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UNITED STATES DISTRICT COURT  
CENTRAL DISTRICT OF CALIFORNIA

DMF, Inc.,  
Plaintiff,  
– v. –  
AMP Plus, Inc. d/b/a ELCO Lighting,  
and ELCO Lighting Inc.,  
Defendants.

No. 2:18-cv-07090-CAS-GJSx

**FINDINGS OF FACT AND  
CONCLUSIONS OF LAW**

**ORDER RE MOTION TO STRIKE  
(DKT. 722)**

**I. INTRODUCTION**

The issue of willfulness was tried to the Court on October 24 and October 25, 2023. Attorneys Ben M. Davidson of Davidson Law Group and David Long of Ergoniq appeared on behalf of plaintiff DMF, Inc. (“DMF”). Attorneys Guy Ruttenberg and Kevin Neal of Ruttenberg IP Law appeared on behalf of defendants AMP Plus, Inc. d/b/a ELCO LIGHTING and ELCO Lighting, Inc (“ELCO”). For purposes of the trial, based on stipulation of the parties, the Court assumed infringement and validity. Thus, the sole issue tried before the Court is whether ELCO’s infringement of DMF’s patent was willful. Based on the evidence and testimony presented at trial, the Court makes the

1 following findings of fact and conclusions of law. To the extent any finding of fact is  
2 better characterized as a conclusion of law, or vice versa, it shall be so characterized.

3 **II. JURISDICTION AND VENUE**

4 1. This Court has subject matter jurisdiction over this action pursuant to 28  
5 U.S.C. § 1331, because these claims arise under the federal patent laws. 35 U.S.C. §§  
6 271, 281; 28 U.S.C. § 1338(a).

7 2. The Court has personal jurisdiction over the parties and venue is proper in  
8 this Court under 28 U.S.C. §§ 1391(b) and (c) and 1400(b), because Defendant resides in  
9 this District and maintains a regular and established place of business in this district.

10 **III. FINDINGS OF FACT**

11 **A. Background**

12 3. DMF filed an action for patent infringement, among other claims, against  
13 ELCO on August 15, 2018. Dkt. 1. DMF alleges that ELCO infringes U.S. Patent No.  
14 9,964,266 (the “266 Patent”), which discloses a “Unified Driver and Light Source  
15 Assembly For Recessed Lighting.” *Id.* at 1. The ’266 Patent claims priority to a  
16 provisional patent application filed on July 6, 2013. *Id.* ¶ 20. The ’266 Patent issued on  
17 May 8, 2018. *Id.* ¶ 23. DMF states that the LED Module claimed in ’266 Patent was  
18 designed with “a low-profile heat conducting casting that could both house LED  
19 components and significantly dissipate heat from the LED light source, rather than  
20 stacking a conventional heatsink on top of a separate component housing.” *Id.* ¶ 16.  
21 Further, the claimed LED Module “could fit in traditional ‘cans’ or other lighting  
22 fixtures, but also was small enough to fit into standard junction boxes without using a  
23 separate firebox, ‘can’ or lighting fixture.” *Id.* DMF’s flagship products, which practice  
24 the ’266 Patent, are the DRD2 LED Module products. *Id.* ¶ 28.

25 4. In March 2019, the Court issued a preliminary injunction enjoining ELCO  
26 from making, using, selling, or offering to sell “both the original version and the  
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1 modified versions of ELCO’s ELL LED Modules.” Dkt. 147 at 13. The parties agree that  
2 the Court’s preliminary injunction remains in effect. Dkt. 341 at 4.

3 5. In May 2019, ELCO filed an IPR petition seeking review of the ’266 Patent  
4 before the PTAB. See Dkt. 244-2. The PTAB instituted the IPR in November 2019. Dkt.  
5 325-2. In November 2020, the PTAB found Claim 17 unpatentable and Claims 1, 2, 4–  
6 11, 13–16, 19, 21, 22, 25, 26, and 28–30 not unpatentable. Id. The Federal Circuit  
7 affirmed the PTAB’s decision except for vacating and remanding the decision that  
8 ELCO had not shown that Claim 22 was unpatentable. See AMP Plus, Inc. v. DMF, Inc.,  
9 No. 2021-1595, 2022 WL 16844516, at \*12 (Fed. Cir. Nov. 10, 2022). On remand, the  
10 PTAB held that ELCO failed to prove that Claim 22 was unpatentable. See AMP Plus,  
11 Inc. v. DMF, Inc., No. IPR2019-01094, 2023 WL 6811241 (P.T.A.B. Mar. 27, 2023).  
12 DMF has appealed that decision.

13 6. Related to the issue presented at the bench trial, on June 20, 2023, ELCO  
14 filed a motion for judgment on the pleadings to dismiss DMF’s willful infringement  
15 claim. Dkt. 614. On August 11, 2023, this Court denied ELCO’s motion. Dkt. 651.

16 7. Based on the importance of the willfulness issue to the parties, and  
17 considering that the Court, not the jury, makes an ultimate determination regarding the  
18 relevance of willfulness (e.g., enhanced damages, exceptional case), the parties agreed  
19 that a more efficient use of resources was to try willfulness to the Court, assuming for  
20 purposes of trial only infringement and validity. The Court agreed to preside over a  
21 willfulness bench trial so the parties could consider the resulting findings of fact and  
22 conclusions of law in renewing settlement discussions. See Dkt. 675. Thus, the parties  
23 stipulated to a bench trial before the Court on the issue of willfulness. Dkts. 687, 688.

24 8. On October 24, 2023, the matter came before this Court for a two-day  
25 bench trial concerning willfulness. The parties called as witnesses Chip Israel, Benjamin  
26 Ardestani, Brandon Cohen, Steve Cohen, James Benya, and Michael Danesh. Dkt. 696;

1 see also Dkt. 712 (Benya Declaration).<sup>1</sup> Additionally, the Court received deposition  
2 testimony of Richard Nguyen, James Keenley, and Michael Danesh in his capacity as a  
3 30(b)(6) witness. Dkt. 696; see also Dkts. 707, 713, 714, 715, 725.

4 9. After trial, DMF lodged deposition transcripts relating to assertions of  
5 privilege by Eric Kelly, who was not called at trial. See Dkt. 726. ELCO also filed  
6 requests for judicial notice. Dkts. 705, 712.<sup>2</sup>

7 10. After trial, the parties filed closing briefs and responsive closing briefs. See  
8 Dkts. 720, 721, 727, 728.

9 11. The witnesses who were called at trial, the depositions of the foregoing  
10 witnesses, and the exhibits that were offered, admitted into evidence, and considered by  
11 the Court are identified in the witness and exhibit lists filed on October 20 and October  
12 23, 2023. Dkts. 696, 701, 704; see also Dkt. 719 (list of exhibits and witnesses at trial),  
13 Dkt. 724 (request for admission of trial exhibits).<sup>3</sup> The parties also filed the  
14 demonstratives used at trial. Dkts. 710, 730.

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17 <sup>1</sup> The Court **GRANTS** ELCO’s request to take judicial notice of the Benya Declaration.  
18 Dkt. 712. The Benya Declaration from the IPR is consistent with his expert report in this  
19 case. Considering that the Court allowed DMF to present two experts who purported to  
20 discuss copying, to the extent these issues are relevant to willfulness as discussed fully in  
21 this order, the Court considers the Benya Declaration.

22 <sup>2</sup> The Court will provide via separate minute order its time calculations, including for the  
23 deposition designations that were read after trial. As previously stated, the total time for  
24 the bench trial will be subtracted from the parties’ overall trial time of 8-10 hours per  
25 side should the parties be unable to settle the remaining aspects of the case. No party will  
26 be permitted to make a request to reconsider this ruling as the time limits were made  
27 clear to the parties before, during, and after trial.

28 <sup>3</sup> The Court **GRANTS** DMF’s request for admission of trial exhibits. Dkt. 724. As  
stated, “We will keep the record open until you agree upon exhibits or I rule on exhibits,  
but just assume that I’m going to allow the exhibits to be received subject to your  
objections to be consistent throughout.” TR2 189:25-190:8, 248:23-249:2. The Court  
notes that ELCO made a similar request within a request for judicial notice. Dkt. 705 at  
2.

1           **B. Willfulness Theory and Timeframe**

2           12. DMF bases its willfulness claim on the allegations that ELCO copied and  
3 sold knock-off versions of DMF’s DRD2 LED Module products before this suit was  
4 filed. Compl. ¶¶ 47-48. DMF also alleges that ELCO copied DMF’s DRD2 products to  
5 create ELCO products such as ELCO’s Model Nos. ELL08xx and ELL11xx (“the ELCO  
6 ELL LED Modules”), ELCO’s ELL Module using a twist-and-lock mechanism (“ELCO  
7 Trim”), or Model No. ELJ4S (“ELCO Hanger Junction Box”). Id. ¶¶ 58, 79, 83, 89.  
8 DMF alleges that ELCO copied the DRD2 products via: tradeshow exhibits; DMF’s  
9 website, the published patent application, and the ’266 Patent itself. Id. ¶¶ 49-53.

10           13. DMF avers that this infringement was willful because (1) ELCO was aware  
11 of the ’266 Patent by at least the date it received DMF’s cease-and-desist letter on  
12 August 3, 2018, and ought to have been aware of the ’266 Patent since its issuance on  
13 May 8, 2018; and (2) ELCO copied DMF’s DRD2 LED Module knowing that DMF was  
14 seeking patent protection on the technology based on ELCO’s own patent application  
15 activity, prior art searches by ELCO, or prior art identified by the USPTO to ELCO. Id.  
16 ¶¶ 134-39. Based on its willfulness allegations, DMF is seeking treble damages under 35  
17 U.S.C. § 284. Id. ¶ 139.

18           14. In view of this theory, the Court provides a timeline as a background  
19 reference to illustrate the events surrounding when the patent application was filed, when  
20 the patent issued, when DMF provided notice, and when ELCO began selling the  
21 accused products.

- 22           • February 9, 2014: applicant files patent application. Tr. Ex. 1 (noting  
23 priority date).
  - 24           • July 15, 2015: PTO rejects claims. Tr. Ex. 635 at 37.
  - 25           • January 20, 2016: applicant amends Claims 1-13, cancels Claims 14-15, and  
26 adds Claims 16-31. Id. at 68.
  - 27           • April 27, 2016: PTO issues final rejection. Id. at 73.
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- 1 • July 26, 2016: applicant amends Claim 10-13, withdraws other claims, and  
2 requests continuing examination. Id. at 92.
- 3 • April 17, 2017: applicant amends all claims. Id. at 133.
- 4 • July 26, 2017: PTO issues final rejection. Id. at 142.
- 5 • August 18, 2017: ELCO introduces its product to market.
- 6 • October 4, 2017: applicant requests interview with examiner. Id. at 172.
- 7 • October 26, 2017: applicant amends/cancels claims and adds new claims.  
8 Id. at 188.
- 9 • November 9, 2017: applicant requests reconsideration based on  
10 amendments. Id. at 194.
- 11 • November 16, 2017: examiner rejects proposed amendments. Id. at 190.
- 12 • December 6, 2017: applicant submits after-final consideration request. Id. at  
13 225.
- 14 • December 29, 2017: applicant and examiner conduct interview. Id. at 277.
- 15 • January 5, 2018: examiner rejects amendments. Id. at 225.
- 16 • January 16, 2018: applicant files second request for continued examination.  
17 Id. at 230.
- 18 • January 24 & 26, 2018: applicant and examiner conduct interviews. Id. at  
19 252.
- 20 • February 6, 2018: applicant files supplemental amendments. Id. at 258.
- 21 • March 6, 2018: examiner proposes new amendments. Id. at 280.
- 22 • March 26, 2018: notice of allowance issues. Id. at 272.
- 23 • May 8, 2018: patent issues. Id. at 288.
- 24 • August 3, 2018: DMF sends ELCO C&D letter. Tr. Ex. 159.
- 25 • August 10, 2018: ELCO confirms receipt of C&D letter. Tr. Ex. 789.
- 26 • August 15, 2018: DMF files suit. Dkt. 1.
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1           **C.     Legal Standard**

2           15.     To prove willful infringement, a plaintiff must show by a preponderance of  
3 the evidence that an infringer has engaged in conduct that is “willful, wanton, malicious,  
4 bad-faith, deliberate, consciously wrong, flagrant, or... characteristic of a pirate.” Halo  
5 Elecs., Inc. v. Pulse Elecs., Inc., 579 U.S. 93, 103-104 (2016).

6           16.     Willfulness “must necessarily be grounded exclusively in the accused  
7 infringer’s pre-filing conduct.” Soteria Encryption, LLC v. Lenovo United States, Inc.,  
8 No. CV 16-7958-GW(JPRx), 2017 WL 3449058, at \*3 (C.D. Cal. Feb. 27, 2017)  
9 (emphasis added); see also Finjan, Inc. v. Cisco Sys. Inc., No. 17-CV-00072-BLF, 2017  
10 WL 2462423, at \*4 (N.D. Cal. June 7, 2017) (lack of pre-suit “knowledge of the patents  
11 is fatal to [a] willfulness claim”) (collecting similar cases).

12           16.     Knowledge of the asserted patent is required for a finding of willfulness.  
13 Bayer Healthcare LLC v. Baxalta Inc., 989 F.3d 964, 988 (Fed. Cir. 2021); see also  
14 VLSI Tech. LLC v. Intel Corp., No. CV 18-966-CFC, 2019 WL 1349468, at \*1 (D. Del.  
15 Mar. 26, 2019) (willfulness requires “that [the accused infringer] knew about the  
16 asserted patents and that [the accused infringer] knew or should have known that its  
17 conduct amounted to infringement of those patents.”).

18           17.     Further, “[t]o establish willfulness, a patentee must show that the accused  
19 infringer had a specific intent to infringe at the time of the challenged conduct.” BASF  
20 Plant Sci., LP v. Commonwealth Sci. & Indus. Rsch. Org., 28 F.4th 1247, 1274 (Fed.  
21 Cir. 2022) (citation omitted).

22           18.     Whether an alleged infringer willfully infringed a patent turns on an  
23 analysis of the totality of circumstances. Liquid Dyns. Corp. v. Vaughan Co., Inc., 449  
24 F.3d 1209, 1225 (Fed. Cir. 2006).

25           19.     While there is no “rigid formula” for analyzing willfulness, the Read  
26 factors, which are normally used to analyze whether to award enhanced damages,  
27 provide a useful framework for considering whether infringement rises to the level of  
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1 willfulness. Apple Inc. v. Samsung Elecs. Co., Ltd., 258 F. Supp. 3d 1013, 1030 (N.D.  
2 Cal. June 23, 2017) (citing Read Corp v. Portec, Inc., 970 F.2d 816, 827 (Fed. Cir.  
3 1992)); see also Finjan, Inc. v. Blue Coat Sys., Inc., 2016 WL 3880774, at \*16 (N.D.  
4 Cal. July 18, 2016) (using Read factors to guide willfulness analysis).

5 20. The Read factors consider: (1) whether the infringer deliberately copied the  
6 ideas or design of another; (2) whether the infringer, when he knew of the other's patent  
7 protection, investigated the scope of the patent and formed a good-faith belief that it was  
8 invalid or that it was not infringed; (3) the infringer's behavior as a party to the  
9 litigation; (4) defendant's size and financial condition; (5) closeness of the case; (6)  
10 duration of the defendant's misconduct; (7) remedial action by the defendant; (8)  
11 defendant's motivation for harm; and (9) whether the defendant attempted to conceal its  
12 misconduct. Read, 970 F.2d at 827.

13 21. In conducting this analysis, the Court considers that conduct amounting to  
14 willfulness is reserved for egregious infringement behavior. Halo, 579 U.S. at 103.

15 **D. Objections to Evidence and Testimony**

16 22. Before, during, and after trial, the parties have raised voluminous objections  
17 to testimony and evidence proposed and presented. During trial, the Court generally  
18 received all of the evidence and reserved its rulings on admissibility until issuing its  
19 findings. Because the objections are voluminous, the Court declines to rule on them one-  
20 by-one. Instead, where the Court expressly relies on evidence to which a party has  
21 objected, that objection is overruled. The Court has provided explanations for select  
22 rulings where it is helpful to understand a finding. For the most part, it is unnecessary to  
23 provide individual rulings on objections because many objections relate to irrelevant  
24 evidence. The Court does not exclude that evidence, but instead gives it little weight. It  
25 is also unnecessary because, unless otherwise expressly noted, admitting evidence to  
26 which an objection was pending is not outcome determinative of any finding of fact in  
27 this order.



1           23. The Court provides a ruling on the overall objection to exclude Benya’s  
2 expert testimony as irrelevant and under Rule 37(c). Although DMF’s examination of  
3 Benya far exceeded that allowed by the Third Order, Dkt. 662 at 6-7, the Court will  
4 admit that testimony nonetheless as it relates to copying only. That is, the Court assumed  
5 infringement for the purposes of this bench trial and does not consider Benya’s  
6 testimony to have any weight insofar as it relates to infringement.

7           **E. Findings of Fact Relevant to Copying**

8           24. In 2014, ELCO became aware of DMF’s DRD2 product. TR1 88:10-12. In  
9 2015, ELCO obtained a sample of the DRD2 product for review. Id. at 88:23-89:3.  
10 ELCO’s engineering team sent samples of the DRD2 to manufacturers to see if the  
11 manufacturers could make a product like the DRD2 for ELCO. Id. at 89:4-18. In an  
12 email to its overseas manufacturer, ELCO described wanting to copy the DRD2  
13 “exactly.” TR2 88:13-17. Before sending the DRD2 to its manufacturer, ELCO removed  
14 DMF’s name from the products. TR1 91:15-19. In manufacturing its own version of the  
15 DRD2 product, ELCO called it the ELCO DRD2. Id. at 93:3-7. However, ELCO  
16 changed the product name as the unit was being developed. Id. at 119:3-7.

17           25. There is no question that ELCO copied DMF’s DRD2 product. During trial,  
18 the Court heard testimony regarding whether and to what extent the ELCO modules are  
19 copies of the DRD2. DMF’s lighting expert, Israel, testified that the DMF and ELCO  
20 modules were “identical” and “interchangeable” when installed. Id. at 36:15-22, 47:8-14.  
21 A former ELCO engineer, Nguyen, could not tell the difference between the two  
22 modules when presented with them at deposition. Nguyen Tr. at 208-214.<sup>4</sup> However,  
23 current ELCO engineer, Ardestani, described multiple differences between ELL module  
24 and DRD2, including different LEDs, changing of potting, an aluminum rather than  
25 plastic reflector, lack of grounding wire, different housing units, higher energy

26 \_\_\_\_\_  
27 <sup>4</sup> ELCO’s objection, Nguyen Tr. 210:8-13, is overruled. The follow-up questions  
28 demonstrate that the witness was able to view the sides of the products. See TR1 83:6-11.

1 efficiency, and a higher lumen output. TR1 119:15-120:17, 121:24-124:12. Overall, the  
2 testimony supports a finding that ELCO copied DMF's DRD2 product when it decided  
3 to produce its own similar product.

4 **E. Facts Relevant to Pre-Suit Notice State of Mind**

5 26. In connection with their product development process, starting in December  
6 2015, multiple ELCO employees – including Ardestani and Brandon Cohen – searched  
7 for patents covering the DRD2 module. Id. at 109:11-110:3, 170:6-24. ELCO employees  
8 did not find the pending application. On August 18, 2017, ELCO began selling its  
9 product.

10 27. On May 8, 2018, after multiple rounds of office actions and a final  
11 rejection, the '266 Patent issued.<sup>5</sup> Id. at 197:23-198:4; see also Tr. Ex. 1.

12 28. On August 3, 2018, DMF sent a cease-and-desist letter to ELCO. Tr. Ex.  
13 159.

14 29. On August 10, 2018, ELCO sent an email acknowledging receipt of the  
15 letter and stating they would retain legal counsel to respond. Tr. Ex. 1249.

16 30. On August 18, 2018, DMF sued ELCO. Dkt. 1.

17 30. ELCO changed its design “immediately” upon receiving the cease-and-  
18 desist letter and stopped selling what it believed DMF identified as an infringing version.  
19 TR2 47:22-48:1. However, ELCO continued to sell-off the initial version through  
20 September 2018. Id. at 73:20-74:4.<sup>6</sup>

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21  
22 <sup>5</sup> The Court overrules DMF's objection to the file history. See TR2 197:14-17. The  
23 Court can properly take judicial notice of the file history. See, e.g., Uniloc USA, Inc. v.  
24 ADP, LLC, Fed. Appx., 2019 WL 2245938, \*5 n.3 (Fed. Cir. 2019); Fed. R. Evid. 201.  
25 The Court notes that DMF also relies on the file history. See, e.g., Dkt. 720 at 1 & n.6.  
26 This ruling notwithstanding, the Court gives the file history little weight in its willfulness  
27 analysis because there is no evidence ELCO relied on it and it does not establish ELCO's  
28 state of mind, which is the key question for willfulness. Instead, it helps establish a  
29 timeline of when notice and infringement could have begun.

<sup>6</sup> ELCO's objection concerning sales of ELL modules is **OVERRULED**. TR2 102:8-13.  
Although this document was apparently not on the exhibit list, TR2 102:14-15, the

1 31. ELCO executive Brandon Cohen testified credibly that ELCO believed the  
2 '266 Patent was invalid over prior art because it "it really described a lot of [prior art]  
3 items [he] was familiar with." TR1 188:18-20, 189:18-190:5, 193:19-23; TR2 38:5-20.

4 32. ELCO believed that the patent was more similar to the prior art IMTRA  
5 product than the ELCO product. TR2 39:17-19; see also Tr. Ex. 1211 (non-privileged  
6 communication conveying invalidity beliefs to suppliers). Cohen provided prior art  
7 references to counsel and ELCO sent this invalidity contention to DMF on September  
8 21, 2018. TR1 211:15-19, 213:16-20; TR2 31:15-19; Tr. Ex. 164.<sup>7</sup>

### 9 III. CONCLUSIONS OF LAW

10 33. DMF bears the burden of proving willfulness by a preponderance of  
11 evidence. Halo, 579 U.S. at 107. Assuming ELCO's infringement of the '266 Patent for  
12 purposes of this Order, the Court finds and concludes that DMF has not met its burden in  
13 proving that ELCO's infringement was willful.

14 34. As an initial matter, ELCO cannot be liable for any willful infringement  
15 before the '266 Patent issued. Gustafson, Inc. v. Intersyss. Indus. Prods., Inc., 897 F.2d  
16 508, 510 (Fed. Cir. 1990) ("It is obvious that a party cannot be held liable for  
17 'infringement,' and thus not for 'willful' infringement, of a nonexistent patent").

18 35. However, "pre-patent conduct may also be used to support a finding of  
19 willfulness." Minnesota Min. and Mfg. v. Johnson & Johnson, 976 F.2d 1559, 1582  
20 (Fed. Cir. 1992). In particular, "[p]re-patent copying of the invention ... is relevant to the

21 \_\_\_\_\_  
22 witness was able to understand the document concerning the September 5, 2018 shipping  
23 date. TR2 103:10-24.

24 <sup>7</sup> The Court **SUSTAINS-IN-PART** DMF's objection to Ex. 164 and the discussion  
25 surrounding that correspondence. TR1 191:14-20. The Court sustains the objection to the  
26 extent the exhibit could be viewed as allowing ELCO to point to "[t]he existence of such  
27 a defense [to] insulate[] the infringer from enhanced damages, even if he did not act on  
28 the basis of the defense or was even aware of it." Halo Elecs., Inc. v. Pulse Elecs., Inc.,  
579 U.S. 93 (2016). The Court cites Ex. 164 only to provide chronological background  
and to show Cohen's actions, not to allow ELCO to rely on a later-developed litigation-  
inspired defense in defense of willfulness.

1 defendant’s state of mind after issuance,” and “the fact finder may look at ... pre-  
2 issuance copying ... to determine what the accused infringer’s state of mind was after  
3 issuance and notice of the patent.” Pelican Int’l v. Hobie Cat, 2023 WL 2127994, \*16-17  
4 (S.D. Cal. Feb. 10, 2023); see also Sonos, Inc. v. D&M Holdings, Inc., No. 14-1339,  
5 2017 WL 56332204, \*3-4 (D. Del. Nov. 21, 2017) (collecting cases of pre-patent  
6 conduct and copying supporting willfulness)).

7 36. Although pre-patent conduct may be relevant, the Supreme Court has  
8 cautioned that it is lawful to copy an unpatented product “slavishly down to the minutest  
9 detail.” Bonito Boats, Inc. v. Thunder Craft Boats, Inc., 489 U.S. 141, 157 (1989)  
10 (invalidating law restricting “ability to exploit an unpatented design”). Thus, it is the  
11 accused infringer’s state of mind during copying that is relevant, not simply the act of  
12 copying.

13 37. The Court will use the Read factors as a helpful guide in its willfulness  
14 analysis.

15 Factor 1:

16 38. The first Read factor - ELCO’s copying of the patented invention – supports  
17 a finding of willfulness. ELCO sent information on the DRD2 to its overseas  
18 manufacturer so they could copy it. TR1 135:15-17. ELCO developed its own ELL  
19 modules based on this copy, even calling the project the ELCO DRD2 in its early stages.  
20 TR1 at 93:3-7.

21 39. This supports a finding of willfulness, but the weight of this factor is  
22 somewhat diminished because the copying occurred several years before the patent  
23 issued. Nox Med. Ehf v. Natus Neurology Inc., No. CV 15-709-RGA, 2018 WL  
24 4062626, at \*4 (D. Del. Aug. 27, 2018), on reconsideration, No. 1:15-CV-00709-RGA,  
25 2018 WL 6427686 (D. Del. Dec. 7, 2018) (“That Defendant’s deliberate copying pre-  
26 dates the patent does not negate this finding, but does reduce its weight.”). DMF did not  
27 present evidence linking ELCO’s copying years before the patent issued to ELCO’s  
28

1 knowledge of the patent (e.g., no evidence suggested that, upon receiving the C&D  
2 letter, ELCO acted in such a way that it knew its earlier copies infringed and knew it's  
3 continued conduct would be infringing).

4 40. Moreover, as ELCO continued to develop its ELL modules, the features  
5 started to diverge from the DRD2 module. These differences included different LEDs,  
6 changed potting, an aluminum rather than plastic reflector, a lack of grounding wire,  
7 different housing units, higher energy efficiency, and a higher lumen output. TR1  
8 119:15-120:17; 121:24-124:12. Although infringement is assumed for purposes of this  
9 trial, and the Court does not opine on the impact of these changes, ELCO's decision to  
10 make changes may be relevant to its state of mind.

11 41. On balance, the changed features do not outweigh the copying that occurred  
12 during initial product design, and for the purposes of this order the changes do not defeat  
13 infringement. As a result, ELCO's copying of the patent supports a finding of willful  
14 infringement.

15 Factor 2:

16 42. The second Read factor – whether the infringer, when he knew of the  
17 other's patent protection, investigated the scope of the patent and formed a good-faith  
18 belief that it was invalid or that it was not infringed – weighs against a finding of  
19 willfulness. The evidence at trial shows that ELCO learned of the '266 Patent on August  
20 3, 2018, when DMF sent the C&D letter. DMF has not proven that ELCO learned of the  
21 patent (or the application) on an earlier date.

22 43. The Court heard testimony that multiple ELCO employees conducted  
23 searches for patents on the DRD2 module. TR1 109:11-110:3, 170:6-24. The Court finds  
24 this testimony credible and does not find that ELCO learned of the patent (or underlying  
25 application) before DMF sent the cease-and-desist letter.

26 44. Although the parties presented competing testimony on whether any  
27 relevant DMF products were marked "patent pending" (e.g., "twist and lock" feature  
28

1 versus DRD2 module), the Court finds that, given DMF's inconsistent and uncertain  
2 marking practices, the quality and quantity of ELCO's patent searches does not support  
3 bad faith, even where the searches might have been done more precisely. See TR1  
4 188:8-10; TR2 203:12-25; Ex. 1090A. The Court observes that, even after DMF  
5 obtained the '266 Patent, it did not mark the DRD2 product as patented until after this  
6 lawsuit was filed. TR2 207:15-208:4.

7 45. During the short period between when ELCO learned of the '266 Patent and  
8 when DMF filed suit (i.e., 12 days), the Court finds that ELCO's quick determination  
9 that the patent was invalid over prior art was not made in bad faith. See TR1 188:18-20;  
10 TR2 37:12-38:20, 39:2-10.

11 46. This timeline undermines DMF's suggestion that ELCO cannot rely on an  
12 invalidity defense because ELCO waived reliance on advice of counsel at trial.<sup>8</sup>  
13 Although ELCO undoubtedly formed its belief that the patent was invalid in conjunction  
14 with conversations with counsel, the Court acknowledges this belief for purposes of  
15 showing ELCO's pre-suit state of mind, not for the truth of the matter asserted (i.e.,  
16 whether counsel's advice was right). The point is not the specific details ELCO learned  
17 from counsel, but rather that, immediately after receiving the letter, ELCO took it  
18 seriously and responded.

19 47. DMF's C&D letter demanded a response within 7 days, and even after  
20 ELCO responded within that timeframe (acknowledging receipt and stating it would  
21 obtain counsel to analyze the letter), DMF sued ELCO 8 days later anyway. These  
22 events undermine the suggestion that any analysis and beliefs formed by ELCO during  
23 this short timeframe had to be bulletproof to avoid a finding of bad faith. Even if ELCO  
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27 <sup>8</sup> Throughout the trial, the Court cautioned the parties to avoid questioning that would  
28 invade advice of counsel or privileged conversations. See, e.g., TR2 211:20-23.

1 turned out to be wrong (in part) concerning invalidity,<sup>9</sup> DMF gave ELCO very little time  
2 to analyze the claims before filing suit.<sup>10</sup>

3 48. ELCO could have addressed the issues of infringement, invalidity, and any  
4 number of other issues in more detail had DMF not sued ELCO 12 days later, but given  
5 the facts presented, the relevant pre-suit notice period of 12 days does not demand  
6 perfection.

7 49. That Brandon Cohen could not remember details from 2018 or could not  
8 speak in terms of patent law as a lay witness does not undermine the series of events that  
9 occurred in the short window between the letter and the Complaint.

10 50. When willfulness is based on a cease-and-desist letter, the letter should  
11 provide sufficient time to respond before suit is filed. Sonos, Inc. v. Google LLC, 591 F.  
12 Supp. 3d 638, 644 (N.D. Cal. 2022). Moreover, there is no “universal rule that to avoid  
13 willfulness one must cease manufacture of a product immediately upon learning of a  
14 patent, or upon receipt of a patentee’s charge of infringement, or upon the filing of suit.”  
15 Gustafson, 897 F.2d at 511. Instead, willfulness is found only when an infringer

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18 <sup>9</sup> The Court notes that issuance of the patent was quite uncertain in view of multiple  
19 rejections; and after this litigation was filed, the PTAB invalidated Claim 17. Although  
20 neither point is relevant to prove ELCO’s then-existing state of mind (because there is no  
21 evidence ELCO knew of the application and rejections, and the PTAB proceedings  
22 occurred much later than the relevant pre-suit notice period), these facts may support the  
23 conclusion that ELCO did not act in a reckless manner when it decided to not  
24 immediately stop selling its products upon receiving the C&D letter. The Court relies on  
25 ELCO’s actions, however, not these external developments.

26 <sup>10</sup> The Court notes that ELCO sent a more fulsome response on September 21, 2018. Tr.  
27 Ex. 164. This response is outside the pre-suit notice period. But since it was sent so close  
28 in time to when the suit was filed, it may be illustrative of ELCO’s then-existing state of  
mind at the approximate time. Even if the Court ignores this response entirely, either  
because it was sent after the suit was filed or because it relies on advice of counsel, the  
Court would find that nothing in the record supports a finding of willful conduct during  
the pre-suit notice period from August 3, 2018 to August 18, 2018. Thus, this factor  
weighs against a finding of willfulness.

1 proceeds with “no doubts about [the] validity” or infringement of the patent. Halo, 579  
2 U.S. at 104.

3 51. DMF bookended the relevant pre-suit notice timeframe by deciding when to  
4 send the letter and when to file suit. DMF is bound by that choice in this analysis.

5 Third Factor:

6 52. The third Read factor – the infringer’s behavior as a party to the litigation –  
7 is neutral because it does not provide any insight into ELCO’s pre-suit state of mind  
8 concerning willfulness. Even if the Court considered it, no evidence presented at trial  
9 suggests that ELCO engaged in litigation misconduct supporting willfulness.

10 Fourth Factor:

11 53. The fourth Read factor – defendant’s size and financial condition – is  
12 neutral because it does not provide any insight into ELCO’s pre-suit state of mind as to  
13 willfulness.<sup>11</sup> Even if the Court considered it, no evidence was presented at trial  
14 suggesting that ELCO’s size and financial condition has any relevance.

15 Fifth Factor:

16 54. The fifth Read factor – closeness of the case – cannot be analyzed given the  
17 posture of the bench trial. It would be difficult to weigh the closeness of the case without  
18 making findings on the merits regarding infringement and validity, which have been  
19 assumed for the purposes of this trial.

20 55. At best, in an overarching sense, this factor is neutral. Each party has had  
21 some successes in its favor. DMF was granted a preliminary injunction, which required a  
22 showing of likelihood of success on the merits of its infringement claim, including for  
23 the redesigned products. Dkt. 147; see Am. Trucking Ass’n, Inc. v. City of Los Angeles,

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24  
25 <sup>11</sup> This factor is more relevant in the enhanced damages context after willfulness is  
26 found. For example, if the Court found willfulness and ELCO’s ability to function would  
27 be severely impaired by enhanced damages, this factor may weigh against such an award.  
28 See EagleView Techs., Inc. v. Xactware Sols., Inc., 522 F.Supp.3d 40, 51 (D.N.J. Feb.  
16, 2021).



1 559 F.3d 1046, 1052 (9th Cir. 2009). However, ELCO succeeded at invalidating one of  
2 the claims of the '266 Patent before the PTAB. Dkt. 325-2. Thus, to the extent the Court  
3 may consider this Read factor to inform willfulness, it is neutral.

4 Sixth Factor:

5 56. The sixth Read factor – the duration of defendant’s misconduct – weighs  
6 against willfulness. As stated, the '266 Patent issued on May 8, 2018. Tr. Ex. 1. DMF  
7 sent the cease-and-desist letter to ELCO on August 3, 2018. Tr. Ex. 159. The parties  
8 offered some competing evidence as to the precise day ELCO received the letter, but the  
9 earliest date is August 3, 2018. TR1, 15:23-16:4. The Court adopts this date, but finds no  
10 evidence that ELCO knew of the patent before then. TR2 203:18-22.

11 57. Although ELCO continued selling its ELL Modules until at a minimum  
12 September 5, 2018, and the redesigned models until the preliminary injunction issued in  
13 March 2019, the willfulness allegations in this case are based on pre-suit conduct and  
14 nothing in the 12-day pre-suit notice period suggests willfulness.<sup>12</sup> TR2 103:10-24; see  
15 also States Induss., Inc. v. A.O. Smith Corp., 751 F.2d 1226, 1236.

16 Seventh Factor:

17 58. The seventh Read factor – remedial action by the defendant – weighs  
18 slightly against willfulness. ELCO took remedial action after receiving the cease-and-  
19 desist letter from DMF by “immediately” changing its design based on the specific  
20 infringement allegations and proposed claim construction in the letter. TR1 at 127:19-  
21 128:1; TR2 47:22-48:1; Tr. Ex. 1279 at 2.

22 59. On balance, ELCO’s pre-suit notice conduct suggests an intent to remediate  
23 any infringement, not exacerbate it or act in bad faith. Even if the Court considers post-  
24 suit conduct and assumes ELCO was wrong that its redesigns do not infringe, the  
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26 <sup>12</sup> The Complaint alleges willfulness based on pre-suit conduct only. DMF did not  
27 amend its allegations or disclose a new theory as to post-suit conduct bolstering the  
28 alleged pre-suit conduct. See Dkt. 1; Dkt. 703-3; Tr. Ex. 1615 at 22-23. In any event, the  
evidence presented at trial does not support a finding of post-suit willfulness.

1 Court's order stopped the infringement, rendering the infringement period fairly short.  
2 Dkt. 147 at 13.

3 Eighth Factor:

4 60. The eighth Read factor – motivation to harm – weighs slightly in favor of  
5 willfulness. DMF presented evidence that ELCO was motivated to copy the DRD2  
6 module to keep from going out of business, and presented evidence that the future of  
7 ELCO's LED light fixture business was uncertain. TR1 87; TR2 85:8-20; Tr. Ex. 213.

8 61. This evidence supports an inference that ELCO could have preferred taking  
9 a risk of infringement to save its business. See Polar Eng., Inc. v. Campbell Co., 237 F.  
10 Supp. 3d 956, 993-994 (C.D. Cal. Feb. 27, 2017). Although DMF presented significant  
11 evidence that ELCO copied, the circumstantial evidence suggesting that DMF might  
12 have gone out of business is less persuasive so this factor is not weighed heavily.

13 62. DMF contends that ELCO copied the DRD2 technology “knowing the high  
14 risk it would be patented.” Dkt. 720 at 1. Setting aside the fact that DMF has not proven  
15 that ELCO knew or should have known of the patent application, DMF provides no  
16 authority for the proposition that willfulness encompasses something that might be  
17 patented in the future.

18 63. For example, DMF relies on K-Tec v. Vita-Mix, 696 F.3d 1364, 1378 (Fed.  
19 Cir. 2012), but in that case, the Federal Circuit considered copying of products protected  
20 by issued patents that the accused infringer knew about during prosecution, not products  
21 that were copied years before a patent issued. Unlike in this case, in K-Tec, the patentee  
22 notified the accused infringer that the relevant patent “would soon issue” and that the  
23 accused product “would infringe that patent.” Id. at 1370. The K-Tec record  
24 demonstrated that “[t]he day after the patent issued,” the accused infringer's CEO  
25 “knew” about it. Id. Thus, “K-TEC presented substantial evidence that Vita-Mix knew  
26 of the objectively high risk of infringing K-TEC's valid patents but decided to proceed  
27 anyway.” Id. at 1378.

28

1           64. As stated, “[p]re-patent copying of the invention ... is relevant to the  
2 defendant’s state of mind after issuance,” and “the fact finder may look at ... pre-  
3 issuance copying ... to determine what the accused infringer’s state of mind was after  
4 issuance and notice of the patent.” Pelican Int’l, 2023 WL 2127994, at \*16-17; see also,  
5 supra, ¶¶ 34-36 (summarizing relevant case law). The Court has applied this rule in  
6 considering the implications of ELCO’s pre-patent copying in this case. See, e.g., supra,  
7 ¶ 38 (pre-patent copying supports willfulness), ¶ 60 (pre-patent copying relating to  
8 motivation to harm). The Court declines to extend the authority relating to pre-patent  
9 copying in the manner suggested by DMF.

10           Ninth Factor:

11           65. The ninth Read factor – attempt to conceal – weighs slightly in favor of  
12 willfulness. Before sending DRD2 samples to its overseas manufacturer, ELCO removed  
13 DMF’s name from the products, suggesting it was trying to conceal its copying. TR1  
14 91:15-19. Even though ELCO was unaware of the patent application at this time, and  
15 indeed the patent did not issue until years later, removing the name suggests that ELCO  
16 attempted to distance itself from the fact that it copied the product.

17           66. This raises an inference that ELCO believed it should not be copying, which  
18 could have informed its state of mind upon learning of the ’266 Patent on August 3,  
19 2018.

20           67. Because ELCO’s decision to remove DMF’s name occurred years before  
21 the patent issued, however, and ELCO had only 12 days to analyze the specific  
22 allegations in the cease-and-desist letter (including conducting an invalidity analysis),  
23 this factor carries minimal weight.

24           Balancing of Factors and Totality Analysis:

25           68. After considering the above, non-exclusive factors in the context of the  
26 totality of the circumstances presented at trial, the Court finds that DMF has not proven  
27 by a preponderance of the evidence that ELCO engaged in conduct that was “willful,  
28

1 wanton, malicious, bad-faith, deliberate, consciously wrong, flagrant, or... characteristic  
2 of a pirate.” Halo, 579 U.S. at 103-104.

3 69. Although ELCO copied the unpatented DRD2 module early on in  
4 developing its own module, ELCO searched for patents during that timeframe and found  
5 none because none had issued.

6 70. The Court finds that ELCO’s witnesses testified credibly that they believed  
7 in good faith during the relevant pre-suit notice period of 12 days, which was curtailed  
8 by DMF, that the ’266 Patent was invalid. Alternatively, at a minimum, the Court finds  
9 that ELCO did not engage in conduct indicative of willfulness during that timeframe.

10 71. Further, the minimal duration of continued infringing conduct, of both the  
11 original and redesigned modules, lessens the impact of the decision to engage in pre-  
12 patent copying.

13 72. As the Court observed in its order on ELCO’s Rule 12(c) motion, “[t]he  
14 purpose of enhanced damages is to punish and deter bad actors from egregious conduct,  
15 not to provide a financial incentive for opportunistic plaintiffs to spring suits for patent  
16 infringement on innocent actors who have no knowledge of the existence of the asserted  
17 patents.” ZapFraud, Inc. v. Barracuda Networks, Inc., 528 F. Supp. 3d 247, 251 (D. Del.  
18 2021). Indeed, allowing ambush infringement claims to support willfulness would  
19 undermine “the worthwhile practice [of] send[ing] a cease-and-desist letter before suit.”  
20 Sonos, Inc. v. Google LLC, 591 F. Supp. 3d 638, 646 (N.D. Cal. 2022).

21 73. Applying these principals, the Court finds that the 12-day notice period  
22 afforded in this case was akin to a token ambush letter followed by filing suit. The trial  
23 record does not support a finding of willfulness under the totality of the circumstances.

#### 24 **IV. MOTION TO STRIKE**

25 ELCO moves to strike DMF’s lodging of deposition designations of James Keenly  
26 on the grounds that the designations are “entirely new after trial or not plausibly ‘fairness  
27 designations.” Dkt. 722 at 1; see also id. at 6 (cataloguing designations). ELCO states  
28

1 that DMF previously disavowed calling Keenley as a witness, and argues that it would  
2 be “obviously improper and highly prejudicial” to allow DMF to submit new evidence  
3 after trial. Id. at 6; see also Dkt. 732 (Reply).

4 DMF responds that its designations properly respond to ELCO’s non-compliant  
5 Keenley designations. Dkt. 729 at 1. The Court permitted DMF to make fairness  
6 designations, and the Court did not limit those passages to excerpts from DMF’s former  
7 Keenley designations. Id. DMF also argues that ELCO was required to move to strike  
8 within its closing brief, and in any event, ELCO did not properly note its objections in  
9 the margins of the deposition designations. Id. at 3. DMF argues that its counter-  
10 designations are proper fairness designations under Rule 32(a)(6). Id. at 3-4.

11 The Court finds that DMF’s counter-designations for Keenley may properly be  
12 received. Although DMF did not submit them until after trial, this issue arose on the first  
13 day of trial and given the short duration of trial, it is unsurprising that DMF filed them  
14 after the conclusion of trial. The Court finds that the designations are proper under the  
15 rule of completeness, and that including them will not prejudice ELCO. ELCO does not  
16 identify any prejudice, nor does ELCO propose any additional designations in view of  
17 DMF’s counter-designations. Accordingly, ELCO’s motion to strike is **DENIED**.

## 18 V. CONCLUSION

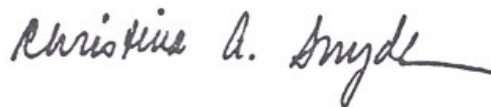
19 In accordance with the foregoing, the Court orders as follows:

- 20 1. Judgment in favor of ELCO on DMF’s willfulness claim is appropriate.
- 21 2. The Court enters its findings of fact and conclusions of law as stated herein.  
22 Within 7 days, ELCO shall file a proposed Judgment as to willfulness. Within 7 days of  
23 filing the proposed Judgment, DMF shall file any objections thereto. Upon entry of  
24 Judgment concerning willfulness, Federal Rule of Civil Procedure 52(b) will apply.
- 25 3. The Court **DENIES** ELCO’s motion to strike (Dkt. 722).
- 26 4. Within 14 days of this order, the parties shall file a Joint Report setting forth  
27 their respective and/or collective positions concerning a proposed timeline for their  
28

1 renewed settlement discussions and any other necessary case management dates. The  
2 Court defers setting a trial date until the settlement process has concluded and will do so  
3 only if it is determined that a trial on one or more issues remains necessary.

4 IT IS SO ORDERED.

5 Dated: December 11, 2023



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7 Christina A. Snyder  
8 UNITED STATES DISTRICT JUDGE  
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