Technical Requirements Tables (TRT)

SSL V6.0 & LUNA V2.0

FINAL POLICY

RELEASED NOVEMBER 3, 2025

Contents

Disclaimer for Using Technical Requirements Tables

The SSL V6.0 and LUNA V2.0 Technical Requirements Tables (TRT) contain only a subset of the information present in the main document DLC Technical Requirements for LED Lighting: SSL V6.0 and LUNA V2.0.

Only the document linked above contains the full set of requirements and should be considered the primary resource for determining product eligibility, whereas the TRT should be used only as a shortcut for finding information present within the tables contained in the full Technical Requirements.

Without reading the full Technical Requirements, readers will miss key elements of requirements that may lead to less accuracy when products and programs are designed around these requirements.

Table TRT-1: Categories, General Applications, and Primary Use Designations (PUD)

#	Category	General Application	Primary Use Designation (PUD)
1	*Outdoor*	Low Output	• *Outdoor Pole/Arm-Mounted Area and Roadway Luminaire* • *Outdoor Pole/Arm-Mounted Decorative Luminaire* • *Outdoor Zero-Uplight Wall-Mounted Area Luminaire* • *Outdoor Uplight-Emitting Wall-Mounted Area Luminaire* • *Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaire*[3] • *Turtle Lighting Zero-Uplight Wall-Mounted Area Luminaires*[3] • *Turtle Lighting Zero-Uplight Bollard*[3] • *Bollard* • *Parking Garage Luminaire* • *Fuel Pump Canopy Luminaire* • *Architectural Flood and Spot Luminaire* • *Stairwell and Passageway Luminaire* • *Hazardous Environment Area Luminaire* • *Sports Lighting* • Specialty: _____
2		Mid Output	
3		High Output	
4		Very High Output	
5	*Indoor*	Interior Directional	• *Wall Wash Luminaire* • *Track or Mono-point Luminaire* • Specialty: _____
6		Case Lighting	• *Display Case Luminaire* • *Horizontal Refrigerated Case Luminaire* • *Vertical Refrigerated Case Luminaire* • Specialty: _____
7		Troffer	• *2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces* • *1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces* • *2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces* • Specialty: _____
8		Linear Ambient	• *Direct Linear Ambient Luminaire* • *Linear Ambient Luminaires With Indirect Component* • Specialty: _____

#	Category	General Application	Primary Use Designation (PUD)
9		High-Bay	• *High Bay Luminaire* • *High Bay Aisle Luminaire* • *Hazardous Environment High-Bay Luminaire* • *Indirect High-Bay Luminaire* • Specialty: _____
10		Low-Bay	• *Low-Bay Luminaire* • *Hazardous Environment Low-Bay Luminaire* • Specialty: _____
11	*Outdoor Retrofit Kits*[1,2]	Low Output	• *Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires* • *Retrofit Kits for Outdoor Pole/Arm-Mounted Decorative Luminaires* • *Retrofit Kits for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires* • *Retrofit Kits for Outdoor Zero-Uplight Wall-Mounted Area Luminaires* • *Retrofit Kits for Parking Garage Luminaires* • *Retrofit Kits for Fuel Pump Canopy Luminaires*
12		Mid Output	
13		High Output	
14		Very High Output	
15	*Indoor Retrofit Kit*[1,2]	Troffer	• *Linear Retrofit Kits for 2x2 Luminaires* • *Integrated Retrofit Kits for 2x2 Luminaires* • *Linear Retrofit Kits for 1x4 Luminaires* • *Integrated Retrofit Kits for 1x4 Luminaires* • *Linear Retrofit Kits for 2x4 Luminaires* • *Integrated Retrofit Kits for 2x4 Luminaires*
16		Linear Ambient	• *Retrofit Kits for Direct Linear Ambient Luminaires*
17		High-Bay	• *Retrofit Kits for High-Bay Luminaires*
18		Low-Bay	• *Retrofit Kits for Low-Bay Luminaires*
11	*Solar Powered Outdoor Luminaires*[4]	Low Output	• *Outdoor Pole/Arm-Mounted Area and Roadway Luminaire* • *Outdoor Pole/Arm-Mounted Decorative Luminaire* • *Outdoor Zero-Uplight Wall-Mounted Area Luminaire* • *Outdoor Uplight-Emitting Wall-Mounted Area Luminaire* • *Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaire*[3] • *Turtle Lighting Zero-Uplight Wall-Mounted Area Luminaires*[3] • *Turtle Lighting Zero-Uplight Bollard*[3] • *Bollard* • *Parking Garage Luminaire* • *Fuel Pump Canopy Luminaire* • *Architectural Flood and Spot Luminaire*
12		Mid Output	
13		High Output	
14		Very High Output	

#	Category	General Application	Primary Use Designation (PUD)
			• *Stairwell and Passageway Luminaire* • *Hazardous Environment Area Luminaire* • *Sports Lighting* • Specialty: _____
19	*Linear Replacement Lamps*	*2' T8 Lamp*	• *Replacement Lamps ("Plug and Play") (UL Type A)* • *Internal Driver/Line Voltage (UL Type B) Lamp* • *1-Lamp External Driver (UL Type C) Lamp* • *2-lamp External Driver (UL Type C) Lamp* • *3-lamp External Driver (UL Type C) Lamp* • *4-lamp External Driver (UL Type C) Lamp* • *Dual Mode Internal Driver (UL Type A or B)*
20		*4' T8 Lamp*	
21		*4' T5 Lamp*	
22		*3' T8 Lamp*	• *Replacement Lamps ("Plug and Play") (UL Type A)* • *Internal Driver/Line Voltage (UL Type B) Lamp* • *1-Lamp External Driver (UL Type C) Lamp* • *2-lamp External Driver (UL Type C) Lamp* • *Dual Mode Internal Driver (UL Type A or B)*
23		*8' T8 Lamp*	
24		*4' T5HO Lamp*	• *Replacement Lamps ("Plug and Play") (UL Type A)* • *Internal Driver/Line Voltage (UL Type B) Lamp* • *1-Lamp External Driver (UL Type C) Lamp* • *2-lamp External Driver (UL Type C) Lamp* • *3-lamp External Driver (UL Type C) Lamp* • *4-lamp External Driver (UL Type C) Lamp* • *6-lamp External Driver (UL Type C) Lamp* • *Dual Mode Internal Driver (UL Type A or B)*
25		*U-Bend Replacement Lamp*	• *Replacement Lamps ("Plug and Play") (UL Type A)* • *Internal Driver/Line Voltage Lamp-Style Retrofit Kits (UL Type B)* • *1-Lamp External Driver (UL Type C) Lamp* • *2-lamp External Driver (UL Type C) Lamp* • *3-lamp External Driver (UL Type C) Lamp* • *Dual Mode Internal Driver (UL Type A or B)*
26	*Mogul Screw-Base (E39/E40) Replacements for HID Lamps*[1]	Outdoor – Low Output	• *Replacement Lamps for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires (UL Type B)* • *Replacement Lamps for Outdoor Pole/Arm-Mounted Decorative Luminaires (UL Type B)* • *Replacement Lamps for Outdoor Zero-Uplight Wall-Mounted Area Luminaires (UL Type B)* • *Replacement Lamps for Parking Garage Luminaires (UL Type B)* • *Replacement Lamps for Fuel Pump Canopy Luminaires (UL Type B)* • *Replacement Lamps for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires (UL Type C)*
27		Outdoor – Mid Output	
28		Outdoor – High Output	
29		Outdoor – Very High Output	

#	Category	General Application	Primary Use Designation (PUD)
			• *Replacement Lamps for Outdoor Pole/Arm-Mounted Decorative Luminaires (UL Type C)* • *Replacement Lamps for Outdoor Zero-Uplight Wall-Mounted Area Luminaires (UL Type C)* • *Replacement Lamps for Parking Garage Luminaires (UL Type C)* • *Replacement Lamps for Fuel Pump Canopy Luminaires (UL Type C)*
30		High-Bay	• *Replacement Lamps for High-Bay Luminaires (UL Type B)* • *Replacement Lamps for High-Bay Luminaires (UL Type C)*
31		Low-Bay	• *Replacement Lamps for Low-Bay Luminaires (UL Type B)* • *Replacement Lamps for Low-Bay Luminaires (UL Type C)*
32		Omnidirectional/Directional Lamps	• *Omnidirectional/Directional Replacement Lamps (UL Type B)*
33	*Medium Screw-Base (E26, E27) Replacement for HID Lamps*[1]	Omnidirectional/Directional Lamps	• *Omnidirectional/Directional Replacement Lamps (UL Type B)*
35	*Four Pin-Base Replacement Lamp for CFLs*[1]	Vertically Mounted Lamps	• *Replacement Lamps ("Plug and Play") (UL Type A)*
36		Horizontally Mounted Lamps	
37		2G11 Base Lamps	• *Replacement Lamps ("Plug and Play") (UL Type A)* • *Internal Driver/Line Voltage (UL Type B) Lamp* • *1-Lamp External Driver (UL Type C) Lamp* • *2-lamp External Driver (UL Type C) Lamp* • *3-lamp External Driver (UL Type C) Lamp* • *Dual Mode Internal Driver (UL Type A or B)*

Table TRT-2: DLC Standard Efficacy Requirements for Luminaires and Retrofit Kits Within Standardized CCT Quadrangles (1800 K to 6500 K as Applicable*)

Category	General Application	Primary Use Designation	DLC Standard Minimum Efficacy (lumens per watt, lm/W)
Outdoor Luminaires and Solar Powered Outdoor Luminaires	All	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	125
		Outdoor Pole/Arm-Mounted Decorative Luminaires	115
		Outdoor Zero-Uplight Wall-Mounted Area Luminaires	125
		Outdoor Uplight-Emitting Wall-Mounted Area Luminaires	125
		Bollards	115
		Parking Garage Luminaires	115
		Fuel Pump Canopy Luminaires	125
		Architectural Flood and Spot Luminaires	125
		Stairwell and Passageway	125
		Sports Lighting	115
		Hazardous Environment Area Luminaires	115
		All Outdoor Specialty**	115
Indoor Luminaires	Interior Directional	All	95
	Case Lighting		105
	Troffer		120
	Linear Ambient		125
	High-Bay	All except Hazardous Environment High-Bay Luminaires	135
		Hazardous Environment High-Bay Luminaires	130
	Low-Bay	All except Hazardous Environment Low-Bay Luminaires	130
		Hazardous Environment Low-Bay Luminaires	125
Outdoor Retrofit Kits	All	Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	125
		Retrofit Kits for Outdoor Pole/Arm-Mounted Decorative Luminaires	115
		Retrofit Kits for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	125
		Retrofit Kits for Outdoor Wall-Mounted Area Luminaires	125
		Retrofit Kits for Parking Garage Luminaires	115
		Retrofit Kits for Fuel Pump Canopy Luminaires	125

Category	General Application	Primary Use Designation	DLC Standard Minimum Efficacy (lumens per watt, lm/W)
Indoor Retrofit Kits	Troffer	All	120
	Linear Ambient		125
	High-Bay		135
	Low-Bay		130

Table TRT-3: Standard Efficacy Requirements for Lamps Within Standardized CCT Quadrangles (1800 K to 6500 K as Applicable*) [In-Luminaire and Bare-Lamp]

Category	General Application	DLC Standard Minimum Efficacy (lm/W)	
		In-Luminaire	Bare-Lamp
Linear Replacement Lamps	2’ T8 Lamps	N/A	130
	3’ T8 Lamps		130
	4’ T8 Lamps		130
	4’ T5 Lamps		130
	4’ T5HO Lamps		130
	8’ T8 Lamps		130
	U-Bend Lamps		130
Mogul Screw-Base (E39/E40) Replacements for HID Lamps	Outdoor: Low Output	115	N/A
	Outdoor: Mid Output	115	
	Outdoor: High Output	115	
	Outdoor: Very High Output	115	
	High-Bay	135	
	Low-Bay	130	
	Omnidirectional/Directional	N/A	145
Medium Screw-Base (E26) Replacements for HID Lamps	Omnidirectional/Directional	N/A	130
Four Pin-Base Replacement Lamps for CFLs	Vertically-Mounted Lamps	80	90
	Horizontally-Mounted Lamps	80	90
	2G11 Base Lamps	N/A	125

Table TRT-4: Testing and Reporting Requirements for Spectral Quality (DLC Standard)

<table>
<tr><th>Metric and/or Application</th><th>Applicable Products</th><th>SSL V6.0 & LUNA V2.0 Standard Requirements</th><th>QPL Listing</th><th>Method of Measurement or Evaluation</th></tr>
<tr><td rowspan="4">Chromaticity (CCT & D_{uv})</td><td colspan="2">Chromaticity must be consistent with at least one of the basic, flexible, or extended, nominal 7-step quadrangle CCTs detailed below:</td><td rowspan="4">CCT and D_{uv} for parent products from ANSI/IES LM-79 test reports are listed as Tested Data.
Nominal CCT for child products is listed as Reported Data.</td><td rowspan="4">ANSI/IES LM-79
ANSI C78.377-2024</td></tr>
<tr><td>All indoor products including linear replacement lamps and replacements for CFLs</td><td>1800 K – 6500 K</td></tr>
<tr><td>All outdoor products including omnidirectional/ Directional E39 and E26 lamps, except Sports Lighting and Fuel Pump Canopy</td><td>1800 K – 5000 K</td></tr>
<tr><td>Sports Lighting and Fuel Pump Canopy</td><td>1800 K – 5700 K</td></tr>
<tr><td rowspan="2">Color Rendition</td><td colspan="2">Products are required to report data in terms of Option 1 and Option 2 but are only required to meet either Option 1 or Option 2 when thresholds are stipulated.</td><td rowspan="2">All color rendition metrics for parent products from LM-79 test reports are listed as Tested Data.

All color rendition metrics for child products are listed as Reported Data.</td><td rowspan="2">ANSI/IES LM-79
ANSI/IES TM-30
CIE 13.3-1995</td></tr>
<tr><td>All Indoor products (except high-bay and NWL) including linear replacement lamps and replacements for CFLs</td><td>Option 1 - ANSI/IES TM-30:
IES $R_f \geq 70$
IES $R_g \geq 89$
$-12\% \leq$ IES $R_{cs,h1} \leq +23\%$
Option 2 - CIE 13.3-1995:
R_a (CRI) ≥ 80
$R_9 \geq 0$</td></tr>
</table>

Metric and/or Application	Applicable Products	SSL V6.0 & LUNA V2.0 Standard Requirements	QPL Listing	Method of Measurement or Evaluation
	All Outdoor (except NWL), Omnidirectional /Directional E26 and E39 lamps, and high-bay products	**Option 1 - ANSI/IES TM-30:** • IES $R_f \geq 70$ • IES $R_g \geq 89$ • $-18\% \leq$ IES $R_{cs,h1} \leq +23\%$ **Option 2 - CIE 13.3-1995:** • R_a (CRI) ≥ 70 • $R_9 \geq -40$ (high-bay only) Outdoor must report R_9		
	All NWL products	All NWL products must report the following metrics.No thresholds are stipulated. **ANSI/IES TM-30:** • IES R_f • IES R_g • IES $R_{cs,h1}$ **CIE 13.3-1995:** • R_a (CRI) • R_9		
Color Maintenance [1]	All Indoor products (except high-bay and NWL) including linear replacement lamps and replacements for CFLs	Chromaticity shift from ~1,000-hour measurement to ~6,000-hour measurement shall be within a linear distance of 0.004 ($\Delta u'v' \leq 0.004$) on the CIE 1976 (u', v') chromaticity diagram. Optional reporting of CS4 and CS7 values (without thresholds) per ANSI/IES TM-35-19.	CS4 and CS7 values will be displayed as Reported Data when reported.	ANSI/IES LM-80, and/or IES LM-84-14 and ANSI/IES TM-35-19

[1] It is important to note that optional reporting of ANSI/IES TM-35-19 CS4 and CS7 values is included in SSL V6.0 and LUNA V2.0, and that reporting pathways will be provided coinciding with the availability of a publicly available TM-35 calculator. Custom calculators will not be accepted for reporting CS4 and CS7 values.

Metric and/or Application	Applicable Products	SSL V6.0 & LUNA V2.0 Standard Requirements	QPL Listing	Method of Measurement or Evaluation
	All Outdoor (except NWL), omnidirectional and directional E26 and E39 lamps, and high-bay products	Chromaticity shift from ≈1,000-hour measurement to ≈6,000-hour measurement shall be within a linear distance of 0.007 ($\Delta u'v' \leq 0.007$) on the CIE 1976 (u', v') chromaticity diagram. Optional reporting of CS4 and CS7 values (without thresholds) per ANSI/IES TM-35-19.		
	All NWL products	*All NWL products must report the following metrics. No thresholds are stipulated.* Chromaticity shift on the CIE 1976 (u', v') chromaticity diagram from ~1,000-hour measurement to ~6,000-hour measurement shall be reported to the DLC. Optional reporting of CS4 and CS7 values per ANSI/IES TM-35-19.		

Table TRT-5: Light Output Requirements by General Application for Outdoor Luminaires, Retrofit Kits and Lamps

Category	General Application	Light Output Range (lumens, lm)
Outdoor Luminaires, Solar Powered Outdoor Luminaires, Outdoor Retrofit Kits, Outdoor Mogul Screw-Base (E39/E40) Lamps	Low Output	150 – 5,000
	Mid Output	5,000 – 10,000
	High Output	10,000 – 30,000
	Very High Output	≥30,000

Table TRT-6: Light Output Requirements by Primary Use Designation

Category	General Application	Primary Use Designation	Minimum Light Output (lm)
Outdoor Luminaires and Solar Powered Outdoor Luminaires	Note: Light Output requirements vary by General Application type (e.g. Low, Mid, High and Very High Output) See Table 5 above	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1,000
		Outdoor Pole/Arm-Mounted Decorative Luminaires	1,000
		Outdoor Zero-Uplight Wall-Mounted Area Luminaires	300
		Outdoor Uplight Emitting Wall-Mounted Area Luminaires	300
		Bollards	150
		Parking Garage Luminaires	2,000
		Fuel Pump Canopy Luminaires	2,000
		Architectural Flood and Spot Luminaires	250
		Stairwell and Passageway Luminaires	750
		Hazardous Environment Area Luminaires	1,000
		Sports Lighting	1,000
		Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaires	250
		Turtle Lighting Zero-Uplight Wall-mounted Area Luminaires	250
		Turtle Lighting Zero-Uplight Bollards	150
Indoor Luminaires	Interior Directional	Wall-Wash Luminaires	575
		Track or Mono-Point Directional Luminaires	250
	Case Lighting	Vertical Refrigerated Case Luminaires-center	100 lm/ft
		Vertical Refrigerated Case Luminaires-end	50 lm/ft
		Horizontal Refrigerated Case Luminaires	100 lm/ft
		Display Case Luminaires	50 lm/ft
	Troffer	2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces	2,000
		1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces	1,500
		2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces	3,000
	Linear Ambient	Linear Ambient Luminaires (Indirect Component)	500 lm/ft
		Direct Linear Ambient Luminaires	375 lm/ft
	High-Bay	High-Bay Luminaires	10,000
		High-Bay Aisle Luminaires	10,000
		Hazardous Environment High-Bay Luminaires	10,000
		Indirect High-Bay Luminaires	10,000
	Low-Bay	Low-Bay Luminaires	5,000 – 10,000

Category	General Application	Primary Use Designation	Minimum Light Output (lm)
		Hazardous Environment Low-Bay Luminaires	5,000
Outdoor Retrofit Kits	Note: Light Output requirements vary by General Application type (e.g. Low, Mid, High and Very High Output) See Table 5 above	Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1,000
		Retrofit Kits for Outdoor Pole/Arm-Mounted Decorative Luminaires	1,000
		Retrofit Kits for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1,000
		Retrofit Kits for Zero-Uplight Outdoor Wall-Mounted Area Luminaires	300
		Retrofit Kits for Parking Garage Luminaires	2,000
		Retrofit Kits for Fuel Pump Canopy Luminaires	2,000
Indoor Retrofit Kits	Troffer	Retrofit Kits for 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	2,000
		Retrofit Kits for 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	1,500
		Retrofit Kits for 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	3,000
	Linear Ambient	Retrofit Kits for Direct Linear Ambient Luminaires	375 lm/ft
	High-Bay	Retrofit Kits for High-Bay Luminaires	10,000
	Low-Bay	Retrofit Kits for Low-Bay Luminaires	5,000 (and l<10,000)
Linear Replacement Lamps	Four-Foot Linear Replacement Lamps (T8, T5)	All	1,600
	Four-Foot Linear Replacement Lamps (T5HO)	All	3,200
	Two-Foot Linear Replacement Lamps	All	800
	U-Bend Replacement Lamps	All	1,400
	Three-Foot Linear Replacement Lamps	All	1,200
	Eight-Foot Linear Replacement Lamps	All	3,200
Mogul Screw-Base (E39/E40) Replacements for HID Lamps (In Luminaire)	Note: Light Output requirements vary for outdoor products by General Application type (e.g. Low, Mid, High and	Mogul Screw-Base Replacements for HID Lamps in Outdoor Pole/Arm-mounted Area and Roadway Luminaires	1,000
		Mogul Screw-Base Replacements for HID Lamps in Outdoor Pole/Arm-mounted Decorative Luminaires	1,000

Category	General Application	Primary Use Designation	Minimum Light Output (lm)
	Very High Output) See Table 5 above	Mogul Screw-Base Replacements for HID Lamps in Outdoor Zero-Uplight Wall-mounted Area Luminaires	300
		Mogul Screw-Base Replacements for HID Lamps in Parking Garage Luminaires	2,000
		Mogul Screw-Base Replacements for HID Lamps in Fuel Pump Canopy Luminaires	2,000
	High-Bay	Mogul Screw-Base Replacements for HID Lamps in High-Bay Luminaires (Commercial and Industrial)	10,000
	Low-Bay	Mogul Screw-Base Replacements for HID Lamps in Low-Bay Luminaires (Commercial and Industrial)	5,000
Four Pin-Base Replacement Lamps for CFLs	Vertically Mounted Four Pin-Base Replacement Lamps for CFLs	All	In luminaire: 575 (1-lamp configuration)
			Bare lamp: 675
	Horizontally Mounted Four Pin-Base Replacement Lamps for CFLs	All	In luminaire: 800 (2-lamp configuration)
			Bare lamp: 675
	2G11 Base Replacement Lamps for CFLs	All	1,900
Mogul Screw-Base (E39/E40) Replacements for HID Lamps (Bare Lamp)	Omnidirectional/Directional Lamps	Omnidirectional/Directional Mogul Screw-Base Replacements for HID Lamps	2,000
Medium Screw-Base (E26) Replacements for HID Lamps (Bare Lamp)	Omnidirectional/Directional Lamps	Omnidirectional/Directional Medium Screw-Base Replacements for HID Lamps	2,000

Table TRT-7: Testing and Reporting Requirements for Light Distribution (DLC Standard)

Metric and/or Data Set	SSL V6.0 Requirements			Method of Evaluation
	Threshold	Reported	QPL Listing	
Zonal Lumen Distributions (ZLD) & Spacing Criteria (SC) *All products except replacement lamps*	*Table 8*	Separate ZLD and SC reporting required for each product per Table 8	ZLD and SC information will not be published on the QPL	ANSI/IES LM-79 values produced by photometric analysis from tested IES-format files
Beam Angle *Linear replacement lamps and 2G11 lamps* *Omnidirectional/directional medium screw-base and mogul screw-base replacement lamps*	*Table 8*	Bare-lamp beam angle for each product	Beam angles are reported by the applicants and listed under the Reported Data section. Beam angles for parent products will be verified by the DLC using LM-79 test reports and listed as Tested Data.	ANSI/IES LM-79 Beam angle per ANSI/IES LS-1-22
Backlight, Uplight, and Glare (BUG) *Outdoor luminaires and retrofit kits only*	None	BUG ratings for each product	BUG ratings for child products are reported by the applicants and listed under the Reported Data section. BUG ratings for parent products will be generated by the DLC using tested photometric data and listed as Tested Data	BUG ratings generated per Annex A of ANSI/IES TM-15-20 using luminaire photometric data

Table TRT-8: Primary Use Designation Technical Requirements: Light Distribution

Primary Use Letter	Primary Use Designation	Zonal Lumen Distribution (ZLD)/Spacing Criteria (SC)/Beam Angle (BA)*	ZL/SC/BA Nominal Requirement*	ZL/SC/BA Tolerance	ZLD/SC/BA Requirement with Tolerance
A	Outdoor Pole/Arm-Mounted Area and Roadway Luminaire	ZLD: 0° - 90°	100%	-1%	≥99%
		ZLD: 80° - 90°	≤10%	+3%	≤13%
B	Outdoor Pole/Arm-Mounted Decorative Luminaire	ZLD: 0° - 90°	≥65%	-3%	≥62%
C	Outdoor Zero-Uplight Wall-Mounted Area Luminaire	ZLD: 0° - 90°	100%	0%	100%
		ZLD: 80° - 90°	≤5%	+3%	≤8%
D	Outdoor Uplight Emitting Wall-Mounted Area Luminaire	ZLD: 80° - 90°	≤10%	+3%	≤13%
		ZLD: >90°	≤20%	+3%	≤23%
E	Bollard	ZLD: 90° - 110°	≤15%	+3%	≤18%
		ZLD: >110°	0%	+3%	≤3%
F	Parking Garage Luminaire	ZLD: 60° - 80°	≥30%	-3%	≥27%
		ZLD: 70° - 80°	≤25%	+3%	≤28%
G	Fuel Pump Canopy Luminaire	ZLD: 0° - 40°	≥40%	-3%	≥37%
		ZLD: 40-70°	≥40%	-3%	≥37%
I	Architectural Flood and Spot Luminaire	ZLD: 0° - 90°	≥85%	-3%	≥82%
J	Stairwell and Passageway Luminaire	ZLD: 0° - 90°	≥85%‡	-3%	≥82%
BA	Hazardous Environment Area Luminaire	ZLD: 0°- 90°	100%	-1%	≥99%
		ZLD: 80° - 90°	≤10%	+3%	≤13%
BB	Sports Lighting	ZLD: 0° - 90°	100%	1%	≥99%
K	Wall-wash Luminaire	ZLD: 0° - 90°	≥60%‡‡	-3%	≥57%
L	Track or Mono-Point Directional Luminaire	ZLD: 0° - 90°	≥85%	-3%	≥82%
M	Vertical Refrigerated Case Luminaire - center	ZLD: 10° - 90°†	≥95%†	-3%	≥92%
N	Vertical Refrigerated Case Luminaire - end	ZLD: 10° - 90°‡‡	≥95%‡‡	-5%	≥90%
O	Horizontal Refrigerated Case Luminaire	ZLD: 0° - 90°	≥95%	-3%	≥92%

Primary Use Letter	Primary Use Designation	Zonal Lumen Distribution (ZLD)/Spacing Criteria (SC)/Beam Angle (BA)*	ZL/SC/BA Nominal Requirement*	ZL/SC/BA Tolerance	ZLD/SC/BA Requirement with Tolerance
P	Display Case Luminaire	ZLD: 0^o - 80^o	≥95%	-5%	≥90%
Q	2x2 Luminaire for Ambient Lighting of Interior Commercial Spaces	SC: 0^o - 180^o	1.0 – 2.0	±0.1	0.9 – 2.1
		SC: 90^o - 270^o	1.0 – 2.0	±0.1	0.9 – 2.1
		ZLD: 0^o - 60^o	≥75%	-3%	≥72%
R	1x4 Luminaire for Ambient Lighting of Interior Commercial Spaces	SC: 0^o - 180^o	1.0-2.0	±0.1	0.9 – 2.1
		SC: 90^o - 270^o	1.0-2.0	±0.1	0.9 – 2.1
		ZLD: 0^o - 60^o	≥75%	-3%	≥72%
S	2x4 Luminaire for Ambient Lighting of Interior Commercial Spaces	SC:0^o - 180^o	1.0-2.0	±0.1	0.9 – 2.1
		SC:90^o - 270^o	1.0-2.0	±0.1	0.9 – 2.1
		ZLD:0^o - 60^o	≥75%	-3%	≥72%
T	Linear Ambient Luminaire (Indirect Component)	ZLD: 90^o - 150^o	≥35%	-3%	≥32%
U	Direct Linear Ambient Luminaire	ZLD: 0^o - 60^o	≥40%	-3%	≥37%
V	High-Bay Luminaire	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
W	High-Bay Aisle Luminaire	ZLD: 20^o - 50^o	≥50%	-10%	≥40%
		ZLD: 0^o - 20^o	≥30%	-10%	≥20%
BC	Hazardous Environment High-Bay Luminaire	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
BD	Indirect High-Bay Luminaire	ZLD: 90^o - 180^o	>90%	-3%	≥87%
X	Low-Bay Luminaire	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
BE	Hazardous Environment Low-Bay Luminaire	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
Y	Retrofit Kit for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	ZLD: 0^o - 90^o	100%	-1%	≥99%
		ZLD: 80^o - 90^o	≤10%	3%	≤13%
Z	Retrofit Kit for Outdoor Pole/Arm-Mounted Decorative Luminaire	ZLD: 0^o - 90^o	≥65%	-3%	≥62%
AA	Retrofit Kit for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	ZLD: 0^o - 90^o	100%	-1%	≥99%
		ZLD: 80^o - 90^o	≤10%	3%	≤13%
AB	Retrofit Kit for Zero-Uplight Outdoor Wall-Mounted Area Luminaires	ZLD: 0^o - 90^o	100%	0%	100%
		ZLD: 80^o - 90^o	≤5%	+3%	≤8%
AC	Retrofit Kit for Parking Garage Luminaires	ZLD: 60^o - 80^o	≥30%	-3%	≥27%
		ZLD: 70^o - 80^o	≤25%	+3%	≤28%
AD	Retrofit Kit for Fuel Pump Canopy Luminaires	ZLD: 0^o - 40^o	≥40%	-3%	≥37%
		ZLD: 40^o - 70^o	≥40%	-3%	≥37%

Primary Use Letter	Primary Use Designation	Zonal Lumen Distribution (ZLD)/Spacing Criteria (SC)/Beam Angle (BA)*	ZL/SC/BA Nominal Requirement*	ZL/SC/BA Tolerance	ZLD/SC/BA Requirement with Tolerance
AE	Retrofit Kit for 2x2 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	SC:0° - 180°	1.0 – 2.0	±0.1	0.90 – 2.1
		SC:90° - 270°	1.0 – 2.0	±0.1	0.90 – 2.1
		ZLD:0° - 60°	≥75%	-3%	≥72%
AF	Retrofit Kit for 1x4 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	SC:0° - 180°	1.0 – 2.0	±0.1	0.90 – 2.1
		SC:90° - 270°	1.0 – 2.0	±0.1	0.90 – 2.1
		ZLD:0° - 60°	≥75%	-3%	≥72%
AG	Retrofit Kit for 2x4 Luminaires for Ambient Lighting of Interior Commercial Spaces (all PUDs)	SC:0° - 180°	1.0 – 2.0	±0.1	0.90 – 2.1
		SC:90° - 270°	1.0 – 2.0	±0.1	0.90 – 2.1
		ZLD:0° - 60°	≥75%	-3%	≥72%
AH	Retrofit Kit for Direct Linear Ambient Luminaires	ZLD: 0° - 60°	≥40%	-3%	≥37%
AI	Retrofit Kit for High-Bay Luminaires	ZLD: 20° - 50°	≥30%	-10%	≥20%
AJ	Retrofit Kit for Low-Bay Luminaires	ZLD: 20° - 50°	≥30%	-10%	≥20%
AK	Four-Foot Linear Replacement Lamp (T8, T5: all PUDs)	Beam Angle	≥140°	-5°	≥135°
AL	Four-Foot Linear Replacement Lamp (T5HO: all PUDs)	Beam Angle	≥140°	-5°	≥135°
AM	Two-Foot Linear Replacement Lamp (all PUDs)	Beam Angle	≥140°	-5°	≥135°
AN	U-Bend Replacement Lamp (all PUDs)	Beam Angle	≥140°	-5°	≥135°
AO	Three-Foot Linear Replacement Lamp (all PUDs)	Beam Angle	≥140°	-5°	≥135°
AP	Eight-Foot Linear Replacement Lamp (all PUDs)	Beam Angle	≥140°	-5°	≥135°
AQ	Mogul Screw-Base Replacement for HID Lamp in Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	ZLD: 0° - 90°	≥100%	-1%	≥99%
		ZLD: 80° - 90°	≤10%	3%	≤13%
AR	Mogul Screw-Base Replacement for HID Lamp in Outdoor Pole/Arm-Mounted Decorative Luminaires	ZLD: 0° - 90°	≥65%	-3%	≥62%

Primary Use Letter	Primary Use Designation	Zonal Lumen Distribution (ZLD)/Spacing Criteria (SC)/Beam Angle (BA)*	ZL/SC/BA Nominal Requirement*	ZL/SC/BA Tolerance	ZLD/SC/BA Requirement with Tolerance
AS	Mogul Screw-Base Replacement for HID Lamp in Outdoor Zero-Uplight Wall-Mounted Area Luminaires	ZLD: 0^o - 90^o	100%	0%	100%
		ZLD: 80^o - 90^o	≤5%	+3%	≤8%
AT	Mogul Screw-Base Replacement for HID Lamp in Parking Garage Luminaires	ZLD: 60^o - 80^o	≥30%	-3%	≥27%
		ZLD: 70^o - 80^o	≤25%	+3%	≤28%
AU	Mogul Screw-Base Replacement for HID Lamp in Fuel Pump Canopy Luminaires	ZLD: 0^o - 40^o	≥40%	-3%	≥37%
		ZLD: 40^o - 70^o	≥40%	-3%	≥37%
AV	Mogul Screw-Base Replacement for HID Lamp in High-Bay Luminaires	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
AW	Mogul Screw-Base Replacement for HID Lamp in Low-Bay Luminaires	ZLD: 20^o - 50^o	≥30%	-10%	≥20%
AX	Vertically Mounted Four-Pin Base Replacement Lamp for CFLs	ZLD:0^o - 60^o	≥75%	-3%	≥72%
AY	Horizontally Mounted Four-Pin Base Replacement Lamp for CFLs	ZLD:0^o - 60^o	≥75%	-3%	≥72%
AZ	2G11 Base Replacement Lamp for CFLs	Beam Angle	≥140^o	-5^o	≥135°
BF	Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaire	ZLD: 0^o - 90^o	100%	0%	100%
BG	Turtle Lighting Zero-Uplight Wall-Mounted Area Luminaire	ZLD: 0^o - 90^o	100%	0%	100%
BH	Turtle Lighting Zero-Uplight Bollard	ZLD: 0^o - 90^o	100%	0%	100%
BI	Omnidirectional/Directional Mogul Screw-Base Replacement for HID Lamps	Beam Angle	≥80^o	-5^o	≥75°

Primary Use Letter	Primary Use Designation	Zonal Lumen Distribution (ZLD)/Spacing Criteria (SC)/Beam Angle (BA)*	ZL/SC/BA Nominal Requirement*	ZL/SC/BA Tolerance	ZLD/SC/BA Requirement with Tolerance
BJ	Omnidirectional/Directional Medium Screw-Base Replacement for HID Lamps	Beam Angle	≥80°	-5°	≥75°

Table TRT-9: Controls Categories

ALL PRODUCTS		
Category	Name	Description
0	No Integral Controls	A luminaire, lamp, or retrofit kit with no integral control capabilities.
1	Controls Ready Product	A luminaire, lamp, or retrofit kit with controls-ready capability as defined in *Controls Ready (Controls Category 1)*.
2	Product With Non-DLC Listed NLC Controller	A luminaire, lamp, or retrofit kit with an integral networked controller installed at the factory that operates as part of NLC system that is not listed on the DLC NLC QPL.
3A	Product With Integral Occupancy or Traffic* Sensor Function Only	A non-networked luminaire, lamp, or retrofit kit (or a networked controller that operates as part of a NLC system that is not listed on the DLC NLC QPL) with only an integral occupancy or traffic sensor function, installed at the factory.
3B	Product With Integral Daylight/Photocell Sensor Function Only	A non-networked luminaire, lamp, or retrofit kit (or a networked controller that operates as part of a NLC system that is not listed on the DLC NLC QPL) with only an integral daylight/photocell sensor function, installed at the factory.
4A	Product With Occupancy or Traffic* and Daylight or Photocell Integral Sensor Functions	A non-networked luminaire, lamp, or retrofit kit (or a networked controller that operates as part of a NLC system that is not listed on the DLC NLC QPL) with occupancy and daylight/photocell integral sensor functions, installed at the factory. The sensor functions may be accomplished with a single device or multiple devices.
4B	Product With Traffic* or Photocell and/or Part-Night Dim Integral Sensor Functions	A non-networked luminaire, lamp, or retrofit kit (or a networked controller that operates as part of a NLC system that is not listed on the DLC NLC QPL) with photocell and part-night dim integral sensor functions, installed at the factory. The sensor functions may be accomplished with a single device or multiple devices.
5	Product With DLC NLC QPL Listed Networked Controller	A luminaire, lamp, or retrofit kit with an integral networked controller installed at the factory. The networked controller must operate as part of a DLC NLC QPL-listed control system.
6	Product With DLC NLC QPL Listed Networked Controller and Two or More Integral Sensor Functions (LLLC)	A luminaire, lamp, or retrofit kit with an integral networked controller and two or more sensor functions installed at the factory. The sensor functions may be accomplished with a single device or multiple devices. The networked

ALL PRODUCTS		
Category	Name	Description
		controller must operate as part of a DLC NLC QPL- listed control system.

Table TRT-10: Controls Ready Receptacle Types

Receptacle Type	Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
None	No controls-ready receptacle is present on the luminaire. Products without a receptacle are not eligible for the Controls Ready category.	N/A
3-Pin Twistlock	A receptacle with three conducting pins that is installed at the factory and meets the NEMA/ANSI C136.10 standard. Please note that luminaires with 3-pin receptacles are NOT eligible for listing. This option is included here for completeness and to clearly communicate when specific controls options are *not* eligible.	N/A Please note that luminaires with 3-pin receptacles are NOT eligible for listing.
5-Pin Twistlock	A receptacle with five conducting pins that is installed at the factory and meets the NEMA/ANSI C136.41 standard.	NEMA 5-pin NEMA/ANSI 5-pin NEMA 5-pin twistlock NEMA/ANSI 5-pin twistlock
7-Pin Twistlock	A receptacle with 7 conducting pins that is installed at the factory and meets the NEMA/ANSI C136.41 standard.	NEMA 7-pin NEMA/ANSI 7-pin NEMA 7-pin twistlock NEMA/ANSI 7-pin twistlock
3.5 mm Phono Jack	A receptacle with three, four, or five contact points that is similar in shape or size to standard headphone jacks for consumer use.	3.5 mm Phono Jack 1/8” Phono Jack AUX Port
USB-C Port	A receptacle that is installed at the factory and meets the USB-C requirements for physical characteristics as specified in the IEC 62680-1-3 standard. The electrical characteristics of the receptacle may be proprietary.	USB-C USB Type-C
Zhaga Book 18	A receptacle installed at the factory that meets Zhaga Book 18 requirements. Designed for outdoor installations.	Zhaga Book 18
Zhaga Book 20	A receptacle installed at the factory that meets the Zhaga Book 20 requirements. Designed for indoor installations.	Zhaga Book 20
Z10	A receptacle installed at the factoty that meets the Z10 socket standard developed by the Z10 Alliance. Designed for outdoor installations.	Z10
Other	Other receptacle type as specified by the luminaire manufacturer.	N/A

Table TRT-11: Controls Options Table Details

Controls Information	Description	Available Options
Controls Option Code	A text string that represents the controls options available for each driver and integral control variation within a model number. Each Controls Options Code must be orderable and shown on the specification sheet. Non-controls portions of model numbers that fall in between controls portions of model number codes may utilize wildcards in controls options codes.	As displayed on the specification sheet. For products without controls options, use "None."
Driver Type	The type of driver, designated by communication method, that is installed in the product, or ordered with the product in the case of remote-mounted drivers. Available options must be indicated on the specification sheet, but an exact match is not required.	• 10V (wired) • BACnet (wired) • D4i (wired) • DALI-2 (wired) • DALI-2/D4i (wired) • DALI-2/DALI+ (wired, wireless) • DALI-2/D4i/DALI+ (wired, wireless) • DALI (wired) • Dimmable Ballast (Type A lamps) • DMX512 (wired) • Integrated Driver and Controller • KNX (wired) • Modbus (wired) • Other analog (wired, proprietary) • Other digital (wired, proprietary) • Phase Cut (wired) • Phase Cut/10V (wired) • FALO (lamps only)
Dimming Capability	The type of dimming the driver associated with this option code is capable of performing.	• Continuous • Stepped • Not dimmable
Minimum Dimming Level	The lowest level a driver is capable of dimming to, expressed as a percentage of total output.	• Minimum dimming level (e.g., 10%)
Integral Controller or Sensor Type	The type of integral controller or sensor, designated by communication method, that is installed in the product. Available options must be indicated on the specification sheet, but an exact match is not required.	• None • Bluetooth (wireless, proprietary) • Bluetooth NLC (wireless) • DALI-2 (wired) • DALI-2/D4i (wired) • DALI-2/DALI+ (wired, wireless) • DALI-2/D4i/DALI+ (wired, wireless) • DALI (wired) • DALI+ (wireless) • Wi-Fi (wireless)

Controls Information	Description	Available Options
		• Zigbee (wireless, proprietary) • DMX512 (wired) • EnOcean (wireless) • 4G Cellular (wireless) • 5G Cellular (wireless) • BACnet (wired) • Modbus (wired) • KNX (wired) • Other (wireless, proprietary) • Other analog (wired, proprietary) • Other digital (wired, proprietary) • PoE (wired) • TALQ (wireless) • Infrared (wireless, proprietary) • Dip Switch or Dial
Top or Side Controls Receptacle Type	The type of controls ready receptacle, installed at the factory, that is present on the top or side of the product when mounted in operating orientation. Available options must be indicated on the specification sheet or supplemental materials, but an exact match is not required. Product variations with 3-pin twistlock receptacles are not eligible for V6.0 qualification. Option is shown here for data integrity. <u>Please note that any twistlock receptacle indicated will be assumed to have 3-pins, and thus not eligible for listing, unless clearly indicated as having 5 or 7-pins on the specification sheet.</u>	• None • 7-Pin twistlock • 5-Pin twistlock • 3-Pin twistlock (not eligible) • Zhaga Book 18 • Zhaga Book 20 • Z10 • USB C Port • 3.5 mm Phono Jack • Other
Bottom or Side Controls Receptacle Type	The type of controls ready receptacle, installed at the factory, which is present on the bottom or side of the product when mounted in operating orientation. Available options must be indicated on the specification sheet or supplemental materials, but an exact match is not required. Product variations with 3-pin twistlock receptacles are not eligible for V6.0 qualification. Option is shown here for data integrity.	• None • 7-Pin twistlock • 5-Pin twistlock • 3-Pin twistlock (not eligible) • Zhaga Book 18 • Zhaga Book 20 • Z10 • USB C Port • 3.5 mm Phono Jack • Other

Controls Information	Description	Available Options
	Please note that any twistlock receptacle indicated will be assumed to have 3-pins, and thus not eligible for listing, unless clearly indicated as having 5 or 7-pins on the specification sheet.	
Integral Sensor Function	The lighting control strategy or strategies that are performed by the integral sensor installed at the factory. Available options must be indicated on the specification sheet or supplemental materials, but an exact match is not required.	• None • Occupancy only • Daylight only • Photocell only • Traffic only • Occupancy + Daylight • Occupancy + Photocell • Photocell + Part-Night Dim • Occupancy + Photocell + Part-Night Dim • Traffic + Photocell • Traffic + Photocell + Part-Night Dim
Integral Sensor Technology	The type of sensing technology that the integral sensor installed at the factory uses. Available options must be indicated on the specification sheet or supplemental materials, but an exact match is not required.	• None • Passive Infrared (PIR) • Ultrasonic • Dual-Tech • Microphonic • Microwave • Millimeter Wave • Camera • Bluetooth Beacon • Light-dependent Resistor • Other
Integral Sensor Maximum Mounting Height (ft)	The manufacturer-provided maximum mounting height for effective operation of the sensor.	One- or two-digit integer. Value to be submitted in feet. Both feet and meters will be displayed on the QPL.
NLC QPL Product ID	The NLC QPL Product ID of the networked lighting control system that the integral control product communicates with.	As displayed on the NLC QPL.
Controls Ready Accessory Model Numbers	Model numbers for the controls-ready accessories provided by the manufacturer that are compatible with the listed product. This field is optional for manufacturers to report.	As displayed on the specification sheet.

Table TRT-12: Standard Dimming Requirements

Product Type	Standard Dimming Requirements	QPL Listing	Method of Evaluation
Indoor luminaires and retrofit kits (excluding Case Lighting, Specialty and Hazardous Primary Use Designations)	**Continuous dimming capability to a minimum output level of 20% or lower***	1. Dimming capability (i.e., continuous, stepped, or none) 2. Minimum dimming level (e.g., 10%)	Product specification sheet shall clearly identify dimming capability
Indoor Case Lighting, Specialty and Hazardous Primary Use Designations	**Reporting of dimming capability**		
Outdoor luminaires, retrofit kits, (excluding Sports Lighting, Specialty and Hazardous Primary Use Designations)	**Continuous or stepped dimming capability to a minimum output level of 20% or lower***		
Outdoor Sports Lighting, Specialty and Hazardous Primary Use Designations	**Reporting of dimming capability**		
All lamps	**Continuous dimming capability to a minimum output level of 20% or lower* or FALO**		
All other products	**Required reporting of dimming capability**		

Table TRT-13: V6.0 Integral Sensor Functions

Integral Sensor Functions	Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
None	A product that has no integral sensor functions.	N/A
Occupancy Only	A control device that detects occupant presence and automatically turns luminaires and/or other equipment on and, after a preset delay during which no presence is detected, turns them off. Also called a motion detector.	Occupancy, Vacancy, Motion, Exterior Motion
Daylight Only	A control device that can automatically affect the operation of lighting or other equipment through dimming based on the amount of daylight and/or ambient light that is present in a space or area.	Daylight, Daylight Harvesting, Daylight Dimming, Daylight Response, Photosensor, Ambient Light
Photocell Only	A control device that can automatically affect the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment.	Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol
Traffic	A control device that can automatically affect the operation of lighting or other equipment based upon detecting the presence or absence of moving vehicles in an area.	Traffic, Adaptive Traffic
Occupancy + Daylight	A control device that detects occupant presence and automatically turns luminaires and/or other equipment on and, after a preset delay during which no presence is detected, turns them off, in addition to automatically raising or lowering the dimming levels of lighting or other equipment based on the amount of daylight and/or ambient light that is present in a space or area.	Must include one or more terms from each of the following lists: Occupancy terms: Occupancy, Vacancy, Motion, Exterior Motion. Daylight terms: Daylight, Daylight Harvesting, Daylight Dimming, Daylight Response, Photosensor, Ambient Light.
Occupancy + Photocell	A control device that detects occupant presence and automatically turns luminaires and/or other equipment on and, after a preset delay during which no presence is detected, turns them off, in addition to automatically affecting the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment.	Must include one or more terms from each of the following lists: Occupancy terms: Occupancy, Vacancy, Motion, Exterior Motion. Photocell terms: Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol.
Photocell + Part-Night Dim	A control device that can automatically affect the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment and is capable of dimming the luminaire, lamp, or retrofit kit for a portion of nighttime hours without input from another device.	Must include one or more terms from each of the following lists: Photocell terms: Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol. Part-Night Dim terms: Part Night Dim, Stand-Alone Dimming.

Integral Sensor Functions	Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
Occupancy + Photocell + Part-Night Dim	A control device that detects occupant presence and can automatically affect the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment and is capable of dimming the luminaire, lamp, or retrofit kit for a portion of nighttime hours without input from another device.	Must include one or more terms from each of the following lists: Occupancy terms: Occupancy, Vacancy, Motion, Exterior Motion. Photocell terms: Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol. Part-Night Dim terms: Part-Night Dim, Stand-Alone Dimming.
Traffic + Photocell	A control device that detects the presence of moving vehicles and automatically turns luminaires and/or other equipment on and, after a preset delay during which no presence is detected, turns them off, in addition to automatically affecting the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment.	Must include one or more terms from each of the following lists: Traffic terms: Traffic Sensing, Vehicle Sensing. Photocell terms: Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol.
Traffic + Photocell + Part-Night Dim	A control device that detects the presence of moving vehicles and can automatically affect the operation of lighting or other equipment based on the amount of daylight and/or ambient light that is present in an exterior environment and is capable of dimming the luminaire, lamp, or retrofit kit for a portion of nighttime hours without input from another device.	Must include one or more terms from each of the following lists: Traffic terms: Traffic Sensing, Vehicle Sensing. Photocell terms: Photocell, Photo, PCR, Dusk-to-Dawn, Photocontrol. Part-Night Dim terms: Part Night Dim, Stand-Alone Dimming.

Table TRT-14: V6.0 Integral Sensor Technologies

Integral Sensor Technologies	Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
Passive Infrared	Presence sensors that detect the movement of heat emitted by people in motion. Detection requires line of sight and does not function behind obstacles or through glass. Sensors typically have distance ratings for effectiveness at detecting major and minor motion.	Passive Infrared, PIR
Ultrasonic	Presence sensors that emit high-frequency acoustic waves and then monitor the pattern of reflections in a space. When the pattern is interrupted, the sensor registers movement. Ultrasonic sensors do not require a direct line of sight to function.	Ultrasonic
Microwave	Presence sensors that emit extremely low-power electromagnetic radiation in the range of 300 MHz to 300 GHz and then monitor the pattern of reflections in a space. When the pattern is interrupted, the sensor registers movement. Microwave sensors do not require a direct line of sight to function and can sometimes “see” through walls. Thus, proper adjustment of sensitivity settings is crucial to avoid false activations.	Microwave
Microphonic	Presence sensors that use a sensitive microphone to detect sounds in a space, e.g., human activity such as talking, typing, or movement -- then applying advanced digital filtering to distinguish these sounds from constant background noises such as those from HVAC systems.	As indicated on Manufacturer specification sheet
Millimeter Wave	Presence sensors that emit electromagnetic radiation in the range of 30 to 300 GHz. Unlike ultrasonic and microwave sensors, millimeter wave radar sensors are able to detect movement, acceleration, and angles as small as a fraction of a millimeter and are sometimes capable of detecting multiple people in a space.	Millimeter Wave, mmWave
Camera	Presence sensors that utilize captured images, whether high or low resolution, and image processing software to determine human proximity.	As indicated on Manufacturer specification sheet
Dual Technology	Presence sensors that utilize two or more technologies to increase detection reliability.	Dual-Technology, Dual-Tech, Dual Technology, Dual Tech
Bluetooth Beacon	A Bluetooth device, normally battery powered, that broadcasts typically static data at preset intervals. Beacons are one-way communication	Bluetooth Beacon

Integral Sensor Technologies	Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
	devices that are not capable of receiving information over a Bluetooth network.	
Other	Presence sensors that utilize another technology, not listed above.	As indicated on Manufacturer specification sheet

Table TRT-15: Driver and Integral Controller or Sensor Type Descriptions

Driver and Integral Controller or Sensor Type		Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
WIRED	10V (Wired)	Wired analog low-voltage control that varies DC voltage between 0 and 10 volts (or 1 and 10 volts) to produce varying light output.	0-10 V, 1-10 V, 10V
	BACnet	A communication protocol for building automation and control networks that uses the ISO 16484-5 standards protocol.	BACnet
	D4i	An extension of the DALI-2 standard intended for use within luminaires. D4i control devices include requirements for power and control, to simplify selection of up to two devices for use on a D4i luminaire.	D4i
	DALI	A standard protocol for bi-directional digital communication between lighting control devices. Developed and maintained by the Dali Alliance. The US standard is C137.4 and is maintained by NEMA.	DALI, DALI version-1, Digital Addressable Lighting Interface
	DALI-2	The certification program based on the latest version of the DALI protocol. DALI-2 certification is created and maintained by the DALI Alliance. The US standard is C137.4 and is maintained by NEMA.	DALI-2
	DMX512	Lighting control protocol initially created for use in theatrical installations but in common use in architectural lighting installations where color changing or tuning effects are desired. It describes a method of digital data transmission between a controller and a dimmer or relay panel, or to DMX512-compatible luminaires. Wiring is Class 2 and is required to be a daisy-chain configuration.	DMX512, Digital Multiplex
	Modbus	A client/server data communications protocol developed and maintained by the Modbus Organization. Commonly used in industrial applications.	Modbus

Driver and Integral Controller or Sensor Type		Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
	KNX	A peer-to-peer communication standard used for building automation. Developed and maintained by knx.org	KNX
	Other Analog (Proprietary)	A closed wired analog communication protocol as specified by the manufacturer.	N/A
	Other Digital (Proprietary)	A closed wired digital communication protocol as specified by the manufacturer.	N/A
	Power Over Ethernet	A specific subset of DC products that comply with the IEEE 802.3 Standards for carrying both power and communication signals on Ethernet cables.	PoE, POE
	Phase-Cut	Modification, or cutting, of the leading or trailing edge of the AC mains sinusoidal waveform to produce varying light output.	Phase-cut, phase, forward phase, leading edge, reverse phase, trailing edge, TRIAC, magnetic low-voltage (MLV), electronic low-voltage (ELV)
	Integrated Driver + Controller	A driver and networked controller device where both functions are contained within the same luminaire component housing.	Integrated Driver + Controller
	Dip Switch or Dial	Controllers or sensor mounted features that allow for adjustment of parameters only while the user is physically located at the device	Dip Switches, Dials
WIRELESS	4G Cellular	Fourth Generation cellular network designed to support all-IP communications and broadband services. Developed by the International Telecommunication Union.	4G, 4G LTE
	5G Cellular	Fifth Generation cellular network designed to support all-IP communications and broadband services. Developed by the International Telecommunication Union.	5G
	Bluetooth (Proprietary)	Wireless digital communication protocol developed and maintained by the Bluetooth Special Interest Group (SIG). Uses short-range RF to communicate with other nearby Bluetooth-enabled devices.	Bluetooth, Bluetooth Low Energy, BLE, BLE Mesh

Driver and Integral Controller or Sensor Type		Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
	Bluetooth NLC	Wireless digital communication protocol developed and maintained by the Bluetooth Special Interest Group (SIG) specifically for Networked Lighting Control systems. Uses short-range RF to communicate with other nearby Bluetooth-enabled devices.	Bluetooth NLC
	DALI+	DALI+ is the certification program for the wireless or IP-based version of DALI. DALI+ with Thread is the first implementation, using Thread's low-power IP-based, wireless mesh networking protocol. The US standard is C137.4 and is maintained by NEMA.	DALI+ with Thread
	EnOcean	Wireless digital communication protocol developed and maintained by the EnOcean Alliance and based on the ISO/IEC 14543-3-10/11 standard. Geared to wireless sensors and wireless sensor networks with ultra-low power consumption that utilize energy harvesting technology.	EnOcean, Enocean
	Infrared Remote	A device which uses infrared radiation to communicate with and program standalone sensors. Usually limited to one-way communication.	IR, Infrared Remote
	Other (Proprietary)	A closed wireless communication protocol as specified by the manufacturer.	N/A
	TALQ	An open communication standard aimed at smart city applications, including for uses beyond lighting.	TALQ
	Wi-Fi	A wireless protocol similar to the protocols that computers use and is a very robust wireless option. It also functions similarly to PoE in that it assigns IP addresses to each device and luminaire and is dependent on the user interface for granularity of dimming range.	Wi-Fi, Wireless Internet
	Zigbee (proprietary)	Low-power wireless protocol. It uses an IP address for devices, has a parallel full-duplex communication, and uses short- to medium-range RF to communicate.	ZigBee, ZigBee HA, ZigBee 3.0

Driver and Integral Controller or Sensor Type		Definition	Acceptable Terms on the Product Specification Sheet or Supplemental Literature
		Networked Lighting Control systems with this designation typically do not allow third-party devices.	
	FALO (Lamps Only)	Field Adjustable Light Output allowed for lamps only.	As indicated by the Manufacturer

Table TRT-16: Lumen Maintenance Requirements for DLC Standard

Metric	Applicable Products	DLC Standard	Method of Evaluation
Lumen Maintenance	All products of 2200 K – 6500 K, including Filtered Amber products	L_{70} ≥ 50,000 hours	LM-80 and TM-21 ISTMT and LM-98-24 report OR LM-84 and TM-28
	All NWL products except for Filtered Amber	L_{70} ≥ 36,000 hours	

Table TRT-17: Optionally Reported Sustainability Fields

Certification Body or Organization	Certification Level	Method of Evaluation
Environmental Product Declaration (EPD)	ISO 14025 compliant	EPD document (must be registered with an EPD program operator)
Declare	Declared	Declare Label
	Red List Approved	
	Red List Free	
Restriction of Hazardous Substances in Electrical and Electronic Equipment (RoHS)	RoHS Compliant	Product documentation with RoHS label or RoHS Declaration of Conformity
	RoHS 2	
	RoHS 3	
Lighting for Good	Fair	Product documentation with Lighting for Good label
	Good	
	Best	
Cradle to Cradle	Bronze	Product documentation with C2C label or C2C Certification document
	Silver	
	Gold	
	Platinum	
UL GREENGUARD	GREENGUARD Certified	Product documentation with GREENGUARD label or GREENGUARD Certification document
	GREENGUARD Gold	
TÜV Rheinland	Green Product Mark	Product documentation with Green Product Mark or Green Product Mark Certificate

Table TRT-18: Efficacy Allowances

Feature	Category or General Application	Performance Metric	Allowance Percentage	Method of Evaluation
Low CCT	All Products Within Standardized CCT Quadrangles	≤2700 K	-8%	Same as V6.0 Standard
		≤2200 K	-10%	
		≤2000 K	-20%	
		≤1800 K	-25%	
High Color Rendition	All Indoor products (except high-bay and NWL) including linear replacement lamps and replacements for CFLs	**Option 1 - ANSI/IES TM-30:** • IES $R_f \geq 75$ • IES $R_g \geq 92$ • $-7\% \leq$ IES $R_{cs,h1} \leq +19\%$ **Option 2 - CIE 13.3-1995:** • R_a (CRI) ≥ 90 and $R_9 \geq 50$	-5%	Same as V6.0 Standard
		ANSI/IES TM-30: • IES $R_f \geq 78$ • IES $R_g \geq 95$ • $-1\% \leq$ IES $R_{cs,h1} \leq +15\%$	-10%	
	All Outdoor (except NWL), including Omnidirectional /Directional E26 and E39 lamps, and high-bay products	**Option 1 - ANSI/IES TM-30:** • IES $R_f \geq 70$ • IES $R_g \geq 89$ • $-12\% \leq$ IES $R_{cs,h1} \leq +23\%$ **Option 2 - CIE 13.3-1995:** • R_a (CRI) ≥ 80 and $R_9 \geq 0$	-5%	
Enhanced Discomfort Glare Control	Troffer (Luminaires and Integrated Retrofit Kits only)	Corrected UGR < 16.0	-10%	Corrected UGR values generated per CIE 190-2010 at the following reference condition: • Room dimensions: X = 4H, Y = 8H • Spacing to height ratio (S/H): 1 • Reflectances: 70/50/20
	Linear Ambient, (Luminaires and Retrofit Kits only)	Corrected UGR < 16.0	-10%	
	Low-Bay (Luminaires and Retrofit Kits only)	Corrected UGR < 19.0	-10%	
	High-Bay, (Luminaires and Retrofit Kits only)	Corrected UGR < 22.0	-10%	

Table TRT-19: Tolerances

Performance Metric	Product Type	Tolerance
Light Output	All	±10%
Luminaire Efficacy	All	-3%
Color Rendition	All	CIE R_a (CRI): -1 Point CIE R_9: -1 Point IES R_f: -1 Point IES R_g: -1 Point IES $R_{cs,h1}$: +/- 1%
Color Maintenance	All	$\Delta u'v'$: +0.0004 points*
Power Factor	All	-3 percentage points
Total Harmonic Distortion	All	+5 percentage points
Beam Angle	Medium screw-base, Mogul screw-base, Linear replacement lamps, 2G11 lamps	-5°
Dominant Wavelength	de-Amber, pc-Amber	+ 10 nm
Full-Width Half-Maximum (FWHM)	de-Amber, pc-Amber	+/- 10 nm

Table TRT-20: DLC Premium Efficacy Requirements

Category	General Application	Primary Use Designation	DLC Premium Minimum Efficacy (lm/W)
Outdoor Luminaires and Solar Powered Outdoor Luminaires	Note: Light Output requirements vary by General Application type (e.g. Low, Mid, High and Very High Output) See Table 5	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	140
		Outdoor Pole/Arm-Mounted Decorative Luminaires	130
		Outdoor Zero-Uplight Wall-Mounted Area Luminaires	140
		Outdoor Uplight-Emitting Wall-Mounted Area Luminaires	140
		Bollards	130
		Parking Garage Luminaires	130
		Fuel Pump Canopy Luminaires	140
		Architectural Flood and Spot Luminaires	140
		Stairwell and Passageway	140
		Sports Lighting	130
		Hazardous Environment Area Luminaires	130
Indoor Luminaires	Interior Directional	All	110
	Case Lighting		120
	Troffer		135
	Linear Ambient		140
	High-Bay	All except Hazardous Environment High-Bay Luminaires	150
		Hazardous Environment High-Bay Luminaires	145
	Low-Bay	All except Hazardous Environment Low-Bay Luminaires	145

		Hazardous Environment Low-Bay Luminaires	140
Outdoor Retrofit Kits	Note: Light Output requirements vary by General Application type (e.g. Low, Mid, High and Very High Output) See *Table 5*	Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	140
		Retrofit Kits for Outdoor Pole/Arm-Mounted Decorative Luminaires	130
		Retrofit Kits for Large Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	140
		Retrofit Kits for Outdoor Zero-Uplight Wall-Mounted Area Luminaires	140
		Retrofit Kits for Parking Garage Luminaires	130
		Retrofit Kits for Fuel Pump Canopy Luminaires	140
Indoor Retrofit Kits	Troffer	All	135*
	Linear Ambient		140
	High-Bay		150
	Low-Bay		145

Table TRT-21: DLC Premium Testing and Reporting Requirements

Metric	Applicable Product(s)	SSL V6.0 & LUNA V2.0 Premium Requirements*	Method of Evaluation
Chromaticity (CCT & D_{uv})	All Indoor products, except High-Bay	Products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal **4-step quadrangle** CCTs from 2200 K – 6500 K	Same as V6.0 Standard
	High-Bay products	Products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal 7-step quadrangle CCTs from 2200 K – 6500 K	
	All outdoor, except Sports Lighting and Fuel Pump Canopy	Products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal **7-step quadrangle** CCTs from 2200 K – 5000 K	
	Sports Lighting and Fuel Pump Canopy	Products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal **7-step quadrangle** CCTs from 2200 K – 5700 K	
Discomfort Glare	Troffer (Luminaire and Integrated Retrofit Kits only)	**Corrected UGR < 22.0**	Corrected UGR values generated per CIE 190-2010 at the following reference condition: Room dimensions: X = 4H, Y = 8H Spacing to height ratio (S/H): 1 Reflectances: 70/50/20
Controllability	All products	• Must be capable of continuous dimming down to 10% of initial output or lower. • Must meet requirements for any controls category excluding Category 0	Same as V6.0 Standard
Lumen Maintenance	All products	(In addition to L_{70} thresholds) $L_{90} \geq 36{,}000$ hours	Same as V6.0 Standard
Driver Lifetime	All products	≥50,000 hours	

Table TRT-22: PUDs Eligible for LUNA V2.0 Qualification and Respective U Rating Maximums

Primary Use Letter	PUDs Eligible for LUNA Qualification	Maximum U Rating	Maximum Light Output (Lumens)
A	Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1	N/A
B	Outdoor Pole/Arm-Mounted Decorative Luminaires	2	N/A
C	Outdoor Zero-Uplight Wall-Mounted Area Luminaires	0	N/A
E	Bollards	1	N/A
G	Fuel Pump Canopy Luminaires	2	N/A
Y	Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1	10,000
Z	Retrofit Kits for Outdoor Pole/Arm-Mounted Decorative Luminaires	2	10,000
AA	Retrofit Kits for Large Outdoor Pole/Arm Mounted Area and Roadway Luminaires	1	10,000
AB	Retrofit Kits for Zero-Uplight Outdoor Wall Mounted Area Luminaires	0	10,000
AD	Retrofit Kits for Fuel Pump Canopy Luminaires	2	10,000
BI	Omnidirectional/Directional Mogul Screw-Base Replacements for HID Lamps (Type B)	N/A	10,000 (bare lamp)
BJ	Omnidirectional/Directional Medium Screw-Base Replacements for HID Lamps (UL Type B)	N/A	10,000 (bare lamp)
BF	Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaires	0	8000
BG	Turtle Lighting Zero-Uplight Wall-Mounted Area Luminaires	0	2500
BH	Turtle Lighting Zero-Uplight Bollards	0	1000

BA	Hazardous Environment Area Luminaires	1	N/A
N/A	Specialty: Hazardous Environment Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	1	N/A
	Specialty: Hazardous Environment Wall Mounted Luminaire	1	N/A
	Specialty: Canopy Lighting	2	N/A
	Specialty: Directional Fuel Pump Canopy Luminaires	2	N/A
	Specialty: Transportation	2	N/A

Table TRT-23: LUNA V2.0 Light Distribution Requirements

Metric or Application	LUNA V2.0 Requirements	QPL Listing	Method of Evaluation
Uplight Rating (From the IES BUG Rating system)	Products must have a U rating of 0, 1, or 2, depending on Primary Use Designation indicated in Table 22. ANSI/IES LM-63 IES-format files (and optionally ANSI/IES TM-33-18 or -23 XML documents‡) containing luminous intensity distribution data must be submitted for a representative LUNA qualifying product for each unique distribution pattern included in the application. (See additional details below.)	BUG ratings for parent products will be generated by the DLC using the tested photometric data provided and will be listed under the Tested Data section. BUG ratings for child products are reported by the applicant and listed under the Reported Data section.	ANSI/IES LM-79 per the Additional Requirements for LM-79, LM-80, and TM-21 Test Reports. BUG ratings generated per Annex A in ANSI/IES TM-15-20 using luminaire photometric data (.ies files). *Note:* For LUNA qualification, LM-79 and distribution testing must be provided on a LUNA-qualifying product (highest light output at highest LUNA-eligible CCT).
Luminous intensity distribution image	Using the LUNA pre-submission tool, the submitter will create a PNG luminous intensity distribution image for the representative LUNA qualifying product for each unique distribution pattern included in the application.	For each distribution parent product, images from the LUNA pre-submission tool will be listed under the Tested Data section.	Submitted Luminous intensity distribution images generated by the LUNA pre-submission tool from the submitted IES files.
Aiming	Products may only include mounting options that will not allow tilt angles beyond ±10 degrees, in order to level the luminaire parallel with the roadway surface (see *Figure 1*).	Model number will include allowed mounting options. Products with mounting accessories are eligible for LUNA and will be listed on the QPL with the mounting accessories that meet all of the technical requirements. Eligible mounting accessories will be listed in parentheses on the QPL.	Specification sheet, supplemental documentation, or installation instructions must include photos or illustrations of mounting options or accessories with allowable tilt angles (and degree values), or fixed mounting options clearly documented, as per **Figure 1**.

Metric or Application	LUNA V2.0 Requirements	QPL Listing	Method of Evaluation
Shielding	Shielding as an available accessory or option must be included on specification sheets or supplemental documentation (e.g., house side shields (HSS), cul-de-sac shields (CSS), front-side shields (FSS), or glare shields) for pole/arm-mounted area/roadway/ decorative PUDs (Primary Use letters A and B), and for specialty hazardous environment pole/arm-mounted area and roadway PUDs.	Specific product configurations without shielding will be listed on the QPL per the LUNA requirements as long as a shield is available as an accessory or option. For those who voluntarily choose to list their shielded products and are seeking efficacy allowances, within each given shielding subgroup, shielded products with the lowest efficacy will be listed as worst-case efficacy parent products on the QPL. Shielded products with the highest house-side lumens for products with a HSS or CSS, or street-side lumens for products with a FSS, will be listed as worst-case distribution parent products on the QPL.	Specification sheet or supplemental documentation review to determine that at least one shielding accessory or option is available.
Field Adjustable Light Output (FALO)	All LUNA Products with selectable wattage and/or lumen output must be shipped at the lowest wattage or output setting to be LUNA qualified	N/A	Specification sheet, supplemental documentation, or installation instructions

Table TRT-24: LUNA V2.0 Spectral Quality Requirements

Metric and/or Application	Applicable Products	LUNA V2.0 Spectral Quality Requirements	QPL Listing	Method of Measurement or Evaluation
Chromaticity (CCT & D_{uv})	Non-Amber LUNA products, except lamps and retrofit kits	LUNA products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal 7-step quadrangle CCTs from 1800 K – 3000 K.	Parent products: CCT, and D_{uv} for parent products is listed as Tested Data. Nominal CCT for child products is listed as Reported Data.	ANSI/IES LM-79 (See *Additional Requirements for LM-79, LM-80, and TM-21 Test Reports*) ANSI/IES TM-27-20 or IES TM-27-14 Optionally: ANSI/IES TM-33-18 (or -23) *Note:* For LUNA qualification, LM-79 and/or color testing must be provided on a LUNA-qualifying product.
Chromaticity (CCT & D_{uv})	Non-Amber LUNA eligible lamps and retrofit kit products	LUNA products shall exhibit chromaticity consistent with at least one of the basic, flexible, or extended nominal 7-step quadrangle CCTs from 1800 K – 2700 K.	Parent products: CCT, and D_{uv} for parent products is listed as Tested Data. Nominal CCT for child products is listed as Reported Data.	
S/P Ratio	All LUNA parent products	All LUNA parent products will show the calculated S/P ratio. No threshold is stipulated.	Parent products: S/P ratio for parent products is listed as Tested Data.	S/P Ratio calculated with the LUNA pre-submission tool per the 2-degree scotopic and photopic luminous efficiency functions in ANSI/IES LS-2-20.
Percent Blue	All LUNA parent products	All LUNA parent products will show the calculated percent blue. No threshold is stipulated, except for Hawaii code compliance.	Parent products: % blue for parent products is listed as Tested Data.	% blue, per DLC's definition, calculated with the LUNA pre-submission tool.
Traffic compliance and Hawaii code compliance (Spectral Compliance Information)	All LUNA parent products	Traffic color compliant: LUNA parents that have chromaticities outside of ITE Yellow (amber) (per SAE J578 APR2020) per the DLC's definition. Hawaii code compliance: LUNA parents that are Hawaii code compliant will be traffic color compliant	LUNA parents: Will report traffic color compliance and Hawaii code compliance. Will be listed using outputs from the LUNA pre-submission tool in the Tested Data section	Traffic compliance and Hawaii code compliance will be calculated with the LUNA pre-submission tool

Metric and/or Application	Applicable Products	LUNA V2.0 Spectral Quality Requirements	QPL Listing	Method of Measurement or Evaluation
		AND have percent blue ≤ 2%.[2]		
Chromaticity (Spectral Compliance Information)	LUNA Amber products (luminaires, lamps, and retrofit kits	Chromaticity consistent with technology-specific definitions provided in the *Amber Products* section.	Nomenclature for *Amber Products* (de-Amber, pc-Amber, Filtered Amber) for parent and child products.	ANSI/IES LM-79 ANSI/IES TM-27-20 or IES TM-27-14 Optionally: ANSI/IES TM-33-18
SPDX Document	All LUNA parent products	LUNA qualifying products tested to meet LUNA spectral quality requirements must submit an ANSI/IES TM-27 SPDX document containing spectral power distribution data in increments of 5 nm or less. ANSI/IES TM-33 (-18 or -23) XML documents are also acceptable in addition to SPDX files but are not required at this time.	LUNA parent products will display the SPDX document ‡ under the Tested data section.	ANSI/IES TM-27-20 or IES TM-27-14 Optionally: ANSI/IES TM-33-18 (or-23)
SPD Image	All LUNA parent products	Using the LUNA pre-submission tool, the submitter will create a PNG SPD image for the representative LUNA qualifying products included in the application.	For each color parent product, images from the LUNA pre-submission tool will be listed under the Tested Data section.	ANSI/IES TM-27-20 or IES TM-27-14 Optionally: ANSI/IES TM-33-18 (or -23) Submitted SPD images generated by the LUNA pre-submission tool from the submitted SPDX files.

[2] To determine whether a product meets the percent blue threshold for Hawaii County or Maui County code compliance, the pre-submission tool compares the calculated result rounded to one decimal place with the 2.0% threshold. As long as the rounded percentage calculated from the spectrum is less than or equal to 2.0%, the product meets the criteria.

Table TRT-25: Turtle Lighting PUD Requirements: Light Output and Distribution

Primary Use Letter	Primary Use Designation	Maximum Light Output (lm)	Amber LED type	Maximum U Rating	Maximum G Rating
BF	Turtle Lighting Zero-Uplight Pole/Arm-Mounted Area and Roadway Luminaires	8,000	de-Amber	U0	G1
BG	Turtle Lighting Zero-Uplight Wall-Mounted Area Luminaires	2,500	de-Amber	U0	G0
BH	Turtle Lighting Zero-Uplight Bollards	1,000	de-Amber	U0	G0

Table TRT-26: Efficacy Allowances Specific to LUNA Products

Feature	Primary Use Designation	Performance Metric	Allowance Under V6.0
All Bollards	Bollards	N/A	-25%
Shielding	• Outdoor Pole/Arm-Mounted Area and Roadway Luminaires • Outdoor Pole/Arm-Mounted Decorative Luminaires • Hazardous Environment Area Lighting • Specialty: Hazardous Environment Outdoor Pole/Arm-Mounted Area and Roadway Luminaires	Luminaires with internal or external house-side shields (HSS) that reduce the house-side lumens by at least 50% compared to those from an unshielded equivalent product.	-20%
		Luminaires with internal or external cul-de-sac shields (CSS) that reduce the house-side lumens by at least 70% compared to those from an unshielded product.	-35%
		Luminaires with internal or external front-side shields (FSS) that reduce the street-side lumens by at least 30% compared to those from an unshielded product.	-20%

Table TRT-27: Field Adjustable Color Temperature Reported Data

Field	Definition	Acceptable Terms Denoting CCT on the Product Specification Sheet or in Supplemental Literature
Default CCT Setting	The setting at which the product emerges from production and is shipped, with no adjustments to CCT.	xxxxK xxxx K x K x.x K
CCT Setting 1	The CCT of the luminaire at the lowest setting.	xxxxK xxxx K x K x.x K
CCT Setting 2	The CCT of the luminaire at the second lowest setting.	xxxxK xxxx K x K x.x K
CCT Setting 3	The CCT of the luminaire at the third lowest setting.	xxxxK xxxx K x K x.x K
CCT Setting 4	The CCT of the luminaire at the fourth lowest setting, if needed.	xxxxK xxxx K x K x.x K
CCT Setting 5	The CCT of the luminaire at the fifth lowest setting, if needed.	xxxxK xxxx K x K x.x K
CCT Setting 6	The CCT of the luminaire at the sixth lowest setting, if needed.	xxxxK xxxx K x K x.x K
CCT Setting 7	The CCT of the luminaire at the seventh lowest setting, if needed.	xxxxK xxxx K x K x.x K
CCT Setting 8	The CCT of the luminaire at the eighth lowest setting, if needed.	xxxxK xxxx K x K x.x K

Table TRT-28: Field Adjustable Light Output and Wattage Reported Data

Field	Definition	Acceptable Terms on the Product Specification Sheet or in Supplemental Literature
Default Lumen Output	The setting at which the product is shipped, with no adjustments to lumen output.	xxxxx lm xxxxx lumens
Lumen Output Setting 1	The lumen output of the luminaire at the lowest setting.	xxxxx lm xxxxx lumens
Lumen Output Setting 2	The lumen output of the luminaire at the second-lowest setting.	xxxxx lm xxxxx lumens
Lumen Output Setting 3	The lumen output of the luminaire at the third lowest setting.	xxxxx lm xxxxx lumens
Lumen Output Setting 4	The lumen output of the luminaire at the fourth lowest setting, if needed.	xxxxx lm xxxxx lumens
Lumen Output Setting 5	The lumen output of the luminaire at the fifth lowest setting, if needed.	xxxxx lm xxxxx lumens
Lumen Output Setting 6	The lumen output of the luminaire at the sixth lowest setting, if needed.	xxxxx lm xxxxx lumens
Lumen Output Setting 7	The lumen output of the luminaire at the seventh lowest setting, if needed.	xxxxx lm xxxxx lumens
Lumen Output Setting 8 (Highest)	The lumen output of the luminaire at the eighth lowest setting, if needed.	xxxxx lm xxxxx lumens
Default Wattage	The setting at which the product is shipped, with no adjustments to lumen output.	xxxx W xxxx Watts
Wattage Setting 1 (Lowest)	The power demand of the luminaire at the lowest setting.	xxxx W xxxx Watts
Wattage Setting 2	The power demand of the luminaire at the second lowest setting.	xxxx W xxxx Watts
Wattage Setting 3	The power demand of the luminaire at the third lowest setting.	xxxx W xxxx Watts
Wattage Setting 4	The power demand of the luminaire at the fourth lowest setting, if needed.	xxxx W xxxx Watts
Wattage Setting 5 (Highest)	The power demand of the luminaire at the fifth lowest setting, if needed.	xxxx W xxxx Watts
Wattage Setting 6	The power demand of the luminaire at the sixth lowest setting, if needed.	xxxx W xxxx Watts
Wattage Setting 7	The power demand of the luminaire at the seventh lowest setting, if needed.	xxxx W xxxx Watts

Field	Definition	Acceptable Terms on the Product Specification Sheet or in Supplemental Literature
Wattage Setting 8 (Highest)	The power demand of the luminaire at the eighth lowest setting, if needed.	xxxx W xxxx Watts

Table TRT-29: Field Adjustable Light Distribution Reported Data

Field	Definition	Acceptable Terms on the Product Specification Sheet or in Supplemental Literature
Field Adjustable Distribution Type	Either Integral Field Adjustable Light Distribution or Standard Component Field Adjustable Light Distribution	N/A
Field Adjustable Distribution Metric	The metric by which FALD setting information will be submitted.	Degree Range IES Distribution Types (Outdoor only) NEMA Flood Types (Outdoor only) Up/Down/All Left/Right/All Other
Distribution Setting Default	The setting at which the product emerges from production and is shipped, with no adjustments to distribution settings.	xxx° xxx degrees Type x NEMA x
Distribution Setting 1 (Narrowest)	The distribution of the luminaire at the narrowest or most concentrated setting.	xxx° xxx degrees Type x NEMA x
Distribution Setting 2	The distribution of the luminaire at the second narrowest or most concentrated setting.	xxx° xxx degrees Type x NEMA x
Distribution Setting 3	The distribution of the luminaire at the third narrowest or most concentrated setting.	xxx° xxx degrees Type x NEMA x
Distribution Setting 4	The distribution of the luminaire at the fourth narrowest or most concentrated setting, if needed.	xxx° xxx degrees Type x NEMA x
Distribution Setting 5 (Widest)	The distribution of the luminaire at the fifth narrowest or most concentrated setting, if needed.	xxx° xxx degrees Type x NEMA x

Table TRT-30: Efficacy Requirements for All Amber LED Products

Amber LED Technology	DLC Standard Minimum Efficacy (lm/W)
de-Amber	30
pc-Amber	70
Filtered Amber	95

Table TRT-31: Testing and Reporting Requirements for Spectral Quality for Products with Amber LEDs (DLC Standard)

Metric and/or Application	Applicable Products	SSL V6.0 & LUNA V2.0 Standard Requirements	QPL Listing	Method of Measurement/ Evaluation
Chromaticity (Spectral Compliance Information)	All Amber LED products	Chromaticity consistent with technology-specific definitions provided in the *Amber Products* section	*Amber Products* (de-Amber, pc-Amber, Filtered Amber) for parent and child products. • Amber parent products will also display the following from the LM-79/Color report under Tested Data: • Dominant wavelength and • Chromaticity coordinates	ANSI/IES LM-79 ANSI/IES TM-27 SPDX file
SPDX Document	All Amber parent products	Qualifying products with amber LEDs tested to meet Amber spectral quality requirements must submit an ANSI/IES TM-27 SPDX document containing spectral power distribution data in increments of 5 nm or less. ANSI/IES TM-33 (-18 or -23) XML documents are also acceptable in addition to SPDX files but are not required at this time.	Amber parent products will display the SPDX document under the Tested data section.	ANSI/IES TM-27-20 or IES TM-27-14 Optionally: ANSI/IES TM-33-18
SPD Image	All Amber parent products	Using the SPDX document in the Amber pre-submission tool, the submitter will create a PNG SPD image for the representative Amber qualifying products	For each Amber color parent product, images from the Amber pre-submission tool will be listed under the Tested Data section.	ANSI/IES TM-27-20 or IES TM-27-14 Submitted SPD images are generated by the Amber pre-submission tool from the submitted SPDX documents.

Metric and/or Application	Applicable Products	SSL V6.0 & LUNA V2.0 Standard Requirements	QPL Listing	Method of Measurement/ Evaluation
		included in the application.[3]		
Color Rendition	Products are required to report data in terms of Option 1 and Option 2, but are not required to meet any thresholds.		All color rendition metrics for parent products from LM-79 test reports are listed as Tested Data. All color rendition metrics for child products are listed as Reported Data.	ANSI/IES LM-79 *ANSI/IES TM-30* *CIE 13.3-1995*
	All Amber products	**Option 1: ANSI/IES TM-30:** • IES R_f • IES R_g • IES $R_{cs,h1}$ **Option 2: CIE 13.3-1995:** • R_a (CRI) • R_9		
Color Maintenance[4]	All Amber products	All Amber products must report the following metrics. No thresholds are stipulated. Chromaticity shift on the CIE 1976 (u', v') chromaticity diagram from ≈1,000-hour measurement to ≈6,000-hour measurement shall be reported to the DLC. Optional reporting of CS4 and CS7 values per ANSI/IES TM-35-19.	V6.0 listed products will display CS4 and CS7 values for all products when reported.	ANSI/IES LM-80, and/or IES LM-84-14 and ANSI/IES TM-35-19

[3] To determine whether a product meets the percent blue threshold for Hawaii County or Maui County code compliance, the pre-submission tool compares the calculated result rounded to one decimal place with the 2.0% threshold. As long as the rounded percentage calculated from the spectrum is less than or equal to 2.0%, the product meets the criteria.

[4] It is important to note that optional reporting of ANSI/IES TM-35-19 CS4 and CS7 values is included in SSL V6.0 and LUNA V2.0, and that reporting pathways will be provided coinciding with the availability of a publicly available TM-35 calculator. Custom calculators will not be accepted for reporting CS4 and CS7 values.

Table TRT-32: Additional Reported Fields Required for Solar Powered Outdoor Luminaires

Reported Field	Options*	Description	Acceptable Terms
Configuration	Integrated	The solar panel, battery, and luminaire are installed as one unit. Generally, the solar panel is embedded in the top of the luminaire.	Integrated, All-in-one, Self-contained
	Split-type	The solar panel and battery are mounted separately from the luminaire, but all components are marketed as one product.	Split-type, Split-component, Two-piece, All-in-two Pole-integral Pole integrated
	Luminaire only	The luminaire is sold separately from any battery or solar panel components but is designed to be integrated into a solar luminaire system.	Solar-ready, Solar compatible
Grid Connection	Off grid	The luminaire receives 100% of its energy from a solar panel.	Off grid, Standalone, Autonomous, Grid free
	Hybrid	The luminaire is designed to receive energy from both a solar panel and the electric grid.	Hybrid, Dual input, Grid assisted, Grid connected, Grid tied
PV Wattage	Value in watts	Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	N/A

Reported Field	Options*	Description	Acceptable Terms
Recommended Install Height	Range in feet	The recommended height from the ground to the luminaire. Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	N/A
Battery Type	Lithium iron phosphate (LiFePO4)	Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	Lithium iron phosphate, Lithium ferro phosphate, $LiFePO_4$, LFP
	Lead acid		Lead acid, Gel
	Nickel-metal hydride (NiMH)		Nickel-metal hydride, NiMH
	Lithium nickel manganese cobalt oxide (NMC)		Lithium nickel manganese cobalt oxide, NMC, NCM, Lithium-ion, Li-ion, Ternary lithium
	Lead crystal®		Lead crystal, Silicon dioxide, SiO_2
Battery Capacity	Value in amp-hours	Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	N/A
Battery Lifetime	Value in years	Time until battery degenerates to 80% capacity. Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	N/A

Reported Field	Options*	Description	Acceptable Terms
Solar Panel Lifetime	Value in years	Time until the panel generates 80% of initial capacity. Only applicable for products with “Integrated” or “Split-Type” indicated in the Configuration field.	N/A

Table TRT-33: Powered Device Minimum Input Voltage*

Powered Device Assigned Class	Power Sourcing Equipment Type			
	Type 1	Type 2	Type 3	Type 4
Class 1	42.9	49.0	49.0	51.1
Class 2	42.1	48.3	48.3	50.4
Class 3	39.9	46.5	46.5	48.7
Class 4	__	42.5	42.5	44.9
Class 5	__	__	44.4	46.6
Class 6	__	__	42.5	44.9
Class 7	__	__	__	44.9
Class 8	__	__	__	43.0

Table TRT-34: Compatibility Testing Requirements: G24q- and GX24q-Base Lamps

Requirement	Methods of Measurement and/or Reference Document	Testing Guidance
Lamp light output shall have a frequency of ≥120 Hz	**Method of Measurement:** None **Reference Document:** IEEE Std 1789™- 2015	Sample Size: One unit per model. Light output waveform shall be measured with a photodetector with a rise time of 10 microseconds or less, transimpedance amplifier, and oscilloscope. Employed equipment models and methods of measurement shall be documented. Temporal response, amplification, and filtering characteristics of the system shall be suitably designed to capture the photometric waveform. Digitized photometric waveform data and an image of the relative photometric amplitude waveform shall be recorded. Measured data shall be recorded to a digital file with an interval between each measurement no greater than 0.00005 sec (50 microseconds), corresponding to an equipment measurement rate of no less than 20 kHz and capture at least 1 second of data.

Table TRT-35: Type A and Dual Mode Reference Ballast Criteria

Type A and Dual Mode Reference Ballast Criteria	
General Applications	**Reference Ballast for Type A and Dual Mode Type A/B**
T8 Linear Replacement Lamps	T8 electronic instant-start ballast with 0.88 ballast factor
T5 and T5HO Linear Replacement Lamps	T5/T5HO electronic programmed-start ballast with 1.0 ballast factor

Table TRT-36: Required Testing to Demonstrate Compliance With SSL V6.0 and LUNA V2.0

Metric	Tested Models	Required Test
Minimum Light Output	Worst-case light output	Full LM-79/Color report, including accompanying SPDX document
Minimum Efficacy	Worst-case efficacy	Full LM-79/Color report, including accompanying SPDX document
Maximum CCT	Highest CCT in family at lowest color rendition option	Full LM-79/Color report, including accompanying SPDX document
Minimum CCT	Lowest CCT in family at lowest color rendition option	LM-79/Color report, including accompanying SPDX document
Minimum Color Rendering	Lowest color rendition option in family	LM-79/Color report, including accompanying SPDX document
Chromaticity	• Lowest CCT at lowest color rendition option • Highest CCT at lowest color rendition option • Lowest CCT at highest color rendition option (Premium only)	Full LM-79/Color report, including accompanying SPDX document
Minimum L_{70} Lumen Maintenance for Standard and L_{90} for Premium	• ISTMT at worst-case thermal conditions of LED • LM-80 for single LED package/module/array as required for lumen maintenance projection	ISTMT, LM-80, LM-84, TM-21, TM-28
Color Maintenance	LM-80 for single LED package/module/array that is evaluated for color shift	LM-80, LM-84
Driver Lifetime (Premium only)	Worst-case driver temperature for each unique driver	Driver spec, ISTMT

Metric	Tested Models	Required Test
Zonal Lumen Distribution (ZLD), Spacing Criteria (SC)	Each unique optical and distribution pattern	Tested LM-79/Distribution report, including accompanying IES file
BUG Ratings (outdoor luminaires and retrofit kits only, excluding lamps)	Each unique optical and distribution pattern	Tested LM-79/Distribution report, including accompanying IES file
UGR (Specific Indoor PUDs and Premium Only)	Each unique optical and distribution pattern at the highest lumen output without consideration of the effect of color properties	Tested LM-79/Distribution report, including accompanying IES file
THD, PF	Worst-case performing driver in family	Benchtop Electrical Testing

Table TRT-37: Example of Shielded Products and Identified Worst-Case Efficacy and Distribution Parents

Family Name	Optic	Luminaire Efficacy w/o Shielding (lm/W)	House-Side (or Street-Side) Lumens w/o Shield	Shield Type	Shielding Angle	Shield Type Subgroup	Luminaire efficacy With Shield (lm/W)	House-Side (or Street-Side) Lumens With Shield	House-Side (or Street-Side) Reduction	Test Required
AXBXC	Type II	125	3,000	HSS	30	A	85	1,400	53%	LM-79/ Color
AXBXC	Type II	125	3,000	HSS	45	A	88	1,200	60%	
AXBXC	Type III	125	3,500	HSS	30	A	87	1,700	51%	LM-79/ Distribution
AXBXC	Type III	125	3,500	HSS	45	A	89	1,500	57%	
AXBXC	Type II	125	10,000	FSS	30	B	88	6,500	32%	LM-79/Color
AXBXC	Type II	125	10,000	FSS	45	B	90	5,000	47%	
AXBXC	Type III	125	9,500	FSS	30	B	89	7,000	30%	LM-79/ Distribution
AXBXC	Type III	125	9,500	FSS	45	B	91	6,000	40%	

Table TRT-38: FALD Testing and Reporting Requirements

Technical Requirement	FALD Testing Required
LM-79 Report Required:	• Worst-case efficacy • Maximum power consumption • Worst-case light output • Representative highest CCT • Representative lowest CCT • Representative lowest CRI
Bench Test Required:	• Worst-case power quality (THD and PF)
In-Situ Temperature Measurement Test (ISTMT) Required:	• Worst-case thermal condition • For Premium classification, worst-case driver thermal condition
Photometric Distribution data required:	• All optical variations, excluding variations due to Integral FALD adjustability • One FALD setting designated for meeting ZLD requirements and listing on QPL

Table TRT-39: Data Reporting Format for FACT, CCT-Tunable, and Full Color-Tunable Product Submissions

ANSI CCT Quadrangle or Worst-Case Value	Measured CCT (K)	Power Consumption (W)	Lumen Output (lm)	Input Control Signal Applied
1800 K				
2000 K				
2200 K				
2500 K				
2700 K				
3000 K				
3500 K				
4000 K				
4500 K				
5000 K				
5700 K				
6500 K				
Lowest Efficacy				
Maximum Power				

Table TRT-40: SSL V6.0 and LUNA V2.0 Technical Requirement Corrections and Clarifications (Published as Needed)

Date Updated	Subject	Change Type	Description	Affected Page(s)
12/5/2025	Table 24: LUNA V2.0 Spectral Quality Requirements	Clarification	Added max CCT for lamps and retrofits to this section, was previously only in FACT.	78, 79
12/5/2025	Minimum Testing Requirements: LUNA Spectral Quality	Formatting	Fixed formatting to align with other cross references.	132
12/5/2025	Table 8: Primary Use Designation Technical Requirements: Light Distribution	Correction	Updated PUD AB distribution requirements to match PUD C.	26, 27
12/5/2025	Table 20: DLC Premium Efficacy Requirements	Correction	Changed incorrect PUD name “Retrofit Kits for Outdoor Wall-Mounted Area Luminaires” to “Retrofit Kits for Outdoor Zero-Uplight Wall-Mounted Area Luminaires.”	68
12/5/2025	15.6 LUNA Turtle Lighting PUD Requirements	Correction	Updated cross reference to correct table and fixed typo.	81
12/5/2025	Table 31: Testing and Reporting Requirements for Spectral Quality for Products with Amber LEDs (DLC Standard)	Correction	Section referenced LUNA products where it should have referenced amber products.	101
12/5/2025	Table 18: Efficacy Allowances	Correction	Eligible indoor products was duplicated and outdoor products missing. Added eligible outdoor products.	59
12/5/2025	How to Navigate this Document	Clarification	Changed “specialized” to “specific” and added roman numerals to Part V description	Between cover page and ToC
12/5/2025	28.1.14 Sports Lighting Luminaires	Formatting	Moved section up one heading level	162
12/5/2025	14.2 Premium Eligibility & 14.4 14.4 Premium Requirements	Clarification	Removed “and Requirements” from heading; requirements in 14.4	65, 66

Date Updated	Subject	Change Type	Description	Affected Page(s)
12/5/2025	Table 36: Required Testing to Demonstrate Compliance With SSL V6.0 and LUNA V2.0	Correction	Changed “Driver Lifetime (Standard and Premium)” to “Driver Lifetime (Premium only).”	125
12/5/2025	5.7 Special Controllability Considerations for Dimmable Lamps	Correction	Removed paragraph on UL Type Lamps	40
12/5/2025	Table 6: Light Output Requirements by Primary Use Designation	Correction	Table erroneously showed wall wash luminaires as outdoor products	22
12/5/2025	Table 18: Efficacy Allowances	Clarification	Merged cells in method of evaluation column for High Color Rendition and Enhanced Discomfort Glare Control rows.	59
12/5/2025	Table 39: Data Reporting Format for FACT, CCT-Tunable, and Full Color-Tunable Product Submissions	Formatting	Header row did not repeat	140
12/5/2025	18.2 Specifications for Amber LED Luminaires, Retrofit Kits, and Lamps	Correction	Removed references to narrowband and broadband SPD from amber definitions.	99, 100
12/5/2025	15.2 LUNA Eligibility and Requirements	Correction	Corrected cross referenced table from 23 to 22	72
12/5/2025	15.7.1 LM-79 Testing	Typo	Corrected SSDL to SSL	82
12/5/2025	Table 8: Primary Use Designation Technical Requirements: Light Distribution	Correction	Restored maximum lumen output for the low bay PUD, which had been erroneously removed	27
12/5/2025	4.4 Interactions With Other DLC Policies: Field Adjustable Light Distribution (FALD) and Field	Clarification, Typo	Added cross reference to light output section and removed dimming language. Added “FALO” acronym to section heading.	30, 31

Date Updated	Subject	Change Type	Description	Affected Page(s)
	Adjustable Light Output			
12/5/2025	17.3 CCT-Tunable and Full Color-Tunable Eligibility	Formatting, clarification	Removed erroneous line breaks and "except chromaticity" language which confused the intent of the policy.	96
12/5/2025	22.5 Four Pin-Base Replacement Lamps for CFLs & 28.9 Four Pin-Base Replacement Lamp for CFLs	Clarification	Clarified that dual mode is ineligible under this category	179
12/5/2025	Appendix B, Table 4, 7.2 Lumen Maintenance	Correction	Removed "-21" throughout document and added "LM-80-08" to list of referenced standards	18 – 19, 52, 185 - 187
12/5/2025	Table 10: Controls Ready Receptacle Types	Clarification	State that products without a receptacle are not controls ready	35
12/5/2025	Table 1, Appendix A	Correction	Restored singular PUD names to plural versions, restored "Commercial and Industrial" to High-Bay and Low-Bay PUDs	8, 160 - 184
1/22/2026	27.3: IES TM-21-11, ANSI/IES TM-21-19, ANSI/IES TM-21-21, and the ANSI/IES TM-21 Calculator, and Appendix B: Referenced Standards	Correction	Added all accepted versions of TM-21	155 – 156, 184
1/22/2026	Table 8: Primary Use Designation Technical Requirements: Light Distribution	Correction	Updated PUD AS to match the distribution requirements of PUD C	27
1/22/2026	16.2 Field Adjustable Color Temperature (FACT) & 17.3 CCT-Tunable and Full Color-Tunable Eligibility	Clarification	Added language to make it clear that CCT-Tunable products must meet 7-step and 4-step quadrangle requirements for Standard and Premium respectively and that FACT and Full color tunable products are required to maintain constant lumen output across CCTs	88, 97
1/22/2026	Table 2: DLC Standard Efficacy Requirements for Luminaires and Retrofit Kits Within Standardized CCT	Clarification	Clarified that outdoor specialty products must meet the minimum outdoor efficacy, 115 lm/W	16

Date Updated	Subject	Change Type	Description	Affected Page(s)
	Quadrangles (1800 K to 6500 K as Applicable*)			
1/22/2026	BUG ratings for lamps & retrofit kits	Clarification	Clarified that lamps do not need to meet BUG rating requirements, but retrofits do	25, 30 – 31, 126, - 127, 131, 155
1/22/2026	Table 8: Primary Use Designation Technical Requirements: Light Distribution	Clarification, typo	Removed unnecessary zeros after PUD Q requirements	27
1/22/2026	15.4 LUNA Spectral Quality Requirements	Formatting	First sentence was formatted as a heading with the number 15.4.1. All subheadings in 15.4 moved down one number as a result.	78 - 80
1/22/2026	30 Policy Clarifications and Updates	Clarification	Added a section number to this section to correct the issue of the header pointing to Appendix B	189 - 192
1/22/2026	27.4 IES LM-80 Version	Clarification	Added this section to explicitly state the versions of LM-80 accepted	156
1/22/2026	18.2 Specifications for Amber LED Luminaires, Retrofit Kits, and Lamps	Correction	Definitions for de-amber and pc-amber updated, no change to requirements	100 - 101
1/22/2026	Table 11	Addition	Added Dip Switch or Dial to the list on accepted Integral Controller or Sensor Type	38
1/22/2026	Table 11	Addition	Added Z10 to Top or Side Controls Receptacle Type and Bottom or Side Controls Receptacle Type	37 - 38
1/22/2026	24.2.2.3 Interactions With Other DLC Requirements: Color-Tunable Products and Field Adjustable Light Output (FALO) Products	Clarification	Removed “CCT-Tunable” from CCT-Tunable and Full Color-Tunable products are not required to meet the chromaticity requirements in SSL V6.0” as the phrasing confused the meaning of the requirement.	130
1/22/2026	Table 24 & Table 31	Clarification	Added a footnote to clarify rounding for percent blue	79, 103
1/22/2026	Table 15	Addition	Added a row for dip switch and dial in the wired section	46
1/22/2026	Table 10	Addition	Added Z10 as an accepted controls ready receptacle type	35

Date Updated	Subject	Change Type	Description	Affected Page(s)
4/15/2026	Section 5.4.1	Clarification	Added language on how to differentiate twistlock receptacles	35
4/15/2026	Table 10	Clarification	Added language to align with twistlock differentiate twistlock receptacles	35
4/15/2026	Table 11	Clarification	Added language to align with twistlock differentiate twistlock receptacles in Top or Sde Controls Receptacle Type and Bottom of Side Controls Receptacle Type	38
4/15/2026	Section 5.10	Clarification	Added language to align with twistlock differentiate twistlock receptacles	49
4/15/2026	Section 5.4.1	Addition	Opened up eligibility for products with both a 3-pin twistlock receptacle and another integral sensor or controller	35
4/15/2026	Table 10	Addition	Added Pogo Pin as an acceptable receptacle type	36
4/15/2026	Table 11	Addition	Added pogo pin as an acceptable receptacle type for Top or Side Controls Receptacle Type and Bottom or Side Controls Receptacle Type	38
4/15/2026	Table 11	Addition	Added different combinations of DALI and D4i to the list of accepted Driver Type and Integral Controller or Sensor Type	36-37
4/15/2026	Table 29	Addition	Added Up/Down/All, Left/Right/All, and Other as acceptable terms for Field Adjustable Distribution Metric	92
4/15/2026	16.6	Addition	Added subsections to differentiate QPL listing information for each type of field adjustable product – 16.6.1, 16.6.2, and 16.6.3	94 - 95
4/15/2026	Table 22	Correction	Maximum U rating for PUDs C and AB erroneously listed as 1, corrected to 0.	74
4/15/2026	17.6	Removal	Removed language on FACT QPL listing as it was moved to 16.6.2.	99