

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF TEXAS  
DALLAS DIVISION**

BX LED LLC,	)	
	)	
Plaintiff,	)	
	)	
v.	)	Civil Action No. <u>3:23-cv-2862</u>
	)	
KEYSTONE TECHNOLOGIES, LLC,	)	<b>JURY TRIAL DEMANDED</b>
Defendant.	)	
	)	
	)	
	)	

**COMPLAINT FOR PATENT INFRINGEMENT**

Plaintiff BX LED LLC (“BX” or “Plaintiff”), by and through the undersigned counsel, hereby asserts the following claims for patent infringement against Defendant Keystone Technologies, LLC (“Keystone” or “Defendant”), and alleges as follows:

**SUMMARY**

1. Plaintiff is the owner by assignment of all right, title and interest in United States United States Patent Nos. 6,869,812; 7,901,109; 7,973,465; and 8,567,988; (collectively, the “Patents-in-Suit”).

2. Defendant infringes the Patents-in-Suit at least by selling, without authorization, Plaintiff’s proprietary technologies in a number of its commercial and consumer products including, *inter alia*, KT-LED14A21-0-E26-827, KT-LED18PAR38-NF-830, KT-WDLED13-6A-9CSF-FDIM, KT-ALED40-D2D-WM-850-VDIM, KT-CLED25PS-S1-8CSB-VDIM, KT-FLED15-RIA-UNV-8CSB-VDIM-W, KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM, among other substantially similar

products (collectively, the “Accused Products”). These Accused Products are marketed, offered, and distributed throughout the United States, including in this District.

3. By this action, Plaintiff seeks to obtain compensation for the harm Plaintiff has suffered, and will continue to suffer, as a result of Defendant’s infringement of the Patents-in-Suit.

### **NATURE OF THE ACTION**

4. This is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 *et seq.*

5. Defendant has infringed and continues to infringe, and at least as early as the filing and/or service of this Complaint, has induced and continues to induce infringement of, and has contributed to and continues to contribute to infringement of, one or more claims of Plaintiff’s Patents-in-Suit at least by making, using, selling, and/or offering to sell the Accused Products in the United States, including in this District, and/or by importing the Accused Products into the United States.

6. Plaintiff is the legal owner by assignment of the Patents-in-Suit, which were duly and legally issued by the United States Patent and Trademark Office (“USPTO”). Plaintiff seeks monetary damages for Defendant’s infringement of the Patents-in-Suit.

### **THE PARTIES**

7. Plaintiff BX LED LLC is a Texas limited liability company with its principal place of business at 17330 Preston Road, Suite 200D, Dallas, Texas 75252. Plaintiff is the owner of the intellectual property rights at issue in this action.

8. On information and belief, Defendant Keystone Technologies, LLC is a Pennsylvania limited liability company with its principal place of business at 2750 Morris Rd, Lansdale, Pennsylvania, 19446.

9. On information and belief, Defendant, through its numerous fulfillment centers and online retailers, directly and/or indirectly distributes, markets, offers to sell, and/or sells the Accused Products in the United States and/or imports the Accused Products into the United States, including in the Northern District of Texas, and otherwise directs infringing activities to this District in connection with the Accused Products.

### **JURISDICTION AND VENUE**

10. As this is a civil action for patent infringement arising under the patent laws of the United States, 35 U.S.C. § 1 et seq., this Court has subject matter jurisdiction over the matters asserted herein under 28 U.S.C. §§ 1331 and 1338(a).

11. This Court has personal jurisdiction over Defendant because Defendant has (i) availed itself of the rights and benefits of the laws of the State of Texas, (ii) transacted, conducted, and/or solicited business and engaged in a persistent course of conduct in the State of Texas (and in this District), (iii) derived substantial revenue from the sales and/or use of products, such as the Accused Products, in the State of Texas (and in this District), (iv) purposefully directed activities (directly and/or through intermediaries), such as marketing, shipping, distributing, offering for sale, selling, and/or advertising the Accused Products, at residents of the State of Texas (and residents in this District), (v) delivered Accused Products into the stream of commerce with the expectation that the Accused Products will be used and/or purchased by consumers in the State of Texas (and in this District), and (vi) committed acts of patent infringement in the State of Texas (and in this District).

12. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C. § 1400(b), as Defendant maintains a regular and established place of business within this District at 4205 McEwen Rd, Dallas, Texas 75244.

**PATENTS-IN-SUIT**

**U.S. Patent No. 6,869,812**

13. U.S. Patent No. 6,869,812 (the “’812 Patent”) is titled “High power AlInGaN based multichip light emitting diode” and was issued on March 22, 2005. A true and correct copy of the ’812 Patent is attached as Exhibit A.

14. The ’812 Patent was filed on May 13, 2003 as U.S. Patent Application No. 10/438,108.

15. Plaintiff is the owner of all rights, title, and interest in and to the ’812 Patent, with the full and exclusive right to bring suit to enforce the ’812 Patent, including the right to recover for past infringement.

16. The ’812 Patent is valid and enforceable under United States Patent Laws.

17. The ’812 Patent recognized problems with existing light emitting diodes at the time of the invention of the ’812 Patent.

18. For instance, the inventors of the ’812 Patent recognized that prior art light emitting diodes had issues of insufficient illumination and poor efficiency, limiting their ability “to function in some applications, such as providing general illumination, *e.g.*, ambient lighting.” ’812 Patent at 1:24-31. Prior attempts to address these issues involved the use of multiple LEDs and/or larger device sizes. *See id.* at 1:38-45, 2:16-18.

19. The use of larger device sizes introduced other impediments towards efficiency, *e.g.*, lower light extraction efficiency relative to smaller devices. *See id.* at 2:61-65. Light extraction efficiency refers to the issue that when light is generated in an LED, some light fails to escape the device, because “as the device size increases, light has a tendency to bounce more and thus travel a longer distance before exiting the device, resulting in increased light loss,” whereas

“light tends to bounce fewer times in a smaller device and thus travels a shorter distance.” *See id.* at 3:12-16.

20. The inventors of the '812 Patent recognized that it was “desirable to minimize the number of bounces and the total travel distance before light can escape for any light transmissive layer of an LED.” *See id.* at 3:9-11.

21. In view of the foregoing, among other advantages over the prior art, the inventions claimed by the '812 Patent provide the benefits of “superior light output efficiency” over the prior art by way of an active surface with elongated geometry. *See id.* at 11:46-48. With elongated geometry, “light can easily escape from the long dimension side, thus substantially enhancing the brightness of the device. The elongated configuration of the LED chip also enhances heat dissipation, thus allowing the device to be operated at higher current levels to facility further enhancement of the light output thereof, as well as for improvement of the efficiency thereof.” *See id.* at 8:62-9:3.

#### **U.S. Patent No. 7,901,109**

22. U.S. Patent No. 7,901,109 (the “'109 Patent”) is titled “Heat sink apparatus for solid state lights” and was issued on March 8, 2011. A true and correct copy of the '109 Patent is attached as Exhibit B.

23. The '109 Patent was filed on June 30, 2008 as U.S. Patent Application No. 12/165,563.

24. Plaintiff is the owner of all rights, title, and interest in and to the '109 Patent, with the full and exclusive right to bring suit to enforce the '109 Patent, including the right to recover for past infringement.

25. The '109 Patent is valid and enforceable under United States Patent Laws.

26. The '109 Patent recognized problems with existing solid state lights at the time of invention.

27. For instance, the '109 Patent recognized that the “operational power of many current solid state lights, such as light-emitting diode (LED) lights, is often limited by the solid state lights’ ability to dissipate heat.” ’109 Patent at 1:11-13. “Accordingly, increasing the ability of a solid state light to dissipate heat allows for higher power, and thus brighter, more efficient solid state lights.” *Id.* at 1:18-20.

28. In view of the foregoing, the '109 Patent discloses, in one embodiment, “a heat sink apparatus for a solid state light” that “comprises a heat sink comprising a first end configured for connection to a solid state light, a second end opposite the first end, and a heat dissipating portion between the first end and the second end. The heat dissipating portion has an elongated portion and a plurality of fins for dissipating heat generated by the solid state light, the fins extending from the elongated portion.” *Id.* at 1:27-34. Through this, and other disclosed embodiments, the '109 Patent offers advantages of, *inter alia*, increasing the heat dissipation, power, brightness, and efficiency of solid state lighting over the prior art.

#### **U.S. Patent No. 7,973,465**

29. U.S. Patent No. 7,973,465 (the “’465 Patent”) is titled “Light emitting diode with thin multilayer phosphor film” and was issued on July 5, 2011. A true and correct copy of the '465 Patent is attached as Exhibit C.

30. The '465 Patent was filed on July 15, 2010 as U.S. Patent Application No. 12/836,852.

31. Plaintiff is the owner of all rights, title, and interest in and to the '465 Patent, with the full and exclusive right to bring suit to enforce the '465 Patent, including the right to recover for past infringement.

32. The '465 Patent is valid and enforceable under United States Patent Laws.

33. The inventors of the '465 Patent recognized problems with the application of phosphor material to LEDs and other solid state lighting devices at the time. Specifically, phosphor materials were used to convert blue or ultraviolet LEDs to white light; to that end, the prior art encapsulated blue and ultraviolet LEDs with phosphor “by introducing a suspension of phosphor particles into a carrier (e.g., silicone), encapsulating the LEDs in the carrier, and curing the carrier to provide a solid layer of material in which the phosphor particles will remain suspended.” '465 Patent at 1:37-41.

34. One problem present in the prior art was that “silicone is a poor thermal conductor, and when illuminated, phosphors generate heat. Thus, when a phosphor-coated LED with a cured silicone carrier is used in a high-power application, the cured silicone may crack and/or have a reduced lifetime. This property limits their use in high power LED applications which use temperature sensitive phosphor. Further, cracks in the phosphor and silicone composition reduce the efficiency of the device.” *Id.* at 1:41-45.

35. The inventions claimed by the '465 Patent addressed these limitations by, e.g., separating the phosphor bearing film from the cured silicone film, such that the cured silicone film was substantially free of phosphor. As a result, the '465 Patent offered advantages of, *inter alia*, simplifying the process for applying phosphor material to LEDs, as well as increasing the reliability and efficiency of phosphor material encapsulated LEDs.

**U.S. Patent No. 8,567,988**

36. U.S. Patent No. 8,567,988 (the “’988 Patent”) is titled “Efficient LED array” and was issued on October 29, 2013. A true and correct copy of the ’988 Patent is attached as Exhibit D.

37. The ’988 Patent was filed on September 29, 2008 as U.S. Patent Application No. 12/240,011.

38. Plaintiff is the owner of all rights, title, and interest in and to the ’988 Patent, with the full and exclusive right to bring suit to enforce the ’988 Patent, including the right to recover for past infringement.

39. The ’988 Patent is valid and enforceable under United States Patent Laws. The ’988 Patent recognized problems with existing light emitting device arrays at the time of its invention.

40. The inventors of the ’988 Patent recognized that traditional prior art LED arrays were complicated to manufacture and resulted in inefficient heat dissipation, which in turn lowered light output by the LED array. In this regard, the ’988 Patent recognized that “directly mounting the LED chips to a metal substrate without an insulting dielectric provided an efficient thermal path to reduce or minimize the degrading effects of heat on light output.” *See, e.g.*, ’988 Patent at 4:54-59. The ’988 Patent also recognized that by spacing the LED chips apart from each other and making the surface of the metal substrate reflective, the regions between the chips operate to reflect light thereby increasing the optical output of the LED array. *See, e.g., id.* at 6:10-17. Thus, the invention described and claimed in the ’988 Patent provides the advantages of, *inter alia*, increased thermal efficiency and increased light output over the prior art.



**COUNT I: INFRINGEMENT OF U.S. PATENT NO. 6,869,812**

41. Plaintiff incorporates by reference and re-alleges paragraphs 1-40 of the Complaint as if fully set forth herein.

42. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '812 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license products, including but not limited to the KT-LED14A21-0-E26-827, KT-LED18PAR38-NF-830, KT-WDLED13-6A-9CSF-FDIM, KT-ALED40-D2D-WM-850-VDIM, KT-CLED25PS-S1-8CSB-VDIM, KT-FLED15-RIA-UNV-8CSB-VDIM-W, KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM, and among other substantially similar products (collectively, the "'812 Accused Products").

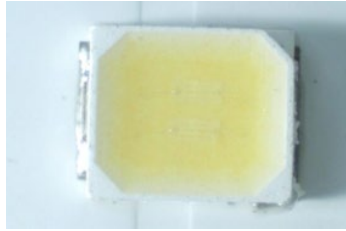
43. By way of non-limiting example(s), set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claim 1 of the '812 Patent by the '812 Accused Products. This description is based on publicly available information. Plaintiff reserves the right to modify this description, including, for example, on the basis of information about the '812 Accused Products that it obtains during discovery.

44. ***1(a): A light emitting diode chip comprising:***— The KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM each comprise a "light emitting diode chip," as recited in claim 1:

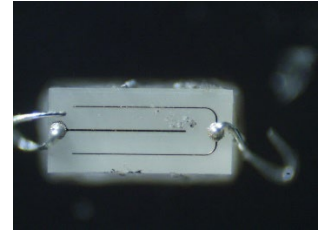
*KT-WPLED80-M1-8CSB-VDIM*



Product Box



LED Package



LED Chip

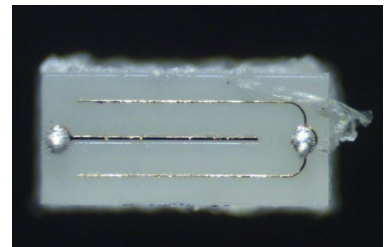
*KT-WPLED20-S1-8CSB-VDIM*



Product Box



LED Package



LED Chip

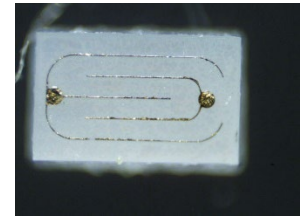
*KT-ALED70-S2-OSA-NM-840-VDIM*



Product Box

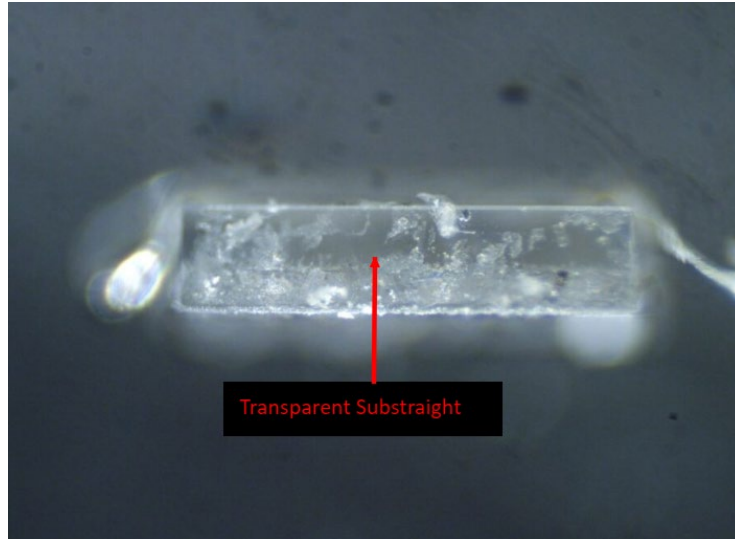


LED Package

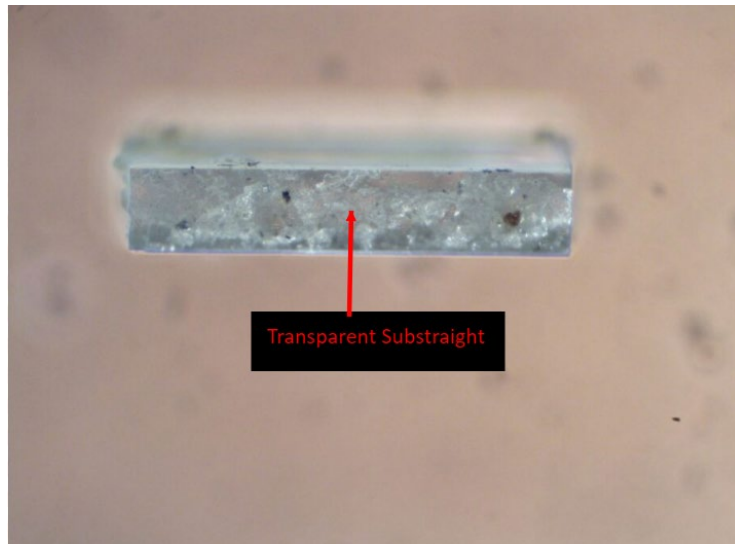


LED Chip

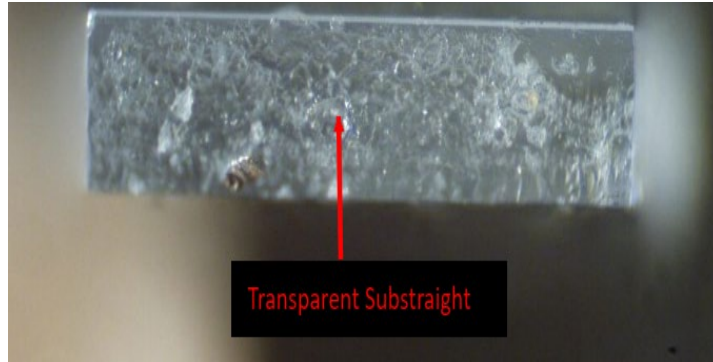
45. *1(b): a substantially transparent substrate;*— The KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM each comprise a “substantially transparent substrate,” as seen in the below images where the transparent substrate is annotated in red:



*KT-WPLED80-M1-8CSB-VDIM*

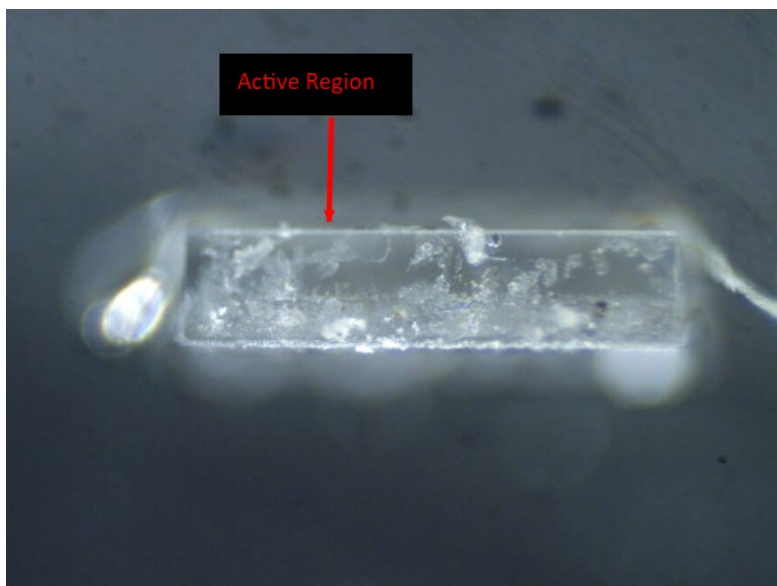


*KT-WPLED20-S1-8CSB-VDIM*

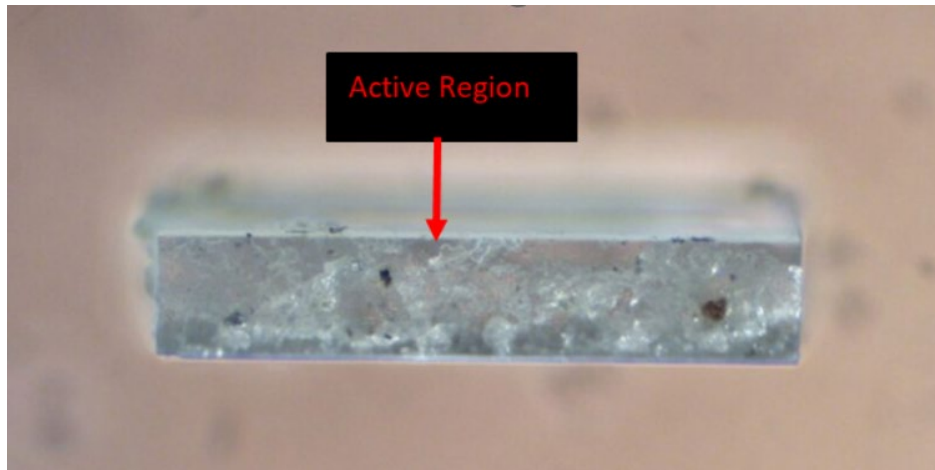


*KT-ALED70-S2-OSA-NM-840-VDIM*

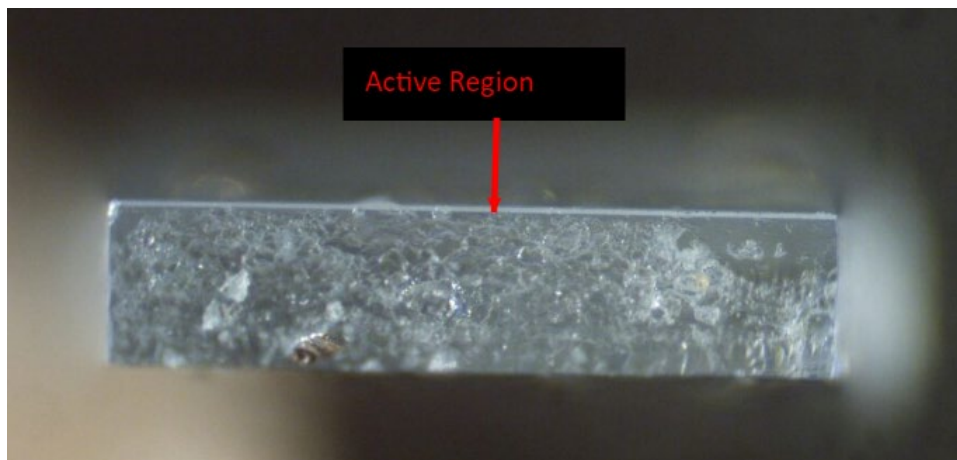
*1(c): An active region formed upon the substrate; and;—* The KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM each comprise an “active region formed upon the substrate,” as seen in the below images:



*KT-WPLED80-M1-8CSB-VDIM*



*KT-WPLED20-S1-8CSB-VDIM*

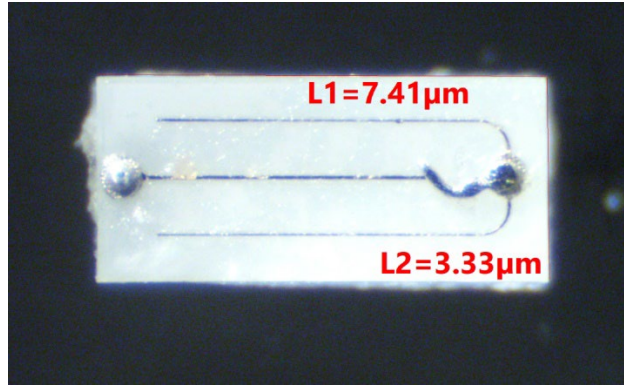


*KT-WPLED80-M1-8CSB-VDIM*

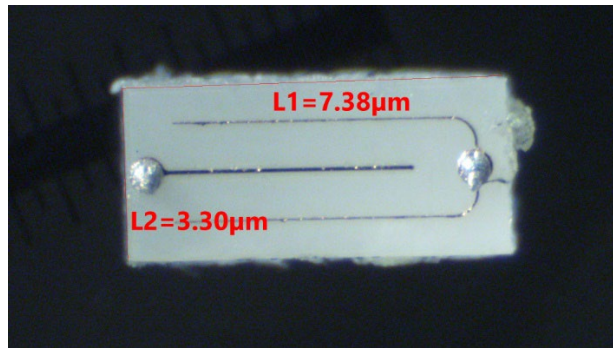
***1(d):*** *Wherein an aspect ratio of the active area is greater than approximately 1.5 to 1.—*  
The KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM each comprise an active region wherein the aspect ratio is greater than approximately 1.5 to 1.



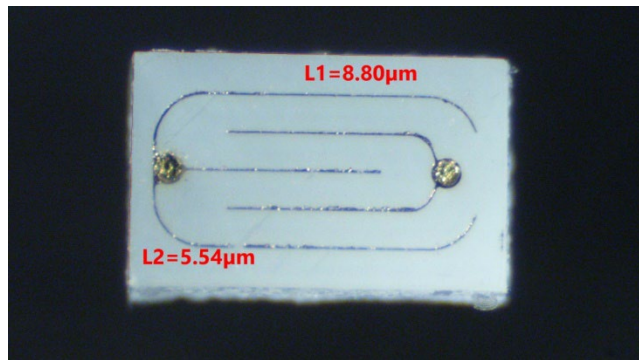
*KT-WPLED80-M1-8CSB-VDIM*



*KT-WPLED20-S1-8CSB-VDIM*



*KT-WPLED80-M1-8CSB-VDIM*



The aspect ratios of the active region of the light emitting diode chip in the KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM are all greater than 1.5 to 1. Specifically, the aspect ratios, as derived from the micrometer ( $\mu\text{m}$ ) measurements taken from above images, are:

	L1 (long side)	L2	Aspect Ratio (L1/L2)
KT-WPLED80-M1-8CSB-VDIM	7.41	3.33	2.23
KT-WPLED20-S1-8CSB-VDIM	7.38	3.30	2.23
KT-ALED70-S2-OSA-NM-840-VDIM	8.80	5.54	1.59

46. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '812 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '812 Patent under 35 U.S.C. § 271(c).

47. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '812 Patent while being on notice of (or willfully blind to) the '812 Patent. For instance, Defendant has supplied and continues to supply the '812 Accused Products to customers (e.g., end users and/or distributors of the '812 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '812 Patent.

48. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '812 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '812 Accused Products and infringing uses of the '812 Accused Products. *See, e.g.,* [KT-WPLED20-S1-8CSB-VDIM-B-1.pdf \(keystonotech.com\)](#); [KT-WPLED80-M1-8CSB-VDIM.pdf \(keystonotech.com\)](#); [KT-ALED70-S2-OSA-NM-8XX-VDIM.pdf \(keystonotech.com\)](#)

49. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '812 Patent. For instance, Defendant knows (and/or has known) of the existence of the '812 Patent or at least should have known of the existence of the '812 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '812 Patent since at least as early as the filing and/or service of the Complaint. And, as a result of their knowledge of the '812 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has

intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '812 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '812 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '812 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

50. Additionally, Defendant has been and/or currently is contributorily infringing one or more claims of the '812 Patent by offering for sale, selling, and/or importing one or more components in connection with the '812 Accused Products that contribute to the direct infringement of the '812 Patent by customers of the '812 Accused Products. As set forth above, Defendant has had actual knowledge of the '812 Patent or has been willfully blind to its existence since at least as early as the filing and/or service of this Complaint. Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '812 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) are especially made or especially adapted for use in infringement of the '812 Patent. Defendant has supplied (and/or continues to supply) the '812 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '812 Patent by using the '812 Accused Products in their intended manner (e.g., pursuant to instructions provided by Defendant).

51. At least as early as the filing and/or service of this Complaint, Defendant's infringement of the '812 Patent was and continues to be willful and deliberate, thereby entitling Plaintiff to enhanced damages.



52. Additional allegations regarding Defendant's knowledge of the '812 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

53. Defendant's infringement of the '812 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

54. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '812 Patent.

55. Plaintiff is entitled to recover from Defendant all damages that Plaintiff has sustained as a result of Defendant's infringement of the '812 Patent, including, without limitation, a reasonable royalty.

**COUNT II: INFRINGEMENT OF U.S. PATENT NO. 7,901,109**

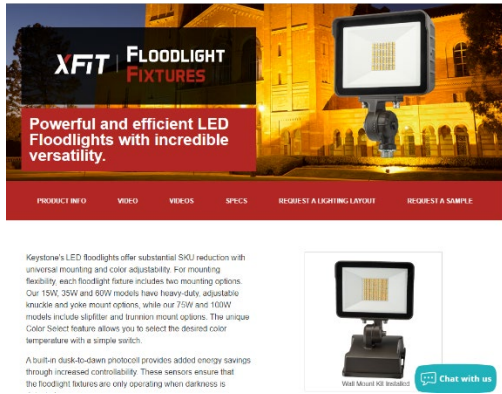
56. Plaintiff incorporates by reference and re-alleges paragraphs 1-55 of the Complaint as if fully set forth herein.

57. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '109 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license products, including but not limited to the KT-LED14A21-0-E26-827, KT-ALED40-D2D-WM-850-VDIM, KT-CLED25PS-S1-8CSB-VDIM, KT- FLED15-RIA-UNV-8CSB-VDIM-W, KT-ALED70-S2-OSA-NM-840-VDIM, KT-WPLED20-S1-8CSB-VDIM, and KT-WPLED80-M1-8CSB-VDIM, among other substantially similar products (collectively, the "'109 Accused Products").

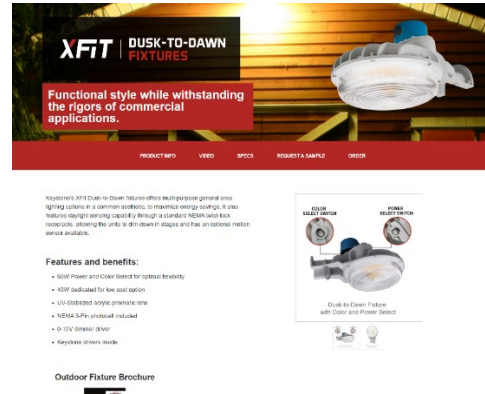
58. By way of non-limiting example(s), set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claim 10 of the '109 Patent. This description

is based on publicly available information. Plaintiff reserves the right to modify this description, including, for example, on the basis of information about the '109 Accused Products that it obtains during discovery.

59. **10(a): A solid state light assembly, comprising:**—The KT-ALED40-D2D-WM-850-VDIM and KT- FLED15-RIA-UNV-8CSB-VDIM-W are solid state light assemblies.

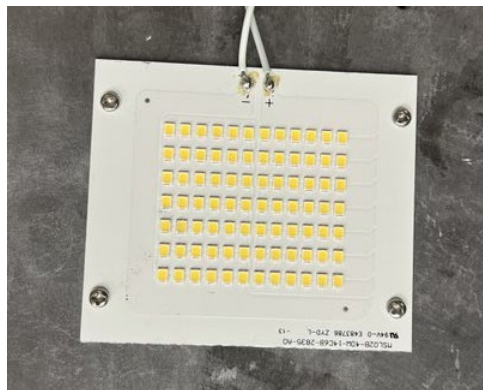


*FLED15-RIA-UNV-8CSB-VDIM-W*

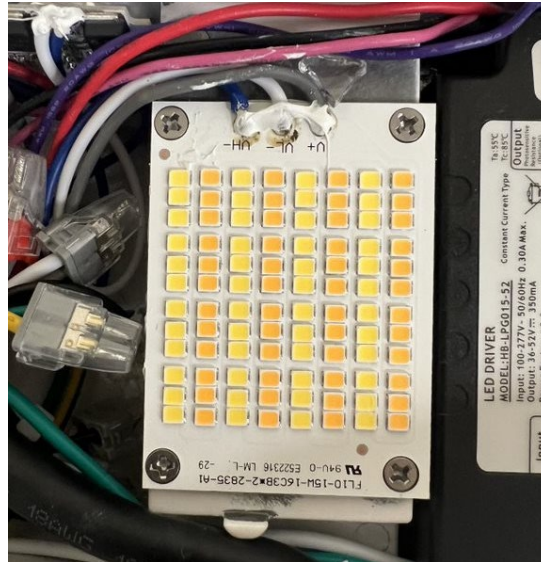


*KT-ALED40-D2D-WM-850-VDIM*

**10(b): a solid state light; and**— The KT-ALED40-D2D-WM-850-VDIM and KT-FLED15-RIA-UNV-8CSB-VDIM-W comprise solid state lights.



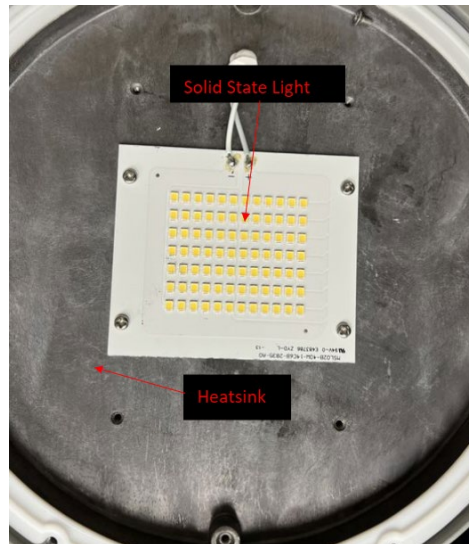
*KT-ALED40-D2D-WM-850-VDIM*



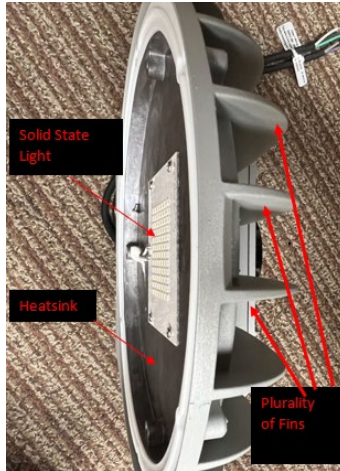
*FLED15-RIA-UNV-8CSB-VDIM-W*

60. *10(c): a heat sink integrally affixed to the solid state light, the heat sink comprising at least one fin for dissipating heat generated by the solid state light.*

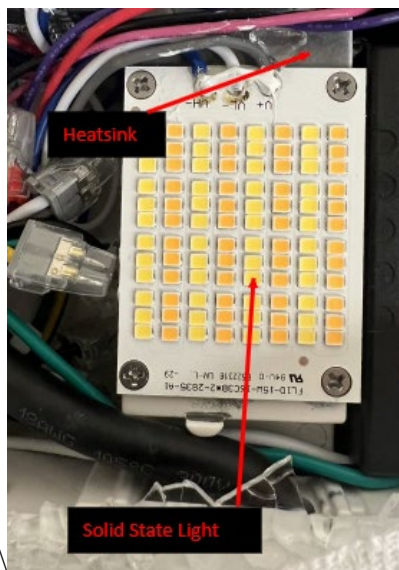
The KT-ALED40-D2D-WM-850-VDIM has a heat sink integrally affixed to the solid state light:



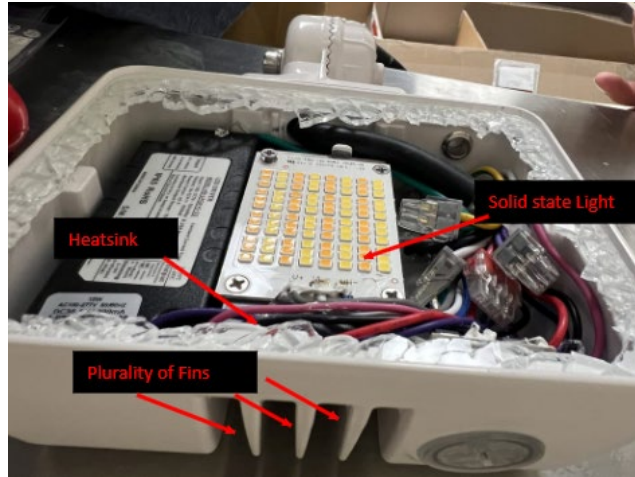
This heat sink comprises a plurality of fins for dissipating heat generated by the solid state light:



The KT- FLED15-RIA-UNV-8CSB-VDIM-W has a heat sink integrally affixed to the solid state light:



This heat sink comprises a plurality of fins for dissipating heat generated by the solid state light:



61. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '109 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '109 Patent under 35 U.S.C. § 271(c).

62. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '109 Patent while being on notice of (or willfully blind to) the '109 Patent. For instance, Defendant has supplied and continues to supply the '109 Accused Products to customers (e.g., end users and/or distributors of the '109 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '109 Patent.

63. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '109 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '109 Accused Products and infringing uses of the '109 Accused Products. *See, e.g.,* [KT-FLED15-R1A-UNV-8CSB-VDIM.pdf \(keystonetech.com\)](#); [XFit Dusk-to-Dawn Light Fixtures | Keystone Technologies](#)

64. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '109 Patent. For instance, Defendant

knows (and/or has known) of the existence of the '109 Patent or at least should have known of the existence of the '109 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '109 Patent since at least as early as the filing and/or service of the Complaint. And, as a result of their knowledge of the '109 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '109 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '109 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '109 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

65. Additionally, Defendant has been and/or currently is contributorily infringing one or more claims of the '109 Patent by offering for sale, selling, and/or importing one or more components in connection with the '109 Accused Products that contribute to the direct infringement of the '109 Patent by customers of the '109 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '109 Patent or has been willfully blind to its existence since at least as early as the filing and/or service of this Complaint. Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '109 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) are especially made or especially adapted for use in infringement of the '109 Patent. Defendant has supplied (and/or continues to supply) the '109 Accused Products that comprise such component(s) to customers, who then



directly infringe one or more claims of the '109 Patent by using the '109 Accused Products in their intended manner (e.g., pursuant to instructions provided by Defendant).

66. At least as early as the filing and/or service of this Complaint, Defendant's infringement of the '109 Patent was and continues to be willful and deliberate, thereby entitling Plaintiff to enhanced damages.

67. Additional allegations regarding Defendant's knowledge of the '109 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

68. Defendant's infringement of the '109 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

69. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '109 Patent.

70. Plaintiff is entitled to recover from Defendant all damages that Plaintiff has sustained as a result of Defendant's infringement of the '109 Patent, including, without limitation, a reasonable royalty.

**COUNT III: INFRINGEMENT OF U.S. PATENT NO. 7,973,465**

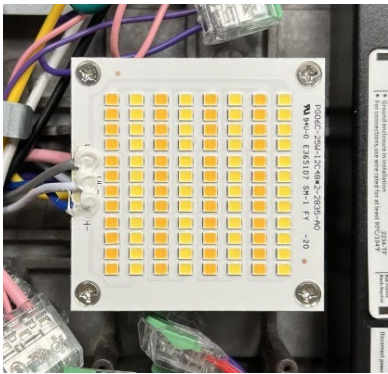
71. Plaintiff incorporates by reference and re-alleges 1-70 of the Complaint as if fully set forth herein.

72. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '465 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, products, including but not limited to the KT-ALED40-

D2D-WM-850-VDIM, KT-CLED25PS-S1-8CSB-VDIM, KT- FLED15-RIA-UNV-8CSB-VDIM-W, among other substantially similar products (collectively, the “’465 Accused Products”).

73. As non-limiting examples, set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claim 1 of the ’465 Patent. This description is based on publicly available information. Plaintiff reserves the right to modify this description, including, for example, on the basis of information about the ’465 Accused Products that it obtains during discovery.

74. ***1(a): An apparatus comprising: A light emitting device;***—The KT-CLED25PS-S1-8CSB-VDIM, and KT-ALED40-D2D-WM-850-VDIM are apparatuses containing LEDs.



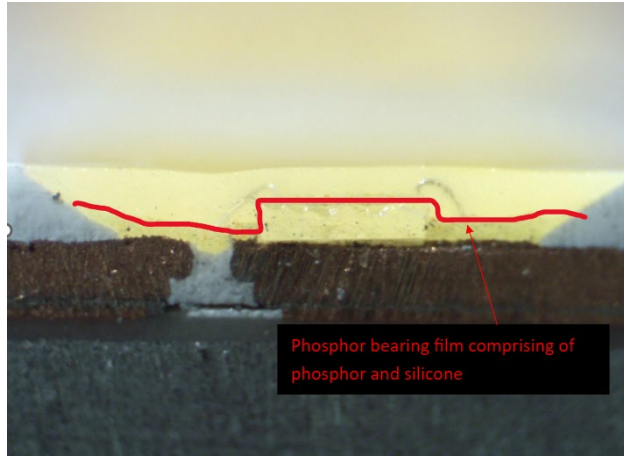
*KT-CLED25PS-S1-8CSB-VDIM*



*KT-ALED40-D2D-WM-850-VDIM*

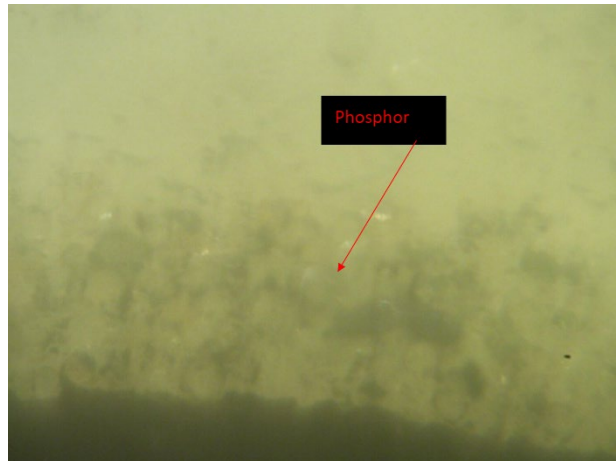
75. ***1(b): a phosphor bearing film arranged with the light emitting device, the phosphor bearing film comprising phosphor and a silicone carrier; and***—The below images of an individual LED from the above ’465 Accused Products are annotated to illustrate the phosphor bearing film comprising phosphor and a silicone carrier:





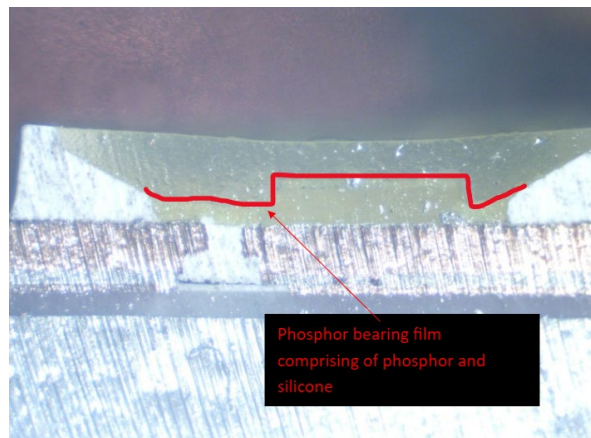
Phosphor bearing film comprising of phosphor and silicone

*KT-CLED25PS-S1-8CSB-VDIM*



Phosphor

*KT-CLED25PS-S1-8CSB-VDIM*



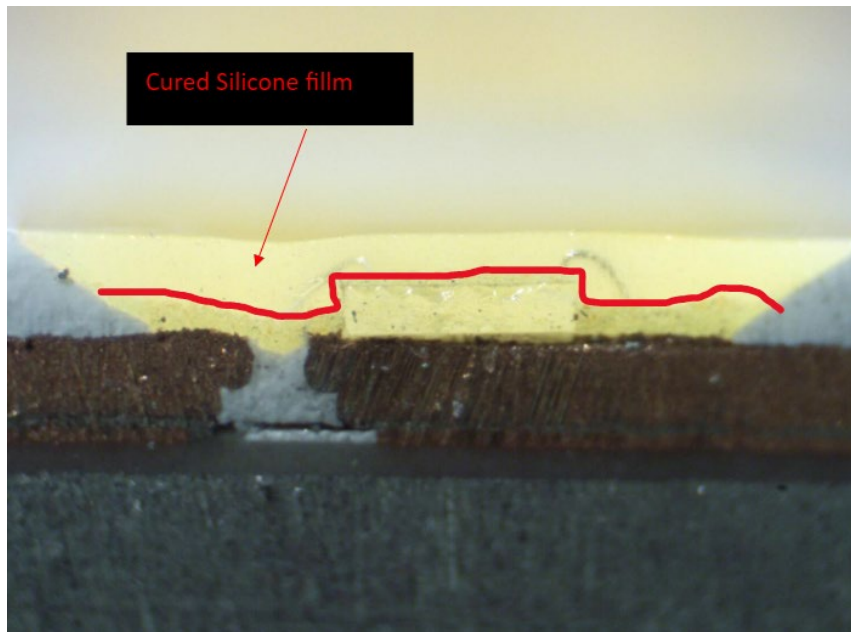
Phosphor bearing film comprising of phosphor and silicone

*KT-ALED40-D2D-WM-850-VDIM*

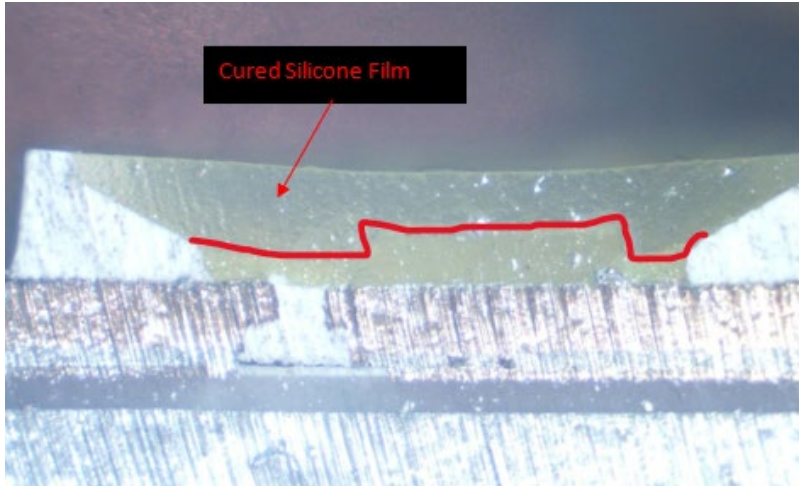


*KT-ALED40-D2D-WM-850-VDIM*

76. *1(c): a cured silicone film on the phosphor bearing film, the cured silicone film being substantially free of phosphor.*—The below images of an individual LED from the above '465 Accused Products are annotated to illustrate the cured silicone film on top of the phosphor film, the cured silicone film being substantially free of the phosphor.



*KT-CLED25PS-S1-8CSB-VDIM*



*KT-ALED40-D2D-WM-850-VDIM*

77. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '465 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '465 Patent under 35 U.S.C. § 271(c).

78. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '465 Patent while being on notice of (or willfully blind to) the '465 Patent. For instance, Defendant has supplied and continues to supply the '465 Accused Products to customers (e.g., end users and/or distributors of the '465 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '465 Patent.

79. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '465 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '465 Accused Products and infringing uses of the '465 Accused Products. *See, e.g.,* <https://keystonetech.com/all-products/led-canopy-light-fixtures/>; [XFit Dusk-to-Dawn Light Fixtures | Keystone Technologies](#)

80. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '465 Patent. For instance, Defendant knows (and/or has known) of the existence of the '465 Patent or at least should have known of the existence of the '465 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '465 Patent since at least as early as the filing and/or service of the Complaint. And, as a result of their knowledge of the '465 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '465 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '465 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '465 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

81. Additionally, Defendant has been and/or currently is contributorily infringing one or more claims of the '465 Patent by offering for sale, selling, and/or importing one or more components in connection with the '465 Accused Products that contribute to the direct infringement of the '465 Patent by customers of the '465 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '465 Patent or has been willfully blind to its existence since at least as early as the filing and/or service of this Complaint. Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '465 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) are especially made or especially adapted for use in infringement of the '465 Patent. Defendant has supplied (and/or continues to

supply) the '465 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '465 Patent by using the '465 Accused Products in their intended manner (e.g., pursuant to instructions provided by Defendant).

82. At least as early as the filing and/or service of this Complaint, Defendant's infringement of the '465 Patent was and continues to be willful and deliberate, thereby entitling Plaintiff to enhanced damages.

83. Additional allegations regarding Defendant's knowledge of the '465 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

84. Defendant's infringement of the '465 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

85. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '465 Patent.

86. Plaintiff is entitled to recover from Defendant all damages that Plaintiff has sustained as a result of Defendant's infringement of the '465 Patent, including, without limitation, a reasonable royalty.

**COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 8,567,988**

87. Plaintiff incorporates by reference and re-alleges paragraphs 1-86 of the Complaint as if fully set forth herein.

88. Defendant has infringed and is infringing, either literally or under the doctrine of equivalents, the '988 Patent in violation of 35 U.S.C. § 271 et seq., directly and/or indirectly, by making, using, offering for sale, and/or selling in the United States, and/or importing into the United States without authority or license, products, including but not limited to the KT-

LED18PAR38-NF-830, KT-WDLED13-6A-9CSF-FDIM, and KT-ALED70-S2-OSA-NM-840-VDIM, among other substantially similar products (collectively, the “’988 Accused Products”).

89. As just one non-limiting example, set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claims 1 and 7 of the ’988 Patent. This description is based on publicly available information. Plaintiff reserves the right to modify this description, including, for example, on the basis of information about the ’988 Accused Products that it obtains during discovery.

90. ***1(a): A light emitting diode (LED) apparatus comprising:***—The KT-LED18PAR38-NF-830, and KT-ALED70-S2-OSA-NM-840-VDIM each comprises an LED apparatus:



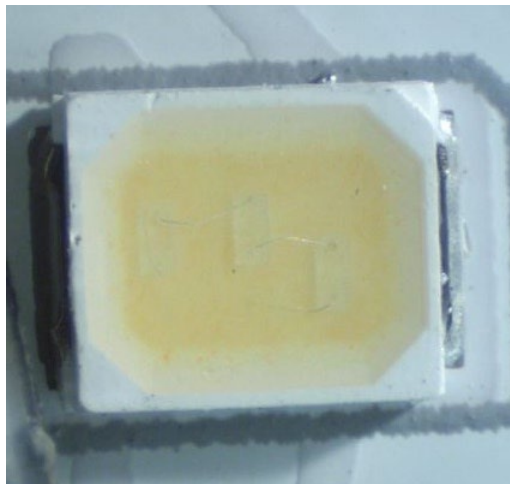
*KT-LED18PAR38-NF-830*

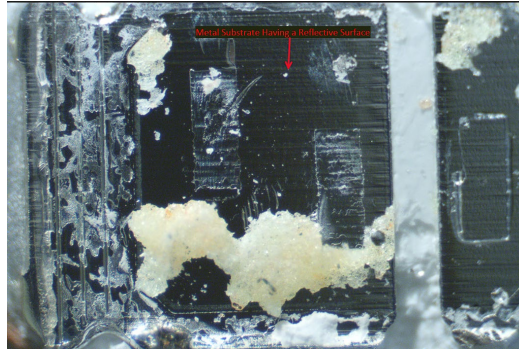




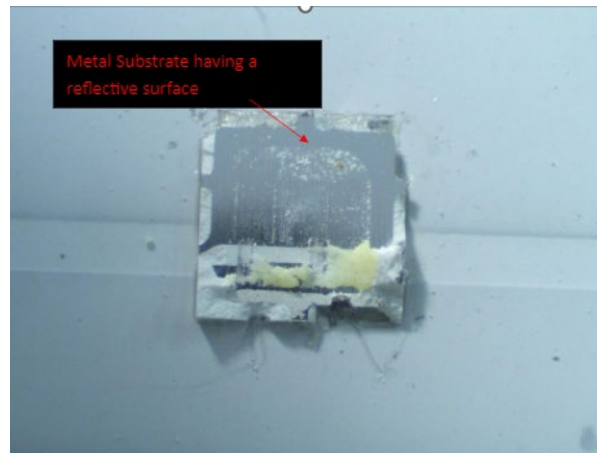
*KT-ALED70-S2-OSA-NM-840-VDIM*

91. ***1(b): a metal substrate having a reflective surface; and:***—The LED apparatuses of the KT-LED18PAR38-NF-830, and KT-ALED70-S2-OSA-NM-840-VDIM each comprises a metal substrate having a reflective surface, as seen in the annotated images below:





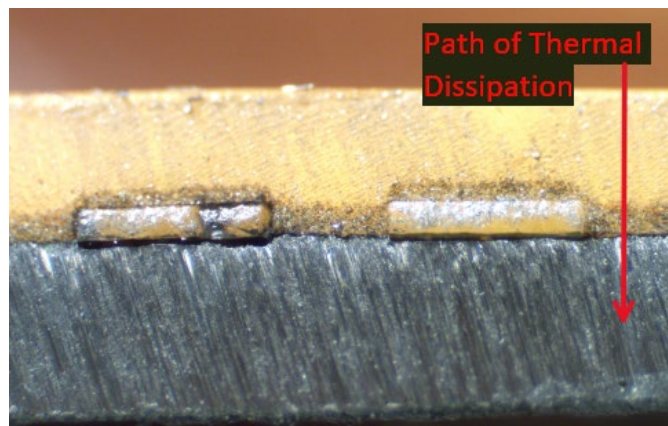
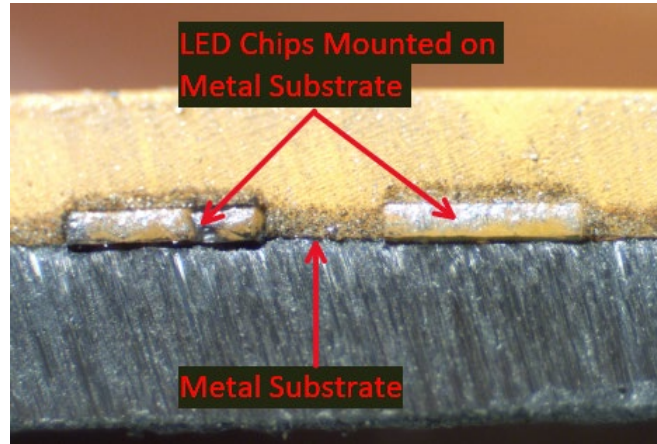
*KT-LED18PAR38-NF-830*



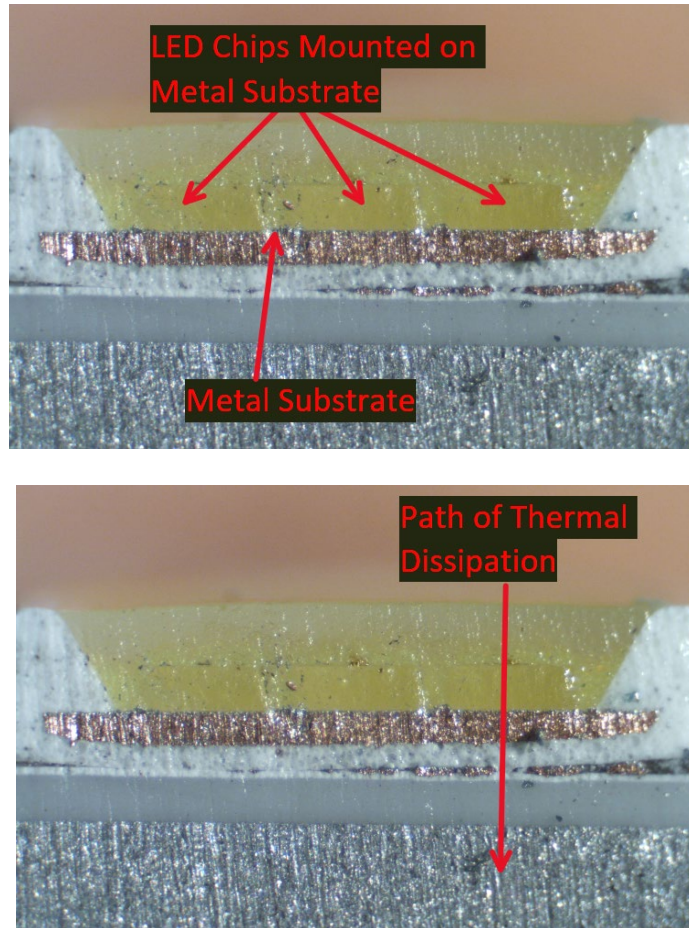
*KT-ALED70-S2-OSA-NM-840-VDIM*



92. *1(c): a plurality of LED chips mounted directly to the reflective surface of the metal substrate creating an efficient thermal path and;*—The LED apparatuses of the KT-LED18PAR38-NF-830, and KT-ALED70-S2-OSA-NM-840-VDIM each comprises a plurality of LED chips mounted directly to the reflective surface of the metal substrate creating an efficient thermal path, as seen in the annotated images below.

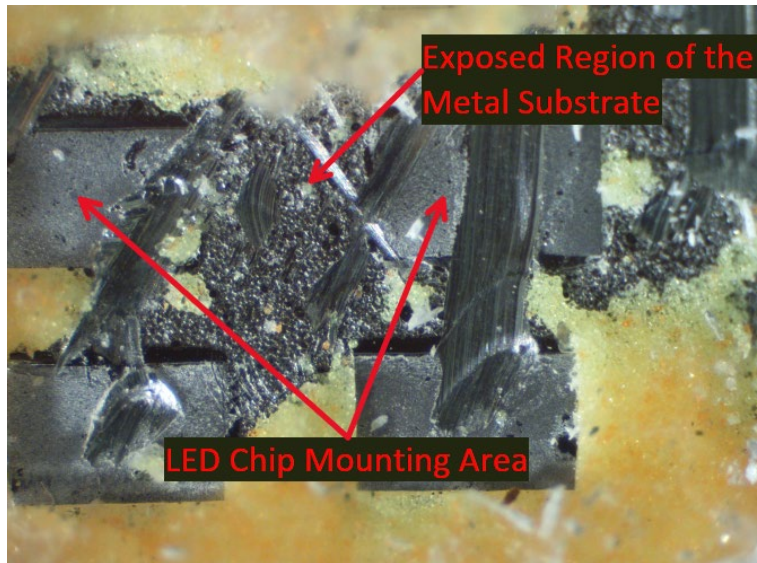


*KT-LED18PAR38-NF-830*

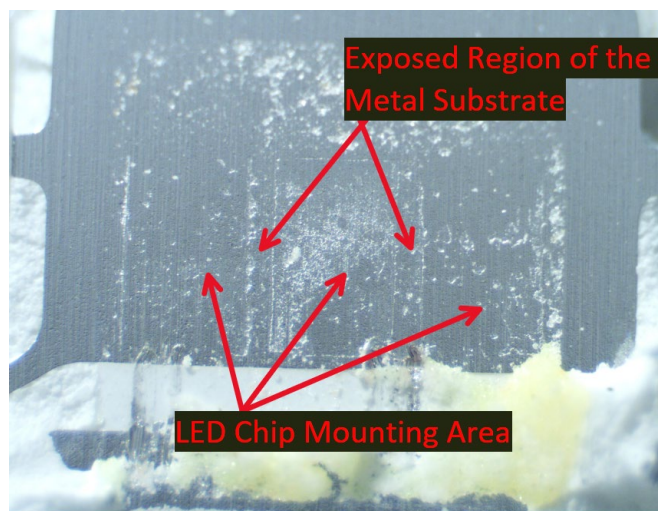


*KT-ALED70-S2-OSA-NM-840-VDIM*

93. *1(d): at least a portion of the LED chips being spaced apart from each other to expose regions of the reflective surface between the portion of the LED chips, the exposed regions reflecting light emitted from the portion of the LED chips, and—The LED chips in the KT-LED18PAR38-NF-830, and KT-ALED70-S2-OSA-NM-840-VDIM are spaced apart from each other to expose regions of the reflective surface between the portion of the LED chips, the exposed regions reflecting light emitted from the portion of the LED chips, as seen in the images below.*

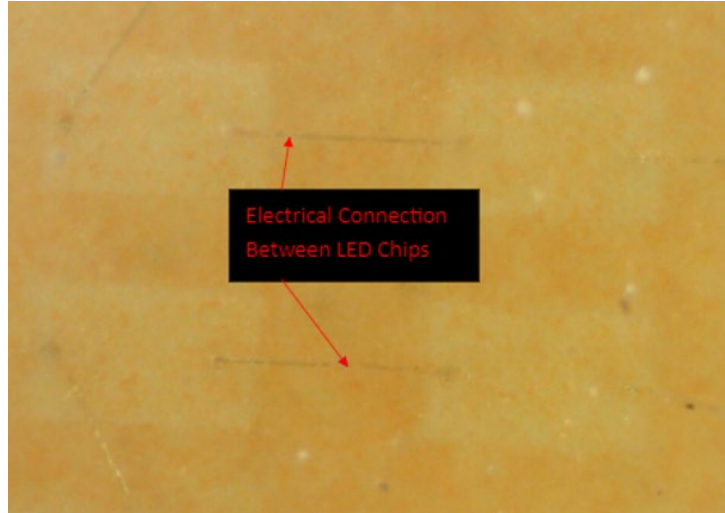


*KT-LED18PAR38-NF-830*

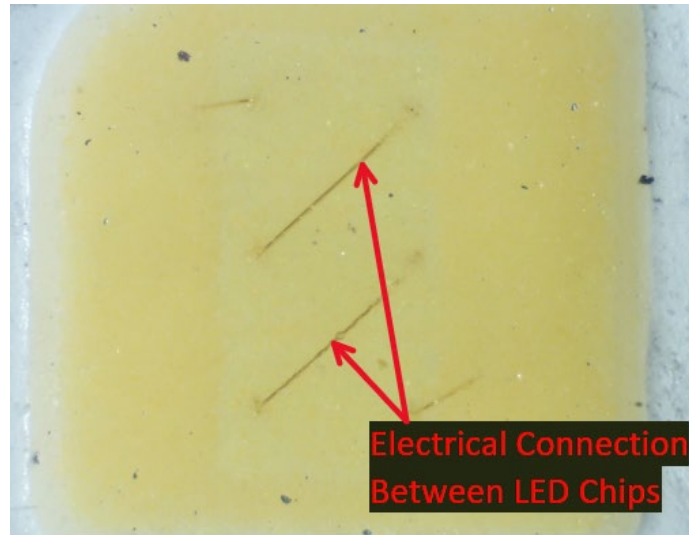


*KT-ALED70-S2-OSA-NM-840-VDIM*

94. *1(e): an electrical path formed by connecting the LED chips in a chip to chip fashion*—An electrical path is formed by connecting the LED chips in a chip to chip fashion.



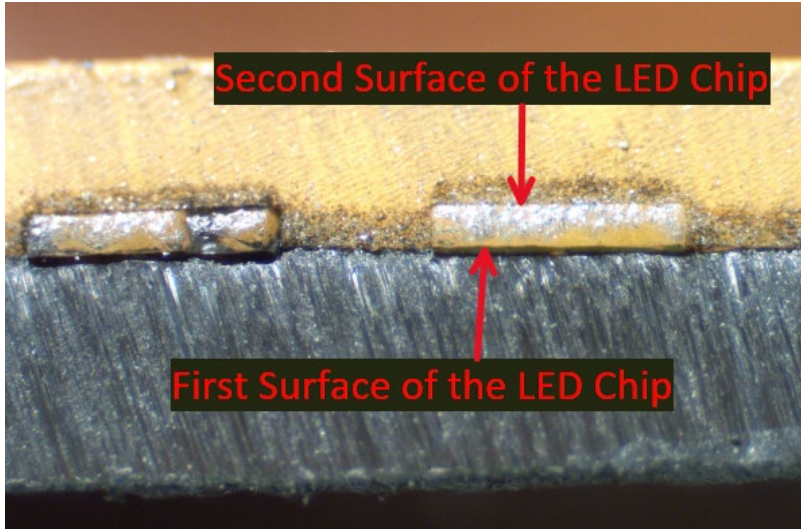
*KT-LED18PAR38-NF-830*



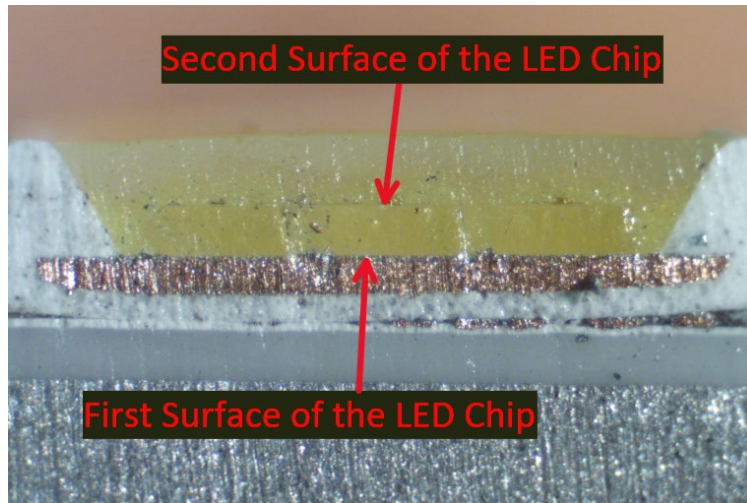
*KT-ALED70-S2-OSA-NM-840-VDIM*

95. ***Claim 7: The apparatus of claim 1 wherein the plurality of LED chips have a first surface that is mounted to the reflective surface, and electrical contacts that are provided on one or more surfaces that are not the first surface.—***The LED chips have electrical contacts which are provided on surfaces other than the one mounted to the reflective surface, as seen in the below images:





*KT-LED18PAR38-NF-830*



*KT-ALED70-S2-OSA-NM-840-VDIM*

96. Additionally, Defendant has been and/or currently is an active inducer of infringement of the '988 Patent under 35 U.S.C. § 271(b) and a contributory infringer of the '988 Patent under 35 U.S.C. § 271(c).

97. Indeed, Defendant has been and/or currently is intentionally causing, urging, and/or encouraging customers to directly infringe one or more claims of the '988 Patent while being on notice of (or willfully blind to) the '988 Patent. For instance, Defendant has supplied and continues

to supply the '988 Accused Products to customers (e.g., end users and/or distributors of the '988 Accused Products) while knowing that use of these products in their intended manner will directly infringe one or more claims of the '988 Patent.

98. Defendant has been and/or currently is knowingly and intentionally encouraging and aiding customers to engage in such direct infringement of the '988 Patent. As one example, Defendant promotes, advertises, and instructs customers or potential customers about the '988 Accused Products and infringing uses of the '988 Accused Products. *See, e.g.,* [https://keystonetech.com/spec\\_sheets/KT-LED18PAR38-X-8XX.pdf](https://keystonetech.com/spec_sheets/KT-LED18PAR38-X-8XX.pdf); [KT-ALED70-S2-OSA-NM-8XX-VDIM.pdf \(keystonetech.com\)](https://keystonetech.com/spec_sheets/KT-ALED70-S2-OSA-NM-8XX-VDIM.pdf)

99. Defendant knows (and/or has known) that such encouraging and aiding does (and/or would) result in its customers directly infringing the '988 Patent. For instance, Defendant knows (and/or has known) of the existence of the '988 Patent or at least should have known of the existence of the '988 Patent but was willfully blind to its existence. Indeed, Defendant has had actual knowledge of the '988 Patent since at least as early as the filing and/or service of the Complaint. And, as a result of their knowledge of the '988 Patent (and/or as a direct and probable consequence of its willful blindness to this fact), Defendant specifically intends (and/or has intended) that its encouraging and aiding does (and/or would) result in direct infringement of the '988 Patent by Defendant's customers. On information and belief, Defendant specifically intends (and/or has intended) that its actions will (and/or would) result in direct infringement of one or more claims of the '988 Patent and/or subjectively believes (and/or has believed) that its actions will (and/or would) result in infringement of the '988 Patent but has taken (and/or took) deliberate actions to avoid learning of those facts.

100. Additionally, Defendant has been and/or currently is contributorily infringing one or more claims of the '988 Patent by offering for sale, selling, and/or importing one or more components in connection with the '988 Accused Products that contribute to the direct infringement of the '988 Patent by customers of the '988 Accused Products. In particular, as set forth above, Defendant has had actual knowledge of the '988 Patent or has been willfully blind to its existence since at least as early as the filing and/or service of this Complaint. Further, Defendant offers for sale, sells, and/or imports one or more components in connection with the '988 Accused Products that are not staple articles of commerce suitable for substantial noninfringing use, and Defendant knows (or should know) that such component(s) are especially made or especially adapted for use in infringement of the '988 Patent. Defendant has supplied (and/or continues to supply) the '988 Accused Products that comprise such component(s) to customers, who then directly infringe one or more claims of the '988 Patent by using the '988 Accused Products in their intended manner (e.g., pursuant to instructions provided by Defendant).

101. At least as early as the filing and/or service of this Complaint, Defendant's infringement of the '988 Patent was and continues to be willful and deliberate, thereby entitling Plaintiff to enhanced damages.

102. Additional allegations regarding Defendant's knowledge of the '988 Patent and willful infringement will likely have evidentiary support after a reasonable opportunity for discovery.

103. Defendant's infringement of the '988 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

104. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '988 Patent.

105. Plaintiff is entitled to recover from Defendant all damages that Plaintiff has sustained as a result of Defendant's infringement of the '988 Patent, including, without limitation, a reasonable royalty.

**JURY DEMAND**

Plaintiff hereby demands a trial by jury on all issues so triable.

**PRAYER FOR RELIEF**

WHEREFORE, Plaintiff respectfully requests:

- A. That Judgment be entered that Defendant has infringed at least one or more claims of the Patents-in-Suit, directly and/or indirectly, literally and/or under the doctrine of equivalents;
- B. An award of damages sufficient to compensate Plaintiff for Defendant's infringement under 35 U.S.C. § 284, including an enhancement of damages on account of Defendant's willful infringement;
- C. That the case be found exceptional under 35 U.S.C. § 285 and that Plaintiff be awarded its reasonable attorneys' fees;
- D. Costs and expenses in this action;
- E. An award of prejudgment and post-judgment interest; and
- F. Such other and further relief as the Court may deem just and proper.

Respectfully submitted,

**PLATT RICHMOND PLLC**

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BX LED, LLC**