THE UNITED STATES INTERNATIONAL TRADE COMMISSION
WASHINGTON, D.C.

In the Matter of **CERTAIN LIGHT-EMITTING DIODE PRODUCTS, SYSTEMS, AND COMPONENTS THEREOF**	Investigation No. 337-TA-_____

COMPLAINT UNDER SECTION 337 OF THE TARIFF ACT OF 1930, AS AMENDED

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EXHIBITS

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1	Certified Copy of U.S. Patent No. 7,098,483
2	Certified Copy of U.S. Patent No. 7,095,053
3	Certified Copy of U.S. Patent No. 7,528,421
4	Certified Copy of U.S. Patent No. 8,506,118
5	Certified Copy of U.S. Patent No. 8,674,608
6	Certified Copy of U.S. Patent No. 8,201,968
7	Certified Copy of U.S. Patent No. 8,967,844
8	Certified Copy of U.S. Patent No. 8,672,518
9	Certified Assignment at Reel/Frame 014881/0176 ('053 Patent)
10	Certified Assignment at Reel/Frame 016696/0556 ('421 Patent)
11	Certified Assignment at Reel/Frame 016696/0563 ('483 Patent)
12	Certified Assignment at Reel/Frame 016974/0196 ('483 Patent)
13	Certified Assignment at Reel/Frame 019843/0536 ('483, '053, and '421 Patents)
14	Certified Assignment at Reel/Frame 023141/0517 ('483, '053, and '421 Patents)
15	Certified Assignment at Reel/Frame 024705/0144 ('968 Patent)
16	Certified Assignment at Reel/Frame 026109/0019 ('483, '053, '421, and '968 Patents)
17	Certified Assignment at Reel/Frame 026940/0875 ('483, '053, '421, and '968 Patents)
18	Certified Assignment at Reel/Frame 028141/0044 ('608 Patent)
19	Certified Assignment at Reel/Frame 028242/0303 ('518 Patent)
20	Certified Assignment at Reel/Frame 032520/0074 ('483, '053, '421, and '968 Patents)
21	Certified Assignment at Reel/Frame 032527/0427 ('483, '053, '421, and '968 Patents)
22	Certified Assignment at Reel/Frame 032765/0910 ('483, '053, '421, '968, '118, '095, '608, and '518 Patents)
23	Certified Assignment at Reel/Frame 033072/0395 ('483, '053, '421, '968, '118, '608, and '518 Patents)

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24	Certified Assignment at Reel/Frame 033788/0570 (US 8,967,844)
25	Certified Assignment at Reel/Frame 035774/0632 ('483, '053, '421, '968, '118, '608, and '518 Patents)
26	Certified Assignment at Reel/Frame 040555/0884 ('844 Patent)
27	Certified Assignment at Reel/Frame 042340/0309 ('844 Patent)
28	Certified Assignment at Reel/Frame 042340/0471 ('483, '053, '421, '968, '118, '608, and '518 Patents)
29	Certified Assignment at Reel/Frame 048018/0515 ('053, '483, '421, '968, '118, '608, '968, and '518 Patents)
30	Certified Assignment at Real/Frame 048178/0472 ('118 Patent)
31	Declaration of Fredric Maxik concerning Energy Star
32C	Declaration of Fredric Maxik concerning LSG's Domestic Industry
33	INTENTIONALLY LEFT BLANK
34	Stonedale Importation Declaration and Exhibits
35C	Noroozi Licensee Declaration and Exhibits
36C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Nichia Respondents for Nichia NVSW219CT
37C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to Nichia Respondents for Nichia NVSW219CT
38C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Nichia Respondents for Nichia NFSW757GT
39C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Cree Respondents for Cree XLamp® MK-R LED (MKRAWT-00-0000-0B00H4051)
40C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to Cree Respondents for Cree XLamp® MK-R LED (MKRAWT-00-0000-0B00H4051)
41C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Cree Respondents for Cree 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (SA19-08150MDFD-12DE26-1-14)
42C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to OSRAM Respondents for Osram OSTAR® Stage (LE RTDCY S2WN)
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44C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to OSRAM Respondents for Osram OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1)
45C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Lumileds Respondents for Lumileds LUXEON C (L1C1-5790000000000)
46C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to Lumileds Respondents for Lumileds LUXEON IR Domed (L1I0-0850060000000)
47C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Lumileds Respondents for Lumileds LUXEON 3535L (MXA8-PW50-0000)
48C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Signify Respondents for Philips Lumec Roadfocus LED Luminaire (RF1739601/1)
49C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to Signify Respondents for Philips Lumec Roadfocus LED Luminaire (RF1739601/1)
50C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Signify Respondents for Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulb (9290011369B)
51C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to Signify Respondents for Philips 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290011351A)
52C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to Signify Respondents for Philips Lumec Roadfocus LED Luminaire (RF1739601/1)
53C	Infringement Claim Chart for U.S. Patent No. 8,674,608 to Signify Respondents for Philips Hue System
54C	Infringement Claim Chart for U.S. Patent No. 8,201,968 to Signify Respondents for Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49)
55C	Infringement Claim Chart for U.S. Patent No. 8,967,844 to Signify Respondents for Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49)
56C	Infringement Claim Chart for U.S. Patent No. 8,672,518 to Signify Respondents for Philips 11W (65W Equivalent) LED 5" or 6" Recessed Retrofit Trim (Soft White) (59234/31/U0)
57C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to MLS Respondents for Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5/SV/D)

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60C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to MLS Respondents for Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5/SV/D)
61C	Infringement Claim Chart for U.S. Patent No. 8,674,608 to MLS Respondents for Sylvania Smart+ System
62C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to GE Respondents for GE Infusion™ LED Module (M1000/830/W/N)
63C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to GE Respondents for GE Infusion™ LED Module (M1000/830/W/N)
64C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to GE Respondents for GE Refresh 10.5W (60W Replacement) Dimmable A19 HD LED Light Bulb (Daylight) (28003)
65C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to GE Respondents for GE Relax 8W (65W Replacement) Dimmable BR30 HD LED Light Bulb (Soft White) (43073)
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67C	Infringement Claim Chart for U.S. Patent No. 8,674,608 to GE Respondents for C by GE System
68C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Acuity Respondents for Lithonia Lighting D-Series LED Area Luminaire (DSX2 LED P6 40K T5M 480 SPA PER7 PIRH DNAXD)
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70C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Acuity Respondents for Lithonia Lighting Versi Lite™ LED Flush Mount (FMML 7 830 M6)
71C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to Acuity Respondents for Lithonia Lighting D-Series LED Area Luminaire (DSX2 LED P6 40K T5M 480 SPA PER7 PIRH DNAXD)

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74C	Infringement Claim Chart for U.S. Patent No. 8,967,844 to Acuity Respondents for Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 30K MW M6)
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76C	Infringement Claim Chart for U.S. Patent No. 7,098,483 to Eaton Respondents for Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P)
77C	Infringement Claim Chart for U.S. Patent No. 7,095,053 to Eaton Respondents for Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P)
78C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Eaton Respondents for Eaton HALO® LED Surface Mount Downlight (SLD405930WHR)
79C	Infringement Claim Chart for U.S. Patent No. 8,506,118 to Eaton Respondents for Eaton Streetworks CRTK-R Caretaker LED Roadway Luminaire (CRTK-R-A12-E-120-2-A)
80C	Infringement Claim Chart for U.S. Patent No. 8,674,608 to Eaton Respondents for Eaton HALO® Home Smart Lighting System
81C	Infringement Claim Chart for U.S. Patent No. 7,528,421 to Leedarson Respondents for LEDi2 6W (40W Equivalent) Dimmable A19 LED Light Bulb (Warm White) (i2-LA19D06-27K-4P)
82C	Infringement Claim Chart for U.S. Patent No. 8,674,608 to Leedarson Respondents for Leedarson IoT Platform System
83C	Infringement Claim Chart for U.S. Patent No. 8,201,968 to Leedarson Respondents for Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27)
84C	Infringement Claim Chart for U.S. Patent No. 8,967,844 to Leedarson Respondents for Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27)
85C	Infringement Claim Chart for U.S. Patent No. 8,672,518 to Leedarson Respondents for Ecosmart 10W (65W Replacement) Dimmable 6" LED Downlight (Soft White) (DL-N34A11FR1-27)

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87C	Domestic Industry Claim Chart for U.S. Patent No. 7,095,053 for Series A+™ Par30 LED Gimbal Lamp
88C	Domestic Industry Claim Chart for U.S. Patent No. 7,528,421 for GoodNight® A19 LED Bulb
89C	Domestic Industry Claim Chart for U.S. Patent No. 7,528,421 for Sleepy Baby® P15 LED Bulb
90C	Domestic Industry Claim Chart for U.S. Patent No. 7,528,421 for Journi™ Mobile LED Task Light
91C	Domestic Industry Claim Chart for U.S. Patent No. 8,506,118 for Cleanse™ Air-Sanitizing LED Troffer
92C	Domestic Industry Claim Chart for U.S. Patent No. 8,506,118 for FreeLED® Solar LED Street Light
93C	Domestic Industry Claim Chart for U.S. Patent No. 8,506,118 for GoodNight® A19 LED Bulb
94C	Domestic Industry Claim Chart for U.S. Patent No. 8,674,608 for the Genesis System (e.g., Genesis DynaSpectrum® LED Luminaire and Genesis App)
95C	Domestic Industry Claim Chart for U.S. Patent No. 8,674,608 for the SunTrac™ Ecosystem (e.g., Good Day&Night® LED Downlight, SunLync™ Wireless Control Device, and SunTrac™ App)
96C	Domestic Industry Claim Chart for U.S. Patent No. 8,201,968 for Hyperikon Recessed LED Downlight (HyperDownlight6-272)
97C	Domestic Industry Claim Chart for U.S. Patent No. 8,967,844 for Hyperikon Recessed LED Downlight (HyperDownlight6-272)
98C	Domestic Industry Claim Chart for U.S. Patent No. 8,672,518 for Hyperikon Recessed LED Downlight (HyperDownlight6-272)
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PHYSICAL EXHIBITS

Physical Exhibit	Description
P1	Nichia NVSW219CT LED Package
P2	Nichia NFSW757GT LED Package
P3	Cree XLamp® MK-R (MKRAWT-00-0000-0B00H4051) LED Package
P4	Cree 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (SA19-08150MDFD-12DE26-1-14)
P5	Osram OSTAR® Stage (LE RTDCY S2WN) LED Package
P6	Osram OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1) LED Package
P7	Lumileds LUXEON C (L1C1-5790000000000) LED Package
P8	Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package
P9	Lumileds LUXEON 3535L (MXA8-PW50-0000) LED Package
P10	Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulb (9290011369B)
P11	Philips 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290011351A)
P12	Philips Hue Motion Sensor (9290012607)
P13	Philips Hue Lightstrip Plus Dimmable LED Smart Light (White and Color) (71901A)
P14	Philips Hue 9.4 (72W Equivalent) 4" Retrofit Recessed LED Downlight (Cool White) (59950/11/U5)
P15	Philips Hue Smart Wireless Lighting Starter Kit, including 4 Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulbs (9290011369A) and Philips Hue Smart Bridge (3241312018A)
P16	Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49)
P17	Philips 11W (65W Equivalent) LED 5" or 6" Recessed Retrofit Trim (Soft White) (59234/31/U0)
P18	Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740 /G5/SV/D)
P19	Sylvania 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (LED8.5A19/F/850/10YV/RP2NJ)

Physical Exhibit	Description
P20	Sylvania Lightify® Smart Connected Light Starter Kit, including one Smart+ Zigbee 10W (60W Replacement) A19 LED Light Bulb (Soft White) (74283) and one Lightify Gateway (73692)
P21	Sylvania Lightify® Smart+ Zigbee Motion and Temperature Sensor (72923)
P22	Sylvania SMART+ 9W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (74696)
P23	Sylvania Lightify® Smart Connected Light Contact and Temperature Smart Sensor (74388)
P24	Sylvania Lightify® Smart+ Connected Light Starter Kit, including Smart+ Gateway (73692) and two 13.5W (65W Equivalent) LED 5"/6" Recessed Downlights (white and color) (73741)
P25	Sylvania Smart+ ZigBee Adjustable White and Full Color 10W (60W Equivalent) A19 LED Light Bulb (73693)
P26	GE Infusion™ LED Module (M1000/830/W/N)
P27	GE Refresh 10.5W (60W Replacement) Dimmable A19 HD LED Light Bulb (Daylight) (28003)
P28	GE Relax 8W (65W Replacement) Dimmable BR30 HD LED Light Bulb (Soft White) (43073)
P29	C by GE C-Life Starter Kit, including two C-Life 11W A19 Smart LED Light Bulbs (44298) and one C-Reach Smart Bridge (22518)
P30	C by GE C-Start™ Smart Switch Dimmer (CSWDMBLBWF1)
P31	Lithonia Lighting Versi Lite™ LED Flush Mount (FMML 7 830 M6)
P32	Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 27K MVOLT MW M6)
P33	Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 30K MW M6)
P34	Lithonia Lighting E Series 9.8W (65W Equivalent) LED 4" Recessed Downlight (Warm White) (4BEMW LED 27K 90CRI M6)
P35	Lithonia Lighting BLT Series 2BLT2 LED Luminaire with nLight RES7 Sensor (2BLT2 33L ADPT EZ1 LP840 NLTAIR RES7Z)
P36	Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P)
P37	Eaton HALO® LED Surface Mount Downlight (SLD405930WHR)
P38	Eaton Streetworks CRTK-R Caretaker LED Roadway Luminaire (CRTK-R-A12-E-120-2-A)

Physical Exhibit	Description
P39	Eaton HALO Home™ Smart Motion Activated LED Floodlight (MST20C18W)
P40	Eaton HALO® Home 9.7W (65W Equivalent) 5"/6" Smart Recessed LED Downlight (Adjustable Color) (RL56069BLE40AWH)
P41	LEDi2 6W (40W Equivalent) Dimmable A19 LED Light Bulb (Warm White) (i2-LA19D06-27K-4P)
P42	Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27)
P43	EcoSmart 10W (65W Replacement) Dimmable 6" LED Downlight (Soft White) (DL-N34A11FR1-27)
P44	Series A+™ Par30 LED Gimbal Lamp
P45	GoodNight® A19 LED Bulb
P46	Sleepy Baby® P15 LED Bulb
P47	Journi™ Mobile LED Task Light
P48	Cleanse™ Air-Sanitizing LED Troffer
P49	FreeLED® Solar LED Street Light
P50	Genesis DynaSpectrum® LED Luminaire
P51	Good Day&Night® LED Downlight
P52	SunLync™ Wireless Control Device
P53	Hyperikon Recessed LED Downlight (HyperDownlight6-272)

APPENDICES

Appendix	Description
A1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 7,098,483
A2	References cited in the prosecution history of U.S. Patent No. 7,098,483
B1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 7,095,053
B2	References cited in the prosecution history of U.S. Patent No. 7,095,053
C1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 7,528,421
C2	References cited in the prosecution history of U.S. Patent No. 7,528,421
D1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 8,506,118
D2	References cited in the prosecution history of U.S. Patent No. 8,506,118
E1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 8,674,608
E2	References cited in the prosecution history of U.S. Patent No. 8,674,608
F1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 8,201,968
F2	References cited in the prosecution history of U.S. Patent No. 8,201,968
G1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 8,967,844
G2	References cited in the prosecution history of U.S. Patent No. 8,967,844
H1	Certified copy and three additional copies of the prosecution history of U.S. Patent No. 8,672,518
H2	References cited in the prosecution history of U.S. Patent No. 8,672,518

I. Introduction

1. For nearly two decades, Lighting Sciences Group Corporation ("LSG") has been at the forefront of innovation in the light-emitting diode ("LED" or "LEDs") lighting space. LSG was the first U.S.-based manufacturer to make an LED light commercially available. In the ensuing years, LSG proved instrumental to the proliferation of LED lighting across American residences and commercial establishments. In May 2010, through a relationship with The Home Depot, LSG released a 40-watt equivalent, 429 lumen LED bulb under The Home Depot's EcoSmart brand for $20. In an article titled, "The Home Depot Takes LED Lighting Mainstream with $20 Bulbs," Endgaget lauded the product for making high-quality LED lighting more economically accessible, noting that LSG's product was "cheaper and nearly as powerful as the 450 lumen, $40-$50 design industry heavyweight GE unveiled" the month before, and concluding, "[h]onestly, we're starting to wonder what the catch is."[1]

2. By 2011, LSG's winning combination of innovation, quality, and accessible pricing had led the company to become the largest North American producer of LED lights, selling 4.5 million LED lights in 2011 alone, and increasing sales by 450-percent over the prior year.[2] That success, in turn, led LSG to become a significant American employer. For three consecutive years, from 2012 to 2014, LSG was named on Deloitte's Technology Fast 500™, making LSG one of the top 500 fastest growing companies in North America.[3]

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[1] Ex. 99 ("The Home Depot Takes LED Lighting Mainstream with $20 Bulbs").

[2] Ex. 100 ("Lighting Science Group Becomes North American Largest LED Lights Producer").

[3] Ex. 101 ("Lighting Science Group Corporation Ranked in Top 500 Fastest Growing Companies for Third Consecutive Year in North America on Deloitte's 2014 Technology Fast 500™").

3. As LSG continued to advance the field of LED lighting both commercially and technologically, it simultaneously protected and disclosed its innovative intellectual property through hundreds of issued U.S. patents. These patents, in turn, further advanced the LED lighting space, garnering thousands of citations from later patents filed by LSG's competitors.

4. But in recent years, an explosion of imported products, which infringe LSG's innovative patents without a license, has eroded LSG's market position. LSG has been further unfairly injured by false and misleading advertisements from certain of its competitors, who have touted their products to the American public as meeting rigorous ENERGY STAR® certification standards when, in fact, they do not.

5. Complainants LSG, LSG's wholly-owned subsidiary Healthe, Inc. ("Healthe"), and LSG's majority-owned subsidiary Global Value Lighting, LLC ("GVL"), (collectively, "Complainants") thus file this Complaint pursuant to Section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, based upon the unlawful sale for importation into the United States, importation into the United States, and/or sale within the United States after importation of certain products containing LEDs that (i) infringe at least one claim of U.S. Patent No. 7,098,483, U.S. Patent No. 7,095,053, U.S. Patent No. 8,506,118, U.S. Patent No. 7,528,421, U.S. Patent No. 8,674,608, U.S. Patent No. 8,201,968, U.S. Patent No. 8,967,844, and U.S. Patent No. 8,672,518 (collectively, the "Asserted Patents") either literally or under the doctrine of equivalents, (ii) are falsely and misleadingly advertised in violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), and/or (iii) are falsely and misleadingly advertised in violation of the federal common law of unfair competition.

6. For purposes of 19 C.F.R. § 210.10(b)(1) and § 210.12(a)(12), the Accused Products are (1) LED packages and assemblies; (2) LED luminaires; (3) connected "smart" LED lighting systems and components thereof; and (4) LED downlights, including LED canister

retrofits and low-profile LED downlights.[4] Examples of these products include, without limitation, LED lamps and other luminaires, LED packages, lighting fixtures incorporating LEDs, and connected LED systems. The Accused Products are made by, or for, and/or sold by, or for, the following Proposed Respondents: Nichia Corporation, Nichia America Corporation, Cree, Inc., Cree Hong Kong, Limited, Cree Huizhou Solid State Lighting Co. Ltd., OSRAM Licht AG, OSRAM GmbH, OSRAM Opto Semiconductors GmbH, OSRAM Opto Semiconductors, Inc., Lumileds Holding B.V., Lumileds, LLC, Signify N.V. (f/k/a Philips Lighting N.V.), Signify North America Corporation (f/k/a Philips Lighting North America Corporation), MLS Co., Ltd., LEDVANCE GmbH, LEDVANCE LLC, General Electric Company, Consumer Lighting (U.S.), LLC (d/b/a GE Lighting, LLC), Acuity Brands, Inc., Acuity Brands Lighting, Inc., Eaton Corporation plc, Cooper Lighting, LLC, Cooper Industries, LLC, Leedarson Lighting Co., Ltd., Leedarson America, Inc., and their subsidiaries, related companies, and agents (collectively, "Proposed Respondents" or "Respondents"). The Accused Products infringe at least the following Asserted Claims and Asserted Patents in violation of 35 U.S.C. §§ 271(a):[5]

Asserted Patents	Asserted Claims[6]
U.S. Patent No. 7,098,483 ("'483 Patent")	11, 14-16
U.S. Patent No. 7,095,053 ("'053 Patent")	1-7, 11-22, 26-30
U.S. Patent No. 7,528,421 ("'421 Patent")	1-2, 6-7, 10
U.S. Patent No. 8,506,118 ("'118 Patent")	1, 2, 5, 10, 12, 14-15, 17-18
U.S. Patent No. 8,674,608 ("'608 Patent")	1, 2, 6, 12-13, 16, 19-22, 24, 28, 37
U.S. Patent No. 8,201,968 ("'968 Patent")	6, 7
U.S. Patent No. 8,967,844 ("'844 Patent")	4
U.S. Patent No. 8,672,518 ("'518 Patent")	9, 15

[4] The plain English statement of the Accused Products is not intended to limit or construe the asserted claims of the Asserted Patents.

[5] *See* Exs. 36-85.

[6] The identification of Asserted Claims is not intended to be limiting.

7. More specifically, the below table specifies the Asserted Patents that each Proposed Respondent is alleged to infringe.[7]

Proposed Respondent[8]	Asserted Patents
Nichia Respondents	'483 Patent, '053 Patent, '421 Patent
Cree Respondents	'483 Patent, '053 Patent, '421 Patent
OSRAM Respondents	'483 Patent, '053 Patent, '421 Patent
Lumileds Respondents	'483 Patent, '053 Patent, '421 Patent
Signify Respondents	'483 Patent, '053 Patent, '421 Patent, '118 Patent, '608 Patent, '968 Patent, '844 Patent, '518 Patent
MLS Respondents	'483 Patent, '053 Patent, '421 Patent, '118 Patent, '608 Patent
GE Respondents	'483 Patent, '053 Patent, '421 Patent, '118 Patent, '608 Patent
Acuity Respondents	'483 Patent, '053 Patent, '421 Patent, '118 Patent, '608 Patent, '968 Patent, '844 Patent, '518 Patent
Eaton Respondents	'483 Patent, '053 Patent, '421 Patent, '118 Patent, '608 Patent
Leedarson Respondents	'421 Patent, '608 Patent, '968 Patent, '844 Patent, '518 Patent

8. The Asserted Patents have collectively received well over 500 citations by later patent applications. Indeed, many of the Respondents themselves have cited one or more of the Asserted Patents in seeking their own, later patents.

9. LSG seeks, as relief for the unfair acts of Respondents, the following: (i) an investigation into Respondents' violations; (ii) a public hearing; (iii) a limited exclusion order barring from entry into the United States all of the Accused Products that infringe one or more of the Asserted Patents and/or are falsely and misleadingly advertised, excluding from entry into the United States all of the Accused Products that infringe one or more of the asserted claims of the Asserted Patents; (iv) a general exclusion order barring from entry into the United States all of the Accused Products that infringe one or more of the Asserted Patents, excluding from entry into the

[7] As the table demonstrates, the allegations and causes of actions set forth in this complaint with respect to the Proposed Respondents significantly overlap and present no clear or practical basis for severance.

[8] The Proposed Respondents are defined in Section III below.

United States all of the Accused Products that infringe one or more of the asserted claims of the Asserted Patents; (v) a permanent cease and desist order directing all Proposed Respondents to cease and desist from activities that include, but are not limited to, importing, selling, selling for importation, offering for sale, transferring, distributing, warehousing inventory for distribution, using, assembling, qualifying for use in the products of others, testing, installing, promoting, marketing, advertising, demonstrating, and soliciting the sale in the United States, all of the Accused Products and/or products containing the Accused Products that infringe one or more of the Asserted Patents and/or falsely and misleadingly advertised; (vi) the imposition of a bond on importation and sales of infringing and/or falsely and misleadingly advertised products during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j), and (vii) such other relief as the Commission deems proper.

II. Complainants

A. Lighting Science Group Corporation

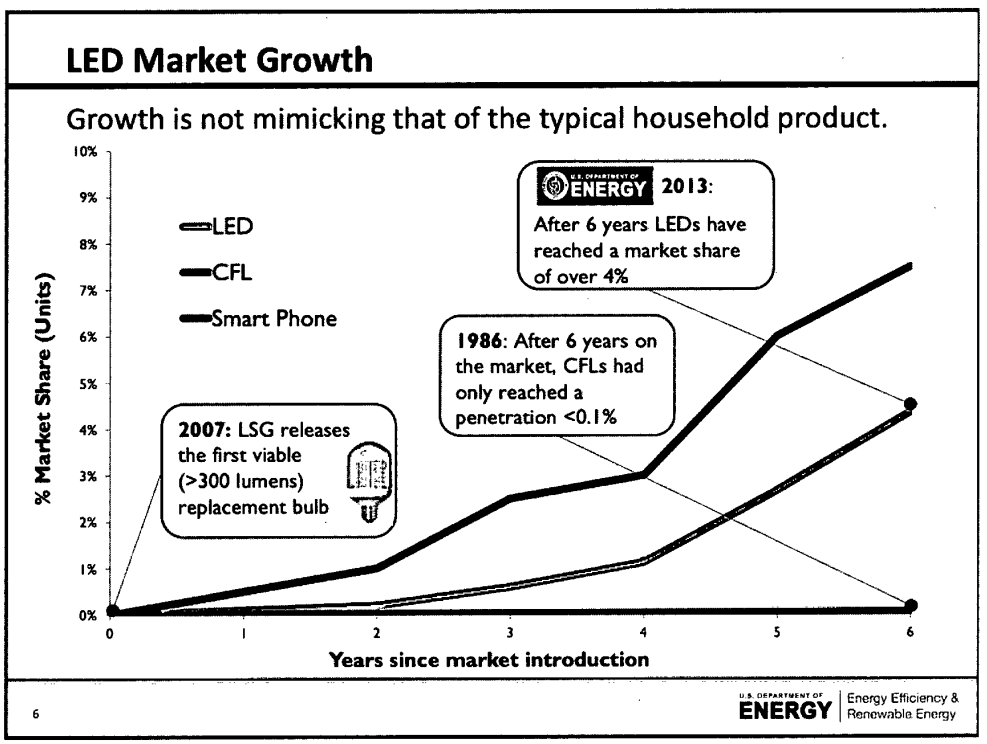
10. Lighting Science Group Corporation ("LSG") is a corporation organized under the laws of Delaware with its corporate headquarters at 1350 Division Road, Suite 204, West Warwick, Rhode Island 02893 and its principal place of business at 801 N. Atlantic Avenue, Cocoa Beach, Florida 32931.

11. Both directly and through its subsidiaries, LSG is in the business of manufacturing, researching, developing, and selling devices and systems that use LEDs as the light source.[9]

[9] As of January 1, 2019, LSG transferred certain of its product lines to its newly formed, wholly-owned subsidiary, Complainant Healthe, Inc.

Complainants' LED lighting business was founded in 2000 by Fredric Maxik, who continues to serve as LSG's Chief Technical Officer.[10]

12. Throughout its history, LSG has been at the frontier of LED technological innovation. The Department of Energy has recognized LSG as the first U.S.-based manufacturer to make an LED light commercially available, launching an industry whose consumer adoption and market penetration have nearly rivaled that of the smartphone.[11]



Screenshot from DOE Market Introduction Workshop[12]

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[10] Complainants' LED business began in 2000 through NuGreen, Inc., whose LED business and assets were ultimately acquired by Lighting Science, Inc., which, in December 2004, became Lighting Science Group Corporation.

[11] Ex. 102 ("DOE's Market Introduction Workshop") at 6.

[12] *Id.*

13. LSG also created the first LED retrofit lamp to qualify for ENERGY STAR® certification.[13] LSG's innovative LED lighting products have spanned across numerous segments, from energy-efficient retrofit bulbs, to solar street lighting fixtures, to biological lighting solutions that promote healthy circadian rhythms, among others. LSG has won numerous awards for its technological contributions, including Sustainability Awards, Edison Awards, Sapphire Awards, Popular Science Magazine's 2016 Best of What's New Award, and the Illuminating Engineering Society Illumination Award.[14]

14. The White House has also recognized LSG's contributions to lighting innovations, noting that LSG "is staffed by thought-leaders in design, engineering and manufacturing who, by taking a holistic approach to R&D, turn ideas into intelligent LED lighting solutions; faster, better and more successfully than the competition. And that success shows, with consumers, cities, federal agencies, national retailers and global brands all choosing reliable Lighting Science products."[15]

15. LSG's founder, Fred Maxik, has also received widespread recognition. In 2011, the White House identified Mr. Maxik as a "Champion of Change."[16] Mr. Maxik has received a Congressional Medal of Merit, the NASA Group Achievement Award, the Samuel Bard Award in Science and Medicine, the Friends of the Phelophepa Award, and the Business Intelligence Group

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[13] Ex. 103 ("Lighting Science Group Receives Industry's First Energy Star Label for an LED Bulb"); Ex. 104 (LSG 2011 SEC Form 10-K) at 7.

[14] Ex. 105 (LSG Introduction to Biological Lighting) at 2.

[15] Ex. 106 ("Champions of Change: Winning the Future Across America" – White House Archives).

[16] *Id.*

2016 "Sustainability Hero of the Year" award.[17] Mr. Maxik's prolific inventive contributions to the LED space have resulted in 197 issued U.S. patents.

16. In 2008, LSG entered the LED street lighting market when it was selected by The New York City Department of Design and Construction, from among more than ten global lighting companies, to engineer and produce the winning LED-based design of the City Lights 21st Century Streetlight Design Competition.[18] LSG's street lighting portfolio broadened in 2015 to include the FreeLED® Solar LED Street Light, which is brighter, more efficient, and longer-lasting than traditional street lighting solutions.[19]

17. In 2010, LSG partnered with The Home Depot to introduce the EcoSmart 9W A19 LED Light Bulb ("EcoSmart A19 Bulb"), the first 40-watt equivalent bulb that sold for less than $20.[20] The EcoSmart A19 Bulb required approximately 80% less energy than similarly bright incandescent bulbs, and it was more than 50% cheaper than similar LED products.[21] That same year, LSG became the first company to produce a retrofit lamp that qualified for the Department of Energy's ENERGY STAR® certification.[22]

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[17] Ex. 107 (Partnership for a Healthier America); Ex. 108 (LSG's Maxik Named Sustainability Hero of the Year by BIG).

[18] Ex. 109 (NYC Lights Design Competition).

[19] Ex. 110 ("Lighting Science Group Launches Innovative Solar-Powered LED Street Lights with Partner BHP Energy Mexico to Light up Mexico City Streets").

[20] Ex. 99 ("The Home Depot Takes LED Lighting Mainstream with $20 Bulbs").

[21] Ex. 111 ("The Home Depot Sells Ecosmart LED Lamps Made by Lighting Science Group").

[22] Ex. 103 ("Lighting Science Group Receives Industry's First Energy Star Label for an LED Bulb"); Ex. 104 (LSG 2011 SEC Form 10-K) at 7.

18. In 2013, LSG introduced its line of biologically-corrected lighting, which helps to support a healthy sleep-wake cycle.[23] These products can include an "Awake & Alert" spectrum, which supports mental alertness, and a "Good Night" spectrum, which aids in falling asleep faster, staying asleep longer, and achieving a more restful night's sleep.[24] The technology underlying these biologically-corrected products was developed out of a collaboration between LSG and NASA to support the circadian rhythms of astronauts living aboard the International Space Station.[25]

19. LSG has since worked with numerous prominent organizations to implement biologically-corrected solutions. For example, in 2014, LSG worked with the Los Angeles Dodgers to help reduce the effects of jet lag on the team when traveling to and from the 2014 MLB opening game in Sydney, Australia. The project included installing custom lighting in the Dodgers' plane, as well as preparing player individualization plans to reduce fatigue. The Dodgers went on to beat the Arizona Diamondback 3-1 in Sydney, and the Dodgers' manager Don Mattingly praised the effects of LSG's light therapy plan.[26]

20. LSG has also been at the forefront of innovations in the connected lighting space. For instance, in 2011 LSG worked with Google to develop the "Smart Light," an Android-

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[23] Ex. 112 (Definity Digital Launch).

[24] *Id.*

[25] Ex. 113 ("LEDs Illuminate Bulbs for Better Sleep, Wake Cycles").

[26] Ex. 114 (Dodgers Case Study); Ex. 115 ("Los Angeles Dodgers Rely on Lighting Science Group's LED Lights to Combat Jetlag & Enhance Performance in First Ever MLB Games in Southern Hemisphere").

controlled omnidirectional bulb that can be dimmed or brightened using a device running the Android operating system.[27]

21. In addition to manufacturing and selling innovative residential and commercial lighting solutions to the mass market, LSG has worked with companies to provide them custom lighting solutions, with a focus on aesthetic design, circadian lighting, and energy efficiency. For instance, LSG has provided lighting to 7 World Trade Center and Saks Fifth Avenue in New York City, the Macy's holiday façade in San Francisco, the Chanel retail store in Ginza, Tokyo, and a casino project for the City of Dreams in Macau.[28] LSG also worked with Ashley Furniture HomeStore to overhaul its in-store lighting. LSG's solution was anticipated to result in enough annual energy and maintenance savings, relative to the store's prior lighting solution, for the store to recoup its investment in just under two years.[29] And after Markon Solutions, Inc. failed a WELL certification due to insufficient circadian lighting, it turned to LSG. LSG's biologically-corrected products allowed Markon to exceed the WELL certification requirements by more than 100%, and Markon became the first WELL Certified™ business in the state of Virginia.[30]

22. Recently, LSG and its wholly owned subsidiary, Healthe, partnered with hotel brand IHG to trial circadian lighting at the Crowne Plaza hotel at the Hartsfield-Jackson Atlanta Airport. The Crowne Plaza hotel has installed special free-standing lights on cabinets in a pilot study designed to test how different light spectrums can assist guests to maximize their sleep.[31]

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[27] Ex. 115 ("Google, Lighting Science Working on Open Source Home Wireless Protocol.

[28] Ex. 117 (LSG 2009 SEC 10-K) at 6.

[29] Ex. 118 (Ashley Furniture Case Study).

[30] Ex. 119 (Markon Solutions Case Study).

[31] Ex. 120 ("Crowne Plaza Hotels Trial Circadian Lighting").

23. LSG has further deployed its innovative lighting technologies and expertise toward charitable and environmental interests. When thirty-three Chilean miners were trapped underground for nearly seventy days, LSG designed and donated customized biological lighting to help maintain the miners' circadian rhythms.[32] In recognition of those efforts, NASA awarded LSG's Fred Maxik the Group Achievement Award.[33] And in response to the disruption of sea turtle nesting and hatchling behavior caused by the expansion of lighting across the Florida coastline, LSG developed a custom "Turtle Light" to reduce the harmful effects of artificial light on turtle hatching. This light, marketed as MyNature® Coastal, was certified by the Florida Fish & Wildlife Conservation Commission as meeting Florida ordinances requiring lighting that protects against disruption of sea turtle nesting.[34]

24. Over the course of its nearly two-decade history, LSG has contributed significantly to the United States economy, hiring more than 400 employees across more than 25 states, and generating more than $600 million in revenue in the past decade alone. From 2012 through 2014, LSG was named on Deloitte's Technology Fast 500™, making LSG one of the top 500 fastest growing companies in North America.[35] LSG and its subsidiaries hold more than 400 U.S. patents related to LED lighting and has sold more than 30,000,000 energy-efficient LED bulbs to date.

25. The innovative contributions of LSG (and its wholly-owned subsidiary Healthe, Inc.) continue. For example, in December 2018, Travel + Leisure recognized one of LSG/Healthe's

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[32] Ex. 121 ("Chilean Miners: Surviving the Darkness").

[33] Ex. 122 (NASA Group Achievement Award – Chilean Miner Incident).

[34] Ex. 123 ("How Can a Lightbulb Change Your Life?") at 10; Ex. 124 ("LEDing the Way").

[35] Ex. 101 ("Lighting Science Group Corporation Ranked in Top 500 Fastest Growing Companies for Third Consecutive Year in North America on Deloitte's 2014 Technology Fast 500™").

recent products, the Journi™ Mobile Task Light, as one of the "16 New Travel Products That Will Make Your Trips Smarter, Healthier, and More Fun in 2019."[36]

26. The Asserted Patents reflect LSG's innovative contributions to the LED lighting industry and are practiced by a number of the products discussed above.

B. Healthe, Incorporated

27. Healthe, Inc. ("Healthe") is a corporation organized under the laws of Delaware, with corporate headquarters and principal place of business at 801 N. Atlantic Avenue, Cocoa Beach, Florida 32931.

28. Healthe is in the business of manufacturing, researching, developing, and selling devices and systems that use LEDs as the light source. Healthe was founded as a wholly-owned subsidiary of LSG on October 23, 2018, and it is a licensee of the Asserted Patents. Healthe continues the development, manufacture, and/or sale of various products that were originally researched, developed, manufactured, and/or sold by LSG, including the Cleanse™ Air-Sanitizing LED Troffer, GoodNight® A19 LED Bulb, Good Day&Night® LED Downlight, SunLync™ Wireless Control Device, SunTrac™ App, JOURNI™ Mobile LED Task Light, and Series A+™ Par30 LED Gimbal Lamp. Healthe also continues to provide service to LSG's former health and well-being customers, including the Sleep Lab at the Virginia Hospital Center in Arlington, VA and several resort locations worldwide. Healthe is a licensee of the Asserted Patents.

29. In March 2019, the JOURNI™ Mobile LED Task Light was featured on The Today Show. Renowned Sleep Doctor, Dr. Michael Breus, highly recommended the JOURNI™ Mobile LED Task Light, saying that he personally regularly uses the product.[37]

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[36] Ex. 125 ("16 New Travel Products That Will Make Your Trips Smarter, Healthier, and More Fun in 2019").

[37] Ex. 126 (The Today Show, "Sleep Better Today" Segment); Ex. 127 ("How to Sleep Better: 25 Gadgets for a Better Night's Sleep").

C. Global Value Lighting, LLC

30. Global Value Lighting, LLC ("GVL") is a corporation organized under the laws of Delaware, with corporate headquarters and principal place of business at 1350 Division Road Suite 204, West Warwick, Rhode Island 02893.

31. GVL is in the business of manufacturing and selling private-label LED lighting solutions. GVL was founded as a majority-owned subsidiary of LSG on May 8, 2017, and it is a licensee of the Asserted Patents.

III. Respondents

A. Nichia Respondents

32. Nichia Corporation is a privately held corporation organized under the laws of Japan. It has its principal place of business at 491 Oka, Kaminaka-Cho, Anan-Shi, Tokushima 774-8601, Japan.

33. On information and belief, Nichia Corporation, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

34. Nichia America Corporation is a privately held corporation organized under the laws of the State of Michigan. It has its principal place of business at 48561 Alpha Drive, Suite 100, Wixom, Michigan 48393 and a sales office at 3625 Del Amo Boulevard, Suite 325, Torrance, California 90503.

35. On information and belief, Nichia America Corporation is a subsidiary of Nichia Corporation, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

36. Nichia Corporation is a manufacturer of LEDs and the world's largest LED supplier.[38] Upon information and belief, it manufactures certain Accused Products in Japan.[39] Nichia Corporation offers to sell certain Accused Products in the United States through its subsidiary Nichia America Corporation, which has sales offices in the United States.[40] For instance, a Nichia career posting states: "As the world's largest supplier of LED's [Nichia Corporation's] sales offices are responsible for bringing these products to [their] customers" in the United States.[41]

37. Nichia Corporation and Nichia America Corporation collectively are referred to as the "Nichia Respondents."

B. Cree Respondents

38. Cree, Inc. is a publicly traded corporation organized under the laws of the State of North Carolina. It has its principal place of business at 4600 Silicon Drive, Durham, North Carolina 27703.[42]

39. On information and belief, Cree, Inc., directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

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[38] Ex. 134 (Nichia Career Posting).

[39] Ex. 135 (Nichia Plant and Sales Office Locations) (listing location for all manufacturing plants in Japan); *see, e.g. infra*, Section VIII(A); Ex. 34 (Stonedale Importation Decl.) ¶¶ 112-116, 235-239 (showing country of origin as Japan).

[40] Ex. 135 (Nichia Plant and Sales Office Locations) (listing Nichia America Corporation Sales Offices in the United States); Ex. 136 (Nichia 2018 LED Catalogue).

[41] Ex. 134 (Nichia Career Posting).

[42] Ex. 139 (Cree Offices).

40. Cree Hong Kong, Limited is organized under the laws of Hong Kong with its principal place of business at 18 Science Park East Avenue Hong Kong Science Park, Shatin, New Territories, Hong Kong.[43] Cree Hong Kong, Limited is a wholly-owned subsidiary of Cree, Inc.[44]

41. On information and belief, Cree Hong Kong, Limited, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

42. Cree Huizhou Solid State Lighting Company Limited is organized under the laws of the People's Republic of China with a principal place of business in Huizhou, Guangdong Province, China.[45] Cree Huizhou Solid State Lighting Company Limited is a wholly-owned subsidiary of Cree Hong Kong, Limited.[46]

43. On information and belief, Cree Huizhou Solid State Lighting Company Limited, directly, or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

44. Cree, Inc. is a manufacturer of LEDs and a self-proclaimed "market leader in LED lighting."[47] On information, Cree, Inc. designs, develops, and sells LED luminaires, LED bulbs,

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[43] Ex. 139 (Cree Offices); Ex. 157 (Cree Complaint) ¶ 2.

[44] Ex. 162 (Cree, Inc. 2018 Form 10-K) at Ex. 21.1 (Significant Subsidiaries of the Registrant).

[45] Ex. 161 (Company Overview of Cree Huizhou Solid State Lighting Company Limited)

[46] Ex. 162 (Cree, Inc. 2018 Form 10-K) at Ex. 21.1 (Significant Subsidiaries of the Registrant).

[47] Ex. 137 ("Cree Signs Agreement for Expansion in Huizhou, China").

and LED chips, including certain of the Accused Products, through its headquarters in Durham, North Carolina.[48]

45. Cree Hong Kong, Limited manufactures LED lamps and components used in the manufacture of LED lighting products, which it sells to retailers and other manufacturers of lighting products throughout Asia.[49] Cree, Inc. acquired COTCO Luminant Device Limited—now Cree Hong Kong, Limited—in 2007 to provide "expanded packaging, research and development capabilities, a broader LED component portfolio, a lower cost manufacturing facility and expanded . . . sales channels in China."[50]

46. Upon information and belief, Cree, Inc. manufactures certain Accused Products in Huizhou, China before importing, marketing, and selling them in the United States.[51] In 2009, Cree, Inc. established Cree Huizhou Solid State Lighting Company Limited and signed an agreement with the city of Huizhou to open a manufacturing facility in Huizhou.[52] The Huizhou, China facility tests, cuts, and classifies LED wafers prior to packaging.[53] This facility was created to increase Cree Inc.'s LED chip production capacity to satisfy increased global demand.[54]

47. Cree, Inc., Cree Hong Kong, Limited, and Cree Huizhou Solid State Lighting Company Limited collectively are referred to as the "Cree Respondents."

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[48] Ex. 139 (Cree Offices).

[49] Ex. 157 (Cree Complaint) ¶ 12; Ex. 158 (Cree Hong Kong, Limited Company Overview).

[50] Ex. 159 (Cree, Inc. 2010 Form 10-K) at 3; Ex. 160 (Cree to Acquire COTCO Luminant Device Ltd.).

[51] Ex. 138 ("Cree Opens LED Chip Manufacturing Facility in Huizhou"); *see, e.g. infra*, Section VIII(B); Ex. 34 (Stonedale Importation Decl.) ¶¶ 4, 11, 14-23, 117, 118, 130-141, 161-175, 204 (showing country of origin as China).

[52] Ex. 138 ("Cree Opens LED Chip Manufacturing Facility in Huizhou").

[53] *Id.*

[54] *Id.*

C. OSRAM Respondents

48. OSRAM Licht AG is a publicly traded company organized under the laws of Germany. It has its principal place of business at Marcel-Breuer-Strasse 6, 80807 Munich, Germany.

49. On information and belief, OSRAM Licht AG directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity. On information and belief, OSRAM GmbH is a wholly-owned subsidiary of OSRAM Licht AG.

50. OSRAM GmbH is a privately held company organized under the laws of Germany. It has its principal place of business at Marcel-Breuer-Strasse 6, 80807 Munich, Germany.

51. On information and belief, OSRAM GmbH directly or through its affiliates produces abroad, sells for importation, imports, and sells in the United States after importation Accused Products and/or knowingly induces such activity.

52. OSRAM Opto Semiconductors GmbH is a privately held company organized under the laws of Germany. It has its principal place of business at Leibnizstr 4, 93055 Regensburg, Germany.

53. On information and belief, OSRAM Opto Semiconductors GmbH is a subsidiary of OSRAM GmbH, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

54. OSRAM Opto Semiconductors, Inc. is a privately held corporation organized under the laws of the State of Delaware. It has its principal place of business at 1150 Kifer Road, Suite 100, Sunnyvale, California 94086.

55. On information and belief, OSRAM Opto Semiconductors, Inc. is a subsidiary of OSRAM GmbH, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

56. OSRAM GmbH, OSRAM Licht AG, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors, Inc. collectively are referred to as the "OSRAM Respondents."

57. OSRAM Licht AG and OSRAM GmbH, through their affiliates OSRAM Opto Semiconductors GmbH and OSRAM Opto Semiconductors, Inc., are a "globally leading lighting manufacturer" whose products include "LED-based solutions."[55] The OSRAM Respondents manufacture certain Accused Products at plants in at least China and Malaysia.[56] Upon information and belief, OSRAM Opto Semiconductors, Inc. offers to sell and does sell certain of the Accused Products in the United States, which accounted for $904 million of revenue to OSRAM in fiscal year 2018.[57]

D. Lumileds Respondents

58. Lumileds Holding B.V. is a privately held company organized under the laws of the Netherlands. It has its principal place of business and corporate headquarters at The Base Building B, 5th Floor, Evert van de Beeksttraat 1-107, 1118 CN Schipol, Netherlands.

59. On information and belief, Lumileds Holding B.V., directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after

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[55] Ex. 140 (OSRAM Fact Sheet).

[56] Ex. 141 ("OSRAM Opens LED Assembly Plant in China"); Ex. 142 (OSRAM Opens Malaysian LED Manufacturing Plant); *see, e.g. infra*, Section VIII(C); Ex. 34 (Stonedale Importation Decl.) ¶¶ 119-123, 125-126, 142-147, 176, 182-183, 185-188, 201 (showing country of origin as Malaysia), ¶¶ 124, 181, 184, 200 (showing country of origin as China).

[57] Ex. 143 (2018 OSRAM Annual Report) at 20.

importation into the United States certain Accused Products and/or knowingly induces such activity.

60. Lumileds, LLC is a privately held company organized under the laws of the State of Delaware. It has its principal place of business and operational headquarters at 370 West Trimble Road, San Jose, California 95131.

61. On information and belief, Lumileds, LLC is a subsidiary of Lumileds Holding B.V., and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

62. Lumileds Holding B.V. "manufactures and markets light-emitting diodes (LED)."[58] Upon information and belief, Lumileds Holding B.V. operates plants in Germany and Malaysia where it manufactures certain Accused Products.[59] Lumileds, LLC, a subsidiary of Lumileds Holding B.V., sells certain Accused Products in the United States out of its headquarters in San Jose, California.[60]

63. Lumileds Holding B.V. and Lumileds, LLC collectively are referred to as the "Lumileds Respondents."

E. Signify Respondents

64. Signify N.V. (f/k/a Philips Lighting N.V.) is a publicly traded company organized under the laws of the Netherlands. It has its principal place of business at High Tech Campus 48,

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[58] Ex. 144 (Lumileds Holding B.V. Bloomberg Overview).

[59] Ex. 145 (Lumileds Locations); *see, e.g. infra*, Section VIII(D); Ex. 34 (Stonedale Importation Decl.) ¶¶ 127-129, 148-160, 178-180, 189-199, 202 (showing country of origin as Malaysia).

[60] Ex. 146 (Lumileds LLC Bloomberg Overview).

5656 AE Eindhoven, The Netherlands. Signify N.V. recently changed its name from Philips Lighting N.V. and will continue to sell products under the Philips brand name.

65. Signify N.V. designs and manufactures, among other things, LED lighting products.[61] Upon information and belief, Signify N.V. manufactures certain Accused Products abroad, including in manufacturing facilities in China and Mexico.[62]

66. On information and belief, Signify N.V. directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

67. Signify North America Corporation (f/k/a Philips Lighting North America Corporation), is a privately held corporation organized under the laws of the State of Delaware. It has its principal place of business at 200 Franklin Square Drive, Somerset, New Jersey 08873. Signify North America Corporation recently changed its name from Philips Lighting North America Corporation.

68. On information and belief, Signify North America Corporation is a wholly-owned subsidiary of Signify N.V., and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products, including products manufactured abroad by Signify N.V. On information and belief, Signify North America Corporation will continue to import and sell products under the Philips brand name and/or knowingly induces such activity.

69. Signify N.V. and Signify North America Corporation collectively are referred to as the "Signify Respondents."

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[61] Ex. 147 (Signify 2018 Annual Report) at 9, 21.

[62] *See, e.g.*, *infra* Section VIII(E); Ex. 34 (Stonedale Importation Decl.) ¶¶ 9, 36-40, 42-47, 49-55, 103-104, 208, 212-215 (identifying Signify (f/k/a Philips) products with indicated country of origin of Mexico and/or China).

F. MLS Respondents

70. MLS Co., Ltd. is a publicly traded company organized under the laws of the People's Republic of China. It has its principal place of business at No. 1, MLS Avenue Xiaolan Town, Zhongshan, People's Republic of China 528415.

71. On information and belief, MLS Co., Ltd., directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

72. LEDVANCE GmbH is a privately held company organized under the laws of Germany. It has its principal place of business at Parkring 29-33, 85748 Garching, Germany. LEDVANCE GmbH is wholly owned by MLS Co., Ltd. On information and belief, Respondent MLS Co., Ltd. acquired LEDVANCE GmbH from Respondent OSRAM Licht AG.

73. On information and belief, LEDVANCE GmbH, a wholly-owned subsidiary of Respondent MLS Co., Ltd.,[63] directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products, including under the Sylvania and OSRAM brands and through its related company LEDVANCE LLC and/or knowingly induces such activity.

74. LEDVANCE LLC is a privately held company organized under the laws of the State of Delaware. It has its principal place of business at 200 Ballardvale Street, Wilmington, Massachusetts 01887. LEDVANCE LLC is wholly owned by MLS Co., Ltd.

75. On information and belief, LEDVANCE LLC, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after

[63] Ex. 150 (About LEDVANCE).

importation into the United States certain Accused Products, including under the Sylvania and OSRAM brands and/or knowingly induces such activity.

76. MLS Co., Ltd. is a manufacturer of LEDs and sells LED and LED products throughout the world.[64] On information and belief, MLS Co., Ltd. and LEDVANCE GmbH manufacture certain Accused Products, including under the Sylvania brand name, in China.[65] On information and belief, those products are imported into the United States and sold by LEDVANCE LLC, headquartered in Wilmington, Massachusetts.[66]

77. MLS Co., Ltd., LEDVANCE GmbH, and LEDVANCE LLC collectively are referred to as the "MLS Respondents."

G. GE Respondents

78. General Electric Company is a publicly traded company organized under the laws of New York. It has its principal place of business at 41 Farnsworth Street, Boston, Massachusetts 02210.

79. On information and belief, General Electric Company, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

80. Consumer Lighting (U.S.), LLC (d/b/a GE Lighting, LLC) ("GE Lighting") is a privately-owned company organized under the laws of the State of Delaware. It has its principal

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[64] Ex. 149 (MLS Co., Ltd. Bloomberg Overview).

[65] *See e.g.*, *infra* Section VIII(F); Ex. 34 (Stonedale Importation Decl.) ¶¶ 10, 24-34, 98, 105-107, 110, 206-207, 216-217 (showing country of origin as China).

[66] *See, e.g.*, Ex. 34 (Stonedale Importation Decl., Ex. 8) (showing Sylvania-branded product as being imported by LEDVANCE LLC).

place of business at 1975 Noble Road, Cleveland, Ohio 44112. GE Lighting is a subsidiary of General Electric Company.

81. On information and belief, GE Lighting, LLC, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

82. General Electric Company, by and through its subsidiary GE Lighting LLC, manufactures and sells "consumer lighting applications" including LEDs throughout the United States.[67] Upon information and belief, GE Lighting, LLC manufactures certain Accused Products abroad in China.[68] On information and belief, GE Lighting, LLC then imports and sells those Accused Products in the United States, including through its headquarters in East Cleveland, Ohio.[69]

83. General Electric Company and GE Lighting, LLC are collectively referred to as the "GE Respondents."

H. Acuity Respondents

84. Acuity Brands, Inc. is a publicly traded corporation organized under the laws of the State of Delaware. It has its principal place of business at 1170 Peachtree Street N.E., Suite 2300, Atlanta, Georgia 30309.

85. On information and belief, Acuity Brands, Inc., directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after

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[67] Ex. 151 (GE 2018 Annual Report) at 32.

[68] *See e.g.*, *infra* Section VIII(G); Ex. 34 (Stonedale Importation Decl.) ¶¶ 6, 12, 56-76, 108-109, 209, 219, 223-228, 230, 233 (showing country of origin as China).

[69] Ex. 151 (GE 2018 Annual Report) at 32.

importation into the United States certain Accused Products and/or knowingly induces such activity.

86. Acuity Brands Lighting, Inc. is a privately held corporation organized under the laws of the State of Delaware. It has its principal place of business at One Lithonia Way, Suite 2300, Conyers, Georgia 30012.

87. On information and belief, Acuity Brands Lighting, Inc. is a subsidiary of Respondent Acuity Brands Inc., and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

88. Acuity Brands, Inc. is the "North American market leader and one of the world's leading providers of lighting and building management solutions for commercial, institutional, infrastructure, and residential applications."[70] Upon information and belief, Acuity Brands, Inc. manufactures certain Accused Products, including under the Lithonia Lighting brand name, abroad in China and Mexico.[71] On information and belief, Acuity Brands, Inc. and Acuity Brands Lighting, Inc. then import and sell the Accused Products in the United States out of their offices in Atlanta, Georgia and Conyers, Georgia.[72]

89. Acuity Brands, Inc. and Acuity Brands Lighting are collectively referred to as the "Acuity Respondents."

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[70] Ex. 152 (About Acuity).

[71] *See e.g.*, *infra* Section VIII(H); Ex. 34 (Stonedale Importation Decl.) ¶¶ 8, 93, 232 (showing country of origin as Mexico), ¶¶ 76-82, 210-211, 231 (showing country of origin as China).

[72] Ex. 153 (Contact Acuity).

I. Eaton Respondents

90. Eaton Corporation plc is a publicly traded corporation organized under the laws of Ireland. It has its principal place of business at 30 Pembroke Road, Dublin, Ireland.

91. On information and belief, Eaton Corporation plc, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

92. Cooper Lighting, LLC is a privately held company organized under the laws of the State of Delaware. It has its principal place of business at 1121 Highway 74 S, Peachtree City, Georgia 30269.

93. On information and belief, Cooper Lighting, LLC is a subsidiary of Eaton Corporation plc, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

94. Cooper Industries, LLC is a privately held corporation organized under the laws of the State of Ohio. It has its principal place of business at 600 Travis Street, Suite 5800, Houston, Texas 77002.

95. On information and belief, Cooper Industries, LLC is a subsidiary of Respondent Eaton Corporation plc, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

96. Eaton Corporation plc is a "power management company" that "provides energy-efficient solutions," including LED products.[73] Upon information and belief, Eaton Corporation plc manufactures certain Accused Products abroad in China and Mexico.[74] On information and belief, Cooper Lighting, LLC and Cooper Industries, Inc. import and sell the Accused Products in the United States through offices in Peachtree City, Georgia and Houston, Texas.

97. Eaton Corporation plc, Cooper Lighting, LLC, and Cooper Industries, LLC are collectively referred to as the "Eaton Respondents."

J. Leedarson Respondents

98. Leedarson Lighting Co., Ltd. is a privately-owned company organized under the laws of the People's Republic of China. It has its principal place of business at the Leedarson Building, No. 1511, 2nd Fanghu North Road, Xiamen 361010, People's Republic of China.

99. On information and belief, Leedarson Lighting Co. Ltd., directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

100. Leedarson America, Inc. is a privately-owned corporation organized under the laws of the State of Georgia. It has its principal place of business at 4600 Highlands Pkwy SE, Suite D-E, Smyrna, Georgia 30082.

101. On information and belief, Leedarson America, Inc. is a subsidiary of Respondent Leedarson Lighting Co., Ltd., and it, directly or through its affiliates, imports into the United

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[73] Ex. 154 (Eaton 2018 Annual Report) at 10 (page 2 of Form 10-K).

[74] *See e.g.*, *infra* Section VIII(I); Ex. 34 (Stonedale Importation Decl.) ¶¶ 5, 83, 205 (showing country of origin as Mexico); *id.* ¶¶ 84-89, 102, 218, 220-222 (showing country of origin as China).

States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

102. Leedarson Lighting Co. Ltd. is a manufacturer of LED lamps and LED products and is the "Number 1 exporter in China."[75] Upon information and belief, Leedarson Lighting Co. Ltd. manufactures certain Accused Products abroad in Zhangzhou, China and Sichuan, China.[76] On information and belief, Leedarson America, Inc. imports and sells those Accused Products in the United States through its offices in Smyrna, Georgia. On information and belief, products made by Leedarson Lighting Co. Ltd. and/or imported by Leedarson America, Inc. are sold in the United States under at least the following brand names: Ecosmart, Commercial Electric, and LEDi2.[77]

103. Leedarson Lighting Co. and Leedarson America, Inc. are collectively referred to as the "Leedarson Respondents."

IV. The Technology and Products at Issue

104. Artificial (or "man-made") lighting is essential to human productivity. But the most popular sources of artificial lighting—incandescent and fluorescent lighting—present significant downsides. For example, incandescent lighting is highly energy inefficient: an incandescent bulb may convert as little as 10% of the electricity it uses into visible light.[78] And while fluorescent

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[75] Ex. 155 (Leedarson Company Profile).

[76] *Id.*; Ex. 156 (Leedarson Manufacturing Capabilities); *see, e.g.*, *infra* Section VIII(J); Ex. 34 (Stonedale Importation Decl.) ¶¶ 3, 7, 13, 41, 48, 90-92, 94-97, 99, 111, 229 (showing country of origin as China).

[77] Upon information and belief, the products listed were manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶¶ 3, 7, 13, 41, 48, 90-92, 94-97, 99, 111, 229; *id.* at Stonedale Importation Decl. Exs. 1, 11, 39, 46, 97, 264-266, 268.

[78] Ex. 128 ("Why People Still Use Inefficient Incandescent Light Bulbs").

lighting is more efficient than incandescent lighting, it uses more energy and is more harmful to the environment than light-emitting diode technology.[79]

105. Light-emitting diode technology overcomes many of the drawbacks associated with incandescent and fluorescent light bulbs. LEDs can be highly energy efficient, converting a far higher percentage of the electricity they consume into light than previous technologies. Recognizing the significant energy efficiency benefits of LED lighting, in 2010, the Department of Energy identified LEDs as the most promising technology for reducing American energy consumption associated with lighting. LEDs also can emit light directionally, which means that the light is more efficiently transmitted to the desired area than is typically the case with incandescent and fluorescent bulbs. In addition, LEDs typically have a lifespan of more than 10 years, have reduced maintenance costs as compared to other forms of conventional lighting, and are environmentally friendly (enabling compliance with green regulations and certifications such as ENERGY STAR®). LEDs also generate higher quality lighting, operate well in both hot and cold environments, and present a lower safety risk due to lower heat emissions.[80]

106. The Asserted Patents relate to numerous aspects of the LED lighting market, including LED package and assembly architectures (the '483, '053, and '421 Patents), LED lighting fixture architectures (the '118 Patent), connected "smart" LED lighting systems (the '608 Patent), and LED downlights, including LED canister retrofits and low-profile LED downlights (the '968, '844, and '518 Patents). Section V, below, identifies the Asserted Patents in detail, along with a further description of the technology covered by each. For purposes of 19 C.F.R. § 210.10(b)(1) and § 210.12(a)(12), the Accused Products are (1) LED packages and assemblies; (2)

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[79] Ex. 129 ("Study: Environmental Benefits of LEDs Greater than CFLs").

[80] Ex. 130 ("15 Advantages of LEDs When Compared to Traditional Lighting Solutions").

LED luminaires; (3) connected "smart" LED lighting systems and components thereof; and (4) LED downlights, including LED canister retrofits and low-profile LED downlights.[81]

107. Respondents infringe LSG's patents with their sale for importation, importation, and/or sale after importation of certain LED products, such as LED packages, LED lighting fixtures, LED lighting systems, and related components. Representative infringing products are provided in Section VII below.

V. The Asserted Patents

A. U.S. Patent No. 7,098,483

1. Identification of the Patent and Ownership

108. The '483 Patent, titled "Light Emitting Diodes Packaged for High Temperature Operation," was issued on August 29, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 1 ('483 Patent) at 1. The '483 Patent is based on U.S. Patent Application No. 10/933,096, filed September 2, 2004. U.S. Patent Application No. 10/933,096 is a divisional of U.S. Patent Application No. 10/638,579 (now U.S. Patent No. 7,095,053), filed August 11, 2003, which claims priority to U.S. Provisional Application No. 60/467,857, filed May 5, 2003. *Id.* at 1; 1:7-15. The expiration date of the '483 Patent is August 11, 2023. A certified copy of the '483 Patent is attached as Exhibit 1. This complaint is accompanied by a certified copy of the prosecution history for the '483 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '483 Patent. *See* Appx. A1, A2. The prosecution history for the '483 Patent did not include any non-patent technical references.

[81] The plain English statement of the Accused Products is not intended to limit or construe the asserted claims of the Asserted Patents.

109. LSG owns by assignment all rights, title, and interest in the '483 Patent. *See* Exs. 11-14, 16-17, 20-23, 25, 28.

2. Nontechnical Description of the Patent[82]

110. The '483 Patent relates to light-emitting diode packages and assemblies. Generally, LED packages and assemblies emit visible light efficiently and are used in many products, including light bulbs, indoor light fixtures, outdoor light fixtures, roadway lights, automotive light assemblies, and consumer electronics. The '483 Patent describes novel LED package and assembly designs and their technical features.

111. The independent Asserted Claims of the '483 Patent cover an LED assembly, including without limitation one or more LED packages, made of a combination of insulating and metallic materials, with at least one dedicated thermal connection pad as well as one or more dedicated respective cathode and anode terminals, as well as a plurality of conductive traces that are electrically connected to the LED electrodes, and decoder/driver electronics that control the LED electrodes that are mounted within the LED assembly (such as, without limitation, an electrostatic discharge protection circuit), where the one or more LED diodes are housed within an opening in insulating material and are thermally coupled through a metal base to a dedicated thermal connection surface. The claimed LED assembly designs are useful for high temperature operation.

3. Foreign Counterparts of the Patent

112. The following foreign patents and patent applications correspond to the '483 Patent: (a) European Patent Application No. EP20040750631 (published as EP1620896(A2); withdrawn

[82] All "nontechnical descriptions" provided throughout this complaint with respect to any Asserted Patents and any Asserted Claims are non-limiting and do not define the scope of the Asserted Patents and Asserted Claims for purposes of evaluating validity, infringement or claim construction.

September 22, 2010); (b) Japanese Patent Application No. JP20060513307 (published as JP2006525679(A); granted December 26, 2011; published as Japanese Patent No. JP4912876(B2) on April 11, 2012); and (c) Korean Patent Application No. KR20057020831 (published as KR20060026015(A); granted September 19, 2011; published as Korean Patent No. KR101095291(B1) on December 16, 2011).

113. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '483 Patent.

4. Licensees

114. All licensees to the '483 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '483 Patent.

B. U.S. Patent No. 7,095,053

1. Identification of the Patent and Ownership

115. The '053 Patent, titled "Light Emitting Diodes Packaged for High Temperature Operation," issued on August 22, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 2 ('053 Patent) at 1. The '053 Patent is based on U.S. Patent Application No. 10/638,579, filed August 11, 2003, which claims priority to U.S. Provisional Application No. 60/467,857, filed May 5, 2003. *Id.* at 1; *id.* at 1:7-10. The expiration date of the '053 Patent is September 4, 2023. A certified copy of the '053 Patent is attached as Exhibit 2. This complaint is accompanied by a certified copy of the prosecution history for the '053 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '053 Patent. *See* Appx. B1, B2. The prosecution history for the '053 Patent did not include any non-patent technical references.

116. LSG owns by assignment all rights, title, and interest in the '053 Patent. *See* Exs. 9, 13-14, 16-17, 20-23, 25, 28-29.

2. Nontechnical Description of the Patent

117. The '053 Patent relates to light-emitting diode packages. Generally, LED packages emit visible light efficiently and are used in many products, including light bulbs, indoor light fixtures, outdoor light fixtures, roadway lights, automotive light assemblies, and consumer electronics. The '053 Patent describes various novel LED package designs and their structural features, including embodiments that have an LED die thermally coupled to a metal base by thermal vias, a layer of electrically insulating material overlying the metal base, and LED electrodes electrically connected to a pair of underlying electrical connection pads. The described LED package designs are useful for high temperature operation.

118. The independent Asserted Claims of the '053 Patent cover an LED package made of a combination of insulating and metallic materials, with at least one dedicated thermal connection pad and one or more dedicated respective cathode and anode terminals, in which the LED diode is connected to at least one of the cathode or anode by electrical vias, and is thermally coupled through a metal base to an underlying thermal connection pad. Certain claims further require thermal vias and limit the insulating material to ceramic. The claimed LED package designs are useful for high temperature operation.

3. Foreign Counterparts of the Patent

119. The following foreign patents and patent applications correspond to the '053 Patent: (a) European Patent Application No. EP20040750631 (published as EP1620896(A2); withdrawn September 22, 2010); (b) Japanese Patent Application No. JP20060513307 (published as JP2006525679(A); granted December 26, 2011; published as Japanese Patent No. JP4912876(B2) on April 11, 2012); and (c) Korean Patent Application No. KR20057020831 (published as

KR20060026015(A); granted September 19, 2011; published as Korean Patent No. KR101095291(B1) on December 16, 2011).

120. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '053 Patent.

4. Licensees

121. All licensees to the '053 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '053 Patent.

C. U.S. Patent No. 7,528,421

1. Identification of the Patent and Ownership

122. The '421 Patent, titled "Surface Mountable Light Emitting Diode Assemblies Packaged for High Temperature Operation," issued on May 5, 2009, naming Joseph Mazzochette as the inventor. Ex. 3 ('421 Patent) at 1. The '421 Patent is based on U.S. Patent Application No. 11/179,863, filed July 12, 2005, which is a continuation-in-part of U.S. Patent Application No. 10/638,579 (now U.S. Patent No. 7,095,053), filed August 11, 2003, which claims priority to U.S. Provisional Application No. 60/467,857, filed May 5, 2003. *Id.* at 1; 1:8-12. The expiration date of the '421 Patent is August 11, 2023. A certified copy of the '421 Patent is attached as Exhibit 3. This complaint is accompanied by a certified copy of the prosecution history for the '421 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '421 Patent. *See* Appx. C1, C2. The prosecution history for the '421 Patent did not include any non-patent technical references.

123. LSG owns by assignment all rights, title, and interest in the '421 Patent. *See* Exs. 10, 13-14, 16-17, 20-23, 25, 28-29.

2. Nontechnical Description of the Patent

124. The '421 Patent relates to light-emitting diode assemblies. Generally, LED packages emit visible light efficiently and are used in many products, including light bulbs, indoor light fixtures, outdoor light fixtures, roadway lights, automotive light assemblies, and consumer electronics. The '421 Patent describes various novel LED assemblies, including embodiments that have an LED die disposed within a surface cavity overlying a planar portion of a thermally conducting base, a thermally conductive region in solderable thermal contact with the thermally conducting base for spreading heat transmitted to the base from the LED die, and an LED assembly mount.

125. The independent Asserted Claims of the '421 Patent cover an LED assembly, including without limitation one or more LED packages, that includes either an electrically insulated fastener or a solderable bonding pad, which assembly is made of a combination of insulating and thermally conductive materials, with one or more LED die disposed within a surface cavity defined by the insulating material and overlying a thermally conducting base, where the LED die are in thermal contact with a substantially planar portion of the thermally conducting base and are electrically connected to one or more terminals included within the insulating material, where the bottom surface of the LED assembly includes a thermally conductive region in solderable thermal contact with the thermally conducting base. The claimed LED assemblies are useful for high temperature operation.

3. Foreign Counterparts of the Patent

126. The following foreign patents and patent applications correspond to the '421 Patent: (a) European Patent Application No. EP20040750631 (published as EP1620896(A2); withdrawn September 22, 2010); (b) Japanese Patent Application No. JP20060513307 (published as JP2006525679(A); granted December 26, 2011; published as Japanese Patent No. JP4912876(B2)

on April 11, 2012); (c) Korean Patent Application No. KR20057020831 (published as KR20060026015(A); granted September 19, 2011; published as Korean Patent No. KR101095291(B1) on December 16, 2011); and (d) Taiwanese Patent Application No. TW20060125507 (published as TW200742122(A); abandoned October 27, 2009).

127. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '421 Patent.

4. Licensees

128. All licensees to the '421 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '421 Patent.

D. U.S. Patent No. 8,506,118

1. Identification of the Patent and Ownership

129. The '118 Patent, titled "Light Fixture and Associated LED Board and Monolithic Optic," issued on August 13, 2013, naming Fredric S. Maxik, Zach Gibler, Eric Bretschneider, David Henderson, and Addy Widjaja as the inventors. Ex. 4 ('118 Patent) at 1. The '118 Patent is based on U.S. Patent Application No. 13/421,910, filed March 16, 2012. U.S. Patent Application No. 13/421,910 is a continuation of U.S. Patent Application No. 12/687,710 (now U.S. Patent No. 8,157,413), filed January 14, 2010, which claims priority to U.S. Provisional Application No. 61/147,389, filed January 26, 2009. *Id.* at 1; 1:7-12. The expiration date of the '118 Patent is January 14, 2030. A certified copy of the '118 Patent is attached as Exhibit 4. This complaint is accompanied by a certified copy of the prosecution history for the '118 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '118 Patent. *See* Appx. D1, D2.

130. LSG owns by assignment all rights, title, and interest in the '118 Patent. *See* Exs. 22-23, 25, 28-30.

2. Nontechnical Description of the Patent

131. The '118 Patent generally relates to light-emitting diode lighting components and fixtures. One of the independent Asserted Claims recites a light fixture with a monolithic substrate with two or more groups of LEDs arranged on one side of the monolithic substrate, where each group of LEDs includes a plurality of LEDs electrically coupled in series, and where the two or more groups of LEDs are electrically coupled in parallel. Another independent Asserted Claims recites an LED light fixture having a housing, an LED light emission module disposed in the housing and having LEDs, and a plurality of convex lenses where each lens is associated with one of the LEDs.

3. Foreign Counterparts of the Patent

132. The following foreign patent application corresponds to the '118 Patent: European Patent Application No. EP20100151159 (published as EP2211085(A1); withdrawn December 11, 2015).

133. To the best of LSG's knowledge, information, and belief, there are no foreign patents issued or other foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '118 Patent.

4. Licensees

134. All licensees to the '118 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '118 Patent.

E. U.S. Patent No. 8,674,608

1. Identification of the Patent and Ownership

135. The '608 Patent, titled "Configurable Environmental Condition Sensing Luminaire, System and Associated Methods," issued on March 18, 2014, naming Eric Holland, Mark P. Boomgaarden, and Eric Thosteson as the inventors. Ex. 5 ('608 Patent) at 1. The '608 Patent is based on U.S. Patent Application No. 13/403,531, filed February 23, 2012, which claims priority to U.S. Provisional Application Nos. 61/486,316 (filed May 15, 2011), 61/486,314 (filed May 15, 2011), and 61/486,322 (filed May 15, 2011). *Id.* at 1; 1:7-8. The expiration date of the '608 Patent is April 23, 2032. A certified copy of the '608 Patent is attached as Exhibit 5. This complaint is accompanied by a certified copy of the prosecution history for the '608 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '608 Patent. *See* Appx. E1, E2.

136. LSG owns by assignment all rights, title, and interest in the '608 Patent. *See* Exs. 18, 22-23, 25, 28-29.

2. Nontechnical Description of the Patent

137. The '608 Patent generally relates to luminaires (e.g., light fixtures, lighting systems) that operate under different modes based on sensed environmental conditions. The '608 Patent describes various novel luminaires and related "smart" lighting systems. One independent Asserted Claim recites, among other things, a luminaire with a controller, a processor, and memory to analyze data and control a light source, sensors in communication with the controller to detect environmental conditions, and a light source that can operate in different modes based on data from the sensors, pre-defined parameters, and signals from an interface that can be manipulated. Another independent Asserted Claim recites a system for controlling a luminaire that includes, among other things, a controller, processor, and memory, a manipulable interface in

communication with the controller from which modes can be selected to affect the operation of the luminaire, and sensors generating data regarding the environment of the luminaire for analysis by the controller.

3. Foreign Counterparts of the Patent

138. The following patent application corresponds to the '608 Patent: European Patent Application No. EP20130722608 (published as EP2818029(A1); prosecution pending as of December 26, 2018).

139. To the best of LSG's knowledge, information, and belief, there are no foreign patents issued or other foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '608 Patent.

4. Licensees

140. All licensees to the '608 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '608 Patent.

F. U.S. Patent No. 8,201,968

1. Identification of the Patent and Ownership

141. The '968 Patent, titled "Low Profile Light," issued on June 19, 2012, naming Fredric S. Maxik, Raymond A. Reynolds, Addy S. Widjaja, Mark Penley Boomgaarden, Robert Rafael Soler, and James L. Schellack as the inventors. Ex. 6 ('968 Patent) at 1. The '968 Patent is based on U.S. Patent Application No. 12/775,310, filed May 6, 2010. U.S. Patent Application No. 12/775,310 claims priority to U.S. Provisional Application No. 61/248,665, filed October 5, 2009. *Id.* at 1; 1:6-8. The expiration date of the '968 Patent is August 12, 2030. A certified copy of the '968 Patent is attached as Exhibit 6. This complaint is accompanied by a certified copy of the prosecution history for the '968 Patent, three additional copies of the prosecution history, and four

copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '968 Patent. *See* Appx. F1, F2.

142. LSG owns by assignment all rights, title, and interest in the '968 Patent. *See* Exs. 15-17, 20-23, 25, 28-29.

2. Nontechnical Description of the Patent

143. The '968 Patent generally relates to luminaires for low-profile lighting applications. The '968 Patent describes various novel low-profile luminaire designs. The Asserted Claims cover certain low-profile LED downlights lights meeting certain dimensional requirements and using phosphors to provide lighting at a color temperature of 2700 degrees Kelvin, or alternatively including a mounting bracket and power conditioner meeting certain requirements.

3. Foreign Counterparts of the Patent

144. The following foreign patents and patent applications correspond to the '968 Patent: (a) European Patent Application No. EP20100174449 (published as EP2306072(A1); granted March 3, 2016; published as European Patent No. EP2306072(B1) on March 30, 2016); and (b) Spanish Patent Application No. ES20100174449T (granted August 17, 2016, as Spanish Patent No. ES2579956(T3)).

145. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '968 Patent.

4. Licensees

146. All licensees to the '968 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '968 Patent.

G. U.S. Patent No. 8,967,844

1. Identification of the Patent and Ownership

147. The '844 Patent, titled "Low Profile Light and Accessory Kit for the Same," issued on March 3, 2015, naming Mark Penley Boomgaarden, Michael Balestracci, Rick LeClair, Wei Sun, David Henderson, and Shane Sullivan as the inventors. Ex. 7 ('844 Patent) at 1. The '844 Patent is based on U.S. Patent Application No. 14/134,884, filed December 19, 2013. U.S. Patent Application No. 14/134,884 is a continuation of U.S. Patent Application No. 13/476,388 (now U.S. Patent No. 8,672,518), filed May 21, 2012, which is a continuation-in-part of U.S. Patent Application No. 12/775,310 (now U.S. Patent No. 8,201,968), filed May 6, 2010. U.S. Patent Application No. 12/775,310 (now U.S. Patent No. 8,201,968) claims priority to U.S. Provisional Application No. 61/248,665, filed October 5, 2009. *Id.* at 1; 1:7-12. The expiration date of the '844 Patent is May 6, 2030. A certified copy of the '844 Patent is attached as Exhibit 7. This complaint is accompanied by a certified copy of the prosecution history for the '844 Patent, three additional copies of the prosecution history, and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '844 Patent. *See* Appx. G1, G2.

148. LSG owns by assignment all rights, title, and interest in the '844 Patent. *See* Exs. 24, 26-27.

2. Nontechnical Description of the Patent

149. The '844 Patent generally relates to luminaires for low-profile lighting applications. The '844 Patent describes various novel low-profile luminaire designs. By way of example, one of the Asserted Claims recites a low-profile LED downlight light meeting, among other things, certain dimensional requirements, including a height of 1.5 inches or less.

3. Foreign Counterparts of the Patent

150. The following foreign patents and patent applications correspond to the '844 Patent: (a) European Patent Application No. EP20100174449 (published as EP2306072(A1); granted March 3, 2016; published as European Patent No. EP2306072(B1) on March 30, 2016); and (b) Spanish Patent Application No. ES20100174449T (granted August 17, 2016, as Spanish Patent No. ES2579956(T3)).

151. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '844 Patent.

4. Licensees

152. All licensees to the '844 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '844 Patent.

H. U.S. Patent No. 8,672,518

1. Identification of the Patent and Ownership

153. The '518 Patent, titled "Low Profile Light and Accessory Kit for the Same," issued on March 18, 2014, naming Mark Penley Boomgaarden, Michael Balestracci, Rick LeClair, Wei Sun, David Henderson, and Shane Sullivan as the inventors. Ex. 8 ('518 Patent) at 1. The '518 Patent is based on U.S. Patent Application No. 13/476,388, filed May 21, 2012. U.S. Patent Application No. 13/476,388 is a continuation-in-part of U.S. Patent Application No. 12/775,310 (now U.S. Patent No. 8,201,968), filed May 6, 2010. U.S. Patent Application No. 12/775,310 (now U.S. Patent No. 8,201,968) claims priority to U.S. Provisional Application No. 61/248,665, filed October 5, 2009. *Id.* at 1; 1:7-10. The expiration date of the '518 Patent is June 19, 2030. A certified copy of the '518 Patent is attached as Exhibit 8. This complaint is accompanied by a certified copy of the prosecution history for the '518 Patent, three additional copies of the prosecution history,

and four copies of each patent and applicable pages of each technical reference mentioned in the prosecution history for the '518 Patent. *See* Appx. H1 and H2.

154. LSG owns by assignment all rights, title, and interest in the '518 Patent. *See* Exs. 19, 22-23, 25, 28-29.

2. Nontechnical Description of the Patent

155. The '518 Patent generally relates to luminaires for low-profile lighting applications. The '518 Patent describes various novel luminaire and accessory kit designs. By way of example, one of the Asserted Claims recites, among other things, an LED downlight retrofit luminaire and accessory kit with an optic that is secured to a base using a snap-fit mechanism.

3. Foreign Counterparts of the Patent

156. The following foreign patents and patent applications correspond to the '518 Patent: (a) European Patent Application No. EP20100174449 (published as EP2306072(A1); granted March 3, 2016; published as European Patent No. EP2306072(B1) on March 30, 2016); and (b) Spanish Patent Application No. ES20100174449T (granted August 17, 2016, as Spanish Patent No. ES2579956(T3)).

157. To the best of LSG's knowledge, information, and belief, there are no other foreign patents issued or foreign patent applications pending, filed, abandoned, withdrawn, or rejected corresponding to the '518 Patent.

4. Licensees

158. All licensees to the '518 Patent are identified in Confidential Exhibit 35C (Noroozi Licensee Declaration and Exhibits). There are no other known licenses relating to the '518 Patent.

VI. The Energy Star Program

159. The Energy Star program was established by the Environmental Protection Agency ("EPA") in 1992 under Section 103(g) of the Clean Air Act. The EPA later established a

certification program for lighting products that requires demonstrating that the products pass rigorous tests in an EPA-certified laboratory and requires that the products be certified by an EPA-recognized certification body before they can carry the Energy Star® label. The certification program ensures that LED bulbs are energy efficient while providing consumers with long-lasting, high-quality substitutes for incandescent light bulbs.

160. The Energy Star® logo is recognized by consumers as a symbol for energy-efficient, high-quality products that can be substituted for the less energy-efficient products that consumers have come to rely upon. *See* Ex. 31 (Maxik Energy Star Decl.) ¶ 23.

161. Many of Complainants' LED luminaires qualify for Energy Star certification, and as a result, are sold with the Energy Star® logo. In fact, a substantial majority of Complainants' sales have historically been of Energy Star certified products. *Id* at ¶ 26.

162. Energy Star requirements for LED bulbs are found in the ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Eligibility Criteria, Version 2.1 ("Specification").[83] These criteria address energy efficiency and quality standards for the performance of LED bulbs, including luminous efficacy, total light output, and correlated color temperature. Ex. 31 (Maxik Energy Star Decl.) ¶ 4.

163. Section 9.1 of the Specification covers luminous efficacy—the amount of light each bulb is required to emit per watt of energy it uses. *Id.* ¶ 5. Section 9.1 requires that directional bulbs, such as BR-shaped bulbs, emit at least 70 lumens per watt if those bulbs have a color rendering index of less than 90. *Id.* The Specification requires that of ten tested products, "eight or more units individually shall meet the requirement." *Id.* Additionally, the Energy Star

[83] Ex. 31 (Maxik Energy Star Decl., Ex. A ("ENERGY STAR® Program Requirements for Lamps (Light Bulbs), Eligibility Criteria, Version 2.1" Energy Star, https://www.energystar.gov/sites/default/files/ENERGY%20STAR%20Lamps%20V2.1%20Final%20Specification_1.pdf.)).

Specification requires that the average of ten bulbs tested meet the 70 lumens per watt requirement. *Id.*

164. Section 9.2 of the Specification requires that omnidirectional LED bulbs, such as A-shaped bulbs, must output at least 800 lumens of light if those bulbs are advertised as "60 watt equivalent." *Id.* ¶ 6. Section 9.2 requires that BR-shaped bulbs advertised as "100 watt equivalent" must output at least 1,400 lumens of light. *Id.* The Energy Star Specification requires that of ten tested products "8 or more units individually shall meet the requirement." *Id.* In addition, the Specification requires that the average of the light output of the ten tested lamps be above the required lumen output. *Id.*

165. Section 9.6 of the Specification requires that that 9 out of 10 tested products emit light within the chromaticity range corresponding to a bulb's advertised color temperature. *Id.* ¶ 7. The corresponding chromaticity ranges for each color temperature are published by the American National Standards Institute ("ANSI"). *Id.* For instance, for a bulb that advertises a color temperature of 2700K, its measured chromaticity must fall within the standard range for a 2700K color temperature published by ANSI. *Id.*

166. As discussed in Section VII(G)(2) below, GE Respondents falsely advertise at least their GE 11W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (25037) ("GE 25037 LED A19 Bulb") and the GE 10W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (67591) ("GE 67591 LED A19 Bulb") as meeting the Energy Star specifications described above by using the Energy Star® logo on their packaging. In fact, their GE 25037 LED A19 Bulbs and GE 67591 LED A19 Bulbs do not meet the Energy Star specifications.

167. As discussed in Section VII(J)(2) below, Leedarson Respondents falsely advertise at least their LEDi2 19.5W (100W Equivalent) Dimmable BR40 LED Light Bulb (Warm White)

(i2-LBR40D19.5-27K BR40)[84] ("i2-LBR40D19.5-27K LED BR40 Bulb") as meeting the Energy Star specifications described above by using the Energy Star® logo on their packaging. In fact, their i2-LBR40D19.5-27K LED BR40 Bulb does not meet the Energy Star specifications.

168. Using the Energy Star® logo signifies quality, consistency, and energy efficiency, and provides a valuable government endorsement. A 2016 survey found that 91% of households recognized the Energy Star® label, and 84% had a high-level or general understanding of the label's meaning.[85]

169. Energy Star certification also enables products to obtain subsidies from local utility companies. Often these utility subsidies can be obtained at the point of sale, reducing the price a consumer pays at checkout. *See* Ex. 31 (Maxik Energy Star Decl.) ¶ 25. These subsidies can drastically reduce the price of an Energy Star certified bulb. For example, a set of four Energy Star certified bulbs sells at The Home Depot for $9.86 without subsidies, but the same set of bulbs at a Home Depot in Washington, D.C. is available for $4.86 with the instant $5.00 rebate offered by the local utility. *Id.* ¶ 29. Such subsidies provide a competitive advantage over non-Energy Star certified products via their enormous effect on end-user price and demand. *Id.* ¶¶ 25-26. They also allow a product to better compete with other Energy Star certified products. *Id.* ¶¶ 28-31.

170. As described in Sections VII(G)(2), VII(J)(2), and XII below, GE and Leedarson Respondents' wrongful use of the Energy Star® logo, and their receipt of undeserved subsidies, has caused and threatens to cause substantial injury to Complainants' domestic industry.

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[84] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 41; *id.* at Stonedale Importation Decl. Ex. 39.

[85] *See* Ex. 131 (EPA's "National Awareness of Energy Star® for 2016, Analysis of CEE Household Survey") at 5, 12.

VII. Unlawful and Unfair Acts of the Respondents[86]

A. Nichia Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

171. On information and belief, the Nichia Respondents import, sell for importation, offer to sell for importation, and/or sell after importation into the United States certain Accused Products (the "Nichia Accused Products") that infringe the '483 Patent.

172. The Nichia Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 14-16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The Nichia Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Nichia Accused Products. The Nichia Accused Products satisfy all claim limitations of claims 11 and 14-16 of the '483 Patent at the time of importation into the United States.

173. Moreover, on information and belief, one or more of the Nichia Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Nichia Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Nichia Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Nichia Respondents sells the Nichia Accused Products

[86] Throughout this complaint certain products are identified as infringing products or falsely advertised products. The identification of these products in the complaint is in no way limiting or meant to be exhaustive of the full set of infringing or falsely advertised products. Any remedy should extend to all of Respondents' present and future infringing and/or falsely advertised products, including products made by or on behalf of any Respondent for third parties and sold under third-party brand names, regardless of model number or type of product.

or otherwise provides the Nichia Accused Products to distributors knowing that these distributors intend to import and/or sell the Nichia Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Nichia Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Nichia Accused Products.

174. A claim chart comparing claims 11 and 14-16 of the '483 Patent to a representative Nichia Accused Product, the Nichia NVSW219CT LED Package, is attached here as Confidential Exhibit 36C. The Nichia NVSW219CT LED Package is also submitted with this Complaint as Physical Exhibit P1. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Nichia Accused Products that infringe the '483 Patent for the reasons set forth above:

- Nichia NVSL219CT LED Package
- Nichia NVSW219BT LED Package
- Nichia NVSW319AT LED Package

b. Infringement of the '053 Patent

175. On information and belief, the Nichia Respondents import, sell for importation, offer to sell for importation, and/or sell after importation into the United States certain Nichia Accused Products that infringe the '053 Patent.

176. The Nichia Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent, in violation of 35 U.S.C. § 271(a). The Nichia Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Nichia Accused Products. The Nichia Accused Products satisfy all claim limitations of claims 1, 2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent at the time of importation into the United States.

177. Moreover, on information and belief, one or more of the Nichia Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Nichia Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Nichia Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Nichia Respondents sells the Nichia Accused Products or otherwise provides the Nichia Accused Products to distributors knowing that these distributors intend to import and/or sell the Nichia Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Nichia Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Nichia Accused Products.

178. A claim chart comparing claims 1, 2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent to a representative Nichia Accused Product, the Nichia NVSW219CT, is attached here as Confidential Exhibit 37C. The Nichia NVSW219CT is also submitted with this Complaint as Physical Exhibit P1.

179. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Nichia Accused Products that infringe the '053 Patent for the reasons set forth above:

- Nichia NVSL219CT LED Package
- Nichia NVSW219BT LED Package
- Nichia NVSW319AT LED Package

c. Infringement of the '421 Patent

180. On information and belief, the Nichia Respondents import, sell for importation, and/or sell after importation into the United States certain Nichia Accused Products that infringe the '421 Patent.

181. The Nichia Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). The Nichia Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Nichia Accused Products. The Nichia Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

182. Moreover, on information and belief, one or more of the Nichia Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Nichia Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Nichia Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Nichia Respondents sells the Nichia Accused Products or otherwise provides the Nichia Accused Products to distributors knowing that these distributors intend to import and/or sell the Nichia Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Nichia Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Nichia Accused Products.

183. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Nichia Accused Product, the Nichia NFSW757GT LED Package, is attached here as Confidential

Exhibit 38C. The Nichia NFSW757GT LED Package is also submitted with this Complaint as Physical Exhibit P2.

184. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Nichia Accused Products that infringe the '421 Patent for the reasons set forth above:

- Nichia NFSL757GT LED Package
- Nichia NF2E757GRT LED Package
- Nichia NE2G757GT LED Package

B. Cree Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

185. On information and belief, Cree imports, sells for importation, and/or sells after importation into the United States certain Accused Products (the "Cree Accused Products") that infringe the '483 Patent.

186. The Cree Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). Cree directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the Cree Accused Products. The Cree Accused Products satisfy all claim limitations of claims 11 and 16 of the '483 Patent at the time of importation into the United States.

187. Moreover, on information and belief, one or more of the Cree Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Cree Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the

Cree Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Cree Respondents sells the Cree Accused Products or otherwise provides the Cree Accused Products to distributors knowing that these distributors intend to import and/or sell the Cree Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Cree Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Cree Accused Products.

188. A claim chart comparing claims 11 and 16 of the '483 Patent to a representative Cree Accused Product, the Cree XLamp® MK-R (MKRAWT-00-0000-0B00H4051) LED Package, is attached here as Confidential Exhibit 39C. The Cree XLamp® MK-R (MKRAWT-00-0000-0B00H4051) LED Package is also submitted with this Complaint as Physical Exhibit P3

189. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Cree Accused Products that infringe the '483 Patent for the reasons set forth above:

- Cree XLamp® XT-E (XTEAWT-00-0000-000000KE1) LED Package
- Cree XLamp® XM-L™ Color (XMLCTW-A0-0000-00C3ACC02) LED Package
- Cree XLamp® MHD-G (MHDGWT-0000-000N0HK427G) LED Package
- Cree XLamp® XP-G (XPGWHT-L1-0000-00G51) LED Package
- Cree XLamp® MT-G2 EasyWhite® (MTGBEZ-00-0000-0N00M030H) LED Package
- Cree XLamp® XB-D (XBDAWT-00-0000-00000LBE7) LED Package
- Cree XLamp® XP-E2 LEDs (XPEBTT-01-0000-00Y80) LED Package
- Cree XLamp® XHP70 (XHP70A-00-0000-0D0BM40E5) LED Package
- Cree XLamp® XM-L2 (XMLBWT-00-0000-0000U20E2) LED Package
- Cree XLamp® XP-G2 (XPGBWT-H1-0000-00DZ7) LED Package
- Cree XLamp® MT-G EasyWhite® (MTGEZW-01-0000-0N00G040F) LED Package
- Cree XLamp® MHB-A (MHBAWT-0000-000N0HC227G) LED Package
- Cree XLamp® XP-E High-Efficiency White (XPEHEW-H1-0000-00AE8) LED Package
- Cree XLamp® MHB-B (MHBBWT-0000-000C0BE250E) LED Package
- Cree XLamp® MHD-E (MHDEWT-0000-000N0HG227G) LED Package
- Cree XLamp® MK-R2 (MKRBWT-02-0000-0N0HG230F) LED Package

- Cree XLamp® MT-G EasyWhite® (MTGEZW-00-0000-0N00G030H) LED Package
- Cree XLamp® XB-H (XBHAWT-00-0000-000LT50E1) LED Package
- Cree XLamp® XHP35 (XHP35A-01-0000-0D0HC40E7) LED Package
- Cree XLamp® XM-L (XMLAWT-00-0000-000LT50E4) LED Package
- Cree XLamp® XM-L® EasyWhite® (XMLEZW-02-0000-0B00T627F) LED Package
- Cree XLamp® XM-L HVW (XMLHVW-Q2-0000-0000LS3E7) LED Package
- Cree XLamp® XP-C (XPCWHT-L1-0000-008E7) LED Package
- Cree XLamp® XP-L (XPLAWT-00-0000-0000V5051) LED Package
- Cree XLamp® XP-L2 (XPLBWT-00-0000-000BV50E2) LED Package
- Cree XLamp® XT-E (XTEAWT-00-0000-000000HE4) LED Package
- Cree XLamp® XT-E (XTEHVW-H0-0000-00000LDE4) LED Package
- Cree Connected™ 11W (60W Replacement) A19 LED Light Bulb (Daylight) (Product Model No.: BA19-08050OMF-12CE26-1C100)

b. Infringement of the '053 Patent

190. On information and belief, Cree imports, sells for importation, and/or sells after importation into the United States certain Cree Accused Products that infringe the '053 Patent.

191. The Cree Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent, in violation of 35 U.S.C. § 271(a). Cree directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the Cree Accused Products. The Cree Accused Products satisfy all claim limitations of claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent at the time of importation into the United States.

192. Moreover, on information and belief, one or more of the Cree Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Cree Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Cree Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Cree Respondents sells the Cree Accused Products or

otherwise provides the Cree Accused Products to distributors knowing that these distributors intend to import and/or sell the Cree Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Cree Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Cree Accused Products.

193. A claim chart comparing claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent to a representative Cree Accused Product, the Cree XLamp® MK-R (MKRAWT-00-0000-0B00H4051) LED Package, is attached here as Confidential Exhibit 40C. The Cree XLamp® MK-R (MKRAWT-00-0000-0B00H4051) LED Package is also submitted with this Complaint as Physical Exhibit P3.

194. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Cree Accused Products that infringe the '053 Patent for the reasons set forth above:

- Cree XLamp® XT-E (XTEAWT-00-0000-000000KE1) LED Package
- Cree XLamp® XM-L™ Color (XMLCTW-A0-0000-00C3ACC02) LED Package
- Cree XLamp® MHD-G (MHDGWT-0000-000N0HK427G) LED Package
- Cree XLamp® XP-G (XPGWHT-L1-0000-00G51) LED Package
- Cree XLamp® MT-G2 EasyWhite® (MTGBEZ-00-0000-0N00M030H) LED Package
- Cree XLamp® XB-D (XBDAWT-00-0000-00000LBE7) LED Package
- Cree XLamp® XP-E2 Torch (XPEBTT-01-0000-00Y80) LED Package
- Cree XLamp® XHP70 (XHP70A-00-0000-0D0BM40E5) LED Package
- Cree XLamp® XM-L2 (XMLBWT-00-0000-0000U20E2) LED Package
- Cree XLamp® XP-G2 (XPGBWT-H1-0000-00DZ7) LED Package
- Cree XLamp® MT-G EasyWhite® (MTGEZW-01-0000-0N00G040F) LED Package
- Cree XLamp® MHB-A (MHBAWT-0000-000N0HC227G) LED Package
- Cree XLamp® XP-E High-Efficiency White (XPEHEW-H1-0000-00AE8) LED Package
- Cree XLamp® MHB-B (MHBBWT-0000-000C0BE250E) LED Package
- Cree XLamp® MHD-E (MHDEWT-0000-000N0HG227G) LED Package
- Cree XLamp® MK-R2 (MKRBWT-02-0000-0N0HG230F) LED Package

- Cree XLamp® MT-G EasyWhite® (MTGEZW-00-0000-0N00G030H) LED Package
- Cree XLamp® XB-H (XBHAWT-00-0000-000LT50E1) LED Package
- Cree XLamp® XHP35 (XHP35A-01-0000-0D0HC40E7) LED Package
- Cree XLamp® XM-L (XMLAWT-00-0000-000LT50E4) LED Package
- Cree XLamp® XM-L® EasyWhite® (XMLEZW-02-0000-0B00T627F) LED Package
- Cree XLamp® XM-L HVW (XMLHVW-Q2-0000-0000LS3E7) LED Package
- Cree XLamp® XP-C (XPCWHT-L1-0000-008E7) LED Package
- Cree XLamp® XP-L (XPLAWT-00-0000-0000V5051) LED Package
- Cree XLamp® XP-L2 (XPLBWT-00-0000-000BV50E2) LED Package
- Cree XLamp® XT-E (XTEAWT-00-0000-000000HE4) LED Package
- Cree XLamp® XT-E (XTEHVW-H0-0000-00000LDE4) LED Package
- Cree Connected™ 11W (60W Replacement) A19 LED Light Bulb (Daylight) (BA19-08050OMF-12CE26-1C100)

c. Infringement of the '421 Patent

195. On information and belief, Cree imports, sells for importation, and/or sells after importation into the United States certain Cree Accused Products that infringe the '421 Patent.

196. The Cree Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). Cree directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the Cree Accused Products. The Cree Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

197. Moreover, on information and belief, one or more of the Cree Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Cree Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Cree Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Cree Respondents sells the Cree Accused Products or

otherwise provides the Cree Accused Products to distributors knowing that these distributors intend to import and/or sell the Cree Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Cree Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Cree Accused Products.

198. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Cree Accused Product, the Cree 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (SA19-08150MDFD-12DE26-1-14), is attached here as Confidential Exhibit 41C. The Cree 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (SA19-08150MDFD-12DE26-1-14) is also submitted with this Complaint as Physical Exhibit P4.

199. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Cree Accused Products that infringe the '421 Patent for the reasons set forth above:

- Cree 13W (75W Replacement) Dimmable R20 Flood LED Light Bulb (R20-75W-27K-U1)
- Cree 8W (65W Replacement) Dimmable BR30 Flood LED Light Bulb (Soft White) (SBR30-06527FLFD-12DE26-1-13)
- Cree 5.5W (40W Replacement) Dimmable A19 LED Light Bulb (Soft White) (SA19-04627MDFD-12DE26-1-14)
- Cree 8W (65W Replacement) Dimmable BR30 Flood LED Light Bulb (Soft White) (SBR30-06527FLFD-12DE26-1-1)
- Cree 9.5W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (SA19-08127MDFD-12DE26-1-14)
- Cree® J Series™ 2835 LEDs (JE2835AWT-00-0000-000A0HG940E)
- Cree 10W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (TA19-08027MDFH25-12DE26-1-12)
- Cree 10W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (TA19-08050MDFH25-12DE26-1-12)
- Cree 17W (100W Replacement) Dimmable A21 LED Light Bulb (Daylight) (TA21-16050MDFH25-12DE26-1-11)
- Cree 8.5W (65W Replacement) Dimmable BR30 Flood LED Light Bulb (Soft White) (TBR30-06527FLFH25-12DE26-1-12)
- Cree 19W (150W Replacement) Dimmable Par38 40-Degree Flood LED Light Bulb (Bright White) (TPAR38-1803040FH25-12DE26-1-11)

C. OSRAM Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

200. On information and belief, the OSRAM Respondents import, sell for importation, offer to sell for importation, and/or sell after importation into the United States certain Accused Products (the "OSRAM Accused Products") that infringe the '483 Patent.

201. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The OSRAM Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 11 and 16 of the '483 Patent at the time of importation into the United States.

202. Moreover, on information and belief, one or more of the OSRAM Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the OSRAM Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the OSRAM Respondents sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the OSRAM Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement

of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

203. A claim chart comparing claims 11 and 16 of the '483 Patent to a representative Osram Accused Product, the Osram OSTAR® Stage (LE RTDCY S2WN) LED Package, is attached here as Confidential Exhibit 42C. The Osram OSTAR® Stage (LE RTDCY S2WN) LED Package is also submitted with this Complaint as Physical Exhibit P5.

204. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following products also constitute OSRAM Accused Products that infringe the '483 Patent for the reasons set forth above:

- Osram OSLON® SX (LA CN5M-FBGB-24-1) LED Package
- Osram OSTAR® Projection Compact (KW CSLNM1.TG-8M7N-ebvF46fcbB46-15B5) LED Package
- Osram OSLON® SSL 120 (GD CSSPM1.14-UOVJ-W4-1) LED Package
- Osram OSLON® Square (GD CSSRM2.14-ARAT-24-1) LED Package
- Osram OSLON® LX ECE (LUW CVBP.CE-5L8L-GMKM-8E8G) LED Package
- Osram OSLON® SSL 80 (GW CS8PM1.PM-LSLU-XX53-1-350-R18) LED Package
- Osram OSLON® Signal (LUW CRBP-LXLZ-G4J4-1-350-R18-Z) LED Package
- Osram OSLON® Square (LUW CQAR-MUNQ-HPJR-1) LED Package
- Osram OSLON® SSL 150 (GW CSHPM1.PM-LSLU-XX53-1) LED Package
- Osram OSLON® SSL 80 (GA CS8PM1.23-KQKS-W3-0) LED Package
- Osram OSLON® SSL 120 (GA CSSPM1.23-KSKU-W3-0) LED Package
- Osram OSLON® Square (GD CSSRM2.14-ARAT-24-1) LED Package
- Osram OSLON® Square (GW CSSRM3.PM-N5N7-XX51-1-700-R18) LED Package
- Osram OSLON® Signal (LB CRBP-HXJX-46-8E8G) LED Package
- Osram OSLON® Signal (LJ CKBP-JZKZ-25-1) LED Package
- Osram OSLON® SSL 150 (LUW CRDP-LRLT-HPJR-1) LED Package

b. Infringement of the '053 Patent

205. On information and belief, the OSRAM Respondents import, sell for importation, and/or sell after importation into the United States certain OSRAM Accused Products that infringe the '053 Patent.

206. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent, in violation of 35 U.S.C. § 271(a). The OSRAM Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent at the time of importation into the United States.

207. Moreover, on information and belief, one or more of the OSRAM Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the OSRAM Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the OSRAM Respondents sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the OSRAM Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

208. A claim chart comparing claims 7, 11, 13-15, 22, 26, and 28-30 of the '053 Patent to a representative Accused Product, the Osram OSTAR® Stage (LE RTDCY S2WN) LED Package, is attached here as Confidential Exhibit 43C. The Osram OSTAR® Stage (LE RTDCY S2WN) LED Package is also submitted with this Complaint as Physical Exhibit P5.

209. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute OSRAM Accused Products that infringe the '053 Patent for the reasons set forth above:

- Osram OSLON® SX (LA CN5M-FBGB-24-1)
- Osram OSTAR® Projection Compact (KW CSLNM1.TG-8M7N-ebvF46fcbB46-15B5)
- Osram OSLON® SSL 120 (GD CSSPM1.14-UOVJ-W4-1)
- Osram OSLON® Square (GD CSSRM2.14-ARAT-24-1)
- Osram OSLON® LX ECE (LUW CVBP.CE-5L8L-GMKM-8E8G)
- Osram OSLON® SSL 80 (GW CS8PM1.PM-LSLU-XX53-1-350-R18)
- Osram OSLON® Signal (LUW CRBP-LXLZ-G4J4-1-350-R18-Z)
- Osram OSLON® Square (LUW CQAR-MUNQ-HPJR-1)
- Osram OSLON® SSL 150 (GW CSHPM1.PM-LSLU-XX53-1)
- Osram OSLON® SSL 80 (GA CS8PM1.23-KQKS-W3-0)
- Osram OSLON® SSL 120 (GA CSSPM1.23-KSKU-W3-0)
- Osram OSLON® Square (GD CSSRM2.14-ARAT-24-1)
- Osram OSLON® Square (GW CSSRM3.PM-N5N7-XX51-1-700-R18)
- Osram OSLON® Signal (LB CRBP-HXJX-46-8E8G)
- Osram OSLON® Signal (LJ CKBP-JZKZ-25-1)
- Osram OSLON® SSL 150 (LUW CRDP-LRLT-HPJR-1)

c. Infringement of the '421 Patent

210. On information and belief, the OSRAM Respondents import, sell for importation, and/or sell after importation into the United States certain OSRAM Accused Products that infringe the '421 Patent.

211. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. §271(a). The OSRAM Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

212. Moreover, on information and belief, one or more of the OSRAM Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. §

271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the OSRAM Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the OSRAM Respondents sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the OSRAM Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

213. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Osram Accused Product, the Osram OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1) LED Package is attached here as Confidential Exhibit 44C. The Osram OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1) LED Package is also submitted with this Complaint as Physical Exhibit P6.

214. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute OSRAM Accused Products that infringe the '421 Patent for the reasons set forth above:

- Osram OSLON® Black (LUW H9GP-KYLY-4C8E-1-350-R18-Z) LED Package
- Osram OSLON® Black Flat (LUW HWQP-8M7N-EBVF46FCBB46-8E8H) LED Package
- Osram DURIS® S 5 (GW PSLR31.EM-LR-XX51-1-150-R18) LED Package
- Osram SYNIOS E4014 (KW DPLS31.SB-5H5J-E5P7-EG-1-120-R18) LED Package
- Osram OSLON® Black Flat (LA H9PP-JXKX-24-1) LED Package
- Osram OSLON® Black (SFH 4713A) LED Package

D. Lumileds Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

215. On information and belief, the Lumileds Respondents import, sell for importation, offer to sell for importation, and/or sell after importation into the United States certain Accused Products (the "Lumileds Accused Products") that infringe the '483 Patent.

216. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 14-16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The Lumileds Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The Lumileds Accused Products satisfy all claim limitations of claims 11 and 14-16 of the '483 Patent at the time of importation into the United States.

217. Moreover, on information and belief, one or more of the Lumileds Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Lumileds Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Lumileds Respondents sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Lumileds Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement

of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.

218. A claim chart comparing claims 11 and 14-16 of the '483 Patent to a representative Lumileds Accused Product, the Lumileds LUXEON C Color (L1C1-5790000000000) LED Package, is attached here as Confidential Exhibit 45C. The Lumileds LUXEON C Color (L1C1-5790000000000) LED Package is also submitted with this Complaint as Physical Exhibit P7.

219. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following products also constitute Lumileds Accused Products that infringe the '483 Patent for the reasons set forth above:

- Lumileds LUXEON Rebel (LXMA-PL02-0100) LED Package
- Lumileds LUXEON F ES (LFXH-C2B-0200) LED Package
- Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package
- Lumileds LUXEON Rebel (LXML-PWC1-0100) LED Package
- Lumileds LUXEON CZ Color (L1CU-5070000000000) LED Package
- Lumileds LUXEON V2 (L1V2-5770000000000) LED Package
- Lumileds LUXEON Rebel PLUS (LX18-P150-3) LED Package
- Lumileds LUXEON Rebel ES (LXML-PWC2) LED Package
- Lumileds LUXEON V (L1V1-407003V500000) LED Package
- Lumileds LUXEON MX (L1MX-407012V500000) LED Package
- Lumileds LUXEON M (LXR7-SW40) LED Package
- Lumileds Z ES (LXZ2-3580-3) LED Package
- Lumileds LUXEON MZ (LMZ7-RW65) LED Package
- Lumileds LUXEON TX (L1T2-3070000000000) LED Package
- Lumileds LUXEON IR Domed (L1I0-0940060000000) LED Package
- Lumileds LUXEON MX (L1MX-407012V500000) LED Package
- Lumileds LUXEON TX (L1T2-5080000000000) LED Package
- Lumileds LUXEON V (L1V1-657003V500000) LED Package
- Lumileds LUXEON V2 (L1V2-6570000000000) LED Package
- Lumileds LUXEON F PC Amber (LFMH-L1A-0070) LED Package
- Lumileds LUXEON MZ (LMZ7-RW40) LED Package
- Lumileds LUXEON Rebel PLUS (LX18-P127-3) LED Package
- Lumileds LUXEON R (LXA7-PW50) LED Package
- Lumileds LUXEON Rebel, White & PC Amber (LXMA-PW01-0120) LED Package
- Lumileds LUXEON Rebel (LXML-PWC1-0120) LED Package
- Lumileds LUXEON Rebel ES (LXML-PWN2) LED Package
- Lumileds LUXEON M (LXR7-SW30) LED Package

- Lumileds LUXEON Z ES (LXZ2-4070) LED Package

b. Infringement of the '053 Patent

220. On information and belief, the Lumileds Respondents import, sell for importation, and/or sell after importation into the United States certain Lumileds Accused Products that infringe the '053 Patent.

221. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11-5, 7, 11-14, 16-20, 22, and 26-29 of the '053 Patent, in violation of 35 U.S.C. § 271(a). The Lumileds Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Lumileds Accused Products. The Lumileds Accused Products satisfy all claim limitations of claims 1-5, 7, 11-14, 16-20, 22, and 26-29 of the '053 Patent at the time of importation into the United States.

222. Moreover, on information and belief, one or more of the Lumileds Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Lumileds Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Lumileds Respondents sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Lumileds Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement

of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.

223. A claim chart comparing claims 1-5, 7, 11-14, 16-20, 22, and 26-29 of the '053 Patent to a representative Lumileds Accused Product, the Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package, is attached here as Confidential Exhibit 46C. The Lumileds LUXEON IR Domed (L1I0-0850060000000) LED Package is also submitted with this Complaint as Physical Exhibit P8.

224. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Lumileds Accused Products that infringe the '053 Patent for the reasons set forth above:

- Lumileds LUXEON® Rebel LEDs (LXMA-PL02-0100)
- Lumileds LUXEON® H50-2 (LXAC-1827)
- Lumileds LUXEON F ES (LFXH-C2B-0200)
- Lumileds LUXEON Rebel (LXML-PWC1-0100)
- Lumileds LUXEON CZ Color (L1CU-5070000000000)
- Lumileds LUXEON V2 (L1V2-5770000000000)
- Lumileds LUXEON C Color (L1C1-5790000000000)
- Lumileds LUXEON Rebel PLUS (LX18-P150-3)
- Lumileds LUXEON Rebel ES (LXML-PWC2)
- Lumileds LUXEON V (L1V1-407003V500000)
- Lumileds LUXEON MX (L1MX-407012V500000)
- Lumileds LUXEON M (LXR7-SW40)
- Lumileds Z ES (LXZ2-3580-3)
- Lumileds LUXEON MZ (LMZ7-RW65)
- Lumileds LUXEON TX (L1T2-3070000000000)
- Lumileds LUXEON C Color Line (L1C1-FRD1000000000)
- Lumileds LUXEON IR Domed (L1I0-0940060000000)
- Lumileds LUXEON MX (L1MX-407012V500000)
- Lumileds LUXEON TX (L1T2-5080000000000)
- Lumileds LUXEON V (L1V1-657003V500000)
- Lumileds LUXEON V2 (L1V2-6570000000000)
- Lumileds LUXEON F PC Amber (LFMH-L1A-0070)
- Lumileds LUXEON MZ (LMZ7-RW40)
- Lumileds LUXEON Rebel PLUS (LX18-P127-3)
- Lumileds LUXEON R (LXA7-PW50)
- Lumileds LUXEON H50-2 (LXAC-1827)

- Lumileds LUXEON Rebel Color Line (LXM3-PD01)
- Lumileds LUXEON Rebel, White & PC Amber (LXMA-PW01-0120)
- Lumileds LUXEON Rebel (LXML-PWC1-0120)
- Lumileds LUXEON Rebel ES (LXML-PWN2)
- Lumileds LUXEON M (LXR7-SW30)
- Lumileds LUXEON Z ES (LXZ2-4070)

c. Infringement of the '421 Patent

225. On information and belief, the Lumileds Respondents import, sell for importation, and/or sell after importation into the United States certain Lumileds Accused Products that infringe the '421 Patent.

226. The Lumileds Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). The Lumileds Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Lumileds Accused Products. The Lumileds Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

227. Moreover, on information and belief, one or more of the Lumileds Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Lumileds Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Lumileds Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Lumileds Respondents sells the Lumileds Accused Products or otherwise provides the Lumileds Accused Products to distributors knowing that these distributors intend to import and/or sell the Lumileds Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Lumileds Respondents have

had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Lumileds Accused Products.

228. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Accused Product, the Lumileds LUXEON 3535L (MXA8-PW50-0000) LED Package, is attached here as Confidential Exhibit 47C. The Lumileds LUXEON 3535L (MXA8-PW50-0000) LED Package is also submitted with this Complaint as Physical Exhibit P9.

229. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Lumileds Accused Products that infringe the '421 Patent for the reasons set forth above:

- Lumileds LUXEON SunPlus 2835 (L1SP-PNK1002800000)

E. Signify Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

230. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products, including products sold under the Philips brand name (the "Signify Accused Products") that infringe the '483 Patent.

231. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 14-16 of the '483 Patent, in violation of 35 U.S.C. §271(a). The Signify Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claims 11 and 14-16 of the '483 Patent at the time of importation into the United States.

232. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

233. A claim chart comparing claims 11 and 14-16 of the '483 Patent to a representative Signify Accused Product, the Philips LUMEC Roadfocus LED Luminaire (RF1739601/1), is attached here as Confidential Exhibit 48C.

b. Infringement of the '053 Patent

234. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '053 Patent, including products sold under the Philips brand name.

235. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 14, 22, 26, and 29 of the '053 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products.

The Signify Accused Products satisfy all claim limitations of claims 7, 11, 14, 22, 26, and 29 of the '053 Patent at the time of importation into the United States.

236. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

237. A claim chart comparing claims 7, 11, 14, 22, 26, and 29 of the '053 Patent to a Signify Accused Product, the Philips LUMEC Roadfocus LED Luminaire (RF1739601/1), is attached here as Confidential Exhibit 49C.

c. Infringement of the '421 Patent

238. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '421 Patent, including products sold under the Philips brand name.

239. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6-7, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least these claims by importing, selling for

importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claims 1-2, 6-7, and 10 of the '421 Patent at the time of importation into the United States.

240. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

241. A claim chart comparing claims 1-2, 6-7, and 10 of the '421 Patent to a representative Accused Product, the Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulb (9290011369B), is attached here as Confidential Exhibit 50C. The Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulb (9290011369B) is also submitted with this Complaint as Physical Exhibit P10.

242. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Signify Accused Products that infringe the '421 Patent for the reasons set forth above:

- Philips Hue White and Color 10W (60W Equivalent) A19 Smart LED Light Bulb (9290012575A)
- Philips 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (9290011350A)
- Philips 4.5W (40W Replacement) Dimmable B11 and E12 LED Light Bulb (Soft White) (9290012137C)
- Philips 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290011351A)
- Philips 6W (50W Replacement) MR16 and GU10 LED Light Bulb (9290012664)
- Philips 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (9290011350A)
- Philips 8W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290011352A)
- Philips 11W (65W Replacement) Dimmable BR30 LED Light Bulb (Soft White) (9290013916)
- Philips Dusk to Dawn 8W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (9290012615)
- Philips 9W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (9290018365A)
- Philips 9.5W (75W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290012194)
- Philips 8W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (9290011352A)
- Philips 4.5W (40W Replacement) Dimmable B11 LED Light Bulb (Soft White) (9290012137)
- Philips 14.5W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (9290011349A)
- Philips 5W (40W Replacement) Non-Dimmable A19 LED Light Bulb (9290012037)
- Philips 10W (60W Replacement) Dimmable G25 LED Light Bulb (Soft White) (9290011898)
- Philips 3-Way 5/8/18W (40/60/100W Replacement) A21 LED Light Bulb (9290011742)
- Philips 7W (40W Replacement) Dimmable G25 LED Light Bulb (Soft White) (9290011817)
- Philips 9W (65W Replacement) Dimmable BR30 LED Light Bulb (Soft White) (9290011555)
- Philips Hue 9.4W (72W Equivalent) 4" Retrofit Recessed LED Downlight (Cool White) (59950/11/U5)
- Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49 (PC: 800144))
- Philips 11W (65W Equivalent) LED 5" or 6" Recessed Retrofit Trim (Soft White) (59234/31/U0)

d. Infringement of the '118 Patent

243. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '118 Patent, including products sold under the Philips brand name.

244. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 15, and 17 of the '118 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claims 1, 15, and 17 of the '118 Patent at the time of importation into the United States.

245. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '118 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

246. A claim chart comparing claim 1 of the '118 Patent to a Signify Accused Product, Philips 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight)

(9290011351A), is attached here as Confidential Exhibit 51C. The Philips Hue White 9.5W (60W Equivalent) Dimmable A19 Smart LED Light Bulb (9290011369B) is also submitted with this Complaint as Physical Exhibit P11.

247. Additionally, a claim chart comparing claims 15 and 17 of the '118 Patent to a Signify Accused Product, the Philips LUMEC Roadfocus LED Luminaire (RF1739601/1), is attached here as Confidential Exhibit 52C.

e. Infringement of the '608 Patent

248. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '608 Patent, including products sold under the Philips brand name.

249. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

250. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products

or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

251. A claim chart comparing claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent to a Signify Accused Product, the Philips Hue System (as defined in Complainants' claim chart), is attached here as Confidential Exhibit 53C. Certain products designed and sold to be used in conjunction with the Philips Hue System, which are charted in Complainants' claim chart, are also submitted with this Complaint as Physical Exhibits P10 and P12-P15.

f. Infringement of the '968 Patent

252. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '968 Patent, including products sold under the Philips brand name.

253. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 6 of the '968 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least this claim by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claim 6 of the '968 Patent at the time of importation into the United States.

254. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '968 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On

information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

255. A claim chart comparing claim 6 of the '968 Patent to a Signify Accused Product, the Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49), is attached here as Confidential Exhibit 54C. The Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49) is also submitted with this Complaint as Physical Exhibit P16.

g. Infringement of the '844 Patent

256. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '844 Patent, including products sold under the Philips brand name.

257. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 4 of the '844 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least this claim by importing, selling for importation, and/or selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claim 4 of the '844 Patent at the time of importation into the United States.

258. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '844 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

259. A claim chart comparing claim 4 of the '844 Patent to a Signify Accused Product, the Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49 (PC: 800144)), is attached here as Confidential Exhibit 55C. The Philips 13W (75W Equivalent) LED Downlight 4", 5", or 6" Surface Mounted Fixture (Soft White) (51111/31/49) is also submitted with this Complaint as Physical Exhibit P16.

h. Infringement of the '518 Patent

260. On information and belief, the Signify Respondents import, sell for importation, and/or sell after importation into the United States certain Signify Accused Products that infringe the '518 Patent, including products sold under the Philips brand name.

261. The Signify Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 9 of the '518 Patent, in violation of 35 U.S.C. § 271(a). The Signify Respondents directly infringe at least this claim by importing, selling for importation, and/or

selling after importation into the United States the Signify Accused Products. The Signify Accused Products satisfy all claim limitations of claim 9 of the '518 Patent at the time of importation into the United States.

262. Moreover, on information and belief, one or more of the Signify Respondents knowingly and intentionally induces infringement of the '518 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Signify Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Signify Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Signify Respondents sells the Signify Accused Products or otherwise provides the Signify Accused Products to distributors knowing that these distributors intend to import and/or sell the Signify Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Signify Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Signify Accused Products.

263. A claim chart comparing claim 9 of the '518 Patent to a Signify Accused Product, the Philips 11W (65W Equivalent) LED 5" or 6" Recessed Retrofit Trim (Soft White) (59234/31/U0), is attached here as Confidential Exhibit 56C. The Philips 11W (65W Equivalent) LED 5" or 6" Recessed Retrofit Trim (Soft White) (59234/31/U0) is also submitted with this Complaint as Physical Exhibit P17.

F. MLS Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

264. On information and belief, the MLS Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products, including LEDVANCE, LLC products and certain products sold under the Sylvania and Osram brand names (the "MLS Accused Products") that infringe the '483 Patent.

265. The MLS Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11, 14, and 16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The MLS Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the MLS Accused Products. The MLS Accused Products satisfy all claim limitations of claims 11, 14, and 16 of the '483 Patent at the time of importation into the United States.

266. Moreover, on information and belief, one or more of the MLS Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import MLS Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the MLS Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the MLS Respondents sells the MLS Accused Products or otherwise provides the MLS Accused Products to distributors knowing that these distributors intend to import and/or sell the MLS Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the MLS Respondents have had knowledge of,

or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the MLS Accused Products.

267. A claim chart comparing claims 11, 14, and 16 of the '483 Patent to an MLS Accused Product, the Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5-SV-D), is attached here as Confidential Exhibit 57C. The Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5-SV-D) is also submitted with this Complaint as Physical Exhibit P18.

268. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute MLS Accused Products that infringe the '483 Patent for the reasons set forth above:

- Sylvania Smart+ ZigBee Adjustable White and Full Color 10W (60W Equivalent) A19 LED Light Bulb (73693)

b. Infringement of the '053 Patent

269. On information and belief, the MLS Respondents import, sell for importation, and/or sell after importation into the United States certain MLS Accused Products, which include LEDVANCE, LLC products and certain products sold under the Sylvania and Osram brand names, that infringe the '053 Patent.

270. The MLS Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 14, 22, 26, and 29 of the '053 Patent, in violation of 35 U.S.C. §271(a). The MLS Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the MLS Accused Products. The MLS Accused Products satisfy all claim limitations of claims 7, 11, 14, 22, 26, and 29 of the '053 Patent at the time of importation into the United States.

271. Moreover, on information and belief, one or more of the MLS Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. §

271(b) by actively encouraging others to offer to sell, sell, use, and/or import MLS Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the MLS Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the MLS Respondents sells the MLS Accused Products or otherwise provides the MLS Accused Products to distributors knowing that these distributors intend to import and/or sell the MLS Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the MLS Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the MLS Accused Products.

272. A claim chart comparing claims 7, 11, 14, 22, 26, and 29 of the '053 Patent to a representative MLS Accused Product, the Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5/SV/D), is attached here as Confidential Exhibit 58C. The Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5-SV-D) is also submitted with this Complaint as Physical Exhibit P18.

273. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute MLS Accused Products that infringe the '053 Patent for the reasons set forth above:

- Sylvania Smart+ ZigBee Adjustable White and Full Color 10W (60W Equivalent) A19 LED Light Bulb (73693)

c. Infringement of the '421 Patent

274. On information and belief, the MLS Respondents import, sell for importation, and/or sell after importation into the United States certain MLS Accused Products that infringe the '421 Patent, including LEDVANCE, LLC products and certain products sold under the Sylvania and Osram brand names.

275. The MLS Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2 and 6-7, 10 of the '421 Patent, in violation of 35 U.S.C. §271(a). The MLS Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the MLS Accused Products. The MLS Accused Products satisfy all claim limitations of claims 1-2 and 6-7, 10 of the '421 Patent at the time of importation into the United States.

276. Moreover, on information and belief, one or more of the MLS Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import MLS Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the MLS Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the MLS Respondents sells the MLS Accused Products or otherwise provides the MLS Accused Products to distributors knowing that these distributors intend to import and/or sell the MLS Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the MLS Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the MLS Accused Products.

277. A claim chart comparing claims 1-2 and 6-7, 10 of the '421 Patent to a representative MLS Accused Product, the Sylvania 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (LED8.5A19/F/850/10YV/RP2NJ), is attached here as Confidential Exhibit 59C. The Sylvania 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (LED8.5A19/F/850/10YV/RP2NJ) is also submitted with this Complaint as Physical Exhibit P19.

278. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute MLS Accused Products that infringe the '421 Patent for the reasons set forth above:

- Sylvania SMART+ Bluetooth 10W (65W Equivalent) Full Color A19 LED Light Bulb (74484)
- Sylvania 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (LED14A19/F/827/10YV/RP4/1K)
- Sylvania 9W (60W Replacement) Dimmable A19 LED Light Bulb (Bright White) (LED9A19/DIM/0/835/U/RP4/XX)
- Sylvania 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (LED14A19/F/850/10YV/RP4/1K)
- Sylvania 9W (65W Replacement) Dimmable BR30 LED Light Bulb (Daylight) (LED9BR30/DIM/850/10YV/RP2)
- Sylvania 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (LED8.5A19/F/827/10YV/RP2/NJ)
- Sylvania 13W (85W Replacement) Dimmable BR40 Flood LED Light Bulb (Soft White) (LED13BR40/DIM/827/10YV/B2/ZS)
- Sylvania 6W (50W Replacement) Non-Dimmable PAR20 Flood LED Light Bulb (LED6PAR20/830/FL45/10YV/RP2)
- Sylvania 14W (100W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (79292LED14/A19/F/827/10YV/RP)
- Sylvania Ultra 6W (40W Replacement) Dimmable A19 LED Light Bulb (Daylight) (LED6A19/DIM/0/850/G5/3F)
- Sylvania Smart+ Bluetooth 10W (65W Equivalent) BR30 LED Light Bulb (74988)
- Sylvania Smart+ ZigBee Adjustable White and Full Color 10W (60W Equivalent) A19 LED Light Bulb (73693)
- Sylvania 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (LED/8.5A19/F/827/10YV/RP24)

d. Infringement of the '118 Patent

279. On information and belief, the MLS Respondents import, sell for importation, and/or sell after importation into the United States certain MLS Accused Products, which include LEDVANCE, LLC products and certain products sold under the Sylvania and Osram brand names, that infringe the '118 Patent.

280. The MLS Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 5, 10, 12, 14-15, and 17-18 of the '118 Patent, in violation of 35

U.S.C. § 271(a). The MLS Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the MLS Accused Products. The MLS Accused Products satisfy all claim limitations of claims 1, 2, 5, 10, 12, 14-15, and 17-18 of the '118 Patent at the time of importation into the United States.

281. Moreover, on information and belief, one or more of the MLS Respondents knowingly and intentionally induces infringement of the '118 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import MLS Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the MLS Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the MLS Respondents sells the MLS Accused Products or otherwise provides the MLS Accused Products to distributors knowing that these distributors intend to import and/or sell the MLS Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the MLS Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the MLS Accused Products.

282. A claim chart comparing claims 1, 2, 5, 10, 12, 14-15, and 17-18 of the '118 Patent to a representative MLS Accused Product, the Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5/SV/D), is attached here as Confidential Exhibit 60C. The Sylvania LEDVANCE Garage LED Luminaire (GARAG1A/055UNVD740/G5/SV/D) is also submitted with this Complaint as Physical Exhibit P18.

e. Infringement of the '608 Patent

283. On information and belief, the MLS Respondents import, sell for importation, and/or sell after importation into the United States certain MLS Accused Products, which include

LEDVANCE, LLC products and certain products sold under the Sylvania and Osram brand names, that infringe the '608 Patent.

284. The MLS Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 20-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. § 271(a). The MLS Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the MLS Accused Products. The MLS Accused Products satisfy all claim limitations of claims 20-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

285. Moreover, on information and belief, one or more of the MLS Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import MLS Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the MLS Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the MLS Respondents sells the MLS Accused Products or otherwise provides the MLS Accused Products to distributors knowing that these distributors intend to import and/or sell the MLS Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the MLS Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the MLS Accused Products.

286. A claim chart comparing claims 20-22, 24, 28, and 37 of the '608 Patent to a representative MLS Accused Product, the Sylvania Smart+ System, as defined in the corresponding claim chart, which is attached here as Exhibit 61C. Certain products designed and

sold to be used in conjunction with the Sylvania Smart+ System, which are charted in Complainants' claim chart, are also submitted with this Complaint as Physical Exhibits P20-P25.

G. GE Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

287. On information and belief, the GE Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products (the "GE Accused Products") that infringe the '483 Patent.

288. The GE Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The GE Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the GE Accused Products. The GE Accused Products satisfy all claim limitations of claims 11 and 16 of the '483 Patent at the time of importation into the United States.

289. Moreover, on information and belief, one or more of the GE Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import GE Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the GE Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the GE Respondents sells the GE Accused Products or otherwise provides the GE Accused Products to distributors knowing that these distributors intend to import and/or sell the GE Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the GE Respondents have had knowledge of, or have been

willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the GE Accused Products.

290. A claim chart comparing claims 11 and 16 of the '483 Patent to a representative GE Accused Product, the GE Infusion™ LED Module (M1000/830/W/N), is attached here as Confidential Exhibit 62C. The GE Infusion™ LED Module (M1000/830/W/N) is also submitted with this Complaint as Physical Exhibit P26.

291. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute GE Accused Products that infringe the '483 Patent for the reasons set forth above:

- GE Infusion™ LED Module (M1000/827/W/G4)
- GE Infusion™ LED Module (M1000/830/W/G4)

b. Infringement of the '053 Patent

292. On information and belief, the GE Respondents import, sell for importation, and/or sell after importation into the United States certain GE Accused Products that infringe the '053 Patent.

293. The GE Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 13-14, 22, 26, and 28-29 of the '053 Patent, in violation of 35 U.S.C. § 271(a). The GE Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the GE Accused Products. The GE Accused Products satisfy all claim limitations of claims 7, 11, 13-14, 22, 26, and 28-29 of the '053 Patent at the time of importation into the United States.

294. Moreover, on information and belief, one or more of the GE Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import GE Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information

and belief, with knowledge and intent, or with willful blindness, one or more of the GE Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the GE Respondents sells the GE Accused Products or otherwise provides the GE Accused Products to distributors knowing that these distributors intend to import and/or sell the GE Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the GE Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the GE Accused Products.

295. A claim chart comparing claims 7, 11, 13-14, 22, 26, and 28-29 of the '053 Patent to a representative GE Accused Product, the GE Infusion™ LED Module (M1000/830/W/N), is attached here as Confidential Exhibit 63C. The GE Infusion™ LED Module (M1000/830/W/N) is also submitted with this Complaint as Physical Exhibit P26.

296. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute GE Accused Products that infringe the '053 Patent for the reasons set forth above:

- GE Infusion™ LED Module (M1000/827/W/G4)
- GE Infusion™ LED Module (M1000/830/W/G4)

c. Infringement of the '421 Patent

297. On information and belief, the GE Respondents import, sell for importation, and/or sell after importation into the United States certain GE Accused Products that infringe the '421 Patent.

298. The GE Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6-7, and 10 of the '421 Patent, in violation of 35 U.S.C. §271(a). The GE Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the GE Accused Products. The GE Accused

Products satisfy all claim limitations of claims 1-2, 6-7, and 10 of the '421 Patent at the time of importation into the United States.

299. Moreover, on information and belief, one or more of the GE Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import GE Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the GE Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the GE Respondents sells the GE Accused Products or otherwise provides the GE Accused Products to distributors knowing that these distributors intend to import and/or sell the GE Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the GE Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the GE Accused Products.

300. A claim chart comparing claims 1-2, 6-7, and 10 of the '421 Patent to a representative Accused Product, the GE Refresh 10.5W (60W Replacement) Dimmable A19 HD LED Light Bulb (Daylight) (28003), is attached here as Confidential Exhibit 64C. The GE Refresh 10.5W (60W Replacement) Dimmable A19 HD LED Light Bulb (Daylight) (28003) is also submitted with this Complaint as Physical Exhibit P27.

301. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute GE Accused Products that infringe the '421 Patent for the reasons set forth above:

- GE C-Sleep™ 11W Dimmable A19 Smart LED Light Bulb (LED11DA19/CSLP 2000-7000K)

- GE 9W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (92879)
- GE Refresh 10.5W (60W Replacement) Dimmable A19 HD LED Light Bulb (Daylight) (28003)
- GE 6W (40W Replacement) Dimmable A19 LED Light Bulb (Soft White) (67607)
- GE Bright Stik™ 15W (100W Replacement) Non-Dimmable LED Light Bulb (Soft White) (63857)
- GE Relax 8W (65W Replacement) Dimmable BR30 HD LED Light Bulb (Soft White) (43073)
- GE 10W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (32943)
- GE 4W (40W Replacement) Dimmable A15 LED Light Bulb (Daylight) (36776)
- GE 10W (65W Replacement) Dimmable BR30 LED Light Bulb (Soft White) (41308)
- GE 13W (85W Replacement) Dimmable BR40 Flood LED Light Bulb (Soft White) (92171)
- GE Classic 15W (100W Replacement) Dimmable A21 LED Light Bulb (Daylight) (33076)
- GE Basic 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Daylight) (46244)
- GE Basic 8.5W (60W Replacement) Non-Dimmable A19 LED Light Bulb (Soft White) (46241)
- GE Relax 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (44930)
- GE Basic 20W (150W Replacement) Non-Dimmable A21 LED Light Bulb (Soft White) (46245)
- GE Classic 10W (60W Replacement) Dimmable A21 LED Light Bulb (Daylight) (44781)
- GE Refresh 17W (100W Replacement) Dimmable A21 HD LED Light Bulb (Daylight) (46326)
- GE Classic 15W (100W Replacement) Dimmable A21 HD LED Light Bulb (Soft White) (33071)
- GE Classic 8W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (44923)
- GE Refresh 8.5W (60W Replacement) Dimmable A19 LED Light Bulb (Daylight) (44937)
- GE 10W (65W Replacement) Dimmable BR30 Flood LED Light Bulb (Soft White) (40925)
- GE Relax 17W (100W Replacement) Dimmable A21 HD LED Light Bulb (Soft White) (44148)
- GE Reveal® 10.5W (60W Replacement) Dimmable LED Light Bulb (39101)
- C by GE, C-Life 11W A19 Smart LED Light Bulb (44298)
- GE 18W (90W Replacement) Dimmable PAR38 Floodlight LED Light Bulb (Bright White) (89992)

- GE 7W (50W Replacement) Dimmable MR16 Floodlight LED Light Bulb (Bright White) (45639)
- GE 10W (60W Replacement) LED A19 (Warm White) (92492)

d. Infringement of the '118 Patent

302. On information and belief, the GE Respondents import, sell for importation, and/or sell after importation into the United States certain GE Accused Products that infringe the '118 Patent.

303. The GE Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 5, and 15 of the '118 Patent, in violation of 35 U.S.C. §271(a). The GE Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the GE Accused Products. The GE Accused Products satisfy all claim limitations of claims 1, 5, and 15 of the '118 Patent at the time of importation into the United States.

304. Moreover, on information and belief, one or more of the GE Respondents knowingly and intentionally induces infringement of the '118 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import GE Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the GE Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the GE Respondents sells the GE Accused Products or otherwise provides the GE Accused Products to distributors knowing that these distributors intend to import and/or sell the GE Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the GE Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the GE Accused Products.

305. A claim chart comparing claims 1 and 5 of the '118 Patent to a representative GE Accused Product, the GE Relax 8W (65W Replacement) Dimmable BR30 HD LED Light Bulb (Soft White) (43073) is attached here as Confidential Exhibit 65C. The GE Relax 8W (65W Replacement) Dimmable BR30 HD LED Light Bulb (Soft White) (43073) is also submitted with this Complaint as Physical Exhibit P28.

e. Infringement of the '608 Patent

306. On information and belief, the GE Respondents import, sell for importation, and/or sell after importation into the United States certain GE Accused Products that infringe the '608 Patent.

307. The GE Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 6, 12-13, 16, 19, 20-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. § 271(a). The GE Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the GE Accused Products. The GE Accused Products satisfy all claim limitations of claims 1, 2, 6, 12-13, 16, 19, 20-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

308. Moreover, on information and belief, one or more of the GE Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import GE Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the GE Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the GE Respondents sells the GE Accused Products or otherwise provides the GE Accused Products to distributors knowing that these distributors intend to import and/or sell the GE Accused Products in the United States. On information and belief, as of the

filing of this Complaint or earlier, the GE Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the GE Accused Products.

309. A claim chart comparing claims 1, 2, 6, 12-13, 16, 19, 20-22, 24, 28, and 37 of the '608 Patent to a GE Accused Product, the C by GE System, as defined in the corresponding claim chart, which is attached here as Confidential Exhibit 67C. Certain products designed and sold to be used in conjunction with the C by GE System, which are charted in Complainants' claim chart, are also submitted with this Complaint as Physical Exhibits P29-P30.

2. False and Misleading Advertising

310. GE Respondents advertise their products, including at least the GE 11W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (25037) ("GE 25037 LED A19 Bulb") and the GE 10W (60W Replacement) Dimmable A19 LED Light Bulb (Soft White) (67591) ("GE 67591 LED A19 Bulb"), as being Energy Star certified by including the Energy Star® logo on their packaging. *See* Ex. 31 (Maxik Energy Star Decl.) ¶¶ 9, 14.

311. LSG tested the GE 25037 LED A19 Bulb for compliance with Sections 9.2 and 9.6 of the ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Version 2.1[87] at its facility in Cocoa Beach, Florida. *Id.* ¶¶ 2, 8. Even though the bulb's packaging displays the Energy Star® logo, it failed to meet the requirements of either Section 9.2 or 9.6 of the ENERGY STAR® Program Requirements. *Id.* ¶¶ 9-11.

312. Ten of the fourteen tested bulbs emitted less than the 800 lumens of light required by Section 9.2 for a 60-watt equivalent bulb, and the average light level was below the 800-lumen

[87] Ex. 31 (Maxik Energy Star Decl., Ex. A ("ENERGY STAR® Program Requirements for Lamps (Light Bulbs), Eligibility Criteria, Version 2.1").

average required by the Specification. *Id.* ¶ 11. Each of these failures independently prevents the GE 25037 LED A19 Bulb from meeting the requirements of Section 9.2.

313. In addition, the GE 25037 LED A19 Bulbs failed to meet Section 9.6's requirement that at least nine out of ten bulbs emit light within the ANSI range corresponding to the advertised color temperature of 2700K. *Id.* ¶ 12. At least three of the fourteen tested bulbs fell outside the ANSI range corresponding to the advertised color temperature. *Id.* Accordingly, the bulbs also fail to meet the correlated color temperature requirements of Section 9.6. *Id.*

314. LSG also tested the GE 67591 LED A19 Bulb for compliance with Section 9.2 of the ENERGY STAR® Program Requirements Product Specification for Lamps (Light Bulbs) Version 2.1 at its facility in Cocoa Beach, Florida. *Id.* ¶¶ 2, 15. Even though the bulb's packaging displays the Energy Star® logo, it failed to meet the requirements of Section 9.2 of the ENERGY STAR® Program Requirements. *Id.* ¶¶ 14, 16.

315. All ten of the tested bulbs emitted less than the 800 lumens of light required by Section 9.2 for a 60-watt equivalent bulb, and the average light level was below the 800-lumen average required by the Specification. *Id.* ¶ 16. Each of these failures independently prevents the GE 67591 LED A19 Bulb from meeting the requirements of Section 9.2.

316. As these failures show, at least GE Respondents' GE 25037 LED A19 Bulbs and GE 67591 LED A19 Bulbs mislead consumers because the bulbs will be dimmer than advertised and will emit a different color of light than advertised. GE Respondents' GE 25037 LED A19 and GE 67591 LED A19 Bulbs will thus fail to meet the expectations of consumers who have grown to rely on the Energy Star® logo as a signal of reliability and quality.[88]

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[88] The specific falsely advertised GE products identified in this Complaint are exemplary, and not limiting. Complainants anticipate that discovery will establish the full scope of GE Respondents' false advertising with respect to the Energy Star certification of their products.

317. GE Respondents misrepresent the characteristics and qualities of their LED bulbs at least by falsely and misleadingly advertising them as Energy Star compliant in violation of Section 43(a) of the Lanham Act, 15 U.S.C. § 1125(a), and the federal common law of unfair competition. As further detailed in Section XII, GE Respondents are direct competitors of Complainants. GE Respondents' false advertising misleads consumers into purchasing products that do not perform as advertised and misleads utility companies into providing subsidies to GE's non-compliant products. As a result, Complainants have and will continue to suffer substantial injury to Complainants' domestic industry, including, without limitation, due to actual or potential (1) diminishment or tarnishing of the Energy Star brand and certification, and thus, by implication, the quality and reliability of Complainants' Energy Star certified products, (2) lost sales, (3) lost profitability, (4) reduced domestic employment, and (5) lost market share.

H. Acuity Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

318. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products, including products sold under the Lithonia Lighting brand name (the "Acuity Accused Products") that infringe the '483 Patent.

319. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 14-16 of the '483 Patent, in violation of 35 U.S.C. § 271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claims 11 and 14-16 of the '483 Patent at the time of importation into the United States.

320. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

321. A claim chart comparing claims 11 and 14-16 of the '483 Patent to an Acuity Accused Product, the Lithonia Lighting D-Series LED Area Luminaire (DSX2 LED P6 40K T5M 480 SPA PER7 PIRH DNAXD), is attached here as Confidential Exhibit 68C.

322. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Acuity Accused Products that infringe the '483 Patent for the reasons set forth above:

- Lithonia Lighting LED Wall Mount Area Light (OLAW23 53K 120 PE BZ M2)

b. Infringement of the '053 Patent

323. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '053 Patent, including products sold under the Lithonia Lighting brand name.

324. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent, in violation of 35 U.S.C. §271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claims 1-2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent at the time of importation into the United States.

325. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

326. A claim chart comparing claims 1-2, 4-5, 7, 11-12, 14, 16-17, 19-20, 22, 26-27, and 29 of the '053 Patent to an Acuity Accused Product, the Lithonia Lighting D-Series LED Area Luminaire (DSX2 LED P6 40K T5M 480 SPA PER7 PIRH DNAXD), is attached here as Confidential Exhibit 69C.

327. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Acuity Accused Products that infringe the '053 Patent for the reasons set forth above:

- Lithonia Lighting LED Wall Mount Area Light (OLAW23 53K 120 PE BZ M2)

c. Infringement of the '421 Patent

328. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '421 Patent, including products sold under the Lithonia Lighting brand name.

329. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. §271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

330. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge

of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

331. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Accused Product, the Lithonia Lighting Versi Lite™ LED Flush Mount (FMML 7 830 M6), is attached here as Confidential Exhibit 70C. The Lithonia Lighting Versi Lite™ LED Flush Mount (FMML 7 830 M6) is also submitted with this Complaint as Physical Exhibit P31.

332. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Acuity Accused Products that infringe the '421 Patent for the reasons set forth above:

- Lithonia Lighting 12" Square Flush Mount LED Ceiling Light (FMLSDL 12 14840 M4)
- Lithonia Lighting 14" Round Flush Mount LED Ceiling Light (FMLRDL 14 21840 M4)
- Lithonia Lighting 7" LED Closet Light with Motion Sensor (FMMCL 840 PIR M4)
- Lithonia Lighting 6" White Recessed Ultra-Thin Wafer LED Downlight (WF6 LED 30K MW M6)
- Lithonia Lighting Step Baffle Ceiling Light (LTKSTBF BR20 LED 27K DBL M4)
- Lithonia Lighting Mesh Back Flush-Mount LED Track Lighting Kit (LTKMSBK MR16GU10 LED 1R 27K BN M4)

d. Infringement of the '118 Patent

333. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '118 Patent, including products sold under the Lithonia Lighting brand name.

334. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 15 and 17-18 of the '118 Patent, in violation of 35 U.S.C. § 271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products.

The Acuity Accused Products satisfy all claim limitations of claims 15 and 17-18 of the '118 Patent at the time of importation into the United States.

335. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '118 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

336. A claim chart comparing claims 15 and 17-18 of the '118 Patent to an Acuity Accused Product, the Lithonia Lighting D-Series LED Area Luminaire (DSX2 LED P6 40K T5M 480 SPA PER7 PIRH DNAXD), is attached here as Confidential Exhibit 71C.

e. Infringement of the '608 Patent

337. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '608 Patent, including products sold under the Lithonia Lighting brand name.

338. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. §271(a). The Acuity Respondents directly infringe at least these claims by

importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

339. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

340. A claim chart comparing claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent to a representative Acuity Accused Product, the Acuity nLight® AIR System, as defined in the corresponding claim chart, which is attached here as Confidential Exhibit 72C. A product designed and sold to be used in conjunction with the Acuity nLight® AIR System, which are charted in Complainants' claim chart, is also submitted with this Complaint as Physical Exhibit P35.

f. Infringement of the '968 Patent

341. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '968 Patent, including products sold under the Lithonia Lighting brand name.

342. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 6 of the '968 Patent, in violation of 35 U.S.C. § 271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claim 6 of the '968 Patent at the time of importation into the United States.

343. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '968 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

344. A claim chart comparing claim 6 of the '968 Patent to a representative Acuity Accused Product, the Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 27K

MVOLT MW M6), is attached here as Confidential Exhibit 73C. The Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 27K MVOLT MW M6) is also submitted with this Complaint as Physical Exhibit P32.

g. Infringement of the '844 Patent

345. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '844 Patent, including products sold under the Lithonia Lighting brand name.

346. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 4 and 10 of the '844 Patent, in violation of 35 U.S.C. §271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claims 4 and 10 of the '844 Patent at the time of importation into the United States.

347. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '844 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge

of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

348. A claim chart comparing claims 4 and 10 of the '844 Patent to a representative Acuity Accused Product, the Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 30K MW M6), is attached here as Confidential Exhibit 74C. The Lithonia Lighting Wafer LED Recessed Downlight (WF4 LED 30K MW M6) is also submitted with this Complaint as Physical Exhibit P33.

h. Infringement of the '518 Patent

349. On information and belief, the Acuity Respondents import, sell for importation, and/or sell after importation into the United States certain Acuity Accused Products that infringe the '518 Patent, including products sold under the Lithonia Lighting brand name.

350. The Acuity Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 15 of the '518 Patent, in violation of 35 U.S.C. § 271(a). The Acuity Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Acuity Accused Products. The Acuity Accused Products satisfy all claim limitations of claim 15 of the '518 Patent at the time of importation into the United States.

351. Moreover, on information and belief, one or more of the Acuity Respondents knowingly and intentionally induces infringement of the '518 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Acuity Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Acuity Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Acuity Respondents sells the Acuity Accused Products

or otherwise provides the Acuity Accused Products to distributors knowing that these distributors intend to import and/or sell the Acuity Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Acuity Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Acuity Accused Products.

352. A claim chart comparing claim 15 of the '518 Patent to a representative Acuity Accused Product, the Lithonia Lighting E Series 9.8W (65W Equivalent) LED 4" Recessed Downlight (Warm White) (4BEMW LED 27K 90CRI M6), is attached here as Confidential Exhibit 75C. The Lithonia Lighting E Series 9.8W (65W Equivalent) LED 4" Recessed Downlight (Warm White) (4BEMW LED 27K 90CRI M6) is also submitted with this Complaint as Physical Exhibit P34.

I. Eaton Respondents

1. Patent Infringement

a. Infringement of the '483 Patent

353. On information and belief, the Eaton Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products (the "Eaton Accused Products") that infringe the '483 Patent.

354. The Eaton Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 16 of the '483 Patent, in violation of 35 U.S.C. §271(a). The Eaton Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Eaton Accused Products. The Eaton Accused Products satisfy all claim limitations of claims 11 and 16 of the '483 Patent at the time of importation into the United States.

355. Moreover, on information and belief, one or more of the Eaton Respondents knowingly and intentionally induces infringement of the '483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Eaton Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Eaton Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Eaton Respondents sells the Eaton Accused Products or otherwise provides the Eaton Accused Products to distributors knowing that these distributors intend to import and/or sell the Eaton Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Eaton Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Eaton Accused Products.

356. A claim chart comparing claims 11 and 16 of the '483 Patent to an Eaton Accused Product, the Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P) Luminaire, is attached here as Confidential Exhibit 76C. The Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P) Luminaire is also submitted with this Complaint as Physical Exhibit P36.

357. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Eaton Accused Products that infringe the '483 Patent for the reasons set forth above:

- Cooper Lighting HALO® L806 HALO® LED (L806NF8030AH)

b. Infringement of the '053 Patent

358. On information and belief, the Eaton Respondents import, sell for importation, and/or sell after importation into the United States certain Eaton Accused Products that infringe the '053 Patent.

359. The Eaton Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 14, 22, 26, and 29 of the '053 Patent, in violation of 35 U.S.C. §271(a). The Eaton Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Eaton Accused Products. The Eaton Accused Products satisfy all claim limitations of claims 7, 11, 14, 22, 26, and 29 of the '053 Patent at the time of importation into the United States.

360. Moreover, on information and belief, one or more of the Eaton Respondents knowingly and intentionally induces infringement of the '053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Eaton Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Eaton Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Eaton Respondents sells the Eaton Accused Products or otherwise provides the Eaton Accused Products to distributors knowing that these distributors intend to import and/or sell the Eaton Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Eaton Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Eaton Accused Products.

361. A claim chart comparing claims 7, 11, 14, 22, 26, and 29 of the '053 Patent to an Acuity Accused Product, the Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P) Luminaire, is attached here as Confidential Exhibit 77C. The Cooper Lighting HALO® L805LRG Stasis LED (L805LRGSP840P) Luminaire is also submitted with this Complaint as Physical Exhibit P36.

362. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Eaton Accused Products that infringe the '053 Patent for the reasons set forth above:

- Cooper Lighting HALO® L806 HALO® LED (L806NF8030AH)

c. Infringement of the '421 Patent

363. On information and belief, the Eaton Respondents import, sell for importation, and/or sell after importation into the United States certain Eaton Accused Products that infringe the '421 Patent.

364. The Eaton Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, and 10 of the '421 Patent, in violation of 35 U.S.C. §271(a). The Eaton Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Eaton Accused Products. The Eaton Accused Products satisfy all claim limitations of claims 1-2, 6, and 10 of the '421 Patent at the time of importation into the United States.

365. Moreover, on information and belief, one or more of the Eaton Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Eaton Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Eaton Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Eaton Respondents sells the Eaton Accused Products or otherwise provides the Eaton Accused Products to distributors knowing that these distributors intend to import and/or sell the Eaton Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Eaton Respondents have had knowledge of,

or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Eaton Accused Products.

366. A claim chart comparing claims 1-2, 6, and 10 of the '421 Patent to a representative Accused Product, the Eaton HALO® LED Surface Mount Downlight (SLD405930WHR), is attached here as Confidential Exhibit 78C. The Eaton HALO® LED Surface Mount Downlight (SLD405930WHR) is also submitted with this Complaint as Physical Exhibit P37.

367. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Eaton Accused Products that infringe the '421 Patent for the reasons set forth above:

- Eaton HALO® 5"/6" Surface LED Downlight (SLD606930WH)
- Eaton HALO® LED Surface Mount Downlight (SLD405930WHR)
- Eaton All-Pro™ Motion Activated Twin Head LED Floodlight (MSLED600)
- Eaton HALO® 5"/6" All-In-One Bulb & Trim Replacement Recessed LED Downlight (RL560WH6930R)
- Eaton HALO® 5"/6" Retrofit LED (LT560WH6930)
- Eaton HALO® 5"/6" All-In-One Bulb & Trim Replacement Recessed LED Downlight with Selectable Color Temperature (665 Lumen) (RL56069S1EWHR)
- Eaton HALO® 5"/6" All-In-One Bulb & Trim Replacement Recessed LED Downlight with Selectable Color Temperature (940 Lumen) (RL56099S1EWHR)
- Eaton HALO® 4" All-In-One Bulb & Trim Replacement Recessed LED Downlight (589 Lumen) (RL460WH930)

d. Infringement of the '118 Patent

368. On information and belief, the Eaton Respondents import, sell for importation, and/or sell after importation into the United States certain Eaton Accused Products that infringe the '118 Patent.

369. The Eaton Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 15 of the '118 Patent, in violation of 35 U.S.C. § 271(a). The Eaton Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Eaton Accused Products. The Eaton Accused

Products satisfy all claim limitations of claim 15 of the '118 Patent at the time of importation into the United States.

370. Moreover, on information and belief, one or more of the Eaton Respondents knowingly and intentionally induces infringement of the '118 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Eaton Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Eaton Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Eaton Respondents sells the Eaton Accused Products or otherwise provides the Eaton Accused Products to distributors knowing that these distributors intend to import and/or sell the Eaton Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Eaton Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Eaton Accused Products.

371. A claim chart comparing claim 15 of the '118 Patent to a representative Cooper Accused Product, the Eaton Streetworks CRTK-R Caretaker LED Roadway Luminaire (CRTK-R-A12-E-120-2-A), is attached here as Confidential Exhibit 79C. The Eaton Streetworks CRTK-R Caretaker LED Roadway Luminaire (CRTK-R-A12-E-120-2-A) is also submitted with this Complaint as Physical Exhibit P38.

e. Infringement of the '608 Patent

372. On information and belief, the Eaton Respondents import, sell for importation, and/or sell after importation into the United States certain Eaton Accused Products that infringe the '608 Patent.

373. The Eaton Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. §271(a). The Eaton Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Eaton Accused Products. The Eaton Accused Products satisfy all claim limitations of claims 1-2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

374. Moreover, on information and belief, one or more of the Eaton Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Eaton Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Eaton Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Eaton Respondents sells the Eaton Accused Products or otherwise provides the Eaton Accused Products to distributors knowing that these distributors intend to import and/or sell the Eaton Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Eaton Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Eaton Accused Products.

375. A claim chart comparing claims 1-2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent to a representative Cooper Accused Product, the Eaton HALO® Home Smart Lighting System, as defined in the corresponding claim chart, which is attached here as Confidential Exhibit 80C. Certain products designed and sold to be used in conjunction with the Eaton HALO® Home Smart Lighting System, which are charted in Complainants' claim chart, are also submitted with this Complaint as Physical Exhibits P39 and P40.

J. Leedarson Respondents

1. Patent Infringement

a. Infringement of the '421 Patent

376. On information and belief, the Leedarson Respondents import, sell for importation, and/or sell after importation into the United States certain Accused Products ("Leedarson Accused Products") that infringe the '421 Patent, including products sold under the EcoSmart, Commercial Electric, and LEDi2 brand names.

377. The Leedarson Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1-2, 6-7, and 10 of the '421 Patent, in violation of 35 U.S.C. § 271(a). The Leedarson Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Leedarson Accused Products. The Leedarson Accused Products satisfy all claim limitations of claims 1-2, 6-7, and 10 of the '421 Patent at the time of importation into the United States.

378. Moreover, on information and belief, one or more of the Leedarson Respondents knowingly and intentionally induces infringement of the '421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Leedarson Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Leedarson Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Leedarson Respondents sells the Leedarson Accused Products or otherwise provides the Leedarson Accused Products to distributors knowing that these distributors intend to import and/or sell the Leedarson Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Leedarson Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the

infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Leedarson Accused Products.

379. A claim chart comparing claims 1-2, 6-7, and 10 of the '421 Patent to a representative Leedarson Accused Product, the LEDi2 6W (40W Equivalent) Dimmable A19 LED Light Bulb (Warm White) (i2-LA19D06-27K-4P),[89] is attached here as Confidential Exhibit 81C. The LEDi2 6W (40W Equivalent) Dimmable A19 LED Light Bulb (Warm White) (i2-LA19D06-27K-4P) is also submitted with this Complaint as Physical Exhibit P41.

380. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute Leedarson Accused Products that infringe the '421 Patent for the reasons set forth above:[90]

- Ecosmart 10W (65W Replacement) Dimmable 6" LED Downlight (Soft White) (DL-N34A11FR1-27)
- Ecosmart 9W (65W Replacement) Dimmable 4" LED Downlight (Soft White) (DL-N34A9ER1-27)
- Ecosmart 5.3W (40W Replacement) Dimmable A19 LED Light Bulb (Soft White) (A7A19A40WESD01)
- Ecosmart 15.5W (100W Replacement) Dimmable A19 LED Light Bulb (Soft White) (A7A19A100WESD04)
- Ecosmart 12.5W (75W Replacement) Dimmable A19 LED Light Bulb (Soft White) (C5A19A75WESD04)
- Ecosmart 4.5W (35W Replacement) Dimmable PAR16 Flood LED Light Bulb (Bright White) (5bsM350STE2602)
- Commercial Electric Industrial High Bay LED Light (Daylight) (HL-NHB285-NP08B)
- Commercial Electric 10W (65W Equivalent) Dimmable 5" and 6" Recessed Retrofit LED Downlight (Soft White) (DL-N28A11FR1-27)
- Commercial Electric 11.5W (65W Equivalent) Dimmable 5" and 6" LED Disk Light (Soft White) (DL-N19A11FR1-27)

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[89] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 7; *id.* at Stonedale Importation Decl. Ex. 264 (showing model numbers certified by UL for Leedarson Respondents).

[90] Upon information and belief, the products listed were manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶¶ 3, 13, 41, 48, 90-92, 94-97, 99, 111, 229; *id.* at Stonedale Importation Decl. Exs. 1, 11, 39, 46, 97, 264-266, 268.

- Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27)
- LEDi2 19.5W (100W Equivalent) Dimmable BR40 LED Light Bulb (Warm White) (i2-LBR40D19.5-27K)
- LEDi2 9.2W (60W Equivalent) Dimmable A19 LED Light Bulb (Warm White) (i2-LA19D9.2-27K-4P)
- LEDi2 9.6W (60W Equivalent) A19 LED Light Bulb (Warm White) (i2-LA19D9.6-30K-N-4P)
- LEDi2 5.8W (40W Equivalent) A19 LED Light Bulb (Soft White) (i2-LA19D5.8-30K-N-4P)

b. Infringement of the '608 Patent

381. On information and belief, the Leedarson Respondents import, sell for importation, and/or sell after importation into the United States certain Leedarson Accused Products that infringe the '608 Patent, including products sold under the EcoSmart, Commercial Electric, and LEDi2 brand names.

382. The Leedarson Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent, in violation of 35 U.S.C. §271(a). The Leedarson Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Leedarson Accused Products. The Leedarson Accused Products satisfy all claim limitations of claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent at the time of importation into the United States.

383. Moreover, on information and belief, one or more of the Leedarson Respondents knowingly and intentionally induces infringement of the '608 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Leedarson Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Leedarson Respondents is encouraging and facilitating infringement by others. For example, on

information and belief, one or more of the Leedarson Respondents sells the Leedarson Accused Products or otherwise provides the Leedarson Accused Products to distributors knowing that these distributors intend to import and/or sell the Leedarson Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Leedarson Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Leedarson Accused Products.

384. A claim chart comparing claims 1, 2, 6, 12-13, 16, 19-22, 24, 28, and 37 of the '608 Patent to a Leedarson Accused Product, the Leedarson IoT Platform System, as defined in the corresponding claim chart, is attached here as Confidential Exhibit 82C.

c. Infringement of the '968 Patent

385. On information and belief, the Leedarson Respondents import, sell for importation, and/or sell after importation into the United States certain Leedarson Accused Products that infringe the '968 Patent, including products sold under the EcoSmart, Commercial Electric, and LEDi2 brand names.

386. The Leedarson Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 6 and 7 of the '968 Patent, in violation of 35 U.S.C. § 271(a) The Leedarson Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Leedarson Accused Products. The Leedarson Accused Products satisfy all claim limitations of claims 6 and 7 of the '968 Patent at the time of importation into the United States.

387. Moreover, on information and belief, one or more of the Leedarson Respondents knowingly and intentionally induces infringement of the '968 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Leedarson Accused

Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Leedarson Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Leedarson Respondents sells the Leedarson Accused Products or otherwise provides the Leedarson Accused Products to distributors knowing that these distributors intend to import and/or sell the Leedarson Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Leedarson Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Leedarson Accused Products.

388. A claim chart comparing claims 6 and 7 of the '968 Patent to a Leedarson Accused Product, the Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27),[91] is attached here as Confidential Exhibit 83C. The Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27) is also submitted with this Complaint as Physical Exhibit P42.

d. Infringement of the '844 Patent

389. On information and belief, the Leedarson Respondents import, sell for importation, and/or sell after importation into the United States certain Leedarson Accused Products that infringe the '844 Patent, including certain products sold under the EcoSmart, Commercial Electric, and LEDi2 brand names.

[91] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 94; *id.* at Stonedale Importation Decl. Ex. 268 (noting that the product is manufactured by a Leedarson Respondent).

390. The Leedarson Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 4, 10, and 20 of the '844 Patent, in violation of 35 U.S.C. § 271(a). The Leedarson Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Leedarson Accused Products. The Leedarson Accused Products satisfy all claim limitations of claims 4, 10, and 20 of the '844 Patent at the time of importation into the United States.

391. Moreover, on information and belief, one or more of the Leedarson Respondents knowingly and intentionally induces infringement of the '844 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Leedarson Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Leedarson Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Leedarson Respondents sells the Leedarson Accused Products or otherwise provides the Leedarson Accused Products to distributors knowing that these distributors intend to import and/or sell the Leedarson Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Leedarson Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Leedarson Accused Products.

392. A claim chart comparing claims 4, 10, and 20 of the '844 Patent to a Leedarson Accused Product, the Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light

(Soft White) (DL-N19A9ER1-27),[92] is attached here as Confidential Exhibit 84C. The Commercial Electric 10W (65W Equivalent) Dimmable 4" LED Disk Light (Soft White) (DL-N19A9ER1-27) is also submitted with this Complaint as Physical Exhibit P42.

e. Infringement of the '518 Patent

393. On information and belief, the Leedarson Respondents import, sell for importation, and/or sell after importation into the United States certain Leedarson Accused Products that infringe the '518 Patent, including certain products sold under the EcoSmart, Commercial Electric, and LEDi2 brand names.

394. The Leedarson Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claim 9 of the '518 Patent, in violation of 35 U.S.C. §271(a). The Leedarson Respondents directly infringe at least these claims by importing, selling for importation, and/or selling after importation into the United States the Leedarson Accused Products. The Leedarson Accused Products satisfy all claim limitations of claim 15 of the '518 Patent at the time of importation into the United States.

395. Moreover, on information and belief, one or more of the Leedarson Respondents knowingly and intentionally induces infringement of the '518 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import Leedarson Accused Products into the United States (i.e., by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Leedarson Respondents is encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Leedarson Respondents sells the Leedarson Accused

[92] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 94; *id.* at Stonedale Importation Decl. Ex. 268 (noting that the product is manufactured by a Leedarson Respondent).

Products or otherwise provides the Leedarson Accused Products to distributors knowing that these distributors intend to import and/or sell the Leedarson Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Leedarson Respondents have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the Leedarson Accused Products.

396. A claim chart comparing claim 15 of the '518 Patent to a Leedarson Accused Product, the EcoSmart 10W (65W Replacement) Dimmable 6" LED Downlight (Soft White) (DL-N34A11FR1-27),[93] is attached here as Confidential Exhibit 85C. The EcoSmart 10W (65W Replacement) Dimmable 6" LED Downlight (Soft White) (DL-N34A11FR1-27) is also submitted with this Complaint as Physical Exhibit P43.

2. False and Misleading Advertising

397. Leedarson Respondents advertise their products, including the LEDi2 19.5W (100W Equivalent) Dimmable BR40 LED Light Bulb (Warm White) (i2-LBR40D19.5-27K BR40)[94] ("i2-LBR40D19.5-27K BR40 Bulb") Leedarson Accused Product, as being Energy Star certified by including the Energy Star® logo on their packaging. *See* Ex. 31 (Maxik Energy Star Decl.) ¶ 18.

398. LSG tested the Leedarson i2-LBR40D19.5-27K LED BR40 Bulb for compliance with Sections 9.1, 9.2, and 9.6 of the ENERGY STAR® Program Requirements Product

[93] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 91; *id.* at Stonedale Importation Decl. Ex. 265.

[94] Upon information and belief, this product was manufactured by or for the Leedarson Respondents. Ex. 34 (Stonedale Importation Decl.) ¶ 41; *id.* at Stonedale Importation Decl. Ex. 39.

Specification for Lamps (Light Bulbs) Version 2.1[95] at its facility in Cocoa Beach, Florida. *Id.* ¶¶ 2, 17. Even though the bulb's packaging displays the Energy Star® logo, it failed to meet the requirements of Sections 9.1, 9.2, or 9.6 of the ENERGY STAR® Program Requirements. *Id.* ¶¶ 20-22.

399. Nine of the ten tested bulbs emitted less than the 70 lumens per watt required by Section 9.1 of the Specification. *Id.* ¶ 20. These results do not meet the requirement that, of ten tested products, "eight or more units individually shall meet the requirement." *Id.* In addition, the average luminous efficacy from the ten lamps is 66.582 lumens per watt, which is below the 70-lumen-per-watt average required by the Specification. *Id.* Each of these failures independently prevents the Leedarson i2-LBR40D19.5-27K LED BR40 Bulb from meeting the Energy Star requirements of Section 9.1.

400. All ten of the tested bulbs emitted less than the 1,400 lumens required by Section 9.2 of the Specification for a 100-watt equivalent BR-shaped bulb. *Id.* ¶ 21. These results do not meet the requirement that, of ten tested products, "8 or more units individually shall meet the requirement." *Id.* In addition, the average light output from the ten lamps is 1328.903 lumens, which is below the 1,400-lumen average required by the Specification. *Id.* Each of these failures independently prevents the Leedarson i2-LBR40D19.5-27K LED BR40 Bulb from meeting the requirements of Section 9.2.

401. In addition, the Leedarson i2-LBR40D19.5-27K LED BR40 Bulbs failed to meet Section 9.6's requirement that at least nine out of ten bulbs emit light within the ANSI range corresponding to the advertised color temperature of 2700K. *Id.* ¶ 22. All ten of the tested bulbs

[95] Ex. 31 (Maxik Energy Star Decl.) at Ex. A ("ENERGY STAR® Program Requirements for Lamps (Light Bulbs), Eligibility Criteria, Version 2.1").

fell outside the ANSI range corresponding to the advertised color temperature. *Id.* Accordingly, the bulbs also fail to meet the correlated color temperature requirements of Section 9.6. *Id.*

402. As these failures show, at least Leedarson Respondents' i2-LBR40D19.5-27K LED BR40 Bulbs mislead consumers because the bulbs will be less efficient and dimmer than advertised and emit a different color of light than advertised. Leedarson Respondents' i2-LBR40D19.5-27K LED BR40 Bulbs will thus not meet the expectations of consumers who have grown to rely on the Energy Star® logo as a signal of reliability and quality.

403. Leedarson Respondents misrepresent the characteristics and qualities of their LED bulbs at least by falsely and misleadingly advertising them as Energy Star compliant in violation of Section 43(a) of the Lanham Act, 15 U.S.C § 1125(a) and the federal common law of unfair competition. As further detailed in Section XII, Leedarson Respondents are direct competitors of Complainants. Leedarson Respondents' false advertising misleads consumers into purchasing products that do not perform as advertised and misleads utility companies into providing subsidies to Leedarson's non-compliant products. As a result, Complainants have and will continue to suffer substantial injury to Complainants' domestic industry, including, without limitation, due to actual or potential (1) diminishment or tarnishing of the Energy Star brand and certification, and thus, by implication, the quality and reliability of Complainants' Energy Star certified products, (2) lost sales, (3) lost profitability, (4) reduced domestic employment, and (5) lost market share.

VIII. Specific Instances of Unlawful Importations or Sales

A. Nichia Respondents

404. The Nichia Accused Products were and are manufactured outside of the United States by, or on behalf of, the Nichia Respondents. For instance, the Nichia Accused Products identified in Section VII(A) above were all manufactured outside of the United States by, or on behalf of, the Nichia Respondents. Ex. 34 (Stonedale Importation Decl.) ¶¶ 112-116, 235-239

(showing country of origin as Japan). Moreover, each of the Nichia Accused Products identified in Section VII(A) above was purchased in the United States. *Id.* ¶¶ 234 (showing product receipts for purchases shipped to U.S address or purchased at U.S. store); *id.* at Stonedale Importation Decl. Ex. 254 (showing Future Lighting Solutions a/k/a Future Electronics as Nichia's U.S. distributor on Nichia's website). Certain Nichia Accused Products were purchased in the United States. *Id.* ¶¶ 112-116, 234-239, 241; *see, e.g.*, *id.* at Stonedale Importation Decl. Ex. 269 (showing certain Nichia Accused Products shipped from Future Electronics in the United States to a U.S. address). This demonstrates that the Nichia Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Nichia Respondents.

B. Cree Respondents

405. The Cree Accused Products were and are manufactured outside of the United States by, or on behalf of, the Cree Respondents. For instance, the Cree Accused Products identified in Section VII(B) above were all manufactured outside of the United States by, or on behalf of, the Cree Respondents. Ex. 34 (Stonedale Importation Decl.) ¶¶ 4, 11, 14-23, 117, 118, 130-141, 161-175, 204 (showing country of origin as China). Moreover, each of the Cree Accused Products identified in Section VII(B) above was purchased in the United States. *Id.* ¶ (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Cree Accused Products were purchased in the United States. *Id.* This demonstrates that the Cree Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Cree Respondents.

C. OSRAM Respondents

406. The OSRAM Accused Products were and are manufactured outside of the United States by, or on behalf of, the OSRAM Respondents. For instance, the OSRAM Accused Products identified in Section VII(C) above were all manufactured outside of the United States by, or on behalf of, the OSRAM Respondents. *Id.* ¶¶ 119-123, 125-126, 142-147, 176, 182-183, 185-188, 201 (showing country of origin as Malaysia); *id.* ¶¶ 124, 181, 184, 200 (showing country of origin as China). Moreover, each of the OSRAM Accused Products identified in Section VII(C) above was purchased in the United States. *Id.* ¶¶ 119-126, 142-147, 176, 181-188, 200-201 (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain OSRAM Accused Products were purchased in the United States. *Id.* This demonstrates that the OSRAM Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the OSRAM Respondents.

D. Lumileds Respondents

407. The Lumileds Accused Products were and are manufactured outside of the United States by, or on behalf of, the Lumileds Respondents. For instance, the Lumileds Accused Products identified in Section VII(D) above were all manufactured outside of the United States by, or on behalf of, the Lumileds Respondents. *Id.* ¶¶ 127-129, 148-160, 178-180, 189-199, 202 (showing country of origin as Malaysia); *id.* ¶¶ 177, 203 (showing country of origin as China). Moreover, each of the Lumileds Accused Products identified in Section VII(D) above was purchased in the United States. *Id.* ¶¶ 127-129, 148-160, 177-180, 189-199, 202-203 (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Lumileds Accused Products were purchased in the United States. *Id.* This demonstrates that the Lumileds Accused Products, including without limitation the specific products identified in this Complaint, were and are

imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Lumileds Respondents.

E. Signify Respondents

408. The Signify Accused Products were and are manufactured outside of the United States by, or on behalf of, the Signify Respondents. For instance, the Signify Accused Products identified in Section VII(E) above were all manufactured outside of the United States by, or on behalf of, the Signify Respondents. *Id.* ¶¶ 9, 36-40, 42-47, 49-55, 103-104, 208, 212-215, (showing country of origin as China and/or Mexico). Moreover, each of the Signify Accused Products identified in Section VII(E) above was purchased in the United States. *Id.* (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Signify Accused Products were purchased in the United States. *Id.* This demonstrates that the Signify Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Signify Respondents.

F. MLS Respondents

409. The MLS Accused Products were and are manufactured outside of the United States by, or on behalf of, the MLS Respondents. For instance, the MLS Accused Products identified in Section VII(F) above were all manufactured outside of the United States by, or on behalf of, the MLS Respondents. *Id.* ¶¶ 10, 24-34, 98, 105-107, 110, 206-207, 216-217 (showing country of origin as China). Moreover, each of the MLS Accused Products identified in Section VII(F) above was purchased in the United States. *Id.* (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain MLS Accused Products were purchased in the United States. *Id.* This demonstrates that the MLS Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold

for importation into the United States, and/or sold after importation into the United States by the MLS Respondents.

G. GE Respondents

410. The GE Accused Products were and are manufactured outside of the United States by, or on behalf of, the GE Respondents. For instance, the GE Accused Products identified in Section VII(G) above were all manufactured outside of the United States by, or on behalf of, the GE Respondents. *Id.* ¶¶ 6, 12, 56-76, 108-109, 209, 219, 223-228, 230, 233 (showing country of origin as China). Moreover, each of the GE Accused Products identified in Section VII(G) above was purchased in the United States. *Id.* (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain GE Accused Products were purchased in the United States. *Id.* This demonstrates that the GE Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the GE Respondents.

H. Acuity Respondents

411. The Acuity Accused Products were and are manufactured outside of the United States by, or on behalf of, the Acuity Respondents. For instance, the Acuity Accused Products identified in Section VII(H) above were all manufactured outside of the United States by, or on behalf of, the Acuity Respondents. *Id.* ¶¶ 8, 93, 232 (showing country of origin as Mexico); *id.* ¶¶ 76-82, 210-211, 231 (showing country of origin as China). Moreover, each of the Acuity Accused Products identified in Section VII(H) above was purchased in the United States. *Id.* ¶¶ 8, 76-82, 93, 210-211, 231-232 (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Acuity Accused Products were purchased in the United States. *Id.* This demonstrates that the Acuity Accused Products, including without limitation the specific products

identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Acuity Respondents.

I. Eaton Respondents

412. The Eaton Accused Products were and are manufactured outside of the United States by, or on behalf of, the Eaton Respondents. For instance, the Eaton Accused Products identified in Section VII(I) above were all manufactured outside of the United States by, or on behalf of, the Eaton Respondents. *Id.* ¶¶ 5, 83, 205 (showing country of origin as Mexico); *id.* ¶¶ 84-89, 102, 218, 220-222 (showing country of origin as China). Moreover, each of the Eaton Accused Products identified in Section VII(I) above was purchased in the United States. *Id.* ¶¶ 5, 83, 84-89, 102, 205, 218, 220-222 (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Eaton Accused Products were purchased in the United States. *Id.* This demonstrates that the Eaton Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Eaton Respondents.

J. Leedarson Respondents

413. The Leedarson Accused Products were and are manufactured outside of the United States by, or on behalf of, the Leedarson Respondents. For instance, the Leedarson Accused Products identified in Section VII(J) above were all manufactured outside of the United States by, or on behalf of, the Leedarson Respondents. *Id.* ¶¶ 3, 7, 13, 41, 48, 90-92, 94-97, 99, 111, 229 (showing country of origin as China). Moreover, each of the Leedarson Accused Products identified in Section VII(J) above was purchased in the United States. *Id.* (showing product receipts for purchases shipped to U.S address or purchased at U.S. store). Certain Leedarson

Accused Products were purchased in the United States. *Id.* This demonstrates that the Leedarson Accused Products, including without limitation the specific products identified in this Complaint, were and are imported into the United States, sold for importation into the United States, and/or sold after importation into the United States by the Leedarson Respondents.

IX. Classification of the Accused Products under the Harmonized Tariff Schedule

414. The Accused Products are classified under at least the following subheadings of the Harmonized Tariff Schedule of the United States: 8541.40.20 (light-emitting diodes), 8543.70.70 (electric luminescent lamps), 9405.10.60 (electric ceiling or wall lighting fittings), 9405.40.60 (metal electric lamps and lighting fittings), and 9405.40.80 (other electric lamps and lighting fittings). These classifications are exemplary in nature and not intended to restrict the scope of any exclusion order or other remedy ordered by the Commission.

X. Related Litigation

415. Complainants are filing complaints in United States District Courts against the Proposed Respondents shortly after the filing of the instant Complaint alleging infringement of one or more claims of the '483, '053, '421, '118, '608, '968, '844, and '518 Patents, the same patents that have been asserted in this Complaint.

A. District Court Litigation

1. *Lighting Science Group Corporation v. Cree, Inc.*, No. 6:13-cv-00587 (M.D. Fla.)

416. *Lighting Science Group Corporation v. Cree, Inc.* involved the '968 Patent. LSG filed its complaint against Respondent Cree, Inc. on April 10, 2013 in the Middle District of Florida. On January 31, 2014, the parties submitted a Joint Claim Construction Statement setting forth the parties' agreed constructions, their respective proposed constructions for disputed claim terms, and the evidence relied upon for such proposed constructions. Shortly thereafter—before

claim construction briefing commenced—the parties reached a settlement. The case was dismissed on March 21, 2014 pursuant to stipulation.

2. *Lighting Science Group Corporation v. Cooper Lighting, LLC*, No. 6:14-cv-00195 (M.D. Fla.)

417. *Lighting Science Group Corporation. v. Cooper Lighting, LLC* involved the '968 Patent. LSG filed its complaint against Respondent Cooper Lighting, LLC on February 6, 2014 in the Middle District of Florida. The parties reached a settlement, and the case was dismissed on November 26, 2014 pursuant to stipulation.

3. *Lighting Science Group Corporation v. Sea Gull Lighting Products LLC*, No. 6:16-cv-00338 (M.D. Fla.)

418. *Lighting Science Group Corporation v. Sea Gull Lighting Products LLC* involved the '968 and '844 Patents. LSG filed its complaint against Sea Gull Lighting Products LLC and Generation Brands LLC on February 25, 2016 in the Middle District of Florida. The parties reached a settlement at the court-ordered mediation conference held on March 2, 2017, and the case was dismissed on March 8, 2017.

4. *Lighting Science Group Corporation v. Hyperikon, Inc.*, No. 6:16-cv-00343 (M.D. Fla.)

419. *Lighting Science Group Corporation v. Hyperikon, Inc.* involved the '518 and '844 Patents. LSG filed its complaint against Hyperikon, Inc. on February 26, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was dismissed on September 14, 2016 pursuant to stipulation.

5. *Lighting Science Group Corporation v. U.S.A. Light & Electric, Inc.*, No. 6:16-cv-00344 (M.D. Fla.)

420. *Lighting Science Group Corporation v. U.S.A. Light & Electric, Inc.* involved the '968, '518, and '844 Patents. LSG filed its complaint against U.S.A. Light & Electric, Inc. on

February 26, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on April 22, 2016.

6. *Lighting Science Group Corporation v. Nicor, Inc.*, No. 6:16-cv-00413 (M.D. Fla.)

421. *Lighting Science Group Corporation v. Nicor, Inc.*, No. 6:16-cv-00413, involves the '968, '518, and '844 Patents. LSG filed its complaint against Nicor, Inc. on March 10, 2016 in the Middle District of Florida, where the case is currently pending. On February 27, 2017, Nicor Inc. filed a motion to stay pending *inter partes* review, which the court granted on May 9, 2017. The case remains stayed.

7. *Lighting Science Group Corporation v. Globalux Lighting LLC*, No. 6:16-cv-00681 (M.D. Fla.)

422. *Lighting Science Group Corporation v. Globalux Lighting LLC* involved the '968, '518, and '844 Patents. LSG filed its complaint against Globalux Lighting LLC on April 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on January 25, 2017.

8. *Lighting Science Group Corporation v. Sunco Lighting, Inc.*, No. 6:16-cv-00677 (M.D. Fla.)

423. *Lighting Science Group Corporation v. Sunco Lighting, Inc.* involved the '518 and '844 Patents. LSG filed its complaint against Sunco Lighting, Inc. on April 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on January 5, 2017.

9. *Lighting Science Group Corporation v. Panor Corporation d/b/a Maxxima*, No. 6:16-cv-00678 (M.D. Fla.)

424. *Lighting Science Group Corporation v. Panor Corporation d/b/a Maxxima* involved the '518 and '844 Patents. LSG filed its complaint against Panor Corporation (d/b/a

Maxxima) on April 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on July 21, 2016.

10. *Lighting Science Group Corporation v. S E L S, Inc.*, No. 6:16-cv-00679 (M.D. Fla.)

425. *Lighting Science Group Corporation v. S E L S, Inc.* involved the '968, '518, and '844 Patents. LSG filed its complaint against S E L S, Inc. on April 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on September 7, 2016.

11. *Lighting Science Group Corporation v. EEL Company, LTD.*, No. 6:16-cv-00680 (M.D. Fla.)

426. *Lighting Science Group Corporation v. EEL Company, Ltd.* involved the '968, '518, and '844 Patents. LSG filed its complaint against EEL Company, LTD. on April 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on November 15, 2016.

12. *Lighting Science Group Corporation v. American De Rosa Lamparts, LLC*, No. 6:16-cv-01087 (M.D. Fla.)

427. *Lighting Science Group Corporation v. American De Rosa Lamparts, LLC* involved the '968, '518, and '844 Patents. LSG filed its complaint against American De Rosa Lamparts, LLC on June 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was dismissed on May 19, 2017 pursuant to stipulation.

13. *Lighting Science Group Corporation v. Hubbell Incorporated*, No. 6:16-cv-01084 (M.D. Fla.)

428. *Lighting Science Group Corporation v. Hubbell Incorporated* involved the '968, '518, and '844 Patents. LSG filed its complaint against Hubbell Incorporated, Prescolite Inc., and Progress Lighting, Inc. on June 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on September 7, 2016.

14. *Lighting Science Group Corporation v. Titch Industries, Inc.*, No. 6:16-cv-01228 (M.D. Fla.)

429. *Lighting Science Group Corporation v. Titch Industries, Inc.* involved the '518 and '844 Patents. LSG filed its complaint against Titch Industries, Inc. and Bioluz LED on July 7, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was voluntarily dismissed on December 7, 2016.

15. *Lighting Science Group Corporation v. Shenzhen Jiawei Photovoltaic Lighting Co., Ltd.*, No. 5:16-cv-03886 (N.D. Cal.)

430. *Lighting Science Group Corporation v. Shenzhen Jiawei Photovoltaic Lighting Co., Ltd.* involves the '968, '518, and '844 Patents. LSG filed its complaint against Shenzhen Jiawei Photovoltaic Lighting Co., Ltd. ("Shenzhen") and Jiawei Technology (USA), Ltd. ("Jiawei") on July 11, 2016 in the Northern District of California, where the case is currently pending. On April 27, 2017, Shenzhen and Jiawei filed a motion to stay pending *inter partes* review, which the court granted on June 19, 2017. The case remains stayed.

16. *Lighting Science Group Corporation v. Satco Products, Inc. d/b/a Nuvo Lighting*, No. 6:16-cv-01256 (M.D. Fla.)

431. *Lighting Science Group Corporation v. Satco Products, Inc.* involves the '968, '518, and '844 Patents. LSG filed its complaint against Satco Products, Inc. (d/b/a Nuvo Lighting) on July 13, 2016 in the Middle District of Florida, where the case is currently pending. On February 7, 2017, Satco Products, Inc. (d/b/a Nuvo Lighting) filed a motion to stay pending *inter partes* review, which the court granted on May 9, 2017. The case remains stayed.

17. *Lighting Science Group Corporation v. Technical Consumer Products, Inc.*, No. 6:16-cv-01255 (M.D. Fla.)

432. *Lighting Science Group Corporation v. Technical Consumer Products, Inc.* involves the '968, '518, and '844 Patents. LSG filed its complaint against Technical Consumer Products Inc. on July 13, 2016 in the Middle District of Florida, where the case is currently

pending. On February 27, 2017, Technical Consumer Products Inc. filed a motion to stay pending *inter partes* review, which the court granted on May 9, 2017. The case remains stayed.

18. *Lighting Science Group Corporation v. Wangs Alliance Corporation*, No. 6:16-cv-01320 (M.D. Fla.)

433. *Lighting Science Group Corporation v. Wangs Alliance Corporation* involved the '968 and '518 Patents. LSG filed its complaint against Wangs Alliance Corporation and WAC Lighting on July 22, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was dismissed on January 10, 2017 pursuant to stipulation.

19. *Lighting Science Group Corporation v. Amax Lighting*, No. 6:16-cv-01321 (M.D. Fla.)

434. *Lighting Science Group Corporation v. Amax Lighting* involves the '968, '518, and '844 Patents. LSG filed its complaint against Amax Lighting on July 22, 2016 in the Middle District of Florida, where the case is currently pending. On February 27, 2017, Amax Lighting filed a motion to stay pending *inter partes* review, which the court granted on May 9, 2017. The case remains stayed.

20. *Lighting Science Group Corporation v. Halco Lighting Technologies, Limited Liability Company*, No. 6:16-cv-02188 (M.D. Fla.)

435. *Lighting Science Group Corporation v. Halco Lighting Technologies, Limited Liability Company* involved the '968, '518, and '844 Patents. LSG filed its complaint against Halco Lighting Technologies, Limited Liability Company on December 21, 2016 in the Middle District of Florida. The parties reached a settlement, and the case was dismissed on April 27, 2017 pursuant to stipulation.

21. *Lighting Science Group Corporation v. Leedarson Lighting Co. Ltd.*, No. 6:17-cv-00826 (M.D. Fla.)

436. *Lighting Science Group Corporation v. Leedarson Lighting Co. LTD.* involves the '968, '518, and '844 Patents (as well as U.S. Patent No. 9,581,756 which is not asserted in this

Investigation). LSG filed its complaint against Respondents Leedarson Lighting Co., Ltd. ("Leedarson Lighting") and Leedarson America, Inc. ("Leedarson America") on May 9, 2017 in the Middle District of Florida, where the case is currently pending. On July 13, 2017, Leedarson Lighting and Leedarson America filed a motion to stay pending *inter partes* review, which the court granted on October 27, 2017. The case remains stayed.

B. Patent Office Proceedings

1. U.S. Patent No. 8,201,968

437. The '968 Patent has been involved in the following five *inter partes* review (IPR) proceedings:

- **IPR2016-01478**. On July 22, 2016, Generation Brands LLC filed an IPR petition challenging claims 1, 2, 5, 6, 11, 14-16, and 19-23. On February 6, 2017, the PTAB instituted review as to all challenged claims. LSG and petitioner reached a settlement and this IPR proceeding, along with IPR2016-01546 discussed below, was terminated on March 16, 2017 pursuant to the parties' joint motion.
- **IPR2017-01287**. On April 17, 2017, Technical Consumer Products, Inc., Nicor Inc., and Amax Lighting filed an IPR petition challenging claims 1-12, 14-17, and 19-23. On November 1, 2017, the PTAB instituted review as to all challenged claims. On June 6, 2018, the PTAB joined the IPR2018-00263 and IPR2018-00269 proceedings, discussed below, with IPR2017-01287. On October 31, 2018, the PTAB issued a Final Written Decision holding claims 1, 5, 9-11, 14, 15, 17, and 19-23 unpatentable and upholding the patentability of claims 6-8, 12, and 16. On January 2, 2019, petitioners filed a Notice of Appeal to the Federal Circuit. The case is pending before the Federal Circuit at Docket No. 19-1360.

- **IPR2017-01638**. On June 19, 2017, Satco Products, Inc. filed an IPR petition challenging claims 1, 2, 6, 11, 13-15, and 19-23. On May 3, 2018, the PTAB modified its institution decision to include review of all challenged claims in light of the Supreme Court's decision in *SAS Inst., Inc. v. Iancu*. On January 12, 2018, the PTAB instituted review as to claims 1, 2, 6, 11, 14, 15, and 19-23. On January 7, 2019 the PTAB issued a Final Written Decision upholding the patentability of claims 1, 2, 6, 11, 13-15, and 19-23. On March 11, 2019, Satco Products, Inc. filed a Notice of Appeal to the Federal Circuit. The case is pending before the Federal Circuit at Docket No. 19-1638.
- **IPR2018-00263**. On November 30, 2017, Jiawei Technology (HK) LTD., Jiawei Technology (USA) LTD., and Shenzhen Jiawei PV Lighting Co., LTD. filed an IPR petition challenging claims 1-12, 14-17, and 19-23. On June 6, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01287 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1, 5, 9-11, 14, 15, 17, and 19-23 unpatentable and upholding the patentability of claims 6-8, 12, and 16.
- **IPR2018-00269**. On December 1, 2017, Proposed Respondents to this Complaint Leedarson Lighting Co., Ltd. and Leedarson America, Inc. filed an IPR petition challenging claims 1-12, 14-17, and 19-23. On June 6, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01287 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1, 5, 9-11, 14, 15, 17, and 19-23 unpatentable and upholding the patentability of claims 6-8, 12, and 16.

2. U.S. Patent No. 8,967,844

438. The '844 Patent has been involved in the following five *inter partes* review (IPR) proceedings:

- **IPR2016-01546**. On August 15, 2016, Generation Brands LLC filed an IPR petition challenging claims 1-3, 5, 7, 9, 10, 12, 14, 16, 17, and 20-24. On February 6, 2017, the PTAB instituted review as to all challenged claims. LSG and petitioner reached a settlement, and this IPR proceeding, along with IPR2016-01478 discussed above, was terminated on March 16, 2017 pursuant to the parties' joint motion.
- **IPR2017-01280**. On April 17, 2017, Technical Consumer Products, Inc., Nicor Inc., and Amax Lighting filed an IPR petition challenging claims 1-5, 7-9, 11, 12, 14, 16, 17, 19, and 21-24. On November 1, 2017, the PTAB instituted review as to all challenged claims. On May 14, 2018, the PTAB joined the IPR2018-00261 and IPR2018-00271 proceedings, discussed below, with IPR2017-01280. On October 31, 2018, the PTAB issued a Final Written Decision holding claims 1-3, 5, 7-9, 11, 12, 14, 16, 17, 19, and 21-24 unpatentable and upholding the patentability of claim 4. On January 2, 2019, Petitioners filed a Notice of Appeal to the Federal Circuit. The case is pending before the Federal Circuit at Docket No. 19-1361.
- **IPR2017-01639**. On June 19, 2017, Satco Products, Inc. filed an IPR petition challenging claims 1-3, 5, 7, 9-12, 14-17, 19-24.[96] On January 12, 2018, the PTAB instituted review as to claims 1-3, 5, 7, 9, 10, 12, 14, 16-17, and 20-24. On May 3, 2018, the PTAB modified its institution decision to include review of all challenged

[96] Headings in the petition indicated that claim 8 was also challenged, but no substantive argument was put forth on this claim.

claims in light of the Supreme Court's decision in *SAS Inst., Inc. v. Iancu*. On January 7, 2019, the PTAB issued a Final Written Decision holding claims 1-3, 5, 7, 9, 10, 12, 14, 16, 17, and 20-24 unpatentable and upholding the patentability of claims 4, 8, 11, and 15. The case is pending before the Federal Circuit at Docket No. 19-1639.

- **IPR2018-00261**. On November 30, 2017, Jiawei Technology (HK) LTD., Jiawei Technology (USA) LTD., and Shenzhen Jiawei PV Lighting Co., LTD. filed an IPR petition challenging claims 1–5, 7–9, 11, 12, 14, 16, 17, 19, and 21–24. On May 14, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01280 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1-3, 5, 7-9, 11, 12, 14, 16, 17, 19, and 21-24 unpatentable and upholding the patentability of claim 4. On January 2, 2019, Petitioners filed a Notice of Appeal to the Federal Circuit. The case is pending before the Federal Circuit at Docket No. 19-1361.
- **IPR2018-00271**. On December 1, 2017, Proposed Respondents to this Complaint Leedarson Lighting Co., Ltd. and Leedarson America, Inc. filed an IPR petition challenging claims 1-5, 7-9, 11, 12, 14, 16, 17, 19, and 21-24. On May 14, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01280 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1-3, 5, 7-9, 11, 12, 14, 16, 17, 19, and 21-24 unpatentable and upholding the patentability of claim 4. On January 2, 2019, Petitioners filed a Notice of Appeal to the Federal Circuit. The case is pending before the Federal Circuit at Docket No. 19-1361.

3. U.S. Patent No. 8,672,518

439. The '518 Patent has been involved in the following four *inter partes* review (IPR) proceedings:

- **IPR2017-01285**. On April 17, 2017, Technical Consumer Products, Inc., Nicor Inc., and Amax Lighting filed an IPR petition challenging claims 1, 3-8, and 10-14. On November 1, 2017, the PTAB instituted review as to claims 1, 3-8, and 11-14. The PTAB subsequently modified its institution decision on May 3, 2018 to include review of claim 10, resulting in the review of all challenged claims. On June 6, 2018, the PTAB joined the IPR2018-00262 and IPR2018-00270 proceedings, discussed below, with IPR2017-01285. On October 31, 2018, the PTAB issued a Final Written Decision holding claims 1, 3-8, and 10-14 unpatentable.
- **IPR2017-01643**. On June 21, 2017, Satco Products, Inc. filed an IPR petition challenging claims 1-8 and 10-12. On January 12, 2018, the PTAB issued a decision denying the petition, finding that petitioner failed to demonstrate a reasonable likelihood that it would prevail in establishing the unpatentability of the challenged claims of the '518 Patent.
- **IPR2018-00262**. On November 30, 2017, Jiawei Technology (HK) LTD., Jiawei Technology (USA) LTD., and Shenzhen Jiawei PV Lighting Co., LTD. filed an IPR petition challenging claims 1, 3-8, and 11-14. On June 6, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01285 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1, 3-8, and 10-14 unpatentable.
- **IPR2018-00270**. On December 1, 2017, Proposed Respondents to this Complaint Leedarson Lighting Co., Ltd. and Leedarson America, Inc. filed an IPR petition

challenging claims 1, 3-8, and 10-14. On June 6, 2018, the PTAB instituted review as to all challenged claims and joined the proceeding with IPR2017-01285 discussed above, which resulted in a Final Written Decision, dated October 31, 2018, holding claims 1, 3-8, and 10-14 unpatentable.

XI. Domestic Industry

440. A domestic industry exists under 19 U.S.C. §§ 1337(a)(2) and 1337(a)(3). In particular, a domestic industry exists as a result of Complainants' significant investment in plant and equipment and significant employment of labor and capital with respect to articles protected by the Asserted Patents. 19 U.S.C. § 1337(a)(3)(A)-(B). A domestic industry also exists for each of the Asserted Patents as a result of Complainants' substantial investment in its exploitation of the Asserted Patents, including engineering, research and development, and licensing. In addition, a domestic industry exists because licensees of certain of the Asserted Patents, including for example, Hyperikon Inc., practice those Asserted Patents within the United States, and because in many instances, LSG has made significant investments toward the licensing of said patents. *See* Ex. 35C (Noroozi Licensee Declaration and Exhibits).

A. Technical Prong

441. Complainants have made and make significant and substantial investments in plant and equipment, labor and capital, and engineering and research and development with respect to products that are covered by one or more claims of the Asserted Patents, including the following exemplary LSG/Healthe products: Cleanse™ Air-Sanitizing LED Troffer, FreeLED® Solar LED Street Light, Genesis DynaSpectrum® LED Luminaire, Genesis App, SunLync™ Wireless Control Device, Good Day&Night® LED Downlight, SunTrac™ App, GoodNight® A19 LED Bulb, Sleepy Baby® P15 LED Bulb, JOURNI™ Mobile LED Task Light, and Series A+™ Par30

LED Gimbal Lamp (collectively, the "LSG/Healthe DI Products").[97] Ex. 32C (Maxik DI Decl.) ¶¶ 5-14, 17.

442. Confidential Exhibits 86C–95C are claim charts demonstrating that the LSG/Healthe DI Products practice the Asserted Patents. Confidential Exhibits 96C-98C are claim charts demonstrating that exemplary licensee products practice certain of the Asserted Patents.

443. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the Series A+™ Par30 LED Gimbal Lamp, practices exemplary claims of the '483 Patent is attached as Confidential Exhibit 86C. This claim chart provides a basis for Complainants' domestic industry relating to the '483 Patent. The Series A+™ Par30 LED Gimbal Lamp is also submitted with this Complaint as Physical Exhibit P44.

444. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the Series A+™ Par30 LED Gimbal Lamp, practices exemplary claims of the '053 Patent is attached as Confidential Exhibit 87C. This claim chart provides a basis for Complainants' domestic industry relating to the '053 Patent. The Series A+™ Par30 LED Gimbal Lamp is also submitted with this Complaint as Physical Exhibit P44.

445. An exemplary claim charts showing how a representative LSG/Healthe DI Product, the GoodNight® A19 LED Bulb, practices exemplary claims of the '421 Patent is attached as Confidential Exhibit 88C. This claim chart provides a basis for Complainants' domestic industry relating to the '421 Patent. The GoodNight® A19 LED Bulb is also submitted with this Complaint as Physical Exhibit P45.

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[97] The domestic industry products identified and discussed in this declaration are merely exemplary and illustrative, and not intended to provide an exhaustive list of all LSG, Healthe and/or GVL products that practice the Asserted Patents. During the course of the investigation, LSG and/or Healthe may identify—and tabulate relevant expenditures with respect to—additional domestic industry products.

446. An exemplary claim charts showing how a representative LSG/Healthe DI Product, the Sleepy Baby® P15 LED Bulb, practices exemplary claims of the '421 Patent is attached as Confidential Exhibit 89C. This claim chart provides a basis for Complainants' domestic industry relating to the '421 Patent. The Sleepy Baby® P15 LED Bulb is also submitted with this Complaint as Physical Exhibit P46.

447. An exemplary claim charts showing how a representative LSG/Healthe DI Product, the Journi™ Mobile LED Task Light, practices exemplary claims of the '421 Patent is attached as Confidential Exhibit 90C. This claim chart provides a basis for Complainants' domestic industry relating to the '421 Patent. The Journi™ Mobile LED Task Light is also submitted with this Complaint as Physical Exhibit P47.

448. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the Cleanse™ Air-Sanitizing LED Troffer, practices exemplary claims of the '118 Patent is attached as Confidential Exhibit 91C. This claim chart provides a basis for Complainants' domestic industry relating to the '118 Patent. The Cleanse™ Air-Sanitizing LED Troffer is also submitted with this Complaint as Physical Exhibit P48.

449. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the FreeLED® Solar LED Street Light, practices exemplary claims of the '118 Patent is attached as Confidential Exhibit 92C. This claim chart provides a basis for Complainants' domestic industry relating to the '118 Patent. The FreeLED® Solar LED Street Light is also submitted with this Complaint as Physical Exhibit P49.

450. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the GoodNight® A19 LED Bulb, practices exemplary claims of the '118 Patent is attached as Confidential Exhibit 93C. This claim chart provides a basis for Complainants' domestic industry

relating to the '118 Patent. The GoodNight® A19 LED Bulb is also submitted with this Complaint as Physical Exhibit P45.

451. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the Genesis System practices exemplary claims of the '608 Patent is attached as Confidential Exhibit 94C. This claim chart provides a basis for Complainants' domestic industry relating to the '608 Patent. A product designed to be used in conjunction with the Genesis System, the Genesis DynaSpectrum® LED Luminaire, which was charted in Complainants' claim chart, is also submitted with this Complaint as Physical Exhibit P50.

452. An exemplary claim chart showing how a representative LSG/Healthe DI Product, the SunTrac™ Ecosystem practices exemplary claims of the '608 Patent is attached as Confidential Exhibit 95C. This claim chart provides a basis for Complainants' domestic industry relating to the '608 Patent. Certain products designed and sold to be used in conjunction with the SunTrac™ Ecosystem, the Good Day&Night® LED Downlight and SunLync™ Wireless Control Device, which are charted in Complainants' claim chart, are also submitted with this Complaint as Physical Exhibits P51 and P52.

453. An exemplary claim chart showing how a representative licensee product, the Hyperikon Recessed LED Downlight (HyperDownlight6-272) practices exemplary claims of the '968 Patent is attached as Confidential Exhibit 96C. This claim chart provides a basis for Complainants' domestic industry relating to the '968 Patent. The Hyperikon Recessed LED Downlight (HyperDownlight6-272) is also submitted with this Complaint as Physical Exhibit P53.

454. An exemplary claim chart showing how a representative licensee product practices exemplary claims of the '844 Patent is attached as Exhibit 97. This claim chart provides a basis for Complainants' domestic industry relating to the '844 Patent. The Hyperikon Recessed LED Downlight (HyperDownlight6-272) is also submitted with this Complaint as Physical Exhibit P53.

455. An exemplary claim chart showing how a representative licensee product practices exemplary claims of the '518 Patent is attached as Exhibit 98. This claim chart provides a basis for Complainants' domestic industry relating to the '518 Patent. The Hyperikon Recessed LED Downlight (HyperDownlight6-272) is also submitted with this Complaint as Physical Exhibit P53.

Asserted Patent	Practicing DI Products
7,098,483	Series A+™ Par30 LED Gimbal Lamp
7,095,053	Series A+™ Par30 LED Gimbal Lamp
7,528,421	GoodNight® A19 LED Bulb; Sleepy Baby® P15 LED Bulb; JOURNI™ Mobile LED Task Light
8,506,118	Cleanse™ Air-Sanitizing LED Troffer; FreeLED® Solar LED Street Light; GoodNight® A19 LED Bulb
8,674,608	Genesis System (including, e.g., the Genesis DynaSpectrum® LED Luminaire + Genesis App); SunTrac™ Ecosystem (including, e.g., the Good Day&Night® LED Downlight + SunLync™ Wireless Control Device + SunTrac™ App)
8,201,968	Licensee DI Products, e.g., Hyperikon LED Recessed Downlight (HyperDownlight6-272)
8,967,844	Licensee DI Products, e.g., Hyperikon LED Recessed Downlight (HyperDownlight6-272)
8,672,518	Licensee DI Products, e.g., Hyperikon LED Recessed Downlight (HyperDownlight6-272)

B. Economic Prong

456. Complainants and LSG's licensees have made and make significant investments in plant and equipment, significant employment of labor and capital, and substantial investments in the exploitation of the Asserted Patents. These investments are all tied, in significant part, to the Asserted Patents. Confidential Exhibit 32C is a declaration from LSG founder and Chief

Technology Officer Fredric Maxik regarding Complainants' domestic industry and details Complainants' significant and substantial investments.[98]

1. Significant Investment in Plant and Equipment Expenditures Related to the Asserted Patents

457. Complainants have made and make significant domestic investments in plant and equipment expenditures related to the Asserted Patents in the United States. For example, since 2014, all research and development for the LSG/Healthe DI Products was based out of facilities operated in the United States, including facilities located in Cocoa Beach, Florida, Melbourne, Florida, Cape Canaveral, Florida, and West Warwick, Rhode Island. Ex. 32C (Maxik DI Decl.) ¶ 19.

458. Since 2015, Complainants have incurred significant expenses leasing the facilities used for researching and developing the LSG/Healthe DI Products. *Id.* ¶ 20.

459. Complainants significant investments in plant and equipment demonstrate that Complainants have a domestic industry in the Asserted Patents in accordance with 19 U.S.C. § 1337(a)(3)(A).

2. Significant Employment of Labor or Capital

460. Complainants have made and make significant investments in the employment of labor and capital in the United States related to their DI Products. Since 2015, LSG has employed a significant number of U.S. employees, a majority of whom have been involved in the engineering, research and development, and manufacture of the LSG/Healthe DI Products. Ex. 32C (Maxik DI Decl.) ¶¶ 21-22. These employees have devoted their time to research and development of the DI Products in the last three years, accounting for significant labor expenses.

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[98] The significant and substantial domestic investments by LSG outlined in Confidential Exhibit 32C are not exhaustive of all expenditures that may be properly considered in evaluating the full scope of domestic industry in this proceeding.

Id. Healthe continues to invest in personnel involved in the engineering, research and development, and manufacture of the DI Products. *Id.* ¶ 23.

461. Complainants significant investments in the employment of labor and capital demonstrate that Complainants have a domestic industry in the Asserted Patents in accordance with 19 U.S.C. § 1337(a)(3)(B).

3. Substantial Investment in the Exploitation of the Asserted Patents

462. LSG has made and makes substantial domestic investments into the exploitation of the Asserted Patents in the United States, for example, through engineering, research and development of the DI Products in the United States and through licensing the Asserted Patents. Ex. 32C (Maxik Decl.) ¶¶ 25-33. In the last three years, LSG has made substantial investments in the United States in research and development related to the LSG/Healthe DI Products that practice the Asserted Patents. *Id.* ¶ 26. Healthe continues to invest in research and development related to the LSG/Healthe DI Products. *Id.* ¶ 27. These efforts are designed to exploit the Asserted Patents. *Id.* ¶¶ 29-34.

463. Additionally, since 2015, LSG has made substantial investments in licensing the Asserted Patents. *Id.* ¶ 28. Specifically, these expenditures include licensing negotiations and, if necessary, litigation, through which LSG has licensed U.S. Patent Nos. 8,201,968, 8,672,518, and 8,967,844.[99] *Id.*; Ex. 35C (Noroozi Licensees Decl.). These efforts are designed to exploit the Asserted Patents. *Id.* ¶ 34.

[99] Note that any expenditures incurred in licensing Healthe, Inc. and Global Value Lighting, LLC are not included in the investment amount described in the Maxik Domestic Industry Declaration. *See* Ex. 32C ¶ 28.

464. LSG's substantial domestic investments in engineering, research and development, and licensing—and Healthe's ongoing investments—have a nexus to the Asserted Patents and satisfy the domestic industry requirement. Ex. 32C (Maxik DI Decl.) ¶¶ 29-34.

465. Complainants substantial investments in the exploitation of the Asserted Patents demonstrate that Complainants have a domestic industry in the Asserted Patents in accordance with 19 U.S.C. § 1337(a)(3)(C).

XII. Substantial Injury

466. GE and Leedarson Respondents are direct competitors of Complainants in the LED luminaire industry in the United States, including with respect to the domestic industry of Energy Star-certified LED products. GE and Leedarson Respondents' false and misleading advertising, including the false use of the Energy Star® logo and mislabeling of its products as described above in Sections VII(G)(2) and VII(J)(2), has caused and threatens to cause substantial injury to Complainants' domestic industry in its Energy Star-certified LED bulbs and its bulbs that compete with GE and Leedarson Respondents' falsely-labeled bulbs. The harm to Complainants is especially severe, as Complainants' Energy Star-certified products have to date made up a substantial majority of their sales. *See* Ex. 31 (Maxik Energy Star Decl.) ¶ 26.

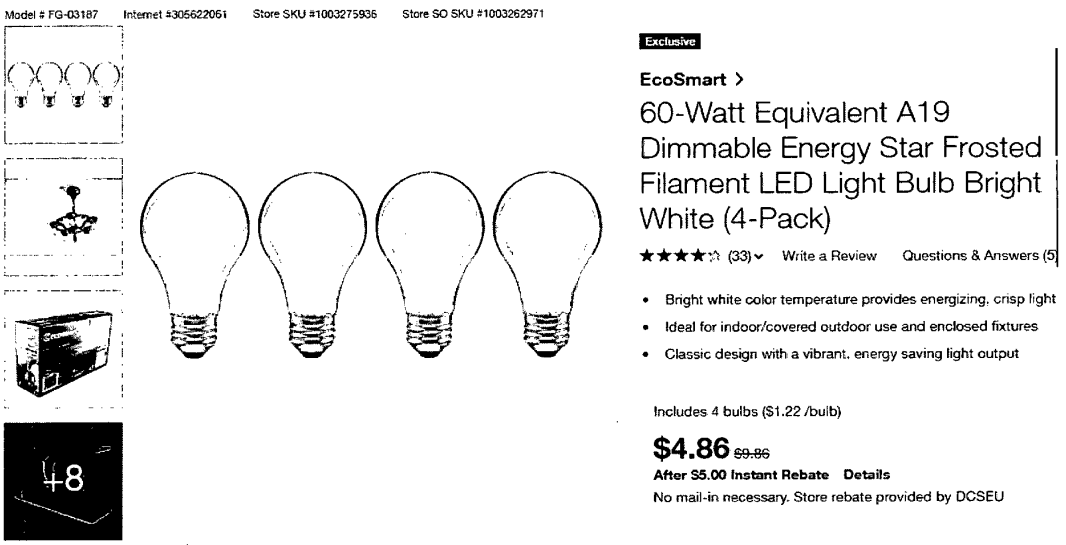
467. GE and Leedarson Respondents' falsely-advertised bulbs mislead consumers by causing them to think that lower-quality, non-energy-efficient bulbs meet the same rigorous standards as Complainants' bulbs in terms of quality and energy efficiency. This diminishes and tarnishes the Energy Star brand and certification, and thus, by implication, the perceived quality of, and consumer confidence in, Complainants' Energy Star-certified LED products. *Id.* ¶ 32. If a consumer's first experience with an LED bulb is disappointing because, for example, it does not provide the expected brightness or color temperature, that consumer may avoid buying LED bulbs in the future. *Id.* The Energy Star certification program is designed to avoid that problem by

providing a reliable signal of quality. If products that do not meet the Energy Star requirements are allowed to be sold to consumers, the Energy Star® mark will be diluted, substantially injuring Complainants' Energy Star-labeled bulbs. *Id.*

468. GE and Leedarson Respondents' products that are falsely-labeled as Energy Star certified also unfairly receive utility subsidies. This negates the competitive advantage provided by those subsidies to Complainants' Energy Star products and confers the advantage to undeserving products. *Id.* ¶ 28. By reducing the cost of their bulbs to a consumer with ill-gotten subsidies, GE and Leedarson Respondents are able to compete unfairly with Complainants' bulbs that legitimately receive Energy Star subsidies. *Id.* Among other harms, the result is lost sales and lost profits to Complainants, especially as the lower-quality bulbs can be manufactured and sold more cheaply. *Id.* ¶ 27. Moreover, Complainants may also suffer reduced domestic employment, and lost market share.

469. For instance, LSG is the majority owner of Global Value Lighting, LLC ("GVL"), which sells the Energy Star-certified EcoSmart 8W (60W Equivalent) Frosted Filament Dimmable A19 LED Light Bulb shown below in a screenshot from homedepot.com.[100] *Id.* ¶ 29. Because LSG is the majority shareholder of GVL, the commercial success or failure of GVL's products, including the EcoSmart 8W (60W Equivalent) Frosted Filament Dimmable A19 LED Light Bulb, accrues to LSG, and any commercial harm to GVL ultimately translates to a commercial harm to LSG.

[100] Ex. 31 (Maxik Energy Star Decl., Ex. E (Screenshot from The Home Depot) at 1).



470. Because of local utility subsidies, the EcoSmart 8W (60W Equivalent) Frosted Filament Dimmable A19 LED Light Bulb sells for $1.22/bulb at The Home Depot in Washington, DC. *Id.* The same bulb would otherwise sell for $2.46 per bulb without the subsidies. *Id.*

471. GE Respondents sell a competing product, the GE Lighting 25037 LED A19 Bulb, which is falsely-labeled as Energy Star certified, currently sells for $2.34 per bulb at Walmart.com without the utility subsidy. *Id.* ¶ 30. And GE Respondents' GE Lighting 67591 LED A19 Bulb currently sells for $2.90 per bulb at Amazon.com without the subsidies. *Id.* Because the products are marked with the Energy Star label, they can be sold with the utility subsidy, and thus at a lower price. Due to the high value of the utility subsidies relative to the price of the bulbs, GE Respondents' ability to compete on price with the EcoSmart 8W (60W Equivalent) Frosted Filament Dimmable A19 LED Light Bulb, and other of Complainants' products, is greatly enhanced where the subsidies are available for GE Respondents' products—subsidies only available to GE because its bulbs have been falsely-labeled as Energy Star certified. *Id.*

472. Healthe sells the GoodDay® BR40 LED Light Bulb, which is not Energy Star certified, for $16.99 per bulb. *Id.* ¶ 31. Leedarson sells a substitute product: the falsely-labeled i2-

LBR40D19.5-27K BR40 Bulb, which Leedarson sells for $28.99 at Houzz.com, without the utility subsidies. *Id.* Because the Leedarson product is marked with the Energy Star label, it can be sold (through vendors other than Houzz.com) with the utility subsidy, and thus at a lower price. Thus, the utility subsidies allow Leedarson's BR40 bulb to compete with Healthe's BR40, and other of Complainants' products, on price where it would not otherwise do so. *Id.* Healthe is a complainant to this investigation and is directly harmed by Leedarson's false advertising. Moreover, as the sole shareholder of Healthe, LSG is directly impacted by the commercial success or failure of Healthe's products, including the GoodDay® BR40 LED Light Bulb, and any commercial harm to Healthe ultimately translates to a commercial harm to LSG.

473. Accordingly, GE and Leedarson Respondents' false labeling causes substantial harm to Complainants' domestic industry in Energy Star certified products and other products that compete with GE and Leedarson Respondents' falsely-labeled products. *Id.* at ¶ 33.

XIII. General Exclusion Order

474. A general exclusion order is warranted when such exclusion is necessary to prevent circumvention of an exclusion order limited to products and named persons or where there is a pattern of violation of Section 337 and it is difficult to identify the source of the infringing products. A general exclusion order is warranted here both to prevent circumvention of any exclusion order limited to products of named entities, and because there is a pattern of violation of Section 337 and it is difficult to identify the source of infringing products.

475. There is a widespread pattern of infringement of the Asserted Patents by imported LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof, and it is difficult to identify all the sources of infringing products. On information and belief, infringing LED packages and assemblies, LED luminaires,

connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof are routinely imported into the United States, sold for importation into the United States, and/or sold within the United States after importation by numerous unknown entities.

476. Complainants have been able to identify a substantial number of entities worldwide that manufacture and import infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof. In this Complaint, Complainants have identified those entities about which they have substantial evidence of importation of infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof into the United States. On information and belief, numerous other entities are capable of shifting, at minimal expense, a substantial amount of their production to manufacture infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof for importation into the United States. Moreover, on information and belief, other foreign entities are currently holding inventory of LED chips that could be used to manufacture infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof for importation into the United States.[101]

[101] Ex. 132 ("China LED Chip Makers See High Inventory").

477. There is a widespread pattern of unauthorized use of the patented inventions. To protect its patent rights, Complainants have been forced to initiate patent infringement suits based upon the Asserted Patents. *See supra* Section X.

478. On information and belief, infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof, including those of the Proposed Respondents, are offered regularly for sale and sold via the Internet. In addition to the Proposed Respondents' websites, LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof are offered for sale and sold via the websites of distributors and retailers as well as on Amazon and E-bay.

479. Business conditions suggest that foreign manufacturers other than the Proposed Respondents may attempt to enter the United States with infringing products. There is an established and growing demand in the United States for LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof. For example, the "rapid increase in the LED market ... is spurring heavy capital investments by LED manufacturers, primarily in the Asian regions: Korea, Japan, and China."[102] "Since mid-2009, the Chinese Central Government has had in place a substantial investment

[102] Ex. 133 ("Asia Lighting Its Way to the Top of the LED Market?" Palomar Technologies")

program—as have many local government authorities in China—focused on accelerating the development of a sustainable LED industry."[103]

480. Entry into the market for LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights, and components thereof is relatively easy due, in part, to the high level of inventory of LED chips held by foreign manufacturers that could be used to manufacture infringing LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights for importation into the United States.[104] There are many producers of LED products, particularly in Asia, that could readily and inexpensively retool their production facilities to produce LED packages and assemblies, LED luminaires, connected "smart" LED lighting systems and components thereof, and, LED downlights, including LED canister retrofits and low-profile LED downlights to replace the Proposed Respondents should the Commission enter only limited relief.

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[103] *Id.*

[104] Ex. 132 ("China LED Chip Makers See High Inventory").

XIV. Relief Requested

481. Respondents have infringed and will continue to infringe the Asserted Patents as specified in Section VII above, unless the Commission prohibits the importation into and sale within the United States after importation of the Accused Products. In addition, certain Respondents have falsely advertised and will continue to falsely advertise their products as specified in Section VII above, unless the Commission prohibits the importation into and sale within the United States after importation of the falsely advertised Accused Products.

482. Accordingly, Complainants respectfully request that the United States International Trade Commission:

a) institute an immediate investigation pursuant to Section 337(b)(1) of the Tariff Act of 1930, as amended, 19 U.S.C. § 1337, into Respondents violations of Section 337 arising from the sale for importation into the United States, importation, and/or sale within the United States after importation of;

b) schedule and conduct a hearing, pursuant to Section 337(c), for purposes of receiving evidence and hearing argument concerning whether Respondents have violated Section 337 and, following the hearing, determine that Respondents have violated Section 337;

c) issue a permanent general exclusion order, pursuant to Section 337(d) and (f)(1), excluding from entry into the United States Respondents' LED products and components thereof that infringe one or more claims of the Accused Patents, including, without limitation, the specific Accused Products identified in this Complaint and the exhibits hereto;

d) issue a permanent limited exclusion order, pursuant to Section 337(d) and (f)(1), excluding from entry into the United States Respondents' LED products and components thereof that infringe one or more claims of the Accused Patents, as well as certain Respondents' LED products and components thereof that are falsely advertised as compliant with ENERGY

STAR, including, without limitation, the specific Accused Products identified in this Complaint and the exhibits thereto;

e) issue a permanent order, pursuant to Section 337(f), directing Respondents to cease and desist from importing, selling, selling for importation, offering for sale, using, demonstrating, promoting, marketing, and/or advertising in the United States Respondents' LED products and components thereof that infringe one or more claims of the Accused Patents, and products falsely advertised as compliant with ENERGY STAR, including, without limitation, the specific Accused Products identified in this Complaint and the exhibits hereto;

f) impose a bond on importation and sales of infringing products and/or falsely and misleadingly advertised during the 60-day Presidential review period pursuant to 19 U.S.C. § 1337(j); and

g) grant all such other and further relief as it deems appropriate under the law, based upon the facts complained of herein and as determined by the investigation.

Dated: April 30, 2019

Respectfully submitted,

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VERIFICATION OF COMPLAINT

I, Fredric S. Maxik, declare, in accordance with 19 C.F.R. §§ 210.4 and 210.12 and under penalty of perjury under the laws of the United States of America, that the following are true:

1. I am the Chief Technology Officer of Complainant Lighting Science Group Corporation;

2. I am the Chief Technology Officer of Complainant Healthe, Inc.;

3. I am duly authorized to submit this verification;

4. I have read the Complaint and am familiar with its contents;

5. To the best of my knowledge, information, and belief, formed after an inquiry reasonable under the circumstances:

   a. The Complaint is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of the investigation or related proceeding;

   b. The claims, defenses, and other legal contentions in the Complaint are warranted by existing law or by a non-frivolous argument for the extension, modification, or reversal of existing law or the establishment of new law; and

   c. The allegations and other factual contentions have evidentiary support or, if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery.

Date: April 30, 2019

Fredric S. Maxik
Chief Technology Officer,
Lighting Science Group Corporation &
Chief Technology Officer, Healthe, Inc.

VERIFICATION OF COMPLAINT

I, Edward Bednarcik, declare, in accordance with 19 C.F.R. §§ 210.4 and 210.12 and under penalty of perjury under the laws of the United States of America, that the following are true:

1. I am the Chief Executive Officer of Complainant Global Value Lighting, LLC;
2. I am duly authorized to submit this verification;
3. I have read the Complaint and am familiar with its contents;
4. To the best of my knowledge, information, and belief, formed after an inquiry reasonable under the circumstances:
   a. The Complaint is not being presented for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of the investigation or related proceeding;
   b. The claims, defenses, and other legal contentions in the Complaint are warranted by existing law or by a non-frivolous argument for the extension, modification, or reversal of existing law or the establishment of new law; and
   c. The allegations and other factual contentions have evidentiary support or, if specifically so identified, are likely to have evidentiary support after a reasonable opportunity for further investigation or discovery.

Date: April 30, 2019

Edward Bednarcik
Chief Executive Officer,
Global Value Lighting, LLC