Infringement

Pursuant to Section 1338 of Title 28 of the United States Code, Plaintiff Epistar Corporation ("Plaintiff" or "Epistar") alleges for its Complaint against Lowe's Companies, Inc. and Lowe's Home Centers, LLC (collectively "Lowe's" or "Defendants") on personal knowledge as to Epistar's own actions and on information and belief as to the actions of others, as follows:

INTRODUCTION

- 1. This is the second litigation brought by Epistar relating to sales by Lowe's of LED light bulbs that infringe Epistar's United States Patent No. 7,560,738 ("the '738 Patent") covering light emitting diode ("LED") lighting technology.
- 2. Lowe's has already been found to infringe the '738 Patent by selling, offering to sell, and/or importing into the United States certain light bulbs containing LED filaments ("LED Filament Bulbs" or "Accused Products"). Further, a court in this District has already determined that at least Claims 1-3 and 8 of the '738 Patent are not invalid (over Lowe's claims to the contrary). The Accused Products in this case include those LED Filament Bulbs not involved in the previous lawsuit and that Lowe's began to sell after commencement of that action. As alleged below, Epistar subsequently learned that the LED Filament Bulbs accused in this litigation do not meaningfully differ in structure or design from the LED Filament Bulbs previously found to infringe.
- 3. Rather than ceasing its infringing conduct after having been notified of its infringement, Lowe's has instead willfully and knowingly elected to continue its infringing behavior in full disregard of Epistar's rights in the '738 Patent. For example, in 2018 Lowe's changed the branding of its LED Filament Bulbs from an in-house "Utilitech" brand to the "GE Lighting" brand. However, Epistar subsequently learned that the LED Filament Bulbs that Lowe's now sells under the "GE Lighting" brand do not differ materially from the "Utilitech" LED Filament Bulbs that were already found to infringe valid claims of the '738 Patent. On information and belief, in at least some cases, the LED Filament Bulbs sold by

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Lowe's under the GE Lighting label come from the same Chinese manufacturer that sourced Lowe's "Utilitech" bulbs. On information and belief, prior to selling these new brands of LED Filament Bulbs, Lowe's never investigated whether the bulbs were designed differently from its infringing Utilitech bulbs so as to avoid infringing the '738 Patent.

- Moreover, since Epistar's initial suit against Lowe's regarding the '738 4. Patent, Lowe's has dramatically expanded the number of LED Filament Bulb brands it sells (either through its retail locations or via its website). On information and belief, regardless of the supplier or manufacturer, Lowe's never investigated whether LED Filament Bulbs sold in its retail stores or on its website avoided infringement of the '738 Patent before offering them for sale.
- 5. In light of Lowe's failure to stop its infringing conduct, Epistar has been compelled to bring this suit to again protect its intellectual property rights in the '738 Patent.

BACKGROUND

- 6. This Complaint arises under the patent laws of the United States, Title 35 of the United States Code. This Court has subject matter jurisdiction over this action under 35 U.S.C. § 271 et seq. and 28 U.S.C. §§ 1331 and 1338(a).
- 7. Lowe's infringes at least Claims 1-3 and 8 of the '738 Patent by making, using, selling, offering to sell, and/or importing into the United States light bulbs containing LED filaments. See Ex. 1 (the '738 Patent).

THE PARTIES

Epistar Α.

- 8. Plaintiff Epistar is a Taiwanese corporation with its principal place of business at 21 Li-Hsin Road, Hsinchu Science Park, Hsinchu 300, Taiwan. Epistar is one of the world's leading manufacturers of LEDs.
- 9. Epistar is widely recognized as one of the pioneers in the LED filament industry and has invested resources in LED filament technology for years to improve

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filament efficiency. Epistar is one of the largest manufacturers of LEDs in the world, with approximately 3,300 employees and millions of U.S. dollars invested annually in research and development work. To date, Epistar's investment has resulted in over 5,000 patents.

- 10. For example, the '738 Patent (which Epistar filed on March 11, 2005, and which issued on July 14, 2009) discloses an LED array that overcomes drawbacks of previous designs. Epistar's '738 Patent is well-known in the industry and has been cited at least 90 distinct times by other patents and patent publications throughout the world.
- Epistar has received numerous industry awards over the years for its 11. innovations in LED technology. For example, as early as 2013, Epistar received the Taiwan Outstanding Photonics Product Award 2013. Epistar also received an Outstanding Photonics Product Award at the 13th International Nano Exposition for the design of its Flexible LED Lighting System. In 2019, Epistar received the Taiwan Excellence Award for its GaN High Electron Mobility Transistor for LED lighting application. Epistar has also earned great acclaim specifically for its innovative LED filament technology. For example, in 2013, Epistar received an Innovative Product Award from the Hsinchu Science Park for its self-cooling LED filament crystal bulb. See Ex. 3.
- Epistar LED products are used for a variety of applications, including 12. cell phone screens, laptops, televisions, automobile consoles, and home lighting. Epistar's patented technologies embodied in its LED products allow the benefits of solid state, LED lighting to permeate everyday life. See, e.g., Ex. 4:

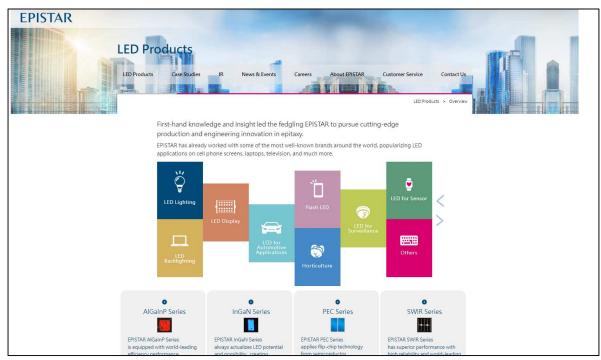


Figure 1

At issue in this litigation is a specific application of its innovative technology directed to LED Filament Bulbs.

B. Lowe's

- 13. Upon information and belief, Defendant Lowe's Companies, Inc. ("LCI") is a North Carolina corporation having a principal place of business at 1000 Lowe's Boulevard, Mooresville, North Carolina 28117.
- 14. Upon information and belief, Defendant Lowe's Home Centers, LLC ("LHC") is a North Carolina company having a principal place of business at 1000 Lowe's Boulevard, Mooresville, North Carolina 28117.
- 15. In this State and District, Lowe's owns and operates home improvement warehouses known as "Lowe's Home Improvement" warehouses that sell LED Filament Bulbs that infringe the '738 Patent.

JURISDICTION AND VENUE

A. Jurisdiction

- 16. The Court may exercise personal jurisdiction over Lowe's because Lowe's has continuous and systematic contacts with the State of California and does business in this District.
- 17. On information and belief, Lowe's conducts business in this District by importing, marketing, offering for sale, and selling its infringing products in this District.
- 18. On information and belief, Lowe's maintains at least four retail locations in this District. For example, Lowe's maintains at least the following locations: (1) Mid-city Los Angeles (4550 West Pico Boulevard, Unit D-101, Los Angeles, California, 90019); (2) Pico Rivera (8600 Washington Boulevard, Pico Rivera, California, 90660); (3) Burbank (2000 W Empire Avenue. Burbank, California, 91504); and (4) Hawthorne (2800 W 120th Street, Hawthorne, California, 09250). *See* Ex. 5. These locations are identified below in a map obtained from Lowe's website (https://www.lowes.com/store/):

Mid-city Los Angeles

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Figure 2

19. Lowe's sells and/or offers to sell infringing LED Filament Bulbs in this District via its retail locations. For example, Lowe's Mid-City Los Angeles location advertises on its website that LED Filament Bulb Model No. 42243 is available at that location for in-store and curbside pickup (https://www.lowes.com/pd/GE-Relax-40-Watt-EQ-CA11-Soft-White-Dimmable-Candle-Bulb-Light-Bulb-3-Pack/1000445867):



Figure 3

- 20. On information and belief, Lowe's sells many additional infringing LED Filament Bulbs at its locations throughout this District.
- 21. Moreover, Lowe's sells and/or offers to sell infringing LED Filament Bulbs in this District via its website. As seen above in Figure 3, at least LED Filament Bulb Model No. 42243 is advertised on Lowe's website as being available for remote delivery from and to this District. *See id.* ("Delivery to 90012"). On information and belief, Lowe's sells many additional infringing LED Filament Bulbs via its website to consumers throughout California and this District.
- 22. Lowe's is therefore subject to the Court's general and specific personal jurisdiction. Lowe's maintains sufficiently continuous and systematic contacts with California and this District through its multiple retail locations and its direct delivery to California consumers to render general jurisdiction appropriate. Moreover, because Lowe's sells infringing products at those retail locations in California and this District and to California residents via its website, specific jurisdiction is also appropriate.

B. Venue

23. Venue is proper in this judicial district pursuant to 28 U.S.C. §§ 1391(b), (c), (d), and/or 1400(b).

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- Among other things, Lowe's is subject to personal jurisdiction in this 24. District, has committed acts of patent infringement in this District, and continues to commit acts of infringement in this District.
- This District is an appropriate venue for this action against Lowe's 25. because, as discussed in the paragraphs above, Lowe's and its subsidiaries operate physical retail stores in this District where infringing LED Filament Bulbs are sold and/or offered for sale. As such, Lowe's has committed acts of infringement and has an established place of business in this District.

FACTUAL BACKGROUND

Epistar brings this action to seek injunctive relief and damages arising 26. out of Lowe's infringement of at least Claims 1-3 and 8 of the '738 Patent.

The '738 Patent Α.

- 27. The '738 Patent represents a key achievement of Epistar's continuous research and development efforts. The claims of the '738 Patent are fundamental to the practice of LED Filament Bulbs and, as a result, help drive demand for Epistar's products.
- 28. On July 14, 2009, the United States Patent and Trademark Office duly and legally issued the '738 Patent, entitled "Light-Emitting Diode Array Having an Adhesive Layer." Wen-Huang Liu is listed as the sole inventor of the patent. Epistar is the owner of the '738 Patent. A true and correct copy of the '738 Patent is attached hereto as Exhibit 1.

В. The Accused LED Filament Bulbs

Lowe's infringes the '738 Patent by making, using, selling, offering to 29. sell, and/or importing into the United States LED Filament Bulbs. For example, Lowe's sells and offers for sale infringing LED Filament Bulbs through the United States via its website and retail locations. Further, on information and belief Lowe's imports infringing LED Filament Bulbs from outside the United States.

- 30. Epistar alleges that all LED Filament Bulbs offered for sale by Lowe's infringe at least Claims 1-3 and 8 of the '738 Patent. An exemplary brand of infringing LED Filament Bulbs is GE Lighting. However, Epistar's allegations are not limited only to the GE Lighting brand, and on information and belief, Lowe's imports, sells, and offers to sell other brands of LED Filament Bulbs that infringe the '738 Patent. On information and belief, given the fundamental nature of the '738 Patent to the practice of LED Filament Bulbs, the LED Filament Bulbs that Lowe's sells under the GE Lighting brand are representative of the other brands of LED Filament Bulbs it has sold and sells.
- 31. The following are examples of GE Lighting branded LED Filament Bulbs that infringe the '738 Patent and that Lowe's has sold or is currently selling/offering for sale either on its website or through its retail locations:
 - GE Lighting Model No. 33541, Vintage 60-Watt EQ CA11 Warm Candlelight Dimmable Candle Bulb LED Light Bulb. See Ex. 6:



Figure 4

GE Lighting Model No. 41633, Relax 60-Watt EQ A15 Soft White **Dimmable LED Light Bulb.** See Ex. 7:

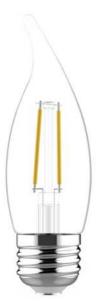


Figure 5

GE Lighting Model No. 42243, Relax 40-Watt EQ CA11 Soft White **Dimmable Candle Bulb LED Light Bulb.** See Ex. 8:







GE Lighting Model No. 42412, Reveal 60-Watt A15 Color-enhancing

Dimmable LED Light Bulb. See Ex. 9:





Figure 7

• GE Lighting Model No. 44135, Basic 60-Watt EQ G16.5 Soft White Globe Light Bulb:

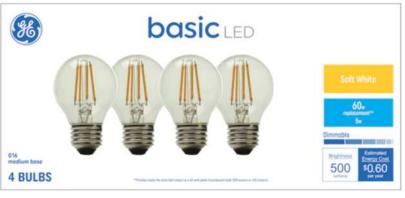




Figure 8

See also Ex. 10.

• GE Lighting Model No. 44931, Refresh 60-Watt EQ A19 Daylight Dimmable LED Light Bulb. See Ex. 11:

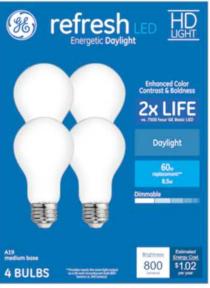




Figure 9

• GE Lighting Model No. 93121730, Refresh 60-Watt EQ A19 Daylight Dimmable LED Light Bulb. See Ex. 12:





Figure 10

C. The Accused Bulbs Practice the '738 Patent

32. Lowe's infringing LED Filament Bulbs practice at least Claims 1-3 and 8 of the '738 Patent. A claim chart is included at Exhibit 2 showing how certain exemplary infringing LED Filament Bulbs infringe all the limitations of Claim 1. On information and belief, however, the '738 Patent is fundamental to the practice of LED Filament Bulbs, and all LED Filament Bulbs sold and/or offered for sale by Lowe's practice at least Claim 1 in materially similar ways to the examples identified in Exhibit 2 as well as to the products found to infringe in the previous litigation between the parties. Moreover, the way that Lowe's infringing LED Filament Bulbs practice Claim 1 is not colorably different from the way that Lowe's products previously found to infringe '738 Patent practice Claim 1. On information and belief, at least some of the LED Filament Bulbs accused in this case are manufactured by the same manufacturer as in the previous litigation.

33. Lowe's infringing LED Filament Bulbs also practice at least Claim 2 of the '738 Patent. Each infringing LED Filament Bulb includes a plurality of LED chips. These LED chips, in turn, include an epitaxial light-emitting stack layer that includes two semiconductor layers with a light-emitting layer in between. The following diagram exemplifies these structures, which on information and belief are materially the same with respect to all LED chips found on the LED Filament Bulbs:

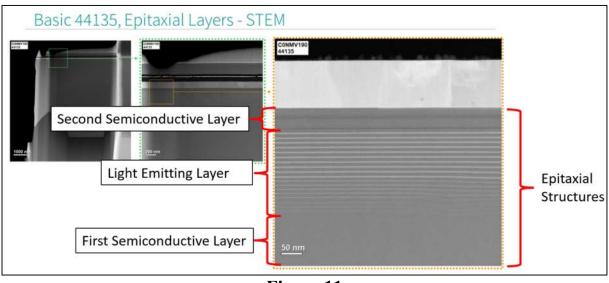


Figure 11

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Moreover, the way that the LED Filament Bulbs practice Claim 2 is not colorably different from the way that Lowe's products previously found to infringe '738 Patent practice Claim 2.

34. These LED Filament Bulbs also infringe at least Claim 3 of the '738 Patent. For example, as shown in the following exemplary diagram of the Basic 44135 model, infringing LED Filament Bulbs include a plurality of insulating regions located in between two adjacent LED chips (the "epitaxial light-emitting stack layers") for electrically isolating the two LED chips from one another:

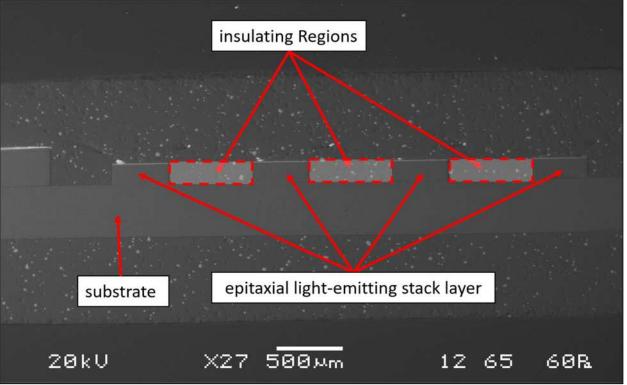


Figure 12

On information and belief, all infringing LED Filament Bulbs have materially similar structures and insulating regions. Moreover, the way that the LED Filament Bulbs practice Claim 3 is not colorably different from the way that Lowe's products previously found to infringe '738 Patent practice Claim 3.

35. These LED Filament Bulbs also infringe at least Claim 8 of the '738 Patent. Each infringing LED Filament Bulb includes a substrate comprising at least Al₂O₃ ("aluminum oxide") as identified by that claim. The following image from $\begin{bmatrix} 1 \\ 2 \end{bmatrix}$

the Basic 44135 bulb exemplifies one such substrate containing aluminum oxide as seen from three test locations on the product's substrate:

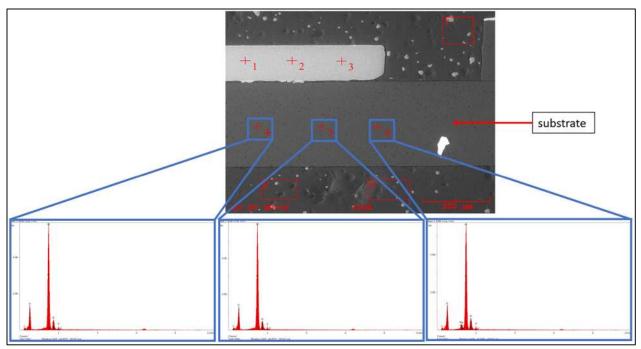


Figure 13

On information and belief, all infringing LED Filament Bulbs have substrates made of a similar material and/or at least one other of the materials identified in Claim 8 of the '738 Patent. Moreover, the way that the LED Filament Bulbs practice Claim 8 is not colorably different from the way that Lowe's products previously found to infringe '738 Patent practice Claim 8.

D. Epistar Repeatedly Attempted to Have Lowe's Cease Its Infringement

- 36. Since early 2016, Epistar has directly conveyed to Lowe's that it infringes the '738 Patent.
- 37. On April 7, 2016, Epistar sent Lowe's a letter entitled "Infringement of Epistar Patents." (Emphasis added). Epistar notified Lowe's that "it has come to our attention that Lowe's sells LED light bulbs . . . that use Epistar patented technology without authorization and, as a result, infringe multiple U.S. patents in the Epistar patent portfolio." Ex. 13 (emphasis added). The '738 Patent was identified in this letter. Lowe's did not respond to this letter.

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- 38. On May 9, 2016, Epistar's legal counsel sent a second letter to Lowe's General Counsel, Ross McCanless. This letter reiterated that "Epistar sent you a letter . . . notifying you that Lowe's was selling LED light bulbs . . . that *infringed* multiple patents in the Epistar patent portfolio." Ex. 14 (emphasis added). The letter encouraged Lowe's to "begin a productive discussion on how Epistar and Lowe's can avoid any potential legal dispute"
- On July 15, 2016, Epistar's legal counsel sent an email to Lowe's in-39. house counsel Paul Dame referring to the "Epistar Patent Portfolio." In this email, Epistar's counsel attached "documentation illustrating the infringement of Epistar patents" by an LED light bulb sold by Lowe's. Epistar specifically referenced three of its patents and included charts showing how Epistar believed Lowe's infringed those patents. See Ex. 15 (exhibits omitted).
- 40. On August 31, 2016, Epistar's legal counsel sent an email to Lowe's in-house counsel Paul Dame referring to a "6-patent complaint" that Epistar filed against a third party. The email notes that this complaint "illustrates the breadth and strength of the Epistar patent portfolio." Ex. 16 (exhibits omitted). The email attached a claim chart showing Epistar's consistently-maintained contentions regarding how Lowe's LED Filament Bulbs practice the '738 Patent.
- 41. On November 9, 2016, Epistar's legal counsel sent another email to Lowe's in-house counsel Paul Dame. This email stated, "I am further emailing you to let you know that it is important that Lowe's take steps in the near future to demonstrate that it wants to engage in meaningful licensing negotiations for an amicable resolution with Epistar." Ex. 17 (exhibits omitted). The email again referenced the Adamax lawsuit involving the '738 Patent and noted how that lawsuit was resolved by Adamax taking a license.
- 42. On December 2, 2016, Epistar's legal counsel sent a third email to Lowe's counsel Paul Dame. This email stated, "It is important that Lowes take steps in the near future to demonstrate that it wants to engage in meaningful licensing

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negotiations for an amicable resolution with Epistar." Ex. 18. The email attached a claim chart showing how Epistar contends the '738 Patent was infringed by an "accused product" "found at Lowe's at USA on 2016/09/02." *Id.*

- On April 28, 2017, Epistar filed a lawsuit in this District against Lowe's alleging, among other things, that Lowe's infringed the '738 Patent by making, using, selling, offering to sell, and/or importing into the United States certain light bulbs containing LED filament strips. See Epistar Corp. v. Lowes Companies, Inc., Case No. 2:17-cv-03219, Dkt. 1 (C.D. Cal., Apr. 28, 2017) (the "First Litigation").¹ Specifically, in the First Litigation, Epistar accused LED Filament Bulbs that Lowe's sold and/or offered to sell under its in-house Kichler and Utilitech brands of infringing (among others) the '738 Patent.
- On February 11, 2020, the court in the First Litigation issued an Order 44. finding that Lowe's infringes Claims 1-3 and 8 of the '738 Patent. Additionally, on October 4, 2022, the court in the First Litigation found that Claims 1-3 and 8 of the '738 Patent were not invalid under 35 U.S.C. § 103.
- 45. Thus, despite having been found to infringe the '738 Patent, Lowe's continues to infringe valid claims of the '738 Patent by actively, knowingly, and intentionally using, selling, offering to sell, and/or importing into the United States LED Filament Bulbs.
- On October 10, 2022—after Lowe's was found to infringe valid claims 46. of the '738 Patent—Epistar sent Lowe's outside counsel a letter entitled, "Notice of Patent Infringement by Lowe's Companies, Inc. and Lowe's Home Centers, LLC (collectively, 'Lowe's')." Ex. 19. This letter stated that "Lowe's is engaging in ongoing willful infringement of Epistar's patents," including specifically the '738 Patent. The letter further stated that:

As you are aware, on October 5, 2022, in the litigation entitled *Epistar* Corporation v. Lowe's Companies, Inc. et al, C.D. Cal. Case No. 2:17-

¹ Epistar accused different light bulbs here than in the First Litigation.

cv-03219-JAK-KS (the "California Litigation"), the Court issued an Order upholding the validity of the '738 [Patent]. Moreover... the '738 Patent was previously determined to have been infringed... through Lowe's sales of Filament LED Bulbs.

Despite a finding of infringement, Lowe's continues to infringe by offering [LED Filament Bulbs] on Lowe's website (e.g., Filament LED Bulbs available at https://www.lowes.com/c/Light-bulbs-Lighting-ceiling-fans) or in Lowe's retail locations, or by importing such products into the United States.

Id. The letter further identified a number of exemplary brands of LED Filament Bulbs being sold on Lowe's website at the time. Lowe's did not respond to this letter.

FIRST CAUSE OF ACTION

(Lowe's Infringement of U.S. Patent No. 7,560,738)

- 47. Epistar repeats and re-alleges the allegations of the preceding paragraphs in their entirety.
- 48. Lowe's directly infringes at least Claims 1-3 and 8 of the '738 Patent in violation of 35 U.S.C. § 271(a) by making, using, selling, offering for sale, and/or importing into the United States LED Filament Bulb products including, but not limited to, the products identified in Exhibit 2 without the permission of Epistar. Lowe's is thus liable for direct infringement of the '738 Patent pursuant to 35 U.S.C. § 271(a). A representative claim chart detailing Lowe's infringement of at least Claim 1 of the '738 Patent is attached as Exhibit 2.
- 49. Unless enjoined by this Court, Lowe's will continue to infringe the '738 Patent, and Epistar will continue to suffer irreparable harm for which there is no adequate remedy at law. Accordingly, Epistar is entitled to preliminary and permanent injunctive relief against such infringement pursuant to 35 U.S.C. § 283.
- 50. Lowe's acted in a manner that was willful, malicious, in bad faith, deliberate, consciously wrongful, or flagrant. As a result of Lowe's infringement of

the '738 Patent, Epistar has been and continues to be irreparably injured in its business and property rights and is entitled to recover damages for such injuries pursuant to 35 U.S.C. § 284 in an amount to be determined at trial.

PRAYER FOR RELIEF

WHEREFORE, Plaintiff requests entry of judgment in its favor and against Defendants as follows:

- a. Judgment that Defendants are liable for infringing one or more claims of the '738 Patent, as alleged herein;
 - b. Judgment that such infringement is willful;
- c. An Order that Defendants and their parents, subsidiaries, affiliates, successors, predecessors, assigns, and the officers, directors, agents, servants, and employees of each of the foregoing, customers and/or licensees and those persons acting in concert or participation with any of them, are enjoined and restrained from continued infringement, including but not limited to using, making, importing, offering for sale, and/or selling products that infringe the '738 Patent prior to its expiration, including any extensions;
- d. An Order directing Defendants to file with this Court and serve upon Plaintiff's counsel within 30 days after the entry of the Order of Injunction a report setting forth the manner and form in which Defendants have complied with the injunction;
- e. An award of damages adequate to compensate Plaintiff for the infringement that has occurred, in accordance with 35 U.S.C. § 284, in lost profits, price erosion, and/or reasonable royalty, including pre-judgment and post-judgment interest at the highest rates allowed by law;
- f. An accounting and/or supplemental damages for all damages occurring after any discovery cutoff and through the Court's decision regarding the imposition of a permanent injunction;
 - g. Enhanced (trebled) damages;

An ongoing royalty for any post-judgment infringement; h. 1 2 An award of attorneys' fees based on this being an exceptional case i. 3 pursuant to 35 U.S.C. § 285, including prejudgment interest on such fees; į. Costs and expenses in this action; and 4 Such other and further relief, in law and in equity, as this Court may 5 k. deem just and appropriate. 6 **DEMAND FOR JURY TRIAL** 7 8 Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Epistar demands a trial by jury of this action. 9 Dated: September 1, 2023 WILSON SONSINI GOODRICH & ROSATI 10 **Professional Corporation** 11 12 By: /s/ James C. Yoon 13 James C. Yoon 14 Attorney for Epistar Corporation 15 16 17 18 19 20 21 22 23 24 25 26 27 28