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I. NATURE OF THE PROCEEDING AND ISSUES FOR THE COURT

Plaintiff Spectral Instruments Imaging LLC (“Spectral” or “Plaintiff”) respectfully submits its opening claim construction brief regarding the disputed claims terms and phrases of U.S. Patent No. 8,901,516 (“the ’516 Patent”). The parties’ agreed constructions are provided in the Joint Claim Construction Statement. Dkt. No. 30, p. 1. Accordingly, this brief will focus on the six (6) disputed claim terms and phrases that Defendant Scintica Inc. (“Scintica” or “Defendant”) has proposed for construction.

II. SUMMARY OF THE ARGUMENT

The disputed claim terms and phrases do not require any special construction and should be given their plain and ordinary meaning. Defendant is using the claim construction process to re-write the claims of the ’516 Patent in the hopes that it can escape infringement. Defendant’s aim is evident from its attempt to construe entire claim elements, ranging from thirteen- to eighteen-word phrases, and inject concepts and limitations that do not exist within the claims themselves. It is also evident from Defendant’s shifting positions during the claim construction discovery process; Defendant amended its proposed constructions *twice* after the deadline in the scheduling order. To prevail on its proposed constructions, Defendant must demonstrate that none of the claim terms have a plain and ordinary meaning in light of the intrinsic evidence. But Defendant cannot do so given the ’516 Patent’s specification and prosecution history.

To aid in its uphill battle, Defendant has retained a claim construction expert (Dr. Joseph Talghader) to help “clarify” the claim language, but in effect he has rewritten the claims in their entirety. *See, e.g.*, Talghader Dep. Tr. at 86:20-87:8; 98:7-16; 139:5-17.

Not only is this an improper use of an expert (*see infra*), but redefining the claims as Defendant has done is strictly prohibited. Courts may not simply substitute their own language for that of the claims. *Ecolab, Inc. v. FMC Corp.*, 569 F.3d 1335, 1344 (Fed. Cir. 2009) (“It is . . . well-settled that courts generally may not re-draft claims; we must construe the claims as written.”). To justify a deviation from the plain and ordinary meaning of the claim terms, Defendant must establish that the patentee engaged in some form of lexicography or disavowal, but there is no such evidence here. As discussed below, when questioned about his claim construction opinions in deposition, Dr. Talghader admitted that he added new limitations to the claim terms, substituting his own definitions for the patentee’s carefully chosen claim language.

The patent’s specification, prosecution history, and Defendant’s own expert all confirm that the Court should give the disputed claim terms and phrases their plain and ordinary meaning. Accordingly, the Court should reject Defendant’s attempt to re-write the claims.

III. FACTUAL BACKGROUND

The application that led to the ’516 Patent was filed on August 31, 2011 and claims priority to a provisional application filed on September 1, 2010 by inventors Michael B. Nelson and Michael D. Cable. The ’516 Patent, titled “Excitation Light Source Assembly,” describes a novel molecular imaging system for use in biological research. Researchers have long desired the capability to observe biological processes by measuring light emitted by fluorescent and bioluminescent materials. The excitation of fluorescent materials requires very powerful light sources to generate light of specific bandwidths. Prior art

fluorescent imaging systems used light sources external to the imaging chamber that contained the camera, stage, and specimens. The '516 Patent discloses novel and innovative structures that allow researchers to bring powerful, LED (light-emitting diode) light sources inside an imaging chamber and excite fluorescent material in a specimen without interfering with the camera that captures the resulting light emitted by the specimen.

IV. LEGAL STANDARDS

“The words of a claim are generally given their ordinary and customary meaning as understood by a person of ordinary skill in the art when read in the context of the specification and prosecution history.” *Thorner v. Sony Computer Ent. Am. LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012) (citing *Phillips v. AWH Corp.*, 415 F.3d 1303, 1313 (Fed.Cir.2005) (*en banc*)). A departure from the plain and ordinary meaning of a claim term is only justified in two explicit situations: first, “when a patentee sets out a definition and acts as his own lexicographer,” or second, “when the patentee disavows the full scope of a claim term either in the specification or during prosecution.” *Thorner*, 669 F.3d at 1365.

“A patentee may act as its own lexicographer and assign to a term a unique definition that is different from its ordinary and customary meaning; however, a patentee must clearly express that intent in the written description.” *See Helmsderfer v. Bobrick Washroom Equip., Inc.*, 527 F.3d 1379, 1381 (Fed. Cir. 2008). The Federal Circuit instructs that a patentee may express this intent through use of definitional terms. For example, a patentee may specifically state that a word or phrase “means” something or “is

defined as” something. *See 3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1369-71 (Fed. Cir. 2004) (finding lexicography when the specification stated that the term “‘Multiple embossed’ means two or more embossing patterns are superimposed on the web to create a complex pattern of differing depths of embossing”); *Astrazeneca AB v. Mutual Pharm. Co.*, 384 F.3d 1333, 1339 (Fed. Cir. 2004) (finding lexicography when the specification stated “[t]he solubilizers suitable according to the invention are defined below.”).

Further, to act as its own lexicographer, “a patentee must ‘clearly set forth a definition of the disputed claim term’ *other than its plain and ordinary meaning.*” *Thorner*, 669 F.3d at 1365 (citing *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002) (emphasis added)). Significantly, “[i]t is not enough [to establish lexicography] for a patentee to simply disclose a single embodiment or use a word in the same manner in all embodiments.” *See Thorner*, 669 F.3d at 1365.

A. Disavowal of Claim Scope

“The standard for disavowal is exacting.” *Ethanol Boosting Sys. v. Ford Motor Co.*, No. 2021-1949, 2022 WL 2798395, at *2 (Fed. Cir. Jul. 18, 2022). Disavowal is only present where “the specification or prosecution history make clear that the invention does not include a particular feature.” *Id.* (cleaned up). The Federal Circuit will not impose limitations onto the plain and ordinary meaning of claim language unless the patentee’s carve-out of claim scope in the specification or prosecution history is so explicit as to “amount to a clear and unmistakable disavowal.” *Id.*

B. Reliance on Extrinsic Evidence

“In some cases, . . . the district court will need to look beyond the patent’s intrinsic evidence and to consult extrinsic evidence in order to understand, for example, the background science or the meaning of a term in the relevant art during the relevant time period.” *Teva Pharms. USA, Inc. v. Sandoz, Inc.*, 574 U.S. 318, 331 (2015). However, “[e]xtrinsic evidence may not be used to contradict claim meaning that is unambiguous in light of the intrinsic evidence.” *Summit 6, LLC v. Samsung Elecs. Co.*, 802 F.3d 1283, 1290 (Fed. Cir. 2015). In other words, if a claim term is unambiguous, the court need not consult extrinsic evidence.

Moreover, a party offering extrinsic evidence for the purpose of construing claim language must establish the underlying predicate that “there is a need for [the] Court to consult extrinsic evidence to understand the meaning of a term in the relevant art.” *Helsinn Healthcare S.A. v. Teva Pharms. U.S., Inc.*, Civil Action No. 14-4274 (SRC), 2018 WL 6716828, at *9 (D.N.J. Dec. 21, 2018) (*applying Teva*, 574 U.S. at 331-32). “The district court must then conduct a legal analysis: whether a skilled artisan would ascribe that same meaning to that term *in the context of the specific patent claim under review*.” *Teva*, 574 U.S. at 332. While “[e]xperts may be examined to explain terms of art, and the state of the art, at any given time, . . . they cannot be used to prove the proper or legal construction of any instrument of writing.” *Id.* at 332.

V. ARGUMENT

A. Defendant's Reliance on Extrinsic Evidence and Expert Testimony is Improper.

Defendant cites three sources of extrinsic evidence: (1) the expert report of Dr. Talghader; (2) a Merriam-Webster dictionary entry for the word “surround”; and (3) an IEEE definition for “surface-mounted device.” *See* Dkt. No. 30-1 at 1-10. In addition to the specific reasons discussed below for each disputed claim term, the Court should disregard Defendant's extrinsic evidence for at least two overarching reasons.

First, Defendant has not established a need to resort to extrinsic evidence. The claim terms and phrases proposed for construction are unambiguous, and Defendant has not pointed to any factual disputes concerning the plain and ordinary meaning of a particular term in the relevant art. Indeed, Dr. Talghader repeatedly testified during his deposition that the claim terms at issue have a plain and ordinary meaning to a POSA. *See, e.g.*, Talghader Dep. Tr. at 77:22-78:3; 86:9-12; 117:1-9.

Second, Defendant's extrinsic evidence does not assist the Court in understanding the state of the art or the meaning of a term in the relevant art at the time of the patented invention. For example, Dr. Talghader's expert report does not offer the Court any helpful background concerning the state of the art or the meaning of any claim terms in the relevant art at the time of the invention. Instead, Defendant essentially seeks to shoehorn an additional claim construction brief into its “expert report” and give its attorney arguments the imprimatur of an expert. Entire sections of Dr. Talghader's report contain conclusory statements regarding the scope and meaning of the '516 Patent claims without any

meaningful analysis or support. This approach runs counter to the long-established legal principle that claim construction expert testimony “is generally not useful to a court when it contains only conclusory, unsupported assertions by [the expert] as to the definition of [] claim term[s].” *Micron Tech. v. N. Star Innovations, Inc.*, 855 F. App’x 679, 683 (Fed. Cir. May 4, 2021) (internal citations omitted). Even more troubling, Dr. Talghader purports to offer a legal conclusion concerning disavowal of claim scope based on his own review of the prosecution history. *See* Talghader Dep. Tr. at 74:15-18; 128:25-129:4. This is an improper use of expert testimony and usurps the role of the Court in claim construction. *Teva*, 574 U.S. at 332 (stating that experts cannot be used to prove the proper or legal construction of a patent). “[T]he ultimate issue of the proper construction of a claim should be treated as a question of law.” *Id.* at 332. Thus, the Court should disregard Defendant’s claim construction expert testimony and other extrinsic evidence.

B. THE DISPUTED TERMS OF THE ’516 PATENT

1. “a housing defining a central opening therein and a plurality of lamp receptacles surrounding the central opening”

Claim(s)	Spectral’s Proposed Construction	Defendant’s Proposed Construction
1, 14	No construction necessary; plain and ordinary meaning.	“a main body member having an opening through its center, the member having a plurality of holes in the member that encircle the opening”

a. This Term Should be Given its Plain and Ordinary Meaning

This claim phrase should be given its plain and ordinary meaning, and the Court should reject Defendant’s attempt to completely rewrite an entire claim element.

Defendant’s dramatic and unjustified changes to the original claim language are shown in the mark-up below:

“a housing main body member defining a central opening therein having an opening through its center, and- the member having a plurality of lamp receptacles holes in the member surrounding the central opening that encircle the opening”

As visually depicted above, Defendant has replaced nearly every word of this claim element with words that do not appear in the claim. This is improper. Defendant’s only apparent basis for rewriting the claims (aside from avoiding infringement) is the notion that the claim should be limited to the exact assembly shown in a single embodiment of the invention. But that is contrary to the law of claim construction – claims cannot be narrowed by preferred embodiments *VLSI Tech. v. Intel Corp.*, 53 F.4th 646, 652 (Fed. Cir. Nov. 15, 2022) (citing *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1328 (Fed. Cir. 2002)). Even so, many of Defendant’s changes to the claim language appear to be arbitrary, and taken both individually and as a whole, improperly limit Plaintiff’s claimed invention. Neither lexicography nor disavowal support the multiple alterations to this claim phrase.

First, the specification of the ’516 Patent does not expressly redefine any of the terms in the phrase “a housing defining a central opening therein and a plurality of lamp receptacles surrounding the central opening,” nor does it describe the terms in a way that departs from how a person of ordinary skill in the art (a “POSA”) would understand them. The multiple terms in the claim phrase at issue appear throughout the patent’s specification, and nowhere are the terms given a new definition that is different from how a POSA would understand them. In fact, the words: “housing,” “defining a central opening,” “lamp

receptacles,” and “surrounding” are each discussed at various points in the specification and figures and used consistently according to their plain and ordinary meaning, without any qualifications or deviations from a POSA’s understanding.

For example, the patentee did not redefine the term “housing,” as Defendant would have the Court believe. On the contrary, in the first six columns of the patent, the “housing” is described in the specification in the same way that it appears in the claims. The patentee did not qualify or redefine what a POSA would understand a “housing” to be. In fact, the only elaboration given to the term “housing” in the specification are suggestions regarding the material for the housing’s manufacture. *See* ’516 Patent, 7:19-35.

The same is true for the term “defining a central opening”; the ’516 Patent’s claims and specification do not indicate that the patentee intended to use this phrase in a manner different than its plain and ordinary meaning. Instead, the patentee explains that the central opening’s *purpose* is to create a field of view for the camera that is substantially unobstructed by the housing,” which is in line with, rather than contrary to, a POSA’s understanding. *See* ’516 Patent, 4:26-34; 6:39-41.

Neither “lamp receptacles,” nor “surrounding” fare better—these terms are commonly understood by a POSA in the field of fluorescent imaging devices, and the intrinsic record evinces no intent to limit that understanding. In fact, none of the hallmarks of a lexicography inquiry are present for these terms. Unlike in *3M Innovative Properties* or *Astrazeneca*, the specification of the ’516 Patent does not use any definitional words or phrases to specifically define a given claim term. *See 3M Innovative Props.*, 350 F.3d at 1369-71; *Astrazeneca* 384 F.3d 1339. With respect to the term “surrounding,”

Dr. Talghader admits that his proposed construction adds new limitations to the claim. *See* Talghader Dep. Tr. at 96:7-13 (regarding the claim term “surrounding,” Dr. Talghader stated “that word is ambiguous, and *that’s why I decided to change it . . .*”) (emphasis added); 133:24-134:4 (“Q:...So you believe that the applicant defined ‘diffuser’ incompletely or imprecisely, right? A: Incompletely. Incompletely, yeah. Q: And that was the basis for your *addition of the words to the construction* of diffuser, right? A: Yeah.”) (emphasis added).

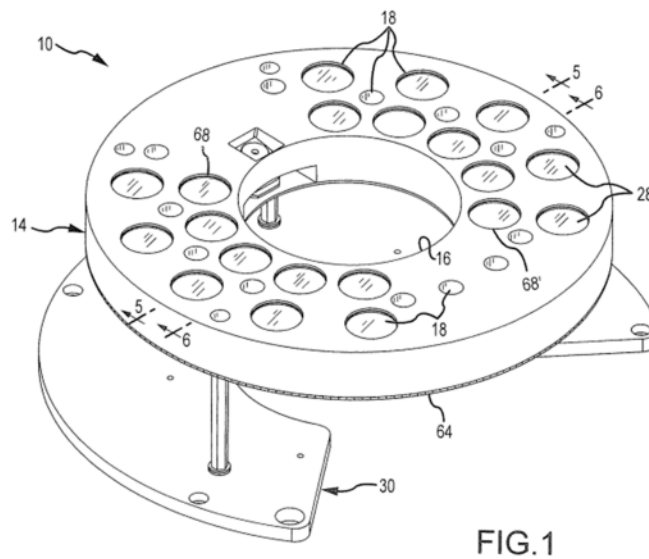
Second, the patentee does not meet the exacting standard for disavowal. Only items from the specification or the prosecution history that express “manifest exclusion or restriction” are capable of importing limitations into the claims. *Thorner*, 669 F.3d at 1366 (citing *Teleflex, Inc.*, 299 F.3d at 1328). Nowhere in the specification or prosecution history did the patentee express an intent to disavow some aspect of the invention covered by the plain and ordinary meaning of the claim terms.

b. Defendant’s Construction is Factually and Legally Improper.

i. Defendant’s Construction Limits the Claims to One Preferred Embodiment Disclosed by the ’516 Patent.

Defendant’s proposed construction seeks to limit the ’516 Patent claims to discrete examples from the patent’s specification and figures, violating a core tenet of the law of claim construction. As the Federal Circuit “ha[s] repeatedly cautioned, claims should not be limited ‘to preferred embodiments or specific examples in the specification.’” *VLSI Tech.* 53 F.4th at 652.

Portions of Defendant's construction explicitly seek to limit the definition of the terms in the phrase "a housing and surrounding the central opening" to the embodiments described in the figures of the patent. In a two-step approach, Defendant seeks to limit the claims to the preferred embodiments depicted in Figures 1-4. Figure 1 is reproduced below:



First, Defendant ignores the '516 Patent's specification, which discusses and defines "housing" separate and apart from "main body member." Nowhere in the specification do the patentee's say that these two terms or synonymous or that one should be read in place of the other. On the contrary, throughout the specification, the patentee referred to "housing" and "main body member" separately and distinctly—the latter was given the reference number "14" for the figures; "housing" was not depicted nor was given a number. The specification further explains that the imaging system may comprise a "main enclosure 48 configured to house and support the various components and subsystems required."

'516 Patent, 5:56-61 (emphasis added). The “main body member,” does not serve that purpose. Yet, notwithstanding this distinction between these terms, Defendant substitutes the word “main body member” for “housing” in its construction of this claim term. In doing so, Defendant has changed the meaning and scope of the claim.

Second, Defendant impermissibly relies on Figures 1-4 to define the other claim terms. Figures 1-4 show “an excitation light source assembly 10 according to one embodiment of the present invention.” '516 Patent 5:52-54. Figure 1 shows a circular “main body member 14” with a circular central hole in the center and light sources within circular receptacles across the entire surface area of the circular housing structure. *Id.* at Fig. 1; 3:25-29.

Defendant’s proposed construction, “a main body member having an opening through its center, the member having a plurality of holes in the member that encircle the opening” takes limitations from this embodiment and uses them to construe the claims. Specifically, Defendant’s proposed construction relies almost exclusively on Figure 1 depicting the lamp receptacles as circular holes dispersed in the main body member and encircling the central opening on all sides. This construction is wrong as a matter of law. *3M Innovative Props. Co. v. Tredegar Corp.*, 725 F.3d 1315, 1321 (Fed. Cir. 2013) (“[L]imitations discussed in the specification may not be read into the claims.”). Defendant has not and cannot establish any basis or reason in the prosecution history or the specification to add these limitations to the claims, and as such Defendant’s construction should be rejected.

ii. Defendant’s Construction Excludes Other Embodiments Disclosed by the ’516 Patent.

In seeking to limit this claim term to a single embodiment, Defendant’s proposed construction goes so far as to *exclude other claimed embodiments* specifically disclosed in the patent. This is wholly improper. “[A] claim interpretation that excludes a preferred embodiment from the scope of the claim is rarely, if ever, correct.” *Verizon v. Vonage Holdings*, 503 F.3d 1295, 1305 (Fed. Cir. 2007). *Accord CUPP Computing As v. Trend Micro Inc.*, 53 F.4th 1376, 1381 (Fed. Cir. Nov. 16, 2022).

Defendant asserts that the housing must contain a plurality of lamp receptacles that “*encircle*” the central opening. This construction derives in part from one of several common dictionary definitions of the word “surround” that Defendant cites as extrinsic evidence. But construing this claim term to require lamp receptacles on *all sides* of the opening—as Defendant intimates by replacing the word “surrounding” with “encircle”—improperly excludes other embodiments of the claimed invention, including the embodiment described in the ’516 Patent at 12:42-45 (“[T]he excitation light source assembly *may comprise a C-shaped housing* or main body that defines a central opening.”) (emphasis added). *See* Fig. 12.

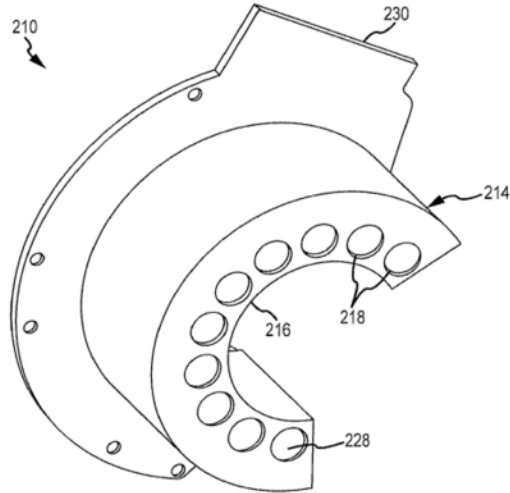


FIG.12

This disclosed embodiment is fundamentally incompatible with Defendant's construction. A POSA reading the '516 Patent specification would understand that the plain and ordinary meaning of the term "surround" permits multiple embodiments, including some embodiments that provide lamp receptacles on less than "all sides" of the central opening.

iii. Defendant's Construction Bears No Resemblance to the Claim Phrase in the '516 Patent.

Despite lacking a proper basis to construe any claims beyond their plain and ordinary meaning, Defendant identified huge swaths of claim language to construe in claims 1 and 14, containing multiple terms. However, of the seventeen words that Defendant insisted on construing, only *two* of those words appear in Defendant's construction. Defendant's construction is completely divorced from the language in the actual patent claim it purports to define. The near-full sentence identified by Defendant

was used as a proxy to incorporate extraneous limitations into the claim that Defendant could not incorporate had it instead identified individual words and phrases in need of construction. Defendant's construction changes the words, the meaning, the intent, and the scope of the claims.

2. “a housing defining a central opening therein and a plurality of lamp receptacles therein surrounding the central opening”

Claim(s)	Spectral's Proposed Construction	Defendant's Proposed Construction
25	No construction necessary; plain and ordinary meaning.	“a main body member having an opening through its center, the member having a plurality of holes in the member that encircle the opening”

a. This Term Should be Given its Plain and Ordinary Meaning.

Defendant summarily treats claim term #2 as identical to claim term #1, despite acknowledging that the language used is *not* identical. In claim term #2, there is a second “therein” in the latter portion of the phrase (“...and a plurality of lamp receptacles *therein* surrounding the central opening”). The fact that Defendant treats these two claim terms the same and proffers the same construction for both demonstrates that Defendant's proposed constructions are untethered to the actual language of the claims. And as with claim term #1, Defendant's proposed construction of claim term #2 completely rewrites the entire claim element to suit its needs:

“a ~~housing~~ main body member ~~defining a central opening therein~~ having an opening through its center, ~~and- the member having a plurality of lamp receptacles therein~~ holes in the member ~~surrounding the central opening~~ that encircle the opening”

The Court should reject Defendant's proposed construction of claim term #2 for the same reasons it should reject the proposed construction of claim term #1. As discussed above with claim term #1, Defendant cannot establish in the first instance that claim term #2 requires a special construction, and there is no evidence that the applicants acted as their own lexicographer by defining the words with some specialized meaning or that the applicants disavowed claim scope during prosecution. Accordingly, Defendant has not established any of the prerequisites necessary for the Court to depart from the plain and ordinary meaning of the claim terms in this phrase.

b. Defendant's Construction Violates the Doctrine of Claim Differentiation.

In addition to the reasoning provided above, Defendant's proposed construction of claim term #2 should be rejected for another reason: it obliterates the distinction between the language used in Claims 1 and 14 (claim term #1) and Claim 25 (claim term #2). Defendant offers the exact same construction knowing that Claim 25 contains different language. This construction violates the doctrine of claim differentiation, which reflects "the common sense notion that different words or phrases used in separate claims are presumed to indicate that the claims have different meanings and scope." *Rembrandt Technologies, LP v. Cablevision Systems Corp.*, 496 F. App'x 36, 45 (Fed. Cir. 2012). The doctrine of claim differentiation includes the "presumption that two independent claims have different scope when different words or phrases are used in those claims." *Rembrandt Techs.*, 496 F. App'x at 45. *See also Carl Landers v. Sideways, LLC.*, 142 F. App'x 462,

466 (Fed. Cir. 2005) (“Under the doctrine of claim differentiation, it is presumed that different claims will have different scopes.”).

Here, Defendant seeks to have the Court ascribe the narrower scope of claim 25 to the broader claims 1 and 14. Claims 1 and 14 only require a housing to define “a plurality of lamp receptacles,” while claim 25 contains the additional requirement that the housing define “a plurality of lamp receptacles *therein*,”—i.e., within the housing itself—a limitation that is notably absent from claims 1 and 14. Defendant’s construction renders the word “therein” meaningless, which is not permitted. *Carl Landers*, 142 F. App’x at 466 (rejecting construction that gave one claim directed to a “cutter head” the same scope as another claim directed to a “ball-shaped cutter head.”) Had the patentee intended claims 1 and 14, and claim 25 to have the same scope, they could have and would have used the same language. The patentee chose different language and, as a result, the claims have different meanings. Defendant’s proposed construction should be rejected.

3. “a light source positioned within each of the plurality of lamp receptacles”

Claim(s)	Spectral’s Proposed Construction	Defendant’s Proposed Construction¹
1, 9, 25	No construction necessary; plain and ordinary meaning.	“a non-surface-mounted light source in each of the plurality of holes in the member”

¹ Defendant also replaces the phrase “positioned within each of the plurality of lamp receptacles” with “in each of the plurality of holes in the member.” For the reasons provided above with respect to claim terms #1 and #2, the Court should similarly reject this portion of Defendant’s proposed construction for claim term #3.

This claim phrase should be given its plain and ordinary meaning. Defendant seeks to replace the term “light source” with “non-surface-mounted light source,” relying on a purported disavowal of surface-mounted light sources by the applicants during prosecution. The term “light source” has a plain and ordinary meaning to one of skill in the art, and the ’516 Patent claims, specification, and prosecution history do not support limiting it to a “non-surface-mounted” light source.

First, the plain language of the claims themselves makes no distinction between “surface-mounted” and “non-surface-mounted” light sources; and the claim phrase above simply refers to “a light source” positioned within each lamp receptacle. The ’516 Patent claims expressly refer to only two categories of light sources: narrow-band light sources and broad-band light sources. The independent claims (1, 14, 25) refer to “light sources” and “narrow-band light sources,” while one dependent claim (6) explicitly references a “broad-band light source.” This distinction does not bear on the subject of “surface-mounting.”

Moreover, the dependent claims contemplate light sources in a variety of different arrangements and implementations: for example, as light sources with a particular bandwidth (claims 2, 6); as an LED (light-emitting diode) (claim 3); as light sources with filters and diffusers (claims 4, 5); as light sources arranged in opposing pairs around the central opening (claims 7, 8), as light sources that do not extend beyond the lamp receptacles (claims 9, 10), and as light sources mounted to a circuit board and extending through the open ends of the light receptacles (claims 13, 27). These dependent claims underscore that the excitation light source assembly of the ’516 Patent may compromise a

number of different light source configurations, and the '516 Patent is not limited to “non-surface-mounted” light sources.

Second, the specification also makes no mention of “surface-mounted” or “non-surface-mounted” light sources. To the extent it can be read to address “surface mounting,” the specification contradicts rather than supports Defendant’s proposed construction. As disclosed in the context of certain embodiments, the specification states that “[t]he various light sources . . . *may be mounted to a circuit board.*” ’516 Patent, 7:55-57 (emphasis added). This particular configuration—light sources mounted to a circuit board—falls squarely within Defendant’s dictionary definition of a “surface-mounted device” as “[a] device in which the entire body of which projects in front of the mounting surface, with no portion penetrating the mounting surface.” *See* Talghader Report at ¶58.

Dr. Talghader also agrees that a light source mounted to the surface of a circuit board qualifies as a “surface-mounted device.” Talghader Dep. Tr. 118:13-17. In fact, this precise configuration is separately claimed in dependent claims 13 and 27. In other words, the patented invention is not limited to non-surface-mounted light sources, and dependent claims 13 and 27 expressly claim surface-mounted light sources. Thus, Defendant’s proposed construction impermissibly excludes a disclosed embodiment and two dependent claims. Reading the claims in light of the specification, it is clear that the applicants did not intend to limit the range of possible light sources available to a POSA implementing the claimed invention to only “non-surface-mounted” light sources. *See Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (“claims must be read in view of the specification, of which they are a part”).

Third, at no time during the prosecution history did the applicants disavow “surface-mounted” light sources. The burden to establish such disavowal is extremely high. Only items from the specification or the prosecution history that express “manifest exclusion or restriction” are capable of importing limitations into the claims. *Thorner*, 669 F.3d at 1366. (citing *Teleflex, Inc.*, 299 F.3d at 1328). Defendant has not and cannot identify any clear and unambiguous statement that expresses a “manifest exclusion or restriction,” that would support its proposed construction.

Defendant relies upon the applicants’ remarks made to overcome a rejection based on the combination of U.S. Patent Application Publication No. US 2009/0268426 to Pohlert, *et al.* (“Pohlert”) and other references. Talghader Report at ¶¶ 53-66. Defendant points to a statement in which the applicants noted that Pohlert “mounts his light sources directly *on* the surface of his lighted frames.” *Id.* at ¶ 61. However, this statement was not intended to disavow surface-mounted light sources (indeed, Pohlert itself describes the use of surface-mounted light sources as merely one embodiment of its claimed invention). Instead, this statement simply provides further context for the applicants’ observations that “none of Pohlert’s lighting frames define a plurality of lamp receptacles within which are received the light sources” and that Pohlert does not “disclose, or even suggest, an embodiment having a housing that defines both a central opening therein as well as a plurality of lamp receptacles.” *Id.* at ¶ 61. Significantly, the applicants did not amend the affected claims to overcome this rejection. In sum, the ’516 Patent’s prosecution history falls far short of the exacting standard for disavowal. *See Ethanol Boosting Sys.*, 2022 WL 2798395, at *2.

Finally, Dr. Talghader concedes that his sole basis for the proposed construction is the applicants' purported disavowal during prosecution, and not the '516 Patent's claims or specification. Talghader Dep. Tr. 115:11-16. But Dr. Talghader is not qualified to offer a legal opinion on disavowal, and his report contains nothing more than conclusory allegations on this issue (see Talghader Report ¶¶ 55-62). *Teva*, 574 U.S. at 332 (experts cannot be used to prove the proper or legal construction of a patent's claim terms). For this and all of the other reasons stated above, there is no basis to limit the '516 Patent's invention to "non-surface-mounted" light sources.

4. "a narrow-band light source positioned within at least one of the plurality of lamp receptacles"

Claim(s)	Spectral's Proposed Construction	Defendant's Proposed Construction
14	No construction necessary; plain and ordinary meaning.	"a non-surface-mounted narrow-band light source in at least one of the plurality of holes of the member"

This claim term should be given its plain and ordinary meaning. Claim term #4 differs from claim term #3 only in that it refers to "a narrow-band light source" rather than "a light source." Accordingly, the Court should reject Defendant's proposed construction of claim term #4 for the same reasons discussed above with respect to claim term #3.

5. “diffuser”

Claim(s)	Spectral’s Proposed Construction	Defendant’s Proposed Construction
1, 4, 14, 15	No construction necessary; plain and ordinary meaning.	“an optical component that spreads and randomizes rays of light passing through it to provide more even illumination than would be without the optical component”

The claim term “diffuser” has a plain and ordinary meaning, which neither party disputes. In fact, the specification provides a clear explanation of what the term “diffuser” means:

The diffuser 26 may comprise any of a wide range of optical diffusers that are now known in the art or that may be developed in the future that are or would be suitable for the particular application. However, because optical diffusers are well-known in the art and could be readily provided by persons having ordinary skill in the art after having become familiar with the teachings provided herein, the particular diffusers that may be used in one embodiment of the invention will not be described in further detail herein.

’516 Patent, 9:26-34. Even Defendant’s own claim construction expert concedes that diffusers are “well known in the art” and “diffuse[] or spread[] light produced by the light source . . . thereby providing for more even illumination than would be provided by light source alone.” Talghader Report at ¶¶ 68-69. And Dr. Talghader also agrees that a person of ordinary skill in the art could readily identify the particular diffusers that might be used to implement the ’516 Patent invention. Talghader Dep. Tr. 134:22-135:7.

Yet, despite all of the foregoing, Defendant seeks to redefine “diffuser” as “an optical component that spreads and randomizes rays of light passing through it to provide more even illumination than would be without the optical component.” Ignoring all of the

evidence and legal principles of claim construction, Defendant impermissibly interjects the term “randomizes”—which does not appear in the patent’s specification or its claims—into the definition of a term that has a plain and ordinary meaning to those in skilled in the art. Defendant cannot point to a single example in the intrinsic record that amounts to a disclaimer or that limits or defines the term “diffuser” to require “randomiz[ing]” light. Defendant’s basis for its construction, which changes the words, the meaning, and the intent and scope of the claim, is based solely on its expert’s “impression that patentees were . . . just incomplete in their definition.” Talghader Dep. Tr., 138:18-20. But “[c]laim construction is a matter of resolution of disputed meanings and technical scope, to clarify and when necessary to explain what the patentee covered by the claims....It is not an obligatory exercise in redundancy.” *U.S. Surgical Corp. v. Ethicon, Inc.*, 103 F.3d 1554, 1568 (Fed. Cir. 1997).

For all of these reasons, the Court must reject Defendant’s efforts to “clarify”—or rather re-define—the meaning of the term “diffuser” and afford this term its plain and ordinary meaning.

6. “a diffuser positioned within at least some of the plurality of lamp receptacles”

Claim(s)	Spectral’s Proposed Construction	Defendant’s Proposed Construction
1, 14	No construction necessary; plain and ordinary meaning.	“a diffuser positioned within at least some of the holes of the member that contain narrow-band light sources”

a. This Term Should be Given its Plain and Ordinary Meaning.

Once again, without any legal basis or justification, Defendant attempts to rewrite an entire claim element as shown in the mark-up below:

“a diffuser positioned within at least some of the ~~plurality of lamp receptacles~~ holes of the member that contain narrow-band light sources”

As visually depicted above, Defendant has replaced “plurality of lamp receptacles,” with its own interpretation using words that appear nowhere in the claim. Defendant has changed “lamp receptacles” to “holes of the member” and simply added a newly created limitation “contain narrow-band light sources.” Defendant cannot demonstrate any basis for this re-writing of the claim term. Neither lexicography nor disavowal support the multiple alterations to this claim phrase. Accordingly, this claim phrase should be given its plain and ordinary meaning.

b. Defendant’s Construction Once Again Limits the Claims to a Single Preferred Embodiment Disclosed by the ’516 Patent.

As with claim terms #1 and #2, Defendant seeks to limit the ’516 Patent claims to embodiments from the patent’s specification and figures, violating Federal Circuit law, which expressly prohibits limiting claims to preferred embodiments or specific examples in the specification. *See VLSI Tech.*, 53 F.4th at 652. Specifically, Defendant’s construction seeks to limit the term to the embodiments described in the specification as “a typical application” or those described in the figures of the patent. *See Talghader Report* at ¶¶ 72-78. As explained above, limiting claim language to specific embodiments is improper as a matter of law. *VLSI Tech.*, 53 F.4th at 652. Moreover, as Defendant’s own expert readily concedes, the ’516 Patent expressly provides for “other arrangements”

beyond those that are described in the “typical application.” ’516 Patent, 3:50-51; *see also* Talghader Rough Tr., 148:5-18. Indeed, Dr. Talghader admits that (1) diffusers can be used with a *broad-band light source* not just the narrow-band light source added to the claim term; (2) diffusers with a *broad-band light source* can be used in a fluorescent imaging application; and (3) there may be situations where it would be desirable to use a diffuser with a *broad-band light source* in a fluorescent imaging application. Talghader Dep. Tr., 152:10-153:7.

There is no dispute that the limitation “contain narrow-band light sources” does not appear in the claim element. *See* Talghader Dep. Tr., 151:2-6. Yet Defendant impermissibly limits claim term #6 to certain preferred embodiments described in the specification and depicted in Figures 5 and 6. *See* Talghader Report at ¶¶ 72-78. As discussed in previous sections, there is no evidence that the applicants acted as their own lexicographer by defining the words with some specialized meaning, nor is there evidence in the prosecution history of a disavowal. Accordingly, Defendant has not established any of the prerequisites necessary for the Court to depart from the plain and ordinary meaning of the claim terms in this phrase, and it should be given its plain and ordinary meaning.

VI. CONCLUSION

For the foregoing reasons, the Court should reject each of Defendant’s proposed constructions and give the six claim terms their plain and ordinary meaning.

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CERTIFICATE OF SERVICE

I hereby certify that on December 30, 2022, I electronically filed the foregoing with the Clerk of Court using the CM/ECF system, which will send notification of such filing via electronic mail to all counsel of record. Any other counsel of record will be served by first class U.S. mail.

/s/Dawn M. Jenkins

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