

United States District Court  
Northern District of California

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**UNITED STATES DISTRICT COURT  
NORTHERN DISTRICT OF CALIFORNIA**

**JEFF YOUNG,**  
Plaintiff,  
  
v.  
**CREE INC.,**  
Defendant.

Case No. 4:17-cv-06252-YGR

**ORDER: (1) GRANTING MOTION TO STRIKE AND EXCLUDE DR. GARY ALLEN; (2) DENYING AS MOOT MOTION TO STRIKE AND EXCLUDE MR. STEFAN BOEDEKER; (3) DENYING RENEWED MOTION TO CERTIFY CLASS**

Re: Dkt. Nos. 115, 116, 117, 118, 127

Plaintiff Jeff Young brings this putative class action lawsuit against defendant Cree, Inc. alleging that Cree engaged in an “unfair and deceptive practice of . . . promising consumers” that Cree’s light-emitting-diode (“LED”) bulbs “will last for particularly long periods of time up to 35,000 hours” with a “100% Satisfaction Guarantee” and “yearly energy cost savings ranging from around \$0.60 to \$2 per blub per year” in violation of California’s Unfair Competition Law (“UCL”), Cal. Bus. Prof. Code §§ 17200, *et seq.* (Count I); California’s False Advertising Law (“FAL”), Cal. Bus. Prof. Code §§ 17500, *et seq.* (Count II); Consumers Legal Remedies Act (“CLRA”), Cal. Civ. Code §§ 1750, *et seq.* (Count III); fraudulent misrepresentation and concealment (Count IV); unjust enrichment (Count V); and breach of express and implied warranties (Count VI). (Dkt. No. 48, Amended Class Action Complaint (“ACAC”).)

Now before the Court are the following motions: (1) Young’s renewed motion for class certification (Dkt. No. 116); (2) Cree’s motion to strike the report and exclude opinions of Dr. Stefan Boedeker (Dkt. No. 117); and (3) Cree’s motion to strike the report and exclude opinions of Dr. Gary Allen. (Dkt. No. 118.)

1 Having carefully considered the pleadings and the papers submitted, as well as oral  
 2 argument from counsel on July 28, 2020, and for the reasons set forth more fully below, the Court  
 3 **HEREBY ORDERS** as follows: (1) Young’s motion for class certification is **DENIED**; (2) Cree’s  
 4 motion to strike the report and exclude opinions of Dr. Stefan Boedeker is **DENIED AS MOOT**; and  
 5 (3) Cree’s motion to strike the report and exclude opinions of Dr. Gary Allen is **GRANTED**.

6 **I. BACKGROUND<sup>1</sup>**

7 **A. Factual Background<sup>2</sup>**

8 The record evidence reveals the following:

9 Cree is a manufacturer of LEDs and lighting products. Cree launched its line of consumer  
 10 LED lightbulbs in 2013, and includes several different varieties, including A-type, reflector,  
 11 downlight, surface and disk mount, and candelabra bulbs. Each bulb type has variations for  
 12 different features, wattages, color temperatures and sizes, which affect a bulb’s thermal  
 13 properties.<sup>3</sup> Despite these differences, Cree believes its LED bulbs are a “premium product” as  
 14 opposed to a “high-volume average run-of-the-mill product.”

15 In general, LED bulb consumers have been driven, in part, to these products because the  
 16 overall value of the purchase driven by claims relating to a LED bulb’s extended lifetime or  
 17 energy efficiency savings. Indeed, studies in the record have confirmed that such consumers are  
 18 primarily driven by these longevity and cost saving claims based on energy efficiency.

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 21 <sup>1</sup> In conjunction with their motion for class certification and reply in support thereof,  
 22 Young has filed two Administrative Motions to Seal. (Dkt. Nos. 115, 127.) Both motions are  
 23 “brought solely pursuant to Rule 79-5(e)” based on material designated by defendant as  
 24 confidential or privileged. (Dkt. Nos. 115 at 2; 127 at 2.) Because Cree, as the designating party,  
 25 has failed to file a declaration establishing that all of the designated material is sealable, as  
 26 required by Rule 79-5(e)(1), the Court **DENIES** Young’s administrative motions to seal.

27 <sup>2</sup> The Court omits record citations in this section to expedite the issuance of this Order.

28 <sup>3</sup> Young avers, citing to his expert witness Dr. Allen, that “[c]osmetic differences in the  
 shape, color, size, or wattage of the LED Lightbulbs have no bearing in the analysis as to the  
 class-wide treatment of Cree’s uniform statements regarding longevity.” (Dkt. No. 115-4 at 11.)  
 Moreover, Dr. Allen contends that the Cree LED bulbs designs permit him to perform a class-wide  
 assessment to find defects common to the products at issue. The Court discusses these points in  
 the relevant section below.

1 Federal law and regulation control testing and, in part, information conveyed to consumers.  
 2 First, each of Cree’s lines of bulbs was certified as energy efficient under the federal government’s  
 3 ENERGY STAR program, which requires each bulb to pass industry-standard tests. Second,  
 4 ENERGY STAR guidelines require manufacturers to include certain information on the bulb itself  
 5 and the bulb’s packaging and advertising materials, including a standardized “Lighting Facts” box  
 6 which requires, among other things: (i) the bulb’s initial light output; (ii) estimated annual energy  
 7 costs in dollars calculated using the average initial wattage, a usage rate of three hours per day,  
 8 and \$0.11 per kWh; (iii) the life of the lamp expressed in years, calculated by using the bulb’s L70<sup>4</sup>  
 9 lifetime in hours and assuming operation of three hours a day; and (iv) the wattage for each lamp  
 10 expressed as “Energy Used” in average initial wattage.

11 There is some uniformity in the marketing and labeling of the products but the packaging  
 12 for each of its LED bulb products are not singular. Although each iteration of Cree’s bulb  
 13 packaging contains the mandatory Lighting Facts box, each product line of Cree’s bulbs has its  
 14 own distinct packaging with different images and statements, which changed throughout the  
 15 proposed class period even within each line of bulbs. Notably, no single iteration of Cree’s LED  
 16 bulb packaging contained all the statements Young identifies below as problematic in the renewed  
 17 motion for class certification.

18 Young and the proposed class highlight several claims which they assert are on every LED  
 19 lightbulb at issue: (1) energy and cost savings, such as “82% Less Energy Consumption” and  
 20 “\$226 Lifetime Energy savings”; (2) longevity and performance comparisons to other LED bulbs,  
 21 such as “Our LED bulbs work better and last longer”; and (3) “100% Satisfaction Guarantee.”  
 22 Young also points out that Cree’s non-labeling marketing strategy reinforces these claims, with  
 23 statements including:

- 24 • “[S]ave money now and save money later” by purchasing the “100-watt  
 25 Cree LED bulb [that] looks and lights like a traditional incandescent bulb,

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26  
 27 <sup>4</sup> “L70” is the number of hours of operation after which a bulb can be expected to emit at  
 28 least 70% of its initial light output, which Cree avers that the industry considers this metric the end  
 of an LED bulb’s useful life.

- 1 but uses 82% less energy and is designed to last 25 times longer.”
- 2 • The bulbs “look and light like an incandescent, while using up to 85% less
- 3 energy and lasting 25 times longer,” which are “Built to light and last.
- 4 Covered by Cree’s industry leading 10-year limited warranty.”
- 5 • “Unlike some others, Cree doesn’t compromise”
- 6 • “Long LED lifetime lasts 22+ years (25,000 hours), up to 2x as long as the
- 7 cheap LED bulbs.”
- 8 • With respect to its BR40 85W Replacement LED lightbulbs: “Longer LED
- 9 lifetime lasts 22+ years (25,000 hours), up to 6x as long as the cheap LED
- 10 bulbs.”

11 Cree has some influence over the pricing of its products through a Manufacturer’s

12 Suggested Retail Price (“MSRP”), but has no further control as to the actual retail pricing of its

13 products. The Home Depot (“THD”) was the exclusive retailer of Cree’s products when Cree

14 began selling its consumer bulbs in 2013. Today, however, while THD accounts for a significant

15 portion of its retail sales (approximately 85%), Cree also sells some bulbs through Amazon.com

16 and specialty lighting website 1000bulbs.com. At these retailers, Cree has no control over

17 whether these entities place its products on sale or clearance, or on how THD merchandises its

18 bulbs within stores. Furthermore, the pricing of Cree consumer bulbs varies from line to line,

19 though, pricing of all of its consumer bulbs has generally decreased over time. The pricing of

20 each product can also be affected by the sale of multipack of bulbs, and rebates offered by various

21 utility companies.

22 For each of Cree’s lines of bulbs, Cree has implemented multiple generational changes

23 between 2013 and today. As a result of Cree’s manufacturing improvements and generational

24 changes, bulbs within the same product line may be from different generations, and bulbs within

25 the same generation may have been manufactured using different processes or components.

26 Retailers do not keep track of generational changes in bulbs, so there is no way to track which

27 generation of bulb each consumer purchased. As retailers control the sale of and stocking of Cree

28 products, consumers may see on the same day different generations of Cree products or packaging.

1 Cree highlights that consumers may ultimately use the bulbs differently. For instance,  
2 consumers may be using bulbs in a manner that is contrary to a bulb’s instructions and warnings.  
3 Moreover, consumers may also be selling bulbs on the “gray market”—buying large quantities of  
4 bulbs and reselling them online for profit.

5 Cree has also offered consumers various warranties since 2013, the length and terms of  
6 which have changed over time and varies from product line to product line. Those bulbs  
7 purchased from THD can return the products to THD subject to their return policy or initiate a  
8 warranty claim directly to Cree. Since 2013, Cree’s return and warranty claim rates have both  
9 been less than 2%, which Cree asserts is very low by industry standards. Although the specific  
10 warranties may have changed, Cree’s customer service department has followed a “satisfaction  
11 guaranteed” policy and offers replacement bulbs to dissatisfied customers even if they do not  
12 comply with or fall within the warranty terms.

13 To Cree’s knowledge, it is not aware of any product of manufacturing defects that affect  
14 the expected lifetime of its consumer bulbs, nor has it been the subject of what it defines as  
15 unusually high consumer complaints or warranty returns. In short, Cree avers that its consumer  
16 bulbs have never experienced catastrophic failure at an unusually high rate.

17 With regards to Young specifically: In April 2015, Young purchased three 100W  
18 replacement dimmable LED lightbulbs from a THD store in Windsor, California, paying  
19 approximately \$15 to \$20 per bulb. Young avers that he reviewed the represents on the label,  
20 including those about longevity, cost savings, and warranty, and further recalls viewing television  
21 advertisements containing longevity representations. Young inserted these bulbs into his wall  
22 sconces, where they burned out within six months to a year of use. In August 2016, Young  
23 emailed Cree regarding the failed LED bulbs, but never received a response.

24 Based on the foregoing, Young and the proposed class assert that they paid a premium  
25 because of these allegedly false, deceptive and misleading marketing representations regarding  
26 longevity. As alleged in the operative complaint, Cree LED “failed well before the promised time  
27 frame.” (ACAC ¶ 34.)  
28

**B. Procedural Background**

The parties had previously engaged in briefing on class certification and related *Daubert* motions. (See Dkt. Nos. 79, 85, 93.) On May 28, 2019, the Court heard oral argument on these motions. (See Dkt. No 107.) The following day, for reasons stated on the record at the oral argument, the Court denied without prejudice the motion for class certification, and denied as moot the pending *Daubert* motions. (See Dkt. No. 109.) The Court thereafter set a briefing schedule on this round of briefing (see Dkt. No. 113), which was later modified due to the onset and continuation of the ongoing coronavirus (COVID-19) pandemic. (See Dkt. No. 124.)

Young now seeks in his renewed motion to certify the following class: “All persons in California who purchased Cree LED Lightbulbs for end use, and not resale, during the period from March 2013 to the present (the “Class”).” (Dkt. No. 116 at 9-10.) Cree’s opposition contends that Young’s claims fail to satisfy commonality, typicality, and adequacy of representation, in addition to the requirements under section (b)(3). (See generally Dkt. No. 119.) In support of this motion, Young provides two expert reports: first, a report of expert Dr. Stefan Boedeker, who Young hired to “ascertain if it is possible to quantify economic losses to [p]laintiff and [putative] class members” and “provide a framework for the computation of class-wide damages” (Dkt. No. 115-18 (opening report), ¶ 14; see also Dkt. No. 116-2 at 9-170 (rebuttal report)); second, a report of expert Dr. Gary R. Allen, who Young hired “to determine whether a common failure mode exists for a discrete set of LED lamps[.]” (Dkt. No. 115-17 (“Allen Report”), ¶ 2; see also Dkt. No. 126-1 at 3-51 (“Allen Rebuttal”).) Cree seeks to strike the reports of and exclude opinions of Young’s expert witnesses, Boedeker and Allen. (Dkt. Nos. 117, 118.)

**II. LEGAL FRAMEWORK****A. *Daubert* Motion Standard**

Federal Rule of Evidence 702 permits opinion testimony by an expert as long as the witness is qualified and their opinion is relevant and reliable. An expert witness may be qualified by “knowledge, skill, experience, training, or education.” Fed. R. Evid. 702. The proponent of expert testimony has the burden of proving admissibility in accordance with Rule 702. Fed. R. Evid. 702, Advisory Committee Notes (2000 amendments). An expert should be permitted to

1 testify if the proponent demonstrates that: (i) the expert is qualified; (ii) the evidence is relevant to  
2 the suit; and (iii) the evidence is reliable. *See Thompson v. Whirlpool Corp.*, 2008 WL 2063549,  
3 at \*3 (W.D. Wash. 2008) (citing *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589-90  
4 (1993) (*Daubert I*)). Moreover, at the class certification stage, the Court does not make an  
5 ultimate determination of the admissibility of an expert's opinions for purposes of a dispositive  
6 motion or trial. *Dukes v. Wal-Mart Stores, Inc. (Dukes II)*, 603 F.3d 571, 602 n. 22 (9th Cir.  
7 2010) *rev'd on other grounds* by 564 U.S. 338 (2011); *Millenkamp v. Davisco Foods Int'l, Inc.*,  
8 562 F.3d 971, 979 (9th Cir. 2009). Rather, the court considers only whether the expert evidence is  
9 "useful in evaluating whether class certification requirements have been met." *Tait v. BSH Home*  
10 *Appliances Corp.*, 289 F.R.D. 466, 495-96 (C.D. Cal. 2012) (citing *Ellis v. Costco Wholesale*  
11 *Corp.*, 657 F.3d 970, 982 (9th Cir. 2011)); *see also Rai v. Santa Clara Valley Trans.*, 308 F.R.D.  
12 245, 264 (N.D. Cal. 2015). At class certification, "the relevant inquiry is a tailored *Daubert*  
13 analysis which scrutinizes the reliability of the expert testimony in light of the criteria for class  
14 certification and the current state of the evidence." *Id.* For scientific opinions, they must be based  
15 on scientifically valid principles. *Daubert I*, 509 U.S. at 589.

#### 16 **B. Motion for Class Certification**

17 Under Federal Rule of Civil Procedure 23(a), a court may certify a class only where "(1)  
18 the class is so numerous that joinder of all members is impracticable; (2) there are questions of law  
19 or fact common to the class; (3) the claims or defenses of the representative parties are typical of  
20 the claims or defenses of the class; and (4) the representative parties will fairly and adequately  
21 protect the interests of the class." Fed. R. Civ. P. 23(a). Courts refer to these four requirements as  
22 "numerosity, commonality, typicality[,] and adequacy of representation." *Mazza v. Am. Honda*  
23 *Motor Co., Inc.*, 666 F.3d 581, 588 (9th Cir. 2012).

24 Once the threshold requirements of Rule 23(a) are met, plaintiffs must then show "through  
25 evidentiary proof" that a class is appropriate for certification under one of the provisions in Rule  
26 23(b). *Comcast Corp. v. Behrend*, 569 U.S. 27, 33 (2013). Here, plaintiff seeks certification  
27 under Rule 23(b)(2) and Rule 23(b)(3). Rule 23(b)(3) requires a plaintiff to establish "that the  
28 questions of law or fact common to class members predominate over any questions affecting only

1 individual members, and that a class action is superior to other available methods for fairly and  
2 efficiently adjudicating the controversy.” Fed. R. Civ. P. 23(b)(3). The predominance inquiry  
3 focuses on “whether proposed classes are sufficiently cohesive to warrant adjudication by  
4 representation.” *Hanlon v. Chrysler Corp.*, 150 F.3d 1011, 1022 (9th Cir. 1998) (quoting *Amchem*  
5 *Prods., Inc. v. Windsor*, 521 U.S. 591, 623 (1997)).

6 “[A] court’s class-certification analysis must be ‘rigorous’ and may ‘entail some overlap  
7 with the merits of the plaintiff’s underlying claim.’” *Amgen, Inc. v. Conn. Ret. Plans & Trust*  
8 *Funds*, 568 U.S. 455, 456-66 (2013) (quoting *Wal-Mart Store, Inc. v. Dukes*, 564 U.S. 338, 351  
9 (2011) (*Dukes*)); *see also Mazza*, 666 F.3d at 588. The Court considers the merits to the extent  
10 they overlap with the Rule 23 requirements. *Ellis*, 657 F.3d at 983. The Court must resolve  
11 factual disputes as “necessary to determine whether there was a common pattern and practice that  
12 could affect the class *as a whole*.” *Id.* (emphasis in original). When resolving such factual  
13 disputes in the context of a motion for class certification, district courts must consider “the  
14 persuasiveness of the evidence presented.” *Ellis*, 657 F.3d at 982. “A party seeking class  
15 certification must affirmatively demonstrate [its] compliance with the Rule.” *Dukes*, 564 U.S. at  
16 350. Ultimately, the Court exercises its discretion to determine whether a class should be  
17 certified. *Califano v. Yamasaki*, 442 U.S. 682, 703 (1979).

### 18 **III. ANALYSIS**

19 The Court first address the pending *Daubert* motion regarding Dr. Allen given its  
20 importance for the underlying motion for class certification. For the reasons set forth below, the  
21 Court finds that the *Daubert* motion as to Dr. Allen is well-taken and that its exclusion from the  
22 class certification analysis is fatal to the request to certify the class. Consequently, the Court  
23 declines to rule on the *Daubert* motion as to Dr. Boedeker as the issue is moot.

#### 24 **A. *Daubert* Motion as to Dr. Allen**

25 Young primarily relies on Dr. Allen to identify alleged defects that are common to the  
26 architecture of the Cree LED lightbulbs in order to support his burden of the commonality factor  
27 under Rule 23(a) and the predominance inquiry under Rule 23(b)(3). Cree does not challenge Dr.  
28 Allen’s credentials, experience, or his background. Instead, Cree focuses on his evaluations and



1 assessments, including as to the procedures, assumptions and ultimate opinions. The Court  
 2 summarizes his background and the relevant substance of both his opening and rebuttal reports, as  
 3 well as other relevant evidence in the record, before analyzing his reports under the *Daubert*  
 4 standard.

5 *1. Relevant Background and Summary*

6 Dr. Allen has a Ph.D. and a Masters of Science in astrophysical sciences from Princeton  
 7 University and in addition to degrees from Pennsylvania State University. (Allen Report ¶ 5.) Dr.  
 8 Allen conceived and designed the world’s first LED replacement lamp to be certified under the  
 9 ENERGY STAR program. (*Id.* ¶ 4.) As described in depth in his report, he has decades of  
 10 experience with research and industrial institutions in the fields of lighting, applied physics,  
 11 product design, and patent generation and analysis as the principal engineer and engineering  
 12 manager of GE Lighting and as a research physicist with Sylvania Lighting. (*Id.* ¶¶ 6-10.) Dr.  
 13 Allen has primarily been an expert witness in patent infringement cases, but has also testified as an  
 14 expert witness in a breach of a non-disclosure agreement matter. (*Id.* ¶ 1.)

15 As disclosed in his expert report, Dr. Allen was hired “to determine whether a common  
 16 failure mode exists for a discrete set of LED lamps[,]”<sup>5</sup> which he identifies as thirty Cree LED  
 17 bulbs.<sup>6</sup> (*Id.* ¶ 2.)

18 While Dr. Allen’s report is quite technical, his fundamental methodology is quite  
 19 simplistic. To conduct his analysis, Dr. Allen grouped together similar Cree LED bulbs, tested a  
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21 <sup>5</sup> Dr. Allen utilizes the term “lamp” in its technical meaning used in the lighting  
 22 manufacture industry which defines “lamp” as “a self-contained light source powered by  
 23 electricity and producing light” which is “equivalent to what is commonly called a “light bulb.”  
 24 (*Id.* ¶ 12.) Dr. Allen further clarifies that he defines an “LED lamp” as a lamp whose light is  
 25 produced by an LED in contrast to an LED which “is generally contained inside the [l]amp.” (*Id.*)  
 26 Dr. Allen also defines “fixture” as “hardware that holds the [l]amp in place in its application,”  
 more commonly recognized as a “table lamp, floor lamp, desk lamp, etc. having an Edison-style  
 socket that the lamp screws into [sic].” (*Id.*) The Court provides these defined terms to clarify  
 quoted sections from Dr. Allen’s report. This Order uses the term “bulb” or “lightbulb” and  
 “lamp” interchangeably unless otherwise noted.

27 <sup>6</sup> Dr. Allen clarifies that his opinions only extend insofar as those lamps listed in Table 2  
 28 of his opening report. (*See* Allen Rebuttal ¶¶ 1 n.1, 18.) Cree notes that it makes more LED  
 lamps than those identified in this table. (*See* Dkt. No. 132-2 (“Vollers II Decl.”) ¶ 59.)

1 fraction of them, and then extrapolated his conclusions across a wide array of Cree products.  
2 Thus, Dr. Allen reviewed the packaging of 43 types of LED bulbs sold during the class period,  
3 and sorted them by manufacturer part number. (*Id.* ¶ 12.) Next, he narrowed the 43 bulbs down to  
4 30 on the ground that each of the 30 provided either a 5- or 10-year warranty and had some type of  
5 claimed lifetime energy savings. (*Id.*)

6 Dr. Allen then grouped the 30 by focusing on the design elements related to reliability and  
7 useful life of the product in consumer applications. (*Id.*) From this grouping, Dr. Allen concluded  
8 that many of these designs were “functionally equivalent” designs that share the following  
9 attributes: bulb shape, lamp architecture, lumens, wattage equivalent, LED wattage, and rated  
10 lifetime. (*Id.* ¶ 14.) Dr. Allen first categorized the 30 Cree LED bulbs into seven “Cree LED  
11 Lamp Designs.” (*Id.*) Thereafter, Dr. Allen further narrowed the groupings into four “LED Lamp  
12 Design Architectures” “based on their fundamental design architecture and visual appearance”:

13 (1) the FT21 Design Architecture; (2) the FT19 Design Architecture; (3) the 4F19 Design  
14 Architecture; and (4) the BRHS Design Architecture. (*Id.* ¶ 15.)<sup>7</sup> Notably, Dr. Allen’s  
15 categorizations were not based on any physical inspection of even a single Cree LED lamp, but  
16 rather resulted from reviewing photographs or PDF images. (*Id.* ¶¶ 12-16; Dkt. No. 120-10  
17 (Richter Decl. Ex. 10) (“Allen Dep.”) at 40:18-42:14.)<sup>8</sup>

18 Dr. Allen then moved into a testing phase. He purchased approximately ten Cree LED  
19 bulbs from third-party internet sellers,<sup>9</sup> which he contends are representative of the seven LED  
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21  
22 <sup>7</sup> Dr. Allen notes that at the time of his opening report, two of the seven Cree LED Lamp  
23 Designs, the FT18 and the FT9.0, were not commercially available. (*Id.* at ¶ 16.) Dr. Allen noted  
24 that the FT18 is functionally equivalent to a FT18/3w (3-way lamp) that is functionally equivalent  
when operating on the 100 W setting. (*Id.*) For the FT9.0, Dr. Allen notes there is a FT9.5 that  
has 0.5W difference in operating power, which he discounts in his later analysis. (*Id.*)

25 <sup>8</sup> The use of photographs and the narrowing of designs into design groups and then  
26 further into architecture design groups are neither an industry standard or industry practice, nor is  
it based upon any peer reviewed or generally scientific or technical principles. (*See* Allen Report  
¶¶ 12-16; Allen Dep. at 41:5-42:14; Dkt. No. 119-2 (“Vollers I Decl.”) ¶¶ 18, 20.)

27 <sup>9</sup> Dr. Allen provides no evidence on the storage conditions of the LED lamps prior to  
28 purchase, nor is he aware of whether these lamps were used previously, although he testified that  
these LED lamps were in the original packaging at the time of purchase. (Allen Dep. at 58:3-

1 Lamp Design and four LED Lamp Design Architectures. The ten Cree LED bulbs represent five  
 2 of the seven identified Cree LED Lamp Designs, specifically: four FT19 lamps (two from the  
 3 FT9.5 Lamp Design, and two from the FT6 Lamp Design), two FT21 lamps (FT18/3w Lamp  
 4 Design), two 4F19 lamps (4F10 Lamp Design), and two BRHS lamps (BR30 Lamp Design), all  
 5 manufactured in different years from 2013 to 2016. (Allen Report ¶¶ 3, 15, 16, 42 (Table 6).) Dr.  
 6 Allen did not take into consideration the various generations of each Lamp Architecture, and  
 7 instead focused solely on samples from only one or two manufacturing weeks in 2013 and 2016.  
 8 (Allen Dep. at 44:18-45:14; 88:12-89:6.)

9 Dr. Allen subjected these ten bulb samples to: (1) a visual inspection of the LED bulbs;  
 10 (2) temperature measurement and testing; and (3) a comparison to market competitors to  
 11 corroborate the results of his testing. (Allen Report ¶¶ 12-16, 17, 62-69.) In considering the data  
 12 generated by his tests, he compared his own data with Cree’s internal laboratory test results,  
 13 including those showing temperature data. (*Id.* ¶ 20.)

14 With respect to the thermal tests, Dr. Allen took infrared images and temperature  
 15 measurements of certain basic components and subsystems that are found in all LED lamps,  
 16 including the LEDs themselves, drivers, electrolytic capacitors, heat sink, and the envelope or  
 17 optics. (*Id.* ¶¶ 17-19.) Specifically, Dr. Allen disassembled one of the two LED lamps that he  
 18 purchased for each available Lamp Design, and recorded temperature measurements on LED  
 19 lamps operating for approximately 2.5 hours at: (i) the heat sink; (ii) electrolytic capacitor; and  
 20 (iii) the printed circuit board (“PCB”), upon which the LEDs are soldered. (*Id.* ¶ 42.) Dr. Allen  
 21 performed these measurements in 25° C (75° F) ambient air, and thereafter extrapolated those  
 22 temperatures to expected performance at 45° C (113° F) ambient air. (*Id.* ¶¶ 41-46.) During his  
 23 deposition, Dr. Allen conceded that to adequately test the expected lifetime of Cree LED lamps, he  
 24 would have needed to perform extended reliability testing on a large number of Cree LED lamps.  
 25 (Allen Dep. at 18:6-15.) He did not do; nor did he explain why. Importantly, Dr. Allen’s report  
 26 did not reveal that any of the Cree LED lamps that he tested catastrophically failed during his

27 \_\_\_\_\_  
 28 59:11.)

1 inspection.<sup>10</sup>

2 Instead, Dr. Allen merely created a purported “methodology” to compare the temperature  
3 measurements recorded after 2.5 hours of use to what he refers to as a “Target Maximum.” This  
4 purported methodology was specifically developed for this litigation and is not based on any  
5 industry standard, peer-reviewed analysis, or generally accepted scientific or technical principles.  
6 (Allen Report ¶¶ 22, 23; Allen Dep. at 111:24-112:13.)

7 By way of background, in the lighting industry, component manufacturers typically  
8 publish specification sheets that state the maximum operating temperature at which the component  
9 should operate in order to achieve a target lifetime. (Vollers I Decl. ¶¶ 35-39.) Dr. Allen’s Target  
10 Maximums are as much as 20° C, or 68° F, *below* the rated temperature for these components.  
11 (Allen Report ¶¶ 42-45.) The “Target Maximums” are based solely on Dr. Allen’s own  
12 conservative, personal design opinions for good guidelines. He concedes that no publication or  
13 source reflects any maximum temperature threshold. (Allen Report ¶¶ 22, 23; Allen Dep. at  
14 111:24-112:13.)<sup>11</sup>

15 Dr. Allen concluded, based on the foregoing categorizations and temperature analyses that,  
16 despite cosmetic variation, all the LED bulbs run “too hot” which stresses the electronic  
17 components beyond what they can handle and results in premature “failures” and shortened

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18  
19 <sup>10</sup> The parties briefing and the record reflects that there are generally two types of failures:  
20 the first, catastrophic failure, is where the LED lamp fails completely. The second, parametric  
21 failure, includes LED lamp failure on other metrics, including lumen depreciation, color shift, and  
22 flicker. Importantly, Dr. Allen does not provide a methodology to evaluate LED lamps for  
23 failures on a class wide basis, and concedes that some people may have increased ability to  
24 visually detect flicker in lights than others. (*See* Allen Rebuttal ¶ 80; Vollers II Decl. ¶ 71.)

25 <sup>11</sup> For example: Dr. Allen opines that he believes the LED junction temperature, which is  
26 measured at the PCB onto which the LEDs are soldered, should not exceed 105° C for Cree LED  
27 lamps, despite that the LEDs used in the evaluated lamps are rated to exceed 25,000-hour  
28 ENERGY STAR requirements at 125° C. (Allen Report ¶ 26.) As for the electrolytic capacitor,  
Dr. Allen selected either 72° C or 82° C as the Target Maximum even though these capacitors that  
were evaluated have a 25,000 hour rated lifetime at 92° C. (Allen Report ¶ 27; Dkt. No. 132-1  
 (“Fang II Decl.”) ¶¶ 17-18.) For the heat sink, Dr. Allen noted that there is no industry standard  
for the maximum operating temperature of a heat sink, but that he adopted a “personal guideline”  
to strive to keep the heat sink temperature below 75° C in order to keep the “touch point,” or  
temperature of the exterior of an operating bulb, sufficiently low, for the sole purpose of ensuring  
that a consumer can comfortably touch the lamp’s exterior. (Allen Report ¶ 28.) How touch is  
relevant is never made clear.

1 lifespans. (Allen Report ¶¶ 3, 24, 42 & Table 6.) Specifically, Dr. Allen concluded that some of  
2 the Cree LED lamps would exceed the Target Maximums when operated at 25° C (75° F), and  
3 many more would exceed his Target Maximums when he extrapolated measurements to 45° C  
4 (113° F). (*Id.* ¶¶ 3, 43-46.)

5 Utilizing these measurements, Dr. Allen calculated the difference between the expected  
6 lifetime of a Cree LED lamp and his conservative target design that would have used his Target  
7 Maximums by applying what he refers to as a “Rule of Thumb,” namely “[a]n operating]  
8 temperature increase of 10C is generally accepted as cutting the life of [an electronic component  
9 in half.” (*Id.* ¶ 22.) In applying this rule of thumb, Dr. Allen focused particular attention on the  
10 electrolytic capacitor, and opined that the operating temperature of Cree LED lamps would cause  
11 the electrolytic capacitors to fail prematurely. (*Id.* ¶ 46.) Dr. Allen found that the premature  
12 failure is so significant that the LED bulbs will “commonly experience failure in advance of the  
13 advertised product life ([less than one] year)” with a “failure rate [that] would be abnormally  
14 high.” (*Id.* ¶ 3; Allen Dep. at 19:17-18.)<sup>12</sup>

15 While Dr. Allen found that Cree LED bulbs would commonly experience failure within  
16 one year, Dr. Allen’s report has noteworthy caveats. First, Dr. Allen could not quantify the  
17 number or percentage of Cree LED Lamps that would, in his opinion, fail in less than one year.  
18 (*Id.* at 17:25-18:20, 22:5-17.) Indeed, while Dr. Allen avers that his report confirms that there is a  
19 defect, his report assumes an inference that Cree LED lamps are defective based on the allegations  
20 of this lawsuit. (*Id.* at 83:19-84:24.) Second, Dr. Allen did not reconcile or address Cree’s own  
21 reliability testing results, reflecting that Cree LED lamps perform within stated temperature  
22 tolerances and are not expected to commonly experience premature failures. (*Id.* at 78:4-79:12.)<sup>13</sup>

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<sup>12</sup> Although Dr. Allen does not elaborate in his report what “failure” the defect causes, the record reflects that, in general: (1) an LED failure would mean that an LED lamp would emit less light, or color shift, which means that the color temperature of the Lamp may shift warmer (Vollers I Decl. ¶ 57); and (2) a failure of the electrolytic capacitor would result in a flicker that most, but not all, humans cannot perceive. (Dkt. No. 119-4 (“Fang I Decl.”) ¶¶ 21-24.) Dr. Allen did testify in his deposition that higher temperatures of the electrolytic capacitor “would mean higher stress on [it], and likely a shorten lifetime.” (Allen Dep. at 107:1-3.)

<sup>13</sup> Dr. Allen did not address the evidence reflecting a low return and warranty claim rate on Cree LED lamps. (*Id.* at 20:9-21:9; 91:25-92:8; 96:5-97:3.)

1 Finally, in Dr. Allen’s rebuttal report, he introduces additional arguments in support of his  
 2 opening report, including: (1) citing to a new methodology and studies that subject LED lamps to  
 3 on-off switching that Dr. Allen avers proves that Cree LED lamps will fail prematurely; and  
 4 (2) performed statistical analysis of THD’s records of returned Cree LED lamps. (Allen Rebuttal  
 5 ¶¶ 38-44, 76-77.) Further, Dr. Allen withdrew two lamp types set as defective from his analysis:  
 6 specifically, Dr. Allen states that he “did a separate thermal analysis of the 40 W and 60 W version  
 7 of the FT19 and found that the 40 W version” – which Dr. Allen refers to as the FT6.0 lamp type –  
 8 “is not overheated enough for [him] to opine that it will fail prematurely.” (*Id.* ¶¶ 21, 78; *see also*  
 9 Vollers II Decl. ¶ 64 (noting Dr. Allen’s err in assuming similar thermal problems with different  
 10 wattage LED lamps).). Additionally, Dr. Allen clarified that although he included the lamp type  
 11 FT9.0 in his FT19 Lamp Architecture Group, he does not actually have an opinion about that  
 12 lamp, stating: “There are no Opinions provided for the FT9.0 because there are no samples  
 13 available for procurement of that LED Lamp.” (Allen Rebuttal ¶ 64.)

## 14 2. Analysis

15 Cree challenges two of Dr. Allen’s methodologies and assessments made in his opinions:<sup>14</sup>  
 16 (a) the LED Lamp Design and LED Lamp Design Architecture methodology and classification;  
 17 and (b) the Target Maximum methodology and conclusions. Cree further moves to strike new  
 18 opinions and methodologies that were absent in Dr. Allen’s Rebuttal, namely: (i) Dr. Allen’s  
 19 citations to new methodology and studies that subject LED lamps to on-off switching that he  
 20 claims proves Cree LED lamps will fail premature; and (ii) Dr. Allen’s purported statistical  
 21 analysis of the THD’s records of returned Cree LED lamps. The Court addresses each in turn.<sup>15</sup>

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22  
 23 <sup>14</sup> Cree does not challenge Dr. Allen’s credentials. Dr. Allen is a well-credentialed,  
 knowledgeable, and experienced individual in the area of LED lamp design.

24  
 25 <sup>15</sup> As an initial matter, Young seeks to exclude declarations from Jonathan Vollers and  
 Yuan Frank Fang on the basis that Cree did not attempt to qualify them or submit their testimony  
 26 as experts. With respect to Vollers, the Court **DENIES** this request where Young did not object to  
 Vollers earlier declaration during the briefing on the first motion for class certification (*see* Dkt.  
 27 No. 86-3), and, being on notice of the same, has not shown any prejudice or denial of a deposition.  
 With respect to Fang, the Court **DENIES AS MOOT** this request, where Fang’s declarations do not  
 28 materially impact the Court’s analysis, and citations to Fang’s declarations otherwise are in  
 addition to citations from other sources in the record.

1 a. LED Lamp Design and LED Lamp Design Architecture

2 With respect to the LED Lamp Design and LED Lamp Design Architecture methodology  
3 and classification, Cree argues that Dr. Allen’s analysis is not based on any accepted methodology  
4 and was solely created for purposes of this litigation. Young disagrees claiming that Dr. Allen’s  
5 categorization is based on solid engineering principles and does not need to be based on a peer-  
6 reviewed methodology.

7 To determine whether a scientific opinion is sufficiently reliable to be admissible, the  
8 Court must “analyze not what the expert[s] say[is], but what basis they have for saying it.”  
9 *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1216 (9th Cir. 1995) (*Daubert II*). Scientific  
10 methodology can be reliable if: (i) the methodology can and has been tested; (ii) the methodology  
11 has been subjected to peer review; (iii) the known or potential rate of error for the technique has  
12 been addressed; or (iv) the methodology has a general degree of acceptance in the relevant  
13 scientific community. *Daubert I*, 509 U.S. 593-94. An expert must “employ[] in the courtroom  
14 the same level of intellectual rigor that characterizes the practice of an expert in the relevant field.”  
15 *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 150 (1999). In some situations, “[p]eer reviewed  
16 scientific literature may be unavailable because the issue may be too particular, new, or of  
17 insufficiently broad interest to be in the literature.” *Primiano v. Cook*, 598 F.3d 558, 565 (9th Cir.  
18 2010). In those circumstances, expert opinion testimony “is reliable if the knowledge underlying  
19 it has a reliable basis in the knowledge and experience of the relevant discipline.” *Id.* Of course,  
20 evaluating the design and predicting the lifetime of an electrical system is, however, a scientific  
21 inquiry that can be proven by actual data. *Kumho Tire*, 526 U.S. at 150 (pointing to engineering  
22 as the type of testimony that “rests upon scientific foundations”).

23 Dr. Allen’s analysis of LED Lamp Designs and LED Lamp Design Architectures has not  
24 shown to be at the appropriate level of intellectual rigor required to meet the *Daubert* standard.  
25 Importantly, the issue is not reviewed in a vacuum. The record is replete with the business  
26 community, government regulators, and academics designing for, testing, and projecting long-  
27 term LED lamp lifetimes, and many groups spending years investigating processes and procedures  
28 subject to peer review, public comment, and government approval with respect to these issues.

1 (See Vollers II Decl. ¶ 86; Dkt. No. 132-3 (“Pattinson Decl.”) ¶¶ 12-14.)<sup>16</sup> Young’s explanation  
 2 that there is no relevant literature or peer review studies to cite because there is very little interest  
 3 in testing LED lamps and that Dr. Allen is relying on his wealth of experience and his knowledge  
 4 of engineering best practices is not supported. Despite the wealth of analysis, there is a total  
 5 absence of a process similar to that of Dr. Allen. Even if one could justify the expediency in  
 6 categorizing LED lamps by merely reviewing packaging and photos, Young has failed to show  
 7 that Dr. Allen’s methods of broad extrapolations and temperature measurements are “generally  
 8 accepted in the relevant engineering community,” especially where the comparative metric is self-  
 9 created.<sup>17</sup> Nor is it probable that he can. *Kumho Tire*, 526 U.S. at 151.

10 Dr. Allen’s categorization impermissibly and overbroadly sweeps in different models and  
 11 versions of LED lamps for which he has done the actual testing. Indeed, Dr. Allen’s  
 12 categorization from 42 identified packaging, to 30 identified LED Lamps, to 7 LED Lamp  
 13 Designs, to 4 LED Lamp Design Architectures appears to be nothing more than a naked attempt to  
 14 take the findings and conclusions made from the ten (10) purchased LED lamps, which consisted  
 15 of only four unique (4) LED lamp types, and extend these findings and conclusion to a broad set  
 16 of LED lamps. Dr. Allen nor Young have shown that this is a generally accepted practice within  
 17 the lighting community, especially where such tests and measurements already exist for individual  
 18 LED lamps.

19 Moreover, Dr. Allen’s Rebuttal Report itself reveals the error of being so overinclusive.  
 20 Indeed, the Court is generally aware of the foundational principle that more power and wattage  
 21 would typically mean higher temperatures for that electrical system. That Dr. Allen ignored this  
 22 in his Opening Report when making his categories reveals that Dr. Allen overlooked and failed to  
 23

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24 <sup>16</sup> As one classification example, ENERGY STAR distinguishes LED lamps through  
 25 wattage, whereby a manufacturer must seek new qualification if it changes the input wattage of a  
 26 qualified lamp by more than 10%. (Vollers II Decl. ¶¶ 65-66; Pattison Decl. ¶ 21.)

27 <sup>17</sup> For instance, the studies referenced in the record show testing on individual LED lamps  
 28 and conclusions being drawn for that particular LED lamp. Dr. Allen does not explain why he did  
 not or could not undertake a similar endeavor of individually testing each LED lamp to arrive at a  
 conclusion for each LED lamp of which the class finds at issue.



1 apply this basic understanding when creating this novel methodology. It is unsurprising therefore  
 2 that Dr. Allen concedes in his Rebuttal Report that some of the lower wattage LED lamps in some  
 3 of the Designs and Architectures do *not* in fact fail, despite placing them within the same groups  
 4 as higher wattage models and versions.<sup>18</sup> Dr. Allen’s post hoc withdrawal does not save the initial  
 5 analysis. Experience and engineering practices alone do not convert a made-up methodology into  
 6 one that meets the threshold requirements of admissibility. *See Grodzitsky v. American Honda*  
 7 *Motor Co., Inc.*, 957 F.3d 979, 986-87 (9th Cir. 2020) (affirming exclusion of design defect expert  
 8 offered in support of class certification where the expert’s testimony suffered from scientific and  
 9 methodological flaws despite being based on “general product engineering principles”).

10 Accordingly, the Court finds that exclusion of Dr. Allen’s opinions as to the LED Lamp  
 11 Designs and LED Lamp Design Architectures is appropriately excluded under *Daubert*.<sup>19</sup>

12 b. Target Maximums

13 With respect to the Target Maximums, Cree challenges the analysis on two grounds. First,  
 14 Cree contends that Dr. Allen’s Target Maximums are an arbitrary conservative preference  
 15 untethered to any industry standard or accepted research. Second, the Target Maximum analysis  
 16 offers no causal link between the purported defect and liability and fails to quantify any specific  
 17 number of failures from Cree LED lamps. In opposition Young disputes these grounds with  
 18 similar arguments as in the prior section. Namely, Young avers that Dr. Allen’s opinions are  
 19 supported by and based on engineering best practices related to design for reliability, and that  
 20 there are no industry standards or regulations concerning the temperatures of the electronic  
 21 components of LED lamps.

22 Young does not persuade. First, the record reflects that the Target Maximums are not a  
 23 commonly accepted practice within the lighting community and are merely a reflection of Dr.

24 \_\_\_\_\_  
 25 <sup>18</sup> Additionally, as Cree highlights, Dr. Allen’s methodology ignores the fact that some of  
 26 Cree’s LED lamps have undergone some changes and updates throughout the class period.

27 <sup>19</sup> Were this, Dr. Allen’s overbroad categorization, the only flaw in Dr. Allen’s opinions,  
 28 the Court would have considered his results as to those LED lamps that he *actually* tested.  
 However, as will be discussed in the next section, given the problems with his Target Maximums,  
 Dr. Allen’s opinions are appropriately stricken.

1 Allen’s personal design preference. Dr. Allen must “explain precisely how he went about  
2 reaching his conclusions and point to some objective source—a learned treatise, the policy  
3 statement of a professional association, a published article in a reputable scientific journal, or the  
4 like—to show that he has followed the scientific method, as it is practiced by (at least) a minority  
5 of scientists in his field.” *Daubert II*, 43 F.3d at 1318-19; *United States v. Rincon*, 28 F.3d 921,  
6 924 (9th Cir. 1994) (research must be described “in sufficient detail that the district court [can]  
7 determine if the research was scientifically valid.”).

8 Here, Dr. Allen admits that there is no industry standard for maximum temperature of a  
9 heat sink, and he does not cite to any sources that recommend temperature thresholds. (Allen  
10 Report ¶ 28.) Dr. Allen also admits that these Target Maximums, while based on a general  
11 engineering rules of thumb, are not industry standard, but rather are a personal preference  
12 reflecting his conservative design targets. (*Id.* ¶¶ 12, 26; Allen Dep. at 109:11-24; 111:6-112:13.)  
13 Moreover, Dr. Allen concedes that he does not cite to one source that supports his Target  
14 Maximum analysis. (Allen Dep. at 111:-24-112:13.) Indeed, Dr. Allen states that he developed  
15 this methodology solely for the purpose of this litigation and that it is not peer reviewed. (Allen  
16 Report ¶ 12; Allen Dep. at 42:11-14.) Cree’s witnesses further testified that they have never heard  
17 of Dr. Allen’s target methodology, and that the industry standard methodology for LED lamp  
18 design permits LED lamp designers to rely upon the component manufacturers’ specifications  
19 sheets for components’ rated lifetimes. (*See, e.g.*, *Vollers I Decl.* ¶¶ 17-20.)

20 This is not a situation where there is absence of testing or literature in the relevant field.  
21 As previously discussed, there are accepted LED lamp lifetime projection tests, and commonly  
22 accepted processes and procedures in conducting such tests. (*See Vollers II Decl.* ¶ 86; *Pattinson*  
23 *Decl.* ¶¶ 12-14.) There are ample accepted peer-reviewed and vetted industry standards for  
24 reliability testing based on long-term durational testing of a large number of LED lamps, including  
25 LM-80-08, LM-84, and ENERGY STAR program requirements whereby such qualification  
26 requires 6,000 hours of testing. (*Vollers I* ¶ 27-30; *Vollers II* ¶¶ 79-86; *Pattinson* ¶¶ 15-18, 25, 41,  
27  
28

1 42, 53.)<sup>20</sup> That Dr. Allen disagrees with these standards does not mean that they are irrelevant,  
 2 especially where Dr. Allen’s alternative methodology is not based on *any* accepted practices, and  
 3 are, in fact, the opposite of these practices. (*See* Allen Rebuttal ¶¶ 24-26, 32-34, 40, 45, 62, 68)  
 4 “Something doesn’t become ‘scientific knowledge’ just because it’s uttered by a scientist; nor can  
 5 an expert’s self-serving assertion that his conclusions were ‘derived by the scientific method’ be  
 6 deemed conclusive.” *In re Ford Motor Co. DPS6 Powershift Transmission Prods. Liab. Litig.*,  
 7 No. ML 18-02814 AB, 2019 WL 7177984 at \*1 (C.D. Cal. Dec. 2, 2019) (citing *Daubert II*, 43  
 8 F.3d at 1318). In short, Dr. Allen’s personal design preferences cannot form the basis of an  
 9 admissible expert opinion given the context of the industry. *See Daubert II*, 43 F.3d at 1319  
 10 (expert’s personal opinion is not sufficient to meet *Daubert* standards); *Claar v. Burlington R. Co.*,  
 11 29 F.3d 499, 502 (9th Cir. 1994).

12 Second, the Target Maximum analysis offers no causal link between the purported defect  
 13 and liability and fails to quantify any specific number of failures from Cree LED lamps. Dr. Allen  
 14 concludes that there is a higher risk of failure due to the heat on certain components of the LED  
 15 lamp. However, not only does Dr. Allen not define failure, he cannot quantify, or even  
 16 approximate, the specific failure rate. *See Gonzalez v. Corning*, 885 F.3d 186, 198 (3d Cir. 2018)  
 17 (noting that liability determination in purported design defect class action where alleged defect is  
 18 not latent in all products would require “distinguish[ing] [the products] that are likely to fail before  
 19 the end of their warranty periods from [the] ones that are likely to perform as expected (*i.e.*, that  
 20 are not defective)”).

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21  
 22 <sup>20</sup> These tests, in connection with the processes explained by Cree’s witnesses, would not  
 23 only yield results in lifetime projections, but would allow individuals to determine the cause or  
 24 causes of failure. These tests do not assume a defect, but rather seek to test the LED lamp for its  
 performance.

25 By contrast, and as discussed, Dr. Allen concedes he has assumed a defect based merely on  
 26 the filing of this lawsuit by Young, and then employs a methodology that assumes this premise:  
 27 that there is in fact a defect in the Cree LED lamps. Instead of seeking to determine whether a  
 28 defect *exists*, Dr. Allen merely seeks to explain where the assumed defect *would be*. In other  
 words, Dr. Allen does not necessarily prove the existence of a defect: only that, *assuming* there is  
 one, it is likely due in his opinion to the high temperature of the LED lamps at certain  
 components.

1 Nor does Dr. Allen link the defect with the ultimate liability in this action. As Cree’s  
 2 witnesses explain, a failure of the components identified by Dr. Allen would more often lead to a  
 3 parametric failure than a catastrophic failure—the latter of which is the failure that is pled in this  
 4 action. (*See* ACAC ¶¶ 34, 35, 37, 41.) Unlike a catastrophic failure, a parametric failure is highly  
 5 subjective, depending on the individual’s sensitivity to lumen depreciation, color shift, and flicker.  
 6 (*See* Vollers II Decl. ¶¶ 68-71; Pattinson Decl. ¶¶ 48-50.) Dr. Allen’s opinions focus on a  
 7 parametric failure while overlooking the actual pled failure: catastrophic.

8 Accordingly, the Court finds that exclusion of Dr. Allen’s opinions as to Target  
 9 Maximums is appropriately excluded under *Daubert*.

10 c. Additional Considerations

11 Cree further moves in its reply to strike from Dr. Allen’s Rebuttal his citation to new  
 12 methodology and studies concerning on-off switching that he asserts prove Cree LED lamps will  
 13 fail and statistical analysis performed on the THD records of returned Cree LED lamps.  
 14 Specifically, Cree highlights that these new opinions and testing do not rebut any of its expert  
 15 witness opinion, and that it was not properly raised in the opening report. Additionally, Cree  
 16 contends that the Dr. Allen has no background or expertise in statistics, misconstrues the cited  
 17 studies, and reaches an incorrect conclusion with his statistical analysis.

18 The Court agrees. As an initial hurdle, Dr. Allen’s opinions incorporating these additional  
 19 citations and arguments were not properly raised or disclosed in his opening brief, and they do not  
 20 respond to any of the opinions of Cree’s expert witnesses. *See Matthew Enterprise, Inc. v.*  
 21 *Chrysler Group, LLC*, No. 13-cv-04236-BLF, 2016 WL 4272430 at \*2 (N.D. Cal. Aug. 15, 2016  
 22 (“[R]ebuttal expert testimony is limited to new unforeseen facts brought out in the other side’s  
 23 case.”); *Huawei Techs., Co., Ltd. v. Samsung Elec. Co., Ltd.*, 340 F. Supp. 3d 934, 995 (N.D. Cal.  
 24 2018) (“The rest of whether an expert’s opinion constitutes rebuttal or a new opinion . . . [is]  
 25 whether a rebuttal attempts to put forward new theories outside the scope of the report it claims to  
 26 rebut.”); *Shenon v. New York Life Ins. Co.*, No. 2:18-cv-240-CAS, 2020 WL1317722, at \*10 (C.D.  
 27 Cal. Mar. 16, 2020 (finding that attempts to “add new opinion, or deepen or strengthen existing  
 28 opinions” are not proper on rebuttal); *see also* Fed. R. Civ. P. 26(a)(2)(D); Fed. R. Civ. P.

1 37(c)(1). Indeed, as Dr. Allen concedes, “Mr. Voller [Cree’s employee] did not address on-off  
2 switching, nor testing in luminaries that represent consumer applications.” (Allen Rebuttal ¶ 45.)  
3 For this plain reason, they are inappropriate and should indeed be stricken.<sup>21</sup>

4 Finally, while Dr. Allen might be expert in statistical analysis, the record does not support  
5 the conclusion. Under Federal Rule of Evidence 702, “[t]he burden is on the proponent of the  
6 expert testimony to show, by a preponderance of the evidence,” that the expert is qualified and  
7 meets the necessary admissibility requirements. *Contour IP Holding LLC v. GoPro Inc.*, 2021  
8 WL 75666, at \*10 (N.D. Cal. Jan. 8, 2021) (citing *Lust By & Through Lust v. Merrell Dow*  
9 *Pharm., Inc.*, 89 F.3d 594, 598 (9th Cir. 1996)). An expert’s qualifications in one discipline do  
10 not make him qualified in a separate field. In short, Young has not shown that Dr. Allen is  
11 qualified to perform that type of statistical analysis on the THD materials that he has done. On  
12 this basis too is Dr. Allen’s new opinions made in his rebuttal also appropriately stricken.

13 d. Conclusion

14 In sum, for the foregoing reasons, the Court concludes that Dr. Allen’s opinions do not  
15 meet the *Daubert* standard. Accordingly, the Court **GRANTS** the *Daubert* motion as to Dr. Allen.<sup>22</sup>

16 **B. Motion for Class Certification**

17 Young moves to certify a California class of consumers who have purchased specific Cree  
18 LED bulbs. In opposition, Cree challenges the commonality, typicality, and adequacy factors of

19  
20 <sup>21</sup> Indeed, even considering the cited California Public Utilities Commission (“CPUC”) study, it is not facially apparent whether Make #5, a model with some issues, is a Cree LED lamp where the study anonymized the subject lamps. As Cree’s employee, Vollers, declared, he could not definitively conclude that Cree is the manufacturer of Make #5 as some of the specifications do not match up with attributes of its consumer products. (Vollers II Decl. ¶¶ 34-37.) Dr. Allen was not involved in this CPUC study and Dr. Allen does not otherwise explain why he arrived at his conclusion that Make # 5 is a Cree lamp. Instead, Dr. Allen has made an unfounded assumption without explanation. *See Diviero v. Uniroyal Goodrich Tire Co.*, 114 F.3d 851, 853 (9th Cir. 1997) (“Rule 702 demands that expert testimony relate to scientific, technical, or other specialized knowledge, which does not include unsubstantiated speculation and subjective beliefs.”). Furthermore, neither new cited study reflects on-off cycles that are common or typical in the field. (*See* Vollers II Decl. ¶¶ 40, 44, 51.)

26 <sup>22</sup> As the Court discusses below, without Dr. Allen’s expert testimony, Young cannot  
27 satisfy the necessary elements for class certification, even without consideration of Cree’s *Daubert*  
28 motion as to Dr. Boedeker. Accordingly, the Court **DENIES AS MOOT** the *Daubert* motion as to Dr. Boedeker.

1 Rule 23(a), in addition to the requirements under Rule 23 (b)(3). The Court begins by addressing  
2 the commonality factor.<sup>23</sup> Thus:

3 Under Federal Rule of Civil Procedure 23(a), a court may certify a class only where “(1)  
4 the class is so numerous that joinder of all members is impracticable; (2) there are questions of law  
5 or fact common to the class; (3) the claims or defenses of the representative parties are typical of  
6 the claims or defenses of the class; and (4) the representative parties will fairly and adequately  
7 protect the interests of the class.” Fed. R. Civ. P. 23(a). Young must demonstrate that these four  
8 requirements are met by a preponderance of the evidence. Here, Young fails to establish that there  
9 are common questions of law or fact.

10 The commonality requirement is satisfied where the claims of all members of the proposed  
11 class “depend upon a common contention . . . of such a nature that it is capable of classwide  
12 resolution—which means that determination of its truth or falsity will resolve an issue that is  
13 central to the validity of each one of the claims in one stroke.” *Dukes*, 564 U.S. at 350. Courts  
14 generally construe the commonality requirement “permissively” and find that “[a]ll questions of  
15 fact and law need not be common to satisfy the rule.” *Ellis*, 657 F.3d at 981 (alteration in original)  
16 (internal quotations omitted); *see also Rodriguez v. Hayes*, 591 F.3d 1105, 1122 (9th Cir. 2010)  
17 (“common” does not mean “complete congruence”). However, in a case alleging claims of a  
18 defective product and misrepresentations regarding that defect, “[w]ithout any evidence of a  
19 common defect, there are no ‘common questions of law or fact’ binding the proposed class  
20 together.” *Kramer v. Toyota Motor Co.*, 688 F. App’x 765, 766 (9th Cir. 2016).

21 Here, the Court’s ruling on the *Daubert* motion as to Dr. Allen are fatal to a finding of  
22 commonality under the proposed class. Young’s common issues are premised on a purported  
23

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24 <sup>23</sup> Cree does not challenge the numerosity requirement under Rule 23(a). Nor could Cree,  
25 based on the record before the Court, as it is clear that there are a sufficient number of consumers  
26 of Cree LED bulbs based on the numerosity requirement. *See, e.g., Akaosugi v. Benihana Nat.*  
27 *Corp.*, 282 F.R.D. 241, 253-54 (N.D. Cal. 2012) (“[C]ourts generally find the numerosity  
28 requirement satisfied when a class includes at least forty members.”); *Hernandez v. Cnty. of*  
*Monterey*, 305 F.R.D. 132, 153 (N.D. Cal. 2015) (“A class or subclass with more than 40  
members raises a presumption of impracticability based on numbers alone.” (internal quotation  
marks omitted)).

1 misrepresentation about the longevity of Cree LED bulbs. Young cites a number of omission  
 2 cases where consumers sued manufactures of a product with an undisclosed, fundamental, and  
 3 identified design defect. *See, e.g., Wolin v. Jaguar Land Rover N. Am. LLC*, 617 F.3d 1168, 1172  
 4 (9th Cir. 2010). Young relies exclusively on Dr. Allen’s opinions purporting to establish common  
 5 evidence of a defect relating to overheating in Cree LED lamps.<sup>24</sup> Without this evidence, Young  
 6 does not articulate an alternative method of proving why or how his own bulbs failed, much less  
 7 one across multiple product lines and generations. Without such evidence, Young does not show  
 8 commonality in support of class certification. *See Kramer*, 688 F. App’x at 766; *see also*  
 9 *Gonzalez*, 885 F.3d at 196-199 (holding that where “[d]eeffective design [was] an essential element  
 10 of [p]laintiffs’ misrepresentation-based claims” and plaintiffs “do not identify a particular defect”  
 11 and therefore “invite [the court] to equate the existence of a defect with the mere possibility that  
 12 one might exist” there “no support in Rule 23 or caselaw for certification on such a speculative  
 13 basis”); *Grodzitsky v. American Honda Motor Co., Inc.*, No. 12-cv-001142-SVW-PLA, 2017 WL  
 14 8943159, at \*6 (N.D. Cal. Oct. 30, 2017) (“All they have is a series of [products] that may or may  
 15 not have broken before they were supposed to, and these breakages may or may not have been  
 16 caused by a common defect which may or may not exist. This is manifestly inadequate to satisfy  
 17 Rule 23.”).

18 Instead, the issue of falsity or Cree’s alleged misrepresentations turn on issues that are not  
 19 common to the class as a whole: whether each consumer’s bulb failed, the manner of the failure,  
 20 the extent of longevity before failure, and what ultimately caused the failure. *See Kramer*, 668 F.  
 21 App’x at 766 (“Without any evidence of a common defect, there are no ‘common question of law  
 22 or fact’ binding the proposed class together.”); *Gonzalez*, 885 F.3d at 198 (“If proponents of the  
 23

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24 <sup>24</sup> As discussed under the *Daubert* analysis, it is not even clear that Dr. Allen’s report  
 25 establishes that there is, in fact, a defect within the identified Cree LED lamps at issue. Dr. Allen  
 26 testified that he essentially was provided an “inference” that these lamps were defective based on  
 27 the filing of this lawsuit by Young. (Allen Dep. at 83:19-84:24.) Dr. Allen posits reasons for this  
 28 defect, assuming it is exists, but fails to grapple with evidence in the record that shows that since  
 2013, Cree has not had any excessive premature failure, especially within less than one year of  
 operation. (Vollers I Decl. ¶ 56.) In other words, Dr. Allen’s report provides, at best, the likeliest  
 source of a defect, but does not establish that there is *actually* a defect and that the defect has any  
 link to the misrepresentations at issue.

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1 class do not allege a defect common the class, the defectiveness of a given product is, by  
2 necessity, not susceptible to proof by classwide evidence.”). This is manifestly an individual  
3 determination, and therefore inappropriate to satisfy the commonality requirement under the Rule  
4 23 analysis.<sup>25</sup>

5 Accordingly, the Court **DENIES** the motion for class certification.

6 **IV. CONCLUSION**

7 Accordingly, the for the foregoing reasons, the Court **HEREBY ORDERS** as follows:

- 8 • Cree’s *Daubert* motion as to Dr. Allen is **GRANTED**;
- 9 • Young’s motion for class certification is **DENIED**; and
- 10 • Cree’s *Daubert* motion as to Dr. Boedeker is **DENIED AS MOOT**.

11 Moreover, in light of this Order, the Court hereby **SETS** a compliance deadline for **9:01**  
12 **a.m. on Friday, February 26, 2021. Five (5) business days** prior to the date of the compliance  
13 deadline, the parties shall file a **JOINT STATEMENT** setting forth the parties’ position with respect  
14 to the scheduling of this case. If compliance is complete, the compliance deadline will be taken  
15 off calendar.

16 This Order terminates Docket Numbers 115, 116, 117, 118, and 127.

17 **IT IS SO ORDERED.**

18 Dated: January 28, 2021

  
**YVONNE GONZALEZ ROGERS**  
**UNITED STATES DISTRICT JUDGE**

27 \_\_\_\_\_  
28 <sup>25</sup> The Court declines to alternatively consider the remaining Rule 23(a) and 23(b)(3) factors in light of the court’s conclusion as to commonality.