IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF TEXAS

SemiLED Innovations LLC, Plaintiff, v. Lowe's Companies, Inc. and Lowe's Home Centers, LLC, Defendants.	Civil Action No. _____ **JURY TRIAL DEMANDED**

COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff SemiLED Innovations LLC ("SemiLED" or "Plaintiff"), by and through the undersigned counsel, hereby asserts the following claims for patent infringement against Defendants Lowe's Companies, Inc., and Lowe's Home Centers, LLC (collectively, "Lowe's" or "Defendants"), and alleges as follows:

SUMMARY

1. Plaintiff is the owner by assignment of all right, title, and interest in United States Patent Nos. 8,963,196; 9,530,942; 8,309,971; 7,128,454 and 8,319,246 (collectively, the "Patents-in-Suit").

2. Defendants infringe the Patents-in-Suit at least by selling, without authorization, Plaintiff's proprietary technologies incorporated in a number of Defendants' residential and commercial products including, *inter alia*, Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, Utilitech LED 4-Panel Garage Light, Lithonia Lighting HGX Floodlight, GE Relax HD A19 LED Bulb, Utilitech Recessed Retrofit Light, and Kobalt Handheld Cordless Spotlight, 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 Defendants' 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. Defendants have infringed, and continue to infringe, 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 Defendants' infringement of the Patents-in-Suit.

THE PARTIES

7. Plaintiff SemiLED Innovations LLC is a Texas limited liability company with a business address at 6841 Virginia Parkway, Suite 103-441, McKinney, Texas 75071. Plaintiff is the owner of the intellectual property rights at issue in this action.

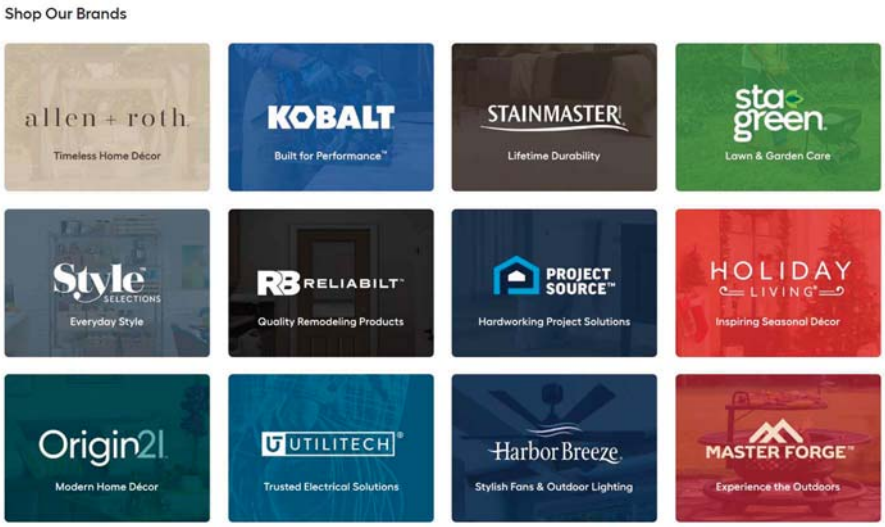
8. Upon information and belief, Defendant Lowe's Companies, Inc. is a North Carolina corporation with its principal place of business at 1000 Lowe's Boulevard, Mooresville, North Carolina 28697, and may be served with process by serving its registered agent, Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

9. Upon information and belief, Defendant Lowe's Home Centers, LLC is a North

Carolina corporation with its principal place of business at 1605 Curtis Bridge Road, North Wilkesboro, North Carolina 28697, and may be served with process by serving its registered agent, Corporation Service Company d/b/a CSC-Lawyers Incorporating Service Company, 211 E. 7th Street, Suite 620, Austin, TX 78701-3218.

10. On information and belief, Defendants operate numerous regular and established places of business, referred to as "Lowe's" retail stores, throughout the Eastern District of Texas, including, but not limited to, a "Lowe's" retail store (Store #0505) located at 5001 Central EXPY, Plano, TX 75023. *See* https://www.lowes.com/store/TX-Plano/0505. Defendants also operate a distribution center in this district at 955 Lowes Lane, Mt.Vernon, TX 75457. *See* Lowe's Regional Distribution Center | Manufacturing).

11. On information and belief, Defendants produce or cause to be produced the Kobalt, allen + roth, Utilitech, and Harbor Breeze branded products under its private label business (*see, e.g.*https://www.energystar.gov/productfinder/product/certified-light-bulbs/details/2401544) the Kobalt, allen + roth, Utilitech, and Harbor Breeze brands are trademarked and held by LF, LLC (https://uspto.report/TM/88546361, https://uspto.report/TM/78811452, https://uspto.report/TM/85896167, https://uspto.report/TM/78287462). *See also*, https://www.lowes.com/l/shop/lowes-brands:



12. On information and belief, Defendants directly and/or indirectly distribute, market, offer to sell, and/or sell the Accused Products in the United States and/or import the Accused Products into the United States, including in the Eastern District of Texas, and otherwise direct infringing activities in this District in connection with the Accused Products.

JURISDICTION AND VENUE

13. 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).

14. This Court has general and specific personal jurisdiction over Defendants. Defendants conduct substantial business in the forum, directly and/or through intermediaries, including: (i) as least a portion of the infringing activity alleged herein; and (ii) regularly doing or soliciting business, engaging in other persistent courses of conduct and/or deriving substantial revenue from goods and services provided to persons in this District, and (iii) having a regular and established place of business in this state and in this judicial district.

15. Venue is proper in this District under 28 U.S.C. §§ 1391(b) and (c) and 28 U.S.C.

§ 1400(b), as Defendants have committed substantial acts of infringement in this District and have regular and established places of business in this District.

PATENTS-IN-SUIT

U.S. Patent No. 8,963,196

16. U.S. Patent No. 8,963,196 (the "'196 Patent") is titled "Slim LED package" and was issued on Feb 24, 2015. A true and correct copy of the '196 Patent is attached as Exhibit A.

17. The '196 Patent was filed on Jan 22, 2014 as U.S. Patent Application No. 14/161,377.

18. Plaintiff is the owner of all rights, title, and interest in and to the '196 Patent, with the full and exclusive right to bring suit to enforce the '196 Patent, including the right to recover for past infringement.

19. The '196 Patent is valid and enforceable under United States Patent Laws.

20. The '196 Patent recognized problems with existing light emitting diode (LED) packages at the time of the inventions of the '196 Patent.

21. For instance, the inventors of the '196 Patent recognized that prior art light emitting diode packages had issues where the housing supporting the lead frame would have excessive thickness. The added thickness made it difficult to fabricate a thin lead frame type LED package. Additionally, "the encapsulation material of the LED package which covers the LED chip, undergoes a yellowing phenomenon by energy generated from the LED chip emitting light. Such a yellowing phenomenon is a main cause of decreased luminescence performance and lifetime of the LED package." '196 Patent at 1:53-57. Prior attempts to address these issues involved the use of a heat sink structure, such as a heat dissipation slug inserted into the housing, which complicated the manufacturing process. *See id.* at 1:58-64.

22. The inventors of the '196 Patent recognized that a "lead frame on which the LED

chip is mounted and the lead frame with which a bonding wire is connected have a significantly increased area exposed to the bottom, so that the LED package has greatly improved thermal dissipation efficiency." *See id*. at 3:1-5. Additionally, the inventors of the '196 Patent describe the following method to increase LED package slimness: "the LED package is configured to mount an LED chip on a chip mounting recess, which is formed on a predetermined region of a lead frame by reducing the thickness of the predetermined region, such that the thickness of the LED chip partially overlaps the thickness of the lead frame." *See id*. at 2:62-66.

23. In view of the foregoing, among other advantages over the prior art, the inventions claimed by the '196 Patent provide the benefits of "thermal dissipation efficiency" and a reduction of thickness over the prior art by way of the LED chip mounting recess and lead frame area. *See id*. at 2:61-68 and 3:1-5.

U.S. Patent No. 9,530,942

24. U.S. Patent No. 9,530,942 (the "'942 Patent") is titled "Slim LED Package" and was issued on December 27, 2016. A true and correct copy of the '942 Patent is attached as Exhibit B.

25. The '942 Patent was filed on August 3, 2015 as U.S. Patent Application No. 14/816,532.

26. Plaintiff is the owner of all rights, title, and interest in and to the '942 Patent, with the full and exclusive right to bring suit to enforce the '942 Patent, including the right to recover for past infringement.

27. The '942 Patent is valid and enforceable under United States Patent Laws.

28. The '942 Patent recognized problems with existing light emitting diode (LED) packages at the time of the inventions of the '942 Patent.

29. For instance, the inventors of the '942 Patent recognized that prior art light emitting

diode packages had issues where the housing supporting the lead frame would have excessive thickness. The added thickness made it difficult to fabricate a thin lead frame type LED package. Additionally, "the encapsulation material of the LED package which covers the LED chip, undergoes a yellowing phenomenon by energy generated from the LED chip emitting light. Such a yellowing phenomenon is a main cause of decreased luminescence performance and lifetime of the LED package." '942 Patent at 1:57-62. Prior attempts to address these issues involved the use of a heat sink structure, such as a heat dissipation slug inserted into the housing, which complicated the manufacturing process. *See id.* at 1:64-67 and 2:1.

30. The inventors of the '942 Patent recognized that a "lead frame on which the LED chip is mounted and the lead frame with which a bonding wire is connected have a significantly increased area exposed to the bottom, so that the LED package has greatly improved thermal dissipation efficiency." *See id.* at 3:6-11. Additionally, the inventors of the '942 Patent describe the following method to increase LED package slimness, "the LED package is configured to mount an LED chip on a chip mounting recess, which is formed on a predetermined region of a lead frame by reducing the thickness of the predetermined region, such that the thickness of the LED chip partially overlaps the thickness of the lead frame." *See id.* at 2:67 and 3:1-4.

31. In view of the foregoing, among other advantages over the prior art, the inventions claimed by the '942 Patent provide the benefits of "thermal dissipation efficiency" and a reduction of thickness over the prior art by way of the LED chip mounting recess and lead frame area. *See id.* at 2:67, 3:1-4 and 3:6-11.

U.S. Patent No. 8,309,971

32. U.S. Patent No. 8,309,971 (the "'971 Patent") is titled "Light emitting diode having electrode pads" and was issued on Nov 13, 2012. A true and correct copy of the '971 Patent is attached as Exhibit C.

33. The '971 Patent was filed on December 21, 2010 as U.S. Patent Application No. 12/974,917.

34. Plaintiff is the owner of all rights, title, and interest in and to the '971 Patent, with the full and exclusive right to bring suit to enforce the '971 Patent, including the right to recover for past infringement.

35. The '971 Patent is valid and enforceable under United States Patent Laws.

36. The inventors of the '971 Patent recognized problems with the distribution of current in the P-type semiconductor layer. According to the inventors of the '971 Patent, "To solve such problems, a transparent electrode layer having a low resistivity may be formed on the P-type semiconductor layer so as to enhance current spreading." '971 Patent at 1:53-56. This solution increased the light emitting area of the LED.

37. One problem present in the prior art was that "since the transparent electrode layer tends to absorb light, the thickness of the transparent electrode layer may be limited, thereby providing limited current spreading. In particular, in a large LED having an area of about 1 mm^2 or more for high output, there may be a limit in achieving efficient current spreading through the transparent electrode layer." *Id.* at 1:61-67.

38. The inventions claimed by the '971 Patent addressed these limitations by, e.g., spacing an electrode apart from a semiconductor layer and providing LEDs with various structures of electrode pads and extensions capable of enhancing current spreading. *See id.* at 2:26-28 and 2:32-35. As a result, the '971 Patent offered advantages of, *inter alia*, enhancing current spreading, as well as increasing the luminous efficacy.

U.S. Patent No. 7,128,454

39. U.S. Patent No. 7,128,454 (the "'454 Patent") is titled "Light emitting diode module for automobile headlights and automobile headlight having the same" and was issued on October

31, 2006. A true and correct copy of the '454 Patent is attached as Exhibit D.

40. The '454 Patent was filed on August 25, 2004 as U.S. Patent Application No. 10/924,866.

41. Plaintiff is the owner of all rights, title, and interest in and to the '454 Patent, with the full and exclusive right to bring suit to enforce the '454 Patent, including the right to recover for past infringement.

42. The '454 Patent is valid and enforceable under United States Patent Laws.

43. The '454 Patent recognized problems with existing light emitting diode modules at the time of the inventions of the '454 Patent.

44. For instance, the '454 Patent describes a light emitting module, absent in the prior art, which comprises a waterproof structure together with a heat radiating structure. *See*, *e.g.*, '454 Patent at 1:59-61. The '454 Patent recognized that LED modules generate more heat than a halogen lamp and require protection from external moisture. *See id.* at 1:43-47. At the time of the '454 Patent, white LED lighting modules were a relatively recent innovation, with the majority of modules being halogen lamps, which had much different thermal and protective requirements. *Id.* at 1:27:47.

45. The inventors of the '454 Patent recognized a number of advantages of the claimed inventions over the prior art, including preventing the "permeation of external moisture while efficiently radiating heat to the outside." *See id.* at 1:55-57.

U.S. Patent No. 8,319,246

46. U.S. Patent No. 8,319,246 (the "'246 Patent") is titled "Semiconductor device and method for manufacturing same" and was issued on Nov 27, 2012. A true and correct copy of the '246 Patent is attached as Exhibit E.

47. The '246 Patent was filed on Feb 16, 2010 as U.S. Patent Application No.

12/706,366.

48. Plaintiff is the owner of all rights, title, and interest in and to the '246 Patent, with the full and exclusive right to bring suit to enforce the '246 Patent, including the right to recover for past infringement.

49. The '246 Patent is valid and enforceable under United States Patent Laws.

50. The '246 Patent recognized problems with existing light emitting diodes (LED) at the time of the inventions of the '246 Patent.

51. For instance, the inventors of the '246 Patent recognized that flip chip mounting was an optimal method for mounting LEDs since it would allow for optimal heat transmission from the LED to the substrate. '246 Patent at 1:14-20. However, the prior art flip chip mounting methods needed improvement with respect to LED applications; flip chip mounting was improved from a higher aspect ratio of the columnar metal, but prior art methods increased the aspect ratio of the columnar metal by reducing thickness or increasing height of the material therein, which resulted in worse joining strength, less reliability, and increased cost. *Id.* at 1:29-37.

52. The '246 Patent discloses multiple improvements over the prior art. First the '246 Patent includes embodiments in which the metal pillars have a higher aspect ratio without increasing height, but by making the metal pillar sufficiently fine resulting in improved stress mitigation and reliability across the components *Id.* at 4:23-29. Second, the metal pillars taught by the '246 Patent can better absorb stress, so, even if the LED is misaligned when mounted on the circuit, there won't be reliability issues; the methods disclosed therein allow for better joining strength between the external terminal and the circuit substrate resulting in improved reliability *Id.* at 4:14-22. Third, multiple fine metal pillars can be used resulting in increased joining strength, less electrical resistance, improved reliability, and increased aspect ratio of the metal pillar all without increasing cost *Id.* at 4:30-49. The Inventors of the '246 Patents also disclosed a variety

of manufacturing methods and the improvements of their technology. *Id.* at 4:50-9:48.

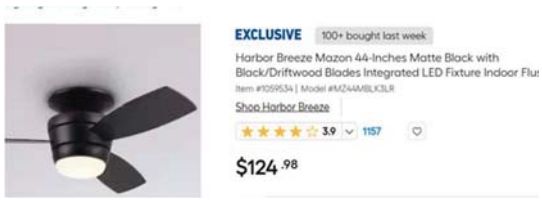
COUNT I: INFRINGEMENT OF U.S. PATENT NO. 8,963,196

53. Plaintiff incorporates by reference and re-alleges paragraphs 1-52 of the Complaint as if fully set forth herein.

54. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '196 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 Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, GE Relax HD A19 LED Bulb, and Utilitech LED 4-Panel Garage Light, among other substantially similar products (collectively, the "'196 Accused Products").

55. By way of non-limiting example(s), set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claims 1, 2, and 8 of the '196 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 '196 Accused Products that it obtains during discovery.

56. ***1(a): A light emitting diode (LED) package, comprising***:— The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light, as seen in Figure 1A - 1 to Figure 1A - 6, each comprise a "light emitting diode (LED) package," as recited in claim 1:



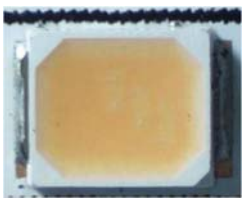


Figure 1A - 1 - LED Product – Harbor Breeze Mazon Fan

Figure 1A - 2 - LED Product - Harbor Breeze Mazon Fan

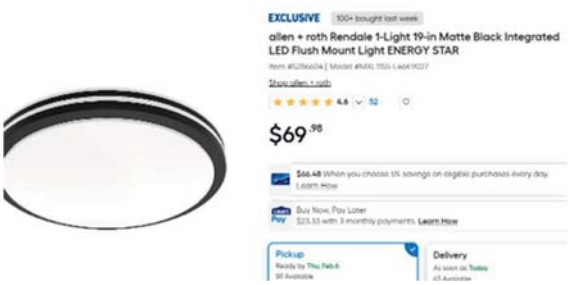


Figure 1A - 3 - LED Product – allen + roth 19in Round LED Flushmount

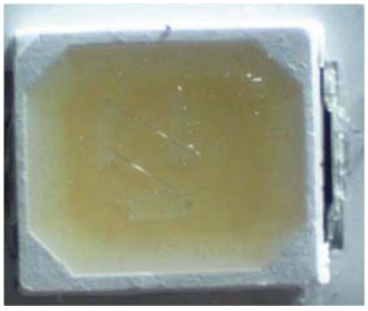


Figure 1A - 4 - LED Product – allen + roth 19in Round LED Flushmount

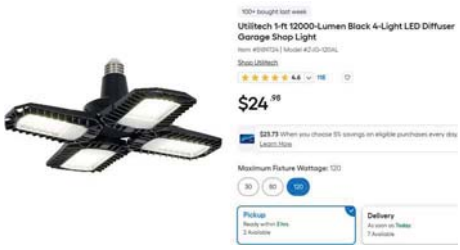


Figure 1A - 5 - LED Product – Utilitech LED 4-Panel Garage Light

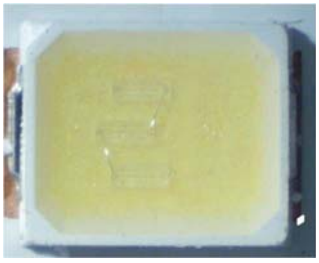


Figure 1A - 6 - LED Product – Utilitech LED 4-Panel Garage Light

57. ***1(b): a first lead frame and a second lead frame separated from each other;***— The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise a "first lead frame and second lead frame separated from each other," as seen in Figure 1B - 1 to Figure 1B - 3 where the first and second lead frames are annotated in yellow:

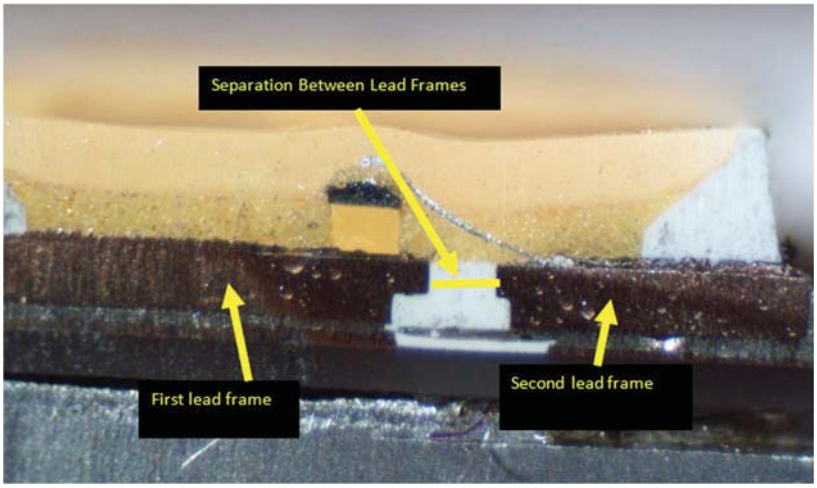


Figure 1B - 1 Harbor Breeze Mazon Fan

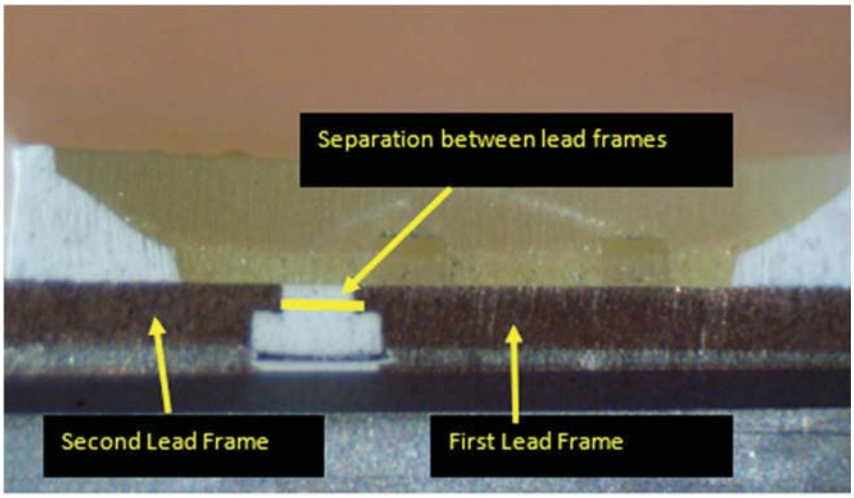


Figure 1B - 2 allen + roth 19in Round LED Flushmount

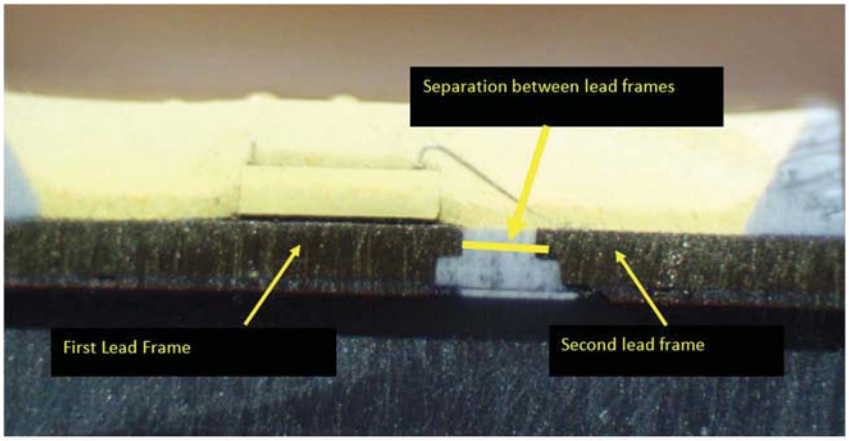


Figure 1B - 3 Utilitech LED 4-Panel Garage Light

58. ***1(c): an LED Chip disposed on the first lead frame and electrically connected to the first lead frame and the second lead frame; and;—*** The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise an "LED Chip disposed on the first lead frame and electrically connected to the first lead frame and the second lead frame," as seen in Figure 1B - 4 to Figure 1B - 9:

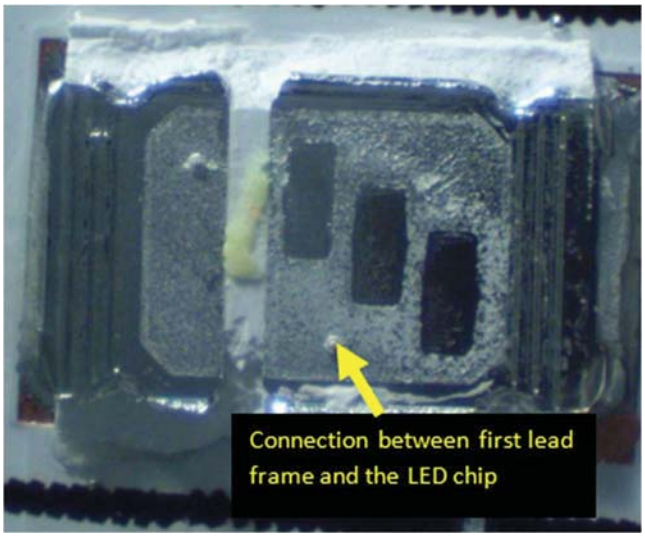


Figure 1B - 4 Harbor Breeze Mazon Fan (1)

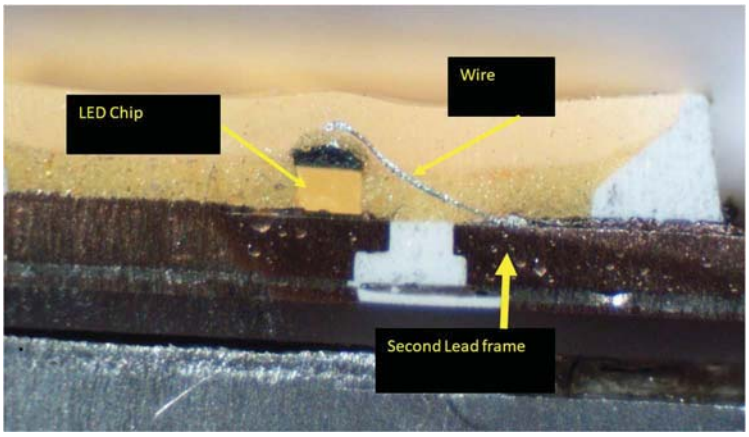


Figure 1B - 5 Harbor Breeze Mazon Fan (2)

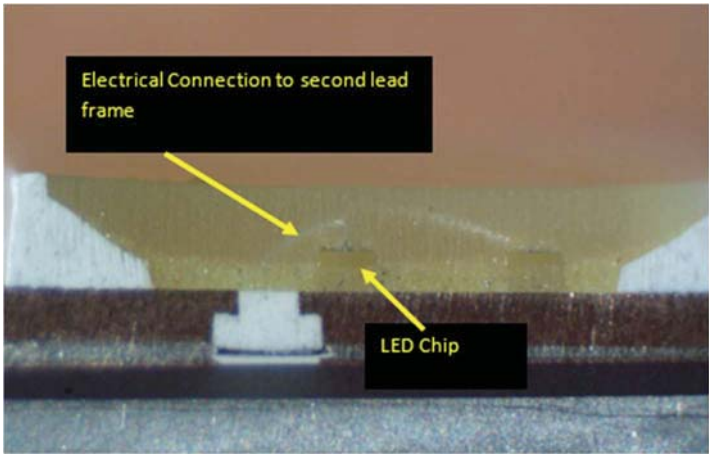


Figure 1B - 6 allen + roth 19in Round LED Flushmount (1)

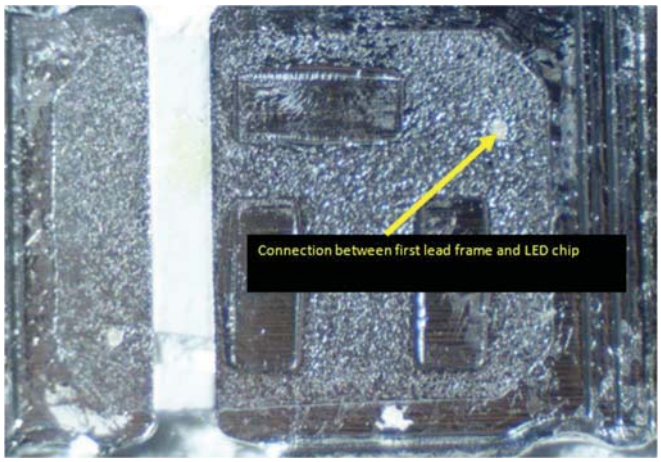


Figure 1B - 7 allen + roth 19in Round LED Flushmount (2)

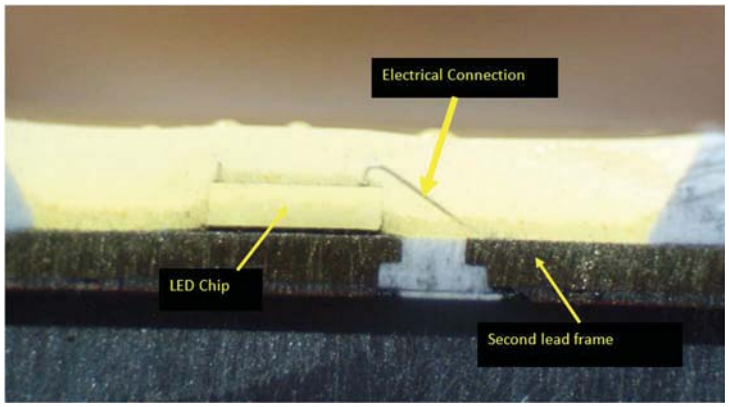


Figure 1B - 8 Utilitech LED 4-Panel Garage Light (1)

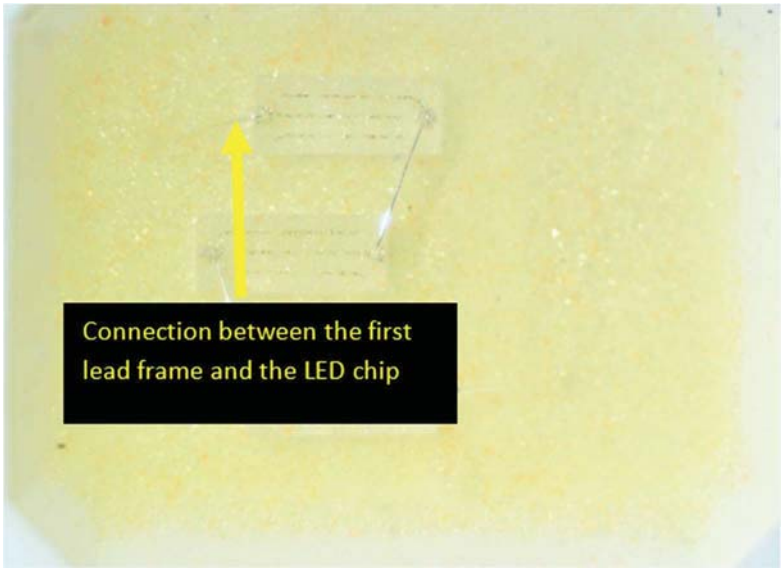


Figure 1B - 9 Utilitech LED 4-Panel Garage Light (2)

59. ***1(d): a wire connecting the LED chip to the second lead frame;***— The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise an "a wire connection the LED chip to the second lead frame," as seen in Figure 1B - 10 to Figure 1B - 12 :

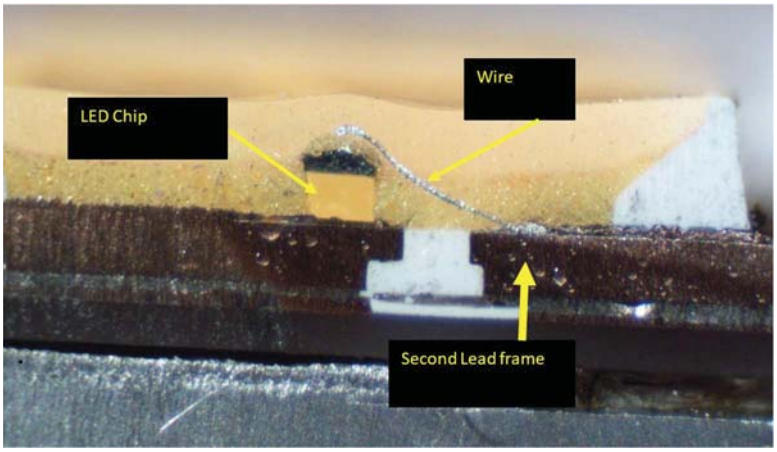


Figure 1B - 10 Harbor Breeze Mazon Fan

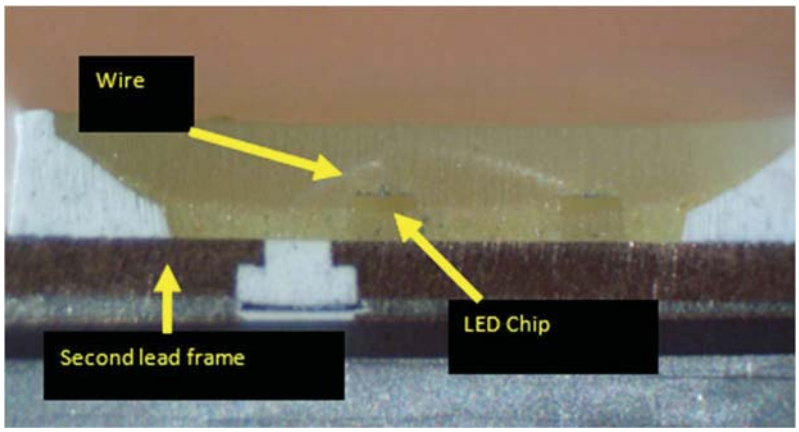


Figure 1B - 11 allen + roth 19in Round LED Flushmount

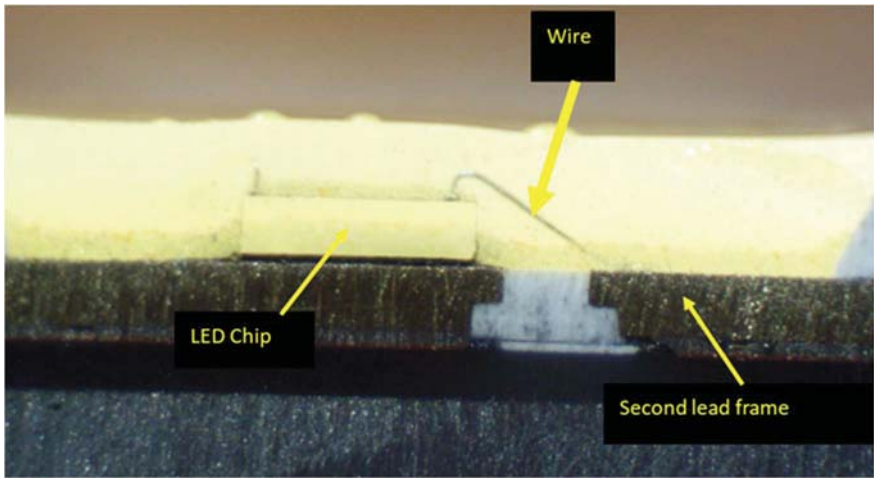


Figure 1B - 12 Utilitech LED 4-Panel Garage Light

60. ***1(e): wherein opposing sides of the first lead frame and the second lead frame face each other in a slanted state to the other sides of the lead frame.***— The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise opposing sides of the first and second lead frames that "face each other in a slanted state to the other sides of the lead frame" as seen in Figure 1B – 13 to Figure 1B - 18:

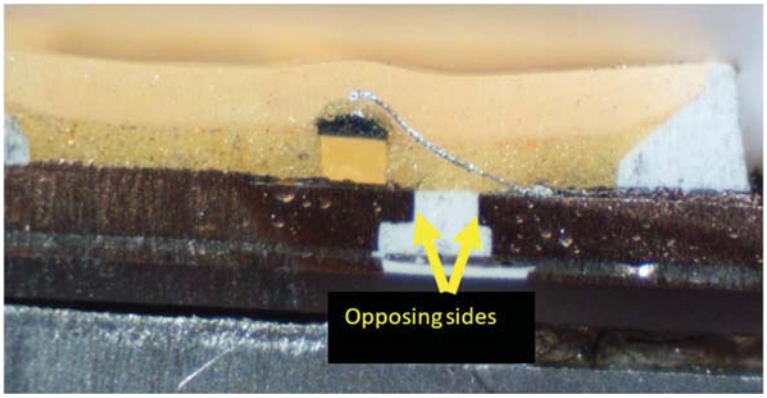


Figure 1B - 13 Harbor Breeze Mazon Fan (1)

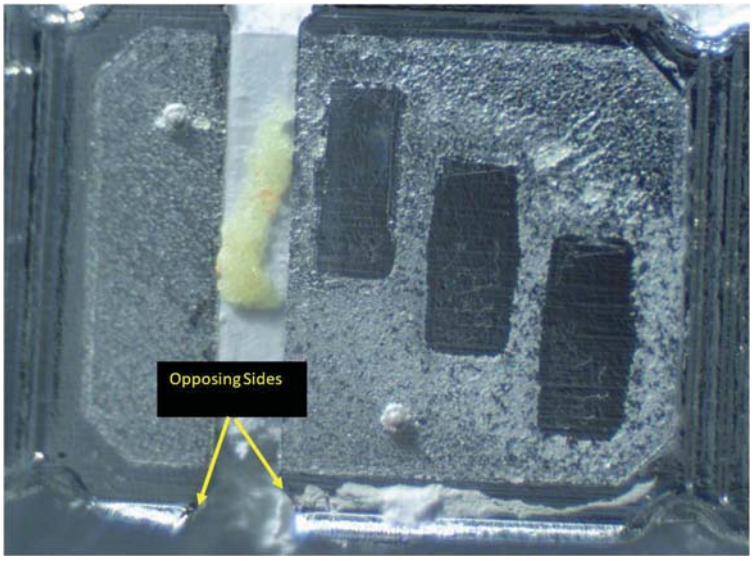


Figure 1B - 14 Harbor Breeze Mazon Fan (2)

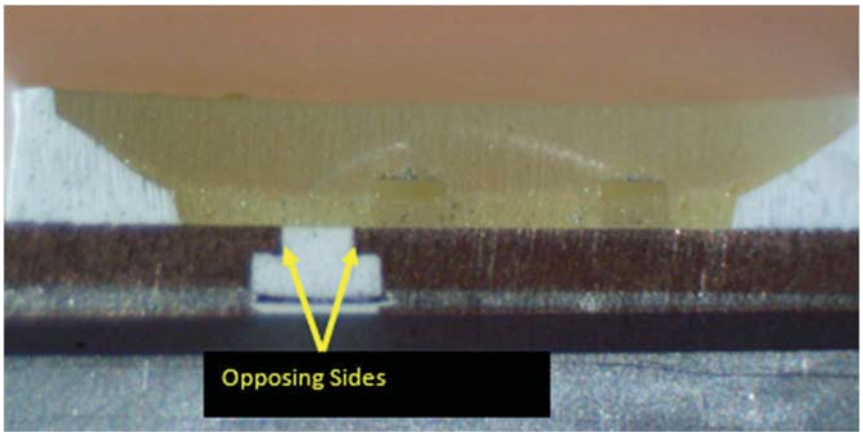


Figure 1B – 15 allen + roth 19in Round LED Flushmount (1)

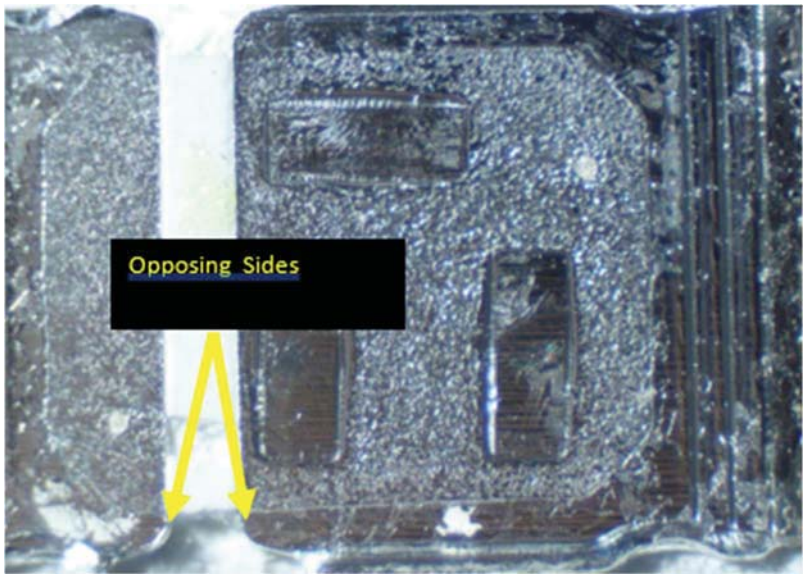


Figure 1B - 16 allen + roth 19in Round LED Flushmount (2)

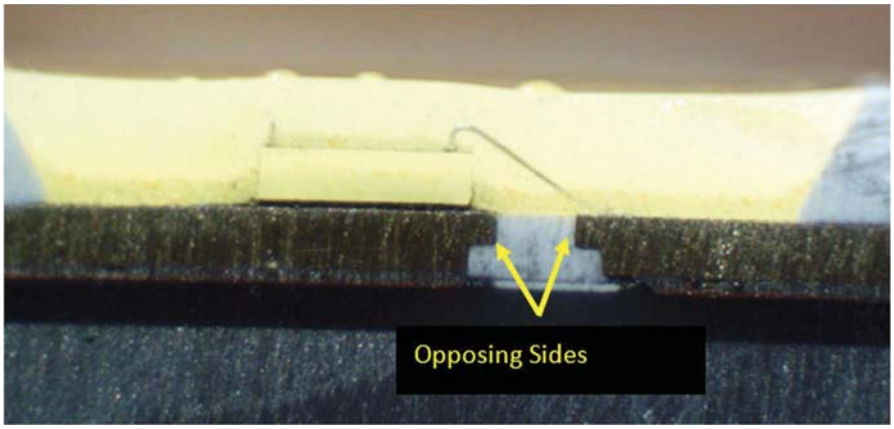


Figure 1B – 17 Utilitech LED 4-Panel Garage Light (1)

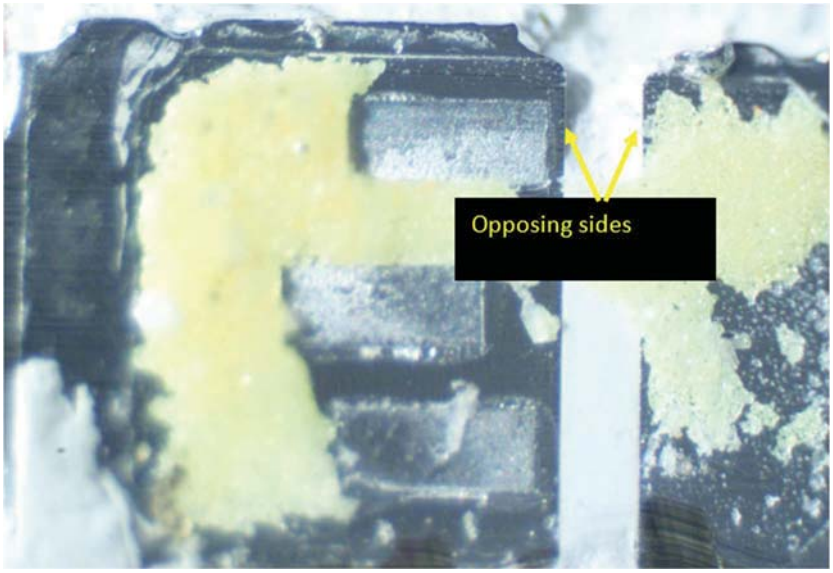


Figure 1B – 18 Utilitech LED 4-Panel Garage Light (2)

61. Claim 2: **The LED package of claim 1, wherein both of the opposing sides have a linear or curved shape.** As one non-limiting example, as seen in Figure 1B - 19 and Figure 1B - 20, both the opposing sides in the Harbor Breeze Mazon Fan have a curved shape:

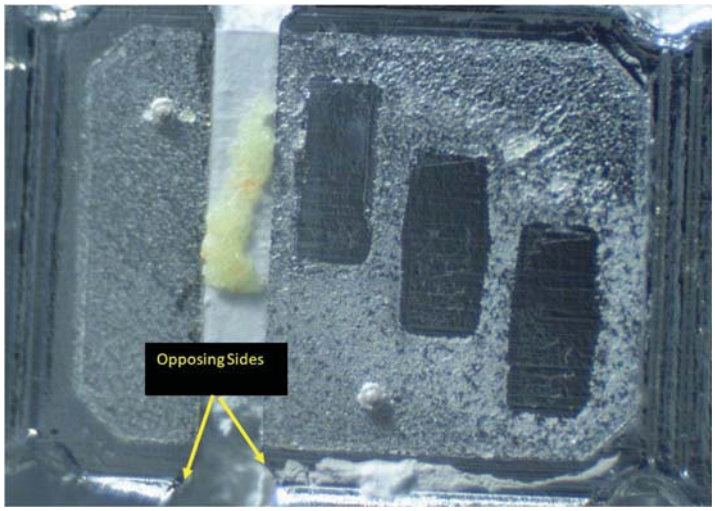


Figure 1B - 19 Harbor Breeze Mazon Fan (1)

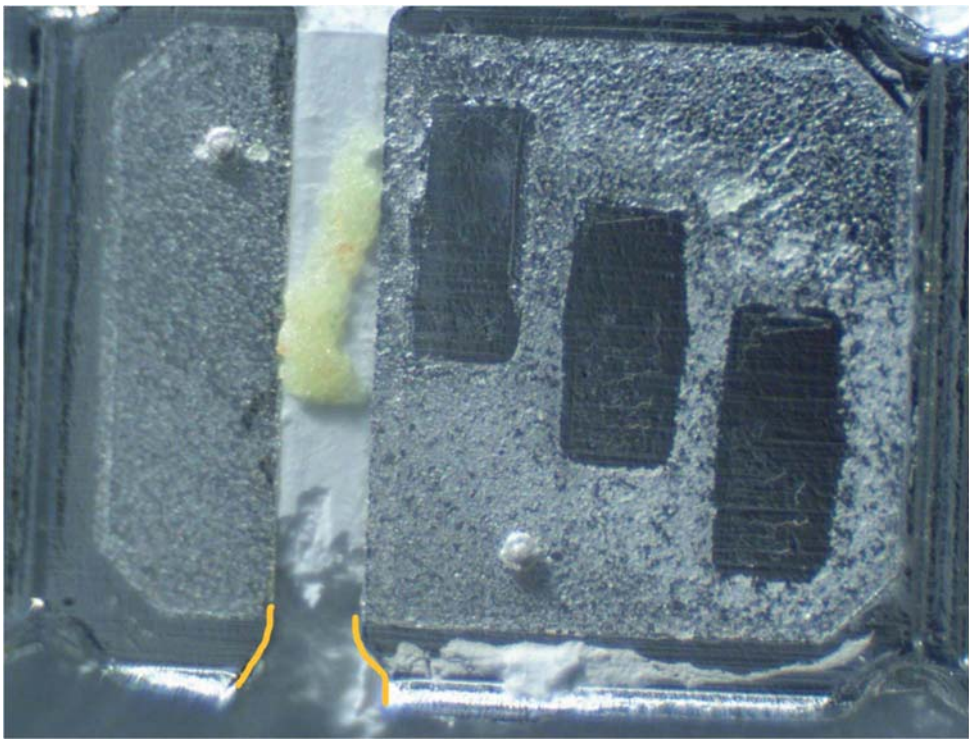


Figure 1B - 20 Harbor Breeze Mazon Fan (2)

62. Claim 8: **The LED package of claim 1, further comprising a resin covering at least a portion of the surface of the first lead frame, the second lead frame, and the LED chip**. As one non-limiting example, as seen in Figure 1B - 21, the LED package in the Harbor Breeze Mazon Fan comprises a resin covering a surface of the first lead frame, the second lead frame and the LED chip:

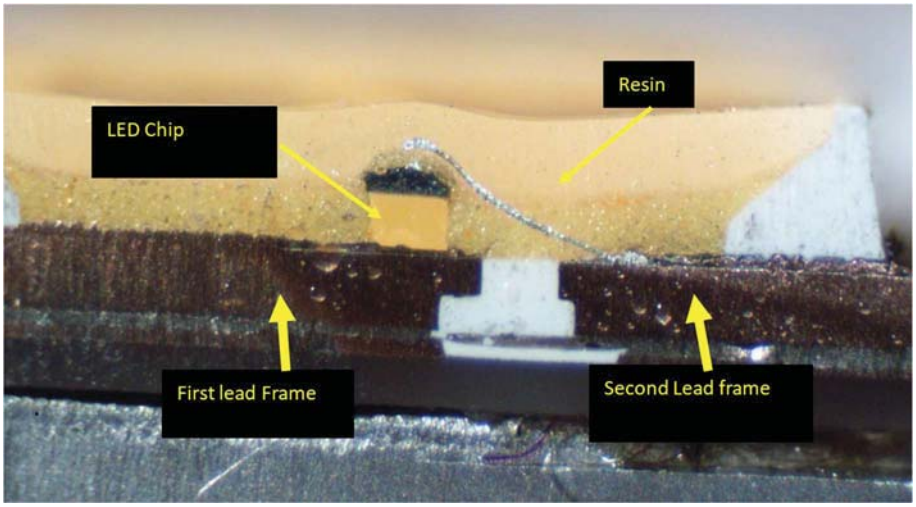


Figure 1B – 21 Harbor Breeze Mazon Fan

63. Defendants' infringement of the '196 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

64. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '196 Patent.

65. Plaintiff is entitled to recover from Defendants all damages that Plaintiff has sustained as a result of Defendants' infringement of the '196 Patent, including, without limitation, a reasonable royalty.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 9,530,942

66. Plaintiff incorporates by reference and re-alleges paragraphs 1-65 of the Complaint as if fully set forth herein.

67. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '942 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 Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, GE Relax HD A19 LED Bulb, and Utilitech LED 4-Panel Garage Light among other substantially similar products (collectively, the "'942 Accused Products").

68. 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 and claim 3 of the '942 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 '942 Accused Products that it obtains during discovery.

69. ***1(a): A light emitting diode (LED) package, comprising;***— The Harbor Breeze

Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light, as seen in Figure 2A - 1 to Figure 2A - 6, each comprise a "light emitting diode (LED) package," as recited in claim 1:

Figure 2A - 1 - LED Product – Harbor Breeze Mazon Fan

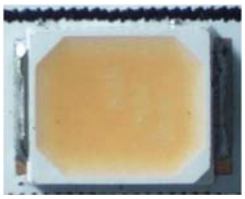


Figure 2A - 2 - LED Product - Harbor Breeze Mazon Fan

Figure 2A - 3 - LED Product – allen + roth 19in Round LED Flushmount

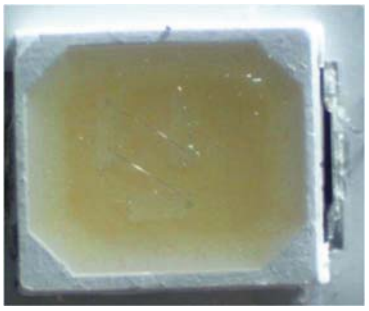


Figure 2A - 4 - LED Product – allen + roth 19in Round LED Flushmount

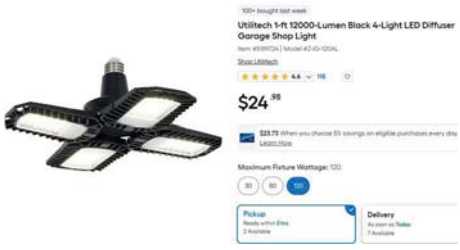


Figure 2A - 5 - LED Product – Utilitech LED 4-Panel Garage Light

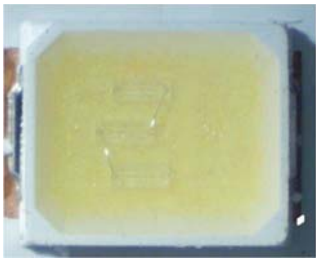


Figure 2A - 6 - LED Product – Utilitech LED 4-Panel Garage Light

70. ***1(b): a first lead frame and a second lead frame separated from each other;***— The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise a "first lead frame and second lead frame separated from each other," as seen in Figure 2B - 1 to Figure 2B - 3, where the first and second lead frames are annotated in yellow:

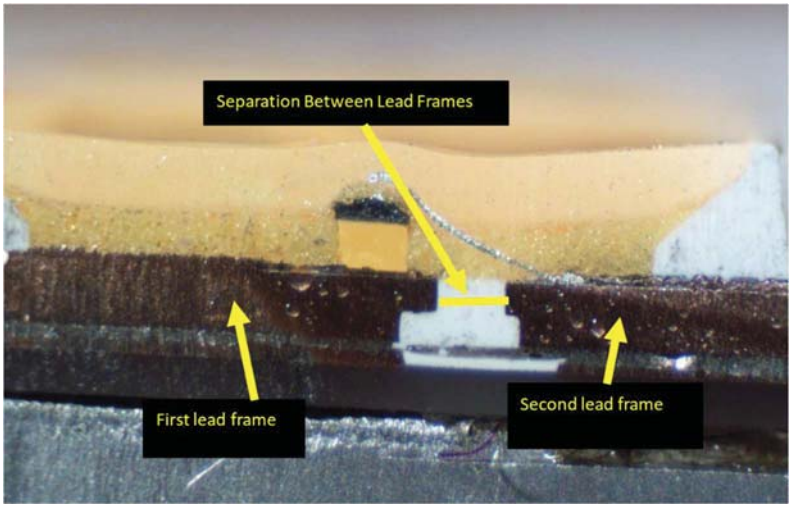


Figure 2B - 1 Harbor Breeze Mazon Fan

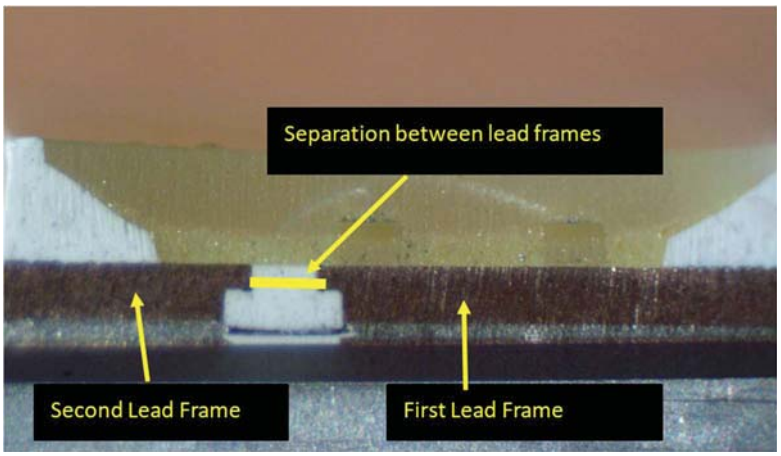


Figure 2B - 2 allen + roth 19in Round LED Flushmount

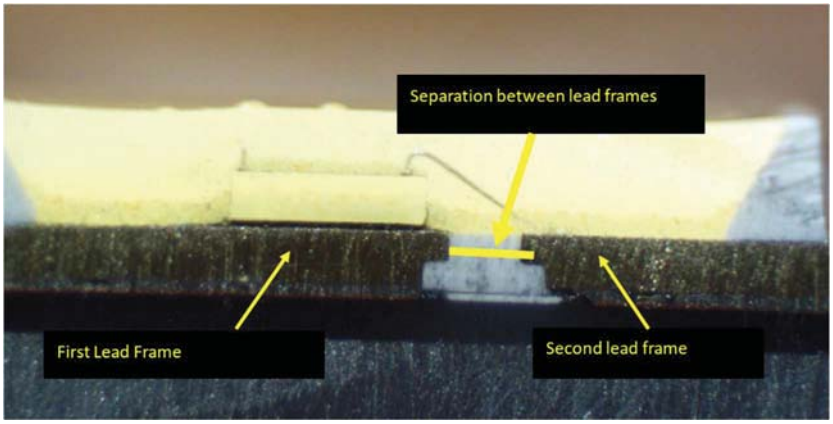


Figure 2B - 3 Utilitech LED 4-Panel Garage Light

71. ***1(c): an LED Chip disposed on the first lead frame and electrically connected with the second lead frame; and;—*** The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise an "LED Chip disposed on the first lead frame and electrically connected with the second lead frame," as seen in Figure 2B - 4 to Figure 2B - 6:

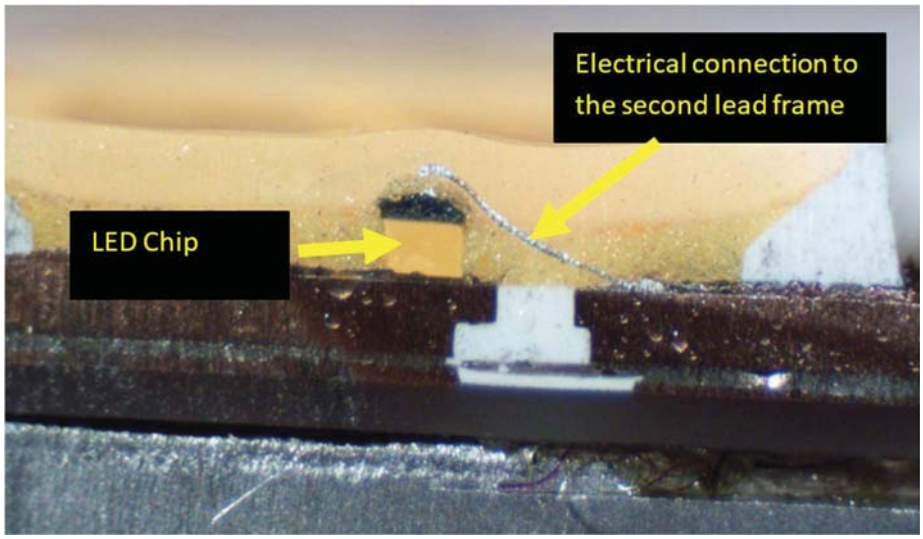


Figure 2B - 4 Harbor Breeze Mazon Fan

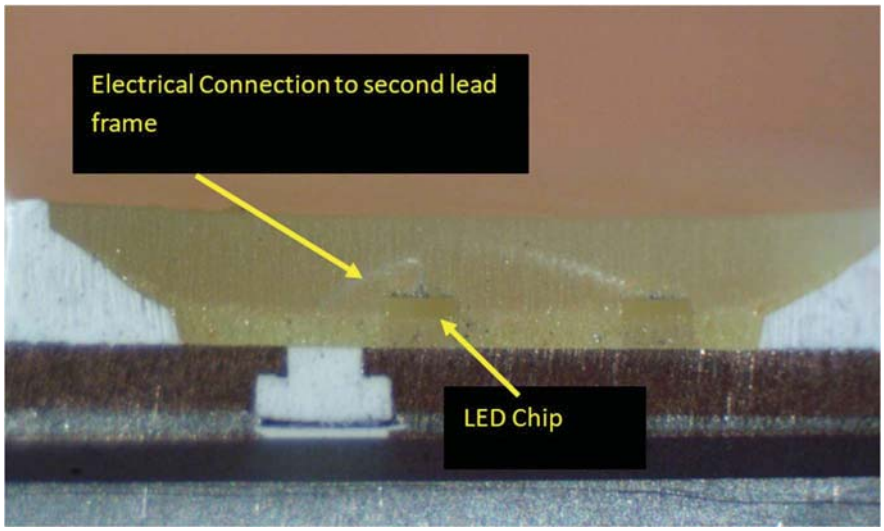


Figure 2B - 5 allen + roth 19in Round LED Flushmount

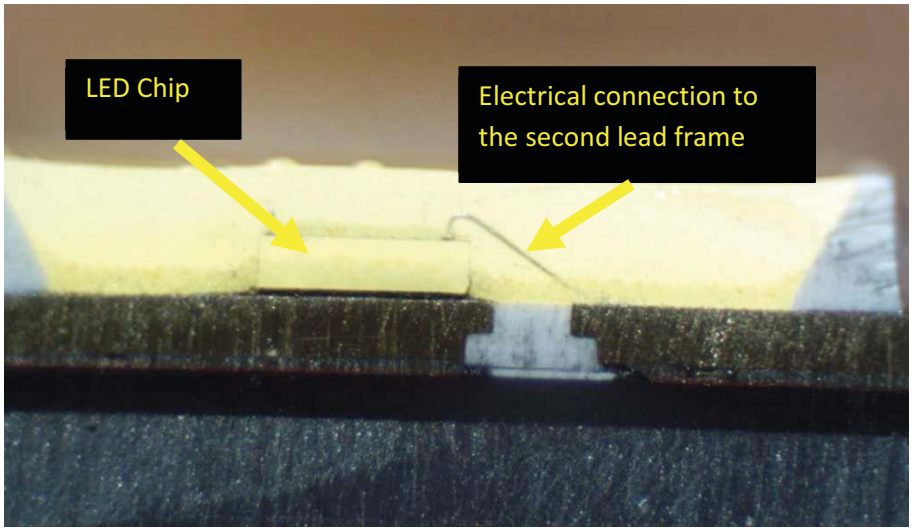


Figure 2B - 6 Utilitech LED 4-Panel Garage Light

72. ***1(d): a resin covering at least portions of surfaces of the first and second lead frames, wherein;—*** The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise an "a resin covering at least portions of surfaces of the first and second lead frames," as seen in Figure 2B - 7 to Figure 2B - 9:

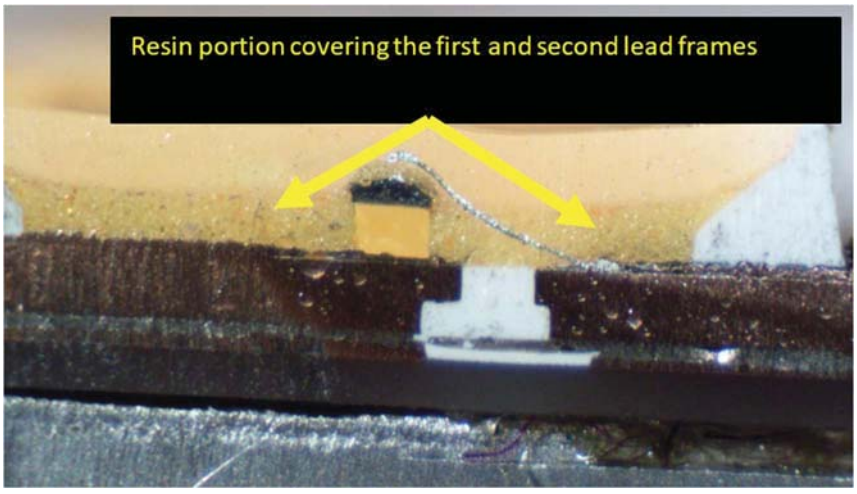


Figure 2B – 7 Harbor Breeze Mazon Fan

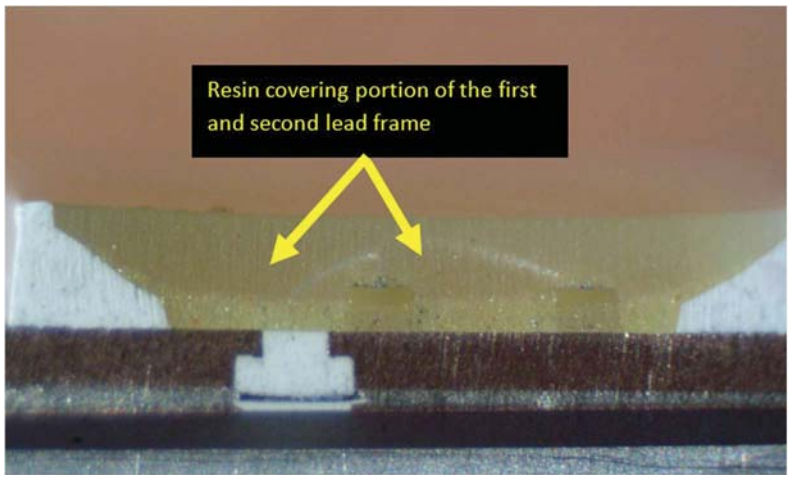


Figure 2B – 8 allen + roth 19in Round LED Flushmount

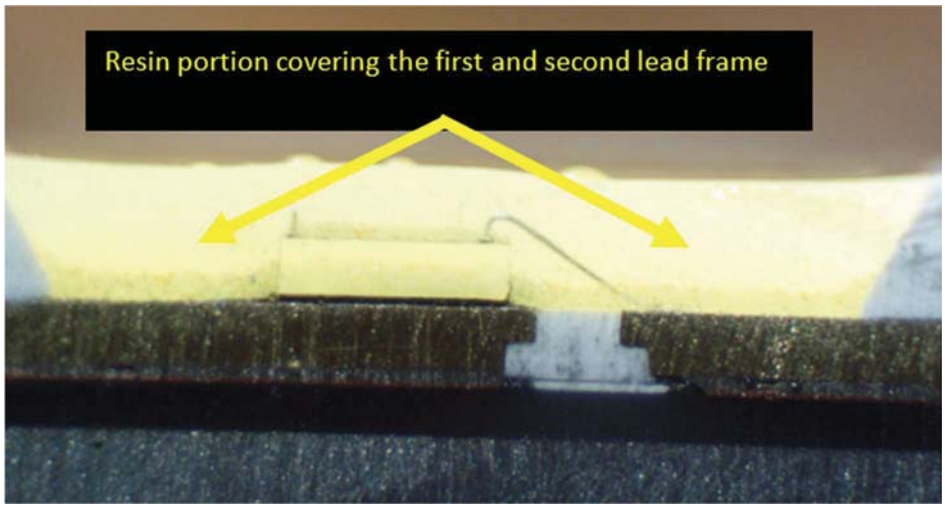


Figure 2B – 9 Utilitech LED 4-Panel Garage Light

73. ***1(e): at least one of the first and second lead frames comprises a first edge facing the other lead frame and a second side opposite the first side;—*** At least one of the first and second lead frames in the Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise "a first edge facing the other lead frame and second side opposite the first side" as seen in Figure 2B - 10 to Figure 2B - 15:

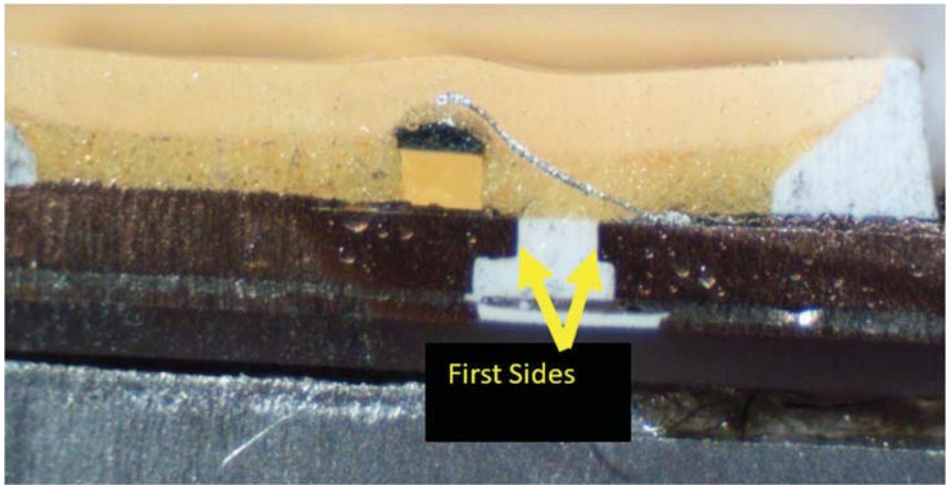


Figure 2B - 10 Harbor Breeze Mazon Fan (1)

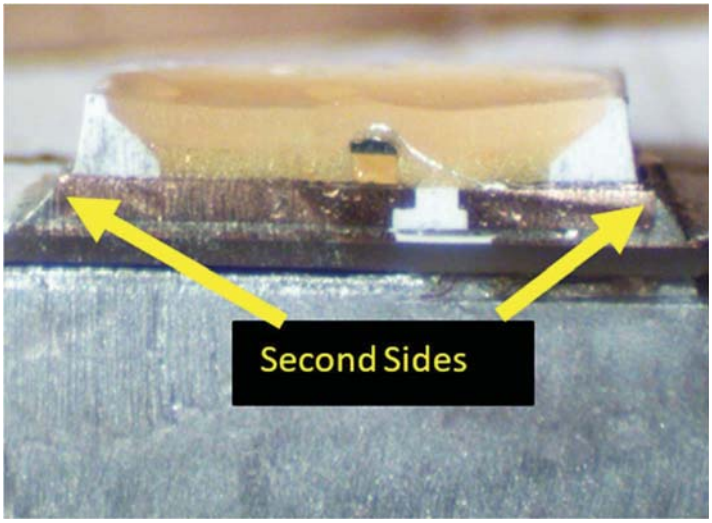


Figure 2B – 11 Harbor Breeze Mazon Fan (2)

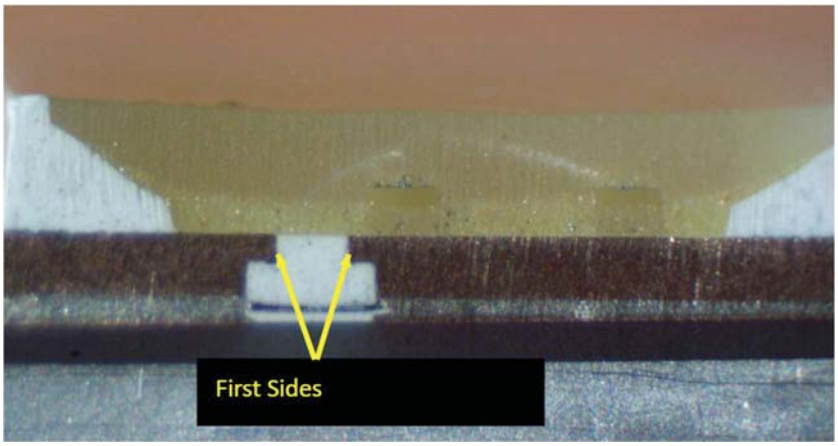


Figure 2B - 12 allen + roth 19in Round LED Flushmount (1)

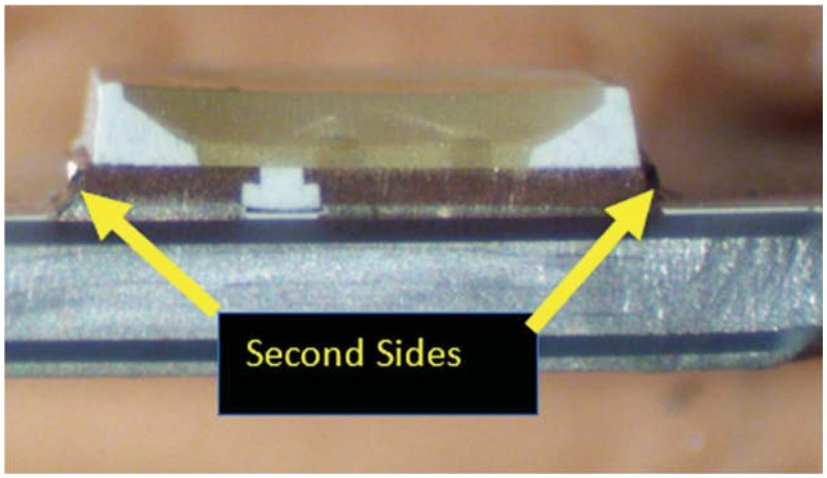


Figure 2B - 13 allen + roth 19in Round LED Flushmount (2)

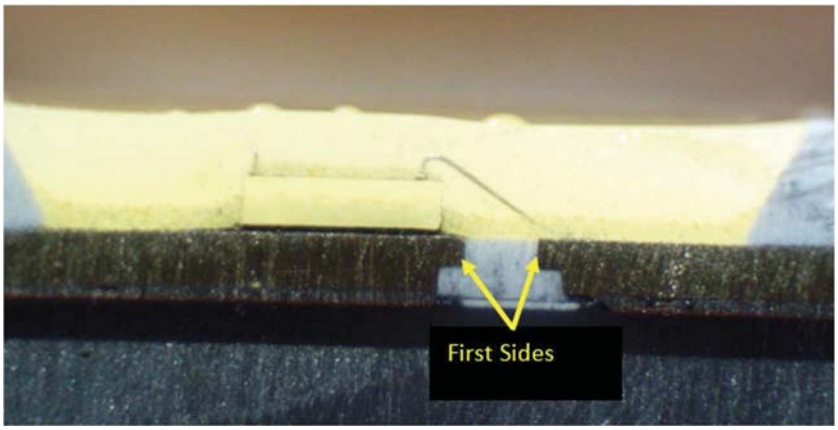


Figure 2B – 14 Utilitech LED 4-Panel Garage Light (1)

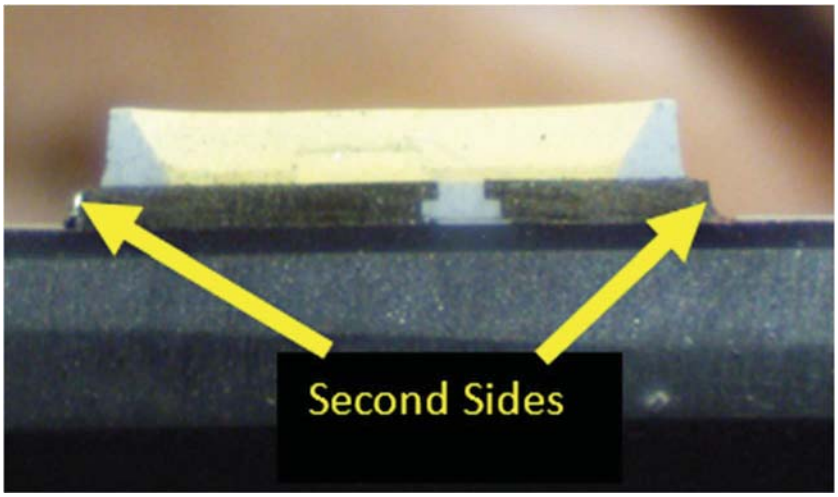


Figure 2B – 15 Utilitech LED 4-Panel Garage Light (2)

74. ***1(f): the first lead frame comprising a first groove disposed on a lower surface thereof, and the second lead frame comprises a second groove disposed on the lower surface thereof;***—The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise a first lead frame with "a first groove disposed on a lower surface thereof," and second lead frame with "a second groove disposed on a lower surface thereof;" as seen in Figure 2B - 16 to Figure 2B - 18:

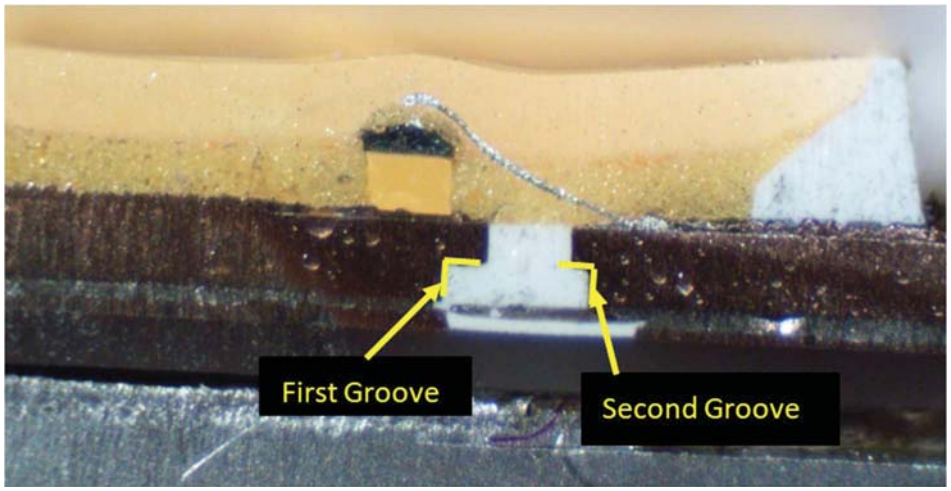


Figure 2B - 16 Harbor Breeze Mazon Fan

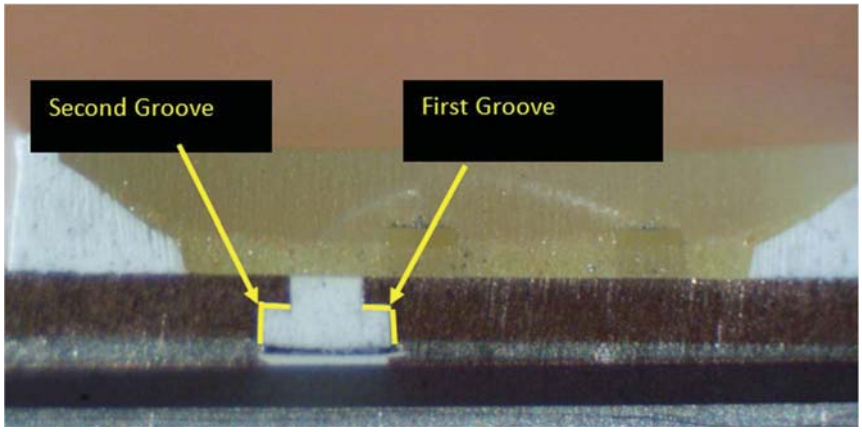


Figure 2B - 17 allen + roth 19in Round LED Flushmount

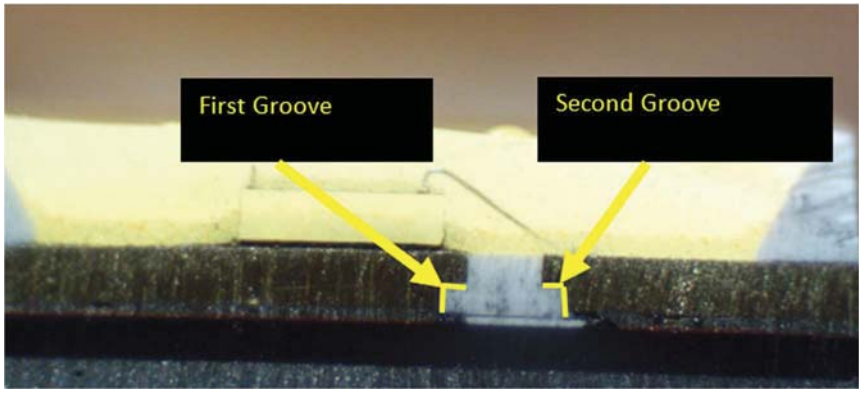


Figure 2B - 18 Utilitech LED 4-Panel Garage Light

75. ***1(g): each of the first and second grooves is open only on the lower surfaces of the first and second lead frames, respectively; and;***—The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each comprise first and second grooves that are "open only on the lower surfaces of the first and second lead frames, respectively;" as seen in Figure 2B - 19 to Figure 2B - 21:

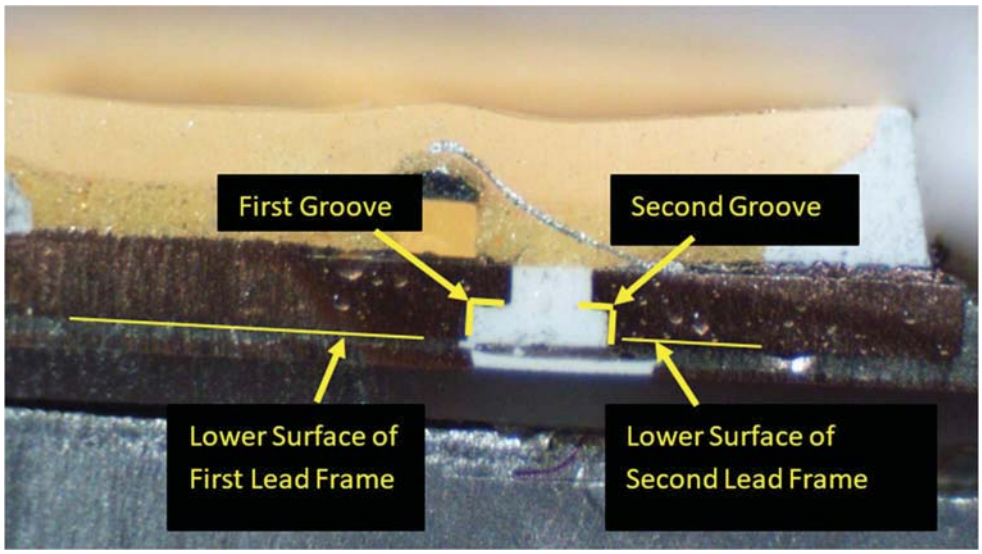


Figure 2B - 19 Harbor Breeze Mazon Fan

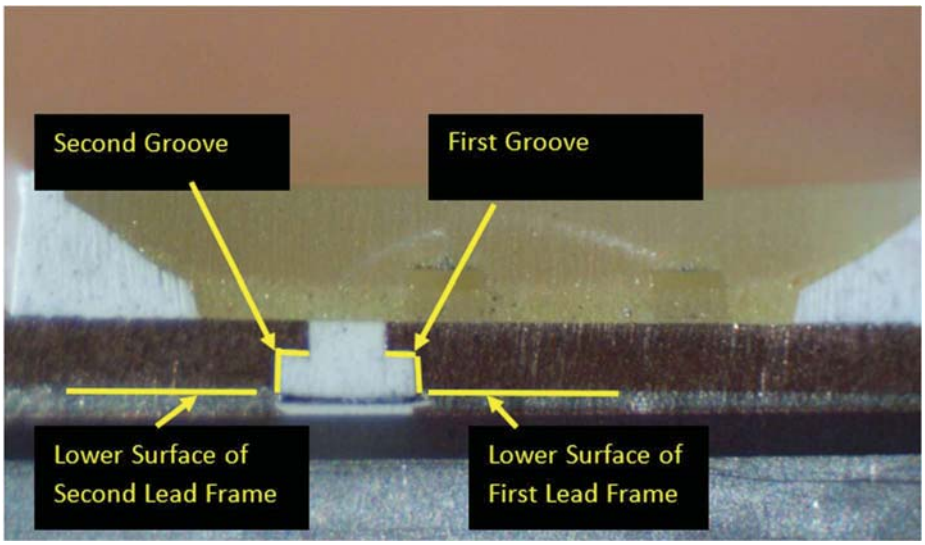


Figure 2B – 20 allen + roth 19in Round LED Flushmount

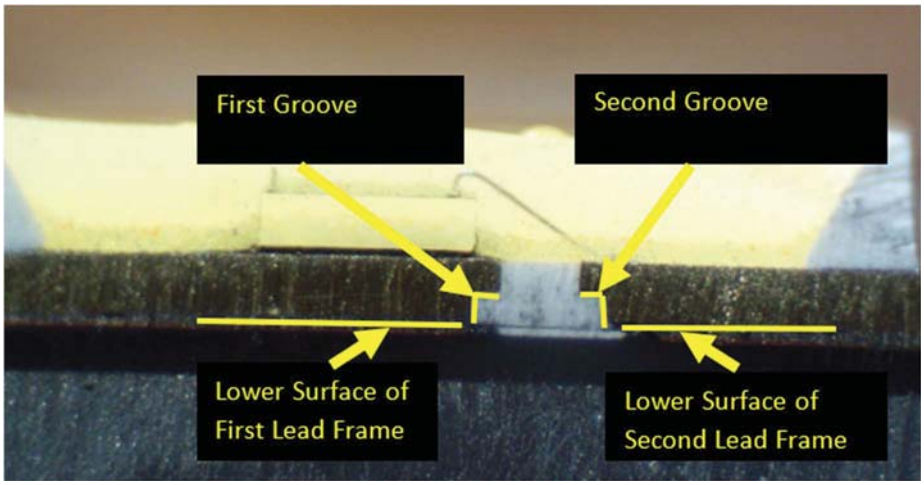


Figure 2B - 21 Utilitech LED 4-Panel Garage Light

76. ***1(h): a depth of the first groove is equal to a depth of the second groove.***—The Harbor Breeze Mazon Fan, allen + roth 19in Round LED Flushmount, and Utilitech LED 4-Panel Garage Light each contain a first and second groove with equal depths, as seen in Figure 2B – 22 to Figure 2B - 24:

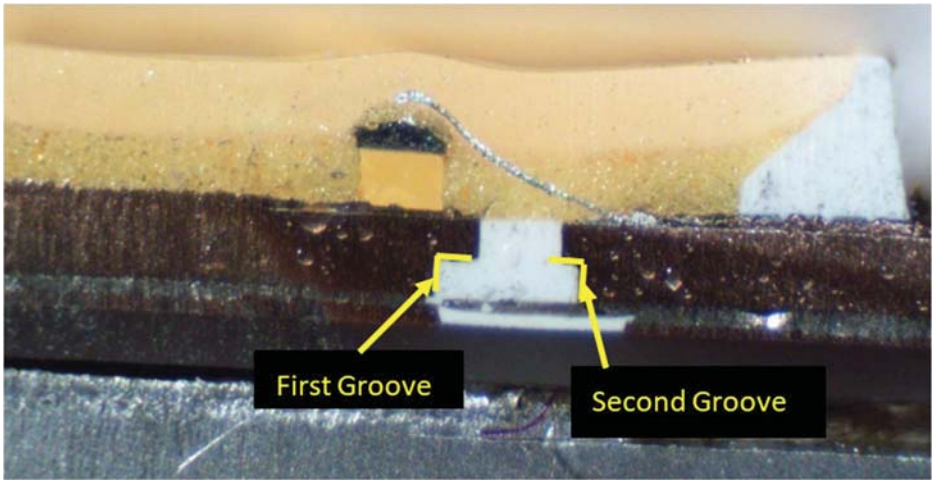


Figure 2B – 22 Harbor Breeze Mazon Fan

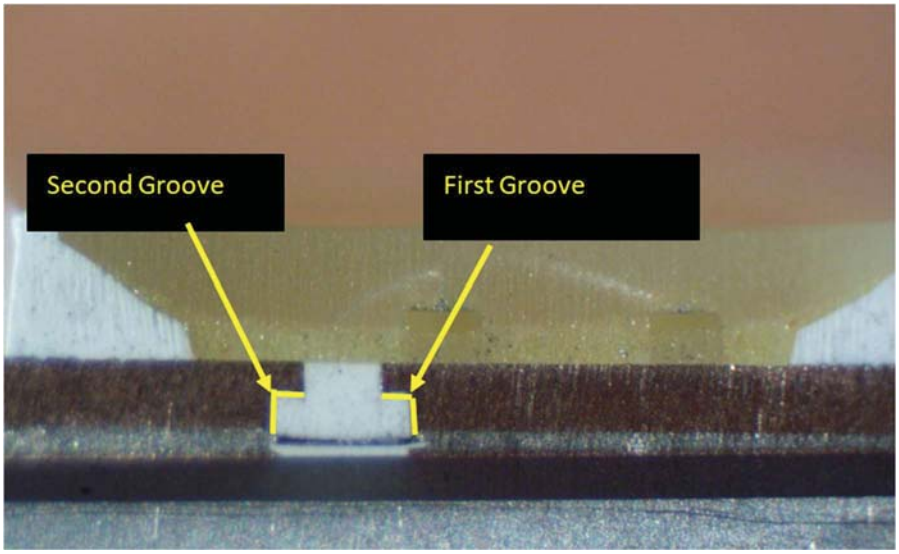


Figure 2B - 23 allen + roth 19in Round LED Flushmount

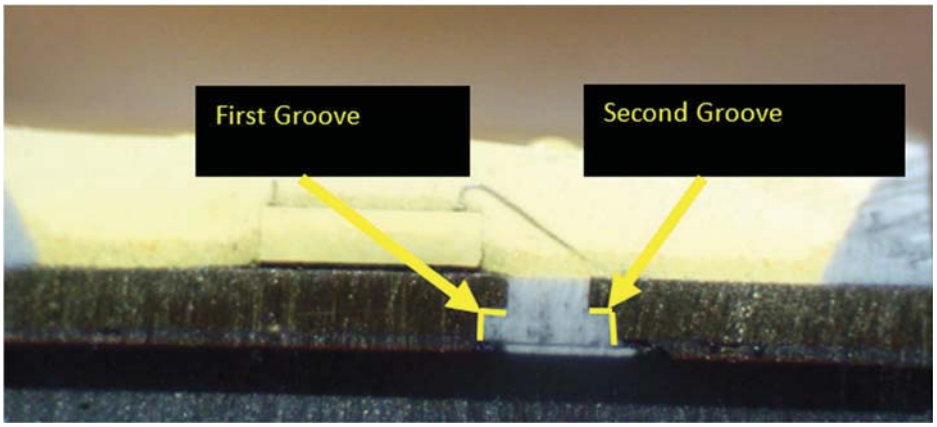


Figure 2B - 24 Utilitech LED 4-Panel Garage Light

77. Claim 3: The LED package of claim 1, wherein at least a portion of the lower surface of at least one of the first and second lead frames is not covered by the resin. As one non-limiting example, as seen in Figure 2B - 25, the LED package in the Harbor Breeze Mazon Fan has a portion of the lower surface of the first and second lead frames not covered by the resin:

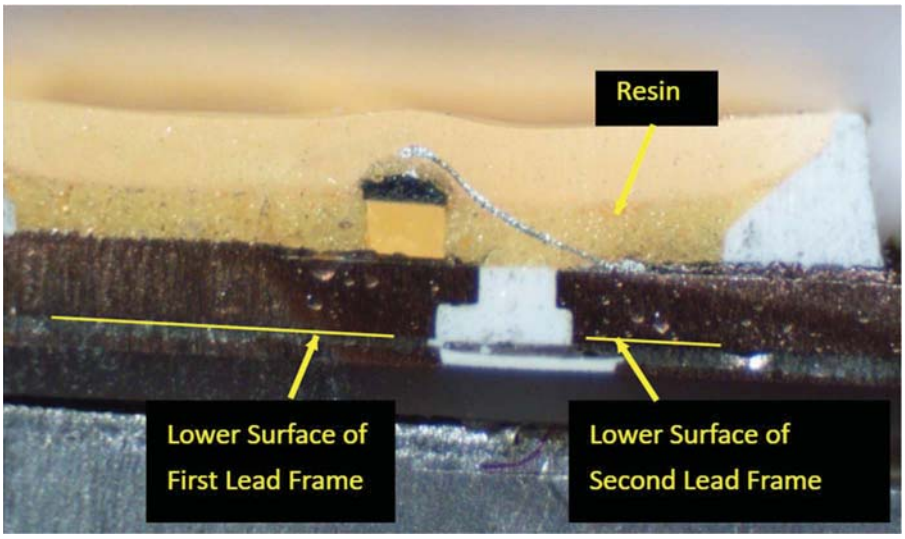


Figure 2B - 25 Harbor Breeze Mazon Fan

78. Defendants' infringement of the '942 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

79. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '942 Patent.

80. Plaintiff is entitled to recover from Defendants all damages that Plaintiff has sustained as a result of Defendants' infringement of the '942 Patent, including, without limitation, a reasonable royalty.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 8,309,971

81. Plaintiff incorporates by reference and re-alleges 1-80 of the Complaint as if fully set forth herein.

82. Defendants have infringed and are infringing, either literally or under the doctrine

of equivalents, the '971 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 Utilitech LED 4-Panel Garage Light and Lithonia Lighting HGX Floodlight among other substantially similar products (collectively, the "'971 Accused Products").

83. As non-limiting examples, set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claims 1, 7-9, and 11 of the '971 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 '971 Accused Products that it obtains during discovery.

84. ***1(a): A light emitting diode, comprising a substrate;***—The Utilitech LED 4-Panel Garage Light and Lithonia Lighting HGX Floodlight each contain light emitting diodes, as seen in Figure 3A - 1 and Figure 3A - 4 comprising a substate.

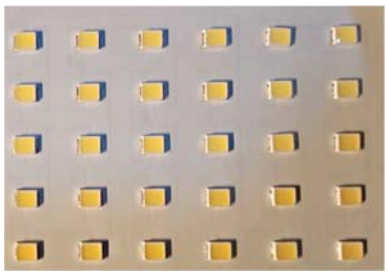


Figure 3A - 1 - LED Chip – Utilitech LED 4-Panel Garage Light

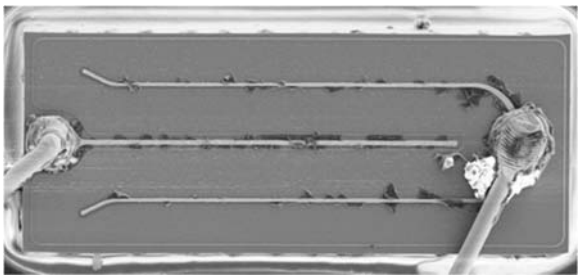


Figure 3A - 2 - LED Chip – Utilitech LED 4-Panel Garage Light

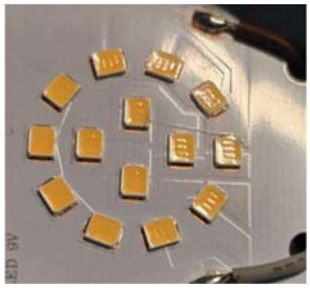


Figure 3A - 3 - LED Chip – Lithonia Lighting HGX Floodlight

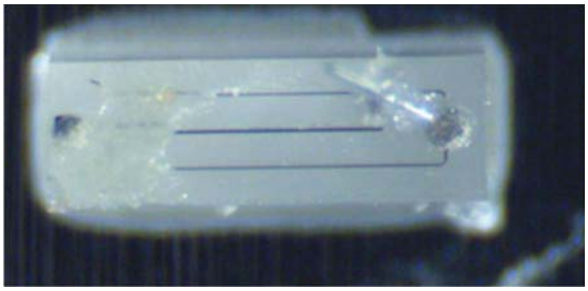


Figure 3A - 4 - LED Chip – Lithonia Lighting HGX Floodlight

85. ***1(b): a first conductive type semiconductor layer arranged on the substrate;***— As

one non-limiting example, the below SEM images of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B – 1 and Figure 3B - 2, are annotated to illustrate the first conductive type semiconductor layer arranged on the substrate:

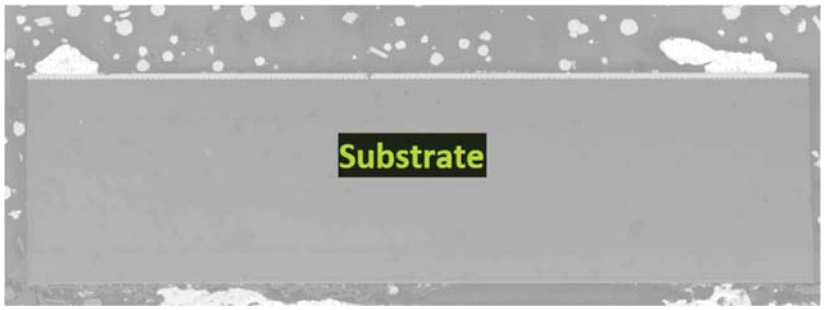


Figure 3B - 1 Lithonia Lighting HGX Floodlight (1)

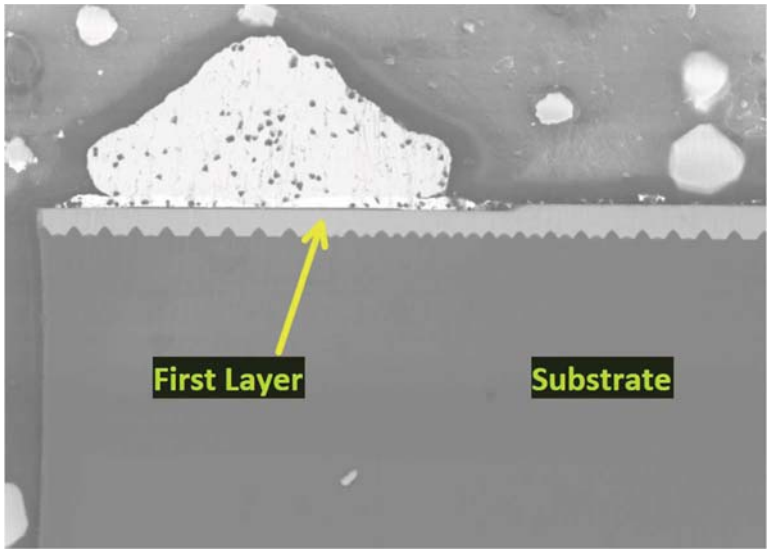


Figure 3B - 2 Lithonia Lighting HGX Floodlight (2)

86. ***1(c): a second conductive type semiconductor layer arranged on the first conductive type semiconductor layer;***—As one non-limiting example, the below SEM image of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B – 3, is annotated to illustrate the second conductive type semiconductor layer arranged on the conductive type semiconductor layer.

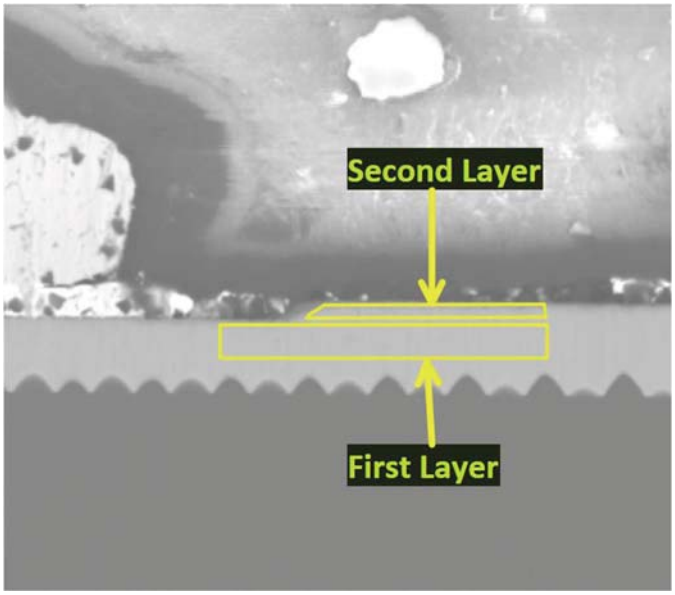


Figure 3B – 3 Lithonia Lighting HGX Floodlight

87. ***1(d): an active layer disposed between the first conductive type semiconductor layer and the second conductive type semiconductor layer;***— As one non-limiting example, the below SEM image of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 4, is annotated to illustrate the active layer between the two conductive type semiconductor layers.

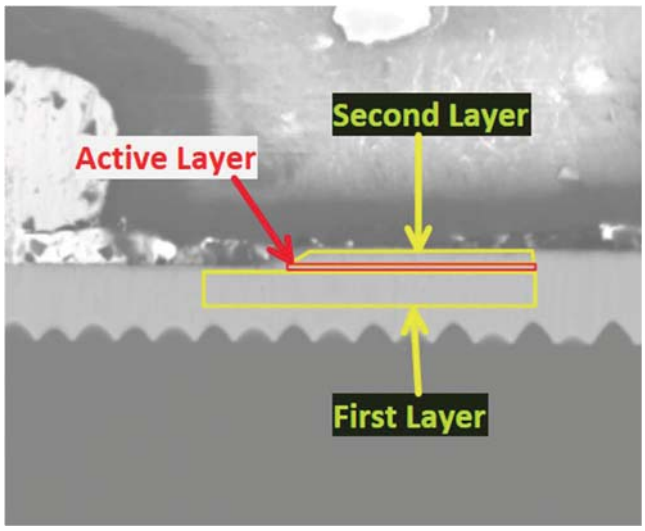


Figure 3B - 4 Lithonia Lighting HGX Floodlight

88. ***1(e): a first electrode pad electrically connected to the first conductive type***

semiconductor layer;— As one non-limiting example, the below SEM images of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 5 and Figure 3B – 6, are annotated to illustrate the first electrode pad electrically connected to the first conductive type semiconductor layer.

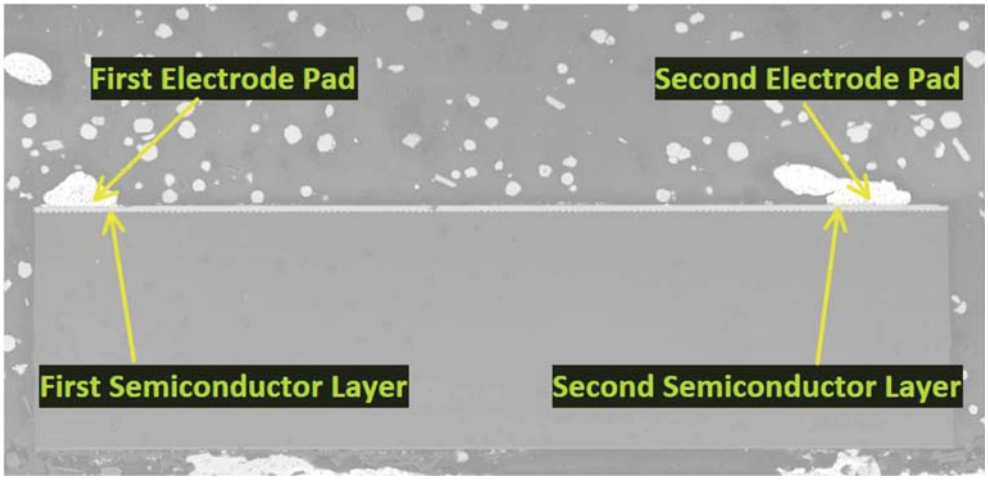


Figure 3B -5 Lithonia Lighting HGX Floodlight (1)

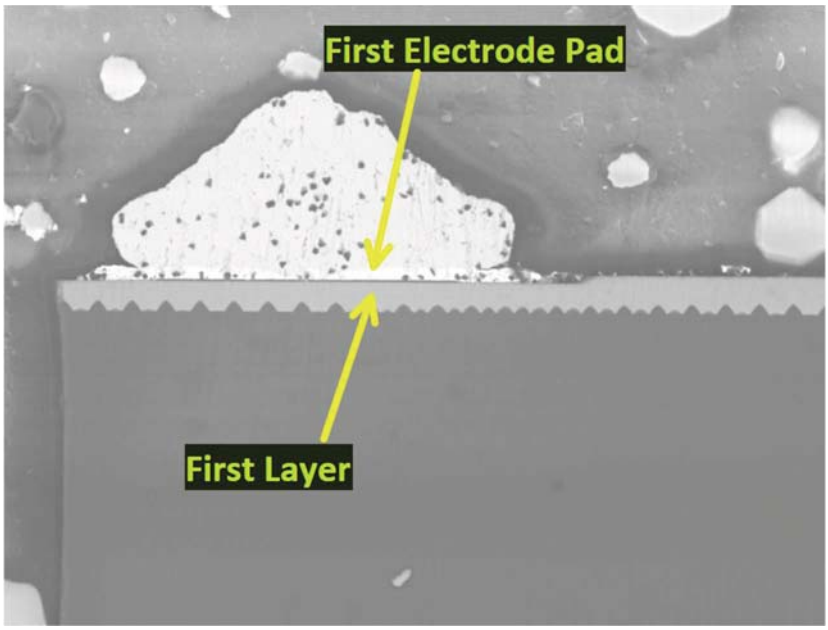


Figure 3B - 6 Lithonia Lighting HGX Floodlight (2)

89. ***1(f): a second electrode pad arranged on the second conductive type semiconductor layer;—*** As one non-limiting example, the below SEM image of an individual light

emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 7, is annotated to illustrate the second electrode pad arranged on the second conductive type semiconductor layer.

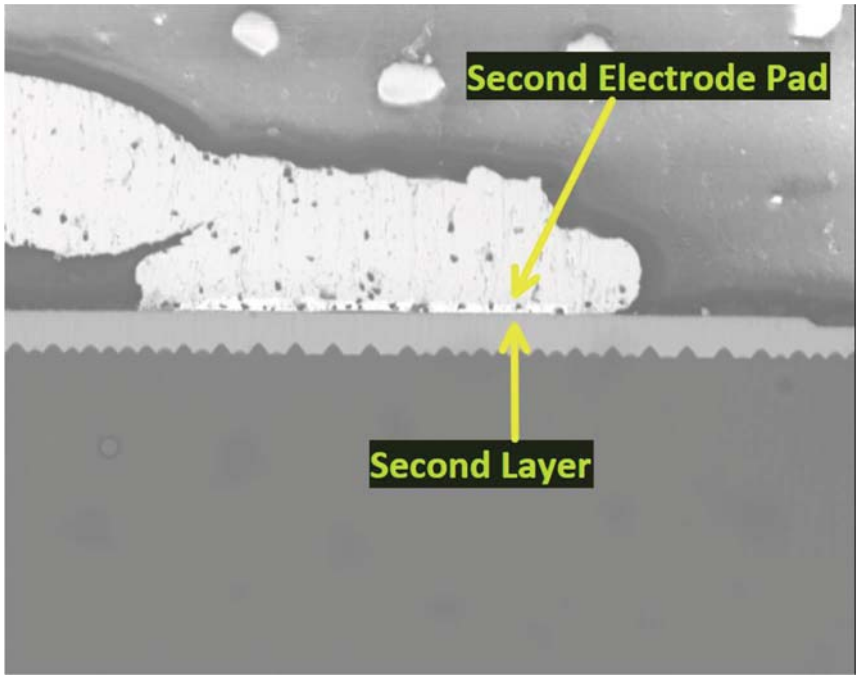


Figure 3B - 7 Lithonia Lighting HGX Floodlight

90. ***1(g): an insulation layer disposed between the second conductive type semiconductor layer and the second electrode pad;—*** As one non-limiting example, the below SEM image of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 8, is annotated to illustrate the insulation layer between the second conductive type semiconductor layer and the second electrode pad.

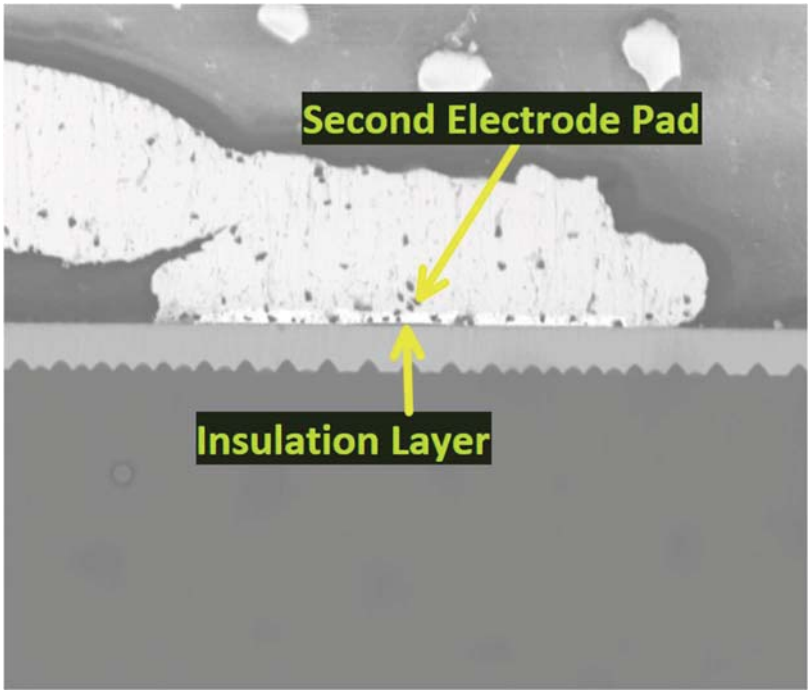


Figure 3B- 8 Lithonia Lighting HGX Floodlight

91. ***1(h): and at least one upper extension electrically connected to the second electrode pad, the at least one upper extension being electrically connected to the second conductive type semiconductor layer.***— As one non-limiting example, the below SEM images of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 9 and Figure 3B - 10, are annotated to illustrate the upper extension electrically connected to the second electrode pad and second conductive type semiconductor layer.

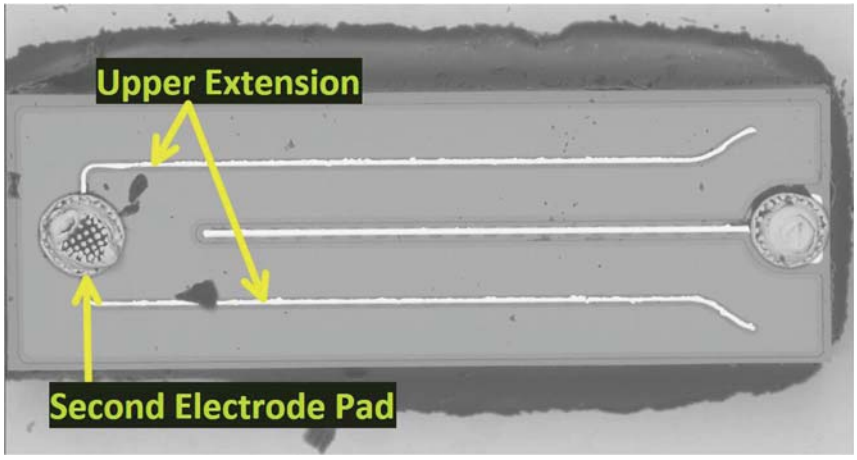


Figure 3B - 9 Lithonia Lighting HGX Floodlight (1)

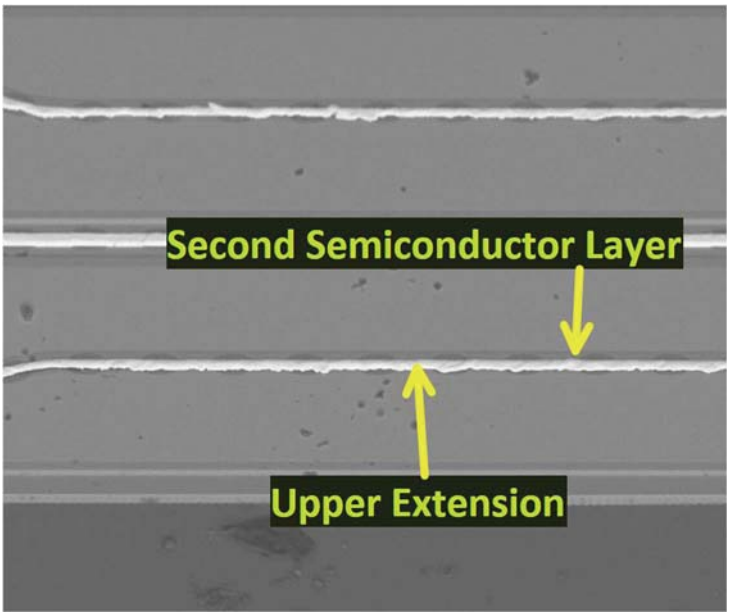


Figure 3B – 10 Lithonia Lighting HGX Floodlight (2)

92. ***Claim 7: The light emitting diode of claim 1, wherein the first electrode pad is arranged to face the second electrode pad.—*** As one non-limiting example, the below SEM image of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 11, is annotated to illustrate the first electrode pad facing the second electrode pad.

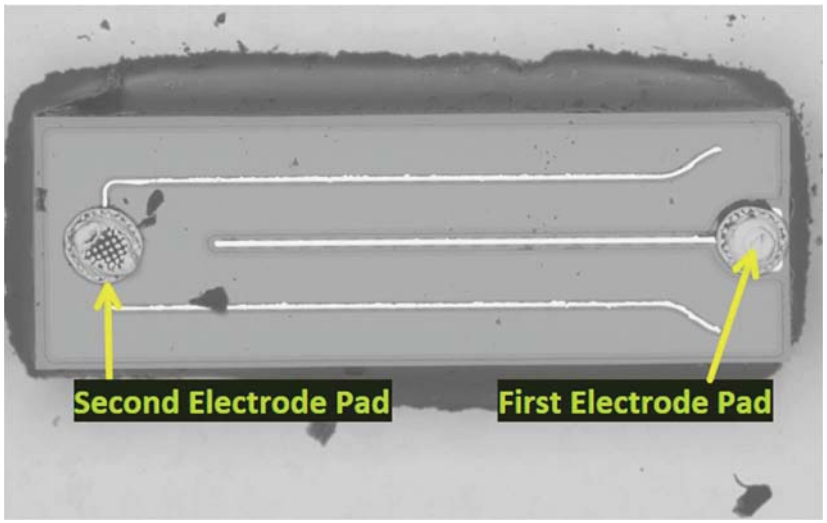


Figure 3B – 11 Lithonia Lighting HGX Floodlight

93. ***Claim 8: The light emitting diode of claim 7, further comprising a first lower extension extending from the first electrode pad towards the second electrode pad, the first lower***

extension being electrically connected to the first conductive type semiconductor layer.— As one non-limiting example, the below SEM images of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B – 12 and Figure 3B-13, are annotated to illustrate the lower extension extending from the first electrode pad towards the second electrode pad, wherein the first lower extension is electrically connected to the first conductive type semiconductor layer.

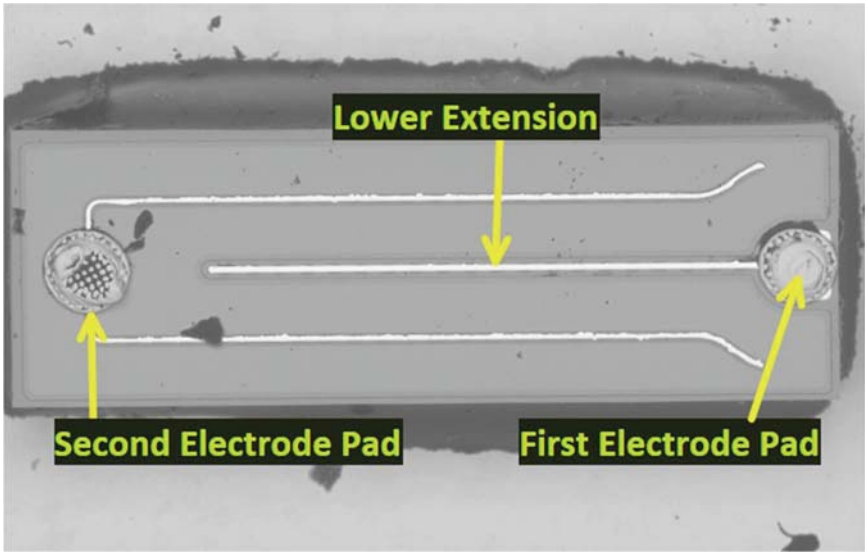


Figure 3B – 12 Lithonia Lighting HGX Floodlight (1)

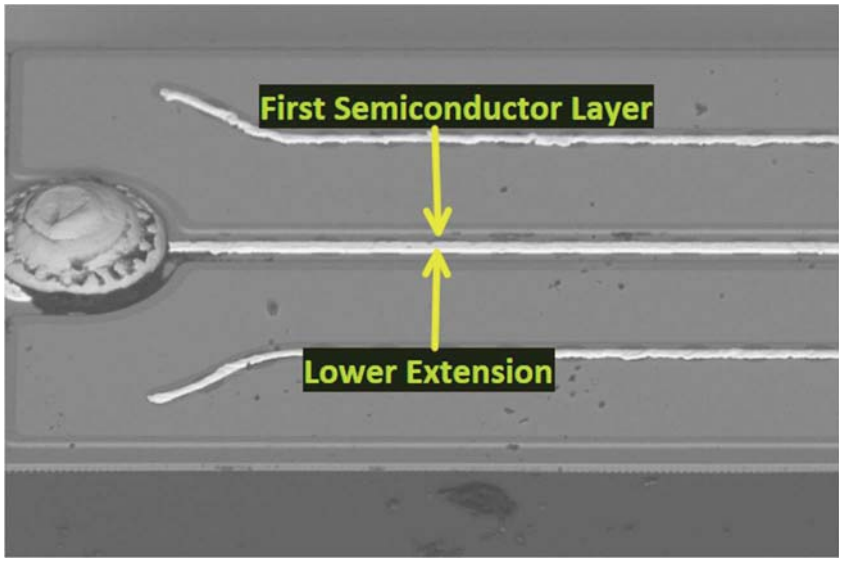


Figure 3B – 13 Lithonia Lighting HGX Floodlight (2)

94. ***Claim 9: The light emitting diode of claim 8, wherein a distal end of the first lower extension is closer to the second electrode pad than the first electrode pad.***— As one non-limiting example, the below SEM image of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figure 3B - 14, is annotated to illustrate that the distal end of the first lower extension is closer to the second electrode pad than the first electrode pad.

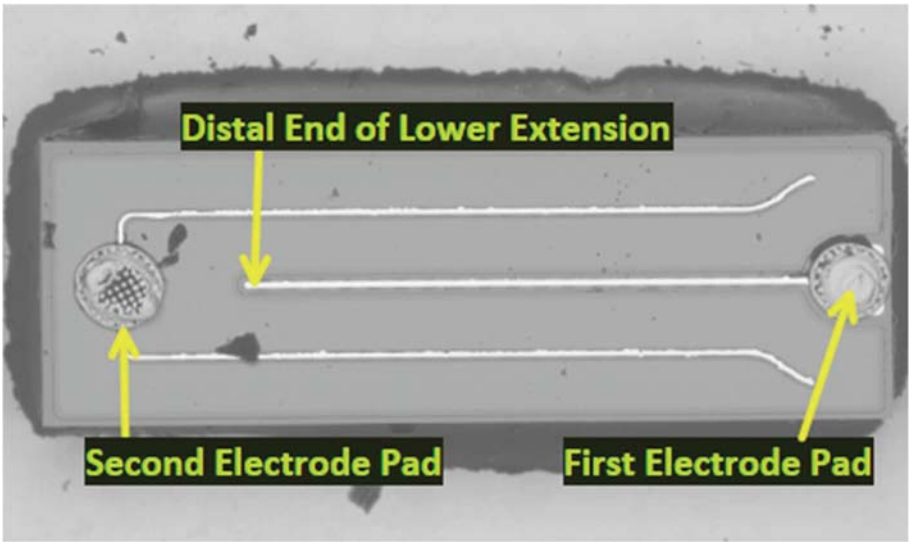


Figure 3B – 14 Lithonia Lighting HGX Floodlight

95. ***Claim 11: The light emitting diode of claim 1, further comprising a transparent electrode layer arranged on the second conductive type semiconductor layer, the transparent electrode layer forming an ohmic contact with the second conductive type semiconductor layer, wherein the transparent electrode layer is divided into at least two regions, and the second electrode pad is arranged on an exposed region of the second conductive type semiconductor layer between the at least two regions of the transparent electrode layer.***— As one non-limiting example, the below SEM images of an individual light emitting diode from the Lithonia Lighting HGX Floodlight, as seen in Figures 3B – 15 through 3B – 19, are annotated to illustrate the transparent electrode layer arranged on the second conductive type semiconductor layer, wherein the transparent electrode forms an ohmic contact with the second conductive type semiconductor

layer and is divided into two regions, as well as the second electrode pad being arranged on an exposed region of the second conductive type semiconductor layer between the at least two regions of the transparent electrode layer. As illustrated in Figure 3B – 19, EDS analysis demonstrates that the transparent electrode layer is an Indium Tin Oxide (ITO) layer.

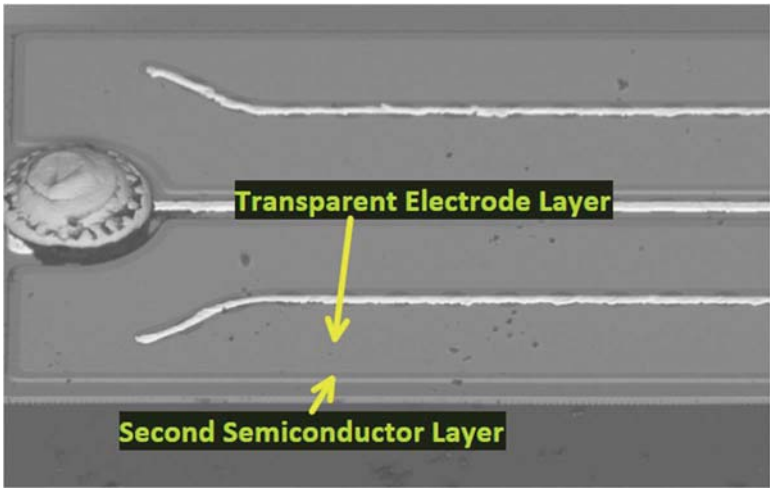


Figure 3B – 15 Lithonia Lighting HGX Floodlight (1)

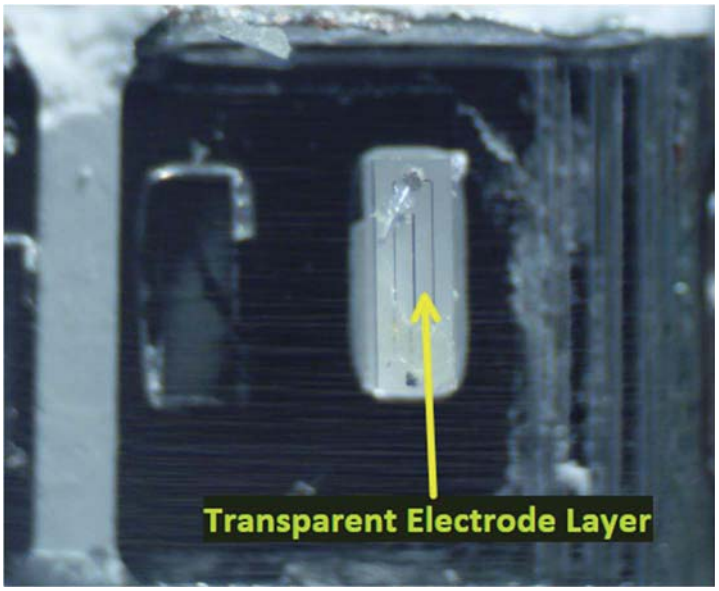


Figure 3B – 16 Lithonia Lighting HGX Floodlight (2)

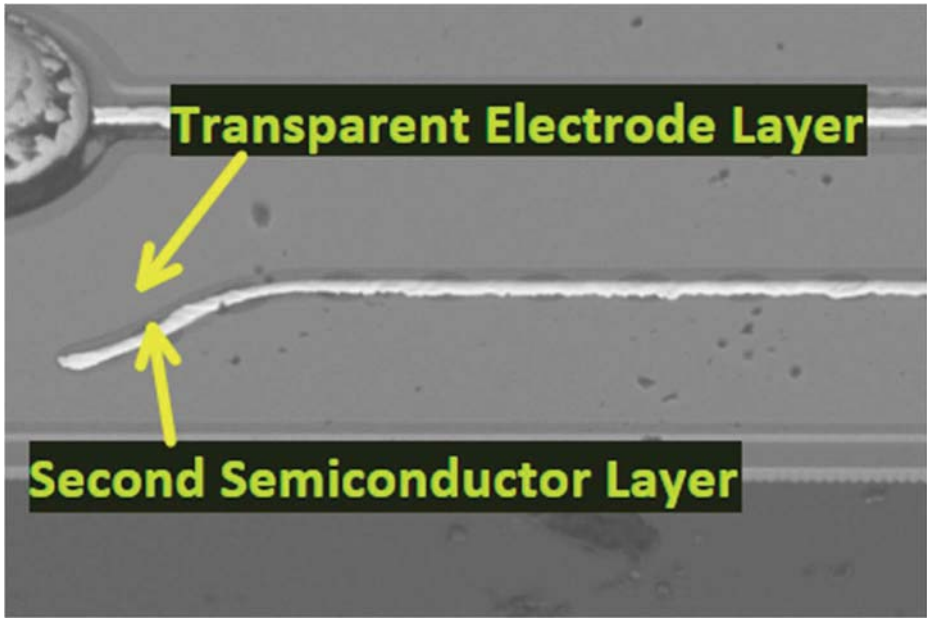


Figure 3B – 17 Lithonia Lighting HGX Floodlight (3)

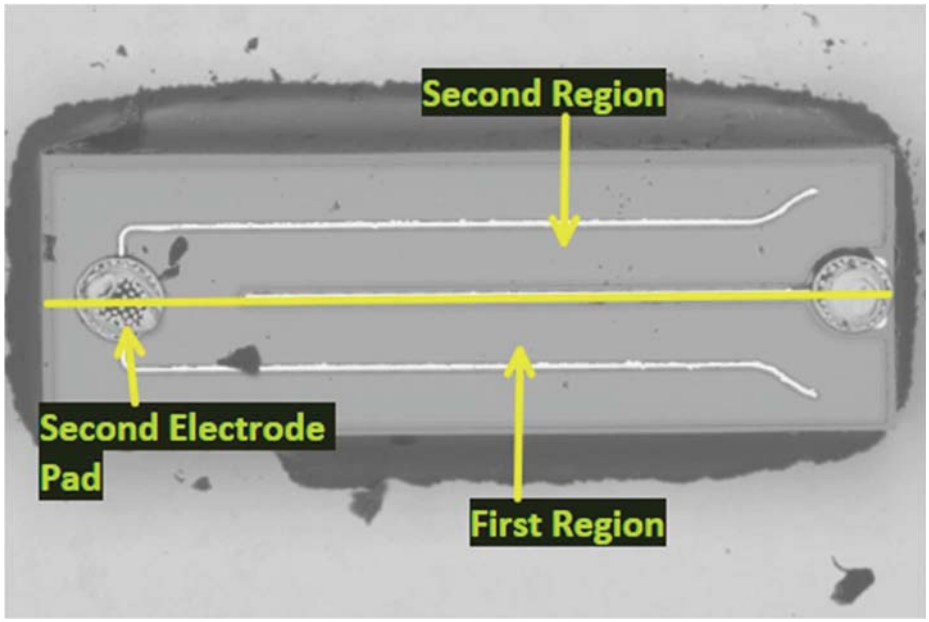
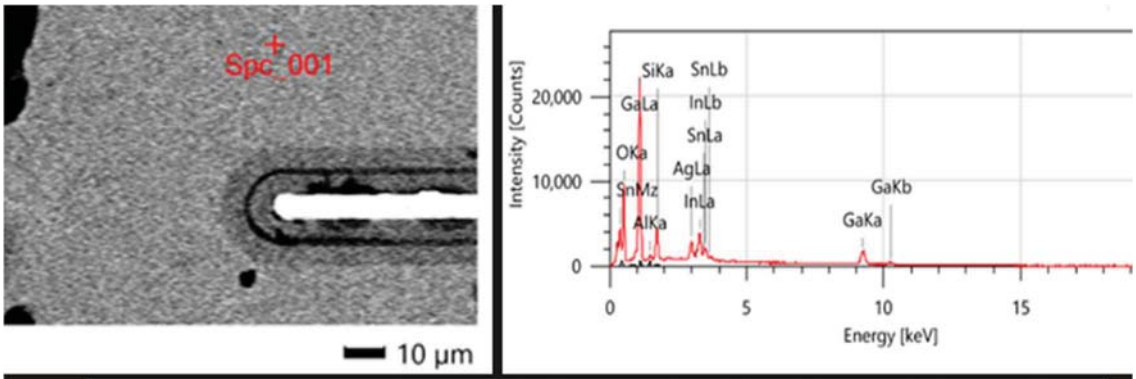


Figure 3B – 18 Lithonia Lighting HGX Floodlight (4)



Quant. Type	Chemical formula	Line	keV	Mass%	Mol%	Cations	K ratio	Standard Data	ZAF
	O	K	0.525					Std-less	
Automatically identified	Al2O3	K	1.486	1.40±0.04	2.26±0.07	0.42	0.67	Std-less	0.86/2.52/1.00
Automatically identified	SiO2	K	1.739	9.30±0.08	25.50±0.22	2.37	5.09	Std-less	0.84/1.97/1.00
Automatically identified	Ga2O3	L	1.098	59.78±0.18	52.58±0.15	9.76	51.64	Std-less	1.00/1.63/1.02
Automatically identified	Ag2O	L	2.984	9.78±0.08	6.96±0.06	1.29	14.13	Std-less	1.17/1.07/1.00
Automatically identified	In2O3	L	3.286	17.77±0.11	10.55±0.07	1.96	26.14	Std-less	1.10/0.99/1.00
Manually identified	SnO2	L	3.443	1.96±0.09	2.15±0.10	0.20	2.34	Std-less	1.22/1.05/1.00
Total				100.00	100.00				
Spc_001									Fitting ratio 0.0691

Figure 3B – 19 Lithonia Lighting HGX Floodlight (5)

96. Defendants' infringement of the '971 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

97. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '971 Patent.

98. Plaintiff is entitled to recover from Defendants' all damages that Plaintiff has sustained as a result of Defendants' infringement of the '971 Patent, including, without limitation, a reasonable royalty.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 7,128,454

99. Plaintiff incorporates by reference and re-alleges 1-98 of the Complaint as if fully set forth herein.

100. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '454 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 Utilitech

Recessed Retrofit Light among other substantially similar products (collectively, the "'454 Accused Products").

101. As non-limiting examples, set forth below (with claim language in bold and italics) is exemplary evidence of infringement of claim 1 and claim 15 of the '454 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 '454 Accused Products that it obtains during discovery.

102. ***1(a): A Light Emitting Diode (LED) module comprising:***—The Utilitech Recessed Retrofit Light is a light emitting diode module, as seen in Figure 4A - 1 and Figure 4A - 2:

Figure 4A - 1 – Product – Utilitech Recessed Retrofit Light

Figure 4A - 2 - LED – Utilitech Recessed Retrofit Light

103. ***1(b): a lighting unit including an LED chip;***—The lighting unit of the Utilitech Recessed Retrofit Light includes an LED Chip as illustrated in Figure 4B -

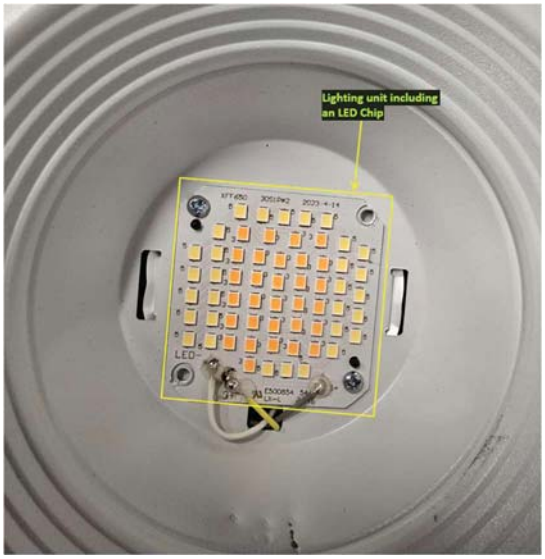


Figure 4B - 3 Utilitech Recessed Retrofit Light

104. ***1(c): a module body supporting the lighting unit at a leading end and extending from the leading end to a rear end for a predetermined length, the leading end being structured to guide light from the lighting unit in an upward direction, the module body being made of a high thermal conductivity material and having a through hole extending through the length of the modular body;***—The lighting unit of the Utilitech Recessed Retrofit Light includes an modular body, which supports it the lighting unit at a leading end and extends from the leading end to a rear end for a predetermined length. The leading end is structured to guide light from the lighting unit in an upward direction. The module body is made of a high thermal conductivity material and has a through hole extending through the length of the modular body as illustrated by Figure 4B - 4 to Figure 4B - 6.

Figure 4B - 4 Utilitech Recessed Retrofit Light (1)

Figure 4B – 5 Utilitech Recessed Retrofit Light (2)

Figure 4B - 6 Utilitech Recessed Retrofit Light (3)

105. ***1(d): a connector sealingly coupled to the rear end of the module body, the connector having a conductor inserted into and extending through the through hole in the module body for supplying external voltage to the lighting unit; and—*** The module body of the Utilitech Recessed Retrofit Light comprises a connector coupled to the rear end. The connector has a conductor inserted into and extending through the through hole in the module body for supplying external voltage to the lighting unit as illustrated by Figure 4B - 7 to Figure 4B - 9.

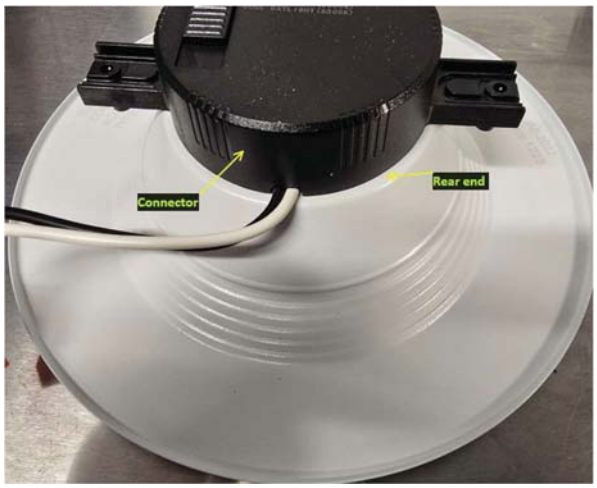


Figure 4B – 7 Utilitech Recessed Retrofit Light (1)

Figure 4B – 8 Utilitech Recessed Retrofit Light (2)

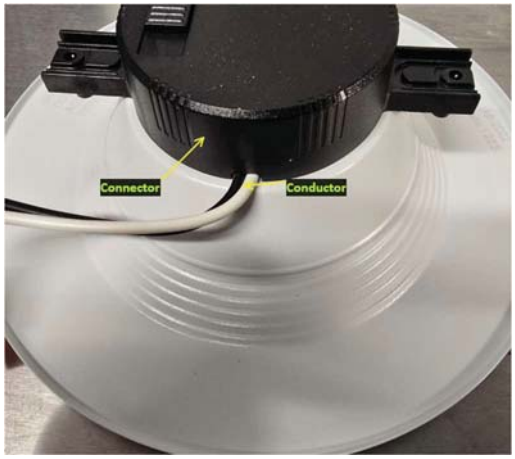


Figure 4B -9 Utilitech Recessed Retrofit Light (3)

106. ***1(e): a transparent member coupled with the leading end of the module body to seal and protect the lighting unit and a portion of the conductor exposed from the leading end of the module body from an external environment.***— The below images of the Utilitech Recessed Retrofit Light, as seen in Figure 4B - 10, is annotated to illustrate the transparent member couple with the leading end of the module body to seal and protect the lighting unit and a portion of the conductor.

Figure 4B – 10 Utilitech Recessed Retrofit Light

107. Claim 15: **The LED module according to claim 1, wherein the transparent member is configured as a lens.** As one non-limiting example, as seen in Figure 4B - 11, the transparent member in the Utilitech Recessed Retrofit Light is configured as a lens:

Figure 4B - 11 Utilitech Recessed Retrofit Light

108. Defendants' infringement of the '454 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

109. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '454 Patent.

110. Plaintiff is entitled to recover from Defendants all damages that Plaintiff has

sustained as a result of Defendants' infringement of the '454 Patent, including, without limitation, a reasonable royalty.

COUNT 5: INFRINGEMENT OF U.S. PATENT NO. 8,319,246

111. Plaintiff incorporates by reference and re-alleges paragraphs 1-110 of the Complaint as if fully set forth herein.

112. Defendants have infringed and are infringing, either literally or under the doctrine of equivalents, the '246 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 Kobalt Handheld Cordless Spotlight among other substantially similar products (collectively, the "'246 Accused Products").

113. 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 '246 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 '246 Accused Products that it obtains during discovery.

114. ***1(a): A semiconductor device comprising***:— The Kobalt Handheld Cordless Spotlight, as seen in Figure 5A - 1 to Figure 5A - 2, comprises a "semiconductor device," as recited in claim 1:

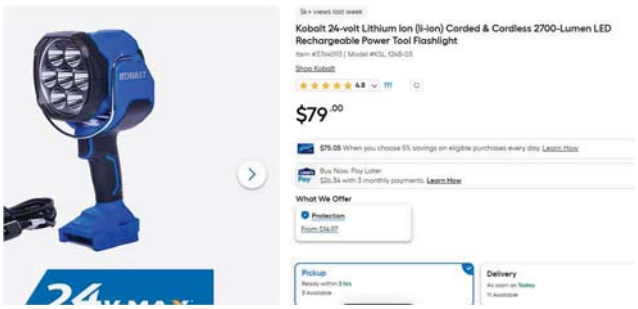


Figure 5A - 1 - LED Product – Kobalt Handheld Cordless Spotlight

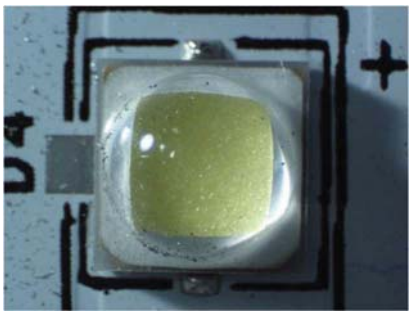


Figure 5A - 2 - LED Product - Kobalt Handheld Cordless Spotlight

115. ***1(b): a semiconductor structure unit including a major surface****;*— the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 1 to Figure 5B – 4, are annotated to illustrate the semiconductor structure unit including a major surface:

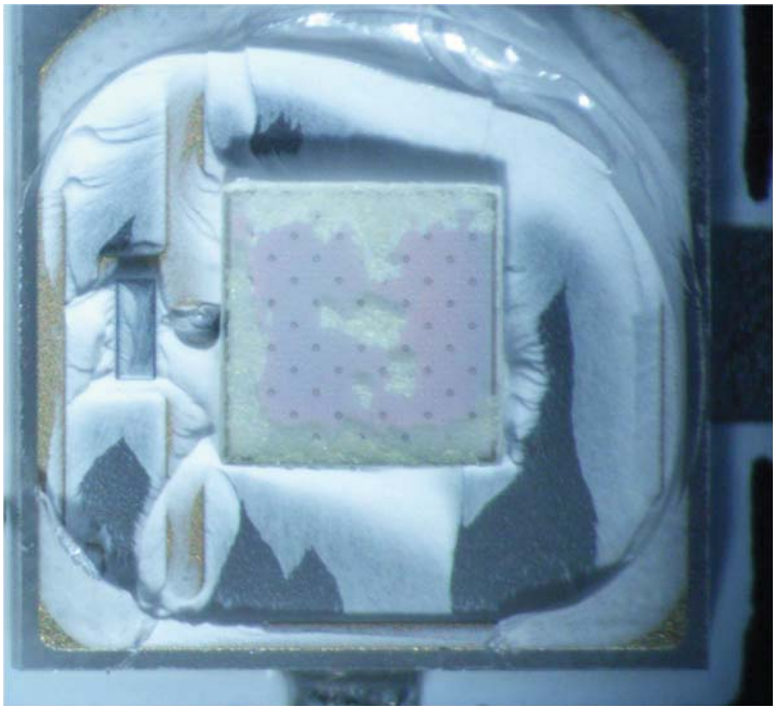


Figure 5B - 1 Kobalt Handheld Cordless Spotlight (1)

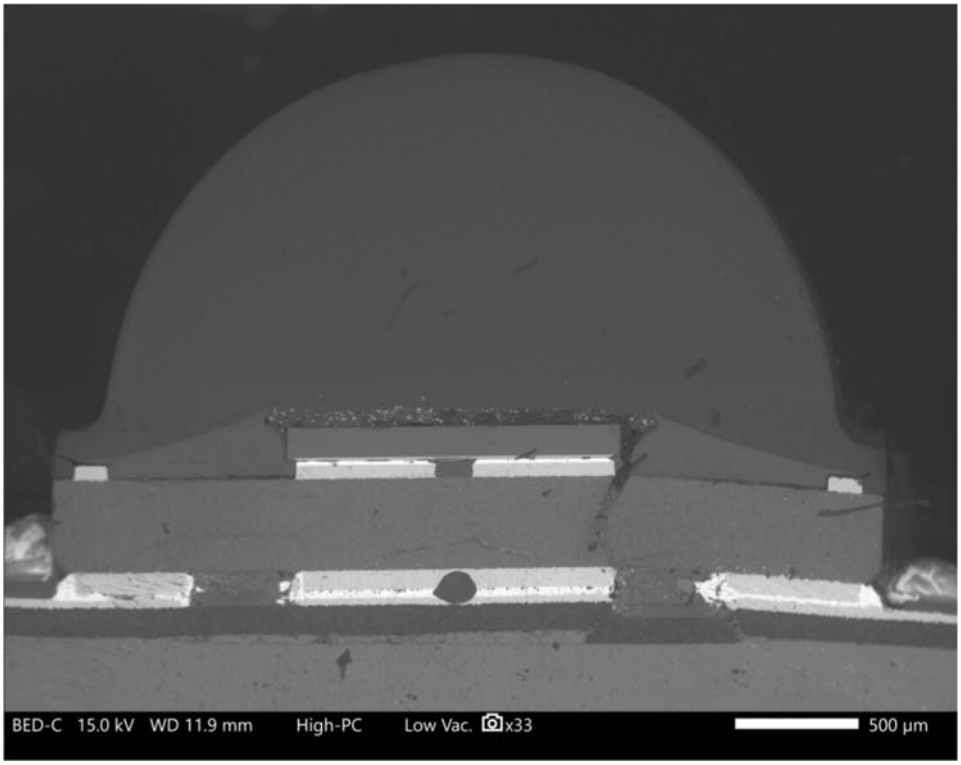


Figure 5B - 2 Kobalt Handheld Cordless Spotlight (2)

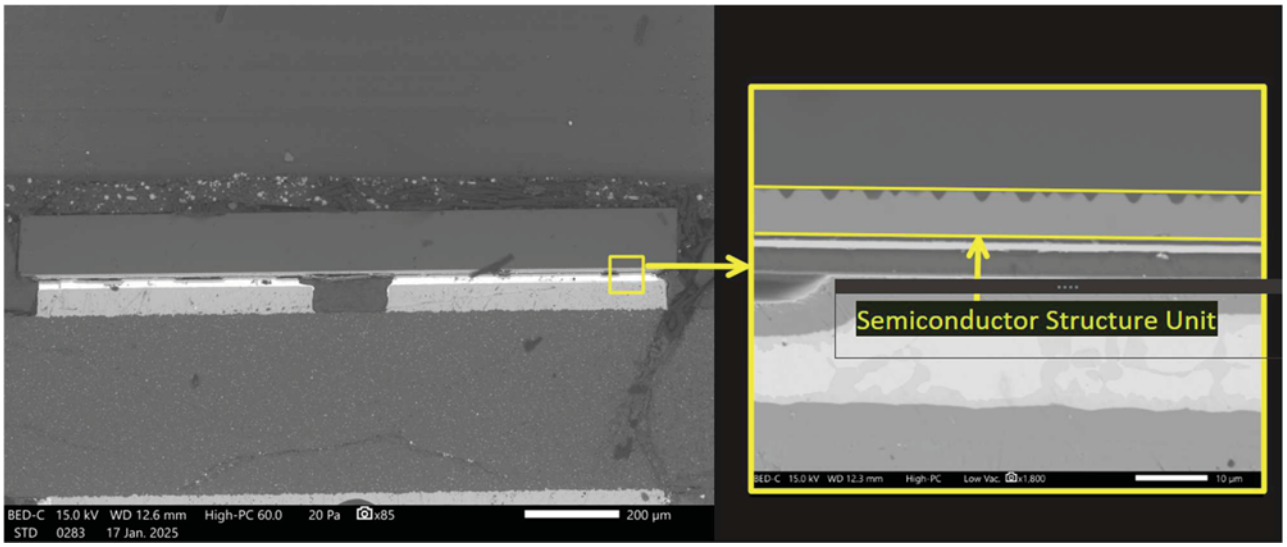


Figure 5B - 3 Kobalt Handheld Cordless Spotlight (3)

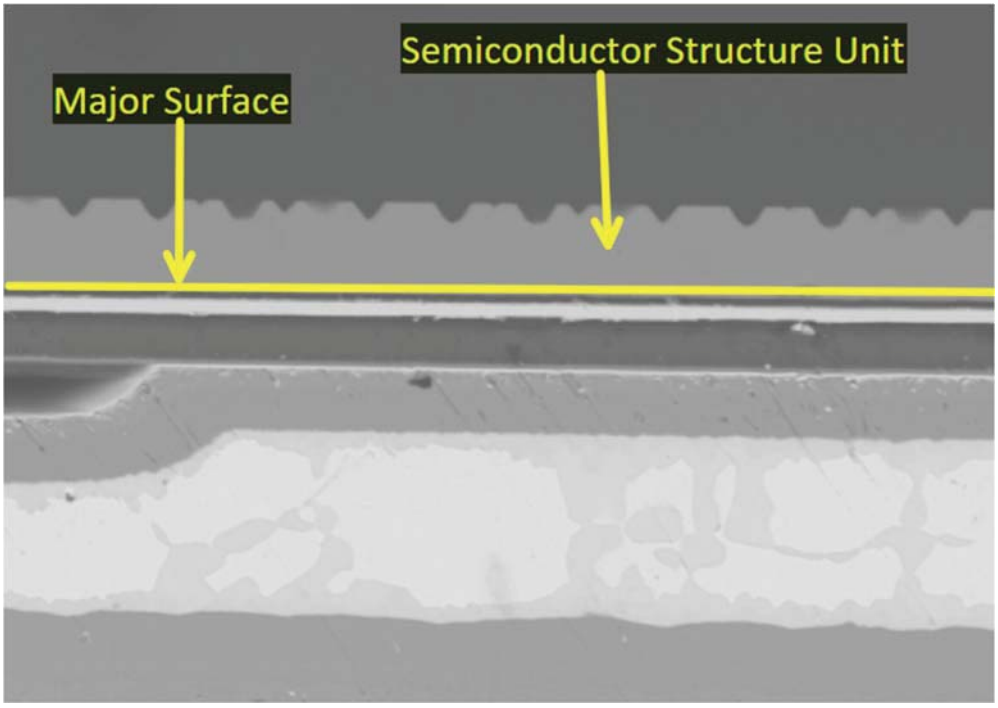


Figure 5B - 4 Kobalt Handheld Cordless Spotlight (4)

116. ***1(c): an interconnect layer provided on the major surface side of the semiconductor structure unit;—*** the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 5 to Figure 5B – 6, are annotated to illustrate the interconnect layer provided on the major surface side of the semiconductor structure unit.

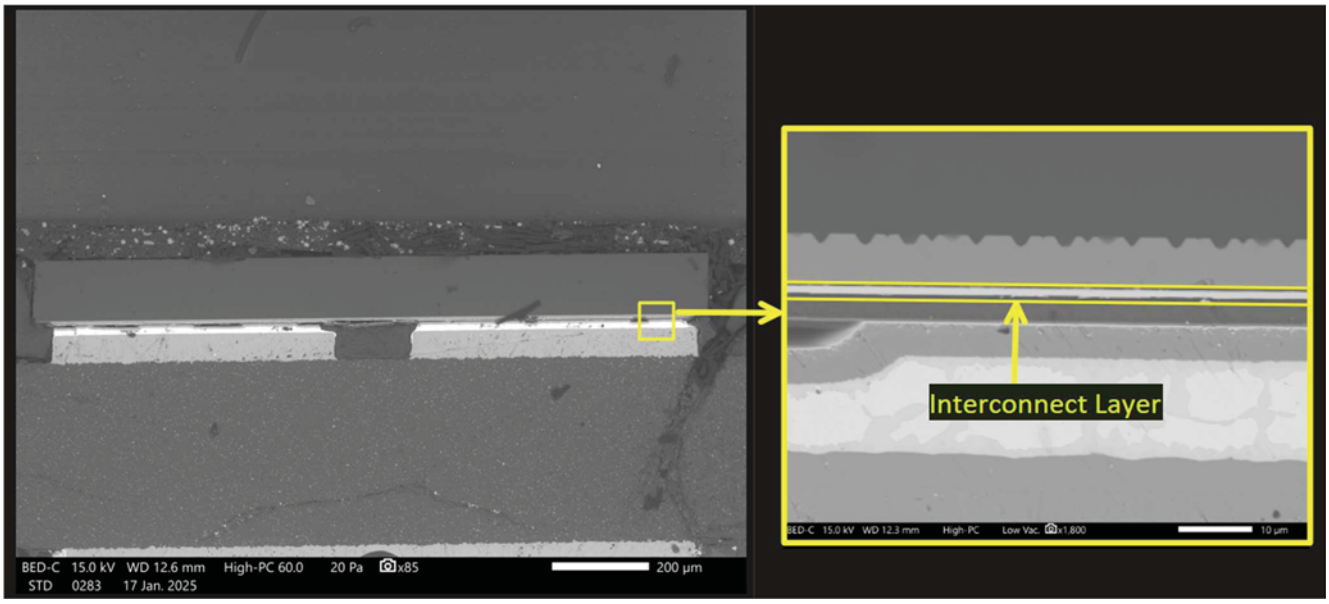


Figure 5B - 5 Kobalt Handheld Cordless Spotlight (1)

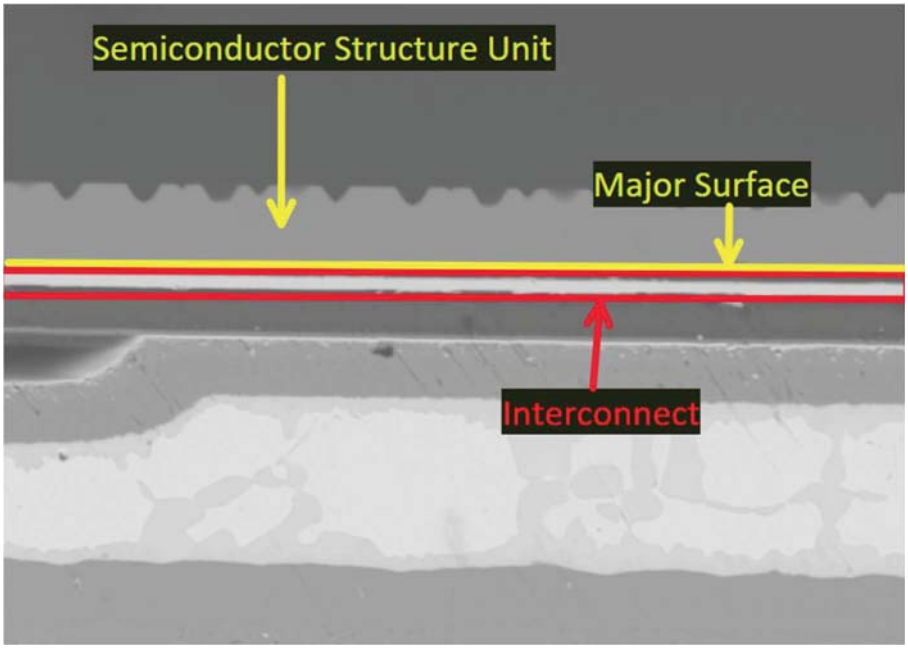


Figure 5B - 6 Kobalt Handheld Cordless Spotlight (2)

117. ***1(d): an electrode pad provided on a surface of the interconnect layer on a side opposite to a surface on which the semiconductor structure unit is provided, and the electrode pad electrically connected to the interconnect layer;***— the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 7 to Figure 5B – 10, are annotated to illustrate the electrode pad provided on a surface of the interconnect layer on a side opposite to a surface on which the semiconductor structure unit is provide, and that the electrode pad is electrically connected to the interconnect layer. For example, as shown in Figure 5B – 10, the electrode pad comprises at least Aluminum and Titanium.

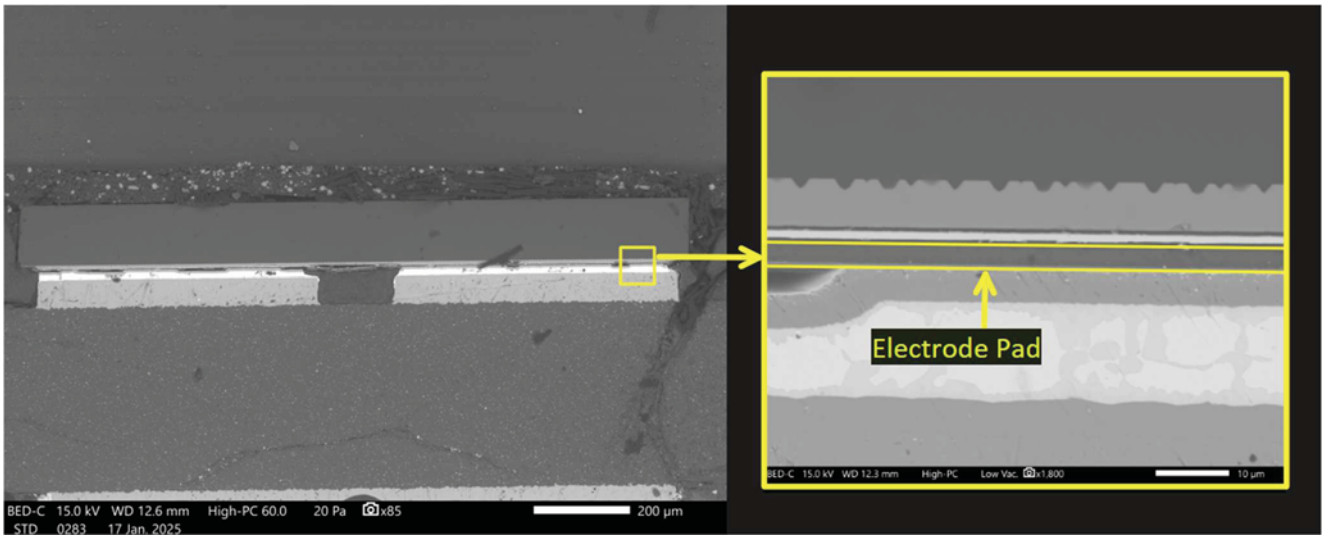


Figure 5B - 7 Kobalt Handheld Cordless Spotlight (1)

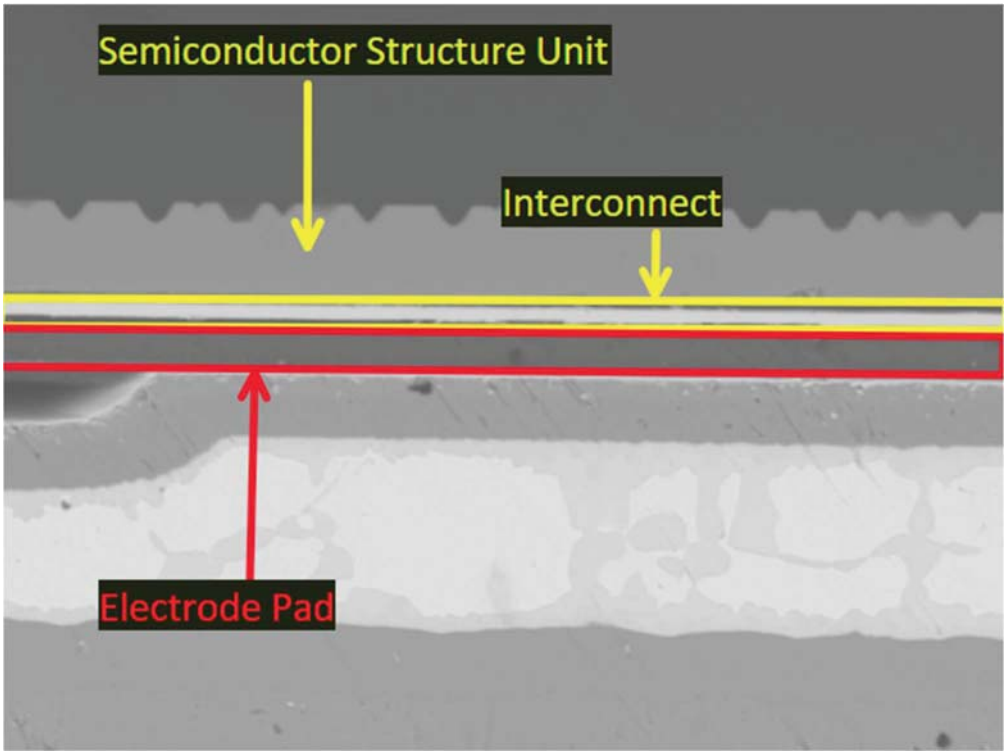


Figure 5B - 8 Kobalt Handheld Cordless Spotlight (2)

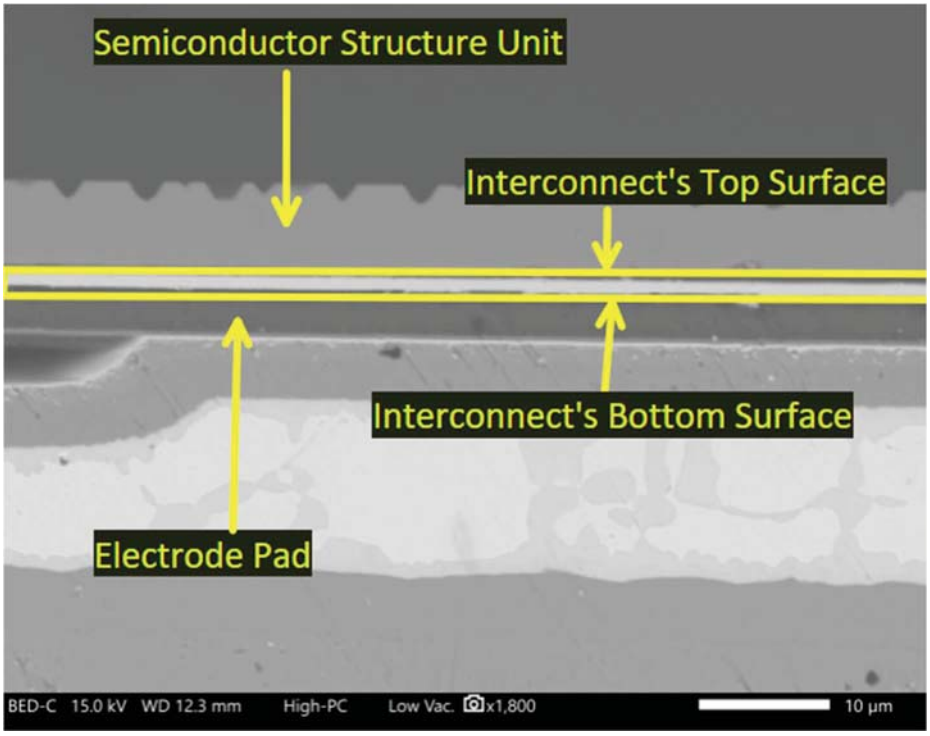


Figure 5B - 9 Kobalt Handheld Cordless Spotlight (3)

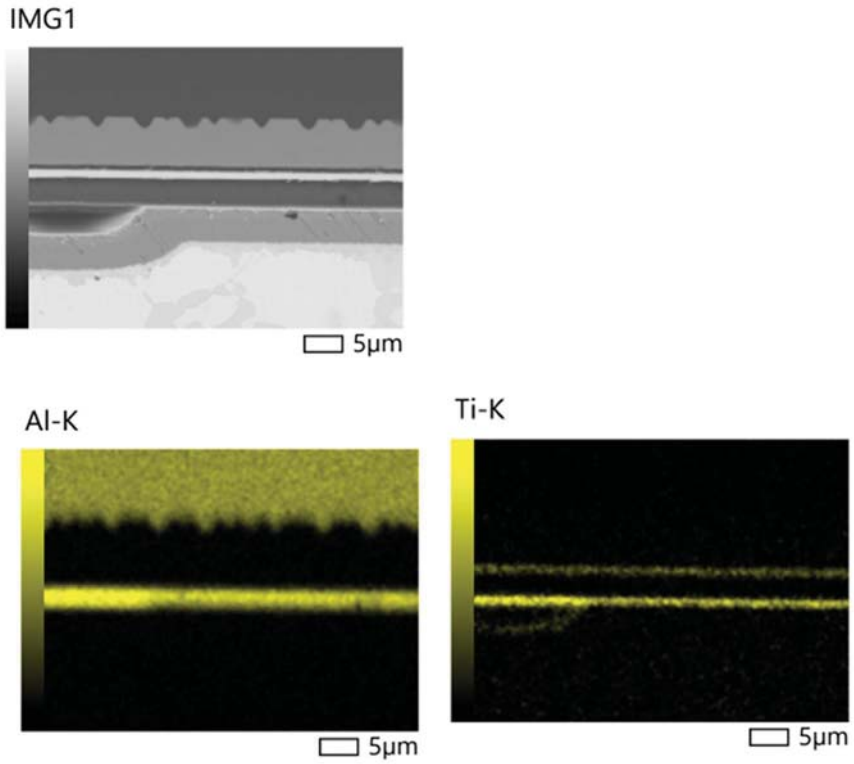


Figure 5B - 10 Kobalt Handheld Cordless Spotlight (4)

118. ***1(e): a plurality of metal pillars joined to the electrode pad separately from each other; and***— the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 11 to Figure 5B – 14, are annotated to illustrate the plurality of metal pillars joined to the electrode pad separately from each other.

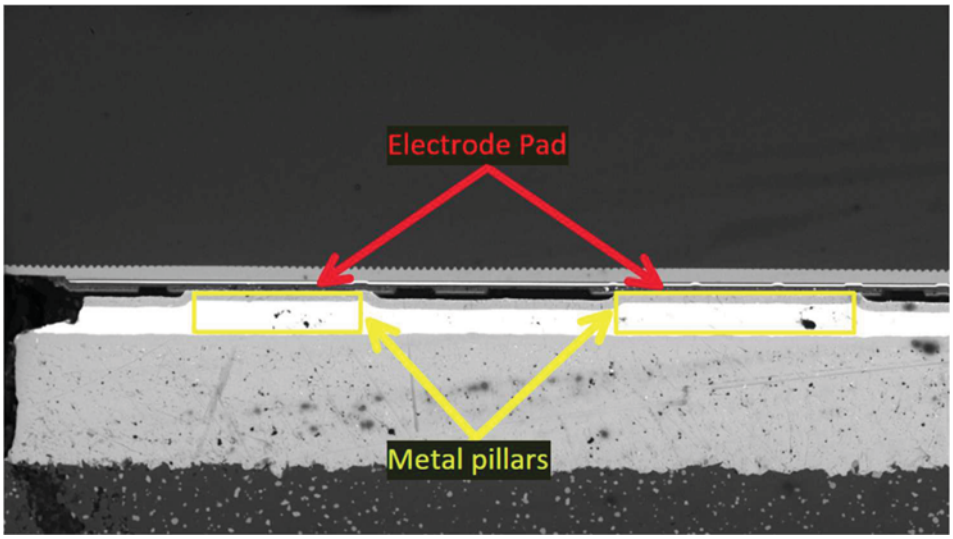


Figure 5B - 11 Kobalt Handheld Cordless Spotlight (1)

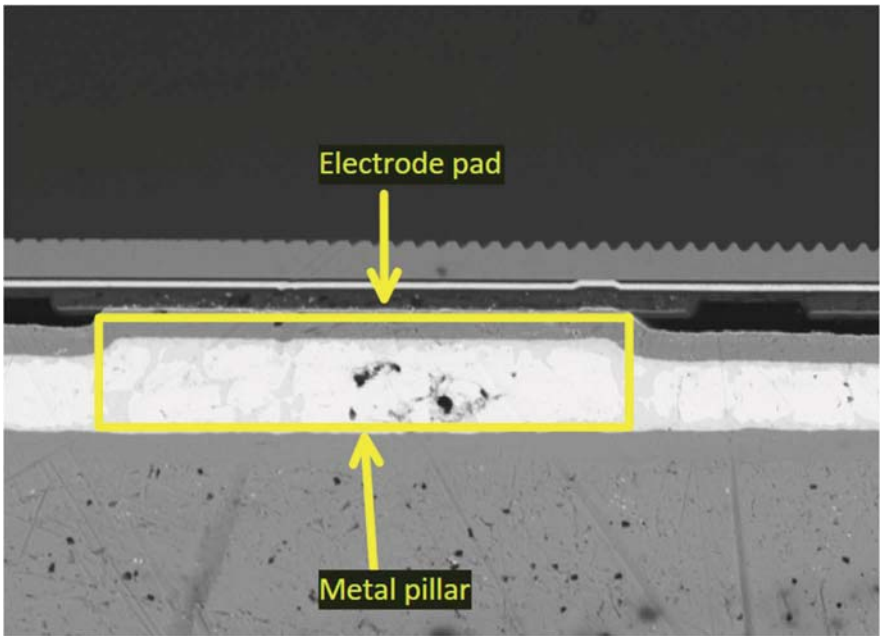


Figure 5B - 12 Kobalt Handheld Cordless Spotlight (2)

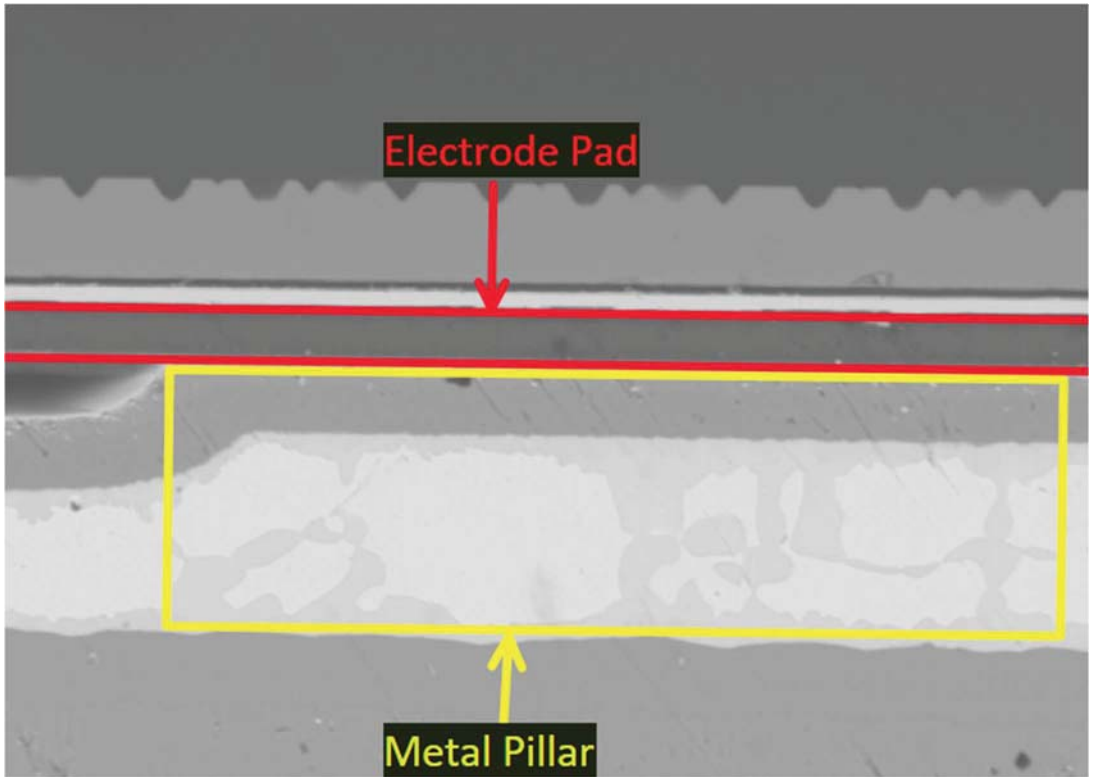


Figure 5B - 13 Kobalt Handheld Cordless Spotlight (3)

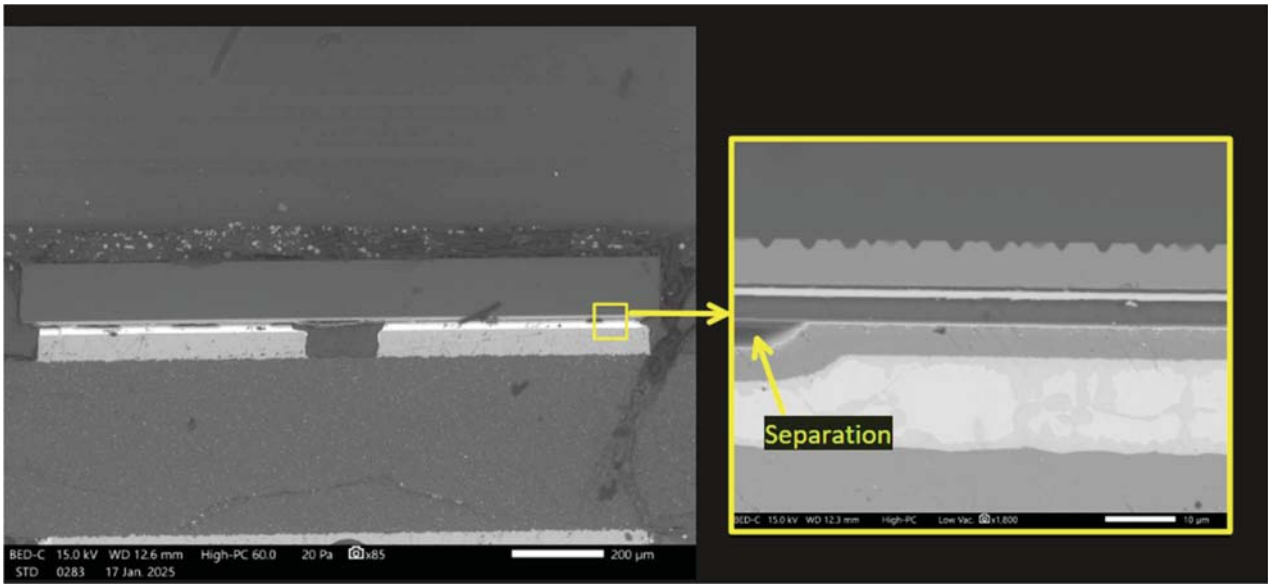


Figure 5B - 14 Kobalt Handheld Cordless Spotlight (4)

119. ***1(f): an external terminal provided commonly at tips of the plurality of metal pillars,*** — the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 15 to Figure 5B – 16, are annotated to illustrate the external terminal

provided commonly at tips of the plurality of metal pillars.

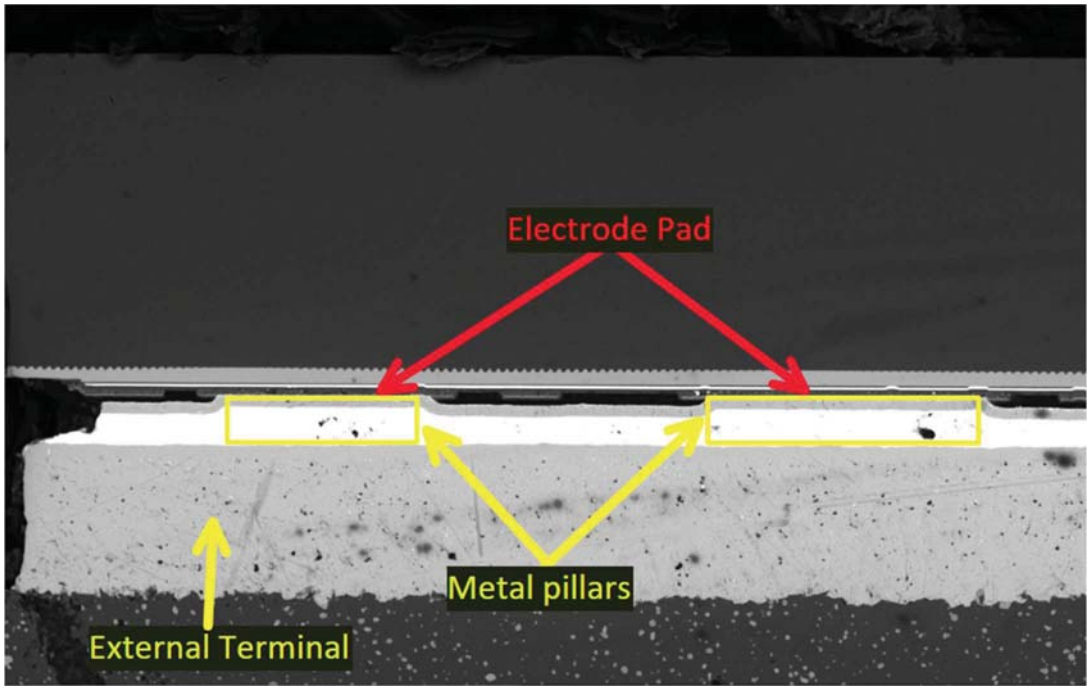


Figure 5B - 15 Kobalt Handheld Cordless Spotlight (1)

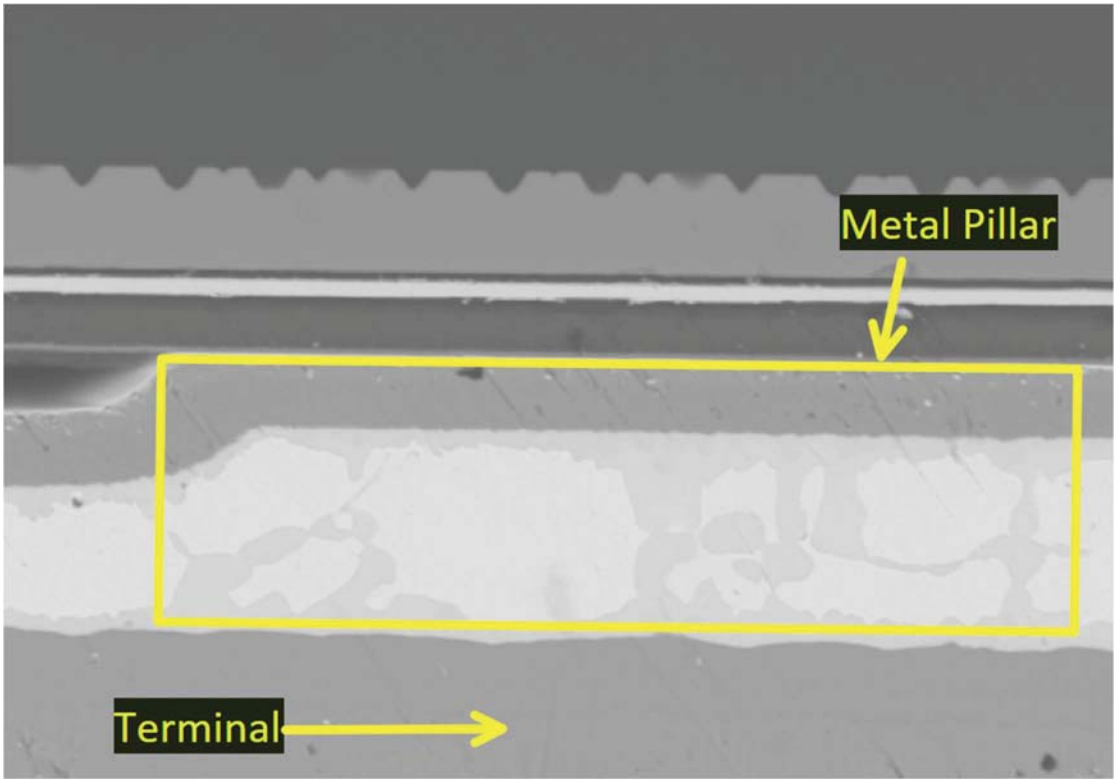


Figure 5B - 16 Kobalt Handheld Cordless Spotlight (2)

120. ***1(g): the metal pillars having an area in a plan view smaller than an area in a plan view of the external terminal,*** — the below image of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B - 17, is annotated to illustrate the metal pillars having an area in a plan view smaller than an area in a plan view of the external terminal.

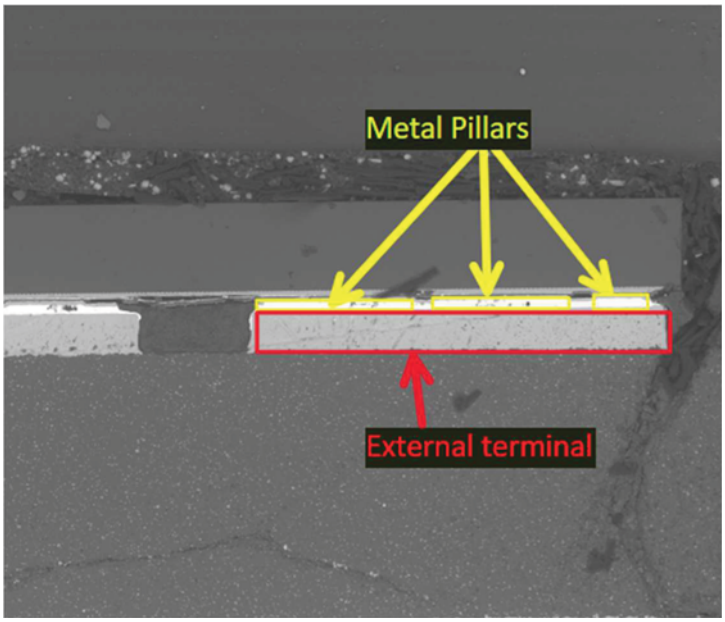


Figure 5B - 17 Kobalt Handheld Cordless Spotlight

121. ***1(h): wherein the semiconductor structure unit includes a light-emitting layer.*** — the below images of an individual light emitting diode from the '246 Accused Products, as seen in Figure 5B – 18 to Figure 5B – 19, are annotated to illustrate the semiconductor structure unit including a light-emitting layer. As shown in Figure 5B – 19, the semiconductor structure unit comprises GaN.

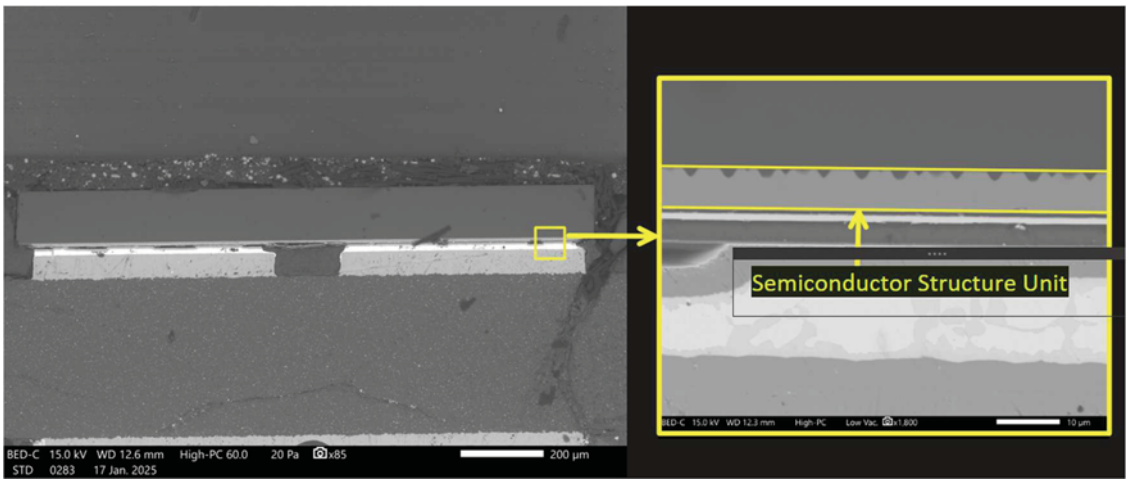


Figure 5B - 18 Kobalt Handheld Cordless Spotlight

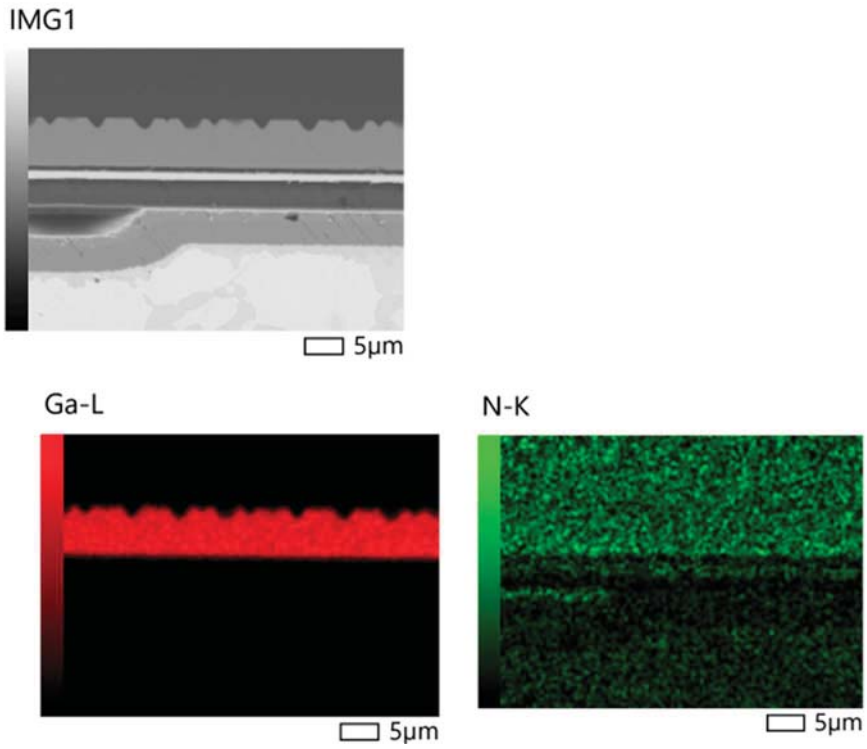


Figure 5B - 19 Kobalt Handheld Cordless Spotlight

122. Defendants' infringement of the '246 Patent is exceptional and entitles Plaintiff to attorneys' fees and costs incurred in prosecuting this action under 35 U.S.C. § 285.

123. Plaintiff is in compliance with any applicable marking and/or notice provisions of 35 U.S.C. § 287 with respect to the '246 Patent.

124. Plaintiff is entitled to recover from Defendants all damages that Plaintiff has

sustained as a result of Defendants' infringement of the '246 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 Defendants have 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 Defendants' infringement under 35 U.S.C. § 284;

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.

Date: February 21, 2025

Respectfully submitted,

/s/ Cecil E. Key

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