IN THE UNITED STATES DISTRICT COURT FOR THE DISTRICT OF DELAWARE

CAO LIGHTING, INC.,)
Plaintiff,)
v.	Civil Action No
OSRAM SYLVANIA, INC. and LEDVANCE LLC) JURY TRIAL DEMANDED)
Defendants.)))

COMPLAINT

Plaintiff CAO LIGHTING, INC. ("CAO Lighting"), by and through its counsel, Barnes & Thornburg LLP, files this Complaint against Defendant OSRAM SYLVANIA, INC. ("OSRAM") and LEDVANCE LLC ("LEDVANCE") (collectively, "Defendants") and alleges as follows:

PRELIMINARY STATEMENT

1. This is a patent infringement action alleging that Defendants have infringed and continue to infringe one or more claims of U.S. Patent No. 6,465,961 (the '961 patent). The '961 patent was previously asserted against Defendant OSRAM in a lawsuit filed on May 10, 2011 by CAO Group, Inc. ("CAO Group"), the prior owner of the '961 patent, in the United States District Court for the District of Utah, Case No. 2:11-cv-426-DB ("the Utah Action"). In the Utah Action, CAO Group alleged that OSRAM infringed one or more claims of the '961 patent. Following the filing of the complaint in the Utah Action, OSRAM and another defendant, GE Lighting, Inc., filed petitions for inter partes reexamination and ex parte reexamination directed to the '961 patent. The Utah Action was stayed pending reexamination in March 2013. An Ex Parte Reexamination Certificate of the '961 patent was issued on or about September 2, 2014, in

which new claims 21-103 were deemed patentable. The inter partes reexamination proceedings continued until May 2017.

- 2. During the pendency of the reexaminations, in July 2015, the '961 patent was assigned (along with rights to sue for past infringement) to Epistar Corporation, who then assigned the '961 patent back (along with the right to sue for past infringement) to CAO Group in June 2016. In October 2016, CAO Group assigned the '961 patent (along with the right to sue for past infringement) to CAO Lighting, a wholly owned subsidiary of CAO Group.
- 3. On January 14, 2020, CAO Group filed a motion to reopen the case and lift the stay in the Utah Action. On April 23, 2020, the District of Utah dismissed the Utah Action for lack of subject matter jurisdiction. On May 12, 2020, the District of Utah clarified and amended its order and judgment that the dismissal of the Utah Action was without prejudice.

PARTIES

- 4. Plaintiff CAO Lighting, Inc. is a corporation with its principal place of business at 4628 West Skyhawk Drive, West Jordan, Utah 84084. CAO Lighting, Inc. is a wholly owned subsidiary of the CAO Group, Inc.
- 5. On information and belief, Defendant OSRAM is a Delaware corporation having its principal place of business at 100 Endicott Street, Danvers, Massachusetts 01923. OSRAM may be served via its registered agent for service of process: Corporation Creations Networks Inc., 3411 Silverside Road, Tatnall Building Ste. 104, Wilmington, DE 19810.
- 6. On information and belief, Defendant LEDVANCE is a limited liability corporation organized under the laws of the State of Delaware having a principal place of business at 200 Ballardvale Street, Wilmington, Massachusetts 01887. LEDVANCE may be

served via its registered agent for service of process: Corporation Creations Networks Inc., 3411 Silverside Road, Tatnall Building Ste. 104, Wilmington, DE 19810.

JURISDICTION AND VENUE

- 7. This is a civil action for patent infringement under the patent laws of the United States, Title 35 of the United States Code.
- 8. This Court has exclusive subject matter jurisdiction under 28 U.S.C. §§ 1338(a) and 1331.
- 9. This Court has personal jurisdiction over Defendant because it has engaged in systematic and continuous business activities in this District. Further, as described below, Defendants have committed and continues to commit acts of patent infringement in this District.
- 10. Venue is proper in this District under 28 U.S.C. § 1400(b) because Defendants have committed acts of patent infringement in this District and each is incorporated in the state of Delaware.

BACKGROUND

- 11. CAO Lighting is the owner by assignment of the '961 patent. The '961 Patent is directed to a semiconductor light source, such as LED chips or LED arrays, for illuminating a physical space. CAO Lighting and its founder and CEO, Dr. Densen Cao, Ph.D., are innovation leaders and have created many fundamental technologies in LED lighting.
- 12. CAO Lighting makes, markets, and sells LED lighting products under the brand names LuxemBright® and Dynasty®. CAO Lighting's products provide energy saving solid state lighting solutions to signage and commercial lighting applications. LuxemBright® LED Signage systems provide sign owners with the best in-class value LED lighting solutions. Its potted and rugged design, with the addition of through hole LED lamps, makes the LuxemBright® LEDs

usable outdoors in any harsh weather environment. The system offers different configurations for complete solutions for all types of signage lighting. Dynasty® LED Lighting products provide commercial, retail and general lighting applications. The energy savings and long life advantages are through CAO Lighting's extensive LED product family. Dynasty® LED is the only packaged LED light source to offer a 360 degree beam and removable base. CAO Lighting's Dynasty® Candelabra lamp, offers the same look and efficacy as traditional incandescent candelabras. However, this product only uses a little more than 3 watts of electricity. The Dynasty® lamp series can directly replace existing incandescent and compact fluorescence to have the same efficacy, but saves more than 60% of energy.

CAO Group in 2000. This innovative company became a force in creating products that could be considered foundational in every dental practice. Based on his LED research, Dr. Cao introduced the first commercial LED curing light with a distribution partner. The use of LED curing lights saves \$6,000 per dentist per year on average. After the introduction of curing lights, Dr. Cao took his knowledge of light-emitting technology and moved on to lasers. In 2002, he invented the first compact diode soft-tissue laser that was manufactured and sold by the CAO Group. Dr. Cao's research and expertise in light-emitting technology then led him into LED lighting. His research in long-lasting and energy-efficient LED lighting has been foundational in replacement bulbs that, up to that point in time, were incandescent. For example, Dr. Cao invented methods to build LED light sources with 360° light beam and improved heat management. These methods are widely adopted in today's efficient LED lighting products. Dr. Cao also has pioneered LEDs as light sources for detecting forensic evidence in different fields. The CAO Group's branded

product, UltraLite ALS®, is an industry standard and leading brand of forensic lights which has benefitted criminal investigations worldwide.

- 14. Dr. Cao, who has a Ph.D. in materials science and engineering from the University of Utah in Salt Lake City, is a named inventor on 160 patents and patent applications in the fields of LED curing lights, diode lasers, and LED lighting.
- 15. In 2013, the LED lighting division of the CAO Group was spun off into CAO Lighting, Inc, a wholly owned subsidiary. The '961 patent was assigned to CAO Lighting on October 26, 2016, and the assignment included all rights, title, and interest in the '961 patent, including the right to sue for past or current infringement and collect any royalties or damages for infringement.

OVERVIEW OF THE PATENTS-IN-SUIT

- 16. The '961 Patent, titled "Semiconductor Light Source using a Heat Sink with a Plurality of Panels," was issued by the United States Patent and Trademark Office on October 15, 2002. The invention of the '961 patent is especially useful for partially or fully illuminating a space occupied by or viewed by humans, such as residential spaces, commercial spaces, outdoor spaces, the interior or exterior of a vehicle, and the like. A true and correct copy of the '961 Patent is attached hereto as Exhibit A.
- 17. CAO Lighting owns all rights, title and interest in the '961 patent, including the right to recover all past and future damages for infringement of the '961 patent.
- 18. Prior to the invention of the '961 patent, LEDs were used primarily in low intensity applications, such as panel displays (e.g., laptop computer screens), signal lighting, and other instrumentation purposes. '961 patent, col. 1:13-16.

- 19. At the time of the invention of the '961 patent, and still today, LED light sources were desirable because they provided a high efficiency light source that used substantially less energy and created less heat than typical prior art light sources such as incandescent and halogen lights. '961 patent, col. 1:16-20. However, semiconductor light sources prior to Dr. Cao's invention had not been successfully and economically used to illuminate physical spaces. '961 patent, col. 1:20-22. Furthermore, at the time of Dr. Cao's invention, arranging a sufficient number of LED modules to generate the desired high light intensity took an excessive amount of physical space and created unmanageable amounts of heat. '961 patent, col. 1:26-29.

 Consequently, prior to Dr. Cao's invention, LED-based light sources were not suitable for replacing traditional tungsten light bulbs. '961 patent, col. 1:30-32. The traditional incandescent and fluorescent light sources at the time of Dr. Cao's invention had high energy consumption, high heat generation, and short useful life compared to Dr. Cao's invention. '961 patent, col. 1:50-54.
- 20. The invention of the '961 patent was directed to a semiconductor (e.g., LED) light source for use in illuminating spaces used by humans with a single color light in the visible range and which would efficiently dissipate the heat produced by the light source. '961 patent, col. 1:46-50.
- 21. For example, the '961 patent teaches the use of multiple high-power LED chips emitting white light, combined with effective heat dissipation in fixtures suitable for use in common lighting receptacles.
- 22. The '961 Patent discloses a semiconductor light source including (1) an enclosure with an interior volume, (2) a base including an electrical connector, (3) a heat sink configured to withdraw heat from and suitable for mounting semiconductor devices, and (4) semiconductor

chips capable of emitting light with a power output greater than 40 milliwatts. The enclosure can be of any desired shape, such as a bulb, square, cylindrical, or n-sided.

- 23. The '961 Patent was subject to two merged Inter Partes reexaminations (95/000,680 and 95/002,324) and an Ex Parte reexamination (90/012,957). Inter Partes reexamination No. 95/002,324 was filed on September 14, 2012 by Defendant OSRAM Sylvania Inc. as the real party in interest. As a result of those reexaminations, the original claims 1-20 of the '961 Patent were cancelled and an Ex Parte Reexamination Certificate (10279th) was issued for the '961 Patent on September 2, 2014, in which new claims 21-103 were determined to be patentable. A copy of the Certificate is attached hereto as Exhibit B.
 - 24. Claims 21-103 of the '961 Patent are valid and enforceable.

DEFENDANTS' INFRINGING LED LIGHTING PRODUCTS

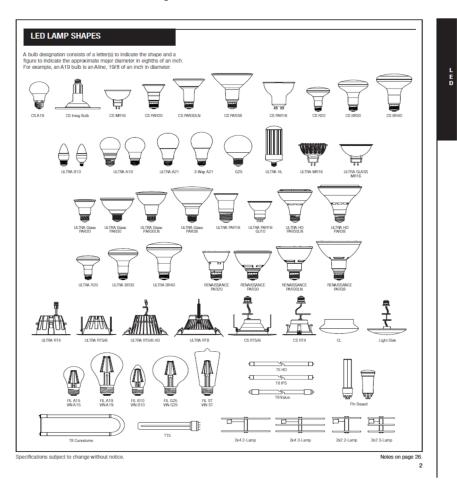
- 25. On information and belief, Defendant OSRAM is or was the North American operation of lighting manufacturer, OSRAM Licht AG. On information and belief OSRAM has offered for sale in the United States consumer and commercial LED lighting products under the brand names SYLVANIA and OSRAM.
- 26. On information and belief, in July 2016, OSRAM's general lighting business was sold to Defendant LEDVANCE. On information and belief, LEDVANCE was permitted to and has continued to sell LED lighting products under the brand name SYLVANIA in the United States. On information and belief, LEDVANCE is owned by MLS Co., Ltd., a Chinese LED lighting company.
- 27. Sylvania-branded LED lighting has been offered by Defendants in many variations of bulb size, bulb shape, wattage, and use. On information and belief, representative infringing examples of Sylvania-branded light bulbs offered by OSRAM and presently offered

for sale by LEDVANCE in the United States and this District can be found here:

https://www.sylvania.com/en-us/products/Pages/General-Lighting-Products.aspx. On information and belief, representative infringing examples of Sylvania-branded LED lamps and replacements offered by Defendants in the United States and this District can be found here:

https://www.sylvania.com/en-us/products/solid-state-lighting-led/Pages/default.aspx.

28. Further, in an excerpt from the 2017-2018 catalog found on LEDVANCE's current website for Sylvania-branded bulbs offered in the United States, the following LED bulbs are described. On information and belief, OSRAM has offered these LED bulbs for sale in the United States and this District and LEDVANCE currently offers these LED bulbs for sale in the United States and this District. On information and belief, each of these infringing LED lamps infringe at least one claim of the '961 patent.



29. Representative infringing examples of Sylvania-branded general purpose LED lamps offered by Defendants include product numbers A19 and A21 as shown below:

Category	Product Description SKU #	Picture
General Purpose LED Lamps	A19 Daylight 40W Replacement 6W Non-Dimmable 74084	SYLMANIA
	A19 Soft White 40W Replacement 6W Non-Dimmable 74079	очиловая — — — — — — — — — — — — — — — — — — —
	A19 Daylight Ultra LED 40W Replacement 6W Dimmable	
	A19 Soft White Ultra LED 40W Replacement 6W Dimmable 79643	
	A19 Soft White 40W Replacement 4.5W Dimmable	SYLIAMIA

A19 Daylight 60W Replacement 8.5W Non-Dimmable	SYLVANIA
A19 Cool White 60W Replacement 8.5W Non-Dimmable 74321	SYLAMANA
A19 Soft White 60W Replacement 8.5W Non-Dimmable	SYLAMANA
A19 Daylight 75W Replacement 12W Dimmable	SYLAMANA
A19 Bright White 75W Replacement 12W Dimmable 74426	SYLMMAN
A19 Soft White 75W Replacement 12W Non-Dimmable	SYLMONIA
A19 Daylight Contractor Series 100W Replacement 14W Non-Dimmable 79294	SYLVANIA

A19 Soft White 100W Replacement 14W Non-Dimmable	SYLLANDA
A21 Soft White 75W Replacement 9W Dimmable	SYLLIAGIA
A21 Soft White 100W Replacement 11W Dimmable	SYLLANDA

30. Representative infringing examples of Sylvania-branded directional (PAR series)
LED lamps offered by Defendants include product numbers PAR16, PAR20, PAR30, and
PAR38 and shown below:

Category	Product Description SKU #	Picture
Directional LED Lamps	PAR16 Bright White 35W Replacement 4W Dimmable	SYLVANIA 35 LED 1000 10
	PAR20 White 50W Replacement 6W Non-Dimmable	SYLVANIA 50 (0)
	PAR30 Soft White 10W Dimmable	STANSING STA
	PAR30SN Bright White 75W Replacement 13W Dimmable	

PAR30LN Bright White 65W Replacement 9W Non-Dimmable	SPELAGORET
PAR38 Cool White 18W Dimmable	
PAR38 Bright White 90W Replacement 13W Non-Dimmable	DILIMMA

31. Representative examples of Sylvania-branded reflector LED lamps offered by Defendants include product numbers R20, BR30, and BR40 as shown below:

Category	Product Description SKU #	Picture
Reflector LED Lamps	R20 Soft White 50W Replacement 5W Dimmable	SYLMANIA
	BR30 Daylight 65W Replacement 9W Dimmable	antialitation (
	BR30 Daylight 65W Replacement 9W Dimmable	STEADARDS

BR30 Bright White 65W Replacement 9W Dimmable	EPILADANA
BR30 Soft White 65W Replacement 9W Dimmable	SPECIALISMS
BR30 Soft White 65W Replacement 7.5W Dimmable	GYLLANGE.
BR40 Daylight 85W Replacement 13W Dimmable	STALLARDE A
BR40 Soft White 85W Replacement 13W Dimmable	GPTLIARIUS.

32. Representative infringing examples of Sylvania-branded decorative (vintage)

LED bulbs offered by Defendants are shown below:

Category	Product Description SKU #	Picture
Decorative LED	Vintage B10 Soft White 40W Equivalent Medium Base	PPLIANALA PPLIANALA LED 40.
	Vintage B10 Soft White Medium Base	

A19 Filament Light Bulb
Soft White
Dimmable

FIRST CAUSE OF ACTION INFRINGEMENT OF THE '961 PATENT

- 33. Paragraphs 1 through 32 are incorporated by reference as if fully set forth herein.
- 34. Defendants have directly infringed, and continue to directly infringe, literally or by the doctrine of equivalents, at least Claim 21 of the '961 patent in this District and elsewhere in the United States.
- 35. Claim 21 of the '961 Patent is dependent upon claim 8, which depends from claim 7, which in turn depends from Claim 1. As noted, although claims 1, 7 and 8 were cancelled during reexamination of the '961 Patent, claim 21 was found patentable. Claim 21, as well as claims 1, 7 and 8 from which Claim 21 depends, is set forth below:

Claim 1. A semiconductor light source for emitting light to illuminate a space used by humans, the semiconductor light source comprising:

an enclosure, said enclosure being fabricated from a material substantially transparent to white light,

an interior volume within said enclosure,

a heat sink located in said interior volume,

said heat sink being capable of drawing heat from one or more semiconductors devices,

said heat sink having a plurality of panels on it suitable for mounting semiconductor devices thereon,

said panels on said heat sink being oriented to facilitate emission of light from the semiconductor light source in desired directions around the semiconductor light source, at least one semiconductor chip capable of emitting light mounted on one of said panels,

said semiconductor chip being capable of emitting monochromatic light,

said semiconductor chip being selected from the group consisting of light emitting diodes, light emitting diode arrays, laser chips, LED modules, laser modules, and VCSEL chips, and

a coating for converting monochromatic light emitted by said chip to white light.

Claim 7. A device as recited in claim 1 wherein said chip includes

a substrate on which epitaxial layers are grown,

a buffer layer located on said substrate, said buffer layer serving to mitigate differences in material properties between said substrate and other epitaxial layers,

a first cladding layer serving to confine electron movement within the chip, said first cladding layer being adjacent said buffer layer,

an active layer, said active layer emitting light when electrons jump to a valance state,

a second cladding layer, said second cladding layer positioned so that said active layer lies between cladding layers, and

a contact layer on which an electron may be mounted for powering said chip.

Claim 8. A device as recited in claim 7 further comprising a first and a second reflective layers, each of said first and second reflective layers being located on opposite sides of said active layer, said reflective layers serving to reflect light emitted by said active layer.

Claim 21. The semiconductor light source as recited in claim 8, wherein:

said at least one semiconductor chip is a light emitting diode (LED) chip configured to output light at greater than 40 milliwatts, and

said LED chip is configured to emit monochromatic visible light.

- 36. Upon information and belief, Defendants have made, used, sold, or offered for sale, or imported into the United States, multiple lines of lighting products that fall within the scope of one or more of the claims of the '961 patent (including Claim 21), including, at least, the Sylvania-branded LED lighting products described above in paragraphs 27-32.
- 37. Each of the above described products in paragraphs 27-32 is a semiconductor (LED) light source including (1) an enclosure with an interior volume, (2) a base including an electrical connector, (3) a heat sink with plurality of panels configured to withdraw heat from and suitable for mounting semiconductor devices, and (4) LED chips capable of emitting monochromatic light with a power output greater than 40 milliwatts.
- 38. Each of the foregoing products in paragraphs 27-32 includes multiple LED chips mounted on panels.
- 39. Each of the foregoing products in paragraphs 27-32 includes a coating to convert the monochromatic light to white light.
- 40. Each of the foregoing products in paragraphs 27-32 includes LED chips with a substrate on which epitaxial layers are grown.
- 41. Each of the foregoing products in paragraphs 27-32 includes LED chips with an active layer and a buffer layer on the substrate.
- 42. Each of the foregoing products in paragraphs 27-32 includes LED chips with first and second cladding layers, positioned on opposite sides of the active layer.
- 43. Each of the foregoing products in paragraphs 27-32 includes LED chips with a contact layer for powering the chip.
- 44. Each of the foregoing products in paragraphs 27-32 includes LED chips with reflective layers on opposite sides of the active layer.

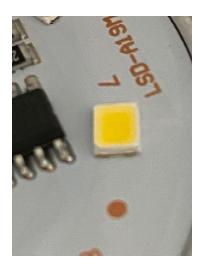
- 45. On information and belief, for one or more of the foregoing LED lighting products in paragraphs 27-32, Defendants incorporated LED chips having a sapphire substrate.
- 46. On information and belief, for one or more of the foregoing LED lighting products in paragraphs 27-32, Defendants incorporated LED chips having an electrically conductive substrate.
- 47. As a non-limiting example, the Sylvania-branded A19 LED bulb offered by Defendants infringes at least claim 21 of the '961 patent.



- 48. The Sylvania A19 LED bulb is a light source for emitting light to illuminate spaces used by humans, including, for example, general lighting, downlights, pendant fixtures, table lamps and wall sconces in at least the following market segments: healthcare, hospitality, residential and retail.
- 49. The Sylvania BR30 LED bulb has an enclosure fabricated from a material substantially transparent to white light, which includes an interior volume within the enclosure and at least one heat sink located in the interior volume of the enclosure, as shown below.



- bulb, see https://www.youtube.com/watch?v=heim8tpYW8A&feature=youtu.be and shows at least the following elements of claim 21 of the '961 patent: an enclosure fabricated from a material substantially transparent to white light, which further includes an interior volume within the enclosure and at least one heat sink located in the interior volume of the enclosure; at least one heat sink capable of drawing heat from the LED devices, in particular, by drawing heat into the interior volume of the light source enclosure; a plurality of LED devices positioned on at least one panel capable of emitting light.
- 51. Upon information and belief, the LED chips in the Sylvania A19 LED bulb are pn junction type LEDs.
- 52. The Sylvania A19 LED bulb has LED chips that are capable of emitting monochromatic light. Upon information and belief, the LED chips of the A21 emits blue light.
- 53. The Sylvania A19 LED bulb contains a coating for converting monochromatic light emitted by said chip to white light. Upon information and belief, as shown below, the coating includes a phosphor based coating to convert at least some of the blue light to yellow light, which, when combined with the blue light yields white light.



- 54. The LED chip used in the Sylvania A19 LED bulb further contains a substrate on which epitaxial layers are grown.
- 55. Upon information and belief, the LED chips used in the Sylvania A19 LED bulb include a patterned sapphire substrate.
- 56. The LED chips used in the Sylvania A19 LED bulb include a buffer layer located on the substrate.
- 57. Upon information and belief, the buffer layer in the LED chips used in the Sylvania A19 LED bulb includes an aluminum/gallium/nitride region.
 - 58. The LED chips used in the Sylvania A19 LED bulb include an active layer.
- 59. Upon information and belief, the active layer in the LED chips in the Sylvania A19 LED bulb is an MQW active layer.
- 60. Upon information and belief, the active layer in the LED chips used in the Sylvania A19 LED bulb includes a gallium/indium/nitride region.
- 61. The LED chips used in the Sylvania A19 LED bulb include a first cladding layer which is positioned adjacent the buffer layer.

- 62. Upon information and belief, the first cladding layer of the LED chips of the Sylvania A19 LED bulb includes gallium/indium/nitride and gallium/nitride regions.
- 63. The LED chips used in the Sylvania A19 LED bulb include a second cladding layer positioned such that the active layer is between the two cladding layers.
- 64. Upon information and belief, the second cladding layer of the LED chips of the Sylvania A19 LED bulb includes gallium/nitride and aluminum/gallium/nitride regions.
- 65. The LED chips used in the Sylvania A19 LED bulb include a contact layer for powering the chip.
- 66. Upon information and belief, the contact layer in the LED chips used in the Sylvania A19 LED bulb includes doped gallium/nitride.
- 67. The LED chips used in the Sylvania A19 LED bulb have at a first and a second reflective layer, located on opposite sides of the active layer. These reflective layers serve at least in part to reflect light emitted by said active layer.
- 68. Upon information and belief, the patterned layer between the substrate and the buffer in the LED chips used in the Sylvania A19 LED bulb reflects light emitted by the active layer.
- 69. Upon information and belief, the chips used in the Sylvania A19 LED bulb include an ITO layer positioned adjacent to the contact layer.
- 70. Upon information and belief, the ITO layer in the LED chips used in the Sylvania A19 LED bulb reflects a light emitted the active layer.
- 71. The LED chips used in the Sylvania A19 LED bulb are configured to output light at greater than 40 milliwatts.

- 72. The LED chips used in the Sylvania A19 LED bulb are configured to emit monochromatic visible light.
- 73. Upon information and belief, the LED chips used in the Sylvania A19 LED bulb emit blue light.
- 74. Upon information and belief, Defendants' other LED lighting products identified herein are identical or substantially similar in hardware and architecture to the Sylvania A19 LED bulb that causes them to infringe, literally or under the doctrine of equivalents, at least claim 21 of the '961 patent.
- 75. Defendants have engaged in the manufacture, use, sale, offer for sale and/or importation of the aforementioned products, in the United States, without the permission, license or consent of CAO Lighting.
- 76. Defendants have been on notice that CAO believes that Defendants were and are infringing the '961 patent since at least May 2011.
- 77. Defendants' acts of infringement have been and continue to be willful and deliberate. Defendants have been aware of the '961 patent since 2011 since the filing of the original Utah Action alleging infringement of those patents and/or service of the same.

 Defendants also have been aware of the inter partes reexamination and ex parte reexamination proceedings initiated by Defendant OSRAM Sylvania, Inc. as real party in interest, as well as the issuance of the Ex Parte Reexamination Certificates on the '961 patent in September 2014. Upon information and belief, Defendants have deliberately infringed the '961 patent and in disregard for the '961 patent by making, having made, using, importing, and offering for sale products that infringe the '961 patent. Upon information and belief, in light of the infringement claims asserted in the original Utah Action, the filing and participation of Defendants in the reexaminations of

the '961 patent, and the knowledge of the results of those reexaminations, the risks of infringement of the '961 patent, including those claims determined to be patentable in the ex parte reexamination certificates on the '961 patent, were known to Defendants and/or were obvious under the circumstances that the infringement risks should have been known. Upon information and belief, Defendants have not attempted any design or sourcing changes to avoid the risks of infringement of the '961 patent. Defendants have acted despite an objectively high likelihood that their past and continuing actions constituted infringement of the '961 patent, and this objectively-defined risk was known or should have been known to Defendants. Defendants thus had actual knowledge of the '961 patent and knew that their conduct constituted infringement. CAO Lighting reasonably believes that such acts of willful infringement will continue in the future unless enjoined by this Court.

- 78. CAO Lighting has complied with all the provisions of 35 U.S.C. § 287.
- 79. By reason of their aforementioned acts of infringement, Defendants have been unjustly enriched.
- 80. By reason of Defendants' acts of infringement, CAO Lighting has suffered damages, including but not limited to, lost profits, and CAO Lighting is entitled to recover such lost profits. At a minimum, by reason of the aforementioned acts of infringement, CAO Lighting is entitled to recover a reasonable royalty.
- 81. By reason of Defendants' acts of infringement, unless enjoined by this Court, CAO Lighting will continue to suffer irreparable harm for which there is no adequate remedy at law.

DEMAND FOR JURY TRIAL

82. CAO Lighting demands a trial by jury on all matters herein so triable.

PRAYER FOR RELIEF

WHEREFORE, CAO Lighting respectfully requests the Court enter judgment in its favor

and against Defendants as follows:

a) Declaring Defendants have directly infringed and currently are directly infringing the

'961 patent;

b) Declaring that Defendants' infringement has been willful;

c) Declaring that Defendants be preliminarily and permanently enjoined from making,

using, selling, offering to sell, or importing into the United States, the products found

to infringe the '961 patent;

d) Awarding CAO Lighting damages sufficient to compensate for Defendants'

infringement, including lost profits, but in an amount no less than a reasonable royalty,

and that such damages be trebled pursuant to 35 U.S.C. § 284;

e) Awarding all costs and expenses of this action, including reasonable attorney fees to

CAO Lighting;

f) Awarding pre-judgment and post-judgment interest to CAO Lighting; and

g) Awarding to CAO Lighting all other further relief as the Court may deem, just,

necessary and proper.

Dated: May 22, 2020

/s/ Chad S.C. Stover

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