# In the Matter of

# CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

337-TA-872

**Publication 4854** 

November 2018

**U.S. International Trade Commission** 



Washington, DC 20436

# **U.S. International Trade Commission**

# COMMISSIONERS

Meredith Broadbent, Chairman Dean Pinkert, Vice Chairman Irving Williamson, Commissioner Scott Kieff, Commissioner David Johanson, Commissioner Rhonda Schmidtlein, Commissioner

Address all communications to Secretary to the Commission United States International Trade Commission Washington, DC 20436

# **U.S. International Trade Commission**

Washington, DC 20436 www.usitc.gov

# In the Matter of

# CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

337-TA-872



November 2018

# UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

#### CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

Investigation No. 337-TA-872

# NOTICE OF THE COMMISSION'S FINAL DETERMINATION FINDING NO VIOLATION OF SECTION 337; TERMINATION OF THE INVESTIGATION

AGENCY: U.S. International Trade Commission.

ACTION: Notice,

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has found no violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in this investigation. The investigation is terminated.

**FOR FURTHER INFORMATION CONTACT:** Robert Needham, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5468. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on March 5, 2013, based on a complaint filed by Neptun Light, Inc., and Mr. Andrzej Bobel (together, "Neptun") to consider alleged violations of section 337 by reason of infringement of claims 1, 2, 10, and 11 of U.S. Patent No. 7,053,540 ("the '540 patent"). 78 *Fed. Reg.* 14357-58. The Commission's notice of investigation named as respondents Maxlite, Inc. ("Maxlight"); Satco Products, Inc. ("Satco"); Litetronics International, Inc. ("Litetronics") (together, "Respondents"); and Technical Consumer Products, Inc. ("TCP"). *Id.* at 14358. The Office of Unfair Import Investigations did not participate in this investigation. *Id.* 

On June 10, 2013, Neptun and TCP moved to terminate the investigation with respect to TCP on the basis of a settlement agreement. The motion was granted on June 11, 2013. Order No. 20, *not reviewed* (July 8, 2013).

On February 3, 2014, the ALJ issued his final initial determination ("ID"), finding a violation of section 337. Specifically, the ALJ found that Maxlite and Satco violated section 337 with respect to claims 1, 2 and 11 of the '540 patent, and that Litetronics violated section 337

with respect to claims 1, 2 and 10 of the '540 patent. The ALJ recommended that a limited exclusion order issue against the infringing products of Maxlite, Satco, and Litetronics. He did not recommend the issuance of any cease and desist orders.

On February 18, 2014, Respondents petitioned for review of several of the ALJ's findings. Also on February 18, 2014, Neptun contingently petitioned for review of the ALJ's finding that Neptun had not made a sufficient showing on the economic prong of the domestic industry requirement through 19 U.S.C. § 1337(a)(3)(C). On February 26, 2014, Neptun and Respondents opposed each other's petitions.

On April 8, 2014, the Commission determined to review the ALJ's findings on the economic prong of the domestic industry requirement, the claim construction of "mating opening," and infringement. The Commission also sought briefing from the parties on seven issues, and received opening submissions on April 22, 2014, and responsive submissions on April 29, 2014.

Having examined the record of this investigation, including the ALJ's final ID and the submissions from the parties, the Commission has determined that Neptun has not proven a violation of section 337. Specifically, the Commission has determined to reject the ALJ's construction of "mating opening," and to reverse the ALJ's findings of infringement. The Commission takes no position on whether Neptun satisfied the economic prong of the domestic industry requirement. *See Beloit Corp. v. Valmet Oy*, 742 F.2d 1421, 1423 (Fed. Cir. 1984). All other findings in the ID that are consistent with the Commission's determinations are affirmed. A Commission Opinion will issue shortly.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 C.F.R. Part 210).

By order of the Commission.

Lisa R. Barton Secretary to the Commission

Issued: June 3, 2014

# CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

#### PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached NOTICE has been served upon the following parties as indicated on June 4, 2014.

Lisa R. Barton, Secretary U.S. International Trade Commission 500 E Street, SW, Room 112 Washington, DC 20436

# On Behalf of Complainants Andrzej Bobel and Neptun Light, Inc.:

John R. Fuisz, Esq. THE FUISZ-KUNDU GROUP LLP 1455 Pennsylvania Avenue, NW, Suite 400 Washington, DC 20004

# On Behalf of Respondents MaxLite, Inc. and Litetronics International, Inc.:

Robert S. Rigg, Esq. VEDDER PRICE PC 222 N. LaSalle Street, Suite 2600 Chicago, IL 60601

# On Behalf of Respondent Satco Products, Inc.:

Robert P. Lynn, Esq. LYNN GARTNER DUNNE & COVELLO LLP 330 Old Country Road, Suite 103 Mineola, NY 11501

) Via Hand Delivery ) Via Express Delivery  $(\sqrt{})$  Via First Class Mail ) Other:

) Via Hand Delivery ) Via Express Delivery (√) Via First Class Mail ) Other:

- ) Via Hand Delivery ) Via Express Delivery  $(\sqrt{})$  Via First Class Mail
- () Other:

# UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

# CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

Investigation No. 337-TA-872

#### COMMISSION OPINION

On February 3, 2014, the presiding administrative law judge ("ALJ") issued a final Initial Determination ("ID") finding a violation of 19 U.S.C. § 1337 (2012) ("section 337") with respect to U.S. Patent No. 7,053,540 ("the '540 patent") in the above-identified investigation. Specifically, the ALJ found that the respondents infringed the '540 patent and that complainants satisfied the domestic industry requirement of section 337.

On April 8, 2014, the Commission determined to review the findings in the ID on the construction of "mating opening," infringement, and the economic prong of the domestic industry requirement. 79 *Fed. Reg.* 20908-10 (Apr. 14, 2014). The Commission solicited briefing from the parties on several issues, and solicited briefing on remedy, bonding, and the public interest from the parties and the public. *Id.* at 20909-10.

Having considered the ID, the parties' petitions and responses, the parties' submissions, and the record in this investigation, the Commission has determined that the complainants have not proven a violation of section 337. The Commission affirms-in-part, modifies-in-part, and reverses-in-part the ID as explained below.

## 1. BACKGROUND

#### A. Procedural History

The Commission instituted this investigation on March 5, 2013, based on a complaint

filed by Neptun Light, Inc. and its founder, Andrzej Bobel (collectively, "Neptun"). 78 *Fed. Reg.* 14357-58. The notice of institution of this investigation named as respondents Maxlite, Inc. ("Maxlite"), Satco Products, Inc. ("Satco"), Litetronics International, Inc. ("Litetronics"), and Technical Consumer Products, Inc. ("TCP"). The complaint alleged violations of section 337 in the importation into the United States, the sale for importation, and the sale within the United States after importation of certain compact fluorescent reflector lamps by reason of infringement of claims 1, 2, 10, and 11 of the '540 patent ("the asserted claims").<sup>1</sup> The investigation was terminated with respect to TCP after TCP and Neptun reached a settlement agreement. Order No. 20 (Jun. 11, 2013), *not reviewed* (Jul. 8, 2013).

On February 3, 2014, the ALJ issued his final ID, finding that Maxlite, Satco, and Litetronics (collectively, "Respondents") violated section 337. Specifically, the ALJ found that Maxlite and Satco violated section 337 with respect to claims 1, 2, and 11 of the '540 patent, that Litetronics violated section 337 with respect to claims 1, 2, and 10 of the '540 patent, that Neptun satisfied the domestic industry requirement of section 337, and that Respondents failed to show that the '540 patent was invalid by clear and convincing evidence. ID at 53. The ALJ recommended the issuance of a limited exclusion order and a bond in the amount of 100 percent of the entered value during the period of Presidential review. *Id.* at 54-57.

On February 18, 2014, Respondents filed a petition for review of the ID, challenging the ALJ's findings on the construction of "mating opening," infringement, and the economic prong of the domestic industry requirement. *See* Respondents Satco Products, Inc., Maxlite, Inc., and Litetronics International Inc.'s Petition for Review ("Respondents' Pet."). That same day, Neptun filed a contingent petition for review of the ID, challenging the ALJ's finding that

<sup>&</sup>lt;sup>1</sup> Asserted claims 2, 10, and 11 all depend upon asserted claim 1. CX-0004 ('540 patent). Accordingly, all of the asserted claims require the limitations of claim 1.

Neptun did not satisfy the economic prong of the domestic industry requirement through substantial investments in the exploitation of the '540 patent under section 337(a)(3)(C). *See* Contingent Petition for Review of Complainants Andrzej Bobel and Neptun Light Inc.

On April 8, 2014, the Commission determined to review the ID in part. 79 *Fed. Reg.* 20908-10 (Apr. 14, 2014). Specifically, the Commission determined to review the ALJ's findings on the construction of "mating opening," infringement, and the economic prong of the domestic industry requirement. *Id.* at 20909. In connection with the Commission's review of the ID, the parties were invited to brief several issues. The parties, interested government agencies, and the public were invited to provide written submissions on issues related to remedy, bonding, and the public interest. The Commission received responses and submissions from Complainants and Respondents only.

On June 3, 2014, the Commission issued a notice of its final determination finding no violation of section 337. 79 *Fed. Reg.* 32996-97 (Jun. 9, 2014). The Commission determined to reject the ALJ's construction of "mating opening," to reverse the ALJ's finding of infringement, and to take no position on whether Neptun satisfied the economic prong of the domestic industry requirement. *Id.* at 32997.

#### B. The Accused Products

Neptun accuses Respondents of violating section 337 through the importation of certain infringing parabolic aluminized reflector compact fluorescent lamps ("PAR CFLs"). ID at 7. The specific accused models are listed on pages 7 and 8 of the ID. Neptun accuses three standard sizes of PAR CFLs: PAR 38, PAR 30, and PAR 20. *Id.* The parties designated certain PAR CFL products as representative of several models of PAR CFL products. *Id.* at 8.

#### C. The Asserted Domestic Industry Articles

Neptun contends that its PAR 38 and PAR 30 products practice claims 1, 2, and 10 of the '540 patent. *Id.* at 8. The ALJ found that these products satisfied the technical prong of the domestic industry requirement of section 337, and Respondents did not petition for review of the finding. *Id.* at 42-47; Respondents' Pet.

## II. ANALYSIS

As stated above, the Commission determined to review the final ID with respect to the construction of "mating opening," infringement, and the economic prong of the domestic industry requirement. On review, the Commission determines to make the findings, conclusions, and supporting analysis set forth below. Any findings, conclusions, and supporting analysis by the ALJ that are not inconsistent with our analysis and conclusions below are adopted by the Commission.

#### A. Construction of "Mating Opening"

The ALJ construed the phrase "a first circumferential flange defining a mating opening having an inner diameter" to mean "a first circumferential flange defining an area in which a portion of the light source base (*i.e.*, the portion through which the light source is inserted) is located having an inner diameter." ID at 18. Respondents contend that the ALJ erred in his construction of "mating opening," and that the term should be construed to mean "a hole at the bottom of the reflector bounded by the circular projection [flange]." Respondents' Pet. at 31-36. Neptun contends that the ALJ properly construed "mating opening" to mean "an area in which a portion of the light source base (*i.e.*, the portion through which the light source is inserted) is located." Complainants Andrzej Bobel and Neptun Light, Inc.'s Response to Respondents' Petition for Review (Feb. 26, 2014) ("Neptun's Resp.") at 19-22. Because none of the parties

contest the meaning of "mating," the parties' dispute centers on the proper construction of "opening." *See* ID at 16 ("this dispute centers on whether or not the phrase 'mating opening' is limited to a hole"); Initial Post-Hearing Brief of Complainants Andrzej Bobel and Neptun Light, Inc. at 30 (Dec. 6, 2013) ("This claim term goes to what appears to be the singular issue concerning infringement in this case: whether the claim term 'mating opening' is limited to a hole . . .").<sup>2</sup> Therefore, we need not construe the meaning of "mating" because its meaning is not in controversy. *See Vivid Techs., Inc. v. Am. Sci. & Eng* 'g, *Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999) ("only those terms need be construed that are in controversy, and only to the extent necessary to resolve the controversy"). Here, the controversy is whether "opening" means an area in which a portion of the light source base is located, as proposed by Neptun, or a hole at the bottom of the reflector, as proposed by Respondents. After reviewing the claims, specification, and extrinsic evidence, the Commission rejects both constructions, and determines that the term "opening" needs no construction and should be accorded its plain and ordinary meaning.

The purpose of claim construction is "to accord a claim the meaning it would have to a person of ordinary skill in the art at the time of the invention." *Innova/Pure Water*, 381 F.3d at 1116. Thus, "[t]he 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 Entertainment America LLC*, 669 F.3d 1362, 1365 (Fed. Cir. 2012).

<sup>&</sup>lt;sup>2</sup> See also Neptun's Response at 22 (noting that Respondents contend that the "mating opening" must be a hole, but arguing that "mating opening" should not be so limited); Respondents Litetronics International, Inc.'s, Maxlite, Inc.'s and Satco, Inc.'s Initial Post-Hearing Brief at 64-66 (Dec. 12, 2013) (noting that Neptun contends that "mating opening" is not limited to a hole, but arguing that the specification requires a hole).

The Commission notes that the term "opening" is a common and easily understood term. And as will be further described below, the Commission finds that the claims, specification, and extrinsic evidence do not show that "opening" has a special meaning to those of ordinary skill in the art in the field of the '540 patent. The Commission therefore finds that "opening" needs no construction, and should be given its plain and ordinary meaning.

One of the sources used to determine the meaning of a claim term is the claims themselves. *E.g., Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005)(*en banc*). Here, the limitations of the asserted claims of the '540 patent are consistent with the plain and ordinary meaning of "opening." The asserted claims require "a reflector with a defined cavity . . . said cavity having a first circumferential flange defining a mating opening having an inner diameter." CX-0004 ('540 patent) at 7:35-38. The claims further require "a light source base . . . said base . . . located inside said mating opening." *Id.* at 7:44-46. Thus, according to the claims, the "opening" must be defined by a circumferential flange of the reflector cavity, have an inner diameter, and have a light source base located inside of the opening. This claim language describes a circular or oval region that permits objects to be located inside of it, which is consistent with the plain and ordinary meaning of "opening."

The specification also uses the term "opening" consistently with its plain and ordinary meaning. *See Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996) ("it is always necessary to review the specification to determine whether the inventor has used any terms in a manner inconsistent with their ordinary meaning."). The figures of the '540 patent show that the "mating opening" is an opening defined by a first circumferential flange. A portion of Figure 2 of the '540 patent, as annotated by Respondents, shows that the reflector **203** bounds a reflector cavity that has a flange **205** defining a mating opening **220**:



CX-0004 ('540 patent) at Fig. 2, as annotated in Respondents Satco Products, Inc., Maxlite, Inc., and Litetronics International, Inc.'s Opening Written Submission on Review (Apr. 22, 2014) ("Respondents' Opening Sub.") at 17. In the above figure, the light source base **208(b)** and its tubular section **209** are to be inserted into mating opening **220** to form the claimed lamp. Figure 5, as annotated by the Respondents, shows the lamp after the light source base is inserted into the mating opening:



CX-0004 ('540 patent) at Fig. 5, as annotated in Respondents' Opening Sub. at 16. In Figure 5, the mating opening **520** (*i.e.*, the area left of the first flange **505**) is now filled by a portion of the light source base's tubular extension **509**. Thus, the mating opening **520** is an opening that permits a portion of the light source base **508(b)** and its tubular section **509** to pass through the reflector **503** so that the light source base's outer hooks **510** can mate with the inner hooks **519** of the ballast housing **518**. Thus, by describing the "mating opening" as an area through which a portion of the light source base passes to mate with the electronic ballast, the figures are consistent with the plain and ordinary meaning of "opening."

The text of the specification is also consistent with the plain and ordinary meaning of "opening." The specification states that the "[t]he flange **105** has a mating opening **120** of a particular inner diameter, and "[t]he tubular section [of the light source base] is made with a

diameter appropriate for easy insertion into the opening of the flange **105**." CX-0004 ('540 patent) at 4:49-54. Additionally, the specification states that "[t]he housing is designed and molded in such a way that its shape is compatible with a shape of the reflector cavity at the flange **105** and mating opening **120**." *Id.* at 5:11-13. Thus, the specification explains that the mating opening has a shape that is suitable for accommodating both the ballast housing and the insertion of the light source base, which is consistent with the plain and ordinary meaning of "opening." The specification also does not contain any instances in which the patentee gave a special meaning to "mating opening" by acting as a lexicographer or by affirmatively disclaiming patent scope.

The extrinsic evidence is also consistent with the plain and ordinary meaning of "opening." Extrinsic evidence may be used in claim construction, but is generally less significant than the intrinsic record. *E.g., Phillips*, 415 F.3d at 1317-18. Here, Respondents produced expert testimony that "opening" should be construed consistently with its plain and ordinary meaning of "an opening space serving as a passage or gap." RX-0002 (Roberts WS) at Q&A60. Neptun's expert, on the other hand, testified that the "mating opening" need not be an opening at all, and can be the light source base. CX-0002C (Mayor WS) at Q&A50; *see also* Neptun's Resp. at 22. The Commission finds that Neptun's proposed construction is contrary to the plain and ordinary meaning of "opening," the patent claims, and the specification for the reasons given above, and therefore discounts Dr. Mayor's testimony. *Philips*, 415 F.3d at 1318 ("a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and prosecution history") (internal citation omitted). Furthermore, Neptun's expert simply testified as to how he would interpret the term "mating opening" based on his own reading of the specification. CX-0002C (Mayor WS) at

Q&A50-52 ("In my opinion, the specification does not support limiting the 'mating opening' to a hole and precluding the claimed light source base from being integrated with the reflector."). In other words, Neptun's expert did not testify on the generally accepted meaning of "mating opening" to one of skill in the art, but instead testified on the legal question of the meaning of "mating opening" based on his reading of the specification. The Federal Circuit has rejected such testimony. *See Symantec Corp. v. Computer Assocs. Int'l, Inc.*, 522 F.3d 1279, 1291 (Fed. Cir. 2008) (rejecting expert testimony that "simply recites how each expert would construe the term [] based on his own reading of the specification" because it "does not identify the 'accepted meaning in the field' to one skilled in the art"). The Commission, therefore, does not credit Neptun's expert testimony on the construction of "mating opening."

Respondents argue that "mating opening" should be construed to mean "a hole at the bottom of the reflector bounded by the circular projection [flange]." Respondents' Pet. at 33. The Commission rejects Respondents' proposed construction for several reasons. First, the specification refers to the "mating opening" and "holes" as separate structures. *See* CX-0004 ('540 patent) at 4:49, 58-60 (separately reciting "mating opening **120**" and "two round holes **111a** and **111b**"). We find no evidence that "mating opening" and these "hole" structures should be considered the same structure. Second, nothing in the claims or specification requires that the mating opening be located in a particular area of the reflector cavity. While the figures do show that the mating opening is located in the bottom of the reflector, we decline to read such a limitation into the claims. *See, e.g., Thorner*, 669 F.3d at 1366 ("We do not read limitations from the specification into claims"). Finally, we decline to add Respondents' proposed limitation "bounded by the circular projection [flange]." The asserted claims already require "a first circumferential flange defining a mating opening," and we decline to add a reworded

version of this limitation onto the construction of "mating opening." Accordingly, the Commission finds that Respondents failed to show that the claims, specification, and extrinsic evidence support Respondents' proposed construction.

The Commission also rejects the construction proposed by Neptun and adopted by the ALJ. First, the ALJ's construction essentially removes the requirement to show a "mating opening." The Federal Circuit has repeatedly held that claim terms should not be construed in a way that renders other claim terms meaningless. *See, e.g., Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 950 (Fed. Cir. 2006) ("claims are interpreted with an eye toward giving effect to all terms in the claim").<sup>3</sup> Here, claim 1 of the '540 patent requires "a reflector with a defined cavity ... having a first circumferential flange defining a mating opening." Under the ALJ's construction, "mating opening" is essentially construed to mean the location of the light source base. Such a construction transforms the limitations requiring both a "light source base" and a location of the light source base. Because a light source base will inherently have a location, the ALJ's construction effectively eliminates the "mating opening" limitation entirely.

Second, the Commission finds that the ALJ erred in his construction because the construction is contrary to other claim limitations. Another limitation of the asserted claims requires "a light source base . . . located inside said mating opening." Under the ALJ's construction, this limitation means "a light source base . . . located inside said area in which a portion of the light source base (*i.e.*, the portion through which the light source is inserted) is

<sup>&</sup>lt;sup>3</sup> See also Merck & Co., Inc. v. Teva Pharms. USA, Inc., 395 F.3d 1364, 1372 (Fed. Cir. 2005) ("A claim construction that gives meaning to all the terms of the claim is preferred over one that does not do so."); Innova/Pure Water, Inc. v. Safari Water Filtration Systems, Inc., 381 F.3d 1111, 1119 (Fed. Cir. 2004) ("all claim terms are presumed to have meaning in a claim").

located." The construction therefore requires that the light source base be located inside a portion of the light source base. Such a construction creates an absurd result that is contrary to the plain language of the claims.

Third, the ALJ did not support his construction with the claim language or specification. The ALJ attempted to justify his construction based on the claim limitations "a first circumferential flange defining a mating opening having an inner diameter" and "a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening." ID at 15. Nothing in claim 1, however, suggests that the mating opening should be construed to mean the location of the light source base; rather, the claim requires that a reflector cavity have a mating opening and that the light source base be located inside that mating opening. Similarly, although the specification figures show that the light source base is located in the mating opening, the specification does not suggest that the "mating opening" should be construed to mean the location of the light source base. Thus, the ALJ's construction removes the recited relationship between the mating opening and the reflector without any intrinsic support to do so.

Fourth, the ALJ's construction is unsupported by credible extrinsic evidence. The ALJ cites expert testimony that the claimed lamp does not contain an opening after the lamp is fully assembled, *i.e.*, after the light source base is inserted into the mating opening, and concludes that the "mating opening" need not be an opening. ID at 16-17 (citing Mayor Tr. 221, 250, 251 and Derby Tr. 408-09). The asserted claims of the '540 patent, however, do not require that there be an opening in the lamp; the claims instead require that there be a mating opening in a specific lamp component, *i.e.*, the reflector cavity. Although the claims also require that a solid light source base be located inside of the opening, that fact does not obviate the requirement to show

that the reflector cavity has a "mating opening." Accordingly, the ALJ erred by concluding that this expert testimony shows that the asserted claims of the '540 patent do not require a reflector cavity having a first circumferential flange that defines a mating opening.

In summary, the Commission finds that the term "mating opening," in the context of the '540 patent, needs no construction. The Commission finds that the "mating" portion of the term is not in dispute and need not be construed, and that the "opening" portion of the term should be given its plain and ordinary meaning. The Commission finds that this construction resolves the dispute among the parties by clarifying that the term "mating opening" requires a plain and ordinary "opening."

### B. Infringement

The ALJ found that Maxlite and Satco infringed claims 1, 2, and 11 of the '540 patent and that Litetronics infringed claims 1, 2, and 10 of the '540 patent. ID at 53. For the reasons set forth below, the Commission reverses the ALJ's findings of infringement, and finds that Maxlite, Satco, and Litetronics do not infringe the asserted claims of the '540 patent.

# 1. Mating Opening

As discussed in the previous section, the asserted claims of the '540 patent require a "mating opening." And, as discussed in the previous section, the Commission determined that "mating opening" needs no construction, and that "opening" should be given its plain and ordinary meaning.

# a. Literal Infringement

The ALJ found that, under his construction, Respondents' products literally satisfy this claim limitation because Respondents' products contain an integrated reflector-light source base that also constitutes a "mating opening." ID at 31-32 (citing CX-0002C (Mayor WS) at Q&A 91, 95, 164, 166, 232, and 234). Respondents contend that the ALJ erred by finding that

Respondents' products contain mating openings. Respondents' Pet. at 42-43. The Commission finds that Respondents' products do not contain an opening that satisfies the "mating opening" limitation.

The asserted claims of the '540 patent require "a reflector with a defined cavity . . . having a first circumferential flange defining a mating opening having an inner diameter." Thus, the claim language requires that the reflector cavity have an opening that is defined by a flange. This claim language is consistent with a relevant portion of Figure 2 of the specification, which shows that the cavity within the reflector **203** has a mating opening **220** that is defined by the circumferential flange **205**:



Fig. 2; *see also* Fig 5 (showing that the cavity created by reflector 503 has a mating opening 520 define by the flange 505).

Respondents contend that their products do not satisfy the "mating opening" limitation because their products do not contain such openings. Respondents' Opening Sub. at 18; see also

RX-0002 (Roberts WS) at Q&A49 (explaining that Neptun failed to show that the claimed mating opening is present in the accused products). Respondents produced photographs showing that their products do not contain mating openings as claimed in '540 patent. *See id.*; *see also* RDX-0009 (Satco PAR 38 Lamp) (showing an absence of the claimed mating openings); RDX-0025 (MaxLite PAR 38 Lamp) (same); RDX-0045 (Litetronics PAR 30) (same); RX-0002 (Roberts WS) at Q&A69 (explaining that RDX-0008 shows that Satco's products do not contain a mating opening because "the smaller end of the reflector is solid").

Neptun effectively admits that Respondents' products do not literally have such an opening in the reflector cavity. See CX-0002C (Mayor WS) at Q96-97, Q110-111, Q168-169, Q180-181, Q236-237 (solely advancing doctrine of equivalents arguments should the Commission find that "mating opening" does not include solid objects). Even Neptun's own infringement allegations show that the reflector cavity has no mating opening. Neptun contends that, in Respondents' products, the light source base is not a discrete structure, and is simply a portion of the reflector. *See* CX-0002C (Mayor WS) at Q&A 91, 109, 164, 179, 232, 246 (stating that the light source base is "integrated into the reflector"). The asserted claims, however, require that the reflector cavity have an opening in which a light source base is located. By alleging that the light source base is not in an opening, and is instead merely a portion of a solid reflector wall.

Neptun's exhibits further show that the reflector wall is a continuous structure that extends from one end of the lens to the other. For example, in the Satco products, the reflector extends in roughly a U-shape from the upper left to the upper right of the structure, which is enclosed on the top by a lens, thereby creating a reflector cavity without an opening.



CX-0047C (Satco Schematic for PAR 38);<sup>4</sup> see also CX-0053C (showing the lens in the Satco PAR 38); RX-0002 (Roberts WS) at Q&A69, 71 (explaining that the Satco PAR 38 has a solid reflector); CX-0004 ('540 patent) at Abstract ("The reflector cavity is enclosed with a lens at the rim, has an interior wall as a reflective surface . . ."). Neptun acknowledges that the reflector cavity itself has no opening, but alleges that an area on the outside of the reflector wall constitutes the "mating opening" in the Satco products.

<sup>&</sup>lt;sup>4</sup> CX-0049C shows a substantially identical diagram for the Satco PAR 30 product, and CX-0051C shows a substantially identical schematic for the Satco PAR 20 product.



CX-0054C (Satco Schematic for PAR 38 reflector (annotated)). Neptun makes identical allegations for both the Maxlite and Litetronics products, respectively. CX-0085C (Maxlite PAR technical drawing (annotated));<sup>5</sup> CX-0103 (Litetronics PAR 38).<sup>6</sup>

<sup>&</sup>lt;sup>5</sup> CX-84C shows a substantially similar diagram for Maxlite products. The gaps in CX-84C correspond to holes required for the light source, not to the mating opening.

<sup>&</sup>lt;sup>6</sup> CX-0105 shows a substantially identical diagram for the Litetronics PAR 30 product, and CX-0107 shows a substantially identical schematic for the Litetronics PAR 20 product.





The Commission finds that Neptun failed to show that these alleged "mating openings" satisfy the limitation "a reflector with a defined cavity . . . having a first circumferential flange defining a mating opening." The alleged mating opening is separated from the reflector cavity by a solid reflector wall, which precludes a finding that the *reflector cavity itself* has an opening. Furthermore, the alleged mating opening is located entirely outside of the reflector, and thus

cannot satisfy the requirement that the reflector cavity have a flange that defines a mating opening. Accordingly, the Commission finds that Respondents' products do not literally satisfy the "mating opening" limitation of the '540 patent.

#### b. Doctrine of Equivalents

The Commission also finds that Respondents' products do not satisfy the "mating opening" limitation under the doctrine of equivalents. The ALJ found that, even if "mating opening" was construed to mean a hole, that a single integrated reflector/light-source-base structure was the equivalent of "a reflector with a defined cavity . . . said cavity having a first circumferential flange defining a mating opening having an inner diameter" and "light source base." ID at 32.

Neptun contends that the solid bottom wall of the reflector in Respondents' products infringes the "mating opening" limitation under the doctrine of equivalents, because the reflector wall performs substantially the same function in the same way to achieve the same result. CX-0002C (Mayor WS) at Q&A97, 169, 237. The doctrine of equivalents, however, cannot be used to vitiate a claim limitation. *Freedman Seating co. v. American Seating Co.*, 420 F.3d 1350, 1361 (Fed. Cir. 2005); *see also Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 30 (1997) (holding that the doctrine of equivalents cannot be used to effectively eliminate elements). Particularly, the Federal Circuit has held that the doctrine of equivalents cannot be used to eliminate structural limitations. *See Sage Prods., Inc. v. Devon Indus., Inc.,* 126 F.3d 1420, 1425 (Fed. Cir. 1997) (holding that the doctrine of equivalents cannot be used to eliminate clear structural limitations); *Conopco, Inc. v. May Dept. Stores Co.*, 46 F.3d 1556, 1562 (Fed. Cir. 1994) ("The doctrine of equivalents cannot be used to erase 'meaningful structural and functional limitations of the claim on which the public is entitled to rely in

avoiding infringement"); *Freedman Seating co. v. American Seating Co.*, 420 F.3d 1350, 1361 (Fed. Cir. 2005) (holding that a rotatably mounted device did not infringe a "slidably mounted" limitation under the doctrine of equivalents because there was a significant structural difference.).

Here, Neptun's doctrine of equivalents argument effectively eliminates the structural "mating opening" limitation. Neptun essentially argues that, although the asserted claims require a reflector cavity with a mating opening and a light source base located inside that mating opening, the accused products' solid reflector wall infringes under the doctrine of equivalents because the wall serves the same purpose as the mating opening and light source base. Neptun's equivalence analysis, however, impermissibly eliminates the "mating opening" structure.

Neptun's doctrine of equivalents argument is analogous to the argument rejected in *Sage Products*. There, the plaintiff contended that the claim limitation "an elongated slot at the top of the container body" could be satisfied under the doctrine of equivalents by a slot located <u>within</u> the container body, and that the limitation "a first constriction extending over said slot" could be satisfied under the doctrine of equivalents by a constriction extending <u>below</u> the slot. *Sage Products*, 126 F.3d at 1422-23. The Federal Circuit rejected the plaintiff's argument, finding that "the doctrine of equivalents does not grant [the plaintiff] license to remove entirely the 'top of the container' and 'over said slot' limitations from the claim." *Id.* at 1424. Although the Federal Circuit agreed that the accused structures achieved a result similar to the claim language, the court held that the claim required a particular arrangement of structural limitations, and that the defendants' products did not infringe under the doctrine of equivalents because the products used a different arrangement of structural elements. *Id.* at 1425. The court noted that, if the plaintiff had wanted broader protection that encompassed more structures, the plaintiff "could

have sought claims with fewer structural encumbrances." *Id.* Thus, analogously, if Neptun desired patent protection over PAR CFLs that do not contain mating openings, it should have filed its patent applications accordingly. But because Neptun sought and obtained a patent with claims covering a PAR CFL with a mating opening, Neptun cannot now use the doctrine of equivalents to expand the scope of its patent to include products without mating openings.

Therefore, the Commission finds that the ALJ erred by alternatively finding infringement under the doctrine of equivalents because in doing so the ALJ vitiated the "mating opening" limitation. Accordingly, the Commission reverses the ALJ's findings under the doctrine of equivalents, and finds that Respondents' products do not satisfy the "mating opening" limitation under the doctrine of equivalents.

## c. Summary

The Commission reverses the ALJ's findings on both literal infringement and infringement under the doctrine of equivalents of the "mating opening" limitation, and instead finds that Neptun failed to show that Respondents' products satisfy the "mating opening" limitation, either literally or under the doctrine of equivalents.

#### 2. Light Source Base

The asserted claims all require a light source base that meets the limitation "said base being inside said defined cavity of said reflector and located inside said mating opening." CX-0004 ('540 patent) at 7:45-46. The ALJ concluded that Respondents' products satisfied this claim limitation, although the ALJ did not expressly make findings that the light source base was inside the reflector cavity or inside the mating opening. ID at 33. Respondents contend that the ALJ erred by finding that this limitation is satisfied because Respondents' products do not contain a mating opening, and because the alleged light source base is not located inside the

reflector cavity. Respondents' Pet. at 43-46. We agree, and therefore reverse the ALJ's findings that Respondents' products satisfy this claim limitation.

Because the Commission found in the previous section of this Opinion that Respondents' products do not contain a "mating opening," the Commission logically must find that Respondents' products do not satisfy the limitation "said base . . . located inside said mating opening." The light source base cannot be located in the mating opening if there is no mating opening.

Additionally, Neptun failed to present evidence that the light source base "be[] inside said defined cavity of said reflector and located inside said mating opening." The '540 patent shows an example of such a light source base in Figure 5, which shows a portion of the light source base (flange **508**) inside the reflector cavity (the space bounded by the reflector **503**, *i.e.*, the space to the left of the reflector), and shows a portion of the light source base (a portion of the tubular section **509**) located inside the mating opening **520** (the space defined by the flange of the reflector **505**, *i.e.*, the space to the left of flange **505**).



Neptun, however, does not show that the light source base is located inside the reflector cavity and inside of the mating opening. Instead, Neptun contends that the light source base is the rear wall of the reflector. CX-0064C (Satco PAR 38);<sup>7</sup>

<sup>&</sup>lt;sup>7</sup> CX-0065C shows a substantially identical annotated diagram for the Satco PAR 30 product, and CX-0066C shows a substantially identical annotated diagram for the Satco PAR 20 product.



CX-0093C (Maxlite PAR technical drawing (annotated no 2));



CX-0108 (Litetronics).



Neptun fails to show why the reflector wall should be considered to be "inside the defined cavity of said reflector." Neptun acknowledges that the reflector cavity is "empty space within a solid body, of some or other defined shape." CX-0002C (Mayor WS) at Q&A48; *see* 

*also* RX-0002 (Roberts WS) at Q&A50 (explaining that the plain and ordinary meaning of "cavity" is the dictionary definition "an unfilled space within a mass; especially: a hollowed-out space"). Here, the reflector wall defines the empty space of the cavity, but the reflector wall is not <u>inside</u> of the reflector cavity. A cavity is, by Neptun's own admission, empty space, so the solid walls that define that empty space are not included in the cavity. The Commission therefore does not find that the alleged light source base is located inside of the reflector cavity.

Neptun also fails to show why the reflector wall should be considered to be "located inside said mating opening." Neptun contends that the reflector wall is both the mating opening and the light source base, but has failed to explain how this wall satisfies a claim limitation that specifically requires that the light source base be located inside of the mating opening. Neptun's only evidence on this claim limitation is the testimony of Neptun's expert that conclusorily states that the drawings and pictures show that this claim limitation is met, even though none of the drawings actually show that the light source base is located in the mating opening. CX-0002C (Mayor WS) at Q&A 114-17, 184, 250; *see also, e.g.,* CX-0064C (Satco PAR 38) (alleging that the light source base is the inner wall of the reflector); CX-0054C (Satco Schematic for PAR 38 reflector (annotated)) (alleging that the mating opening is in a different location outside of the reflector).

Moreover, even if we found that the ALJ's construction of "mating opening" was correct, we would still find that Respondents' products do not satisfy the limitation "a light source base . ... located inside said mating opening." The ALJ's construction of "mating opening" would require that the light source base be located inside the "area in which a portion of the light source base ... is located." Such a construction requires that the light source base be located inside of a

portion of itself. The light source base itself cannot be inside a portion of itself, and Neptun did not make such a showing.

Accordingly, the Commission reverses the ALJ's finding that Respondents' products satisfy the limitation "said base being inside said defined cavity of said reflector and located inside said mating opening," and finds that Neptun failed to show that Respondents' products satisfy this limitation.

#### 3. First and Second Circumferential Flanges

The asserted claims of the '540 patent require a "first circumferential flange of the reflector cavity" and a "second circumferential flange of the light source base." CX-0004 ('540 patent) at 7:62-65. The ALJ found that the Respondents' products satisfied both the first and second circumferential flanges. ID at 31-34. Because we do not find that Neptun presented evidence of "a first circumferential flange of the reflector cavity" or "second circumferential flange of the light source base," we reverse the ALJ's finding that Respondents' products satisfy these claim limitations.

The asserted claims of the '540 patent requires two circumferential flanges: a first circumferential flange of the reflector cavity and a second circumferential flange of the light source base. CX-0004 ('540 patent) at 7:62-65 ("wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity"); *see also id.* at 7:35-38, 44-48 (requiring "a reflector with a defined cavity ... said cavity having a first circumferential flange defining a mating opening having an inner diameter" and "a light source base ... said base having a second circumferential flange having an outer diameter."). This claim language is consistent with the specification, including Figure 2, which shows that the reflector cavity created by reflector **203** 

has a first circumferential flange **205**, and that the light source base **208(b)** has a second circumferential flange **208**.



The figure shows that the first circumferential flange **205** is located on the protruding edge of the reflector cavity, and that the second circumferential flange **208** is located on the edge of the light source base **208(b)**.

Figure 5, as annotated by the Respondents, shows the lamp after the light source base is inserted into the mating opening:



The figure again shows that the first circumferential flange **505** is located on the edge of the reflector cavity, and that the second circumferential flange **508** is located on the light source base **508(b)**. The figure also shows that the second circumferential flange's outer diameter is larger the first circumferential flange's inner diameter, which helps prevent the light source from sliding through the mating opening.

Neptun contends that the "first circumferential flange" is the inner surface of the circular projection on the rear of the reflector. CX-0002C (Mayor WS) at Q&A 86-90, 94; CX-0054C (Satco Schematic for PAR 38 reflector (annotated));<sup>8</sup>



CX-0085C (Maxlite PAR technical drawing (annotated)).





<sup>&</sup>lt;sup>8</sup> CX-0056C shows a substantially identical annotated diagram for the Satco PAR 30 product, and CX-0058C shows a substantially identical annotated diagram for the Satco PAR 20 product.

Neptun contends that the "second circumferential flange" is the outer surface of that same circular projection. CX-0002C (Mayor WS) at Q&A 118-127; CX-0067C (Satco PAR 38 drawing (annotated no 4));<sup>9</sup>



CX-0098C (Maxlite);

Second Circumferential Flange/First Locking Means



CX-0114 (Litetronics PAR 38 picture (annotated no 5)).

<sup>&</sup>lt;sup>9</sup> CX-0069C shows a substantially identical annotated diagram for the Satco PAR 30 product, and CX-0071C shows a substantially identical annotated diagram for the Satco PAR 20 product.


Neptun, however, fails to show that these flanges satisfy the claim language. The asserted claims of the '540 patent do not require the mere existence of two flanges; rather, the claims require two specific flanges: a first circumferential flange of the reflector cavity and a second circumferential flange of the light source base. Although Neptun identifies two flanges, Neptun fails to show why one flange is "of the reflector cavity" and the other is "of the light source base."

Neptun failed to show that the alleged "first circumferential flange" is "of the reflector cavity." In the context of the '540 patent, the reflector cavity is the empty space in the reflector, bounded by the reflector walls and the lens. Abstract ("The reflector cavity enclosed with a lens at the rim, has an interior wall as a reflective surface . . ."); ID at 13 (citing CX-0002C (Mayor WS) at Q&A48) ("The reflector includes a cavity, which a person or ordinary skill in the art would understand to be an empty space within a solid body, of some defined shape"). Neptun's alleged "first circumferential flange," however, is not located on the reflector cavity, but is instead located near the reflector wall on the opposite side of the reflector cavity, *i.e.*, outside of the reflector cavity. Furthermore, as discussed above, Neptun contends that the reflector wall is the light source base, so the closest structure to Neptun's alleged first circumferential flange is

the light source base, not the reflector cavity. Accordingly, Neptun has failed to show that a structure located adjacent to the alleged light source base on the opposite side of the reflector cavity is flange "of the reflector cavity."

A comparison of Neptun's alleged first circumferential flange and alleged second circumferential flange shows that the alleged flanges are nearly identical. The following diagram summarizes Neptun's allegations regarding the light source base, the first circumferential flange, and second circumferential flange.



CX-0077C (incorporating the relevant allegations contained in CX-0085C, CX-0093C, and CX-0098C).<sup>10</sup> The diagram shows that both the alleged first and second circumferential flanges have nearly identical relationships to the light source base, and no relationship to the reflector cavity. Accordingly, Neptun failed to show that the identified first circumferential flange is "of the reflector cavity." Considering that the accused flanges are similarly situated in relation to the

<sup>&</sup>lt;sup>10</sup> Substantially identical allegations are also made against Satco and Litetronics. *See, e.g.,* CX-0054C, CX-0059C, CX-0064C, CX-0067C, CX-0068C, CX-0103, CX-0108, and CX-0114.

light source base, Neptun provides no explanation why one flange is "of the reflector cavity" and that the other is "of the light source base."

Neptun has also failed to show that Respondents' products satisfy the "second circumferential flange of the light source base" limitation. The entirety of Neptun's evidence is simply a series of diagrams in which a portion is labeled the "second circumferential flange" without further explanation. See CX-0002C (Mayor WS) at Q&A118-22 (citing CX-0067C, CX-0068C, CX-0069C, CX-0070C, CX-0071C, CX-0072C); CX-0002C (Mayor WS) at Q&A185-91 (citing CX-0094, CX-0095, CX-0096, CX-0097C, CX-0098C); CX-002C (Mayor WS) at Q&A251-54 (citing CX-0114, CX-0115, CX-0116); see also Initial Post-Hearing Brief of Complainants Andrzej Bobel and Neptun Light, Inc. (Dec. 6, 2013) at 57-58; Reply Post-Hearing Brief of Complainants Andrzej Bobel and Neptun Light, Inc. (Dec. 20, 2013) at 43 (citing CX-0002C (Mayor WS) without further explanation); Neptun's Resp. at 30 (citing CX-0002C (Mayor WS) without further explanation); Complainants Andrzej Bobel and Neptun Light, Inc.'s Response to the Commission's Briefing Issues Pursuant to its April 8, 2014 Notice (April 22, 2014) at 48-49 (citing CX-0002C (Mayor WS) without further explanation); Complainants Andrezej Bobel and Neptun Light, Inc.'s Reply to the Respondents' Submission Pursuant to its April 8, 2014 Notice (Apr. 29, 2014) at 23 (failing to provide any explanation). This conclusory evidence is insufficient to show the satisfaction of the second circumferential flange requirement. See, e.g., S3 Inc. v. NVIDIA Corp., 259 F.3d 1364, 1374 (Fed. Cir. 2001) ("An expert's opinion on the ultimate legal issue ... must be supported by something more than a conclusory statement").

Accordingly, the Commission reverses the ALJ's finding that Respondents' products satisfy the limitations "first circumferential flange of the reflector cavity" and a "second

33

circumferential flange of the light source base," and finds that Neptun failed to show that Respondents' products satisfy these limitations.

#### III. CONCLUSION

For the reasons set forth in this opinion, the Commission has determined to modify, reverse, and set aside portions of the final ID and to adopt the findings in the ID that are not inconsistent with this opinion or with the Notice of Final Determination. Accordingly, we determine that Neptun failed to prove a violation of section 337. The Commission takes no position on the issue of whether Neptun satisfied the economic prong of the domestic industry requirement.

By order of the Commission.

Lisa R. Barton Secretary to the Commission

Issued: July 3, 2014

## CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

#### PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **July 3, 2014**.

Lisa R. Barton, Secretary U.S. International Trade Commission 500 E Street, SW, Room 112 Washington, DC 20436

## On Behalf of Complainants Andrzej Bobel and Neptun Light, Inc.:

John R. Fuisz, Esq. **THE FUISZ-KUNDU GROUP LLP** 1455 Pennsylvania Avenue, NW, Suite 400 Washington, DC 20004

On Behalf of Respondents MaxLite, Inc. and Litetronics International, Inc.:

Robert S. Rigg, Esq. VEDDER PRICE PC 222 N. LaSalle Street, Suite 2600 Chicago, IL 60601

### **On Behalf of Respondent Satco Products, Inc.:**

Robert P. Lynn, Esq. LYNN GARTNER DUNNE & COVELLO LLP 330 Old Country Road, Suite 103 Mineola, NY 11501 ( ) Via Hand Delivery
( x ) Via Express Delivery
( ) Via First Class Mail
( ) Other:

( ) Via Hand Delivery
( x ) Via Express Delivery
( ) Via First Class Mail
( ) Other: \_\_\_\_\_\_

( ) Via Hand Delivery
( x ) Via Express Delivery
( ) Via First Class Mail
( ) Other:

#### UNITED STATES INTERNATIONAL TRADE COMMISSION Washington, D.C.

In the Matter of

CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF Investigation No. 337-TA-872

### NOTICE OF COMMISSION DETERMINATION TO REVIEW IN PART A FINAL INITIAL DETERMINATION FINDING A VIOLATION OF SECTION 337; SCHEDULE FOR BRIEFING ON THE ISSUES UNDER REVIEW AND ON REMEDY, THE PUBLIC INTEREST, AND BONDING

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

**SUMMARY:** Notice is hereby given that the U.S. International Trade Commission has determined to review in part a final initial determination ("ID") issued by the presiding administrative law judge ("ALJ"), finding a violation of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, in this investigation.

**FOR FURTHER INFORMATION CONTACT:** Robert Needham, Office of the General Counsel, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 708-5468. Copies of non-confidential documents filed in connection with this investigation are or will be available for inspection during official business hours (8:45 a.m. to 5:15 p.m.) in the Office of the Secretary, U.S. International Trade Commission, 500 E Street, S.W., Washington, D.C. 20436, telephone (202) 205-2000. General information concerning the Commission may also be obtained by accessing its Internet server (*http://www.usitc.gov*). The public record for this investigation may be viewed on the Commission's electronic docket (EDIS) at *http://edis.usitc.gov*. Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205-1810.

SUPPLEMENTARY INFORMATION: The Commission instituted this investigation on March 5, 2013, based on a complaint filed by Neptun Light, Inc., and Mr. Andrzej Bobel (together, "Neptun") to consider alleged violations of section 337 by reason of infringement of claims 1, 2, 10, and 11 of U.S. Patent No. 7,053,540 ("the '540 patent"). 78 *Fed. Reg.* 14357-58. The Commission's notice of investigation named as respondents Maxlite, Inc. ("Maxlight"); Satco Products, Inc. ("Satco"); Litetronics International, Inc. ("Litetronics") (together, "Respondents"); and Technical Consumer Products, Inc. ("TCP"). Id. at 14358. The Office of Unfair Import Investigations did not participate in this investigation. Id.

On June 10, 2013, Neptun and TCP moved to terminate the investigation with respect to TCP on the basis of a settlement agreement. The motion was granted on June 11, 2013. Order No. 20, *not reviewed* (July 8, 2013).

On February 3, 2014, the ALJ issued his final initial determination ("ID"), finding a violation of section 337. Specifically, the ALJ found that Maxlite and Satco violated section 337 with respect to claims 1, 2 and 11 of the '540 patent, and that Litetronics violated section 337 with respect to claims 1, 2 and 10 of the '540 patent. The ALJ recommended that a limited exclusion order issue against the infringing products of Maxlite, Satco, and Litetronics. He did not recommend the issuance of any cease and desist orders.

On February 18, 2014, Respondents petitioned for review of several of the ALJ's findings. Also on February 18, 2014, Neptun contingently petitioned for review of the ALJ's finding that Neptun had not made a sufficient showing on the economic prong of the domestic injury requirement through 19 U.S.C. § 1337(a)(3)(C). On February 26, 2014, Neptun and Respondents opposed each other's petitions.

Having examined the record of this investigation, including the ALJ's final ID, the petitions for review, and the responses thereto, the Commission has determined to review the final ID in part. Specifically, the Commission has determined to review the ALJ's findings on the economic prong of the domestic industry requirement, the ALJ's construction of "mating opening," and the ALJ's findings on infringement. The Commission has determined not to review the remaining findings in the ID.

The parties are requested to brief their positions on the issues under review with reference to the applicable law and the evidentiary record. In connection with its review, the Commission is particularly interested in briefing on the following issues:

- Whether Neptun's asserted investments and expenditures were made "with respect to the articles protected by the ['540] patent" within the meaning of 19 U.S.C. § 1337(a)(3). In doing so, please address the following: "Commission precedent requires that expenses be allocated to each of the products covered by the asserted patents." *Certain Computer Forensic Devices and Products Containing Same*, Inv. No. 337-TA-799, USITC Pub 4408, Initial Determination at 10 (July 2013) (unreviewed in relevant part). Please provide a reasonable estimate, based on the evidence of record, of the portion of Neptun's investments that are associated with articles protected by the '540 patent. Explain whether, and to what extent, Neptun's books and records enable an accounting of expenditures specific to the articles protected by the '540 patent.
- Please explain why (or why not) the relevant portion of Neptun's asserted investments and expenditures related to the articles protected by the '540 patent

are "significant" within the meaning of 19 U.S.C. § 1337(a)(3)(A) and (B) in the context of the company, the industry, or the realities of the marketplace. In doing so, please identify the appropriate methodology for assessing significance here, and explain how the methodology and the record evidence shows (or does not show) that the investments with respect to the articles protected by the '540 patent are significant.

- 3. Whether Neptun made "substantial investment" in "engineering" or "research and development" with respect to the exploitation of the '540 patent within the meaning of 19 U.S.C. § 1337(a)(3)(C). Which of Neptun's asserted expenses constitute investments that fall under 19 U.S.C.§ 1337(a)(3)(C), such as investments in engineering, research and development, or licensing? Please identify and provide a reasonable estimate, based on the evidence of record, of the portion of these expenses that are associated with the exploitation of the '540 patent. Please explain, qualitatively, how these expenses and the underlying activities that these expenses reflect—relate to exploitation of the '540 patent. Please identity any such investments and explain why (or why not) such investments are substantial in the context of the company, the industry, or the realities of the marketplace.
- 4. Whether "a hole or aperture through which the light source base is mated with the ballast housing" is an appropriate construction for the term "mating opening" in the '540 patent. Additionally, using this construction, explain how Respondents' accused products satisfy (or do not satisfy) the "mating opening" limitation, either literally or under the doctrine of equivalents.
- 5. Please explain how Respondents' accused products satisfy (or do not satisfy) the limitations "said cavity having a first circumferential flange" and "the first circumferential flange of the reflector cavity." Specifically, identify the evidence showing that the asserted cavity and the first circumferential flange of the accused products have a sufficient relationship such that there is a cavity "having a first circumferential flange" and that the first circumferential flange is "of the reflector cavity."
- 6. Please explain how Respondents' accused products satisfy (or do not satisfy) the limitations "said base being inside said defined cavity of said reflector and located inside said mating opening." Specifically, identify the evidence showing whether or not the light source base is located inside the reflector's defined cavity and located inside the mating opening either literally or under the doctrine of equivalents.
- 7. Please explain how Respondents' accused products satisfy (or do not satisfy) the limitations "said base having a second circumferential flange" and "the second circumferential flange of the light source base." Specifically, please identify the evidence showing whether or not the asserted base and second circumferential flange have a sufficient relationship such that there is a base "having a second circumferential flange" and that the second circumferential flange is "of the light source base."

The parties have been invited to brief only the discrete issues described above, with reference to the applicable law and evidentiary record. The parties are not to brief other issues on review, which are adequately presented in the parties' existing filings.

In connection with the final disposition of this investigation, the Commission may (1) issue an order that could result in the exclusion of the subject articles from entry into the United States, and/or (2) issue a cease and desist order that could result in the respondent being required to cease and desist from engaging in unfair acts in the importation and sale of such articles. Accordingly, the Commission is interested in receiving written submissions that address the form of remedy, if any, that should be ordered. If a party seeks exclusion of an article from entry into the United States for purposes other than entry for consumption, the party should so indicate and provide information establishing that activities involving other types of entry either are adversely affecting it or likely to do so. For background, *see Certain Devices for Connecting Computers via Telephone Lines*, Inv. No. 337-TA-360, USITC Pub. No. 2843 (December 1994) (Commission Opinion).

If the Commission contemplates some form of remedy, it must consider the effects of that remedy upon the public interest. The factors the Commission will consider include the effect that an exclusion order and/or a cease and desist order would have on (1) the public health and welfare, (2) competitive conditions in the U.S. economy, (3) U.S. production of articles that are like or directly competitive with those that are subject to investigation, and (4) U.S. consumers. The Commission is therefore interested in receiving written submissions that address the aforementioned public interest factors in the context of this investigation.

If the Commission orders some form of remedy, the U.S. Trade Representative, as delegated by the President, has 60 days to approve or disapprove the Commission's action. *See* Presidential Memorandum of July 21, 2005, 70 *Fed. Reg.* 43251 (July 26, 2005). During this period, the subject articles would be entitled to enter the United States under bond, in an amount determined by the Commission and prescribed by the Secretary of the Treasury. The Commission is therefore interested in receiving submissions concerning the amount of the bond that should be imposed if a remedy is ordered.

WRITTEN SUBMISSIONS: The parties to the investigation are requested to file written submissions on the issues identified in this notice. Parties to the investigation, interested government agencies, and any other interested parties are encouraged to file written submissions on the issues of remedy, the public interest, and bonding. Such submissions should address the recommended determination by the ALJ on remedy and bonding. The complainants are also requested to submit proposed remedial orders for the Commission's consideration. The complainants are also requested to state the date that the '540 patent expires and the HTSUS numbers under which the accused products are imported. The entirety of the parties' written submissions must not exceed 50 pages, and must be filed no later than close of business on April 22, 2014. Reply submissions must not exceed 25 pages, and must be filed no later than the close of business on April 29,

2014. No further submissions on these issues will be permitted unless otherwise ordered by the Commission.

Any person desiring to submit a document to the Commission in confidence must request confidential treatment. All such requests should be directed to the Secretary to the Commission and must include a full statement of the reasons why the Commission should grant such treatment. *See* 19 C.F.R. § 201.6. Documents for which confidential treatment by the Commission is properly sought will be treated accordingly. A redacted non-confidential version of the document must also be filed simultaneously with the any confidential filing. All non-confidential written submissions will be available for public inspection at the Office of the Secretary and on EDIS.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. § 1337), and in Part 210 of the Commission's Rules of Practice and Procedure (19 C.F.R. Part 210).

By order of the Commission.

Lisa R. Barton Acting Secretary to the Commission

Issued: April 8, 2014

## CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

#### PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached **NOTICE** has been served upon the following parties as indicated on **April 8, 2014**.

Lisa R. Barton, Acting Secretary U.S. International Trade Commission 500 E Street, SW, Room 112 Washington, DC 20436

## On Behalf of Complainants Andrzej Bobel and Neptun Light, Inc.:

John R. Fuisz, Esq. **THE FUISZ-KUNDU GROUP LLP** 1455 Pennsylvania Avenue, NW, Suite 400 Washington, DC 20004

## On Behalf of Respondents MaxLite, Inc. and Litetronics International, Inc.:

Robert S. Rigg, Esq. VEDDER PRICE PC 222 N. LaSalle Street, Suite 2600 Chicago, IL 60601

#### **On Behalf of Respondent Satco Products, Inc.:**

Robert P. Lynn, Esq. LYNN GARTNER DUNNE & COVELLO LLP 330 Old Country Road, Suite 103 Mineola, NY 11501 () Via Hand Delivery
() Via Express Delivery
(√) Via First Class Mail
() Other:

( ) Via Hand Delivery
( ) Via Express Delivery
( √ ) Via First Class Mail
( ) Other: \_\_\_\_\_\_

- ( ) Via Hand Delivery
- ( ) Via Express Delivery
- $(\sqrt{})$  Via First Class Mail
  - ) Other:

## UNITED STATES INTERNATIONAL TRADE COMMISSION WASHINGTON, D.C. 20436

In the Matter of

CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF

Investigation No. 337-TA-872

## INITIAL DETERMINATION Administrative Law Judge David P. Shaw

Pursuant to the notice of investigation, 78 Fed. Reg. 14357 (Mar. 5, 2013), this is the initial determination in *Certain Compact Fluorescent Reflector Lamps, Products Containing Same and Components Thereof*, United States International Trade Commission Investigation No. 337-TA-872.

It is held that a violation of section 337 of the Tariff Act, as amended, has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation, of certain compact fluorescent reflector lamps, products containing same and components thereof, with respect to asserted claims 1, 2, 10, and 11 of U.S. Patent No. 7,053,540.

# TABLE OF CONTENTS

1.	Back	ground 1
	A.	Institution of the Investigation; Procedural History1
	В.	The Private Parties; Assignment of Patents
II.	Juris	liction
ш.	Impo	rtation4
IV.	The	540 Patent
v.	The .	Accused Products
VI.	Clair	n Construction
	A.	General Principles of Law9
	В.	Level of Ordinary Skill11
	C.	Construction of Disputed Claim Terms
		<ol> <li>"a reflector with a defined cavity having circumferential rim defining a light emitting opening" (claim 1)</li></ol>
		<ol> <li>"a first circumferential flange defining a mating opening having an inner diameter" (claim 1)</li></ol>
		3. "[the] cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange" (claim 1)
		4. "a light source base attached to said fluorescent light source" (claim 1)19
		5. "[the light source] base being inside said defined cavity of said reflector and located inside said mating opening" (claim 1)
		6. "and said base having a second circumferential flange" (claim 1)
		7. "said base having a first locking means" (claim 1)23
		<ol> <li>"a ballast housing with a defined space to accommodate the electronic ballast" (claim 1)</li></ol>

# TABLE OF CONTENTS (CONT'D)

VII.

Page

	9.	"said ballast housing having a second locking means" (claim 1)25
	10.	"mating of said first locking means of the light source base with said second locking means of the ballast housing" (claim 1)26
	11.	"said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity" (claim 1)
Infri	ngemen	t
A.	Gene	eral Principles of Law
в.	Clair	n 1
	1.	A fluorescent reflector lamp comprised of:
	2.	a fluorescent light source;
	3.	a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector;
	4.	a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means;33
	5.	an electricity supply base;
	6.	a ballast for energizing said fluorescent light source to emit light, said ballast including power input terminals connected to said electricity supply base and output terminals connected to said fluorescent light source;
	7.	a ballast housing with a defined space to accommodate the electronic ballast;
	8.	said ballast housing having a second locking means;

# TABLE OF CONTENTS (CONT'D)

	9.	and said housing having means for attachment of said electricity supply base;
	10.	said fluorescent reflector lamp being assembled by mating of said first locking means of the light source base with said second locking means of the ballast housing;
	11.	wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first
	12.	wherein light emitted by said fluorescent light source being substantially reflected by the reflecting surface of the reflector and directed out of the reflector cavity through said light emitting opening
C.	Clain	n 2
	1.	The device according to claim 1
	2.	wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast
D.	Clain	n 10
	1.	The device according to claim 1
	2.	wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin
E.	Clain	n 11
	1.	The device according to claim 1
	2.	wherein the lens has convex outer surface and said lens is made of any light transmitting material like glass or synthetic resin
Dom	estic Ind	dustry
A.	Gene	ral Principles of Law
В.	Tech	nical Prong – Claim 142
	1.	A fluorescent reflector lamp comprised of:42

VIII.

# TABLE OF CONTENTS (CONT'D)

Page

2.	a fluorescent light source;
3.	a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector;
4.	a light source base attached to said fluorescent light source;43
5.	said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means;
6.	an electricity supply base;43
7.	a ballast for energizing said fluorescent light source to emit light, said ballast including power input terminals connected to said electricity supply base and output terminals connected to said fluorescent light source;
8.	a ballast housing with a defined space to accommodate the electronic ballast;
9.	said ballast housing having a second locking means;44
10.	and said housing having means for attachment of said electricity supply base;
11.	said fluorescent reflector lamp being assembled by mating of said first locking means of the light source base with said second locking means of the ballast housing;
12.	wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity;
13.	wherein light emitted by said fluorescent light source being substantially reflected by the reflecting surface of the reflector and directed out of the reflector cavity through said light emitting opening

# TABLE OF CONTENTS (CONT'D)

Page

	C.	Tech	nical Prong – Claim 245		
		1.	The device according to claim 146		
		2.	wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast		
	D.	Tech	nical Prong – Claim 1046		
		1.	The device according to claim 146		
		2.	wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin		
	E.	Econ	omic Prong47		
		1.	Neptun's Investments in Plant and Equipment47		
		2.	Neptun's Investments in Labor and Capital49		
		3.	Neptun's Investments in Exploitation of the Asserted Patent		
		4.	Analysis of Neptun's Investments		
IX.	Valid	lity			
X.	Conc	lusions	of Law		
XI.	Initia	l Deterr	nination on Violation		
XII.	Recommended Determination on Remedy and Bonding				
	A. Limited Exclusion Order				
	B.	Cease	e and Desist Order		
	C.	Bond			
XIII.	Orde	r			

The following abbreviations may be used in this Initial Determination:

ALJ	Administrative Law Judge
CDX	Complainants' Demonstrative Exhibit
CFL	Compact Fluorescent Lamp
CPX	Complainants' Physical Exhibit
CX	Complainants' Exhibit
Dep.	Deposition
EDIS	Electronic Document Imaging System
JDX	Joint Demonstrative Exhibit
ЈРХ	Joint Physical Exhibit
JX	Joint Exhibit
LEO	Limited Exclusion Order
MPEP	Manual of Patent Examining Procedure
PAR	Parabolic Aluminized Reflector
РТО	U.S. Patent and Trademark Office
RDX	Respondents' Demonstrative Exhibit
RPX	Respondents' Physical Exhibit
RWS	Rebuttal Witness Statement
RX	Respondents' Exhibit
Tr.	Transcript
WS	Witness Statement

### I. Background

#### A. Institution of the Investigation; Procedural History

By publication of a notice in the *Federal Register* on March 5, 2013, pursuant to subsection (b) of section 337 of the Tariff Act of 1930, as amended, the Commission instituted this investigation to determine:

this investigation to determine:

[W]hether there is a violation of subsection (a)(1)(B) of section 337 in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain compact fluorescent reflector lamps, products containing same and components thereof by reason of infringement of one or more of claims 1, 2, 10, and 11 of the '540 patent [U.S. Patent No. 7,053,540], and whether an industry in the United States exists as required by subsection (a)(2) of section 337.

78 Fed. Reg. 14357 (Mar. 5, 2013).

The Commission named as complainants Andrzej Bobel of Lake Forest, Illinois and

Neptun Light, Inc. of Lake Forest, Illinois (collectively, "Neptun" or "Complainants"). Id.

The Commission named as respondents Maxlite, Inc. ("Maxlite") of West Caldwell, New

Jersey; Technical Consumer Products, Inc. ("TCP") of Aurora, Ohio; Satco Products, Inc.

("Satco") of Brentwood, New York; and Litetronics International, Inc. ("Litetronics") of Alsip,

Illinois (collectively, "Respondents"). Id.

The Office of Unfair Import Investigations was not named as a party to this investigation.

Id.

The target date for completion of this investigation was set at 14.5 months, i.e., May 20,

2014. Order No. 8 (Apr. 1, 2013).

Neptun and TCP filed a motion to terminate the investigation as to TCP based on a settlement agreement. The administrative law judge granted the motion in an initial determination. Order No. 20 (June 11, 2013), *aff'd*, Notice of a Commission Determination Not

to Review an Initial Determination Terminating the Investigation As to Respondent Technical Consumer Products, Inc. (July 8, 2013).

A prehearing conference was held on November 6, 2013, with the evidentiary hearing in this investigation commencing immediately thereafter. The hearing concluded on November 7, 2013. *See* Order No. 32 (Oct. 22, 2013); Hearing Tr. 1-419. The parties were requested to file posthearing briefs not to exceed 120 pages in length, and to file reply briefs not to exceed 60 pages in length. Hearing Tr. 9.

The administrative law judge subsequently issued an order setting the target date at approximately 15 months, *i.e.*, June 3, 2014, which makes the deadline for this initial determination February 3, 2014. Order No. 35 (Jan. 9, 2014).

#### B. The Private Parties; Assignment of Patents

Andrzej Bobel is an individual residing in Lake Forest, Illinois. CX-1C (Bobel WS) at Q2. Mr. Bobel is the named inventor of the asserted '540 patent. *Id.* at Q55-Q56; CX-4 ('540 patent).

Neptun Light, Inc. is a company founded by Mr. Bobel with its principal place of business in Lake Forest, Illinois. CX-1C (Bobel WS) at Q5-Q7.

Maxlite, Inc. is a privately held company with its principal place of business in West

Caldwell, New Jersey. See Complaint ¶ 14; Maxlite Answer ¶ 14.

Satco Products, Inc. is a corporation located in Brentwood, New York. See Complaint

¶ 19; Satco Answer ¶ 19.

Litetronics International, Inc. is an Illinois company located in Alsip, Illinois. See Complaint ¶ 21; Litetronics Answer ¶ 21.

The '540 patent is assigned to Andrzej Bobel. CX-4 ('540 patent).

2

#### II. Jurisdiction

No party has contested the Commission's personal jurisdiction over it. *See, e.g.*, Compls. Br. at 9; Resps. Br at 3. Indeed, all parties appeared at the evidentiary hearing and presented evidence. It is found that the Commission has personal jurisdiction over all parties.

No party has specifically contested the Commission's *in rem* jurisdiction over the accused products. *See, e.g.*, Compls. Br. at 8-9; Resps. Br at 3. Neptun has based its importation arguments on completed acts of importation. Accordingly, it is found that the Commission has *in rem* jurisdiction over all products accused under the asserted claims of the '540 patent.

With respect to subject matter jurisdiction, Neptun argues that the Commission has subject matter jurisdiction over this investigation, inasmuch as it alleges that "Satco, Maxlite, and Litetronics have violated Subsection 337(a)(1)(A) and (B) in the importation and sale of products that infringe the '540 patent." Compls. Br. at 8 (citing *Amgen, Inc. v. U.S. Int'l Trade Comm'n*, 902 F.2d 1532, 1536 (Fed. Cir. 1990)). Respondents, however, "do not believe that this court has jurisdiction over this matter as Complainants do not have standing to enforce the claims of the '480 [*sic*] patent in the ITC" because, "[i]n the investigation underlying this proceeding, this court found that Complainants failed to establish the economic prong of the domestic industry requirement for standing with the ITC under Section 337(a)(3) of the United States Code as it pertains to the '480 [*sic*] patent." *See* Resps. Br. at 3. Although Neptun must show that it satisfies the economic prong of the domestic industry requirement before the Commission can find a violation of section 337 in this investigation, the fact that Neptun might fail on the merits is not material to the issue of jurisdiction. *See Amgen*, 902 F.2d at 1536. As the Federal Circuit set forth in the *Amgen* decision:

3

As is very common in situations where a tribunal's subject matter jurisdiction is based on the same statute which gives rise to the federal right, the jurisdictional requirements of section 1337 mesh with the factual requirements necessary to prevail on the merits. In such a situation, the Supreme Court has held that the tribunal should assume jurisdiction and treat (and dismiss on, if necessary) the merits of the case.

Id.

Accordingly, it is found that the Commission has subject matter jurisdiction over this investigation.

#### **III.** Importation

In this investigation, it is uncontested that the importation requirement is satisfied with respect to the products alleged to infringe the asserted claims of the '540 patent. *See* Compls. Br. at 9 (citing Kim Tr. 336-337; Brandes Tr. 342; Fugman Tr. 345); Resps. Br. at 3.

#### IV. The '540 Patent

Asserted U.S. Patent No. 7,053,540 ("the '540 patent") is titled, "Energy Efficient

Compact Fluorescent Reflector Lamp." CX-4 ('540 patent). The '540 patent issued on May 30,

2006, and the named inventor is Andrzej Bobel. Id.

Neptun asserts independent claim 1 and dependent claims 2, 10, and 11 of the '540

patent. These claims read as follows:

1. A fluorescent reflector lamp comprised of:

a fluorescent light source;

a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange

a lens attached to said circumferential rim of said reflector;

a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means;

an electricity supply base;

a ballast for energizing said fluorescent light source to emit light, said ballast including power input terminals connected to said electricity supply base and output terminals connected to said fluorescent light source;

a ballast housing with a defined space to accommodate the electronic ballast;

said ballast housing having a second locking means; and said housing having means for attachment of said electricity supply base; said fluorescent reflector lamp being assembled by mating of said first locking means of the light source base with said second locking means of the ballast housing;

wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity;

wherein light emitted by said fluorescent light source being substantially reflected by the reflecting surface of the reflector and directed out of the reflector cavity through said light emitting opening.

2. The device according to claim 1 wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast.

10. The device according to claim 1 wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin.

11. The device according to claim 1 wherein the lens has convex outer surface and said lens is made of any light transmitting material like glass or synthetic resin.

CX-4 at col. 7, ln. 33 - col. 8, ln. 7; col. 8, lns. 33-38.

Neptun relies on claims 1, 2, and 10 of the '540 patent to satisfy the technical prong of

the domestic industry requirement.

#### V. The Accused Products

The accused products in this investigation are listed in a joint filing required by the

procedural schedule. See Order No. 9 (requiring a "joint statement regarding identification of

accused products"). By listing a product in the joint filing, Respondents have not admitted

infringement. Nevertheless, the joint filing indicates the final extent of Neptun's

accusations in this investigation. See Joint Identification of Accused Products (EDIS Doc.

No. 510884).

The accused products in this investigation are PAR<sup>1</sup> reflector lamps. There are three types of PAR lamps at issue in this investigation: PAR 38, PAR 30, and PAR 20. *See* CX-2C (Mayor WS) at Q31.

Neptun accuses Maxlite's PAR 38, PAR 30, and PAR 20 products of infringing claims 1, 2, and 11 of the '540 patent. *See* Compls. Br. at 1, 7-8. These products are: HCR2009WW6, HCR2009WW6, HCR3820WW6, HCR3823WW6, HCR3823WW6-156, SKPAR3015CW-136, SKPAR3015DL-136, SKPAR3015WW, SKPAR3015WW-136, SKR2009FL30, SKR2009FL30PD, SKR2009FLCW, SKR2009FLDL, SKR2009FLWW, SKR3015FL30, SKR3015FL30PD, SKR3015FL32HH, SKR3015FL67HH, SKR3015FLDL, SKR3015FLCW, SKR3015FLWW, SKR3818FLWWPD, SKR3820FLWW, SKR3823FL30, SKR3823FL32HH, SKR3823FL30PD, SKR3823FL67HH, SKR3823FLCW, SKR3823FLDL, SKR3823FL32HH, SKR3823FL30PD, SKR3823FL67HH, SKR3823FLCW, SKR3823FLDL, SKR3823FLWW, SKR3823FLDL-156, SKR3823FLWW-156. *See* Joint Identification of Accused Products at 1, 2.

Neptun accuses Satco's PAR 38, PAR 30, and PAR 20 products of infringing claims 1, 2, and 11 of the '540 patent. *See* Compls. Br. at 1, 7. Satco's accused PAR 38 products are: SKU S7201, S7202, S7203, S7295, S7422, and S7432. *See* Joint Identification of Accused Products at 1. Satco's accused PAR 30 products are: SKU S7204, S7205, S7206, S7237, and S7294. *See id.* Satco's accused PAR 20 products are: SKU S7207, S7208, S7209, S7238, and S7241. *See id.* 

Neptun accuses Litetronics's PAR 38, PAR 30, and PAR 20 products of infringing claims 1, 2, and 10 of the '540 patent. *See* Compls. Br. at 1, 8. These products are: L-1272, L-1572,

<sup>&</sup>lt;sup>1</sup> "PAR" is an acronym for "Parabolic Aluminized Reflector," and the dimensions of PAR lamps are governed by an ANSI specification. *See* CX-2C (Mayor WS) at Q31.

L-1575, L-1571, L-1275, L-1271, L-1371, L-1382, L-1385, L-1381, L-1472, L-1475, and L-1471. See Joint Identification of Accused Products at 1, 2.

The parties have agreed to designate certain products as representative of the accused products for purposes of this investigation. See Final Joint Stipulation Regarding Representative Accused Products (EDIS Doc. No. 512702). With respect to the Satco accused products, model S7201 is representative of the PAR 38 accused products, model S7207 is representative of the PAR 20 accused products, and model S7204 is representative of the PAR 30 accused products. See id. at 1. With respect to the Maxlite accused products, the parties have agreed that the following products are representative: SKPAR3015CW-136, SKPAR3015DL-136, SKPAR3015WW, SKPAR3015WW-136, SKR2009FL30, SKR2009FL30PD, SKR2009FLCW, SKR2009FLDL, SKR2009FLWW, SKR3015FL30, SKR3015FL30PD, SKR3015FL32HH SKR3015FL67HH, SKR3015FLDL, SKR3015FLCW, SKR3015FLWW, SKR3818FLWWPD, SKR3820FLWW, SKR3823FL30, SKR3823FL32HH, SKR3823FL30PD, SKR3823FL67HH, SKR3823FLCW, SKR3823FLDL, SKR3823FLWW, SKR3823FLDL-156, and SKR3823FLWW-156. See id. at 2. With respect to the Litetronics's accused products, model L-1575 is representative of the PAR 38 accused products, model L-1385 is representative of the PAR 30 accused products, and model L-1472 is representative of the PAR 20 accused products. See id.

For satisfaction of the technical prong of the domestic industry requirement, Neptun asserts that its PAR 38 and PAR 30 products practice claims 1, 2, and 10 of the '540 patent. *See* Compls. Br. at 64. For the Neptun PAR 38 products, the relevant model numbers are DIMMABLE CFL-PAR38-938ADIM SERIES and CFL-PAR38-938 SERIES. *See id.* Mechanically, these products are identical, with the difference between them being that that one

8

model is dimmable, while the other is not. *See* CX-1C (Bobel WS) at Q62. For the Neptun PAR 30 products, the relevant model numbers are DIMMABLE CFL-PAR30-930ADIM SERIES and CFL-PAR30-930 SERIES. As with the PAR 38 products, the PAR 30 products are mechanically identical, with the difference being that one model is dimmable, while the other is not. *See id.* 

#### VI. Claim Construction

### A. General Principles of Law

Claim construction begins with the plain language of the claim.<sup>2</sup> Claims should be given their ordinary and customary meaning as understood by a person of ordinary skill in the art, viewing the claim terms in the context of the entire patent.<sup>3</sup> *Phillips v. AWH Corp.*, 415 F.3d 1303, 1312-13 (Fed. Cir. 2005), *cert. denied*, 546 U.S. 1170 (2006).

In some instances, claim terms do not have particular meaning in a field of art, and claim construction involves little more than the application of the widely accepted meaning of commonly understood words. *Phillips*, 415 F.3d at 1314. "In such circumstances, general purpose dictionaries may be helpful." *Id.* 

In many cases, claim terms have a specialized meaning, and it is necessary to determine what a person of skill in the art would have understood the disputed claim language to mean. "Because the meaning of a claim term as understood by persons of skill in the art is often not

<sup>&</sup>lt;sup>2</sup> Only those claim terms that are in controversy need to be construed, and only to the extent necessary to resolve the controversy. *Vanderlande Indus. Nederland BV v. Int'l Trade Comm.*, 366 F.3d 1311, 1323 (Fed. Cir. 2004); *Vivid Tech., Inc. v. American Sci. & Eng'g, Inc.*, 200 F.3d 795, 803 (Fed. Cir. 1999).

<sup>&</sup>lt;sup>3</sup> Factors that may be considered when determining the level of ordinary skill in the art include: "(1) the educational level of the inventor; (2) type of problems encountered in the art; (3) prior art solutions to those problems; (4) rapidity with which innovations are made; (5) sophistication of the technology; and (6) educational level of active workers in the field." *Environmental Designs, Ltd. v. Union Oil Co.*, 713 F.2d 693, 696 (Fed. Cir. 1983), *cert. denied*, 464 U.S. 1043 (1984).

immediately apparent, and because patentees frequently use terms idiosyncratically, the court looks to 'those sources available to the public that show what a person of skill in the art would have understood disputed claim language to mean.'" *Id.* (quoting *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111, 1116 (Fed. Cir. 2004)). The public sources identified in *Phillips* include "the words of the claims themselves, the remainder of the specification, the prosecution history, and extrinsic evidence concerning relevant scientific principles, the meaning of technical terms, and the state of the art." *Id.* 

In cases in which the meaning of a claim term is uncertain, the specification usually is the best guide to the meaning of the term. *Phillips*, 415 F.3d at 1315. As a general rule, the particular examples or embodiments discussed in the specification are not to be read into the claims as limitations. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 979 (Fed. Cir. 1995) (*en banc*), *aff'd*, 517 U.S. 370 (1996). The specification is, however, always highly relevant to the claim construction analysis, and is usually dispositive. *Phillips*, 415 F.3d at 1315 (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). Moreover, "[t]he construction that stays true to the claim language and most naturally aligns with the patent's description of the invention will be, in the end, the correct construction." *Id.* at 1316.

Claims are not necessarily, and are not usually, limited in scope to the preferred embodiment. *RF Delaware, Inc. v. Pacific Keystone Techs., Inc.*, 326 F.3d 1255, 1263 (Fed. Cir. 2003); *Decisioning.com, Inc. v. Federated Dep't Stores, Inc.*, 527 F.3d 1300, 1314 (Fed. Cir. 2008) ("[The] description of a preferred embodiment, in the absence of a clear intention to limit claim scope, is an insufficient basis on which to narrow the claims."). Nevertheless, claim constructions that exclude the preferred embodiment are "rarely, if ever, correct and require highly persuasive evidentiary support." *Vitronics*, 90 F.3d at 1583. Such a conclusion can be

10

mandated in rare instances by clear intrinsic evidence, such as unambiguous claim language or a clear disclaimer by the patentees during patent prosecution. *Elekta Instrument S.A. v. O.U.R. Sci. Int'l, Inc.*, 214 F.3d 1302, 1308 (Fed. Cir. 2000); *Rheox, Inc. v. Entact, Inc.*, 276 F.3d 1319 (Fed. Cir. 2002).

If the intrinsic evidence does not establish the meaning of a claim, then extrinsic evidence may be considered. Extrinsic evidence consists of all evidence external to the patent and the prosecution history, and includes inventor testimony, expert testimony, and learned treatises. *Phillips*, 415 F.3d at 1317. Inventor testimony can be useful to shed light on the relevant art. In evaluating expert testimony, a court should discount any expert testimony that is clearly at odds with the claim construction mandated by the claims themselves, the written description, and the prosecution history, in other words, with the written record of the patent. *Id.* at 1318. Extrinsic evidence may be considered if a court deems it helpful in determining the true meaning of language used in the patent claims. *Id.* 

#### B. Level of Ordinary Skill

A person of ordinary skill in the art of the asserted '540 patent is someone with (i) a master's degree in mechanical engineering with an education in mechanical design and manufacturing, or (ii) an undergraduate degree in mechanical engineering with an education in mechanical design and manufacturing as well as industry experience in the same.<sup>4</sup> *See, e.g.*, CX-2C (Mayor WS) at Q29-Q30.

<sup>&</sup>lt;sup>4</sup> Respondents did not address the level of ordinary skill in the art in their posthearing briefs. *See* Compls. Reply at 11.

## C. Construction of Disputed Claim Terms<sup>5</sup>

## 1. "a reflector with a defined cavity having circumferential rim defining a light emitting opening" (claim 1)

Below is a chart showing the parties' proposed claim constructions.

Claim Term/Phrase	Neptun's Construction	Respondents' Construction
a reflector with a defined cavity having circumferential rim defining a light emitting opening	Plain meaning; no construction needed.	A device for directing light produced by a light source. The device having a hollow main section, and, at a first end, having a circular rim around a circular opening through which light passes. In addition, the defined cavity is the interior portion of reflector, extending from the rim to the front [first] circumferential flange.

The claim term "a reflector with a defined cavity having circumferential rim defining a

light emitting opening" appears in asserted independent claim 1 of the '540 patent. CX-4 at col.

7, ln. 32 - col. 8, ln. 2.

Neptun argues that the meaning of this claim term is clear, and that the claim term does

not require further construction. See Compls. Br. at 26-28.

Respondents propose that this claim term should be construed to mean the following:

A device for directing light produced by a light source. The device having a hollow main section, and, at a first end, having a circular rim around a circular opening through which light passes. In addition, the defined cavity is the interior portion of reflector, extending from the rim to the front [first] circumferential flange.

<sup>&</sup>lt;sup>5</sup> This initial determination addresses only the disputed claim terms identified by the parties as needing construction. *See* Comprehensive Joint Outline of Issues (EDIS Doc. No. 523669) ("GR11 Filing"). The parties identified the claim terms for construction in a joint filing required by Ground Rule 11, which provides: "On the same day the initial posthearing briefs are due, the parties shall file a <u>comprehensive</u> joint outline of the issues to be decided in the final Initial Determination. The outline shall refer to specific sections and pages of the posthearing briefs. Moreover, the claim terms briefed by the parties must be <u>identical</u>." Ground Rule 11 (emphasis original) (attached to Order No. 2 (Ground Rules)).

Resps. Br. at 57-60.

As proposed by Neptun, it is determined that the meaning of the claim term "a reflector with a defined cavity having circumferential rim defining a light emitting opening" is clear, and that the claim term does not require further construction.

Asserted claim 1 of the '540 patent is directed to "a fluorescent reflector lamp," a preferred embodiment of which is shown in FIG. 1. The disputed claim term requires that the claimed fluorescent reflector lamp have a reflector with a defined cavity having circumferential rim defining a light emitting opening. As shown in FIG. 1 of the patent, for example, the lens attaches to reflector 103 at rim 104. *See* CX-4 at col. 4, lns. 41-44. The reflector includes a cavity, which a person of ordinary skill in the art would understand to be an empty space within a solid body, of some defined shape. *See* CX-2C (Mayor WS) at Q48. When the lens is attached to the reflector, a cavity is created between the lens and the claimed mating opening. *See id.* The evidence adduced at the hearing demonstrates that, to one of ordinary skill in the art, this claim language is clear and does not require further construction. *See id.* 

By contrast, Respondents' proposed construction for this claim limitation introduces unnecessary language that creates ambiguity. For example, Respondents' proposed construction includes the phrase "device having a hollow main section." It is unclear whether the "device" referenced by Respondents is the claimed reflector. If so, Respondents have not demonstrated that using the word "device" is preferable to using the word "reflector" in the context of this claim limitation. Further, claim 1 does not reference "a hollow main section" as that phrase is used in Respondents' proposed construction, and Respondents do not articulate what is meant by a "main section." In addition, the phrase "front circumferential flange" is ambiguous in the context of Respondents' proposed claim construction. Neither asserted claim 1 nor the patent

13

specification uses the phrase "front circumferential flange," and Respondents do not explain

what is meant by this phrase.

Given that the meaning of this claim limitation is clear to a person of ordinary skill in the

art, Respondents' proposed construction is not adopted. See CX-2C (Mayor WS) at Q48-Q49.

Claim Term/Phrase	Neptun's Construction	Respondents' Construction
a first circumferential flange defining a mating opening having an inner diameter	Neptun proposes that the term requiring construction is "mating opening." Neptun's proposed construction for "mating opening" is: the area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located.	A circular projection from an inside edge of the second end of the reflector. The circular projection extending around an opening through the second end of the reflector that is defined by an inner diameter. A mating opening is defined as a hole at the bottom of the reflector, whose circumference is bounded by the circular projection.

2.	"a first circumferential flange defining a mating opening having an
	inner diameter" (claim 1)

The claim term "a first circumferential flange defining a mating opening having an inner diameter" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7,  $\ln 32 -$  col. 8,  $\ln 2$ .

Neptun argues that the claim term within this limitation that needs construction is "mating opening," and proposes that "mating opening" should be construed to mean "the area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located." *See* Compls. Br. at 28-37. Accordingly, Neptun's proposed construction for the entire disputed claim term is "a first circumferential flange defining an area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located having an inner diameter." *Id.* at 29.

Respondents propose that this claim term should be construed to mean the following:

A circular projection from an inside edge of the second end of the reflector. The circular projection extending around an opening through the second end of the reflector that is defined by an inner diameter. A mating opening is defined as a hole at the bottom of the reflector, whose circumference is bounded by the circular projection.

Resps. Br. at 60-68.

As proposed by Neptun, the claim term "a first circumferential flange defining a mating opening having an inner diameter" is construed such that the term "mating opening" means "the area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located," and the entire disputed term means "a first circumferential flange defining an area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located having an inner diameter." This construction is consistent with the claim language and is supported by the patent specification.

For instance, asserted claim 1 recites, "a first circumferential flange defining a mating opening having an inner diameter." It also recites, "a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening." Therefore, the claim language itself specifies that a first circumferential flange defines the mating opening, and that the claimed light source base attaches to the light source inside the mating opening.

This interpretation is also consistent with the specification of the '540 patent. For example, the preferred embodiment shown in FIG. 1 illustrates a light source base 108(b) in mating opening 120, which has two holes (111a and 111b) where the light source attaches, *i.e.*, mates. *See* CX-4 ('540 patent) at col, 4, lns. 50-62.

15

The dispute between the parties over this claim limitation appears closely linked to their dispute regarding the construction of the term "a light source base attached to said fluorescent light source," which is addressed in a separate section below. Specifically, this dispute centers on whether or not the phrase "mating opening" is limited to a hole, thereby requiring that the claimed light source base be a separate component from the reflector. *See* Compls. Br. at 30; Resps. Br. at 61-68, 70-71. Contrary to Respondents' arguments, however, the intrinsic evidence does not support limiting the claimed "mating opening" to a hole. As discussed below in the context of the claim term "a light source base attached to said fluorescent light source," the intrinsic evidence also does not preclude the situation in which the claimed light source base is integrated with the claimed reflector.

In particular, claim 1 is an apparatus claim directed to a "fluorescent reflector lamp." An embodiment of the claimed apparatus is illustrated in FIG. 1 of the '540 patent. In this lamp, the claimed "mating opening" does not appear as a hole, but rather as the area defined by a first circumferential flange where the light source base attaches, *i.e.*, mates, to the light source. The testimony of the parties' experts comports with this understanding of the claimed invention.

For example, Neptun's expert Dr. Mayor testified that, in the preferred embodiment of FIG. 1, there is not a hole representing the claimed mating opening:

Q. If we look at figure 1, we see 120 on the left-hand side is pointing to the mating opening.

A. Of this preferred embodiment.

Q. Right. And this preferred embodiment is the assembled product, correct?

A. It's [an] assembled product. It's the assembled preferred embodiment, sure.

Q. It is assembled?

A. Yes.

Q. And the inventor is still pointing to the mating opening, correct?

A. Yes, he's pointing to that region where the light source base is, so there's a mating opening that has the light source base in it. So there is a region of space as we have defined what the mating opening is.

Mayor Tr. 221, 250-251.

Respondents' expert Dr. Derby also testified that the light source base occupies the

circumferential area defined by the mating opening:

Q. Okay. If you could turn to page 51 of your deposition. Beginning at line 23 I asked you:

"Question: Do you agree, though, that in the '540 patent, the light source base occupies the circumferential area defined by the mating opening?

"Answer: Yes."

Do you recall giving that response, giving that testimony in response to my question?

A. Yes.

Derby Tr. 408-409.

Thus, in the fluorescent reflector lamp to which claim 1 is directed, the claimed mating opening is the area defined by a first circumferential flange where the light source base attaches, *i.e.*, mates, to the light source. The intrinsic evidence does not require that the mating opening be a hole in which a separate and discrete light source base is located. Indeed, the inventor uses specific language elsewhere in the claims to distinguish separate components. *See, e.g.*, CX-4 at col. 7, ln. 32 – col. 8, ln. 2 ("a lens *attached to* said circumferential rim of said reflector," "the light source base *attached to* said fluorescent light source," "said fluorescent reflector lamp *being assembled by* mating of said first locking means of the light source base with said second

locking means of the ballast housing") (emphases added). When it comes to the claimed light source base and mating opening, there is no "attached to" or "assembled by" language.

Accordingly, the term "a first circumferential flange defining a mating opening having an inner diameter" is construed to mean "a first circumferential flange defining an area in which a portion of the light source base (i.e., the portion through which the light source is inserted) is located having an inner diameter."

## 3. "[the] cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange" (claim 1)

Claim Term/Phrase	Neptun's Construction	Respondents' Construction
[the] cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange	Plain meaning; no construction needed.	The cavity covered in a reflective coating that extends from light emitting opening to the mating opening where the diameter of the light emitting opening is substantially larger than the diameter of the mating opening.

The claim term "[the] cavity having an interior wall defining a reflective surface of the

reflector having substantially larger diameter at the circumferential rim than at the

circumferential flange" appears in asserted independent claim 1 of the '540 patent. CX-4 at col.

7, ln. 32 - col. 8, ln. 2.

Neptun argues that this claim term does not need construction, and that its plain and ordinary meaning should apply. See Compls. Br. at 37-38.

Respondents argue that this claim term should be construed to mean "the cavity covered in a reflective coating that extends from light emitting opening to the mating opening where the
diameter of the light emitting opening is substantially larger than the diameter of the mating opening." *See* Resps. Br. at 68-70.

As proposed by Neptun, it is determined that the meaning of the claim term "[the] cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange" is clear, and that the claim term does not require further construction. Respondents' proposed construction introduces ambiguity into the claim limitation and changes its meaning. For instance, Respondents replace the phrase "reflective surface" with "reflective coating," but fail to explain why such a replacement is required by the intrinsic evidence. Further, Respondents' proposed construction requires that the "reflective coating" extend from a light emitting opening to the mating opening, but this requirement is also not required by either the claim language or the specification. Therefore, Respondents have not demonstrated that their proposed construction of this claim limitation should be adopted.

1.	"a light source base attached to said fluorescent light source" (clain	n
	1)	

Claim Term/Phrase	Neptun's Construction	Respondents' Construction		
a light source base attached to said fluorescent light source	Neptun proposes that the term requiring construction is "light source base." Neptun's proposed construction for this term is: base through which the light source is inserted.	A light source base is a structure separate and distinct from the reflector having a portion attached to the fluorescent light source.		

The claim term "a light source base attached to said fluorescent light source" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 – col. 8, ln. 2.

Neptun proposes that the term requiring construction is "light source base." *See* Compls. Br. at 38. Neptun's proposed construction for this phrase is "base through which the light source is inserted." *See id.* Accordingly, Neptun's proposed construction for the entire disputed claim limitation is "a base through which the light source is inserted attached to said fluorescent light source." *See id.* 

Respondents propose that this claim limitation should be construed to mean "[a] light source base is a structure separate and distinct from the reflector having a portion attached to the fluorescent light source." *See* Resps. Br. at 70.

As proposed by Neptun, the term "a light source base attached to said fluorescent light source" is construed to mean "a base through which the light source is inserted attached to said fluorescent light source." The intrinsic evidence demonstrates that the claimed light source base is the "base through which the light source is inserted." *See* CX-4 at col. 4, lns. 58-62; CX-2C (Mayor WS) at Q59-Q60. In particular, the light source base is attached to the light source to stabilize the light source. CX-2C (Mayor WS) at Q59.

As discussed above in the context of the disputed claim limitation "a first circumferential flange defining a mating opening having an inner diameter," the intrinsic evidence does not support Respondents' proposed construction of "a light source base attached to said fluorescent light source," which requires that the light source base be a separate component from the reflector. The claim language simply states that the light source base is inside the defined cavity of the reflector and located inside the mating opening.

# 5. "[the light source] base being inside said defined cavity of said reflector and located inside said mating opening" (claim 1)

Claim Term/Phrase	Neptun's Construction	Respondents' Construction		
[the light source] base being inside said defined cavity of said reflector and located inside said mating opening	Plain meaning; no construction needed.	The light source base projects through the mating opening such that a portion of the light source base is above and in contact with the first circumferential flange in the cavity and another portion is inside the mating opening.		

The claim term "[the light source] base being inside said defined cavity of said reflector and located inside said mating opening" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 – col. 8, ln. 2.

Neptun argues that this term should be construed to take its plain and ordinary meaning. *See* Compls. Br. at 40-42.

Respondents take the position that this term should be construed to mean "[t]he light source base projects through the mating opening such that a portion of the light source base is above and in contact with the first circumferential flange in the cavity and another portion is inside the mating opening." *See* Resps. Br. at 73-75.

As proposed by Neptun, it is determined that the meaning of the claim term "[the light source] base being inside said defined cavity of said reflector and located inside said mating opening" is clear, and that the claim term does not require further construction. As discussed above, the phrases "mating opening" and "light source base" were construed to be consistent with the understanding of a person of ordinary skill in the art. The currently disputed claim limitation simply requires that the light source base be inside the defined cavity of the reflector

and located inside the mating opening. The meaning of these words is clear, and no further construction is needed.

Claim Term/Phrase	Neptun's Construction	Respondents' Construction		
and said base having a second circumferential flange	Plain meaning; no construction needed.	The portion of the light source base inside the cavity that projects outwardly to the interior wall of the reflector having an outer diameter configured to engage the first circumferential flange.		

6. "and said base having a second circumferential flange" (claim 1)

The claim term "and said base having a second circumferential flange" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 – col. 8, ln. 2.

Neptun argues that this term should be construed to take its plain and ordinary meaning. *See* Compls. Br. at 42-43.

Respondents propose that this term should be construed to mean "[t]he portion of the light source base inside the cavity that projects outwardly to the interior wall of the reflector having an outer diameter configured to engage the first circumferential flange." *See* Resps. Br. at 75-76.

As proposed by Neptun, it is determined that the meaning of the claim term "and said base having a second circumferential flange" is clear, and that the claim term does not require further construction. The term "light source base" was construed above, and the currently disputed term simply states that the base has a second circumferential flange. Accordingly, no further construction is needed.

Claim Term/Phrase	Neptun's Construction	Respondents' Construction		
said base having a first locking means	Neptun proposes that this term is not subject to section 112, paragraph 6.	This element is a means plus-function element to be construed under 35 U.S.C. § $112, \P 6$ .		
	Neptun proposes that this term means: portion of a lock system used to create a lock between the light source base and the housing.	Function: locking between ballast housing and light-source base. Structure identified in specification: thread locking, hooks, single point lock system made of a bump and a groove, and equivalents, positioned on an outer surface of the light source base, all of which provide the ability to unlock as well as lock.		

# 7. "said base having a first locking means" (claim 1)

The claim term "said base having a first locking means" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7,  $\ln 32 - col. 8$ ,  $\ln 2$ .

Neptun argues that this claim term does not constitute a means-plus-function claim element, and that it should be construed to mean "portion of a lock system used to create a lock between the light source base and the housing." *See* Compls. Br. at 43-45.

Respondents argue that this claim term is a means-plus-function claim element, with a function of "locking between ballast housing and light-source base" and structure of "thread locking, hooks, single point lock system made of a bump and a groove, and equivalents, positioned on an outer surface of the light source base, all of which provide the ability to unlock as well as lock." *See* Resps. Br. at 78-80.

As proposed by Neptun, it is determined that the claim term "said base having a first locking means" does not constitute a means-plus-function claim element. In particular, the phrase "means for" is not used in the claim language, and there is no presumption that the claim

term should be read as a means-plus-function limitation. See Phillips, 415 F.3d at 1311.

Moreover, the evidence adduced during the hearing demonstrates that a person of ordinary skill

in the art would read the phrase "first locking means" as connoting structure. See CX-2C

(Mayor WS) at Q64. Specifically, a person of ordinary skill in the art would understand that the "first locking means" is portion of a lock system used to create a lock between the light source

base and the housing. See id.

8. "a ballast housing with a defined space to accommodate the electronic ballast" (claim 1)

Claim Term/Phrase	Neptun's Construction	Respondents' Construction	
a ballast housing with a defined space to accommodate the electronic ballast	Plain meaning; no construction needed.	A housing with a defined space to accommodate a ballast.	

The claim term "a ballast housing with a defined space to accommodate the electronic ballast" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 – col. 8, ln. 2.

Neptun argues that this term does not need construction. See Compls. Br. at 45.

Respondents argue that this claim term should be construed to mean "a housing with a

defined space to accommodate a ballast." See Resps. Br. at 80-81.

As proposed by Neptun, it is determined that the meaning of the claim term "a ballast housing with a defined space to accommodate the electronic ballast" is clear, and that the claim term does not require further construction. Respondents' proposed construction removes the word "ballast" from the phrase "ballast housing," and also removes the word "electronic" from

the phrase "electronic ballast," but Respondents have not demonstrated that these modifications to the claim term are needed to clarify its meaning.

Claim Term/Phrase	Neptun's Construction	Respondents' Construction		
said ballast housing having a second locking	Neptun proposes that this term is not subject to section 112, paragraph 6.	This element is a means plus-function element to be construed under 35 U.S.C. § $112, \P 6.$		
means	Neptun proposes that this term means: portion of a lock system used to create a lock between the light source base and the housing.	Function: locking between ballast housing and light-source base. Structure identified in specification: thread locking, hooks, single point lock system made of a bump and a groove, and equivalents, positioned on the inner surface of the ballast housing, all of which provide the ability to unlock as well as lock.		

9.	"said	ballast	housing	having	a second	locking	means"	(claim 1	)
----	-------	---------	---------	--------	----------	---------	--------	----------	---

The claim term "said ballast housing having a second locking means" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 - col. 8, ln. 2.

Neptun argues that this claim term does not constitute a means-plus-function claim element, and that it should be construed to mean "portion of a lock system used to create a lock between the light source base and the housing." *See* Compls. Br. at 45-47.

Respondents argue that this claim term is a means-plus-function claim element, with a function of "locking between ballast housing and light-source base" and structure of "thread locking, hooks, single point lock system made of a bump and a groove, and equivalents, positioned on an outer surface of the light source base, all of which provide the ability to unlock as well as lock." *See* Resps. Br. at 81-83.

As proposed by Neptun, it is determined that the claim term "said ballast housing having a second locking means" does not constitute a means-plus-function claim element. In particular, the phrase "means for" is not used in the claim language, and there is no presumption that the claim term should be read as a means-plus-function limitation. *See Phillips*, 415 F.3d at 1311. Moreover, the evidence adduced during the hearing demonstrates that a person of ordinary skill in the art would read the phrase "second locking means" as connoting structure. *See* CX-2C (Mayor WS) at Q67. Specifically, a person of ordinary skill in the art would understand that the "second locking means" is portion of a lock system used to create a lock between the light source base and the housing. *See id*.

10. "mating of said first locking means of the light source base with said second locking means of the ballast housing" (claim 1)

Claim Term/Phrase	Neptun's Construction	Respondents' Construction
mating of said first locking means of the light source base with said second locking means of the ballast housing	Plain meaning; no construction needed.	Process of assembling the fluorescent reflector lamp by the direct physical connection of the first locking means on the light source base to the corresponding second locking means on the ballast housing to secure the reflector to the light source base and the light source base to the ballast housing.

The claim term "mating of said first locking means of the light source base with said second locking means of the ballast housing" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 - col. 8, ln. 2.

Neptun argues that this term should be construed to take its plain and ordinary meaning. *See* Compls. Br. at 47-48.

Respondents argue that this claim term should be construed to mean "[p]rocess of assembling the fluorescent reflector lamp by the direct physical connection of the first locking means on the light source base to the corresponding second locking means on the ballast housing to secure the reflector to the light source base and the light source base to the ballast housing." *See* Resps. Br. at 83-85.

As proposed by Neptun, it is determined that the claim term "mating of said first locking means of the light source base with said second locking means of the ballast housing" does not need further construction and should take its plain and ordinary meaning to one of ordinary skill in the art. Respondents' proposed construction is not adopted because it introduces additional limitations into the claim language even though neither the claim language nor the patent specification requires that the claimed first and second locking means lock together to secure the reflector to the light source base.

11.	"said outer diameter of the second circumferential flange of the light
	source base is larger than said inner diameter of the first
	circumferential flange of the reflector cavity" (claim 1)

Claim Term/Phrase	Neptun's Construction	Respondents' Construction
said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity	Plain meaning; no construction needed.	The second circumferential flange has a diameter larger than the diameter of the mating opening and the first circumferential flange such that when the ballast housing is secured to the light source base, the second circumferential flange engages the first circumferential flange to secure the light source base in the mating opening.

The claim term "said outer diameter of the second circumferential flange of the light

source base is larger than said inner diameter of the first circumferential flange of the reflector

cavity" appears in asserted independent claim 1 of the '540 patent. CX-4 at col. 7, ln. 32 - col. 8, ln. 2.

Neptun argues that this term should be construed to take its plain and ordinary meaning. See Compls. Br. at 49-50.

Respondents propose that this term should be construed to mean "[t]he second circumferential flange has a diameter larger than the diameter of the mating opening and the first circumferential flange such that when the ballast housing is secured to the light source base, the second circumferential flange engages the first circumferential flange to secure the light source base in the mating opening." *See* Resps. Br. at 86-87.

As proposed by Neptun, it is determined that the claim term "said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity" does not require further construction. Indeed, Respondents' proposed construction introduces additional limitations that are not required by the intrinsic evidence.

#### VII. Infringement

#### A. General Principles of Law

Neptun accuses Maxlite, Satco, and Litetronics of direct infringement of the asserted patent claims. There is no allegation of indirect infringement. *See* Compls. Br. at 50-63.

Under 35 U.S.C. §271(a), direct infringement consists of making, using, offering to sell, or selling a patented invention without consent of the patent owner. The complainant in a section 337 investigation bears the burden of proving infringement of the asserted patent claims by a "preponderance of the evidence." *Certain Flooring Products*, Inv. No. 337-TA-443,

Comm'n Notice of Final Determination of No Violation of Section 337, 2002 WL 448690, at \*59, (Mar. 22, 2002); *Enercon GmbH v. Int'l Trade Comm'n*, 151 F.3d 1376 (Fed. Cir. 1998).

Literal infringement of a claim occurs when every limitation recited in the claim appears in the accused device, *i.e.*, when the properly construed claim reads on the accused device exactly.<sup>6</sup> *Amhil Enters.*, *Ltd. v. Wawa*, *Inc.*, 81 F.3d 1554, 1562 (Fed. Cir. 1996); *Southwall Tech. v. Cardinal IG Co.*, 54 F.3d 1570, 1575 (Fed Cir. 1995).

If the accused product does not literally infringe the patent claim, infringement might be found under the doctrine of equivalents. "Under this doctrine, a product or process that does not literally infringe upon the express terms of a patent claim may nonetheless be found to infringe if there is 'equivalence' between the elements of the accused product or process and the claimed elements of the patented invention." *Warner-Jenkinson Co., Inc. v. Hilton Davis Chemical Co.*, 520 U.S. 17, 21 (1997) (citing *Graver Tank & Mfg. Co. v. Linde Air Products Co.*, 339 U.S. 605, 609 (1950)). "The determination of equivalence should be applied as an objective inquiry on an element-by-element basis."<sup>7</sup> *Id.* at 40.

"An element in the accused product is equivalent to a claim limitation if the differences between the two are insubstantial. The analysis focuses on whether the element in the accused device 'performs substantially the same function in substantially the same way to obtain the same result' as the claim limitation." *AquaTex Indus. v. Techniche Solutions*, 419 F.3d 1374,

<sup>&</sup>lt;sup>6</sup> Each patent claim element or limitation is considered material and essential. *London v. Carson Pirie Scott & Co.*, 946 F.2d 1534, 1538 (Fed. Cir. 1991). If an accused device lacks a limitation of an independent claim, the device cannot infringe a dependent claim. *See Wahpeton Canvas Co. v. Frontier, Inc.*, 870 F.2d 1546, 1552 n.9 (Fed. Cir. 1989).

<sup>&</sup>lt;sup>7</sup> "Infringement, whether literal or under the doctrine of equivalents, is a question of fact." *Absolute Software, Inc. v. Stealth Signal, Inc.*, 659 F.3d 1121, 1130 (Fed. Cir. 2011).

1382 (Fed. Cir. 2005) (quoting *Graver Tank*, 339 U.S. at 608); *accord Absolute Software*, 659 F.3d at 1139-40.<sup>8</sup>

Prosecution history estoppel can prevent a patentee from relying on the doctrine of equivalents when the patentee relinquished subject matter during the prosecution of the patent, either by amendment or argument. *AquaTex*, 419 F.3d at 1382. In particular, "[t]he doctrine of prosecution history estoppel limits the doctrine of equivalents when an applicant makes a narrowing amendment for purposes of patentability, or clearly and unmistakably surrenders subject matter by arguments made to an examiner." *Id.* (quoting *Salazar v. Procter & Gamble Co.*, 414 F.3d 1342, 1344 (Fed. Cir. 2005)).

### B. Claim 1

All Maxlite, Satco, and Litetronics products are accused of infringing independent claim 1 of the '540 patent.

#### 1. A fluorescent reflector lamp comprised of:

Each of the Respondents' accused products constitutes "a fluorescent reflector lamp." CX-2C (Mayor WS) at Q76-Q82 (Satco), Q153 (Maxlite), Q223 (Litetronics). Respondents do not contest that the accused products satisfy this limitation. *See* Resps. Br. at 91-112.

<sup>&</sup>lt;sup>8</sup> "The known interchangeability of substitutes for an element of a patent is one of the express objective factors noted by *Graver Tank* as bearing upon whether the accused device is substantially the same as the patented invention. Independent experimentation by the alleged infringer would not always reflect upon the objective question whether a person skilled in the art would have known of the interchangeability between two elements, but in many cases it would likely be probative of such knowledge." *Warner-Jenkinson*, 520 U.S. at 36.

# 2. a fluorescent light source;

Each of the Respondents' accused products includes "a fluorescent light source." CX-2C (Mayor WS) at Q83 (Satco), Q154-Q155 (Maxlite), Q224 (Litetronics). Respondents do not contest that the accused products satisfy this limitation. *See* Resps. Br. at 91-112.

3. a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector;

The construction of multiple claim terms located within this claim limitation was discussed above. Under the adopted constructions, the record evidence demonstrates that Respondents' accused products satisfy this limitation of asserted independent claim 1. CX-2C (Mayor WS) at Q84-Q98 (Satco), Q156-Q170 (Maxlite), Q225-Q238 (Litetronics); see Roberts Tr. 370-371, 373. Annotated drawings created by Neptun's expert Dr. Mayor show the claimed defined cavity, lens, light emitting opening, mating opening having an inner diameter, first circumferential flange, reflective surface, and circumferential rim. See CX-53C (Satco PAR 38); CX-54C (Satco PAR 38); CX-55C (Satco PAR 30); CX-56C (Satco PAR 30); CX-57C (Satco PAR 28); CX-58C (Satco PAR 28); CX-78 (Maxlite PAR 38); CX-79 (Maxlite PAR 38); CX-80 (Maxlite PAR 30); CX-81 (Maxlite PAR 30); CX-82 (Maxlite PAR 20); CX-83 (Maxlite PAR 20); CX-102 (Litetronics PAR 38); CX-103 (Litetronics PAR 38); CX-104 (Litetronics PAR 30); CX-105 (Litetronics PAR 30); CX-106 (Litetronics PAR 20); CX-107 (Litetronics PAR 20). In particular, the evidence adduced by Neptun shows that the accused products include a mating opening because there is an area defined by a circumferential flange where the light source base is located. See CX-2C (Mayor WS) at Q91 (Satco), Q164 (Maxlite), Q232 (Litetronics), Dr.

Mayor identified this area as an "aperture that provides access to the lower portion of the light source base that's inside the cavity, the portion that the light source attaches to." *See, e.g., i.d.* at Q95 (Satco), Q166 (Maxlite), Q234 (Litetronics).

Even if Respondents' proposed constructions for this claim limitation were adopted, Neptun adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under the doctrine of equivalents. Specifically, having a mating opening as a circumferential region defined by a first circumferential flange at the bottom of the reflector where the integrated light source base is located satisfies the function-way-result test. It performs the same function, *i.e.*, to have a light source base located in a circumferential area in the bottom of the reflector through which the light source is inserted and attached. See CX-2C (Mayor WS) at Q96-Q97 (Satco), Q168-169 (Maxlite), Q236-237 (Litetronics); Mayor Tr. 221; Derby Tr. 408-409. It performs the function in substantially the same way, *i.e.*, having the light source base, with holes through which the light source is inserted, and with the base being located in a circumferential area in the bottom of the reflector. See CX-2C (Mayor WS) at O96-O97 (Satco), O168-169 (Maxlite), O236-237 (Litetronics). It also achieves substantially the same result by stabilizing and supporting the light source. See id. Respondents did not adduce evidence to rebut Neptun's argument for infringement of this claim limitation by the accused products under the doctrine of equivalents. See Resps. Br. at 92-109.

Accordingly, it is determined that the accused products satisfy this claim limitation under the adopted claim constructions. Alternatively, it is determined that the accused products satisfy this claim limitation under the doctrine of equivalents even if Respondents' proposed claim constructions were adopted.

4. a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means;

Under the claim constructions adopted above, the record evidence demonstrates that the accused products satisfy this claim limitation. CX-2C (Mayor WS) at Q99-Q109 (Satco), Q171-Q179 (Maxlite), Q239-Q246 (Litetronics). Annotated drawings created by Neptun's expert Dr. Mayor show the claimed light source base. *See* CX-59C (Satco PAR 38); CX-60C (Satco PAR 30); CX-61C (Satco PAR 30); CX-62C (Satco PAR 20); CX-63C (Satco PAR 20); CX-86 (Maxlite PAR 38); CX-87 (Maxlite PAR 38); CX-88 (Maxlite PAR 30); CX-89 (Maxlite PAR 30); CX-90 (Maxlite PAR 20); CX-91 (Maxlite PAR 20); CX-108 (Litetronics PAR 38); CX-110 (Litetronics PAR 30); CX-111 (Litetronics PAR 30); CX-112 (Litetronics PAR 20); CX-113 (Litetronics PAR 20). As shown in the drawings, the accused products include a circumferential area in which the light source base is located (*i.e.*, the claimed mating opening under the adopted constructions).

Even if Respondents' proposed constructions for this claim limitation were adopted, Neptun adduced evidence showing that all accused products would nevertheless satisfy this claim limitation under the doctrine of equivalents. Specifically, having a light source base integral with the reflector satisfies the function-way-result test. It performs the same function, *i.e.*, to have a light source base located in a circumferential area in the bottom of the reflector through which the light source is inserted and attached. Mayor Tr. 221; Derby Tr. 408-409. It performs the function in substantially the same way, *i.e.*, having the light source base, with holes through which the light source is inserted, and with the base located in a circumferential area in the bottom of the reflector. *See* CX-2C (Mayor WS) at Q110-Q111 (Satco), Q180-Q181

(Maxlite), Q247-Q248 (Litetronics). It also achieves substantially the same result by stabilizing and supporting the light source. *See id.* Respondents did not adduce evidence to rebut Neptun's argument for infringement of this claim limitation by the accused products under the doctrine of equivalents. *See* Resps. Br. at 92-109.

Accordingly, it is determined that the accused products satisfy this claim limitation under the adopted claim constructions. Alternatively, it is determined that the accused products satisfy this claim limitation under the doctrine of equivalents even if Respondents' proposed claim constructions were adopted.

#### an electricity supply base;

Each of the Respondents' accused products includes this feature of claim 1. See CX-2C (Mayor WS) at Q128-Q129 (Satco), Q197-Q198 (Maxlite), Q261 (Litetronics). Respondents do not contest that the accused products satisfy this limitation. See Resps. Br. at 91-112.

# a ballast for energizing said fluorescent light source to emit light, said ballast including power input terminals connected to said electricity supply base and output terminals connected to said fluorescent light source;

Each of the Respondents' accused products includes this feature of claim 1. CX-2C (Mayor WS) at Q130-Q131 (Satco), Q199-Q200 (Maxlite), Q262 (Litetronics). Respondents do not contest that the accused products satisfy this limitation. *See* Resps. Br. at 91-112.

# a ballast housing with a defined space to accommodate the electronic ballast;

Each of the Respondents' accused products includes this feature of claim 1. CX-2C

(Mayor WS) at Q132-Q133 (Satco); CX-2C at Q201-Q207 (Maxlite); CX-2C at Q263-Q268

(Litetronics). Respondents do not contest that the accused products satisfy this limitation. See

Resps. Br. at 91-112.

## 8. said ballast housing having a second locking means;

Each of the Respondents' accused products includes this feature of claim 1. CX-2C

(Mayor WS) at Q134-Q138 (Satco), Q201-Q209 (Maxlite), Q263-Q270 (Litetronics),

Respondents do not contest that the accused products satisfy this limitation. See Resps. Br. at

91-112.

# and said housing having means for attachment of said electricity supply base;

Each of the Respondents' accused products includes this feature of claim 1. CX-2C (Mayor WS) at Q139-Q140 (Satco), Q210-Q211 (Maxlite), Q271 (Litetronics). Respondents do not contest that the accused products satisfy this limitation. *See* Resps. Br. at 91-112.

# said fluorescent reflector lamp being assembled by mating of said first locking means of the light source base with said second locking means of the ballast housing;

The evidence demonstrates that each of Respondents' accused products satisfies this claim limitation under the constructions adopted above. *See* CX-2C (Mayor WS) at Q139-Q140 (Satco), Q212 (Maxlite), Q272 (Litetronics). Respondents do not contest that this limitation is satisfied under the adopted constructions. *See*, *e.g.*, Roberts Tr. 360.

Moreover, even if Respondents' proposed claim constructions were adopted and it is determined that the claimed light source base and reflector must be discrete components, the evidence discussed above in the sections addressing the claim limitations "a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector" and "a light source base attached to said

fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means" demonstrates that the accused products would nevertheless satisfy this limitation under the doctrine of equivalents.

# 11. wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity;

The evidence demonstrates that each of Respondents' accused products satisfies this claim limitation under the constructions adopted above. *See* CX-2C (Mayor WS) at Q143-Q144 (Satco), Q213-Q214 (Maxlite), Q273 (Litetronics). Respondents do not contest that this limitation is satisfied under the adopted constructions. *See, e.g.*, Roberts Tr. 360.

Moreover, even if Respondents' proposed claim constructions were adopted and it is determined that the claimed light source base and reflector must be discrete components, the evidence discussed above in the sections addressing the claim limitations "a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector" and "a light source base attached to said fluorescent light source; said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means" demonstrates that the accused products would nevertheless satisfy this limitation under the doctrine of equivalents.

# 12. wherein light emitted by said fluorescent light source being substantially reflected by the reflecting surface of the reflector and directed out of the reflector cavity through said light emitting opening.

Each of the Respondents' accused products includes this feature of claim 1. CX-2C

(Mayor WS) at Q145-Q146 (Satco), Q215-Q216 (Maxlite), Q275-Q276 (Litetronics).

Respondents do not contest that the accused products satisfy this limitation. See Resps. Br. at 91-112.

\* \* \*

It is therefore determined that the accused Satco, Maxlite, and Litetronics products infringe asserted independent claim 1 of the '540 patent

C. Claim 2

All Maxlite, Satco, and Litetronics products are accused of infringing dependent claim 2

of the '540 patent.

#### 1. The device according to claim 1

As discussed above, the accused Maxlite, Satco, and Litetronics products satisfy all limitations of independent claim 1.

# wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast.

The evidence adduced by Neptun demonstrates that the accused Maxlite, Satco, and Litetronics products satisfy the additional claim 2 limitation "wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast." *See* CX-2C (Mayor WS) at Q147 (Satco), Q217 (Maxlite), Q277 (Litetronics).

Respondents do not contest that the accused products satisfy this claim limitation. See Resps. Br. at 91-109; Resps. Reply at 35-40.

\* \* \*

It is therefore determined that the accused Satco, Maxlite, and Litetronics products infringe asserted dependent claim 2 of the '540 patent.

D. Claim 10

The Litetronics products are accused of infringing dependent claim 10 of the '540 patent.

#### 1. The device according to claim 1

As discussed above, the accused Litetronics products satisfy all limitations of independent claim 1.

# 2. wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin.

The evidence adduced by Neptun demonstrates that the accused Litetronics products satisfy the additional claim 10 limitation "wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin." *See* CX-2C (Mayor WS) at Q278.

Respondents do not contest that the accused products satisfy this claim limitation. See Resps. Br. at 91-109; Resps. Reply at 35-40.

\* \*

It is therefore determined that the accused Litetronics products infringe asserted dependent claim 10 of the '540 patent.

E. Claim 11

The Maxlite and Satco products are accused of infringing dependent claim 11 of the '540 patent.

# 1. The device according to claim 1

As discussed above, the accused Maxlite and Satco products satisfy all limitations of independent claim 1.

# wherein the lens has convex outer surface and said lens is made of any light transmitting material like glass or synthetic resin.

The evidence adduced by Neptun demonstrates that the accused Maxlite and Satco, and products satisfy the additional claim 11 limitation "wherein the lens has convex outer surface and said lens is made of any light transmitting material like glass or synthetic resin." *See* CX-2C (Mayor WS) at Q148 (Satco), Q218 (Maxlite).

Respondents do not contest that the accused products satisfy this claim limitation. See

Resps. Br. at 91-109; Resps. Reply at 35-40.

\* \* \*

It is therefore determined that the accused Satco and Maxlite products infringe asserted dependent claim 11 of the '540 patent.

#### VIII. Domestic Industry

#### A. General Principles of Law

A violation of section 337(a)(1)(B), (C), (D), or (E) can be found "only if an industry in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned, exists or is in the process of being established." 19 U.S.C.

§ 1337(a)(2). Section 337(a) further provides:

(3) For purposes of paragraph (2), an industry in the United States shall be considered to exist if there is in the United States, with respect to the articles protected by the patent, copyright, trademark, mask work, or design concerned—

(A) significant investment in plant and equipment;

(B) significant employment of labor or capital; or

(C) substantial investment in its exploitation, including engineering, research and development, or licensing.

19 U.S.C. § 1337(a)(3).

These statutory requirements consist of an economic prong (which requires certain activities)<sup>9</sup> and a technical prong (which requires that these activities relate to the intellectual property being protected). *Certain Stringed Musical Instruments and Components Thereof*, Inv. No. 337-TA-586, Comm'n Op. at 13 (May 16, 2008) ("*Stringed Musical Instruments*"). The burden is on the complainant to show by a preponderance of the evidence that the domestic industry requirement is satisfied. *Certain Multimedia Display and Navigation Devices and Systems, Components Thereof, and Products Containing Same*, Inv. No. 337-TA-694, Comm'n Op. at 5 (July 22, 2011) ("*Navigation Devices*").

"With respect to section 337(a)(3)(A) and (B), the technical prong is the requirement that the investments in plant or equipment and employment in labor or capital are actually related to 'articles protected by' the intellectual property right which forms the basis of the complaint." *Stringed Musical Instruments* at 13-14. "The test for satisfying the 'technical prong' of the industry requirement is essentially same as that for infringement, i.e., a comparison of domestic

<sup>&</sup>lt;sup>9</sup> The Commission practice is usually to assess the facts relating to the economic prong at the time that the complaint was filed. *See Certain Coaxial Cable Connectors and Components Thereof and Products Containing Same*, Inv. No. 337-TA-560, Comm'n Op. at 39 n.17 (Apr. 14, 2010) ("We note that only activities that occurred before the filing of a complaint with the Commission are relevant to whether a domestic industry exists or is in the process of being established under sections 337(a)(2)-(3).") (citing *Bally/Midway Mfg. Co. v. U.S. Int'l Trade Comm'n*, 714 F.2d 1117, 1121 (Fed. Cir. 1983)). In some cases, however, the Commission will consider later developments in the alleged industry, such as "when a significant and unusual development occurred after the complaint has been filed." *See Certain Video Game Systems and Controllers*, Inv. No. 337-TA-743, Comm'n Op., at 5-6 (Jan. 20, 2012) ("[I]n appropriate situations based on the specific facts and circumstances of an investigation, the Commission may consider activities and investments beyond the filing of the complaint.").

products to the asserted claims." *Alloc, Inc. v. Int'l Trade Comm'n*, 342 F.3d 1361, 1375 (Fed. Cir. 2003). "With respect to section 337(a)(3)(C), the technical prong is the requirement that the activities of engineering, research and development, and licensing are actually related to the asserted intellectual property right." *Stringed Musical Instruments* at 13.

With respect to the economic prong, and whether or not section 337(a)(3)(A) or (B) is satisfied, the Commission has held that "whether a complainant has established that its investment and/or employment activities are significant with respect to the articles protected by the intellectual property right concerned is not evaluated according to any rigid mathematical formula." *Certain Printing and Imaging Devices and Components Thereof*, Inv. No. 337-TA-690, Comm'n Op. at 27 (Feb. 17, 2011) ("*Printing and Imaging Devices*") (citing *Certain Male Prophylactic Devices*, Inv. No. 337 TA-546, Comm'n Op. at 39 (Aug. 1, 2007) ("*Male Prophylactic Devices*"). Rather, the Commission examines "the facts in each investigation, the article of commerce, and the realities of the marketplace." *Id.* "The determination takes into account the nature of the investment and/or employment activities, 'the industry in question, and the complainant's relative size." *Id.* (citing *Stringed Musical Instruments* at 26). Moreover, "[t]here is no Commission precedent supporting the proposition that a comparison of domestic and foreign producers' assets must be performed." *Male Prophylactic Devices* at 43 n.15.

With respect to section 337(a)(3)(C), whether an investment in domestic industry is "substantial" is a fact-dependent inquiry for which the complainant bears the burden of proof. *Stringed Musical Instruments* at 14. There is no minimum monetary expenditure that a complainant must demonstrate to qualify as a domestic industry under the "substantial investment" requirement of this section. *Id.* at 25. There is no need to define or quantify an

industry in absolute mathematical terms. *Id.* at 26. Rather, "the requirement for showing the existence of a domestic industry will depend on the industry in question, and the complainant's relative size." *Id.* at 25-26.

# B. Technical Prong - Claim 1

Neptun alleges that its Neptun PAR products satisfy all limitations of independent claim 1 of the '540 patent.

#### 1. A fluorescent reflector lamp comprised of:

The Neptun PAR products all satisfy the claim 1 limitation "a fluorescent reflector lamp." See CX-2C (Mayor WS) at Q282. Respondents do not contest that this claim limitation is satisfied. See Resps. Br. at 41-45.

## 2. a fluorescent light source;

The evidence adduced at the hearing demonstrates that the Neptun PAR products satisfy the claim 1 limitation "a fluorescent light source." *See* CX-2C (Mayor WS) at Q283. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 41-45.

3. a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange a lens attached to said circumferential rim of said reflector;

The record evidence shows that the Neptun PAR products satisfy the claim 1 limitation "a reflector with a defined cavity having circumferential rim defining a light emitting opening, and said cavity having a first circumferential flange defining a mating opening having an inner diameter, and said cavity having an interior wall defining a reflective surface of the reflector having substantially larger diameter at the circumferential rim than at the circumferential flange

a lens attached to said circumferential rim of said reflector." See CX-2C (Mayor WS) at Q284-Q289. Respondents do not contest that this claim limitation is satisfied. See Resps. Br. at 41-45.

# 4. a light source base attached to said fluorescent light source;

The record evidence demonstrates that the Neptun PAR products satisfy this claim limitation, both under the claim constructions adopted above and under Respondents' proposed constructions. *See* CX-2C (Mayor WS) at Q290-Q294. Based on the adopted claim constructions, the Neptun PAR products include a mating opening because there is an area where the light source base is located. *See id.* This light source base is separate from the reflector, thereby also satisfying this claim limitation under Respondents' proposed constructions. *See id.* at Q294. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 41-45.

# 5. said base being inside said defined cavity of said reflector and located inside said mating opening; and said base having a second circumferential flange having an outer diameter, and said base having a first locking means;

Neptun adduced evidence showing that each of the Neptun PAR products satisfies this limitation of claim 1. *See* CX-2C (Mayor WS) at Q295-Q296. Respondents do not contest that this claim limitation is satisfied. *See* Resps. Br. at 41-45.

#### 6. an electricity supply base;

Each of the Neptun PAR products includes this feature of claim 1. See CX-2C (Mayor WS) at Q301. Respondents do not contest that this claim limitation is satisfied. See Resps. Br.

at 41-45.

 a ballast for energizing said fluorescent light source to emit light, said ballast including power input terminals connected to said electricity supply base and output terminals connected to said fluorescent light source;

Each of the Neptun PAR products includes this feature of claim 1. See CX-2C (Mayor WS) at Q302. Respondents do not contest that this claim limitation is satisfied. See Resps. Br. at 41-45.

# a ballast housing with a defined space to accommodate the electronic ballast;

The record evidence demonstrates that the Neptun PAR products satisfy the claim 1 limitation "a ballast housing with a defined space to accommodate the electronic ballast." *See* CX-2C (Mayor WS) at Q303-Q304. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 41-45.

# 9. said ballast housing having a second locking means;

Neptun adduced evidence showing that the Neptun PAR products satisfy the claim 1

limitation "said ballast housing having a second locking means." See CX-2C (Mayor WS) at

Q305-Q306. Respondents do not contest that this limitation is satisfied. See Resps. Br. at 41-45.

#### and said housing having means for attachment of said electricity supply base;

Each of the Neptun PAR products includes this feature of claim 1. CX-2C (Mayor WS)

at Q307. Respondents do not contest that this limitation is satisfied. See Resps. Br. at 41-45.

# 11. said fluorescent reflector lamp being assembled by mating of said first locking means of the light source base with said second locking means of the ballast housing;

The evidence adduced at the hearing demonstrates that each of the Neptun PAR products includes this feature of claim 1. *See* CX-2C at Q308. Respondents contend that this limitation has not been satisfied, arguing that because Neptun's light source base includes two discrete

components that are locked together, the assembly is no longer a single light source base. See

Resps. Br. at 66-69. The language of asserted claim 1, however, does not preclude the light

source base from being formed by multiple parts. See CX-4 at col. 7, ln. 32 - col. 8, ln. 2.

Indeed, Respondents' expert Dr. Roberts testified that claim 1 would not preclude a reflector that

was assembled from two pieces. See Roberts Tr. 368.

It is therefore determined that the Neptun PAR products satisfy this claim limitation.

# wherein said outer diameter of the second circumferential flange of the light source base is larger than said inner diameter of the first circumferential flange of the reflector cavity;

Each of the Neptun PAR products includes this feature of claim 1. CX-2C (Mayor WS)

at Q309-Q310. Respondents do not contest that this limitation is satisfied. See Resps. Br. at 41-45.

# 13. wherein light emitted by said fluorescent light source being substantially reflected by the reflecting surface of the reflector and directed out of the reflector cavity through said light emitting opening.

Each of the Neptun PAR products includes this feature of claim 1. CX-2C (Mayor WS)

at Q313-Q314. Respondents do not contest that this limitation is satisfied. *See* Resps. Br. at 41-45.

\* \* \*

It is therefore determined that the Neptun PAR products practice independent claim 1 of the '540 patent.

C. Technical Prong – Claim 2

Neptun alleges that its Neptun PAR products satisfy all limitations of dependent claim 2 of the '540 patent.

## 1. The device according to claim 1

As discussed above, the Neptun PAR products satisfy all limitations of independent claim

1.

# wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast.

The evidence adduced by Neptun demonstrates that the Neptun PAR products satisfy the additional claim 2 limitation "wherein the fluorescent light source is made of glass tube formed in a shape of a helix having defined ends equipped with filaments wires for assembly into the light source base and connection to the ballast." *See* CX-2C (Mayor WS) at Q319.

Respondents do not contest that the Neptun PAR products satisfy this claim limitation.

See Resps. Br. at 41-45.

\* \*

\*

It is therefore determined that the Neptun PAR products practice dependent claim 2 of the '540 patent.

# D. Technical Prong - Claim 10

Neptun alleges that its Neptun PAR products satisfy the limitations of dependent claim 10 of the '540 patent.

# 1. The device according to claim 1

As discussed above, the Neptun PAR products satisfy all limitations of independent claim 1.

# 2. wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin.

The evidence adduced by Neptun demonstrates that the Neptun PAR products satisfy the additional claim 10 limitation "wherein the lens has flat outer surface and said lens is made of any light transmitting material like glass or synthetic resin." *See* CX-2C (Mayor WS) at Q320.

Respondents do not contest that the Neptun PAR products satisfy this claim limitation. See Resps. Br. at 41-45.

\* \* \*

It is therefore determined that the Neptun PAR products practice dependent claim 10 of the '540 patent.

#### E. Economic Prong

Neptun argues that it has satisfied the economic prong of the domestic industry requirement of section 337(a)(3)(A)-(C) through significant investment in plant and equipment with respect to the articles protected by the '540 patent, significant investment in labor and capital with respect to the articles protected by the '540 patent, and substantial investment in exploitation of the '540 patent. *See* Compls. Br. at 81-87. Respondents oppose any such findings. *See* Resps. Br. at 3-41.

#### 1. Neptun's Investments in Plant and Equipment

With respect to Neptun's investments in plant and equipment relating to its PAR CFL business, the evidence shows that Neptun has invested [ ] in leasehold improvements to its Business Center Drive facility. CX-1C (Bobel WS) at Q184-Q189. These expenses went into wiring Neptun's benches for inspection, testing, and design work. *Id.* The expenses also include other improvements such as preparing the facility to house an electronics laboratory. *Id.; see also id.* at Q17-Q25 (showing and describing the electronics laboratory). Neptun argues that

these expenses relate to Neptun's PAR CFLs because the leasehold improvements are needed in order for Neptun to have a PAR CFL business. *See* Compls. Br. at 81 (citing CX-1C (Bobel WS) at Q186). Neptun further argues that its work benches are associated with Neptun's PAR CFLs because they are used for testing and inspecting of Neptun's PAR CFLs. *See id.* at 81-82 (citing CX-1C (Bobel WS) at Q142-Q145 (showing and describing PAR testing), Q186).

Neptun adduced evidence showing that it has invested [ ] in machine and equipment for its Business Center Drive facility since June 2009. CX-1C (Bobel WS) at Q190-Q196. These expenses are for assembly lines, storage equipment, benches, and security systems. *See id.* Neptun's founder Andrzej Bobel testified that this equipment has been purchased to support Neptun's products, including its PAR CFLs. *Id.* at Q197. Neptun does not contest Respondents' assertion that today Neptun has PAR CFLs made in China, but Neptun relies only on expenses incurred in the United States for purposes of this investigation. *See id.* at Q190-Q196; *see, e.g.*, Resps. Br. at 22.

The record evidence demonstrates that Neptun has also invested [ ] in rent from the time Neptun started in its incubator office. CX-1C (Bobel WS) at Q198-Q206. Mr. Bobel testified that these expenses relate to Neptun's PAR CFLs because, in the early years of the company, Neptun was designing the mechanical parts (*e.g.*, the reflector, plastic parts, base, and tooling) used in its PAR CFL products. *Id.* Mr. Bobel further testified that Neptun was also designing the electronic ballasts for the non-dimmable CFLs, including the non-dimmable PAR CFLs, that Neptun sells today. CX-1C (Bobel WS) at Q204; *see also id.* at Q133-Q140 (discussing the Neptun Underwriters Laboratory file showing dimmable ballast design and bill of materials for PAR products). In the 2008 timeframe, Neptun created a dimmable CFL ballast that was used in its line of dimmable CFLs, including the dimmable PAR CFLs. *See id.* The

evidence also shows that Neptun has spent money on warehouse supplies, maintenance, utilities, telephone, and internet services that relate to its PAR CFL business. *See* CX-1C (Bobel WS) at Q221-Q228 (warehouse supplies), Q214-Q220 (maintenance and utilities), Q207-Q213 (phone and internet).

#### 2. Neptun's Investments in Labor and Capital

As for Neptun's alleged investments in labor and capital with respect to its PAR CFL business, the record evidence shows that Neptun has paid [ ] in engineering expenses to technicians and engineers who assisted Mr. Bobel in developing PAR CFL products. CX-1 (Bobel WS) at Q229-Q234. Mr. Bobel testified that these expenses are related to Neptun's PAR CFLs because, in the early years of the company (c. 2004), Neptun was designing the mechanical parts that went into the PAR CFLs. *Id.* Mr. Bobel further testified that Neptun was also designing the electronic ballasts that would go into these PAR CFLs. *Id.* Additional testimony shows that, when Neptun developed its dimmable CFL in the 2008 timeframe, that development was also related to PAR CFLs because Neptun's dimmable versions of the PAR CFLs utilize the dimmable ballast. *Id.* 

Aside from its engineers and technicians, Neptun has invested [ ] from 2005 to 2008 in compensation to Mr. Bobel for his work as CEO and chief engineer at Neptun. CX-1C (Bobel WS) at Q235-Q242. Mr. Bobel designed and developed the mechanical parts for the PAR CFLs that led to the '540 patent as well as the electronic ballasts, both dimmable and non-dimmable, that are used in the PAR CFLs. *Id*.

The evidence demonstrates that Neptun also invested money in draftsmen to assist Mr. Bobel in creating 3D models of his PAR CFL designs. CX-1C (Bobel WS) at Q117-Q129 (discussing role of draftsmen Mark Bajorski and Josh Altergott), Q282-Q300 (discussing money

paid to the draftsmen); CX-5C (3D drawing); CX-6C (3D drawing); CX-7C (3D drawing); CX-38C (spreadsheet of draftsmen expenses); CX 39C (spreadsheet of draftsmen expenses); CX-40C (spreadsheet of draftsmen expenses). Furthermore, Neptun has invested in sales and accounting staff, as well as trade show expenses relating to Neptun's PAR CFL business. *See* CX-1C (Bobel WS) at Q270-Q275 (sales staff), Q244-Q250 (accounting staff), Q251-Q258, Q265-Q269 (trade show).

# 3. Neptun's Investments in Exploitation of the Asserted Patent

With respect to Neptun's exploitation of the '540 patent, Neptun argues that it has made substantial investments in its exploitation, including engineering, research and development, or licensing. *See* Compls. Br. at 85-86. In particular, Neptun argues that the draftsmen expenses described above should be considered investments in exploitation of the '540 patent. *See id.* at 85. Neptun also argues that it "invested in Mr. Bobel himself" and "invested in rent" in furtherance of the design and development of its PAR CFLs. *See id.* at 85-86. It is argued that "[t]he investments in engineering, research and development are substantial because they allowed Neptun to design and develop its PAR CFLs from scratch and also to maintain its PAR CFL business through testing and inspection. Without these investments, there would be no PAR CFL product." *Id.* at 86.

Neptun also argues that it has made "substantial investments in licensing." See Compls. Br. at 86. Mr. Bobel testified that Neptun had signed a license agreement with [

] and that Neptun had received royalty payments from [ ] for products licensed under the '540 patent. *See* CX-1C (Bobel WS) at Q302-Q313. Neptun did not, however, cite to evidence showing that it had made investments in licensing activities. Although the record evidence shows that Neptun did a patent license agreement with

[ ] it nevertheless does not demonstrate that the license resulted from any specific investment made by Neptun.

## 4. Analysis of Neptun's Investments

Based on the record evidence discussed above, it is determined that Neptun has satisfied the economic prong of the domestic industry requirement under section 337(a)(3)(A) and (B). Neptun adduced testimony and documentary evidence showing that Neptun has made significant investments in plant and equipment with respect to its PAR CFL business, as well as significant investments in labor and capital with respect to its PAR CFL business. Specifically, the evidence shows that Neptun made significant investments in its Business Center Drive facility, including, but not limited to, rent and laboratory equipment. The evidence also shows that Neptun has made significant investments in salaries for people working on its PAR CFL products, including engineers, technicians, draftsmen, and Mr. Bobel himself.

As for Neptun's alleged satisfaction of the economic prong of the domestic industry requirement through substantial investments in the exploitation of the '540 patent, it is the determination of the administrative law judge that the record evidence does not support a finding that the economic prong is satisfied under section 337(a)(3)(C). In particular, Neptun did not adduce evidence showing specific investments in licensing activities. Neptun did argue that various salary and rent expenses constitute a substantial investment in the exploitation of the '540 patent, but it is determined that these expenses are more properly characterized as investments in plant and equipment or labor and capital, as discussed above. *See* Compls. Br. at 85-86.

Respondents argue that Neptun cannot satisfy the economic prong of the domestic industry requirement with the evidence adduced during the hearing, inasmuch as Neptun relied

on that same evidence to show satisfaction of the domestic industry requirement in *Certain Dimmable Compact Fluorescent Lamps and Products Containing Same*, Inv. No. 337-TA-830 ("830 Investigation"). *See* Resps. Br. at 15-19. Respondents previously raised this argument in a motion for summary determination, which the administrative law judge denied in an order. Order No. 29, at 7 (Sept. 16, 2013) ("It has not been shown that a complainant is precluded from relying on the same domestic investments to show satisfaction of the economic prong for multiple patents in multiple investigations."). Respondents' argument is rejected here for the same reason set forth in Order No. 29.

Respondents' other arguments that Neptun cannot satisfy the economic prong also echo arguments previously raised in Respondents' summary determination motion and rejected in Order No. 29. For instance, Respondents argue that there is no domestic industry in this investigation because the administrative law judge presiding over the 830 Investigation did not find a domestic industry. *See* Resps. Br. at 19-21. As previously stated by this administrative law judge, "[t]he 830 ID determined that Neptun did not satisfy the economic prong based on the same evidence produced in this investigation, but those findings were not adopted by the Commission, and do not preclude a contrary determination in this investigation." Order No. 29, at 7.

# IX. Validity

The GR11 Filing indicates that this initial determination should address the issue of "[w]hether claims 1, 2, and 10 of the '540 patent are invalid under one or more of 35 U.S.C. §§ 102, 103." *See* Comprehensive Joint Outline of Issues (EDIS Doc. No. 523669) at 3.

Respondents, however, did not address the issue of invalidity in their posthearing briefs.

Accordingly, the administrative law judge declines to make any findings on the issue of whether asserted claims 1, 2, and 10 of the '540 patent are invalid in light of the prior art.

X. Conclusions of Law

1. The Commission has subject matter, personal, and *in rem* jurisdiction in this investigation.

2. The importation requirement is satisfied as to Maxlite, Satco, and Litetronics.

3. Maxlite's accused products infringe asserted claims 1, 2, and 11 of the '540

patent.

4. Satco's accused products infringe asserted claims 1, 2, and 11 of the '540 patent.

5. Litetronics's accused products infringe asserted claims 1, 2, and 10 of the '540

patent.

6. The domestic industry requirement is satisfied as to the '540 patent.

 It has not been shown by clear and convincing evidence that any asserted claim of the '540 patent is invalid.

# XI. Initial Determination on Violation

Accordingly, it is the initial determination of the undersigned that a violation of section 337 (19 U.S.C. § 1337) has occurred in the importation into the United States, the sale for importation, or the sale within the United States after importation of certain compact fluorescent reflector lamps, products containing the same and components thereof, with respect to asserted claims 1, 2, 10, and 11 of U.S. Patent No. 7,053,540.

Further, this initial determination, together with the record of the hearing in this investigation consisting of (1) the transcript of the hearing, with appropriate corrections as may

hereafter be ordered, and (2) the exhibits received into evidence in this investigation, is hereby certified to the Commission.

In accordance with 19 C.F.R. § 210.93(c), all material found to be confidential by the undersigned under 19 C.F.R. § 210.5 is to be given *in camera* treatment.

The Secretary shall serve a public version of this initial determination upon all parties of record and the confidential version upon counsel who are signatories to the Protective Order, as amended, issued in this investigation.

Pursuant to 19 C.F.R. § 210.42(h), this initial determination shall become the determination of the Commission unless a party files a petition for review pursuant to § 210.43(a) or the Commission, pursuant to § 210.44, orders on its own motion a review of the initial determination or certain issues herein.

# XII. Recommended Determination on Remedy and Bonding

Pursuant to the notice of investigation, 78 Fed. Reg. 14357 (Mar. 5, 2013), this is the recommended determination in *Certain Compact Fluorescent Reflector Lamps, Products Containing Same and Components Thereof*, United States International Trade Commission Investigation No. 337-TA-872.

# A. Limited Exclusion Order

The Commission has broad discretion in selecting the form, scope, and extent of the remedy in a section 337 proceeding. *Viscofan, S.A. v. U.S. Int'l Trade Comm'n*, 787 F.2d 544, 548 (Fed. Cir. 1986). A limited exclusion order directed to Respondents' infringing products is among the remedies that the Commission may impose. *See* 19 U.S.C. § 1337(d).
## PUBLIC VERSION

Neptun requests that the Commission impose a limited exclusion order that prohibits Maxlite, Satco, and Litetronics from importing products found to infringe asserted claims 1, 2, 10, and 11 of the '540 patent. *See* Compls. Br. at 88-89.

In their posthearing briefs, Respondents failed to address the issue of an appropriate remedy in the event the Commission finds a violation of section 337 in this investigation.

Based on the arguments of the parties, it is the determination of the administrative law judge that, in the event a violation of section 337 is found, the Commission should issue a limited exclusion order against all accused products found to infringe the asserted claims of the '540 patent.

## B. Cease and Desist Order

Section 337 provides that in addition to, or in lieu of, the issuance of an exclusion order, the Commission may issue a cease and desist order as a remedy for a violation of section 337. *See* 19 U.S.C. § 1337(f)(1). Under current Commission precedent, a cease and desist order is generally issued when there is a "commercially significant" amount of infringing, imported product in the United States that could be sold by an infringing respondent resulting in evasion of the remedy provided by an exclusion order. *Certain Mobile Devices, Associated Software, and Components Thereof*, Inv. No. 337-TA-744, Comm'n Op. at 24 (June 5, 2012).

Neptun argues that a cease and desist order is appropriate under the circumstances of this investigation, but does not cite to evidence to support its assertion that Respondents maintain commercially significant inventories of the accused products in the United States. *See* Compls. Br. at 89.

Respondents did not address the issue of a cease and desist order in their posthearing briefs.

55

## PUBLIC VERSION

Therefore, based on the arguments of the parties and the evidence cited in the parties' posthearing briefs, it is the determination of the administrative law judge that the Commission should not issue a cease and desist order in the event a violation of section 337 is found.

#### C. Bond

Pursuant to section 337(j)(3), the administrative law judge and the Commission must determine the amount of bond to be required of a respondent, during the 60-day Presidential review period following the issuance of permanent relief, in the event that the Commission determines to issue a remedy. The purpose of the bond is to protect the complainant from any injury. 19 U.S.C. § 1337(j)(3); 19 C.F.R. §§ 210.42(a)(1)(ii), 210.50(a)(3).

When reliable price information is available, the Commission has often set bond by eliminating the differential between the domestic product and the imported, infringing product. *Certain Microsphere Adhesives, Processes for Making Same, and Products Containing Same, Including Self-Stick Repositionable Notes*, Inv. No. 337-TA-366, Comm'n Op. at 24 (1995). In other cases, the Commission has turned to alternative approaches, especially when the level of a reasonable royalty rate could be ascertained. *Certain Integrated Circuit Telecommunication Chips and Products Containing Same, Including Dialing Apparatus*, Inv. No. 337-TA-337, Comm'n Op. at 41 (1995). A 100% bond has been required when no effective alternative existed. *Certain Flash Memory Circuits and Products Containing Same*, Inv. No. 337-TA-382, USITC Pub. No. 3046, Comm'n Op. at 26-27 (July 1997) (a 100% bond imposed when price comparison was not practical because the parties sold products at different levels of commerce, and the proposed royalty rate appeared to be *de minimis* and without adequate support in the record).

56

# **PUBLIC VERSION**

Neptun requests that a 100% bond be imposed during the Presidential review period should the Commission decide to issue permanent relief. See Compls. Br. at 89. Neptun argues that, if Respondents were allowed to continue importing the accused products during the review period, sales of those products would harm Neptun by reducing Neptun's market share. See id,

Respondents did not address the amount of appropriate bond in their posthearing briefs. In the absence of argument to the contrary, it is the determination of the administrative law judge that, in the event that a violation of section 337 is found, Respondents should be required to post a bond of 100% of the entered value of the products subject to any limited exclusion order during the Presidential review period.

XIII. Order

To expedite service of the public version, each party is hereby ordered to file with the Commission Secretary no later than February 14, 2014, a copy of this initial determination with brackets to show any portion considered by the party (or its suppliers of information) to be confidential, accompanied by a list indicating each page on which such a bracket is to be found. At least one copy of such a filing shall be served upon the office of the undersigned, and the brackets shall be marked in red. If a party (and its suppliers of information) considers nothing in the initial determination to be confidential, and thus makes no request that any portion be redacted from the public version, then a statement to that effect shall be filed.

David P. Shaw Administrative Law Judge

Issued: February 3, 2014

# CERTAIN COMPACT FLUORESCENT REFLECTOR LAMPS, PRODUCTS CONTAINING SAME AND COMPONENTS THEREOF INV. NO. 337-TA-872

# PUBLIC CERTIFICATE OF SERVICE

I, Lisa R. Barton, hereby certify that the attached INITIAL DETERMINATION has been served upon the following parties as indicated, on MAR 6 - 2014

Lisa R. Barton, Acting Secretary U.S. International Trade Commission 500 E Street SW, Room 112A Washington, DC 20436

FOR COMPLAINANTS ANDRZEJ BOBEL AND NEPTUN LIGHT, INC :	
John R. Fuisz, Esq. <b>THE FUISZ-KUNDU GROUP, LLP</b> 1455 Pennsylvania Avenue, N.W. Washington, D.C. 20004	<ul> <li>( ) Via Hand Delivery</li> <li>( ) Express Delivery</li> <li>( ) Via First Class Mail</li> <li>( ) Other:</li> </ul>
FOR RESPONDENTS MAXLITE, INC. AND LITETRONICS INTERNATIONAL, INC.	
Robert S. Rigg, Esq. VEDDER PRICE P.C. 222 N. LaSalle Street, Suite 2600 Chicago, IL 60601	<ul> <li>( ) Via Hand Delivery</li> <li>( ) Express Delivery</li> <li>( ) Via First Class Mail</li> <li>( ) Other:</li> </ul>
FOR RESPONDENT SATCO PRODUCTS, INC.	
Robert P. Lynn, Jr., Esq. LYNN GARTNER DUNNE & COVELLO, LLP 330 Old Country Road, Suite 103 Mineola, NY 11501	<ul> <li>( )/Via Hand Delivery</li> <li>( ) Express Delivery</li> <li>( ) Via First Class Mail</li> <li>( ) Other:</li> </ul>