*Id.*).

In response, Plaintiffs contend that the objective anchor for assessing “relatively low angles” can be found in the claim language itself, as well as the specification. Plaintiffs argue that because Claim 1 refers to a backlight which causes light “to be emitted from the light output surface at relatively low angles” where a “light redirecting film” then “redistribute[s]” that light “toward a direction normal to the film,” the comparison point for “relatively” is a “normal” position. (*Id.* at p. 67 (quoting ’196 patent, col. 14, ll. 17–25)). Plaintiffs also note that Defendants’ expert Dr. Escuti, in his deposition, identified several prior art references which met this limitation. (*Id.* at p. 68).

Claim 1 requires that a “light redirecting film having a pattern of individual optical elements of well-defined shape . . . redistribute the light emitted from the light output surface toward a direction normal to the film.” (’196 patent, col. 14, ll. 19–25). Both parties agree that a “direction normal” means 90 degrees (or perpendicular) in relation to the film. (D.I. 74 at pp. 67, 70). The dispute centers on how (in terms of angle) the light is emitted from the light output surface to the light redirecting film. The claim states only that the backlight has “deformities

that cause most of the light entering the input edge to be emitted from the light output surface at relatively low angles.” (’196 patent, col. 14, ll. 17–19).

Assuming *arguendo* that a “direction normal” is the appropriate comparison point, the meaning of “relatively low” still cannot be ascertained. At the hearing, Plaintiffs suggested that “relatively low” should be read to encompass any measurement of less than 90 degrees. (D.I. 90 at 80). This reads the disputed term out of the claim entirely. Such a reading would require that an ordinary-skilled artisan consider every angle other than 90 degrees “relatively low.” Even putting this glaring problem aside, the claim does not even require that normal be the comparison point for “relatively.” The claim can be plausibly read to compare “relatively low” to the light output edge, which is perpendicular to the “direction normal” comparison point proposed by the Plaintiffs.

Figures 1 and 2 do not provide any elucidation. While they evidently depict light emitted from the light output surface at some angles, what makes those angles of light “low,” or “relatively low,” is indiscernible. That Dr. Escuti purported to identify prior art references meeting the “relatively low angles” limitation is inapposite. Simply identifying some potentially infringing prior articles does not necessitate the conclusion that the scope and bounds of “relatively low” would be known to an ordinary-skilled artisan.

Therefore, the patent falls short of the requirement that a person having ordinary skill in the art be informed with “reasonable certainty” as to the “scope of the invention.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). Accordingly, I conclude that the term is indefinite.

D. THE ’816 PATENT

Claim 1 is representative and reads:

A light emitting assembly comprising at least one light source, a light emitting panel member having at least one input edge for receiving light from the light source and a light emitting surface, a tray or housing having a cavity or recess in which the panel member is entirely received, wherein the panel member has a pattern of light extracting deformities on or in at least one surface to cause light to be emitted from the light emitting surface of the panel member, end edge reflectors and side edge reflectors, and an additional component overlying the panel member, wherein the panel member has a greater width than height, and the light input edge has a refractive surface that redirects the light output distribution of the light source more in the width direction as the light enters the panel member.

(’816 patent, col. 9, ll. 15–19; col. 10, ll. 1–9).

1. “more in the width direction”
 - a. *Plaintiffs’ proposed construction*: Plain meaning
 - b. *Defendants’ proposed construction*: Term is indefinite under 35 U.S.C. § 112 ¶ 2
 - c. *Court’s construction*: Term is indefinite under 35 U.S.C. § 112 ¶ 2

As the parties did in both the First Texas Markman and the Second Texas Markman, the parties here agree there are three possible interpretations of this term. (D.I. 74 at pp. 50, 53). To render the term indefinite, Defendants must show that at least two of these are plausible.

Diamond Coating Techs., LLC v. Hyundai Motor Am., 2014 WL 5698445, at *4 (C.D. Cal. Aug. 25, 2014) (“[I]f a person of ordinary skill would determine that there are multiple equally plausible but materially dissimilar constructions of a claim term, the claim would fail the ‘reasonable certainty’ standard”). Plaintiffs, while conceding there are three possible interpretations, argue that two of those interpretations are so implausible that a person having ordinary skill in the art would necessarily choose the third. (D.I. 74 at pp. 50–51, 55–56). The competing interpretations arise from the use of the word “more,” which implies a comparison: more one way than another. The parties generally agree on the three possible interpretations: (1) more in the width direction than the height direction; (2) more in the width direction than the

length direction; or (3) more in the width direction than the light was otherwise traveling after exiting the light source. (*Id.* at p. 50).

Plaintiffs argue that one of ordinary skill in the art would intuitively choose the interpretation: “more in the width direction than the height direction.” Plaintiffs assert that “more in the width direction than the length direction” runs contrary to physics. When light enters an input edge, having a width and a height, and travels the *length* of the panel, it is physically impossible for the light to refract in the length direction. Put more concisely, Plaintiffs argue that “light only refracts along the dimensions of the input edge.” (*Id.* at p. 51). As for the interpretation “more in the width direction than the light was otherwise traveling,” Plaintiffs contend that such an interpretation runs contrary to the goals of the invention. (*Id.* at p. 56). As Plaintiffs’ expert Dr. Giesselmann opines:

[T]o redirect light more in the width direction than the light was otherwise traveling after exiting the light source would be detrimental to the stated goal of the patent for very efficient panel assemblies [M]ore light would escape the sides of the panel nearest the light source. That would cause more light loss (and therefore less efficiency and more power usage), and less ability to make longer panels.

(D.I. 75, Ex. 6 ¶ 116).

Defendants assert that all three interpretations are equally plausible and that, given that there is “no disclosure concerning [the] limitation, it is impossible for a person of skill in the art to select among these equally reasonable alternative meanings.” (D.I. 74 at p. 53). In support of this argument, Defendants attack the opinion of Dr. Giesselmann. They contend that the conclusions regarding the implausibility of “more in the width direction than the length direction” and “more in the width direction than the light was otherwise traveling” are flawed. First, Defendants assert that Dr. Giesselmann, in his deposition, conceded that light may “refract” or “bend” “toward the length dimension.” (*Id.* at p. 57; D.I. 75, Ex. 13 at 236:1–22).

Second, Defendants contend that Dr. Giesselmann, again in his deposition, conceded that his conclusion regarding “light escap[ing] the sides of the panel” was incorrect, in view of the “end edge reflectors and side edge reflectors” recited in Claim 1 of the ’816 patent. (D.I. 74 at p. 57; D.I. 75, Ex. 13 at 223:1–226:4; ’816 patent, col. 10, ll. 3–4).

I agree with Judge Gilstrap in the Second Texas Markman that “more” can be interpreted as a type of “before and after” comparative. (D.I. 75, Ex. 2 at 43–44). The claim states that light is “redirect[ed] . . . more in the width direction as the light enters the panel member.” (’816 patent, col. 10, ll. 7–9). In light of the concessions of Dr. Giesselmann regarding the reflectors mentioned in Claim 1, it does not appear that the “more than the light was otherwise traveling” interpretation would contravene the goals of the invention. That is, light would not necessarily escape. Defendants have succeeded in showing that there are multiple plausible interpretations. Therefore, the term fails to inform an ordinary-skilled artisan of the “scope of the invention” with “reasonable certainty.” *Nautilus, Inc. v. Biosig Instruments, Inc.*, 134 S. Ct. 2120, 2129 (2014). Accordingly, I conclude that the term is indefinite.

IV. CONCLUSION

Within five days the parties shall submit a proposed order consistent with this Memorandum Opinion.