

LED Luminaire Specification

Date: 02/24/2022

1.0 SCOPE AND NORMATIVE REFERENCES

The publications listed below form a part of this specification to the extent referenced. Publications are referenced within the text by their basic designation only. Luminaires are to be manufactured and tested per applicable portions of the most recent revision of the following industry standards, except as revised herein:

American National Standards Institute (ANSI)

- C136.2 American National Standard for Roadway and Area Lighting Equipment – Dielectric Withstand and Electrical Immunity Requirements
- C136.15 American National Standard for Roadway and Area Lighting Equipment – Luminaire Field Identification
- C136.22 American National Standard for Roadway and Area Lighting Equipment – Internal Labeling of Luminaires
- C136.37 American National Standard for Roadway and Area Lighting Equipment - Solid State Light Sources Used in Roadway and Area Lighting
- C136.41 American National Standard for Roadway and Area Lighting Equipment—Dimming Control Between an External Locking Type Photocontrol and Ballast or Driver

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2.0 PRODUCT REQUIREMENTS

2.1 A list of products and key parameters is provided in Appendix A.

2.2 General requirements

- A. Luminaires shall satisfy the key criteria summarized in Appendix A.
- B. Luminaire shall accept the voltage or voltage range specified at 60 Hz and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
- C. All internal components shall be assembled and pre-wired.
- D. Luminaire shall support toolless entry.
- E. The following shall be in accordance with corresponding sections of ANSI C136.37.
 - 1. Wiring and grounding
 - 2. Terminal blocks for incoming AC lines (electrical mains wires)
 - 3. Photocontrol receptacle
 - 4. Latching and hinging
 - 5. Mounting provisions
 - 6. Ingress protection

2.3 Painted or finished luminaire surfaces exposed to the environment

- A. Luminaire shall incorporate appropriate UV protection.
- B. When applicable, luminaire fixture color is specified in Appendix A.

2.4 Thermal management

- A. Luminaire shall be fully functional in the ambient temperature range specified by the manufacturer.
- B. Maximum rated case temperature of driver and other internal components shall not be exceeded when the luminaire is operated in the ambient temperature range specified by the manufacturer.
- C. Mechanical design of protruding external surfaces (heat sink fins) shall facilitate hose-down cleaning and discourage debris accumulation.

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2.5 Photocontrol and photocontrol receptacle

- A. All luminaires shall incorporate a prewired 7-pin, ANSI C136.41 compliant photocontrol receptacle
- B. All luminaires shall be packaged at the factory with a photocontrol rated for a 20-year expected life and suitable for use with the supply voltage indicated in Appendix A.
 - 1. The exterior color of the photocontrol shall be green for luminaire supply voltages less than 480 Volts.
 - 2. The exterior color of the photocontrol shall be brown for 480 Volt luminaires.
 - 3. Failure mode for all photocontrols shall be Fail On.

2.6 Electrical safety testing

- A. Luminaire shall be listed for wet locations by a U.S. Occupational Safety Health Administration (OSHA) Nationally Recognized Testing Laboratory (NRTL).
- B. Luminaire shall meet the performance requirements specified in ANSI C136.2 for dielectric withstand, using the DC test level and configuration.

2.7 Electrical immunity

- A. Luminaire shall meet the performance requirements specified in ANSI C136.2 for electrical immunity.
- B. Unless otherwise specified, luminaire assembly shall incorporate surge protection rated for a surge level of 20kV/10kA or greater, as specified in ANSI C136.2.
 - 1. EXCEPTION: Open bottom luminaries shall be rated for a surge level of 10kV/5kA or greater, as specified in ANSI C136.2.

2.8 Nominal Correlated Color Temperature (CCT) shall be as specified in Appendix A.**2.9 Prewired cord/pigtail.**

- A. Open Bottom style luminaries shall include a 7' - #14/3 prewired cord.
- B. Flood style luminaries shall include a 6' - #14/3 prewired cord.

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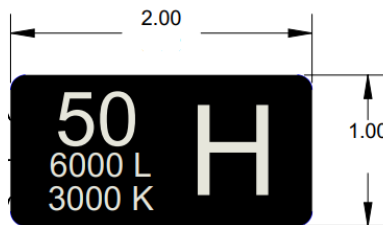
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2.10 Identification

- A. Luminaire shall have a custom external label based on the guidance given in ANSI C136.15. The LKE custom label is the ANSI C136.15 defined label plus an alphanumeric code placed in a field on the right edge of the label, as illustrated below. The height of the label shall be governed by the criteria given in ANSI C136.15. The font size for the LKE Custom Alphanumeric Code shall be sized by the manufacturer to maximize readability for the given label size. The custom alphanumeric label code for each luminaire is listed in Appendix A.

Watts	LKE Custom Alphanumeric Code
Lumens	
CCT	

- B. Custom external label shall be 1-inch tall x 2-inches wide and utilize a black background with white characters for Colonial, Acorn, London, and Victorian style fixtures. See example below:



- C. Custom external label shall be 3-inches tall x 4-inches wide and utilize a white background with black characters for Cobra, Open Bottom, Contemporary, and Flood style fixtures.
- D. Luminaire shall have an internal label per ANSI C136.22

LG&E and KU Energy (LKE)

Attachment to Response to METRO Question No. 11

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Waldrab

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- E. Luminaires rated for a 480 Volt supply voltage shall include a separate exterior 480 Volt label, utilizing red text for increased visibility, as shown below.



- F. To facilitate storeroom management, the luminaire packaging (box) shall include a label that displays LKE's internal Item Identification Number (IIN#), as listed in Appendix A.

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3.0 REQUIRED SUBMITTALS**3.1 Product data in PDF format**

- A. Luminaire data sheets, including a fixture picture(s). To maintain an aesthetically pleasing appearance in the field, the similarity of offered fixtures to those of our legacy products will be taken into consideration.
- B. Data sheets for LED light modules(s)
- C. Data sheets for LED driver(s) and power supplies
- D. If a dimmable LED driver is specified, provide diagrams illustrating light output and input power as a function of control signal.
- E. Data sheets for surge protection device
- F. Data sheets for luminaire accessories such as light shields, optional refractors/globes, etc.
- G. Energy Efficiency (lumens/watt)
- H. Expected life

3.2 Instructions for installation and maintenance in PDF format**3.3 Summary of design reliability testing performed in PDF format****3.4 Written product warranty as per Section 5 below in PDF format****3.5 Physical color samples for the fixture colors specified in Appendix A. To maintain an aesthetically pleasing appearance in the field, the similarity of offered color(s) to those of our legacy products will be taken into consideration.****3.6 IES pattern files for each luminaire**

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4.0 QUALITY ASSURANCE

- 4.1 Before approval and purchase, LKE may request luminaire sample(s) identical to specified product configuration(s) for inspection.
- 4.2 Manufacturer shall electrically test each fully assembled luminaire before shipment from factory
- 4.3 Manufacturer shall have an ISO certified quality control program. Upon request, the manufacturer shall provide proof of current certification.

5.0 WARRANTY

- 5.1 Warranty shall be for a period of 10 years, and shall cover maintained integrity and functionality of the following
 - A. Luminaire housing, wiring, and connections
 - B. LED light module(s)
 - C. LED driver(s) and power supplies
- 5.2 Warranty period shall begin at time of material receipt by LKE.

6.0 EXCEPTIONS

- 6.1 Any exceptions to this specification must be clearly noted on the quotation under a section entitled "Exceptions to Specifications"
- 6.2 Variations from the specifications will not be allowed unless noted under this section and approved by LKE.

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Date: 02/24/2022

APPENDIX A

LG&E and KU Energy (LKE)**LED Luminaire Specification**

Date: 02/24/2022

Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Mounting Information	Custom Label Code
Roadway / Cobra	3027573	2500-4000	120-277V	3K	Type II	2" Diameter Arm	D
	3033050	4000 - 6000					E
	3024532	5500-8200					A
	3024534	13000-16500			Type III		B
	3024533	22000-29000	C				
	3027556	22000-29000	480V				4C



LG&E and KU Energy (LKE)**LED Luminaire Specification**

Date: 02/24/2022

Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code
Colonial	3027572	4000-7000	120-277V	3K	Type V	BLACK	Tennon for 3" O.D. Post Top Mounting	H
Acorn	3027557	4000-7000	120-277V	3K	Type V	BLACK		K
	3029312					DARK BRONZE		K5
London	3029323	4000-7000	120-277V	3K	Type V	BLACK		L
Victorian	3029324					BLACK		J



Colonial



Acorn



London



Victorian

LG&E and KU Energy (LKE)**LED Luminaire Specification**

Date: 02/24/2022

Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code
Open Bottom	3024333	4500-6000	120-277V	3K	Type V	N/A	2" Diameter Arm	M
Open Bottom Kit*	3024334	4500-6000	120-277V	3K		N/A		M3
Flood	3027563	4500-6000	120-277V	3K	7x6	BROWN	Wrap-Around Style Trunnion	U
	3027564	14000-17500		3K		BROWN		V
	3027565	22000-28000		4K		BROWN		W
	3027566	35000-50000		4K	7x7	BROWN		X
	3029033	22000-28000	480V	4K	7x6	BROWN		4W

*Kit Includes a 2" Diameter Arm, 24" in Length



Open Bottom



Flood

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Date: 02/24/2022

Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code
Contemporary	3027558	4000-7000	120-277V	3K	Type III	BLACK	Universal - Round Pole Mounted	N
	3027559	8000-11000						P
	3027560	13500-16500		4K				R
	3027561	21000-28000			S			
	3027562	45000-50000		Type II	T			
	3027567	4000-7000		3K	Type III	DARK BRONZE	Universal - Square Pole Mounted	N
	3027568	8000-11000					Universal - Square Pole Mounted	P
	3027569	13500-16500		4K			Integral Slipfitter Up 2" DIA	R2
	3028943	13500-16500					Universal Mount	R1
	3027570	21000-28000					Integral Slipfitter Up 2" DIA	S2
	3028938	21000-28000	Universal Mount				S1	
	3028765	13500-16500	480V	4K	Type III		Integral Slipfitter Up 2" DIA	4R2
	3028942	13500-16500					Universal Mount	4R1
	3028937	21000-28000					Universal Mount	4S1
	3027861	21000-28000					Integral Slipfitter Up 2" DIA	4S2
	3031393	45000-50000					Universal Mount	4T1
	3031394	45000-50000					Integral Slipfitter Up 2" DIA	4T2
	3027571	45000-50000	120-277V				Integral Slipfitter Up 2" DIA	T2
	3028936	45000-50000					Universal Mount	T1



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American National Standards Institute (ANSI)

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2.0 PRODUCT REQUIREMENTS

2.1 A list of products and key parameters is provided in Appendix A.

2.2 General requirements

- A. Luminaires shall satisfy the key criteria summarized in Appendix A.
- B. Luminaire shall accept the voltage or voltage range specified at 60 Hz and shall operate normally for input voltage fluctuations of plus or minus 10 percent.
- C. All internal components shall be assembled and pre-wired.
- D. Luminaire shall support toolless entry.
- E. The following shall be in accordance with corresponding sections of ANSI C136.37.
 - 1. Wiring and grounding
 - 2. Terminal blocks for incoming AC lines (electrical mains wires)
 - 3. Photocontrol receptacle
 - 4. Latching and hinging
 - 5. Mounting provisions
 - 6. Ingress protection
 - 7. UV protection

2.3 Painted or finished luminaire surfaces exposed to the environment

- A. When applicable, luminaire fixture color is specified in Appendix A.

2.4 Thermal management

- A. Luminaire shall be fully functional in the ambient temperature range specified by the manufacturer.
- B. Maximum rated case temperature of driver and other internal components shall not be exceeded when the luminaire is operated in the ambient temperature range specified by the manufacturer.
- C. Mechanical design of protruding external surfaces (heat sink fins) shall facilitate hose-down cleaning and discourage debris accumulation.

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2.5 Photocontrol and photocontrol receptacle

- A. All luminaires shall incorporate a prewired 7-pin, ANSI C136.41 compliant photocontrol receptacle
- B. All luminaires shall be packaged at the factory with a photocontrol rated for a 20-year expected life and suitable for use with the supply voltage indicated in Appendix A.
 - 1. The exterior color of the photocontrol shall be green for luminaire supply voltages less than 480 Volts.
 - 2. The exterior color of the photocontrol shall be brown for 480 Volt luminaires.
 - 3. Failure mode for all photocontrols shall be Fail On
 - 4. All photocontrols shall incorporate a minimum of 1400 Joules of surge protection.

2.6 Electrical safety testing

- A. Luminaire shall be listed for wet locations by a U.S. Occupational Safety Health Administration (OSHA) Nationally Recognized Testing Laboratory (NRTL).
- B. Luminaire shall meet the performance requirements specified in ANSI C136.2 for dielectric withstand, using the DC test level and configuration.

2.7 Electrical immunity

- A. Luminaire shall meet the performance requirements specified in ANSI C136.2 for electrical immunity.
- B. Unless otherwise specified, luminaire assembly shall incorporate surge protection rated for a surge level of 20kV/10kA or greater, as specified in ANSI C136.2.
 - 1. EXCEPTION: Open bottom luminaries shall be rated for a surge level of 10kV/5kA or greater, as specified in ANSI C136.2.

2.8 Nominal Correlated Color Temperature (CCT) shall be as specified in Appendix A.**2.9 Prewired cord/pigtail.**

- A. Open Bottom style luminaries shall include a 7' - #14/3 prewired cord.
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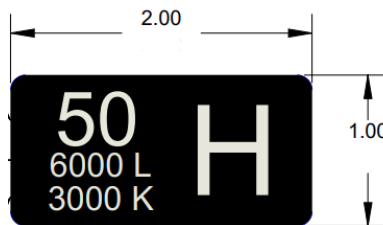
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2.10 Identification

- A. Luminaire shall have a custom external label based on the guidance given in ANSI C136.15. The LKE custom label is the ANSI C136.15 defined label plus an alphanumeric code placed in a field on the right edge of the label, as illustrated below. The height of the label shall be governed by the criteria given in ANSI C136.15. The font size for the LKE Custom Alphanumeric Code shall be sized by the manufacturer to maximize readability for the given label size. The custom alphanumeric label code for each luminaire is listed in Appendix A.

Watts	LKE Custom Alphanumeric Code
Lumens	
CCT	

- B. Custom external label shall be 1-inch tall x 2-inches wide and utilize a black background with white characters for Colonial, Acorn, London, and Victorian style fixtures. See example below:



- C. Custom external label shall be 3-inches tall x 4-inches wide and utilize a white background with black characters for Cobra, Open Bottom, Contemporary, and Flood style fixtures.
- D. Luminaire shall have an internal label per ANSI C136.22

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- E. Luminaires rated for a 480 Volt supply voltage shall include a separate exterior 480 Volt label, utilizing red text for increased visibility, as shown below.



- F. To facilitate storeroom management, the luminaire packaging (box) shall include a label that displays LKE's internal Item Identification Number (IIN#), as listed in Appendix A.

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3.0 REQUIRED SUBMITTALS**3.1 Product data in PDF format**

- A. Luminaire data sheets, including a fixture picture(s). To maintain an aesthetically pleasing appearance in the field, the similarity of offered fixtures to those of our legacy products will be taken into consideration.
- B. Data sheets for LED light modules(s)
- C. Data sheets for LED driver(s) and power supplies, including inrush ratings
- D. A table in Excel format that details the type and number of drivers in each luminaire
- E. If a dimmable LED driver is specified, provide diagrams illustrating light output and input power as a function of control signal.
- F. Data sheets for surge protection device
- G. Data sheets for included photocontrols, including inrush rating
- H. Data sheets for luminaire accessories such as light shields, optional refractors/globes, etc.
- I. Energy Efficiency (lumens/watt)
- J. Expected life

3.2 Instructions for installation and maintenance in PDF format**3.3 Summary of design reliability testing performed in PDF format****3.4 Written product warranty as per Section 5 below in PDF format****3.5 Physical color samples for the fixture colors specified in Appendix A. To maintain an aesthetically pleasing appearance in the field, the similarity of offered color(s) to those of our legacy products will be taken into consideration.****3.6 IES files for each luminaire**

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4.0 QUALITY ASSURANCE

- 4.1 Before approval and purchase, LKE may request luminaire sample(s) identical to specified product configuration(s) for inspection.
- 4.2 Manufacturer shall electrically test each fully assembled luminaire before shipment from factory
- 4.3 Manufacturer shall have an ISO certified quality control program. Upon request, the manufacturer shall provide proof of current certification.

5.0 WARRANTY

- 5.1 Warranty shall be for a period of 10 years, and shall cover maintained integrity and functionality of the following
 - A. Luminaire housing, wiring, and connections
 - B. LED light module(s)
 - C. LED driver(s) and power supplies
- 5.2 Warranty period shall begin at time of material receipt by LKE.

6.0 EXCEPTIONS

- 6.1 Any exceptions to this specification must be clearly noted on the quotation under a section entitled "Exceptions to Specifications"
- 6.2 Variations from the specifications will not be allowed unless noted under this section and approved by LKE.

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APPENDIX A

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Roadway / Cobra	3027573	2500-4000	120-277V	3000K	Type II	2" Diameter Arm	D
	3033050	4000 - 6000					E
	3024532	5500-8200					A
	3024534	13000-16500			Type III		B
	3024533	22000-29000					C
	3027556	22000-29000	480V				4C



LG&E and KU Energy (LKE)**LED Luminaire Specification**

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Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code
Colonial	3027572	4000-7000	120-277V	3000K	Type V	BLACK	Tennon for 3" O.D. Post Top Mounting	H
Acorn	3027557	4000-7000	120-277V	3000K	Type V	BLACK		K
	3029312					DARK BRONZE		K5
London	3029323	4000-7000	120-277V	3000K	Type V	BLACK		L
Victorian	3029324					BLACK		J



Colonial



Acorn



London



Victorian

LG&E and KU Energy (LKE)**LED Luminaire Specification**

Date: 09/02/2022

Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code
Open Bottom	3024333	4500-6000	120-277V	3000K	Type V	N/A	2" Diameter Arm	M
Open Bottom Kit*	3024334	4500-6000	120-277V	3000K		N/A		M3
Flood	3027563	4500-6000	120-277V	3000K	7x6	BROWN	Wrap-Around Style Trunnion	U
	3027564	14000-17500		3000K		BROWN		V
	3027565	22000-28000		4000K		BROWN		W
	3027566	35000-50000		4000K	7x7	BROWN		X
	3029033	22000-28000	480V	4000K	7x6	BROWN		4W

*Kit Includes a 2" Diameter Arm, 24" in Length



Open Bottom



Flood

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Style	LKE IIN #	Lumen Range	Supply Voltage	CCT	Dist. Pattern	Fixture Color	Mounting Information	Custom Label Code	
Contemporary	3027558	4000-7000	120-277V	3000K	Type III	BLACK	Universal - Round Pole Mounted	N	
	3027559	8000-11000						P	
	3027560	13500-16500		4000K	Type II			R	
	3027561	21000-28000						S	
	3027562	45000-50000			T				
	3027567	4000-7000		3000K	Type III	DARK BRONZE	Universal - Square Pole Mounted	N	
	3027568	8000-11000						Universal - Square Pole Mounted	P
	3027569	13500-16500					4000K	Integral Slipfitter Up 2" DIA	R2
	3028943	13500-16500		Universal Mount				R1	
	3027570	21000-28000		Integral Slipfitter Up 2" DIA				S2	
	3028938	21000-28000	Universal Mount	S1					
	3028765	13500-16500	480V	4000K	Type III		Integral Slipfitter Up 2" DIA	4R2	
	3028942	13500-16500					Universal Mount	4R1	
	3028937	21000-28000					Universal Mount	4S1	
	3027861	21000-28000					Integral Slipfitter Up 2" DIA	4S2	
	3031393	45000-50000					Universal Mount	4T1	
	3031394	45000-50000					Integral Slipfitter Up 2" DIA	4T2	
	3027571	45000-50000	120-277V				Integral Slipfitter Up 2" DIA	T2	
	3028936	45000-50000					Universal Mount	T1	



June 08, 2021

Item: LED Offerings & Updates

From: Cordy Jordan



With the completion of the recent Rate Case, the Standards Group would like to make everyone aware of new LED lighting products and policies for both LG&E and KU.

Beginning July 1, 2021, we will no longer order or install new non-LED light fixtures. We will continue to replace photo controls and lamps on non-LED light fixtures for the foreseeable future. We will continue to replace failed non-LED lighting fixtures with the same non-LED lighting fixture, if we happen to have existing inventory. Once we have exhausted our existing inventory of non-LED lighting products, we will replace failed non-LED lighting fixtures with a comparable LED fixture. If the customer chooses to replace a working non-LED fixture with a new LED fixture, a monthly conversion fee or a lump sum fee will be charged plus the monthly tariff for the LED fixture.

Beginning July 1, 2021, we will add new LED options for both Victorian (IIN# 3029324) and London (IIN# 3029323) fixtures which were the last remaining non-LED lights in our Tariffs. The Victorian has been approved for both LG&E and KU, but the London is only approved for LG&E. Neither is approved for ODP. For these products we have chosen an LED manufacturer with fixtures similar in appearance to the HID products historically used by LG&E because the majority of these fixtures are installed in the Louisville area. Rate codes, label codes and other information are shown on the attached chart and on Standard Drawing 80-00-00.

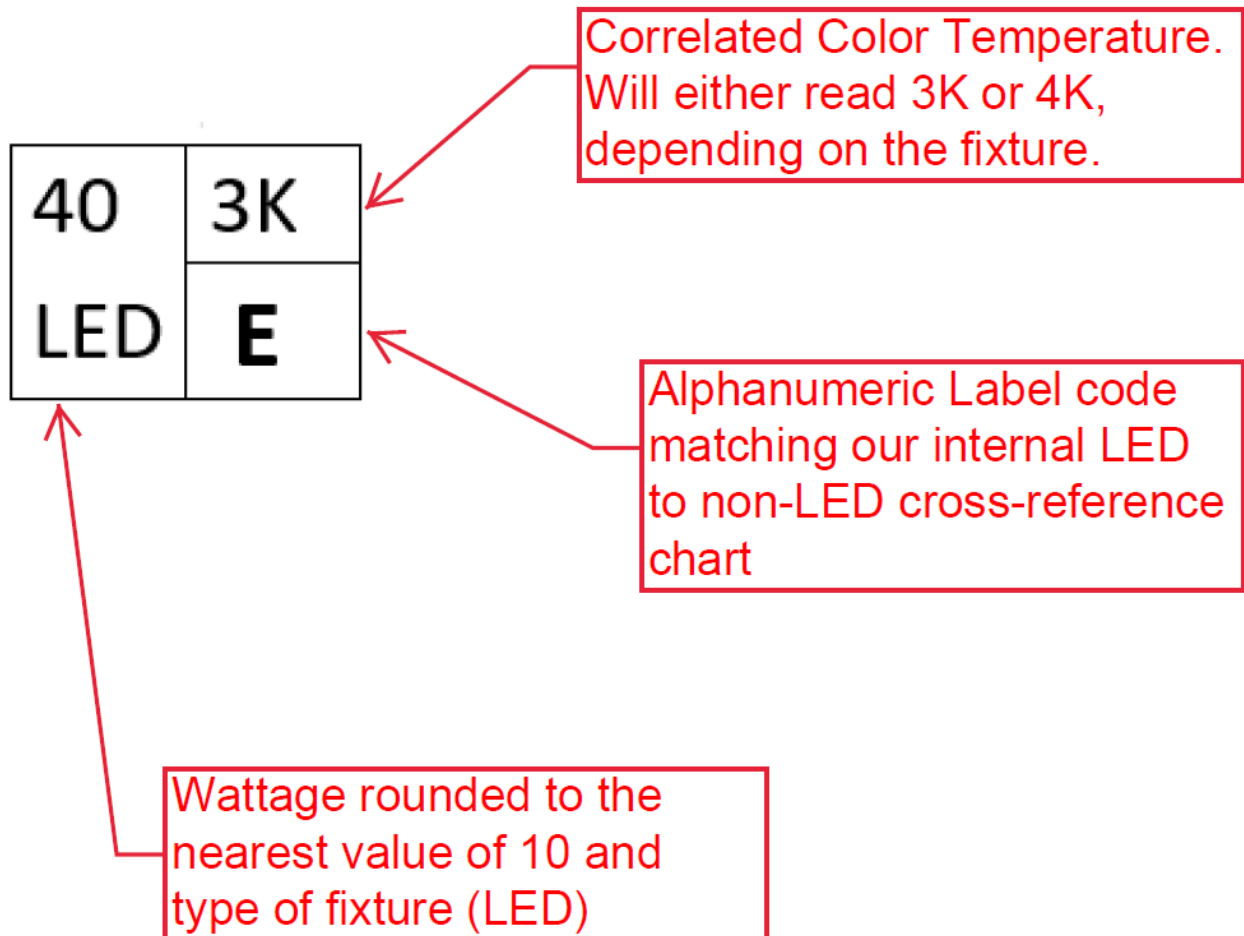
In response to customer concerns raised during the 2020 rate case proceedings, beginning July 1, 2021, we will add a better LED Cobra equivalent for 100W HPS, approved under IIN # 3033050. This fixture is a more exact equivalent than our previously approved fixture, IIN # 3024532, which will remain active and will be used as a 150W HPS equivalent.

To best match the installed base, we are suggesting that IIN # 3033050 (100W equivalent) be used on the KU side and IIN # 3024532 (150W equivalent) be used on the LG&E side. IIN# 3033050 (100W equivalent) is not approved for ODP.

The LED Colonial, IIN# 3027572 has been changed from a Type III distribution light pattern to a Type V. For more details on the light distribution patterns see Standard Drawing 80-06-00.

Also, we would like to make everyone aware of a new Standard Drawing titled Recommended Spacing for LED approved under 80 00 10. Created in response to requests from the field, this standard will serve as a general point of reference. Ultimately, the customer is responsible for designing a lighting plan that meets their specific design needs.

All approved LED fixtures will continue to have an identification label that follows the guidelines as suggested by ANSI C136.15. We have customized the label to be specific to our current LED offerings as shown below.



Cross-reference Chart

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TYPE	Non-LED				LED												Page 27 of 127		
	Non-LED IIN #	Watts	Voltage	Lumens	LED IIN #	Lumens	Lumens Range	Watts	Voltage	CCT	Dist Pattern	User	Mounting Information	Wardrobe					
														LGE	KU	Label			
Roadway / Cobra	7001314, 7001313	70-100	120V	5,800	3027573	2,900	2500-4000	22	120-277V	3K	Type II	LGE-KU-ODP		LC1, LC2	KC1, KC2	D			
	7001312	100		9,500	3033050	4,900	4000 - 6000	39				LGE-KU		LC3, LC4	KC3, KC4	E			
	1186143, 0511235	150		16,000	3024532	7,800	5500-8200	71				LGE-KU-ODP		490, 496	390, 396	A			
	7001311, 1186151, 3020840	200-250		27,500	3024534	13,400	13000-16500	122			LGE-KU-ODP	491, 497		391, 397	B				
	7001310	400		50,000	3024533	22,100	22000-29000	194			LGE-KU-ODP	492, 498		392, 398	C				
	0454501	400	480V	50,000	3027556	22,100	22000-29000	194	480V	LGE-KU-ODP	492, 498	392, 398	4C						
Colonial	7001304, 7001307, 7001308, 454435, 474735	70-100	120V	9,500	3027572	5,300	4000-7000	44	120-277V	3K	Type V	LGE-KU		499	399	H			
Acorn	7001324, 7001325, 0511751	70-100	120V	9,500	3027557	4,700	4000-7000	40	120-277V	3K	Type V	LGE-KU		LA1	KA1	K			
					3029312							LGE (DARK BRONZE)		LA1		K5			
OB Head	7003307	100	120V	9,500	3024333	5,090	4500-6000	48	120-277V	3K	Type V	LGE-KU-ODP		493	393	M			
OB Kit	7001326	100	120V	9,500	3024334	5,090	4500-6000	48	120-277V	3K		LGE-KU-ODP		493	393	M3			
Contemporary	7001319, 7001320	70-100	120V	9,500	3027558	4,900	4000-7000	36	120-277V	3K	Type III	KU (BLACK)	Universal - Round pole mounted		KN1	N			
		150		16,000	3027559	9,900	8000-11000	73							KN2	P			
	7001321	200-250		28,500	3027560	14,900	13500-16500	122							KN3	R			
	7001322, 3005453, 3005451	350-400		50,000	3027561	25,200	21000-28000	186			4K				KN4	S			
	7005987, 7006281	1000		107,800	3027562	50,000	45000-50000	400							KN5	T			
		70-100		9,500	3027567	4,900	4000-7000	36		3K	Type III	LGE (DARK BRONZE)	Universal - square pole mounted	LN1		N			
	0483986	150		16,000	3027568	9,900	8000-11000	73					Universal - square pole mounted	LN2		P			
	0384427	200-250		28,500	3027569	14,900	13500-16500	122					Intergal slipfitter up 2" DIA	LN3		R2			
				28,500	3028943	14,900	13500-16500	122					Universal Mount	LN3		R1			
	0384419, 3005683	350-400		50,000	3027570	25,200	21000-28000	186					Intergal slipfitter up 2" DIA	LN4		S2			
				50,000	3028938	25,200	21000-28000	186					Universal Mount	LN4		S1			
		200-250	480V	28,500	3028765	14,900	13500-16500	122	480V	4K			Intergal slipfitter up 2" DIA	LN3		4R2			
				28,500	3028942	14,900	13500-16500	122					Universal Mount	LN3		4R1			
	0454278, 3005682	350-400		50,000	3028937	25,200	21000-28000	186					Universal Mount	LN4		4S1			
				50,000	3027861	25,200	21000-28000	186					Intergal slipfitter up 2" DIA	LN4		4S2			
	0477619, 0471878, 3005687, 3005688	1000		107,800	3027571	50,000	45000-50000	400					Intergal slipfitter up 2" DIA	LN5		T2			
		120V	107,800	3028936	50,000	45000-50000	400	120-277V	Universal Mount				LN5	T1					
Flood	0908451	70-100	120V	9,500	3027563	4,700	4500-6000	30	120-277V	3K	7x6	LGE-KU-ODP		LF1, LF5	KF1, KF5	U			
	1186494, 0908443	150-200		22,000	3027564	14,300	14000-17500	96		3K		LGE-KU-ODP		LF2, LF6	KF2, KF6	V			
	7001328, 1186486, 0487786, 3005447, 3005681	350-400		50,000	3027565	23,900	22000-28000	175		4K		LGE-KU-ODP		LF3, LF7	KF3, KF7	W			
	7006280	1000		107,800	3027566	38,700	35000-50000	297		4K		LGE-KU-ODP		LF4, LF8	KF4, KF8	X			
	0487786	350-400		480V	50,000	3029033	23,900	22000-28000		175		480V		4K	LGE-KU-ODP	LF3, LF7	KF3, KF7	4W	
London	0484419, 0484443, 7006734	100	120V	9,500	3029323	5734	4000-7000	80	120-277V	3K	Type V	LGE		LL1		L			
Victorian					3029324	5126		40				LGE-KU		LV1	KV1	J			

Label Key			
Prefix Number	Rate Code Letter	Suffix Number	
Blank = 120V to 277V	various	1 = LG&E Universal Mount	
4 = 480V		2 = 2" Slipfitter Mount	
		3 = Open Bottom Kit	
		5 = Dark Bronze (Acorn only)	

June 15, 2021

Item: LED Street and Area Lighting Installation – Stray Voltage

From: Kevin Hall



Distribution Standards would like to share the details of a recent situation that occurred involving new LED Cobra installations.

An Operations Center was recently made aware of two Aluminum streetlight poles with stray voltage. Both installations were HID replacements on legacy installations. Inspection of these installations revealed that the phase and neutral connections had been inadvertently swapped during installation at the LED fixture terminals. LED lighting uses a module known as a “driver” to convert the incoming AC voltage to a lower DC voltage which powers the LED. These “drivers” have EMI filtering and surge protecting circuitry which will place a stray voltage on the LED fixture housing if the phase conductor is mistakenly attached to the neutral lug on the “driver” terminal strip. The LED fixture is mechanically mounted to the Aluminum streetlight pole, which places the stray voltage on the pole itself.

The Aluminum streetlight poles in question were grounded through a ground rod. However, the resistance to ground through a ground rod can vary significantly depending on soil conditions such as moisture and composition. Sometimes, the resistance is simply too high to allow enough fault current to operate the upstream fusing. This was the case in both reported instances.

More recent Aluminum streetlight pole installations include a ground rod, but also bond the grounded neutral conductor to the Aluminum pole (see Construction Standard 80 08 25 and Standards Watch – Stray Voltage Testing on Street Light Poles – January 2013), which provides a low impedance path back to the source transformer. The low impedance path will result in enough fault current to operate the upstream clearing device. Unfortunately, many legacy installations do not include this connection.

When installing LED street and area lighting, it is critically important to identify the phase and grounded neutral conductors and connect them to the correct LED “driver” terminals. As an additional precaution, the pole should be checked for stray voltage before leaving the worksite.

Our approved manufacturers have indicated that this type of installation error often results in a stray voltage amplitude of 25% to 75% of the line voltage. Higher amplitudes of stray voltage may indicate the presence of a phase conductor making direct contact to the interior of the pole through a damaged section of conductor insulation.

Please reach out to a member of Distribution Standards with any questions or concerns.

July 26, 2022

Item: Intermatic Photocontrol on Cooper
Open Bottom Lights

From: David Laun



Recent shipments of Cooper LED open bottom lights, IIN#s 3024333 and 3024334, contain a black Intermatic photocontrol (see below). The vendor has stated that, due to supply chain issues, the standard green Suntech photocontrol was not available. The Intermatic is an equivalent photocontrol and is an acceptable replacement.

The Codes and Standards group is working with the vendor on alternatives to avoid confusion in the future.



November 14, 2023

Item: LED Lighting – Purple Appearance

From: David Laun



LED lighting became the standard for LG&E and KU, as well as most other electric utilities, several years ago. An issue with the LEDs seen in some areas is the light appearing purple instead of white. The issue is primarily the result of a manufacturing defect in which the phosphor coating delaminates from the LED. The phosphor coating filters the LED to produce the “white” light. When the coating delaminates, the absence of the filtering results in the purple light.

Recently, an inquiry was received from a local television station in Lexington concerning “streetlights turning purple” around the area. These lights turned out to belong to an adjacent utility but it did bring up the need for awareness among our personnel.

At this point, the Standards group is not aware of any issues on LG&E and KU systems. Should the issue arise, please retain the failed lights and notify the Standards group for warranty replacement.

Examples:



Please reach out to a member of Distribution Standards with any questions or concerns.

November 30, 2023

Item: 480V Photo Controls

From: David Laun



Currently for 480V photo controls, HID lighting uses IIN 0455127 (yellow, standard life photo controls) and LED lighting uses IIN 3027115 (brown, long life photo controls). Yellow is the ANSI standard for 480V photo controls.

To better align with industry standards, the following changes will be made:

IIN 0455127, presently used with 480V HID lighting, will be obsoleted and will not be reordered once current stock is extinguished.

IIN 3027115, presently used with 480V LED lighting, will change from brown to yellow and will now be used for all 480V lighting, both LED and HID (once the existing inventory of IIN 0455127 stock is extinguished).

Please contact Codes and Standards with any questions or concerns.



Distribution Standards Communication Alert

Mercury Vapor Lighting Elimination

Date: Sept. 13th, 2024

OVERVIEW

Existing mercury vapor lighting fixtures will be eliminated once the current stock of bulbs are depleted.

DETAILS

Per the September 11, 2007 Standards Watch, the installation of new mercury vapor fixtures were discontinued. As part of that announcement, the replacement of burned-out bulbs could continue on the existing fixtures as long as bulbs were available.

Over the last year, the sources for the mercury vapor bulbs have become virtually non-existent with the last known supplier canceling their current orders due to the inability to import and supply the needed bulbs.

Therefore, once the current stock of mercury vapor bulbs is depleted, any failed mercury vapor fixture should be removed from service. Please work with the customer to either convert to current LED lighting options or have lighting service removed from their bill.

Please reach out to a member of Distribution Standards with any questions or concerns.

RESPONSIBILITIES

- **Maintenance & Construction Supervisors** – Relay information to crews for awareness.

CONTACT(S)

LG&E and KU	David Laun (dmlaun@pplweb.com 859-367-1397)
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Distribution Standards Communication Alert

High Pressure Sodium (HPS) Fixture Elimination

Date: April 3, 2025

OVERVIEW

The purchase of High Pressure Sodium (HPS) bulbs has been discontinued. All High Pressure Sodium (HPS) lighting fixtures with bulb failures will be removed from service once the current stock of bulbs is depleted.

DETAILS

Per the June 8, 2021 Standards Watch, the installation of new non-LED fixtures was discontinued. As part of that announcement, the replacement of non-burning bulbs in existing HPS lighting fixtures would continue as long as bulbs were available.

Over the last year, the sources for the HPS bulbs have become virtually non-existent. Therefore, once the current stock HPS bulbs is depleted, any failed non-LED fixture should be removed from service.

Upon bulb failure in HPS fixtures, work with the customer to convert to current LED lighting options or, if the customer no longer desires the lighting service, have lighting service removed from their bill.

RESPONSIBILITIES

- **Maintenance & Construction Supervisors** – Relay information to crews for awareness.
- **Distribution Design** – Review and communicate this topic and adjust designs as needed.
- **Supply Chain** – Review for awareness.

CONTACT

LG&E and KU	David Laun (dmlaun@pplweb.com 859-367-1397)
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April 15, 2020

Item: Label Code Revisions

From: Cordy Jordan

Case No. 2025-00114
Attachment to Response to METRO Question No. 11



Page 34 of 127
Waldrab

The Standards Group would like to make everyone aware of the revised label codes that we are using to help identify our LED fixtures after they are installed in the field. Below is sample of a typical label code that comes attached to the fixture approved IIN# 3027566. A similar label is attached to all LG&E/KU LED fixtures.



300 LED - Wattage rounded to nearest value of 10

4K - 4000K CCT

X - Label code

We have added additional digits to the label code where necessary to distinguish between fixtures that are the same except for various details such as different mounting option, different voltage and kit vs head only. Also, the Oracle descriptions have been revised to include the label codes. We have created CUs to include the revised label codes in the ID and the description.

We have instructed all our lighting manufacturers to include both the label code and the IIN number on the outside of the carton. This should help our storeroom personnel to correctly select specific fixtures from stock.

Our LED fixtures will continue to be received with the label code attached and the label will continue to follow the guidelines as suggested by ANSI C136.15.

The chart below shows highlighted in yellow all the label codes that have been revised.

LED										Case No.	
LED IIN NUMBERS	Tariff Lumens Range	Voltage	TYPE	CCT	USER	Attachment to Response Code	METRO LED				
							LGE	KU	Label	WATTs	
3027573	2500-4000	120-277V	ROADWAY / COBRA	3K	LGE-KU		LC1, LC2	KC1, KC2	D	22	
3024532	5500-8200			3K	LGE-KU		490, 496	390,396	A	71	
3024534	13000-16500			3K	LGE-KU		491, 497	391,397	B	122	
3024533	22000-29000			3K	LGE-KU		492, 498	392,398	C	194	
3027556	22000-29000			480V	3K		LGE-KU	492, 498	392,398	4C	194
3027572	4000-7000	120-277V	COLONIAL	3K	LGE-KU		499	399	H	44	
3027557	4000-7000		ACORN	3K	LGE-KU		LA1	KA1	K	40	
3029312	4000-7000		ACORN	3K	LGE (DK BRONZE)		LA1	KA1	K5	40	
3024333	4500-6000		OB HEAD	3K	LGE-KU		493	393	M	48	
3024334	4500-6000		OB KIT	3K	LGE-KU				M3	48	
3027558	4000-7000		Contemporary		3K	KU (BLACK)	UNIVERSAL - Round pole mounted		KN1	N	36
3027559	8000-11000				3K				KN2	P	73
3027560	13500-16500				4K				KN3	R	122
3027561	21000-28000				4k				KN4	S	186
3027562	45000-50000				4k				KN5	T	400
3027567	4000-7000				3K	LG&E (DARK BRONZE)	UNIVERSAL - square pole mounted	LN1		N	36
3027568	8000-11000				3K		UNIVERSAL - square pole mounted	LN2		P	73
3027569	13500-16500				4K		Intergal slipfitter up 2" DIA	LN3		R2	122
3028943	13500-16500				4k		UNIVERSAL MOUNT	LN3		R1	122
3027570	21000-28000				4k		Intergal slipfitter up 2" DIA	LN4		S2	186
3028938	21000-28000			4K	UNIVERSAL MOUNT		LN4	S1		186	
3028765	13500-16500	4K		Intergal slipfitter up 2" DIA	LN3		4R2	122			
3028942	13500-16500	4K		UNIVERSAL MOUNT	LN3		4R1	122			
3028937	21000-28000	4K		UNIVERSAL MOUNT	LN4		4S1	186			
3027861	21000-28000	4K		Intergal slipfitter up 2" DIA	LN4		4S2	186			
3027571	45000-50000	4K		Intergal slipfitter up 2" DIA	LN5		T2	400			
3028936	45000-50000	4K		UNIVERSAL MOUNT	LN5		T1	400			
3027563	4500-6000	120-277V	FLOOD	3K	LGE-KU		LF1, LF5	KF1, KF5	U	30	
3027564	14000-17500			3K	LGE-KU		LF2, LF6	KF2, KF6	V	96	
3027565	22000-28000			4K	LGE-KU		LF3, LF7	KF3, KF7	W	175	
3027566	35000-50000			4K	LGE-KU		LF4, LF8	KF4, KF8	X	297	
3029033	22000-28000			480V	4K		LGE-KU	LF3, LF7	KF3, KF7	4W	175

LONG LIFE PHOTO CONTROLS		
3024531	Long Life Photo Control, GREEN, 105-305V	LGE-KU
3027115	Long Life Photo Control, BROWN, 480V	LGE-KU

Label Key		
Prefix Number	Rate Code Letter	Suffix Number
Blank = Universal Voltage (120V - 277V)	Various	1 = LG&E Universal Mount
		2 = 2" Slipfitter Mount
		3 = Open Bottom Kit
4 = 480V Source		5 = Dark Bronze

Project	Catalog #	Type
Prepared by	Notes	Date



Interactive Menu

- Ordering Information page 2
- Mounting Details page 3
- Energy and Performance Data page 4

Streetworks

Utility Flood Medium

Floodlight & Sign Lighting Luminaire

Product Certifications & Features



Product Specifications

Optics

- The LED chamber incorporates a vacuum metalized reflector that provides high-efficiency illumination.
- Optics are precisely designed to shape the NEMA type 6H x 6V wide distribution and 3H x 3V spot distribution, maximizing efficiency and application spacing.
- Clear glass tempered lens with full circumference form-in-place silicone gasket protects the optics from damage.
- Various CCTs available, offered in 2200K, 2700K, 3000K, 4000K, 5000K, or 5700K and minimum 70 CRI.

Electrical

- LED driver is mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance.
- 120-277V, 240-480V, 347V, and 480V; 50/60Hz
- Standard 0-10V dimming
- Integral 6kV surge is standard. 10kV surge protection options with series or parallel configurations
- -40°C to 40°C ambient temperature operating range. Optional 50°C HA (high ambient) available.

Physical Characteristics

- Heavy-duty, die cast aluminum housing, driver compartment and driver door.
- A separate driver compartment and external fins provide optimal thermal management that result in longer LED and driver life.
- Access to the driver for maintenance is achieved with a removable driver door using pan head screws.
- A one-piece silicone gasket seals the door to the fixture housing.

- Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.
- Heavy-duty steel top and side visors control glare and spill light. 1/8" thick UV stabilized vandal guard shields glass lens from impact when mounted at low levels.
- Easy to install wire guard features a heavy-gauge welded construction with corrosion resistant polyester powder coat finish to protect glass from projected objects.

Controls

- Optional Field Adjustable Dimming Control (FADC) module allows for manual adjustment of lumen output and power usage; factory preset to highest output level. Enables a single SKU to cover multiple field applications

Mounting

- Mounting options include an integral die-cast aluminum slipfitter that is preset to a tilt of 45°.
- The knuckle base is supplied with a tooth lock adjustment that can be adjusted in 5° increments. Visual 15° adjustment indicators on the knuckle allow for 180° field rotation of the floodlight assembly.
- The slipfitter fits standard 2-3/8"-3" O.D. tenon.
- The knuckle mounting includes a 3/16" polyester powder coated galvanized steel trunnion with a 16/3 STW-A cord.
- The trunnion mount uses an interlocking slide adjustment that is locked in place with a set screw.

Finish

- Housing and cast parts finished in five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear.

Compliance

- The housing, optical chamber and driver compartment are IP66 rated.
- Meets ANSI C136.31 for 3G luminaire vibration. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Suitable for mounting within 4' (1.2m) of the ground.
- BAA domestic preference option meets BAA requirements. See [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information
- FHWA and FTA agencies are utilizing their BAA rules for BABA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

Shipping Data

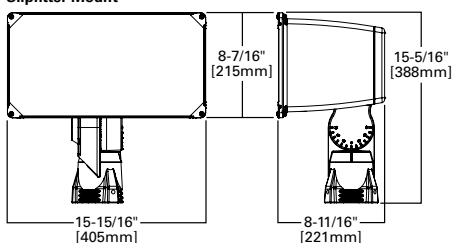
- Approximate net weight: 20 lbs. (9.09 kgs.)
- EPA: 1.25 sq. ft.

Warranty

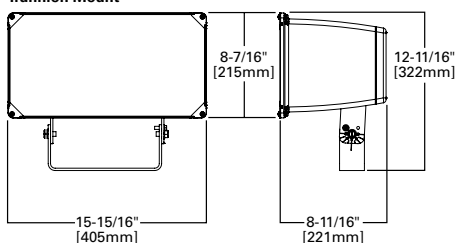
- Five-year limited warranty. Consult website for details. www.cooperlighting.com/legal

Dimensional Details

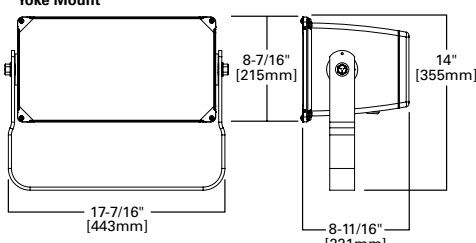
Slipfitter Mount



Trunnion Mount



Yoke Mount



Ordering Information

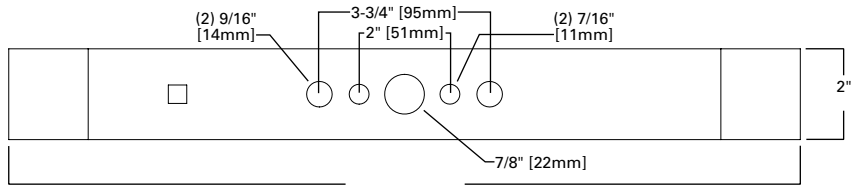
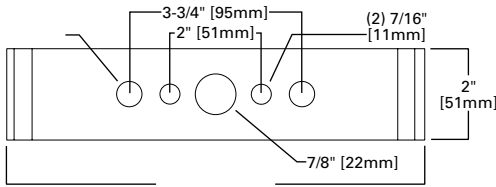
SAMPLE ORDER NUMBER: UFLD-CA2-180-740-U-66-C-BK-10K-PR7

Product Family	Configuration	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Color
UFLD =Utility Flood Medium BAA-UFLD =Utility Flood Medium Buy American Act Compliant ¹⁵ TAA-UFLD =Utility Flood Medium Trade Agreements Act Compliant ¹⁵ BABA-UFLD =Utility Flood Medium Build America Buy America Act Compliant ¹⁷	CA2 =2 LED	80 =80W 90 =90W 120 =120W 130 =130W 140 =140W 150 =150W 180 =180W	740 =70CRI, 4000K 727 =70CRI, 2700K ² 722 =70CRI, 2200K ² 730 =70CRI, 3000K ² 750 =70CRI, 5000K ² 760 =70CRI, 5700K ²	U =Universal (120-277V) 8 =480V ¹ 9 =347V	66 =NEMA 6H x 6V Wide ¹⁴ 33 =NEMA 3H x 3V Spot ¹³	C =Slipfitter, 2-3/8"-3" O.D. (SO cord through housing) S =Slipfitter, 2-3/8" - 3" O.D. (Leads through slipfitter) T =Trunnion Y =Yoke	BK =Black BZ =Bronze AP =Grey WH =White
Options (Add as Suffix)		Controls		Accessories (Order Separately) ¹⁶			
10K =Series 10kV UL 1449 Surge Protective Device 20K =Series 20kV UL 1449 Surge Protective Device 20KI =Series 20kV UL 1449 Surge Protective Device with light indicator 10MSP =Parallel 10kV MOV Surge Protection Device 20MSP =Parallel 20kV MOV Surge Protective Device HA =50°C High Ambient Temperature ³ D10 =<10% Dimming CXXXX =Cord Type ¹¹ FADC =Field Adjustable Dimming Controller ¹² Dxxxxx =DOT Configuration - Contact Quotes Team Uxxxxx =Utility Configuration - Contact Quotes Team		PR =NEMA 3-PIN Photocontrol Receptacle PR7 =NEMA 7-PIN Twistlock Photocontrol Receptacle MSP/DIM-L12 =Integrated Occupancy Sensor for Dimming Operation, 8' - 12' Mounting Height ^{4,5} MSP/DIM-L30 =Integrated Occupancy Sensor for Dimming Operation, 12' - 30' Mounting Height ^{4,5} MSP-L12 =Integrated Occupancy Sensor for ON/OFF Operation, 8' - 12' Mounting Height ^{4,5} MSP-L30 =Integrated Occupancy Sensor for ON/OFF Operation, 12' - 30' Mounting Height ^{4,5}		FA63 =3" O.D. Surface Mount Bracket ⁷ OA1223 =10kV/10kA UL 1449 Surge Protective Device Replacement OA/RA1013 =Photocontrol Shorting Cap OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V RAB-XX =Right Angle Pipe Bracket for Slipfitter SAB-XX =Steel Angle Bracket for Trunnion TYS-XX =Slipfitter Adapter for 2-3/8", 3" or 3-1/2" O.D. Tenon ⁸ TS2/UFLD-XX =Top and Side Visors ⁹ VS/UFLD =Vandal Shield ⁹ WG/UFLD =Wire Guard ⁹ ISHH-01 =Integrated Sensor Programming Remote LLPC =Long-life Photocontrol ¹⁰ LLPC-FO =Long-life Photocontrol (Fail-Off)			

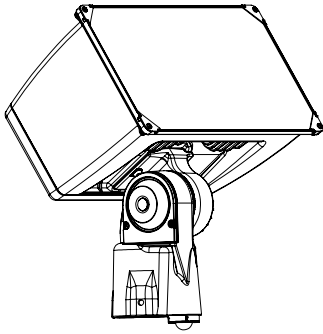
- NOTES:**
- 1. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems)
 - 2. Extended lead times apply. Use dedicated IES files for 3000K, 5000K, and 5700K when performing layouts. These files are published on the UFLD luminaire product page on the website.
 - 3. Not available with 3H x 3V spot distribution.
 - 4. Integrated sensor option only available in slipfitter mounting.
 - 5. Not available with Photocontrol.
 - 6. Replace XX with color designation. Additional brackets and adaptors available on the poles product page on the website.
 - 7. Not available with tenon mount.
 - 8. Not available with slipfitter mount.
 - 9. Cannot combine TS2 (Top and Side Visor), VS (Vandal Shield), or WG (Wire Guard), limited to one external guard per fixture.
 - 10. Sold as accessory. Not covered under luminaire warranty.
 - 11. 3-conductor cord available in 12, 14, and 16 gauge with lengths of 5, 8, 10, 15, 20, and 25 feet. Specify cord gauge with the first 2 digits and cord length with the last 2 digits (ex: C1605 = 16-gauge, 5 feet length cord). Standard cord is 16-gauge with length of 3.5 ft if not specified.
 - 12. Cannot be used with PR7 or other motion response control options.
 - 13. Only available in 90W and 140W.
 - 14. Available in 80W, 120W, 130W, 150W, and 180W wattage buckets.
 - 15. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to [DOMESTIC PREFERENCES](#) website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.
 - 16. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.
 - 17. Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to the [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

Mounting Details

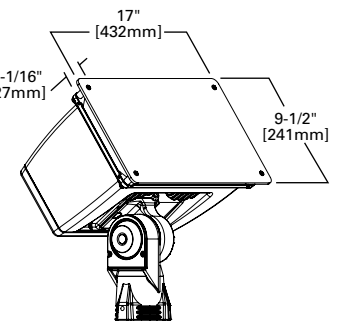
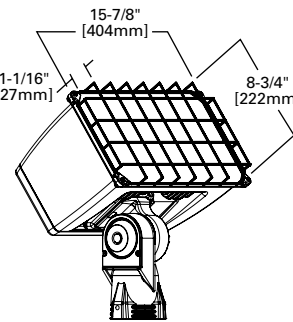
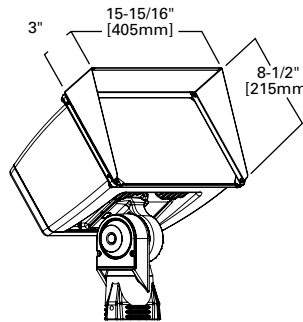
Drilling Patterns



Optional Integrated Sensor



Accessories



Energy and Performance Data

Distribution	6x6				
ANSI Wattage	80	120	130	150	180
Wattage	82	124	133	151	183
2200K	9,619	15,672	16,575	18,369	21,054
Lumens Per Watt	117	127	125	121	115
2700K	9,994	16,284	17,222	19,086	21,875
Lumens Per Watt	122	131	130	126	120
3000K	11,588	18,882	19,970	22,131	25,365
Lumens Per Watt	141	161	151	146	139
4000K	11,802	19,230	20,338	22,539	25,833
Lumens Per Watt	144	155	153	149	141
5000K	12,018	19,583	20,711	22,952	26,307
Lumens Per Watt	146	158	156	152	144
5700K	11,764	19,168	20,272	22,466	25,749
Lumens Per Watt	143	155	153	149	141

Distribution	3x3	
ANSI Wattage	90	140
Wattage	90	137
2200K	9,551	13,830
Lumens Per Watt	107	101
2700K	9,924	14,370
Lumens Per Watt	111	105
3000K	11,505	16,660
Lumens Per Watt	129	122
4000K	11,719	16,970
Lumens Per Watt	131	124
5000K	11,928	17,272
Lumens Per Watt	133	126
5700K	11,681	16,915
Lumens Per Watt	131	124

Current Draw

Voltage	Model Series						
	6 x 6	6 x 6	6 x 6	6 x 6	6 x 6	3x3	3x3
	80W	120W	130W	150W	180W	90W	140W
	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)	Current (A)
120V	0.688	1.07	1.11	1.26	1.53	0.748	1.14
277V	0.31	0.47	0.5	0.54	0.67	0.33	0.51
347V	0.26	0.38	0.4	0.44	0.56	0.28	0.42
480V	0.19	0.29	0.31	0.33	0.4	0.21	0.31

Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
All Distributions		
40°C	88.90%	151,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.03
15°C	1.02
25°C	1.00
40°C	0.97
50°C	0.96

FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

NOTES: +/-5% typical value



EFM1 Gen2

Medium Output Flood Light

The Evolve® LED Medium Output Flood Light is our mid-lumen solution to efficiently illuminate building facade, flag poles, billboard signage and many more traditional flood applications. Designed to replace from 150W - 400W HID flood light solutions.

Construction

Housing:	Aluminum die cast enclosure. Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze, Gray, White (RAL & custom colors available) Optional = Coastal Finish
Weight:	25 lbs (11.34 kgs)

Optical System

Lumens:	8,500 to 29,000
Distribution:	3x3, 6x5, 6x6, 7x6, 7x7
Efficacy:	116-165 LPW
CCT:	2700K, 3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 277-480V
Input Frequency:	50/60Hz
Power Factor:	≥ 90% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection

TYPICAL	ENHANCED	EXTREME
6kV/3kA*	10kV/5kA*	20kV/10kA*

*Per ANSI C136.2-2015

Warranty

5 Year (Standard)

10 Year (Optional)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	DISTRIBUTION	LXX(10K) @ HOURS		
		25,000 HR	50,000 HR	60,000 HR
10, 15	77, 76, 67, 66, 65	L99	L99	L99
20, 25	77, 76, 67, 66, 65	L99	L99	L98
30	77, 76, 67, 66, 65	L94	L87	L85
10	33	L97	L97	L97
15, 20	33	L97	L96	L96
25	33	L97	L96	L95

Note: Projected LXX based on LM80 (> 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C*
Vibration^:	3G - Slipfitter Mounting K1, K2, S1 & S2 3G - Trunnion Mounting T1
LM-79:	Testing in accordance with IESNA Standards

*45°C for SKUs >168W at 120-277V with DALI (Option U)

^Per ANSI C136.31-2010

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid and Daintree Compatible



Visit www.designlights.org/search to confirm qualifications.

Ordering Information

EFM1 02

7

PROD. ID	GEN	VOLTAGE	OPTIC CODE (lm)	DISTRIBUTION (NEMA HxV)	CRI	CCT	DIMMING	CONTROLS	MOUNTING	COLOR	OPTIONS
E=Evolve	02	0 = 120-277V ¹	10 = 10,000	33 = NEMA 3x3 ³	7 = 70	27 = 2700K	A = ANSI C136.41 7-Pin Receptacle ⁴	A = No Control	K1 = Knuckle slipfitter 1.9 in. - 2.3 in OD Tenon ⁵	GRAY = Gray	F = Fusing ¹
FM= Flood Medium		1 = 120V	15 = 15,000	65 = NEMA 6x5		30 = 3000K	D = No receptacle, with external dimming 18/2 3 ft cable	D = Shorting Cap ⁵	K2 = Knuckle slipfitter 1.9 in. - 2.3 in OD Tenon Supplied with 14/3 3ft power cable	BLCK = Black	H2 = Daintree Enabled motion Sensor ^{7,8}
1= Standard		2 = 208V	20 = 20,000	66 = NEMA 6x6		40 = 4000K	N = No PE Receptacle & Non Dimmable	E = ANSI C136.41 7-pin with non-Dimming PE Control ⁵	S1 = Knuckle slipfitter 2.3-3.0 in. OD Tenon ⁶	DKBZ = Dark Bronze	H4 = Motion Sensor (FSP221) ⁸
		3 = 240V	25 = 25,000	76 = NEMA 7x6		50 = 5000K	P = ANSI C136.41 7-Pin Receptacle with external dimming 18/2 3 ft cable ⁴		S2 = Knuckle slipfitter 2.3-3.0 in. OD Tenon, Supplied with 14/3 3ft power cable	WHTe = White	NOM = NOM31 ¹¹
		4 = 277V	30 = 30,000 ²	77 = NEMA 7x7					T1 = Trunnion with external 3ft #14/3 power cable		P06 = Prewired with 6ft #14/3 cable
		5 = 480V							V1 = Knuckle Wall Mount ⁸		R = 10kV/5kA Enhanced Surge Protection Device (SPD)
		D = 347V									T = 20kV/10kA Enhanced Surge Protection Device (SPD)
		E = 277-480V ¹									U = DALI Dimming ⁹
											V0 = 3-Position Terminal Block
											V1 = FAM module
											Y = Coastal Finish ¹⁰

NOTES:

1

Fusing requires discrete voltage

2

Not Available in 3x3 distribution

3

Max Lm output = 25K Lm

4

Restricted aiming angle of 0-45°

5

Can only be ordered with "A" or "P" Dimming Options

6

Supplied with leads

7

Not available in 347V, 480V OR 277-480V

8

Only available in K1 or S1 mount

9

Compatible with LightGrid System

10

Recommended for installations within 750 feet from coast. Lead time varies, check with factory

11

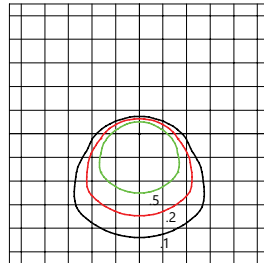
Contact Manufacturer

LUMEN OUTPUT	DIST CODE	CLASSIFICATION (HxV)	TYPICAL INITIAL LUMENS				SYSTEM WATTAGE
			2700K	3000K	4000K	5000K	
10	77	7x7	9900	10600	11000	11000	67
15			13500	14550	15000	15000	91
20			18000	19400	20000	20000	124
25			22500	24250	25000	25000	162
30			26100	28130	29000	29000	195
10	76	7x6	9900	10600	11000	11000	67
15			13500	14500	15000	15000	91
20			18000	19400	20000	20000	124
25			22500	24200	25000	25000	162
30			26100	28100	29000	29000	195
10	66	6x6	9900	10600	11000	11000	67
15			13500	14500	15000	15000	91
20			18000	19400	20000	20000	124
25			22500	24200	25000	25000	162
30			26100	28100	29000	29000	195
10	65	6x5	8500	9200	9500	9500	67
15			11700	12600	13000	13000	91
20			15600	16800	17400	17400	124
25			19500	21000	21700	21700	162
30			22600	24400	25200	25200	195
10	33	3x3	10300	10600	11100	11100	78
15			13900	14400	15000	15000	105
20			18600	19200	20000	20000	144
25			23200	24000	25000	25000	186

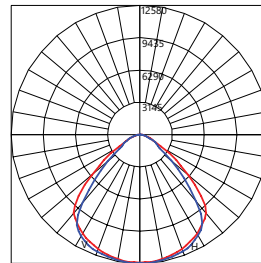
For additional information on Shielded and Non-Shielded EFM IES files, please refer to LED.com

EFM1
NEMA 7x7

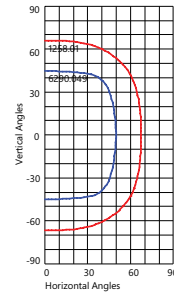
29,000 Lumens
4000K
EFM102_3077740_IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

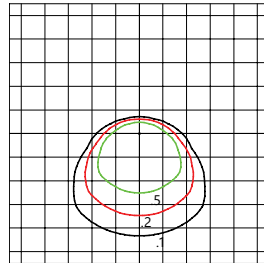


- Vertical Axial Candela Distribution
- Horizontal Axial Candela Distribution

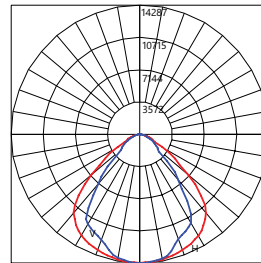


EFM1
NEMA 7x6

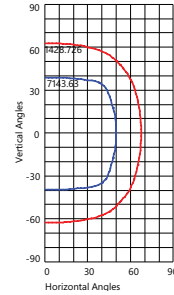
29,000 Lumens
4000K
EFM102_3076740_IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

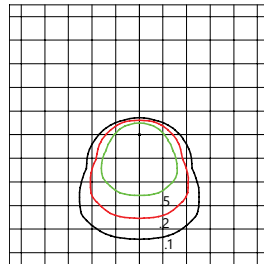


- Vertical Axial Candela Distribution
- Horizontal Axial Candela Distribution

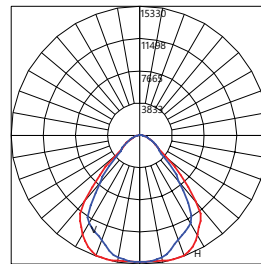


EFM1
NEMA 6x6

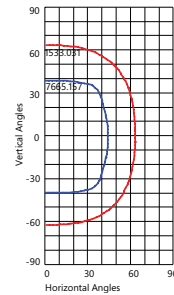
29,000 Lumens
4000K
EFM102_3066740_IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

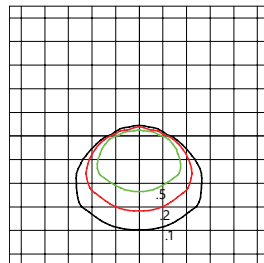


- Vertical Axial Candela Distribution
- Horizontal Axial Candela Distribution

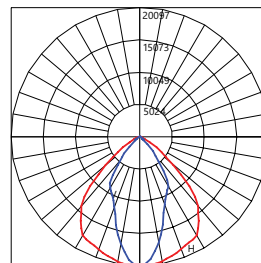


EFM1
NEMA 6x5

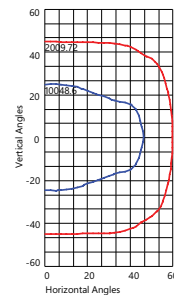
25,200 Lumens
4000K
EFM102_3065740_IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

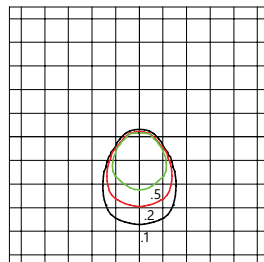


- Vertical Axial Candela Distribution
- Horizontal Axial Candela Distribution

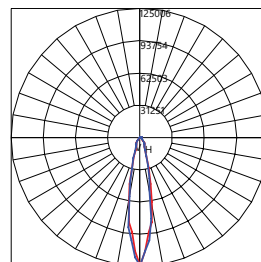


EFM1
NEMA 3x3

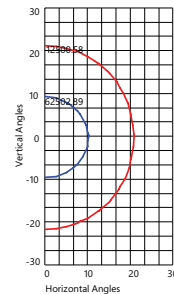
25,000 Lumens
4000K
EFM102_2533740_IES



- Mounting Height at 35'
- 45° Tilt Initial Footcandle at Grade

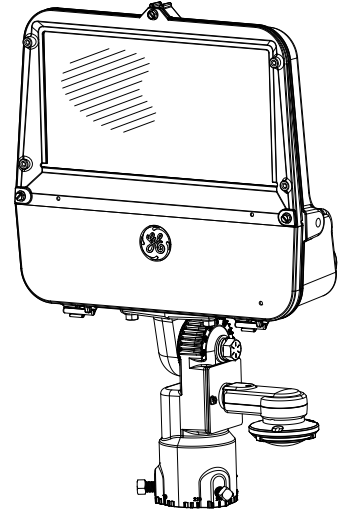
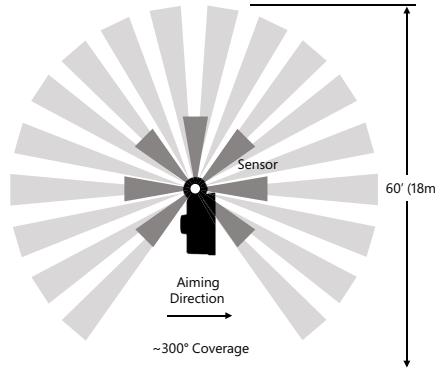


- Vertical Axial Candela Distribution
- Horizontal Axial Candela Distribution



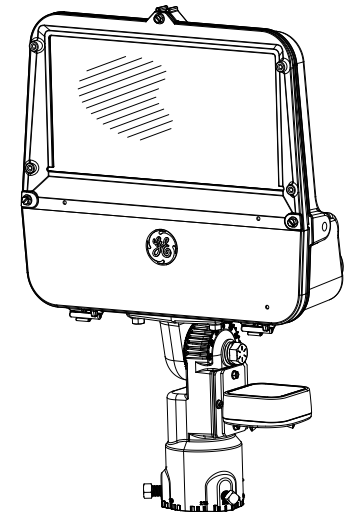
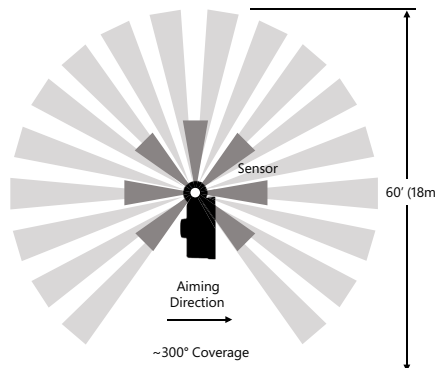
H4 Motion Sensing Option

Recommended Mounting Height:	15-30' (4.6-9.1m)
Coverage Radius:	15-20' (4.6-6.1 m)
Lateral Coverage:	300 °
Power:	Adds < 1W to fixture power rating
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100% Unoccupied - 10%
PE Sensor:	None
Ramp/Fade:	Disabled
Time (Off) Delay:	5 min.
Field:	Programmable using FSIR-100 hand held programmer (197634)



H2 - Daintree Enabled Motion Sensing Option

Recommended Mounting Height:	15-30' (4.6-9.1m)
Coverage Radius:	15-20' (4.6-6.1 m)
Lateral Coverage:	300 °
Power:	Adds < 1W to fixture power rating
Total Harmonic Distortion:	≤ 20% at rated watts
Default Settings:	
Output:	Occupied - 100% Unoccupied - 10%
PE Sensor:	None
Ramp/Fade:	Disabled
Time (Off) Delay:	10 min.
Requires Wireless Area Controller (WAC)	



Mounting

Option K

- K1=Knuckle Slipfitter for 2.3 in. OD Tenon. Lead wires exiting tenon.
- K2=Knuckle Slipfitter for 2.3 in. OD Tenon, ext. 3ft #14/3 cord.

Option S

- S1=Knuckle Slipfitter for 2.3 in-3.0 in. OD Tenon. Lead wires exiting tenon.
- S2=Knuckle Slipfitter for 2.3 in-3.0 in. OD Tenon, ext. 3ft #14/3 cord.

Option V

- V1=Knuckle Wall Mount. Lead wires exiting tenon.

Option T

- T1=Trunnion, with external 3ft #14/3 cord.

Accessories

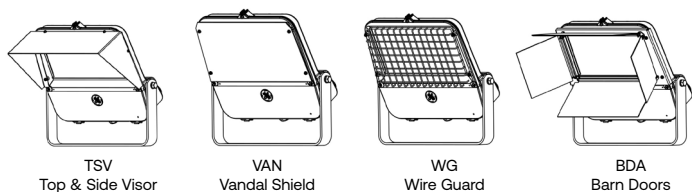
SAP NUMBER	PART NUMBER	DESCRIPTION
93123552	WANSI - 277	ANSI C136.41 Dimming PE Daintree Enable, 105-305V
93123553	WANSI - 480	ANSI C136.41 Dimming PE Daintree Enable, 312-530V
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V
28299	PEC0TL	Standard 120-277V
28294	PEC5TL	Standard 480V
80436	PECCTL	Standard 347V
73251	SCCL-PECTL	Shorting Cap

Effective Projected Area

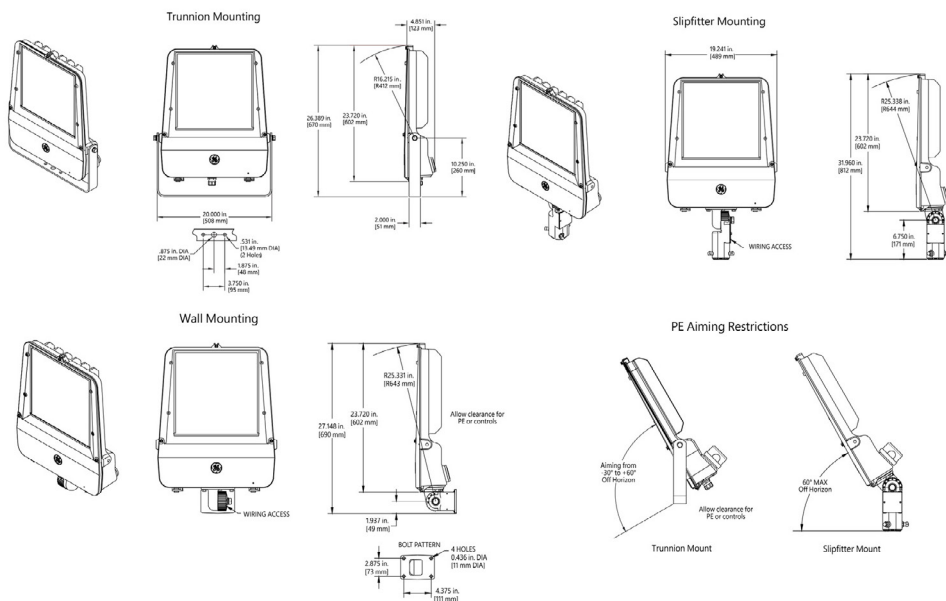
- 0° aim (vertical glass) 1.96 sq. ft.
- 45° aim 1.22 sq. ft.
- Side profile (all aims) 0.73 sq. ft.
- 90° (downward) aim 0.79 sq. ft.

SHIELDS

SAP NUMBER	PART NUMBER	DESCRIPTION	COLOR
93081902	TSVBLOCK-EFM	Top and Side Visor	Black
93081903	TSVDKBZ-EFM	Top and Side Visor	Dark Bronze
93081901	TSVGRAY-EFM	Top and Side Visor	Gray
93081904	TSVWHITE-EFM	Top and Side Visor	White
93080086	VAN-EFM	Vandal Shield	
93080087	WG-EFM	Wire Guard	
93079843	BDABLOCK-EFM	Barn Doors	Black
93079844	BDADKBZ-EFM	Barn Doors	Dark Bronze
93079842	BDAGRAY-EFM	Barn Doors	Gray
93079845	BDAWHITE-EFM	Barn Doors	White



Dimensions



Project		Catalog #		Type	
Prepared by		Notes		Date	



Streetworks

US&S LED

Area / Site Luminaire

Product Features



Interactive Menu

- Ordering Information page 2
- Mounting Details page 3, 4
- Optical Configurations page 5
- Product Specifications page 5
- Energy and Performance Data page 6, 7
- Control Options page 8

Product Certifications



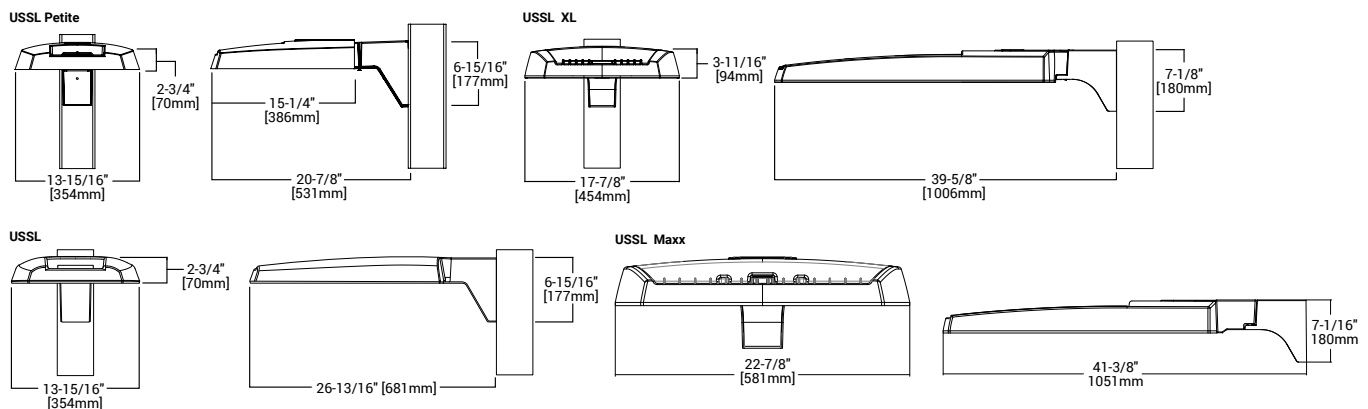
Quick Facts

- Lumen packages range from 4,800 - 84,000 lumens (35W - 588W)
- Replaces 70W up to 1,000W HID equivalents
- Efficacies up to 160 lumens per watt
- Energy and maintenance savings up to 85% versus HID solutions
- Standard universal quick mount arm with universal drill pattern

Connected Systems

- WaveLinx PRO Wireless

Dimensional Details



NOTES:

1. Visit <https://www.designlights.org/search/> to confirm qualification. Not all product variations are DLC qualified.
2. DarkSky approved for 3000K CCT and warmer, with mounting options less than 10° of tilt

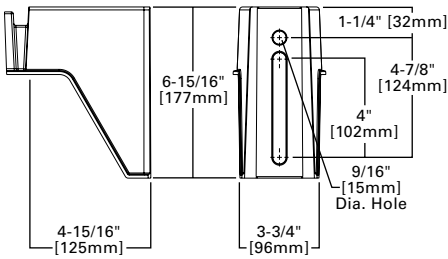
Ordering Information

SAMPLE NUMBER: **USSL-XL-C75-D-UNV-T4-SA-BZ**

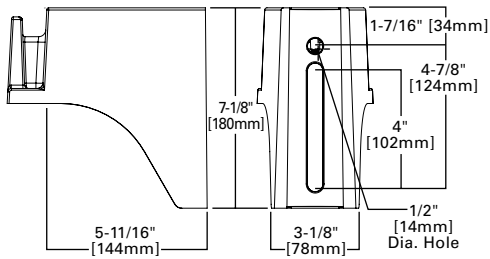
Product Family ^{1,2}	Light Engine ⁴	Driver	Voltage	Distribution	Mounting	Color
USSL-P =USSL Petite BAA-USSL-P =USSL Petite BAA Compliant ³ TAA-USSL-P =USSL Petite TAA Compliant ³ BABA-USSL-P =Build America Buy America Act ³	C014 =(1 LED) Approx. 40% Output C016 =(1 LED) Approx. 60% Output C018 =(1 LED) Approx. 80% Output C01 =(1 LED) Full Output	D =Dimming (0-10V)	U =Universal (120-277V) 9 =347V 8 =480V ⁵ H = 347-480V D =DuraVolt (277-480V) ^{5,6}	T2 =Type II T3 =Type III T4 =Type IV T5 =Type V	SA =Standard Versatile Arm MA =Mast Arm FMA = Fixed Mast Arm ²⁷ WM =Wall Mount Arm ADJA-WM =Adjustable Arm - Wall Mount ADJA =Adjustable Arm - Pole Mount ADJS =Adjustable Arm - Slipfitter, 3in vertical tenon ²⁹ SP2 = Adjustable Arm – Slipfitter, 2 3/8" vertical tenon ^{27,29}	BZ =Bronze AP =Grey BK =Black DP =Dark Platinum GM =Graphite Metallic WH =White
USSL =USSL BAA-USSL =USSL BAA Compliant ³ TAA-USSL =USSL TAA Compliant ³ BABA-USSL =Build America Buy America Act ³	C01 =(1 LED) Full Output C027 =(2 LED) Approx. 70% Output C029 =(2 LED) Approx. 90% Output C02 =(2 LED) Full Output					
USSL-XL =USSL XL BAA-USSL-XL =USSL XL BAA Compliant ³ TAA-USSL-XL =USSL XL TAA Compliant ³ BABA-USSL-XL =Build America Buy America Act ³	C047 =(4 LED) Approx. 70% Output C049 =(4 LED) Approx. 90% Output C04 =(4 LED) Full Output C069 =(6 LED) Approx. 90% Output C06 =(6 LED) Full Output					
USSL-M =USSL Maxx BAA-USSL-M = USSL Maxx BAA Compliant ³ TAA-USSL-M =USSL Maxx TAA Compliant ³ BABA-USSL-M =Build America Buy America Act ³	C097 =(9 LED) Approx. 65% Output C098 =(9 LED) Approx. 75% Output C099 = (9 LED) Approx. 90% Output C09 =(9 LED) Full Output					
Options (Add as Suffix)			Accessories (Order Separately) ^{20,21}			
7030 =70 CRI / 3000K CCT ⁷ 7050 =70 CRI / 5000K CCT ⁷ CC =Coastal Construction finish ¹⁰ HSS =House Side Shield ⁸ L90 =Optics Rotated 90° Left ²⁷ R90 =Optics Rotated 90° Right ²⁷ 10MSP =10kV MOV Surge Protective Device 10K =10kV UL 1449 Fused Surge Protective Device 20MSP =20kV MOV Surge Protective Device 20K =Series 20kV UL 1449 Surge Protective Device HA =50°C High Ambient Temperature ⁹ TH =Tool-less Door Hardware FADC =Field Adjustable Dimming Controller ³⁰ 4 =NEMA 3-PIN Twistlock Photocontrol Receptacle ¹¹ 4N7 =NEMA 7-PIN Twistlock Photocontrol Receptacle ¹¹ MS/DIM-L08 = Dimming Motion and Daylight Sensor, IR Remote Programmable, < 8' Mounting Height ^{12,13,22} MS/DIM-L20 =Dimming Motion and Daylight Sensor, IR Remote Programmable, 8' - 20' Mounting ^{12,13} MS/DIM-L40 =Dimming Motion and Daylight Sensor, IR Remote Programmable, 21' - 40' Mounting ^{12,13} SPB1 =Dimming Motion and Daylight Sensor, Bluetooth Programmable, < 8' Mounting Height ^{12,14,22} SPB2 =Dimming Motion and Daylight Sensor, Bluetooth Programmable, 8' - 20' Mounting Height ^{12,14,27,28} SPB4 =Dimming Motion and Daylight Sensor, Bluetooth Programmable, 21' - 40' Mounting ^{12,14,27} WPS2XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting ^{12,15,16,17,31} WPS4XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting ^{12,15,16,17,31} (See Table Below)=LumenSafe Integrated Network Security Camera ^{18,19} DXXXXX =Department of Transportation - Customer specific details ²⁷ UXXXXX =Utility - Customer specific details ²⁷			USSLSA-XX =Standard Arm Mounting Kit ²² USSLMA-XX =Mast Arm Mounting Kit ²² USSLWM-XX =Wall Mount Kit ²² USSL-ADJA-XX =Adjustable Arm - Pole Mount Kit ²² USSL-ADJS-XX =Adjustable Arm - Slipfitter Kit ²² USSL-ADJA-WM-XX =Adjustable Arm - Wall Mount Kit ²² USSLXLSA-XX =Standard Arm Mounting Kit ²⁸ USSLXLMA-XX = Mast Arm Mounting Kit ²⁸ USSLXLWM-XX =Wall Mount Kit ²⁸ USSL-XL-ADJA-XX =Adjustable Arm - Pole Mount Kit ²⁸ USSL-XL-ADJS-XX =Adjustable Arm - Slipfitter Kit ²⁸ USSL-XL-ADJA-WM-XX =Adjustable Arm - Wall Mount Kit ²⁸ USSL-M-ADJA-XX =Adjustable Arm - Pole Mount Kit ²⁷ USSL-M-ADJS-XX =Adjustable Arm - Slipfitter Kit ²⁷ USSL-M-ADJA-WM-XX =Adjustable Arm - Wall Mount Kit ²⁷ MA1010-XX =Single Tenon Adapter for 3-1/2" O.D. Tenon MA1011-XX =2@180° Tenon Adapter for 3-1/2" O.D. Tenon MA1017-XX =Single Tenon Adapter for 2-3/8" O.D. Tenon MA1018-XX =2@180° Tenon Adapter for 2-3/8" O.D. Tenon SRA238 =Tenon Adapter from 3" to 2-3/8" USSL/COB-FDV =Full Drop Visor ²³ USSLXL/COB-FDV =Full Drop Visor ¹⁸ HS/VERD =House Side Shield Kit ^{8,24} VGS-F/B =Vertical Glare Shield Kit, Front/Back ²⁴ VGS-SIDE =Vertical Glare Shield Kit, Side ²⁴ OA/RA1013 =Photocontrol Shorting Cap OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap 105-285V OA/RA1201 =NEMA Photocontrol - 347V OA/RA1027 =NEMA Photocontrol - 480V FSIR-100 =Wireless Configuration Tool for Occupancy Sensor ²⁵ WOLC-7P-10A =WaveLinX Outdoor Control Module (7-PIN) ²⁷			
NOTES: 1. DesignLights Consortium® Qualified. Refer to www.designlights.org Qualified Products List under Family Models for details. 2. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to installation instructions IB500002EN and pole white paper WP513001EN for additional support information. 3. Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 4. Standard 4000K CCT and 70CRI. 5. 480V not to be used with ungrounded or impedance grounded systems. 6. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information. 7. Use dedicated IES files on product website for non-standard CCTs. 8. Option will come factory-installed. House Side Shield not suitable with T5 distribution. Not available with USSL-C60 lumen package. 9. Not available with USSL-C60 lumen package. Not available with USSL-P-C25 lumen package. 10. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. Not available with TH option. 11. If DuraVolt (DV) is specified, use a photocontrol that matches the input voltage used. 12. Controls system is not available in combination with a photocontrol receptacle (4 or 4N7) or another controls system (MS or SPB). Option not available with DuraVolt (DV) voltage option. 13. Utilizes the Wattstopper sensor FSP-211. Sensor color white unless specified otherwise via PDR. To field-configure, order FSIR-100 accessory separately. 14. Utilizes the Wattstopper sensor FSP-3XX series. Sensor color determined by product finish. See Sensor Color Reference Table. Field-configures via mobile application. See Controls section for details. 15. Sensor passive infrared (PIR) may be overly sensitive when operating below -20°C (-4°F). 16. For the device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinX system and software and requires system components to be installed for operation. See website for more WaveLinX application information. 17. Replace XX with sensor color (WH, BZ, or BK). 18. Only available in USSL-XL configurations C75, C100, C125, C150, or C175. 19. Not available with 347V, 480V, DV, or HA options. Consult LumenSafe system product pages for additional details and compatability information. 20. Replace XX with paint color. 21. For BAA or TAA requirements, Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 22. Not for use with USSL-XL or USSL-M configurations. 23. Only for use with USSL. Not applicable to USSL-M, USSL-XL, or USSL-P. 24. Must order one per optic/LED when ordering as a field-installable accessory (1, 2, 4, 6 or 9). 25. This tool enables adjustment to Motion Sensor (MS) parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative for more information. 26. Requires 7-PIN NEMA twistlock photocontrol receptacle (4N7) option. The WOLC-7 cannot be used in conjunction with other controls systems (MS or LWR). Operates on 120-347V input voltages. 27. Only available for USSL-M configurations. 28. Only for use with USSL-XL. 29. Fixed for USSL-M 30. Cannot be used with 4N7 or other motion response control options 31. Controls system is not available with photocontrol receptacles (PR, PR7) or other controls systems (FADC, SPBx).						

Mounting Details

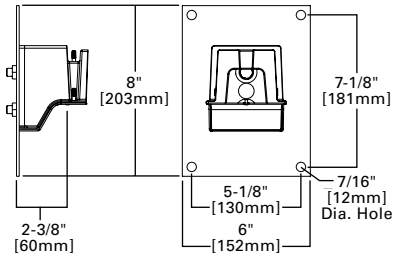
SA=QM Pole Mount Arm (USSL & USSL-P)



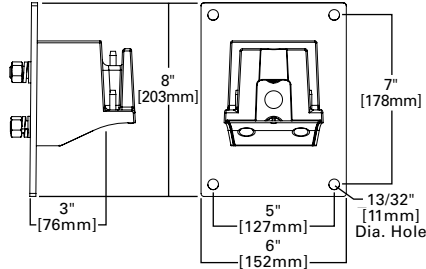
SA=QM Pole Mount Arm (USSL-XL)



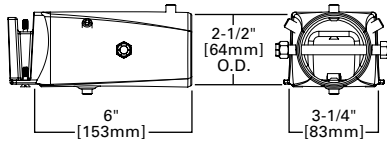
WM=QM Wall Mount Arm (USSL & USSL-P)



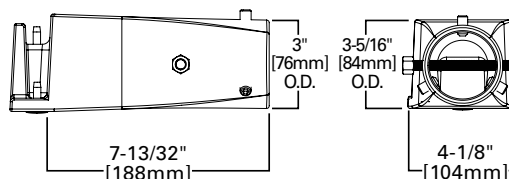
WM=QM Wall Mount Arm (USSL-XL)



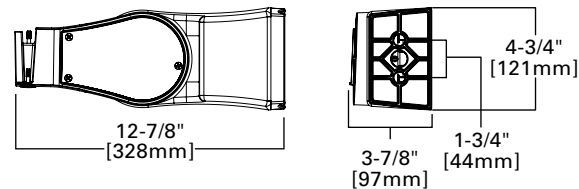
MA=QM Mast Arm (USSL & USSL-P)



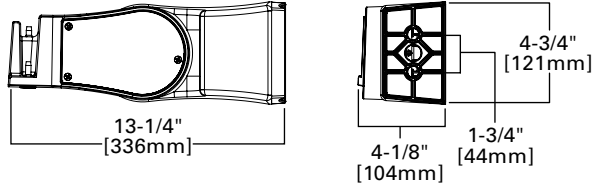
MA=QM Mast Arm (USSL-XL)



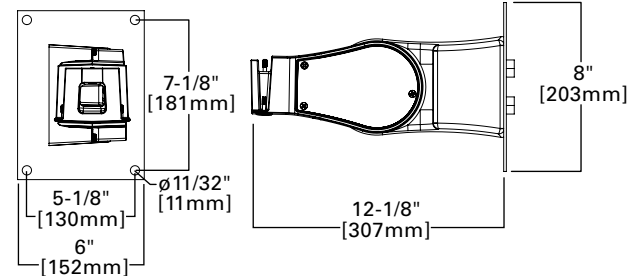
ADJA=Adjustable Arm Pole Mount (USSL & USSL-P)



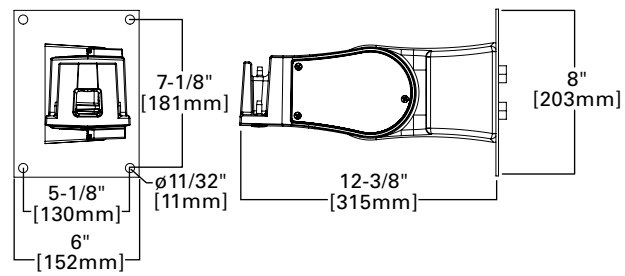
ADJA=Adjustable Arm Pole Mount (USSL-XL)



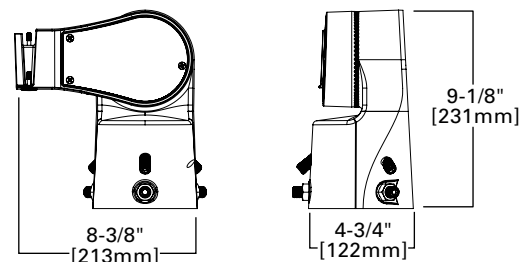
ADJA-WM=Adjustable Arm Wall Mount (USSL & USSL-P)



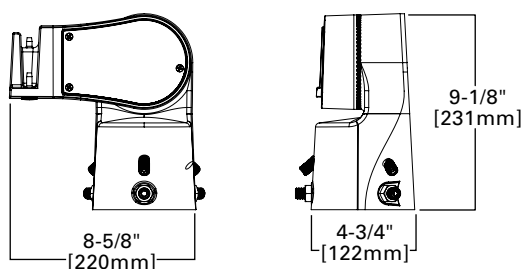
ADJA-WM=Adjustable Arm Wall Mount (USSL-XL)



ADJS=Adjustable Slipfitter 3 (USSL & USSL-P)

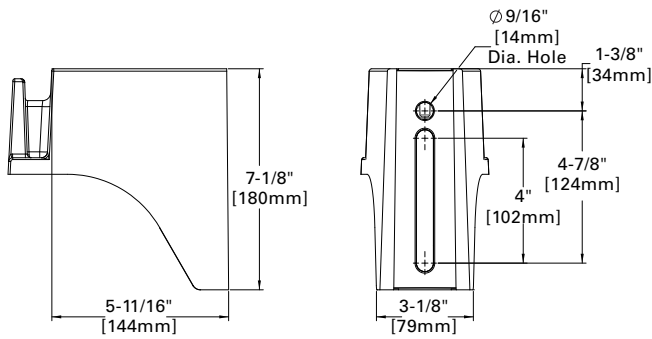


ADJS=Adjustable Slipfitter 3 (USSL-XL)

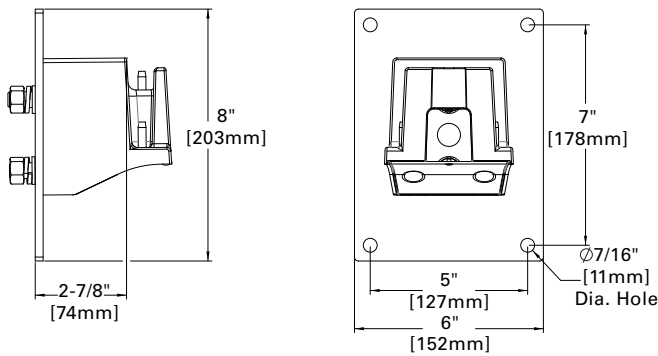


Mounting Details

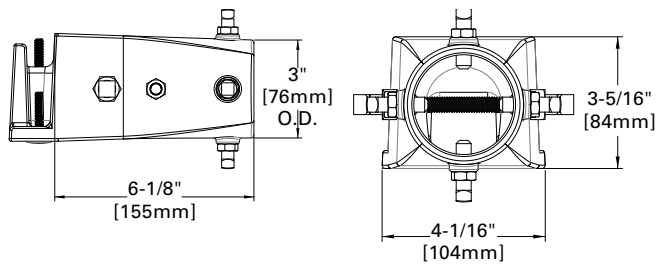
SA=QM Pole Mount Arm (USSL-M)



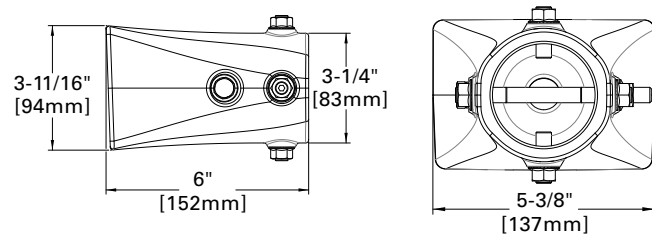
WM=QM Wall Mount Arm (USSL-M)



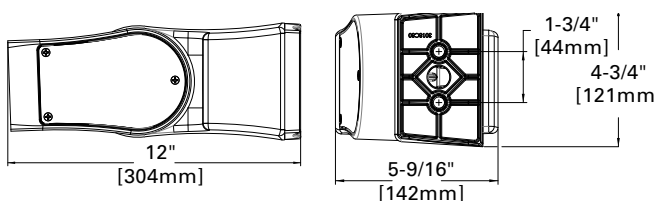
MA=QM Mast Arm (USSL-M)



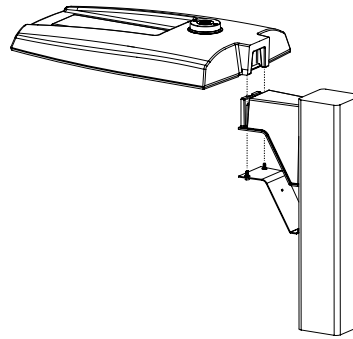
FMA=Fixed Mast Arm (USSL-M)



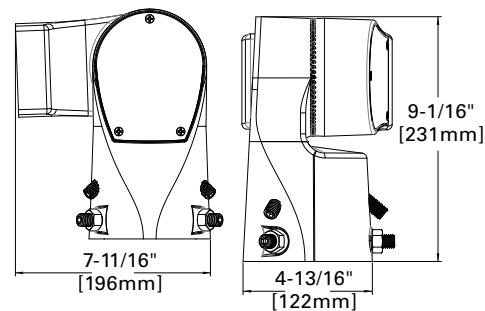
ADJA=Adjustable Pole Mount Arm (USSL-M)



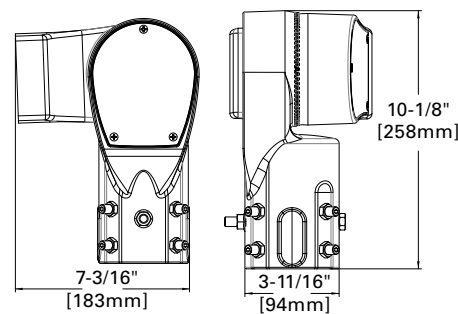
Versatile Mount System



ADJS=Adjustable Slipfitter (USSL-M)



SP2=Adjustable Slipfitter 2-3/8" (USSL-M)



Mounting Details

Mounting Configurations and EPAs

NOTE: For 2 USSL's mounted at 90°, requires minimum 3" square or 4" round pole for fixture clearance. For 2 USSL-XL's mounted at 90°, requires minimum 4" square or round pole for fixture clearance. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for applications

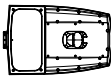
Housing Size	Tilt Angle (Degrees)	Arm Mount Single	Arm Mount 2 @ 180°	Arm Mount 2 @ 90°	Arm Mount 3 @ 90°	Arm Mount 4 @ 90°
USSL Petite	0°	0.54	1.08	0.84	1.38	1.38
	60°	1.68	1.85	2.42	3.15	3.30
USSL	0°	0.92	1.35	1.42	1.63	1.63
	60°	2.20	2.40	3.05	3.88	4.07
	60° + Full Drop Visor	2.20	2.40	3.25	4.28	4.47
USSL XL	0°	1.12	2.25	2.13	2.52	2.52
	60°	3.99	4.30	5.26	6.51	6.79
	60° + Full Drop Visor	3.99	4.30	5.59	7.17	7.49
USSL Maxx	0°	1.28	2.56	1.7	2.69	2.69
	60°	5.09	5.52	6.34	7.49	7.81

Optical Configurations

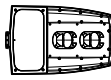
USSL-P-C10/C15/C20/C25
(4,900/6,900/9,800/11,800
Nominal Lumens)



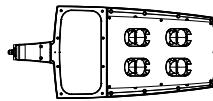
USSL-C15
(7,100 Nominal Lumens)



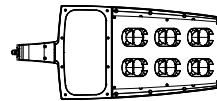
USSL-C25/C40/C60
(13,100/17,100/20,000
Nominal Lumens)



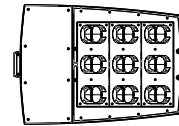
USSL-XL-C75/C100/C125
(26,100/31,000/36,300 Nominal Lumens)



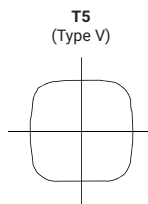
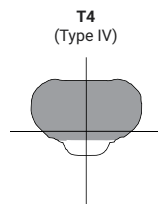
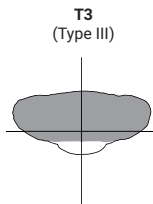
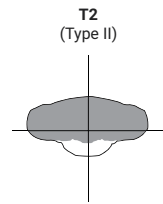
USSL-XL-C150/C175
(41,100/48,600 Nominal Lumens)



USSL-M-PA6X
(50,000/60,000/70,000/80,000 Nominal Lumens)



Optical Distributions



■ = Distribution with House Side Shield (HSS)

□ = Optical Distribution

Product Specifications

Construction

- Single-piece die-cast aluminum housing
- Tethered die-cast aluminum door

Optics

- Precision molded polycarbonate optics

Electrical

- 40°C minimum operating temperature
- 40°C maximum operating temperature
- >.9 power factor
- <20% total harmonic distortion
- Class 1 electronic drivers have expected life of 100,000 hours with <1% failure rate
- 0-10V dimming driver is standard with leads external to the fixture
- Three-position terminal block standard
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected.

Mounting

- Versatile, patented, standard mount arm accommodates multiple drill patterns ranging from 1-1/2" to 4-7/8" (Type M drilling recommended for new installations)
- A knock-out on the standard mounting arm enables round pole mounting
- Adjustable pole and wall mount arms adjust in 5° increments from 0° to 60°; Downward facing orientation only (Type N drilling required for ADJA mount)
- Adjustable slipfitter arm adjusts in 5° increments from -5° to 85°; Downward facing orientation only
- USSL and USSL Petite: 3G vibration rated
- USSL XL Mast Arm: 3G vibration rated
- USSL XL Standard Arm: 1.5G vibration rated
- Adjustable Arms: 1.5G vibration rated

Typical Applications

- Parking Lots, Walkways, Roadways and Building Areas

Finish

- Five-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness
- Finish is compliant to 3,000 hour salt spray standard (per ASTM B117)

Shipping Data

- USSL Petite: 18 lbs. (7.94 kgs.)
- USSL: 20 lbs. (9.09 kgs.)
- USSL XL: 45 lbs. (20.41 kgs.)
- USSL Maxx: 49 lbs. (22.23 kgs.)

Compliance

- IDA Certified 3000K and warmer only
- BAA domestic preference option meets BAA requirements. See DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information
- FHWA and FTA agencies are utilizing their BAA rules for BABA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

Warranty

- Five year limited warranty, consult website for details: www.cooperlighting.com/legal

Energy and Performance Data

Power and Lumens



View USSL-P IES files



View USSL IES files



View USSL-XL IES files

Waldrab

Product Family		USSL Petite				USSL				USSL XL					USSL Maxx			
Light Engine		C014	C016	C018	C01	C01	C027	C029	C02	C047	C049	C04	C069	C06	C097	C098	C099	C09
Power (Watts)		35	49	73	94	52	96	131	153	176	217	264	285	346	346.00	418.10	486.60	587.50
Input Current @ 120V (A)		0.29	0.41	0.61	0.79	0.43	0.80	1.09	1.32	1.50	1.84	2.21	2.38	2.92	2.89	3.49	4.06	4.90
Input Current @ 277V (A)		0.13	0.18	0.27	0.35	0.19	0.35	0.48	0.57	0.66	0.82	0.97	1.04	1.25	1.26	1.51	1.72	2.06
Input Current @ 347V (A)		0.11	0.16	0.23	0.29	0.17	0.30	0.41	0.48	0.54	0.66	0.79	0.84	1.02	1.00	1.21	1.40	1.70
Input Current @ 480V (A)		0.08	0.12	0.17	0.22	0.12	0.22	0.30	0.35	0.40	0.48	0.57	0.62	0.74	0.73	0.88	1.00	1.21
Distribution ¹																		
Type II	4000K Lumens	4,775	6,717	9,542	11,521	7,123	13,205	17,172	20,083	26,263	31,231	36,503	41,349	48,876	50,349	59,444	68,447	79,322
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	138	137	131	122	137	138	131	131	149	144	138	145	141	146	142	141	135
	3000K Lumens ¹	4,869	6,595	9,369	11,312	6,994	12,965	16,860	19,718	25,786	30,664	35,840	40,598	47,989	49,437	58,368	67,208	77,886
Type III	4000K Lumens	4,782	6,727	9,556	11,538	7,111	13,183	17,144	20,050	26,120	31,061	36,304	41,124	48,610	50,162	59,223	68,193	79,027
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	138	137	131	123	137	137	131	131	148	143	138	144	140	145	142	140	135
	3000K Lumens ¹	4,695	6,605	9,383	11,329	6,982	12,944	16,832	19,686	25,646	30,497	35,645	40,377	47,727	49,254	58,151	66,958	77,596
Type IV	4000K Lumens	4,880	6,865	9,752	11,774	7,088	13,140	17,087	19,984	26,098	31,035	36,274	41,089	48,569	50,575	59,711	68,754	79,678
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B4-U0-G5	B5-U0-G5
	Lumens per Watt	141	140	134	125	136	137	130	131	148	143	137	144	140	146	143	141	136
	3000K Lumens ¹	4,792	6,740	9,575	11,561	6,959	12,901	16,777	19,621	25,624	30,471	35,615	40,343	47,687	49,659	58,630	67,510	78,235
Type V	4000K Lumens	5,067	7,128	10,126	12,226	7,576	14,045	18,264	21,360	28,129	33,450	39,097	44,287	52,349	53,531	63,201	72,773	84,335
	BUG Rating	B3-U0-G2	B3-U0-G2	B4-U0-G3	B4-U0-G3	B3-U0-G3	B4-U0-G3	B4-U0-G4	B5-U0-G4	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5	B5-U0-G5
	Lumens per Watt	146	145	139	130	146	146	139	140	160	154	148	155	151	155	151	150	144
	3000K Lumens ¹	4,975	6,999	9,942	12,004	7,438	13,790	17,932	20,972	27,618	32,843	38,387	43,483	51,398	52,562	62,057	71,455	82,808

NOTES:

1. For 3000K, 5000K or HSS data, refer to published IES files.

Lumen Maintenance

Configuration	TM-21 Lumen Maintenance (50,000 Hours)	Theoretical L70 (Hours)
USSL and USSL Petite at 25°C	91.30%	> 194,000
USSL and USSL Petite at 40°C	87.59%	> 134,000
USSL XL at 25°C	91.40%	> 204,000
USSL XL at 40°C	89.41%	> 158,000
USSL Maxx at 25°C	91.40%	> 204,000
USSL Maxx at 40°C	89.41%	> 158,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99

FADC Settings

FADC Position	Lumen Multiplier
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Note: +/-5% typical value

Sensor Color Reference Table (SPBx)

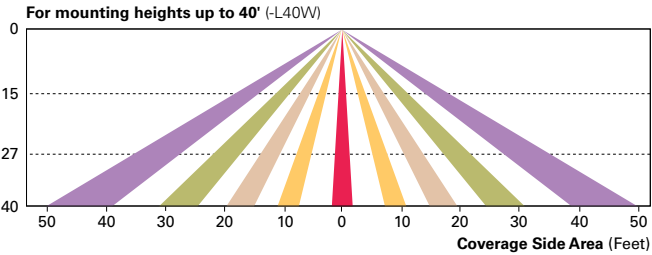
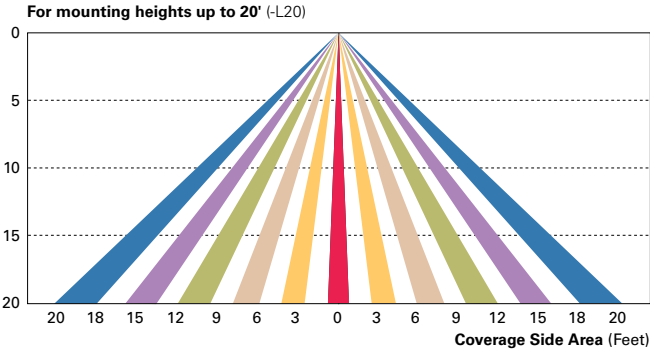
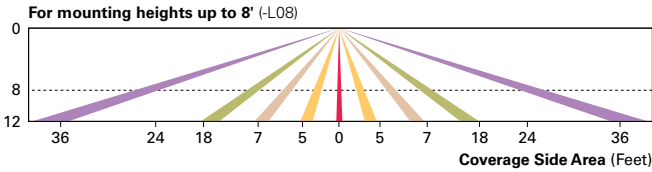
Housing Finish	Sensor Color
AP=Grey	Grey
BZ=Bronze	Bronze
BK=Black	Black
DP=Dark Platinum	Grey
GM=Graphite Metallic	Black
WH=White	White

Control Options

0-10V This fixture provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (PR and PR7) Photocontrol receptacles provide a flexible solution to enable "dusk-to-dawn" lighting by sensing light levels. Advanced control systems compatible with NEMA 7-PIN standards can be utilized with the PR7 receptacle.

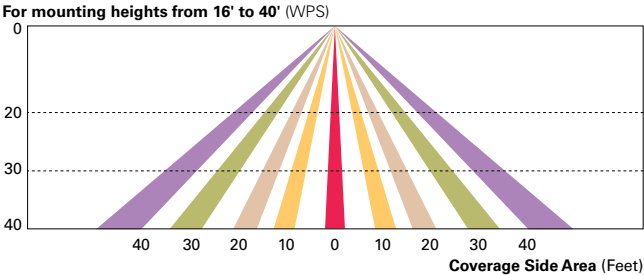
Dimming Occupancy Sensor (SPB, MS/DIM-LXX) These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the luminaire will dim down after five minutes of no activity detected. When activity is detected, the luminaire returns to full light output. These occupancy sensors include an integral photocell for "dusk-to-dawn" control or "daylight harvesting." Factory default is enabled for the MS sensors and disabled for the SPB. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes.



WaveLinx Wireless Control and Monitoring System Available in 7-PIN or 4-PIN configurations, the WaveLinx Outdoor control platform operates on a wireless mesh network based on IEEE 802.15.4 standards enabling wireless control of outdoor lighting. At least one Wireless Area Controller (WAC) is required for full functionality and remote communication (including adjustment of any factory pre-sets).

WaveLinx Outdoor Control Module (WOLC-7P-10A) A photocontrol that enables astronomic or time-based schedules to provide ON, OFF and dimming control of fixtures utilizing a 7-PIN receptacle. The out-of-box functionality is ON at dusk and OFF at dawn.

WaveLinx PRO Wireless Sensor (WPS2 and WPS4) These outdoor sensors offer passive infrared (PIR) occupancy sensing and a photocell for closed-loop daylight sensing. These sensors are factory preset to dim down to approximately 50 percent power after 15 minutes of no activity detected, and the photocell for "dusk-to-dawn" control is default enabled. A variety of sensor lenses are available to optimize the coverage pattern for mounting heights from 7'-40'.



EACL® Series

LED Area Light/Compact Low Wattage

Current's EACL Series of Area Light Luminaires offer a wide range of optical patterns, color temperatures, lumen packages, and mounting configurations to optimize area light applications, as well as provide versatility in lighting design within the same form factor.



Construction

Housing:	Die-cast aluminum housing with integral heat sink for maximum heat transfer
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze Gray, White (RAL & custom colors available) Optional coastal finish available.
Weight:	18 lbs (8.16 kg) Max depending on configuration

Optical System

Lumens:	2,900 - 20,400
Distribution:	Asymmetric Forward Type IV Asymmetric Wide Type III Asymmetric Narrow/Auto Type II
Efficacy:	123 - 143 LPW
CCT:	3000K, 4000K, 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V & 347-480V
Input Frequency:	50/60Hz
Power Factor:	> 90% at rated watts
Total Harmonic Distortion:	< 20% at rated watts

Surge Protection*

TYPICAL (120 STRIKES)	ENHANCED (40 STRIKES)
6kV/3kA*	10kV/5kA*

*Per ANSI C136.2-2015

Warranty

5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	LXX(10K) @ HOURS		
	25,000 HR	50,000 HR	60,000 HR
A2, A3, A4, B2, B3, B4, C2, C3, C4D2, D3, D4, E2, E3, E4, F2, F3, F4	L94	L90	L88
H2,H3, H4	L97	L96	L96

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Luminaire Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C
Vibration:	3G vibration per ANSI C136.31-2018
LM-79:	Testing in accordance with IESNA Standards

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ and Daintree Compatible



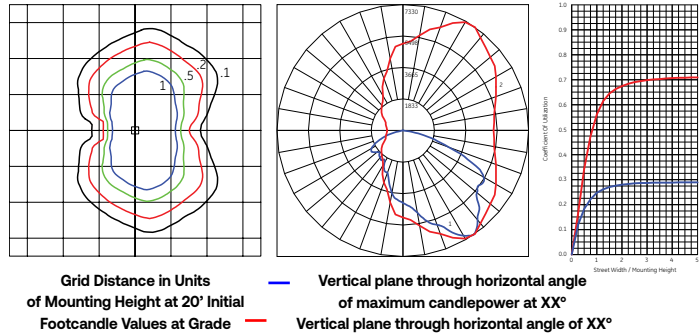
Not all product variations listed on this page are DLC qualified.
Visit www.designlights.org/search to confirm qualifications.

OPTICAL CODE	DIST CODE	CLASSIFICATION	TYPICAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING	
			3000K	4000K & 5000K	120-277V	347-480V	3000K	4000K & 5000K
A4	AF	TYPE IV	2900	2900	21	23	B1-UO-G1	B1-UO-G1
B4			4900	4900	36	38	B1-UO-G1	B1-UO-G1
C4			7300	7300	55		B1-UO-G2	B1-UO-G2
D4			9800	9800	73		B2-UO-G2	B2-UO-G2
E4			12200	12200	95		B2-UO-G2	B2-UO-G2
F4			14700	14700	122		B2-UO-G2	B2-UO-G2
H4			19000	19000	153		B3-UO-G3	B3-UO-G3
A3	AW	TYPE III	2900	3000	21	23	B1-UO-G1	B1-UO-G1
B3			4900	5100	36	38	B1-UO-G1	B1-UO-G1
C3			7400	7600	55		B1-UO-G2	B1-UO-G2
D3			9900	10200	73		B2-UO-G2	B2-UO-G2
E3			12400	12700	95		B2-UO-G2	B2-UO-G2
F3			14900	15300	122		B2-UO-G2	B2-UO-G2
H3			19300	20400	153		B3-UO-G2	B3-UO-G2
A2	AN	TYPE II	2900	3000	21	23	B1-UO-G1	B1-UO-G1
B2			4900	5000	36	38	B1-UO-G1	B1-UO-G1
C2			7300	7500	55		B2-UO-G1	B2-UO-G2
D2			9800	10100	73		B2-UO-G2	B2-UO-G2
E2			12300	12600	95		B2-UO-G2	B2-UO-G2
F2			14700	15100	122		B3-UO-G2	B3-UO-G3
H2			19100	20200	153		B3-UO-G3	B3-UO-G3

For additional information on Non-Shielded and Shielded EACL IES files, please refer to LED.com

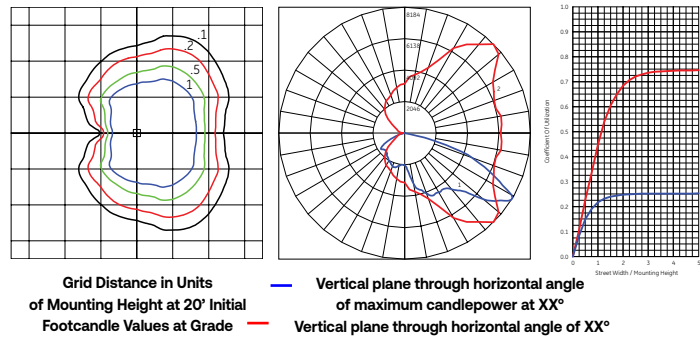
EACL - Type II - Very Short

15,100 lumens
EACL01_F2AN750_...IES



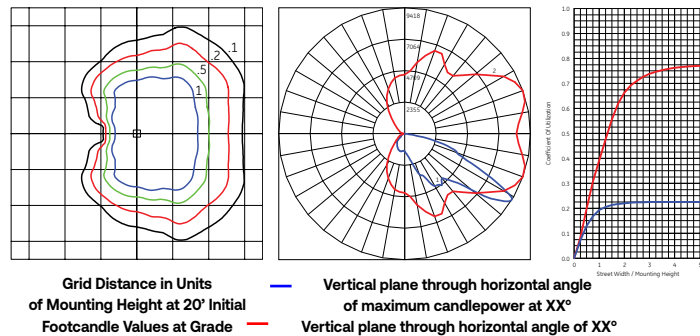
EACL - Type III - Short

15,300 lumens
EACL01_F3AW750_...IES



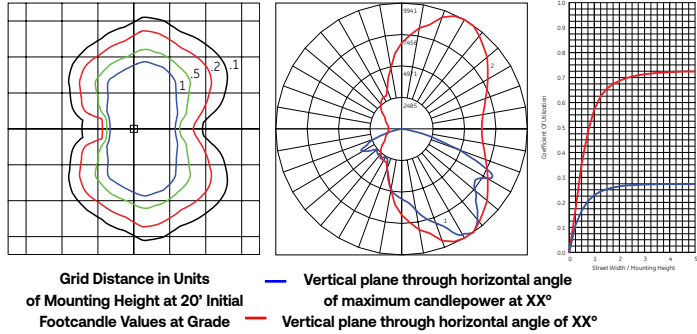
EACL - Type III - Very Short

15,000 lumens
EACL01_F4AF750_...IES



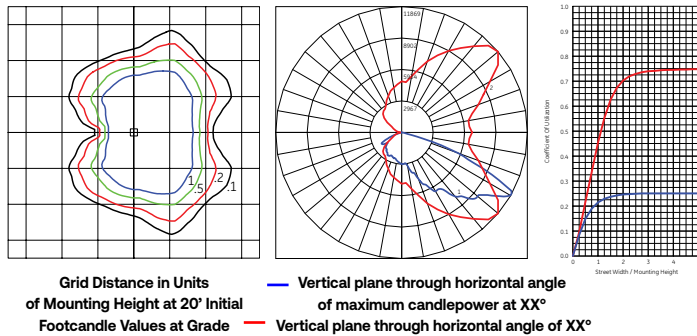
EACL - Type II- Very Short

20,200 lumens
EACL01_H2AN750___IES



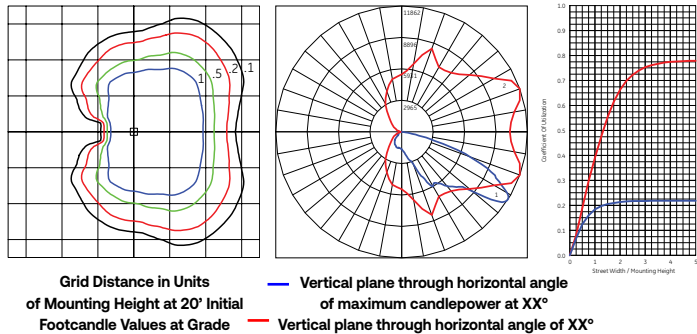
EACL - Type III - Short

20,400 lumens
EACL01_H3AW750___IES



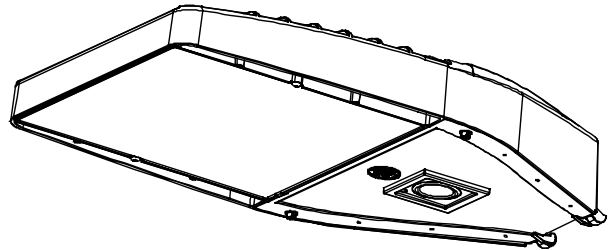
EACL - Type IV - Very Short

20,000 lumens
EACL01_H4AF750___IES



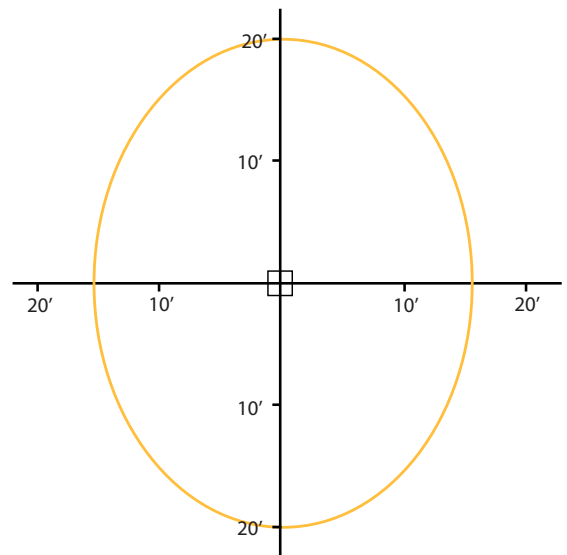
H-Motion Sensing Option

- Recommended Mounting Height: 15-30' (4.6-9.1m)
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Coverage Radius: 15-20' (4.6-6.1 m).
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
 - Output: Occupied - 100%/Unoccupied - 50%
 - Integral PE Sensor.
 - 5 minute post-occupancy time delay, 5 minute dimming ramp-down.
- Fixture power increase of 1W expected with sensor use.



H1/4 - Motion Sensing Option (WattStopper)

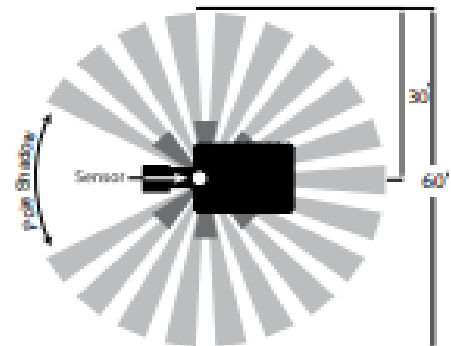
- Recommended Mounting Height: 15-30' (4.6-9.1m)
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Coverage Radius: 15-20' (4.6-6.1 m).
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
 - Output: Occupied - 100%/Unoccupied - 10%
 - PE Sensor: Disabled
 - Ramp/Fade: Disabled
- Adds < 1W to fixture power rating
- Field programmable using FSIR-100 hand held programmer



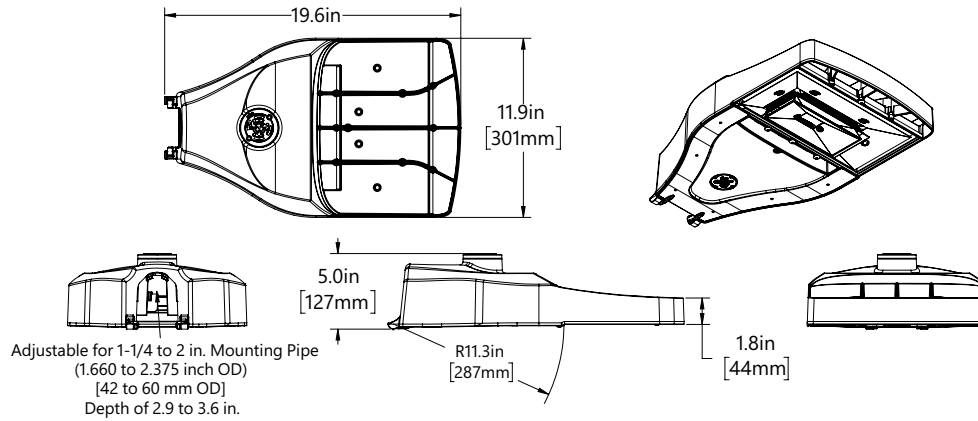
H2 - Motion Sensing Option (Daintree)

- Recommended Mounting Height: 15-30' (4.6-9.1m)
- For mounting heights exceeding 30 ft., pole mounted sensors are recommended
- Provides a coverage area radius for walking motion of 15-20 ft. (4.57-6.10m)
- Provides 270 degree of coverage (approx 90 is blocked by the pole)
- Default Settings:
 - Output: Occupied - 100%/Unoccupied - 50%
 - PE Sensor: None
 - Ramp/Fade: 5 Minutes/5 Minutes
- Adds < 1W to fixture power rating
- Requires Daintree Enterprise and wide area control (WAC)

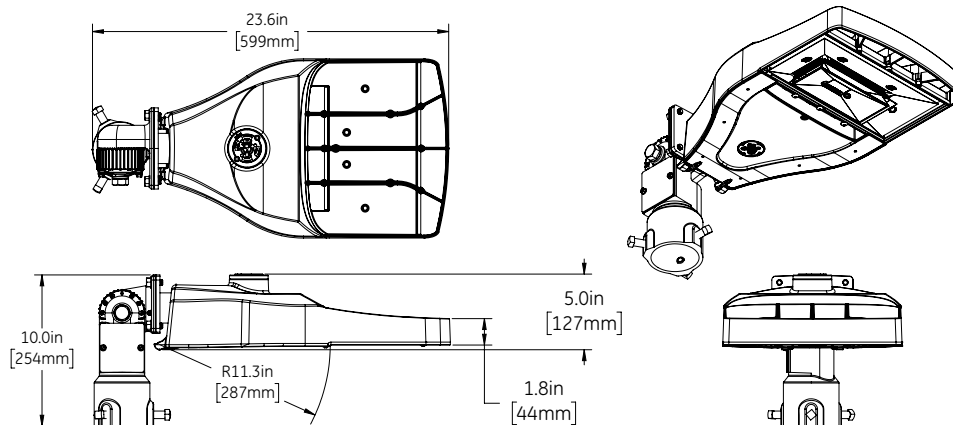
Sensing Pattern Area Fixture
Up to 30 ft. Mounting Height



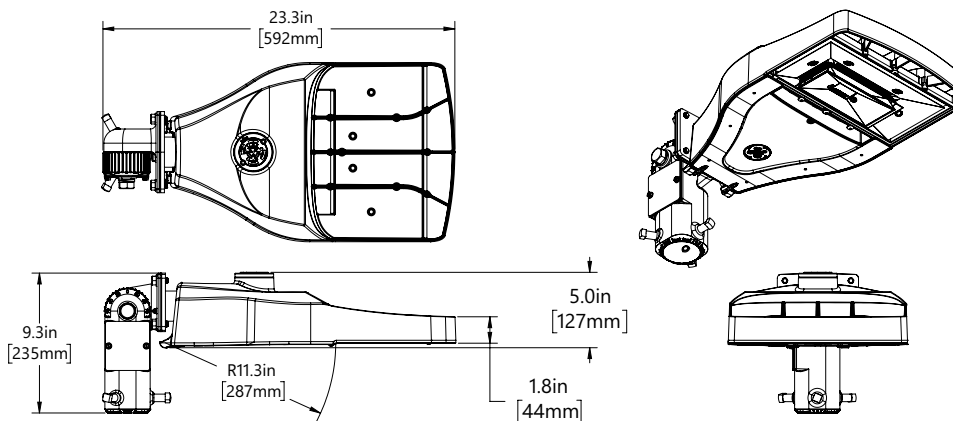
Integral Slipfitter: C1



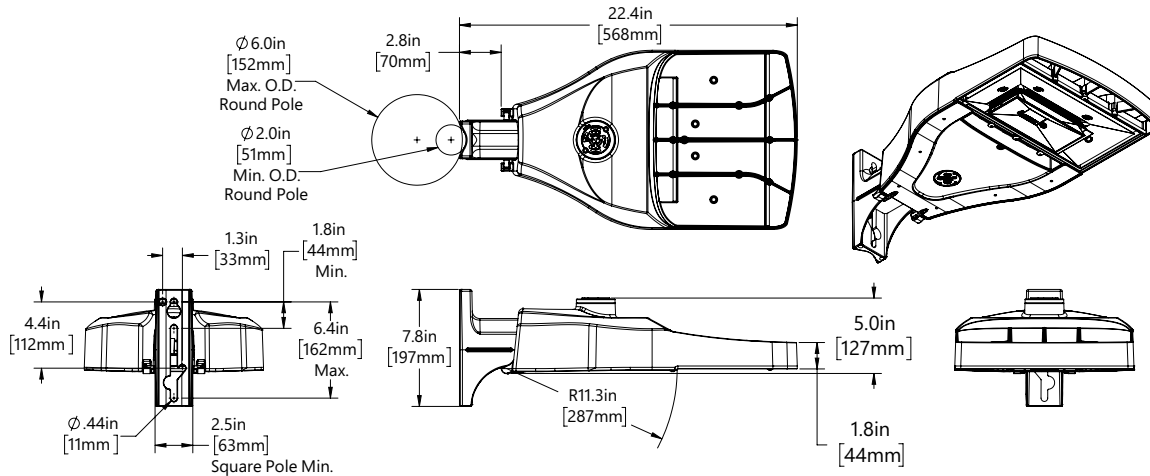
Knuckle Slipfitter: S1



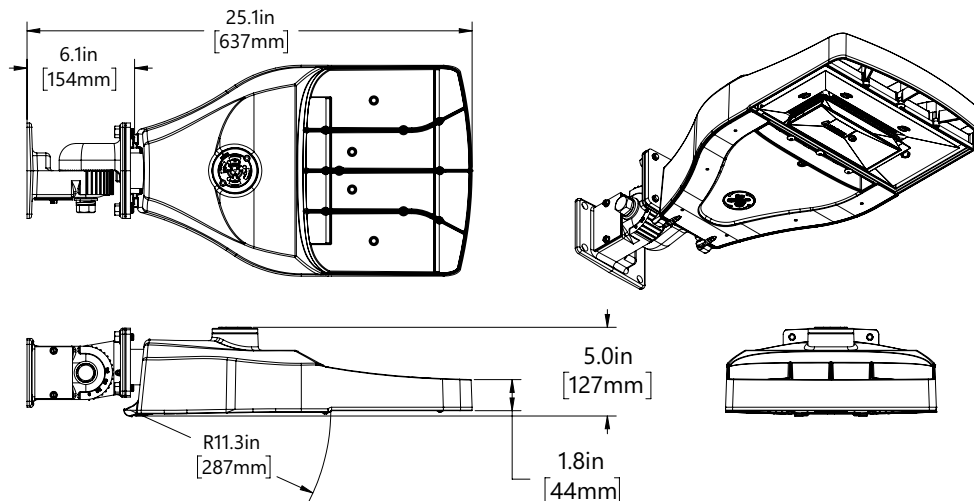
Knuckle Slipfitter: K1



Universal Mounting Arm: D1



Knuckle Wall Mount: V1

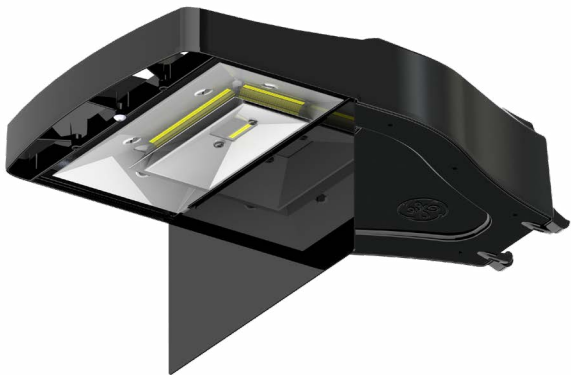
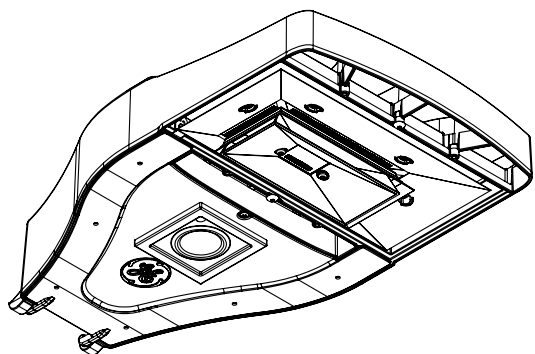


Weight

- 18 lbs (8.16 kg) Max depending on configuration

Effective Projected Area

- Integral Slipfitter C1, EPA = 0.31 Min/0.37 Max
- Universal Arm Mount D1, EPA = 0.31 Min / 0.52 Max
- Knuckle Slipfitter S1, K1 downward aim, EPA = 0.46 Min / 0.56 Ma
- Knuckle Slipfitter S1, K1 45° aim, EPA = 0.56 Min / 1.03 Max



PE Accessories (To Be Order Separately)

SAP NUMBER	PART NUMBER	DESCRIPTION
93123552	WANSI - 277	ANSI 136.41 Dimming PE Danitree Enable, 105-305V
93123553	WANSI - 480	ANSI 136.41 Dimming PE Danitree Enable, 312-530V
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V

SAP NUMBER	PART NUMBER	DESCRIPTION
28299	PEC0TL	STANDARD 120-277V
28294	PEC5TL	STANDARD 480V
80436	PECDDL	STANDARD 347V
73251	SCCL-PECTL	Shorting cap

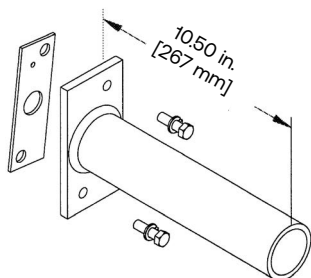
Back Light Shied

SHIELD ORIENTATIONS	CUTOFF DISTANCE	SHIELD ORDER LOGIC
Back	Long	ELS-EACL-RBL-BLCK

Mounting Arms for Slipfitter Order separately with Mounting Option C1 (Slipfitter)

Square pole mounting arm

- 3.5 to 4.5-inch (89 to 114mm) square (will allow 4 fixtures per pole @ 90 degrees.)

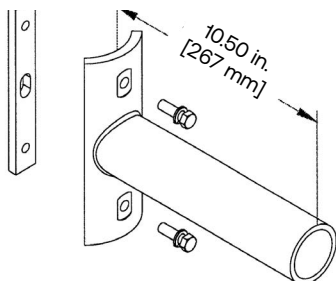


Order separately from fixture as catalog number

- SPA-EAMT10BLCK "Black"
- SPA-EAMT10DKBZ "Dark Bronze"
- SPA-EAMT10WHTE "White"
- SPA-EAMT10GRAY "Gray"

Round Pole Mounting Arm

- 3.5 to 4.5-inch (89 to 114mm) od (will allow 4 fixtures per pole @ 90 degrees.)



Order separately from fixture as catalog number

- RPA-EAMT10BLCK "Black"
- RPA-EAMT10DKBZ "Dark Bronze"
- RPA-EAMT10WHTE "White"
- RPA-EAMT10GRAY "Gray"

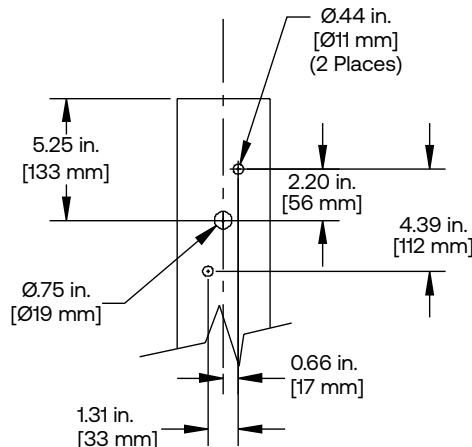
Wall Mounting Bracket Adapter Plate

Order separately from fixture as catalog number
WMB-EAMT06

*NOTE: For Wall Mounting, order luminaire with mounting arm: C1 = Slipfitter 2" Pipe (2.378 in. OD) supplied with leads.

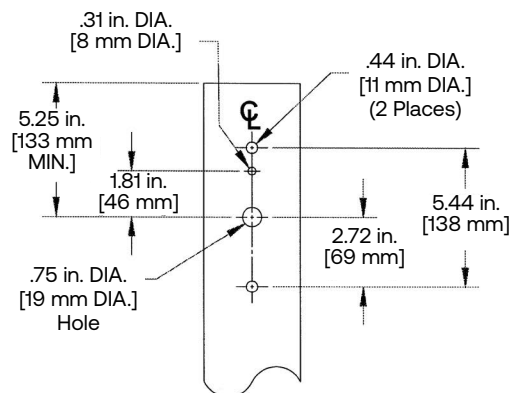
Other mounting patterns are available for retrofit installations. Contact manufacturing for other available mounting patterns.

Square pole mounting drilling template

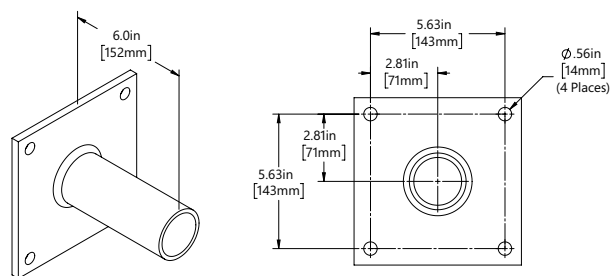


Round Pole Mounting Drilling Template

- 3.5 TO 4.5-inch (89 to 114mm) OD round pole mounting arm



Wall MOUNTING Bracket Hole Pattern





E2SC Security Light

LED Roadway Lighting

The **Evolve®** LED Security Light provides energy efficiency in a rugged, easy to install, light weight fixture. Current's advanced optical design offers Type III and Type V photometry with the versatility of a field installable refractor option to meet your lighting requirements.

Construction

Housing:	Aluminum die cast enclosure
Lens:	Impact resistant tempered glass (non refractor version)
Weight:	8.5 lbs (3.8 kgs) without mounting bracket

Optical System

Lumens:	3,550 - 9,000 lm
Distribution:	Type III, Type V and Type V Short
Efficacy:	108-161 LPW
CCT:	2700K, 3000K, 4000K
CRI:	≥70

Electrical

Input Voltage:	120-277V
Input Frequency:	50/60Hz
Power Factor:	≥ 90 at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection*

STANDARD	OPTIONAL
6kV/3kA	Secondary 10kV/5kA (R Option)
	Secondary 20kV/10kA (T Option)

*Per ANSI C136.2-2018

Controls

Dimming:	Standard - 0-10V Optional = DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ and Daintree Compatible

WARRANTY

5 Year (Standard)

Lumen Maintenance

Projected Lxx per IES TM-21 at 25°C

LXX(H0K) @ HOURS				
OPTIC	LUMEN CODES	25,000 HR	50,000 HR	60,000 HR
C6 Type III	08	93	86	83
	05, 06, 07	98	96	95
	04	99	99	99
V6 Type V	06, 07	93	89	87
	05	96	93	92
	04	96	94	93
S6 Type V Short	08, 09	94	91	89
	05, 06, 07	95	93	92
	04	96	95	94

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00		

Ratings

Operating Temperature:	-40°C to 40°C
Vibration:	3G per ANSI C136.31-2010
LM-79:	Tested in accordance with IES Standards
EMI:	Title 47 CFR Part 15 Class A



Ordering Information

E 2 S C 0

- - - - - - - - - - - - - - - - - - - -

PROD. ID	VOLTAGE	LUMENS	DISTRIBUTION	REFRACTOR	CCT	CONTROLS PER ANSI C136.41	MOUNTING	POWER LEADS	OPTIONS
E = Evolve	0 = 120-277	04	C6 = Type III ¹	N = None (zero uplight)	27 = 2700K	A = 7-Pin Receptacle	N = None	N = None	C1 = Captive Door
2SC = Security Light		05	V6 = Type V	R = Factory Installed Refractor	30 = 3000K	D = 7-Pin Receptacle with Shorting Cap	L = Long 24 in. bracket ²	3 = 3 ft # 14 Leads	L = Tool-Less Entry
		06	S6 = Type V Short		40 = 4000K	E = 7-Pin Receptacle with Long Life Non-Dimming PE in Box		5 = 5 ft # 14 Leads	R = Secondary Surge Protection (10Kv/5Ka)
		07						8 = 8 ft # 14 Leads	T = Secondary Surge Protection (20Kv/10Ka)
		08							U = DALI Programmable ³
		09							XXX = Special Options

¹ See ISO Plot page for the typical C6 distribution - this optic is designed to address a Roadway Photometric Application and is a Type III without the refractor, and Type IV with a refractor.

² For Mounting on Wood Pole

³ Compatible with LightGrid+™

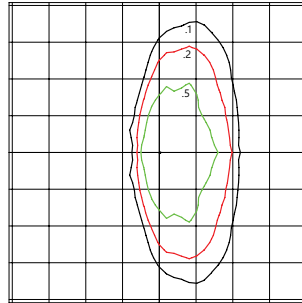
LUMEN OUTPUT	DIST.	LUMENS			WATTAGE	BUG RATINGS - FLAT GLASS			BUG RATINGS - SAG REFRACTOR		
		4000K	3000K	2700K	120-277V	4000K	3000K	2700K	4000K	3000K	2700K
04	C6	4000	3800	3520	29	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U3-G2	B1-U3-G2	B1-U3-G2
	V6	4000	3880	3760	30	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U2-G1	B1-U2-G1	B1-U2-G1
	S6	4000	3880	3760	25	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U2-G1	B2-U2-G1	B2-U2-G1
05	C6	5000	4750	4400	36	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U3-G2	B1-U3-G2	B1-U3-G2
	V6	5000	4850	4700	39	B2-U0-G1	B2-U0-G0	B2-U0-G0	B2-U3-G1	B2-U3-G1	B2-U3-G1
	S6	5000	4850	4700	31	B2-U0-G0	B2-U0-G0	B2-U0-G0	B2-U2-G1	B2-U2-G1	B2-U2-G1
06	C6	6000	5700	5280	45	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3
	V6	6000	5820	5640	49	B2-U0-G1	B2-U0-G1	B2-U0-G1	B2-U3-G1	B2-U3-G1	B2-U3-G1
	S6	6000	5820	5640	38	B3-U0-G0	B2-U0-G0	B2-U0-G0	B2-U2-G1	B2-U2-G1	B2-U2-G1
07	C6	7000	6650	6160	55	B2-U0-G2	B1-U0-G2	B1-U0-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3
	V6	7000	6790	6580	61	B2-U0-G1	B2-U0-G1	B2-U0-G1	B2-U3-G1	B2-U3-G1	B2-U3-G1
	S6	7000	6790	6580	46	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U3-G1	B3-U3-G1	B3-U3-G1
08	C6	8000	7410	6870	62	B2-U0-G2	B2-U0-G2	B1-U0-G2	B2-U3-G3	B1-U3-G3	B1-U3-G3
	S6	8000	7760	7520	54	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U3-G1	B3-U3-G1	B3-U3-G1
09	S6	9000	8730	8460	63	B3-U0-G1	B3-U0-G1	B3-U0-G1	B3-U3-G1	B3-U3-G1	B3-U3-G1

For additional information on E2SC IES files, please refer to LED.com

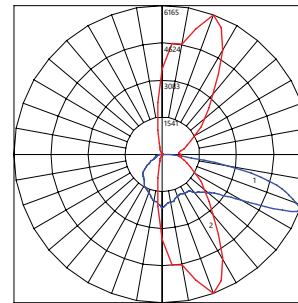
Photometric Plots

E2SC Type III - No Refractor (08C6N40)

8,000 Lumens
4000K
E2SC_08C6N40_...IES



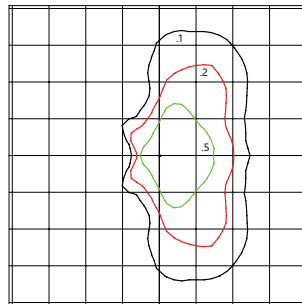
- Mounting Height at 30'
- Initial Footcandle Values at Grade



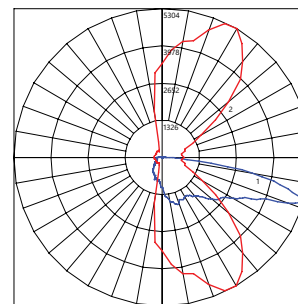
- Vertical plane through horizontal angle of Max. Cd at 70°
- Horizontal cone through vertical angle of Max. Cd at 68°

E2SC Type IV - Refractor (06C6R40)

8,000 Lumens
4000K
E2SC_06C6R40_...IES



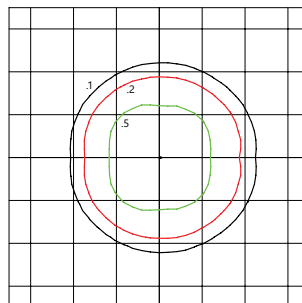
- Mounting Height at 30'
- Initial Footcandle Values at Grade



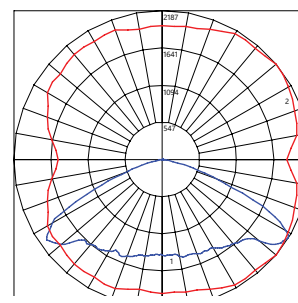
- Vertical plane through horizontal angle of Max. Cd at 60°
- Horizontal cone through vertical angle of Max. Cd at 73°

E2SC Type V - No Refractor (07V6N40)

7,000 Lumens
4000K
E2SC_07V6N40_...IES



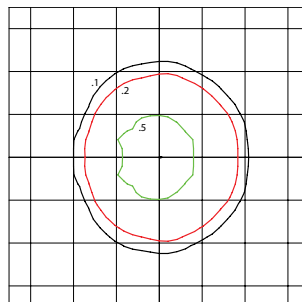
- Mounting Height at 30'
- Initial Footcandle Values at Grade



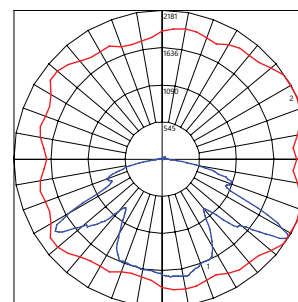
- Vertical plane through horizontal angle of Max. Cd at 40°
- Horizontal cone through vertical angle of Max. Cd at 58°

E2SC Type V - Refractor (07V6R40)

7,000 Lumens
4000K
E2SC_07V6R40_...IES



- Mounting Height at 30'
- Initial Footcandle Values at Grade



- Vertical plane through horizontal angle of Max. Cd at 25°
- Horizontal cone through vertical angle of Max. Cd at 58°

Photometric Plots

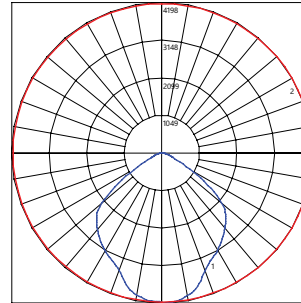
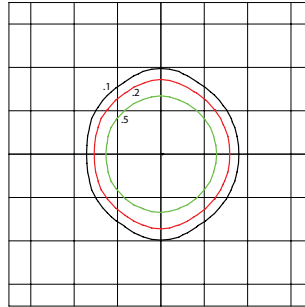
E2SC

Type VS - No Refractor
(09S6N40)

9,000 Lumens

4000K

E2SC_09S6N40_...IES



- Mounting Height at 30'
- Initial Footcandle Values at Grade

- Vertical plane through horizontal angle of Max. Cd at 70°
- Horizontal cone through vertical angle of Max. Cd at 68°

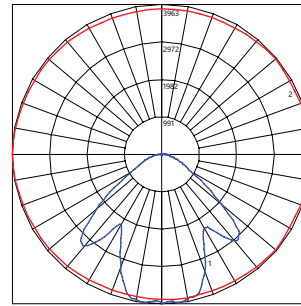
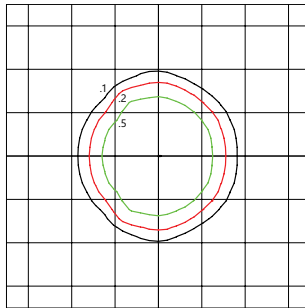
E2SC

Type VS - Refractor
(09S6R40)

9,000 Lumens

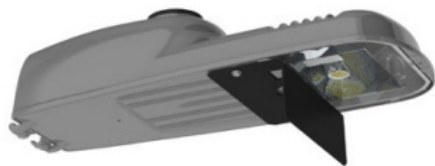
4000K

E2SC_09S6R40_...IES



- Mounting Height at 30'
- Initial Footcandle Values at Grade

- Vertical plane through horizontal angle of Max. Cd at 60°
- Horizontal cone through vertical angle of Max. Cd at 73°+



House Side Shield - E2SC/ERLC

DESCRIPTION
ELSHS-ERLC-BLCK
ELSHS-ERLC-GRAY

*E2SC shields are designed for Flat Glass Versions only.



Street Side Shield - E2SC/ERLC

DESCRIPTION
ELSFS-ERLC-BLCK-10
ELSFS-ERLC-BLCK-15
ELSFS-ERLC-BLCK-20

*E2SC shields are designed for Flat Glass Versions only.

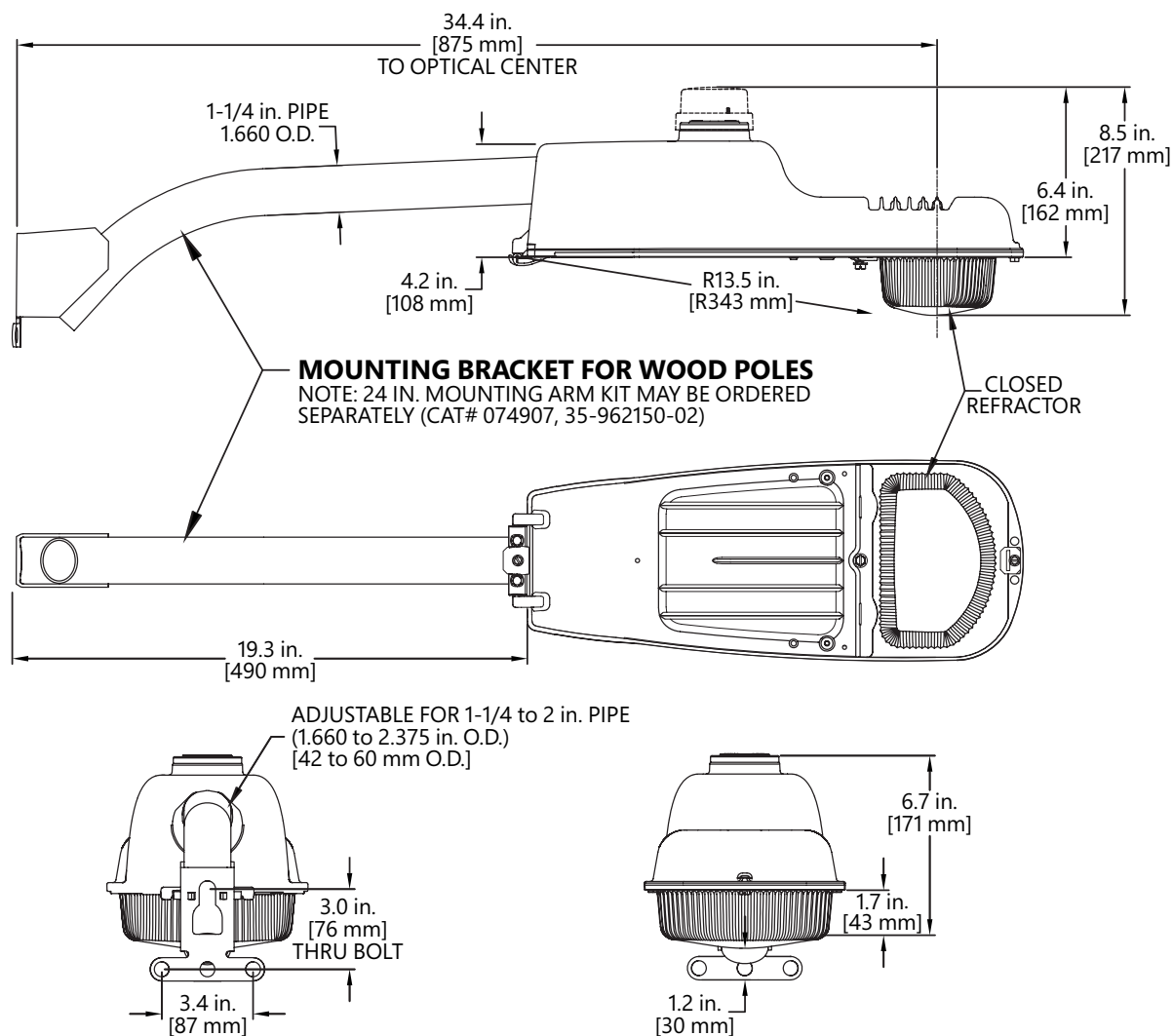


Side Shield (L & R) - E2SC/ERLC

DESCRIPTION
ELS-ERLC-LEFTRIGHTSIDEKIT-BLCK-10
ELSHS-ERLC-GRAY

Shipped as a kit - L & R can be used independently

*E2SC shields are designed for Flat Glass Versions only.



Mounting

- Suggested Mounting Height: 12-28 ft. (4-8 M)
- Adjustable for 1.25 to 2 in. nominal mounting pipe
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

Effective Projected Area

- 0.38 sq ft.

Weight

- Approximate net weight: 8.5 lbs (3.8 kgs) without mounting bracket.
- With 24 in. (61 cm) Mounting Bracket: 13.4 lbs (6.1 kgs)

Accessories

SAP NUMBER	PART NUMBER	DESCRIPTION
74907	35-962150-02	24 in. Mounting Arm Kit for Wood Poles
93122446	ESR-E2SC-A	Field Installable Refractor Kit

Networked Lighting Control



Current's LightGrid+™ Outdoor Lighting Control System is designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.

Project		Catalog #		Type	
Prepared by		Notes		Date	



Interactive Menu

- **Ordering Information** page 2
- **Full Dimensional Details** page 3
- **Mouting Details** page 3
- **Energy and Performance Data** page 4
- **Control Options** page 7

Streetworks

Caretaker

Dusk-to-Dawn Area/Roadway Luminaire

Product Certifications & Features



Product Specifications

PHYSICAL CHARACTERISTICS

- Robust die-cast aluminum housing for durability
- Stamped aluminum door accessible via single captive screw
- Corrosion-resistant hardware for harsh environments
- 2.5-mil nominal thickness for coastal construction environments

OPTICAL

- Precision molded optics optimizes light distribution, increases efficiency, and provides maximum coverage in T2, T3, and T5R distributions
- 7 lumen packages at 4000K CCT, with optional packages at 3000K / 70CRI, 5000K / 70CRI, and 2700K / 80CRI
- Compatible with SR Acrylic refractor and ANSI/ NEMA Standard refractor assembly
- Field-installable house-side shields available for superior spill light control

ELECTRICAL

- The luminaire comes with a standard universal voltage LED driver with 0-10V control having an integrated 6kV surge protection
- Parallel or series protection levels of 10kV or 20kV offered
- Standard 3-position terminal block
- Pre-set to highest position at selected lumen output

MOUNTING

- Luminaire has been specifically designed to fit pipe-arms with an outer diameter ranging from 1-5/8" to 2-3/8"
- Available with bracket for mounting to wood, square pole, or wall without pipe-arm

FINISH

- Luminaire comes in unfinished raw aluminum as standard
- Optional five-stage super TGIC polyester powder coat paint for superior protection

CONTROLS

- Optional Field Adjustable Dimming Control (FADC) module allows for manual adjustment of lumen output and power usage; factory preset to highest output level. Enables a single SKU to cover multiple field applications
- Fully compatible with CLS Trellix Infrastructure UNB (Ultra Narrow Band) and cellular network lighting controls platforms. Enables wireless collection of luminaire performance and status data and asset management for luminaires installed in the field
- Optional 4-pin Zhaga Book 18 receptacle for integration of onboard sensors with DALI-enabled drivers

COMPLIANCE

- Meets ANSI C136.25 for IP66 Optical enclosure rating
- Meets ANSI C136.31 for 3G luminaire vibration. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications

- Meets ANSI C136.15 for luminaire field identification label standard
- Meets ANSI C136.22 internal label standard
- Safety listing - Wet Location UL 1598
- U0 option provides a full cutoff with a spun aluminum shield
- DarkSky approved for 3000K CCT and warmer, with mounting options less than 10° of tilt
- DLC and DLC Premium listed- visit designlights.org to confirm listed variations
- BAA domestic preference option meets BAA requirements. See [DOMESTIC PREFERENCES](https://www.domesticpreferences.com) website or consult the CLS Domestic Preferences team for more information

SHIPPING DATA

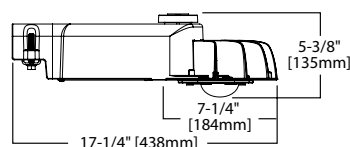
- Approximate Weight: 6.5 lbs | 7 lbs with refractor
- EPA:0.48 | 0.56 with refractor
- Carton Size: 19.56" x 6.38" x 11.63
 - » With SR Lens: 19.38" x 8.2" x 11.88"
 - » With Arm: 25.5 x 8.5" x 12.88"
- Pallet Size: 42" x 50"
 - » With SR Lens: 42" x 50"
 - » With Arm: 44" x 42"
- Cartons/Pallet: 56
 - » With SR Lens: 35
 - » With Arm: 20

WARRANTY

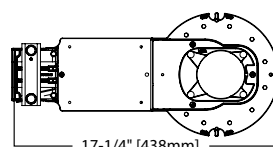
- Five-year limited warranty. Consult website for details. www.cooperlighting.com/legal

Dimensional Overview

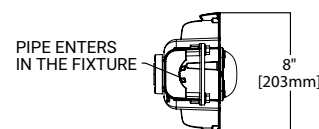
Standard (by it self)



Small acrylic refractor (order separately)



Zero uplight shield (order separately)



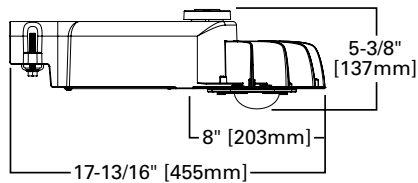
Ordering Information

SAMPLE ORDER NUMBER:

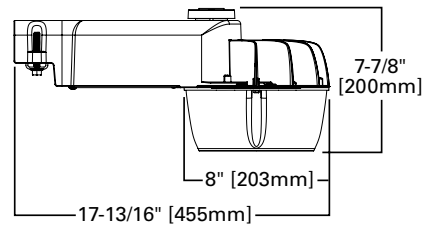
Product Family	Light Engine	Driver	Voltage	Distribution
CRTK2 =Caretaker BAA-CRTK2 =Caretaker, Buy American Act Compliant ⁹ TAA-CRTK2 =Caretaker, Trade Agreements Act Compliant ⁹	C013 =1 LED, Approximately 30% Output C015 =1 LED, Approximately 50% Output C016 =1 LED, Approximately 60% Output C018 =1 LED, Approximately 80% Output C01 =1 LED, Full Output C01H =1 LED, High Lumen Output C01HO =1 LED, Very High Lumen Output ¹²	D =Dimming (0-10V) 5LTD =DALI ¹²	U =Universal (120-277V)	T2 =Type II T3 =Type III T5R =Type V Round
Options (Add as Suffix)		Controls	Color	Accessories (Order Separately)
7030 =70 CRI / 3000K 7050 =70 CRI / 5000K 8027 =80 CRI / 2700K SR =Small Acrylic Refractor (Factory Installed) TSR =Tool-less Small Acrylic Refractor (Factory Installed) U0 =Zero Uplight Shield ^{1,13} TH =Tool-less Door Hardware 4N7 = NEMA 7-PIN Photocontrol Receptacle S =Shorting Cap 10K =10kV UL 1449 Surge Protection Device 10MSP =10kV MOV Surge Protection Device 20K =20kV UL 1449 Surge Protection Device 20MSP =20kV MOV Surge Protection Device CC =Coastal Construction ² V =(3) 5' #14 External Leads ¹⁴ B18 =18" Wood Pole Pipe Arm ¹⁶ B24 =24" Wood Pole Pipe Arm ¹⁶ B30 =30" Wood Pole Pipe Arm ¹⁶ WPBKT =Wall or Pole Mounting Bracket 5 =120V NEMA Photocontrol Included ⁵ LLPC =Long-life Photocontrol PW =PackWise Packaging ^{15,16} Dxxxxx =DOT Configuration - Contact Quotes Team Uxxxxx =Utility Configuration - Contact Quotes Team		WLS2XX = WaveLinx LITE, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 7' - 15' Mounting ^{7,8,18} WLS4XX =WaveLinx LITE, SR Driver, Dimming Motion and Daylight, Bluetooth Programmable, 15' - 40' Mounting ^{7,8,18} FADC =Field Adjustable Dimming Controller ^{11,17}	A =Raw Aluminum AP =Grey	RMARROA5 =ANSI/NEMA Standard Refractor Assembly SR-CARETAKER =Small Acrylic Refractor U0-XX =Zero Uplight Shield ³ LLPC =Long-life Photocontrol LLPC-F0 =Long-life Photocontrol (Fail Off) HSS-CRTK2 =Field Install House Side Shield ⁴ DS-HSS-CRTK2 =Drop Shield House Side Shield OA1226 =10kV Surge Module Replacement OA/RA1013 =Shorting Cap VGS-F/B =Vertical Glare Shield, Front/Back VGS-SIDE =Vertical Glare Shield, Side FS-XX =Fluted Decorative Shield ³ HB-XX =Hillbrook Bell Decorative Shield ³ TSR-CARETAKER =Tool-less Small Acrylic Refractor B18PK =18" Wood Pole Pipe Arm B24PK =24" Wood Pole Pipe Arm B30PK =30" Wood Pole Pipe Arm
NOTES: 1. U0 not offered with SR or TSR option 2. Anti-corrosion treatment on external components, external screws/mounting bolts, and standard pipe clamp 3. Replace XX with color 4. Not for use on T5R optical distribution 5. 120V input voltage only required 6. Not available with 10MSP or 20MSP surge options 7. Not available standard with 4N7 7-pin receptacle option. ETO required 8. Replace XX with sensor color desired. (WH, BZ, or BK) 9. Only product configurations with these prefixes are built to be compliant with the Buy America Act of 1933 (BAA) or Buy America Build America Act (BABA). Please see the Compliance section in Product Specifications for more detail 10. Customer specific specifications utilizes standard products with small adjustments to meet unique requirements such as packaging, labels, wattage adjustments, etc 11. Cannot be used with 4N7 or other motion response control options including 5LTD DALI driver. Control leads are used with FADC only when selected 12. C01HO not available with DALI driver 13. Required to be IDA Certified when used with 3000K and warmer CCTs 14. When leads are specified, the terminal block is replaced with serviceable connectors 15. 9% package dunnage reduction by weight. Only available in order increments of 20, quantity per carton 16. B18, B24, and B30 are not available with PackWise packaging 17. Cannot be used with PR7 or other motion response control options 18. Controls system is not available with photocontrol receptacles (PR , PR7) or other controls systems (FADC, SPBx)				

Shielding Dimensional Details

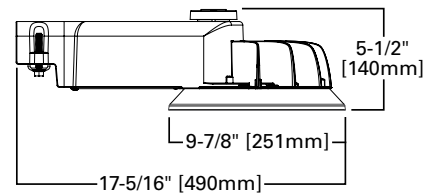
Standard (by it self)



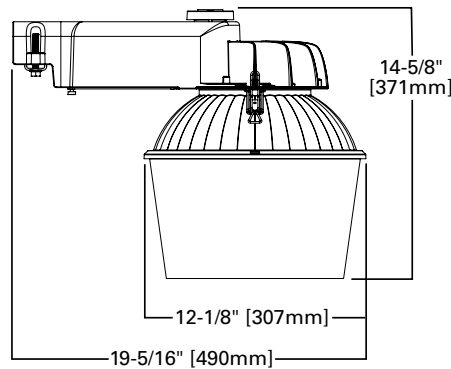
Small acrylic refractor (order separately)



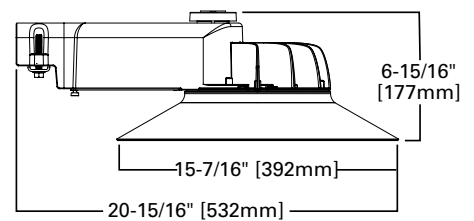
Zero uplight shield (order separately)



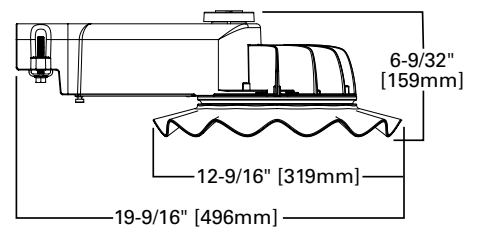
ANSI / NEMA refractor (order separately)



Hillbrook Decorative Shield (order separately)



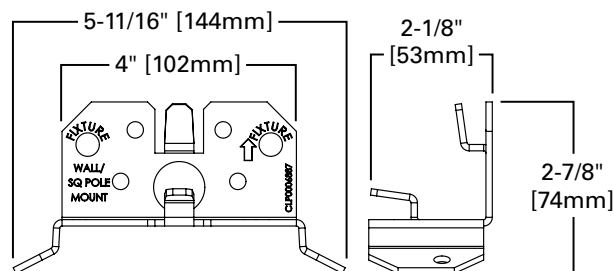
Fluted Decorative Shield (order separately)



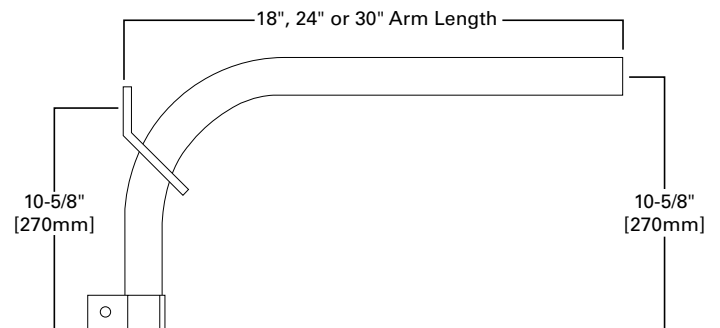
Mounting Details

Optional Wall/Pole Mounting Bracket

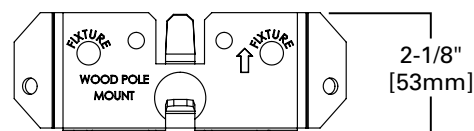
Wall Mount / Square Pole Mount



Optional Wood Pole Pipe Arm



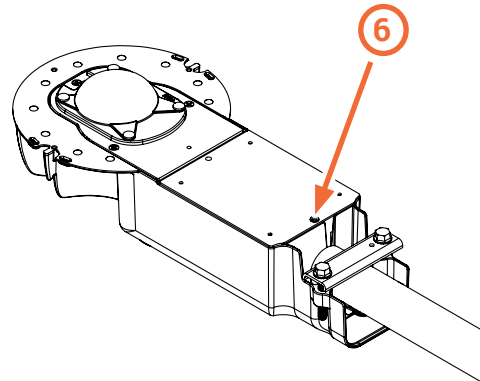
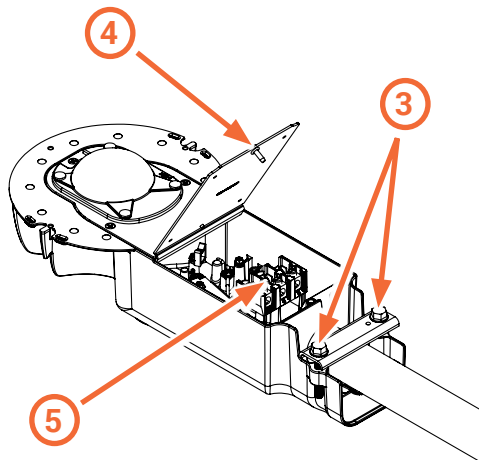
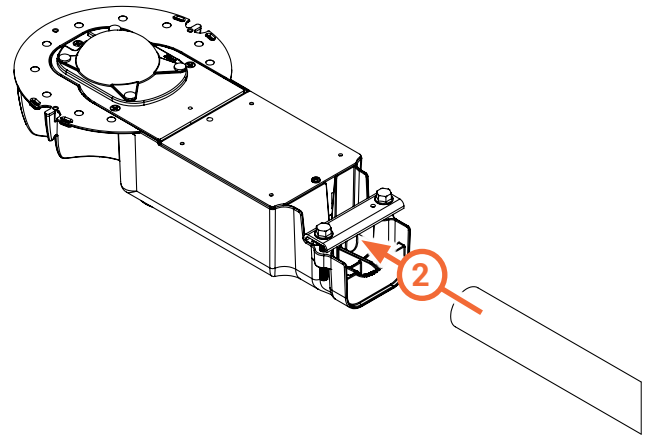
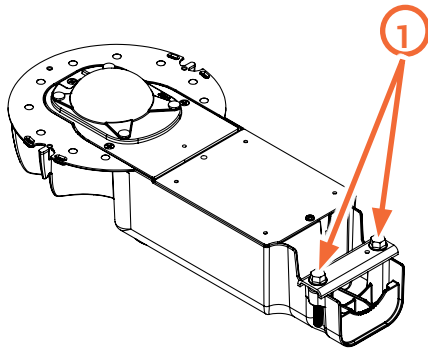
Pole Mount



Installation Overview

Quick Instruction Steps:

1. Loosen Mounting Bolts for Pole Clamp
2. Insert Pole Arm Into Fixture
3. Tighten Mounting Bolts on Pole Clamp
4. Open Door by Unscrewing the Door Screw
5. Pull Wires into Housing Through Rear Slot and Wire Appropriately
6. Close fixture Door with Door Screw



Energy and Performance Data

[Supplemental Lumen Tables](#)[Caretaker](#) [Waldrab](#)

Power and Lumens (UNV) (70CRI - 4000K)

Light Engine		C013	C015	C016	C018	C01	C01H	C01HO
Power(Watts)		20	30	42	50	61.0	70	79
Wattage Label		20	30	40	50	60	70	80
Input Current @ 120V (A)		0.17	0.25	0.35	0.42	0.51	0.60	0.66
Input Current @ 277V (A)		0.07	0.11	0.15	0.18	0.25	0.28	0.29
Optics								
T2	Lumens	3,011	4,413	5,895	6,877	8,680	9,726	11,442
	BUG Rating	B1-U2-G1	B1-U3-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3
	Lumens per Watt	148	148	142	136	142	139	145
T2-U0	Lumens	2,907	4,261	5,691	6,679	8,380	9,390	11,047
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U3-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	143	143	137	133	137	134	140
T3	Lumens	3,052	4,473	5,975	6,971	8,798	9,858	11,598
	BUG Rating	B1-U2-G1	B1-U3-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2
	Lumens per Watt	150	150	144	138	144	140	147
T3-U0	Lumens	2,941	4,310	5,758	6,717	8,478	9,500	11,176
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2
	Lumens per Watt	144	144	138	133	139	135	141
T5R	Lumens	3,209	4,703	6,283	7,329	9,251	10,366	12,194
	BUG Rating	B2-U2-G1	B3-U2-G1	B3-U3-G1	B3-U3-G2	B3-U3-G2	B4-U3-G2	B4-U3-G2
	Lumens per Watt	157	157	151	145	152	148	154
T5R-U0	Lumens	3,167	4,642	6,200	7,233	9,130	10,230	12,035
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2
	Lumens per Watt	155	155	149	144	150	146	152
T5R-SR	Lumens	3,162	4,634	6,191	7,222	9,115	10,214	12,016
	BUG Rating	B2-U3-G1	B3-U3-G2	B3-U3-G2	B3-U3-G2	B3-U3-G3	B4-U3-G3	B4-U3-G3
	Lumens per Watt	155	155	149	143	149	145	152

Energy and Performance Data

Power and Lumens (DALI) (70CRI - 4000K)

Light Engine		C013	C015	C016	C018	C01	C01H	C01HO
Power(Watts)		23	33	43	54	60	75	N/A
Wattage Label		20	30	40	50	60	80	
Input Current @ 120V (A)		0.19	0.27	0.36	0.45	0.50	0.62	
Input Current @ 277V (A)		0.08	0.12	0.15	0.19	0.22	0.27	
Optics								N/A
T2	Lumens	3,558	4,905	6,193	7,942	8,674	10,068	
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	
	Lumens per Watt	153	150	145	148	145	134	
T2-U0	Lumens	3,435	4,736	5,979	7,668	8,374	9,720	
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	
	Lumens per Watt	148	145	140	143	140	130	
T3	Lumens	3,606	4,972	6,277	8,050	8,792	10,205	
	BUG Rating	B1-U2-G1	B1-U3-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	
	Lumens per Watt	155	152	147	150	147	136	
T3-U0	Lumens	3,475	4,791	6,049	7,757	8,472	9,834	
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	
	Lumens per Watt	150	147	141	144	141	131	
T5R	Lumens	3,792	5,228	6,600	8,464	9,244	10,730	
	BUG Rating	B2-U2-G1	B3-U2-G1	B3-U3-G1	B3-U3-G2	B3-U3-G2	B4-U3-G2	
	Lumens per Watt	163	160	154	158	154	143	
T5R-U0	Lumens	3,742	5,159	6,514	8,353	9,123	10,590	
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B4-U0-G2	
	Lumens per Watt	161	158	152	156	152	141	
T5R-SR	Lumens	3,736	5,151	6,504	8,340	9,109	10,573	
	BUG Rating	B2-U3-G2	B3-U3-G2	B3-U3-G2	B3-U3-G2	B3-U3-G3	B4-U3-G3	
	Lumens per Watt	161	158	152	155	152	141	

Lumen Maintenance

Light Engine	Ambient Temperature	25,000 hours*	50,000 hours*	60,000 hours*	100,000 hours*	L70*
C013	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C015	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C016	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C018	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C01	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C01H	25°C	96.01%	92.36%	90.94%	85.47%	> 110,000
	40°C	95.78%	91.89%	90.38%	84.58%	> 110,000
C01HO	25°C	93.12%	87.65%	85.55%	77.66%	> 66,000
	40°C	92.34%	86.19%	83.84%	75.09%	> 66,000

Note: *Calculations provided in accordance with IES TM-21-11 using the configuration resulting in highest LED temperature. Previous versions of IES TM-21 where theoretical calculations were used are no longer recommended as a proxy of lumen depreciation.

LED Color Multipliers

	LED					
	CCT					
	2200	2700	3000	3500	4000	5000
CRI	Lumen Multiplier					
70	--	--	0.971	--	1.00	1.012
80	--	0.878	--	--	--	--

Lumen Multiplier

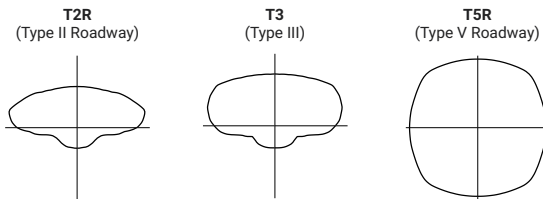
Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99

FADC Settings

FADC Postion	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: +/-5% typical value

Optical Distributions





EPAM Americana LED Post Top Lighting

The **Evolve®** LED Americana Post Top offers energy efficiency and quality of light in a classic, Acorn look and style.

Construction

Housing:	Diecast aluminum housing.
Lens:	Acrylic or Polycarbonate Globe
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze RAL & custom colors available
Weight:	< 20 lbs (9.07 kgs)

Optical System

Lumens:	1,900 – 12,600
Distribution:	Symmetric Asymmetric
Efficacy:	74-155 LPW
CCT:	3000K, 4000K
CRI:	≥70

Electrical

Input Voltage:	120-277V
Input Frequency:	50/60Hz
Power Factor:	≥ 90% at rated watts*
Total Harmonic Distortion:	≤ 20% at rated watts

*PF >0.88 for 1C and 1H globes at 02 Lumen Output above 240V

Surge Protection*

Standard	Optional
10kV/5kA	Secondary 10kV/5kA (R Option) Secondary 20kV/10kA (T Option)

*Per ANSI C136.2-2015

Warranty

5 Year (Standard)

10 Year (Optional)

Luminaire Ambient Temperature Factor (LATF)

Ambient Temp (°C)	Initial Flux Factor	Ambient Temp (°C)	Initial Flux Factor
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Operating Temperature

Globe	Min Ambient Temp (°C)	Max Ambient Temp (°C)	Lumen Output
1C & 1H	-40° -40°	50° 40°	02 to 10 12
1D	-40° -40°	50° 45°	02 to 08 10
1M	-40° -40°	50° 45°	02 to 06 07

Ratings

Vibration:	1.5G per ANSI C136.41-2010
LM-79:	Testing in accordance with IES Standards
Environmental:	Complies with the material restrictions of RoHS

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available

Applications

- Local Roadways
- Antique Streetscapes
- Parks and Pathways
- University and Business Campuses



Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

Ordering Information

EPAM 01

PROD. ID	GEN	VOLTAGE	LUMEN OUTPUT ⁴	DISTRIBUTION	CCT	CONTROLS	GLOBE	GLOBE MATERIAL	FINIAL READY	FINIAL	COLOR	OPTIONS
E = Evolve	01	0 = 120-277V ³	02	A = Symmetric	30 = 3000K	1 = None	1C = Traditional Standard	A = Acrylic	F = Finial Ready ²	A = Silhouette	BLCK = Black	F = Fusing
P = Post Top		1 = 120V	04	B = Asymmetric ¹⁰	40 = 4000K	A = ANSI C136.41 7-Pin Receptacle (in Base)	1H = Classic	P = Polycarbonate ⁶	X = No Finial Hole or Stud ¹	B = Acorn	DKBZ = Dark Bronze	R = Secondary 10kV/5kA SPD
AM = Americana		2 = 208V	06			D = ANSI C136.41 7-Pin Receptacle (in Base) w/ Shorting Cap	1D = Colony	F = Frosted Acrylic ^{6,7}		C = Fleur-De-Lis	XXXX = RAL Color	T = Secondary Elevated Surge (20kV/10kA)
		3 = 240V	08			E = ANSI C136.41 7-Pin Receptacle (in Base) w/ non-Dimming PE	1M = Colony w/ Crown & Ribs			E = Blossom		U = DALI Programmable
		4 = 277V	10							F = Spike		V1 = Field Adjustable Module ⁵
			12							G = Oak		XXX = Special Options
										X = None		

¹ If globe finial is not desired, choose FINIAL READY = X and FINIAL = X. If FINIAL READY = X, a finial cannot be added later

² A Finial is not required to complete order and can be added later

³ Not Available with Fusing

⁴ Globe Choice affects total lumen output. See Spec Table for additional information.

⁵ Not available with DALI "U" option

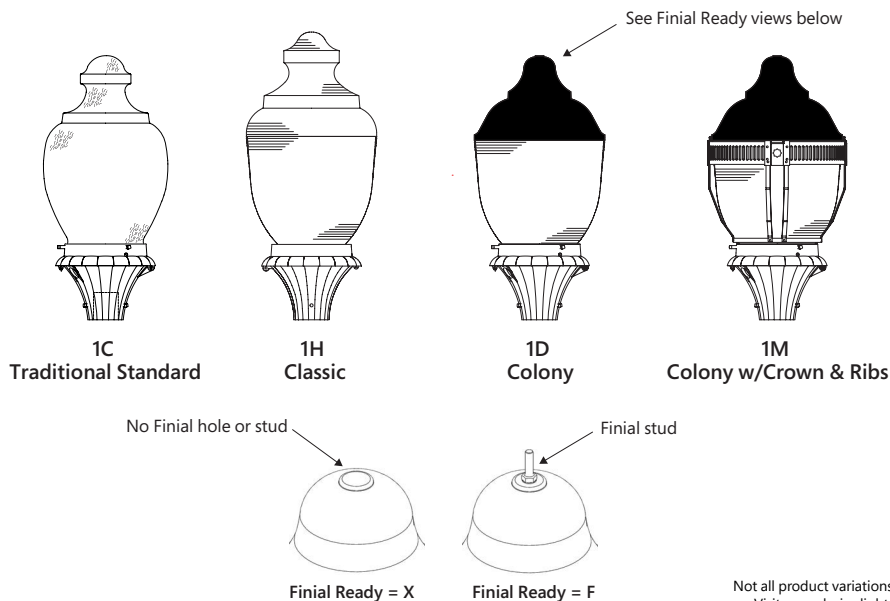
⁶ Only available with 1C Globe

⁷ Only available without Finial (Finial Ready = X)

⁸ Lumen offering 07 is only available with the 1M Globe

⁹ Review the Spec Tables for combination of Lumen Output, Distribution, Globe and Globe Material

¹⁰ Not available with 1C Globe



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LUMEN OUTPUT	DIST. CODE	GLOBE	GLOBE MATERIAL	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE 120-277V	BUG RATINGS		TM-21-11 LXX (≥10k) @ HOURS		
				4000K	3000K		4000K	3000K	25,000 HR	50,000 HR	60,000 HR
02	A Symmetric	1C Traditional Standard	A Acrylic	2300	2200	16	B1-U4-G2	B1-U4-G2	L96	L95	L94
04				4500	4400	29	B1-U5-G3	B1-U5-G3	L96	L95	L94
06				6600	6400	44	B2-U5-G3	B2-U5-G3	L95	L93	L92
08				8500	8200	59	B2-U5-G4	B2-U5-G3	L94	L91	L90
10				10600	10300	77	B3-U5-G4	B3-U5-G4	L92	L88	L86
12				12600	12200	97	B3-U5-G5	B3-U5-G4	L87	L78	L75
02	A Symmetric	1C Traditional Standard	P Polycarbonate	2200	2100	16	B1-U4-G2	B1-U4-G2	L96	L95	L94
04				4300	4200	29	B1-U5-G3	B1-U5-G3	L96	L95	L94
06				6300	6100	44	B2-U5-G3	B2-U5-G3	L95	L93	L92
08				8200	7900	59	B2-U5-G4	B2-U5-G4	L94	L91	L90
10				10200	9900	77	B3-U5-G4	B3-U5-G4	L92	L88	L86
12				12100	11700	97	B3-U5-G5	B3-U5-G4	L87	L78	L75
02	A Symmetric	1H Classic	A Acrylic	2200	2200	16	B1-U4-G1	B1-U4-G1	L96	L95	L94
04				4500	4300	29	B2-U5-G2	B2-U5-G2	L96	L95	L94
06				6500	6300	44	B2-U5-G2	B2-U5-G2	L95	L93	L92
08				8400	8200	59	B3-U5-G2	B3-U5-G2	L94	L91	L90
10				10500	10200	77	B3-U5-G3	B3-U5-G3	L92	L88	L86
12				12400	12100	97	B3-U5-G3	B3-U5-G3	L87	L78	L75
02	B Asymmetric	1H Classic	A Acrylic	2200	2100	16	B1-U4-G1	B1-U4-G1	L96	L95	L94
04				4400	4300	29	B1-U5-G2	B1-U5-G2	L96	L95	L94
06				6400	6200	44	B1-U5-G3	B1-U5-G3	L95	L93	L92
08				8300	8000	59	B2-U5-G3	B2-U5-G3	L94	L91	L90
10				10300	10000	77	B2-U5-G3	B2-U5-G3	L92	L88	L86
12				12300	11900	97	B2-U5-G3	B2-U5-G3	L87	L78	L75

For additional information on EPAM IES files, please refer to LED.com



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LUMEN OUTPUT	DIST. CODE	GLOBE	GLOBE MATERIAL	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATINGS		TM-21-11 LXX (≥10k) @ HOURS		
				4000K	3000K	120-277V	4000K	3000K	25,000 HR	50,000 HR	60,000 HR
02	A Symmetric	1D Colony*	A Acrylic	2800	2700	23	B2-U3-G1	B2-U3-G1	L96	L94	L93
04				4600	4500	37	B2-U3-G2	B2-U3-G2	L96	L94	L93
06				6100	5900	50	B3-U4-G2	B3-U4-G2	L94	L91	L90
08				7800	7600	66	B3-U4-G3	B3-U4-G3	L92	L88	L87
10				9500	9200	86	B3-U5-G3	B3-U4-G3	L87	L79	L76
02	B Asymmetric	1D Colony*	A Acrylic	2800	2700	23	B1-U3-G2	B1-U3-G2	L96	L94	L93
04				4600	4500	37	B2-U3-G3	B2-U3-G3	L96	L94	L93
06				6100	5900	50	B2-U4-G3	B2-U4-G3	L94	L91	L90
08				7800	7600	66	B2-U4-G3	B2-U4-G3	L92	L88	L87
10				9500	9200	86	B3-U4-G3	B3-U4-G3	L87	L79	L76
02	A Symmetric	1M Colony w/ Crown & Ribs	A Acrylic	1900	1900	23	B1-U3-G1	B1-U3-G1	L96	L94	L93
04				4200	4100	50	B2-U3-G1	B1-U3-G2	L94	L91	L90
06				6100	5900	77	B3-U3-G2	B2-U3-G2	L90	L84	L81
07				6600	6400	86	B3-U3-G2	B3-U3-G2	L87	L79	L76
02	B Asymmetric	1M Colony w/ Crown & Ribs	A Acrylic	1900	1900	23	B1-U3-G1	B1-U3-G1	L96	L94	L93
04				4200	4100	50	B1-U3-G2	B1-U3-G2	L94	L91	L90
06				6100	5900	77	B2-U3-G3	B2-U3-G2	L90	L84	L81
07				6600	6400	86	B2-U3-G3	B2-U3-G3	L87	L79	L76

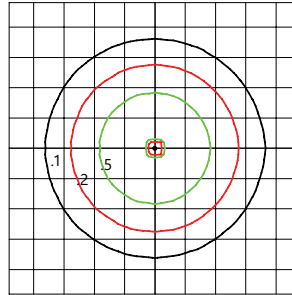
For additional information on EPAM IES files, please refer to LED.com



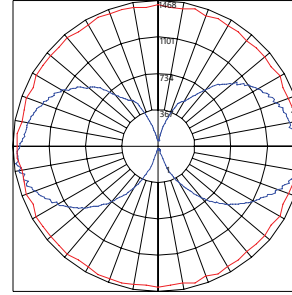
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EPAM
Symmetric

12,600 Lumens
4000K
EPAM01_12A40-1CA__IES



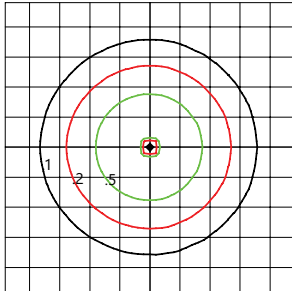
- Mounting Height at 16'
- Initial Footcandle at Grade



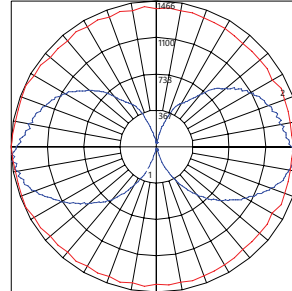
- Vertical plane at max Cd horiz. angle 5°
- Horizontal cone at max Cd vert. angle 87°

EPAM
Symmetric

12,100 Lumens
4000K
EPAM01_12A40-1CP__IES



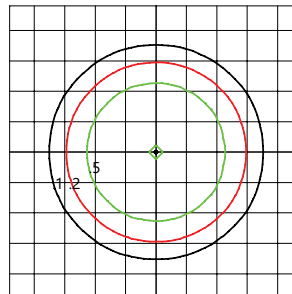
- Mounting Height at 16'
- Initial Footcandle at Grade



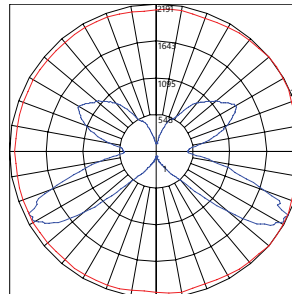
- Vertical plane at max Cd horiz. angle 180°
- Horizontal cone at max Cd vert. angle 84°

EPAM
Symmetric

12,400 Lumens
4000K
EPAM01_12A40-1HA__IES



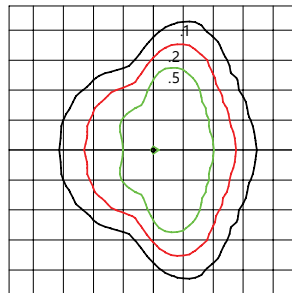
- Mounting Height at 16'
- Initial Footcandle at Grade



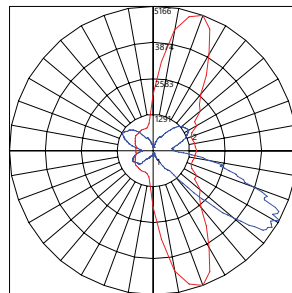
- Vertical plane at max Cd horiz. angle 40°
- Horizontal cone at max Cd vert. angle 64°

EPAM
Asymmetric

12,300 Lumens
4000K
EPAM01_12B40-1HB__IES

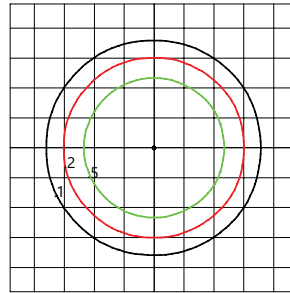


- Mounting Height at 16'
- Initial Footcandle at Grade

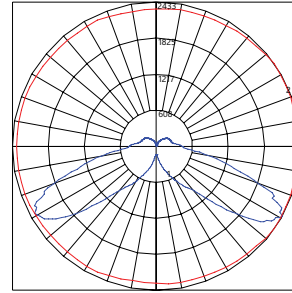


- Vertical plane at max Cd horiz. angle 70°
- Horizontal cone at max Cd vert. angle 61°

EPAM
Symmetric
9,500 Lumens
4000K
EPAM01_10A40-1DA__IES

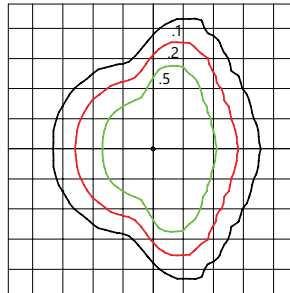


- Mounting Height at 16'
- Initial Footcandle at Grade

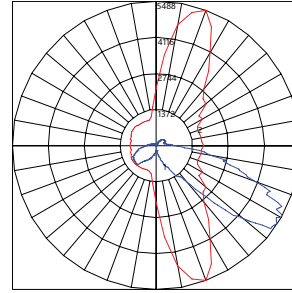


- Vertical plane at max Cd horiz. angle 61°
- Horizontal cone at max Cd vert. angle 35°

EPAM
Asymmetric
9,500 Lumens
4000K
EPAM01_10B40-1DB__IES

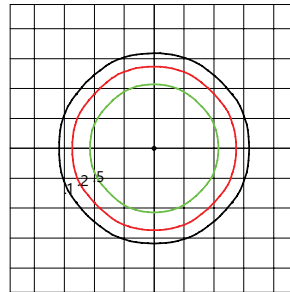


- Mounting Height at 16'
- Initial Footcandle at Grade

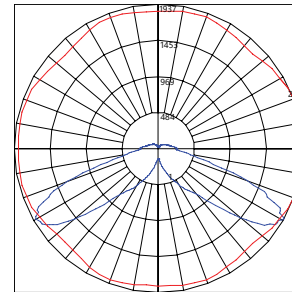


- Vertical plane at max Cd horiz. angle 70°
- Horizontal cone at max Cd vert. angle 61°

EPAM
Symmetric
6,600 Lumens
4000K
EPAM01_07A40-1MA__IES

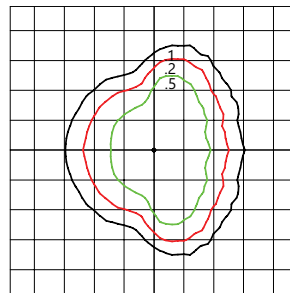


- Mounting Height at 16'
- Initial Footcandle at Grade

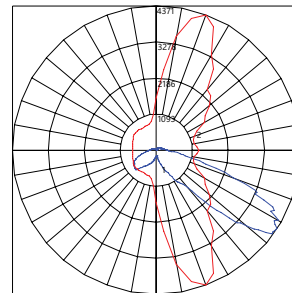


- Vertical plane at max Cd horiz. angle 61°
- Horizontal cone at max Cd vert. angle 20°

EPAM
Asymmetric
6,600 Lumens
4000K
EPAM01_07B40-1MB__IES

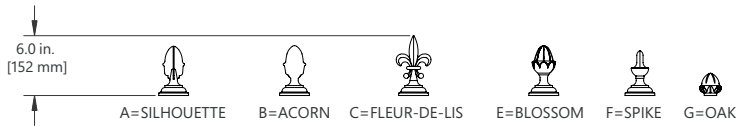


- Mounting Height at 16'
- Initial Footcandle at Grade

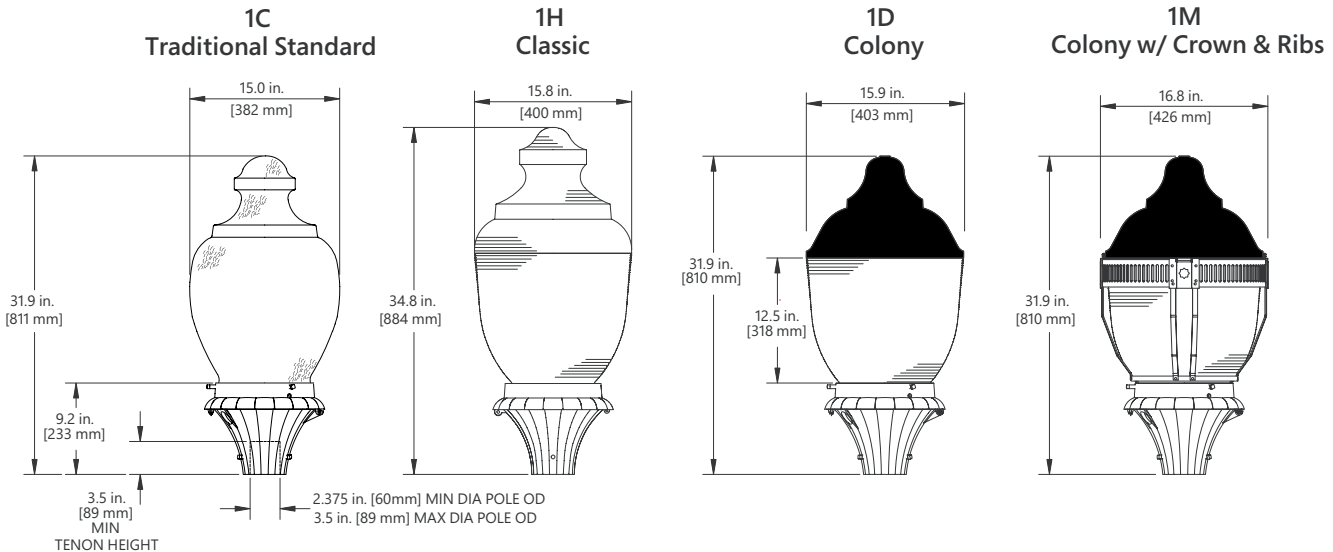


- Vertical plane at max Cd horiz. angle 70°
- Horizontal cone at max Cd vert. angle 57°

FINIAL



GLOBE



Weight

- < 20 lbs (9.07 kgs)

Effective Projected Area

- 1.4 sq ft max (0.13 sq M max)

Suggested Mounting Height

- 8-16 ft. (2.5-5 M)

Mounting

- Post top mounting for 2.375 in. (60mm) MIN – 3.5 in. (89mm) MAX diameter by 3.5-inch MIN vertical tenon secured with three square head set screws

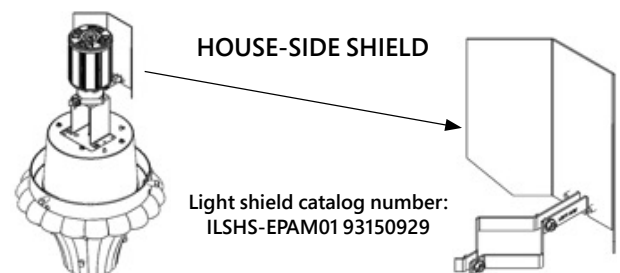
Available Finials if ordered separately

MATERIAL DESCRIPTION	COLOR*	MATERIAL
FNLBL-ACN	BLACK	126817
FNLBL-BLS	BLACK	126819
FNLBL-FDL	BLACK	126812
FNLBL-OAK	BLACK	170102
FNLBL-SIL	BLACK	126816
FNLBL-SPK	BLACK	126818

*Contact Factory for different finial colors

Accessories

SAP NUMBER	PART NUMBER	DESCRIPTION
93029237	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
28299	PECOTL	Standard 120-277V
73251	SCCL-PECTL	Shorting Cap



Project		Catalog #		Type	
Prepared by		Notes		Date	



Streetworks

ULA Utility LED Acorn

Decorative Post Top Luminaire

Product Features



Product Certifications



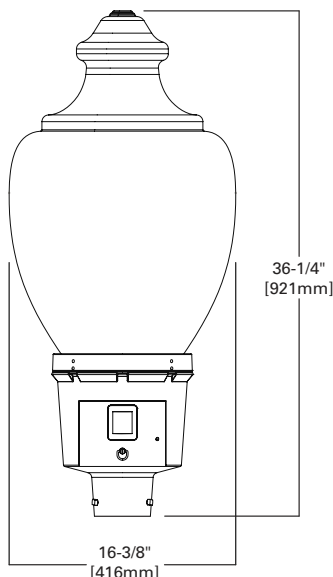
Interactive Menu

- Ordering Information page 2
- Product Specifications page 2
- Energy and Performance Data page 3

Quick Facts

- Traditional acorn decorative form factor
- Up to 156 lumens per watt
- Replaces up to 100W equivalent HID
- Tool-less entry for easy installation and maintenance
- Two levels of 10kV surge protection available

Dimensional Details



Connected Systems

- WaveLinX

Ordering Information

SAMPLE ORDER NUMBER: ULA-A5-D-U-ASYM-VM-9-7030-4N7-10MSP-W-BK

Product Family ¹	Light Engine	Driver	Voltage	Distribution	Globe
ULA =Utility LED Acorn BAA-ULA =Utility LED Acorn Buy American Act Compliant ⁷ TAA-ULA =Utility LED Acorn Trade Agreements Act Compliant ⁷	A3 A4 A5 A6 A7 A8 A9	D =Dimming SLTD =DALI	U =Universal (120-277V)	SYM =Symmetric ASYM =Asymmetric	VM-9 =Visual Comfort / Milky Globe, 9" Neck VM-8 =Visual Comfort / Milky Globe, 8" Neck
Options (Add as Suffix)		Color		Accessories (Order Separately) ⁸	
7030 =70 CRI / 3000K ² 7027 =70 CRI / 2700K ² 4 =NEMA Photocontrol Receptacle (Internal Mount) ³ 4N7 =NEMA 7-PIN Photocontrol Receptacle (Internal Mount) ³ FADC =Field Adjustable Dimming Controller ¹⁰ 10K =10kV UL 1449 Surge Protective Device 10MSP =10kV MOV Surge Protective Device NPC =NEMA Photocontrol - Multi-Tap ⁹ PSC =Photocontrol Shorting Cap ⁹ HSS =House Side Shield 180 Degree Cutoff ⁴ W =20' #10 Leads HA =High Ambient ⁵ AN8 =M2M Antennae (915MHz) ⁶ Dxxxxx =DOT Configuration - Contact Quotes Team Uxxxxx =Utility Configuration - Contact Quotes Team		AP =Grey BK =Black BZ =Bronze WH =White GN =Green		OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1013 =Photocontrol Shorting Cap OA1223 =10kV/10kA UL 1449 Surge Module Replacement ULA-HSS =Field Install House Side Shield 180 Degree Cutoff ⁴	
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information. 2. Use dedicated IES files for various CCTs and CRIs when performing layouts. These files are published on the Utility LED Acorn luminaire product page on the website. 3. Total height of photocontrol/node cannot exceed 4.3'. 4. Applicable for asymmetric distribution. 5. Not available with A8 light engine. 6. For use with third party control systems where M2M is required. 7. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 8. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 9. Must select option 4 (3-pin photocell receptacle) or option 4N7 (7-pin photocell receptacle). 10. Cannot be used with 4N7, other motion response control options or SLTD (DALI). 11. Controls system is not available with photocontrol receptacles (PR, PR7) or other controls systems (FADC, SPBx).					

Specifications Features

Construction

- Heavy-duty cast aluminum housing and removable door. A single quarter turn fastener on the removable door provides tool-less access to wiring compartment.

Optics

- GLOBE: 9" Visual Comfort textured acrylic globe is standard. Available in asymmetric or symmetric distributions. Offered standard in 4000K CCT and minimum 70 CRI.

Electrical

- 120-277V 50/60Hz operation.
- 10kV/10kA common - and differential mode surge protection available. Thermal management transfers heat rapidly away from the LED source for optimal efficiency and light output. Ambient operating temperature from -40°C to 40°C. Standard
- Three-position tunnel type compression terminal block.
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected

Controls

- 0-10V dimming driver standard. Photocontrol and After Hours Dim accessories available. Refer to control options section.
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected.

Mounting

- Post top mount fits 3" O.D. tenon. Secured by square head 3/8" stainless steel mounting bolts.

Energy Data

- Electronic LED Driver
- >0.9 Power Factor
- <20% Total Harmonic Distortion
- 120-277V 50/60Hz
- 30°C Minimum Temperature
- 40°C Ambient Temperature Rating

Certification

- Heights 12 ft and greater
- Options to meet Buy American and other domestic preference requirements.

Shipping Data & EPA

- Approximate Net Wt: 16 lbs. (7.3 kgs.)
- Effective Projected Area: (Sq. Ft.) 1.72

Warranty

- Five-year limited warranty. Consult website for details. www.cooperlighting.com/legal

Energy and Performance Data

Power and Lumens

Light Engine		A3	A4	A5	A6	A7	A8	A9
Nominal Power (Watts)		21	29	36	44	55	56	71
Wattage Label		20	30	40	40	60	60	70
Current (a) @120V		178 mA	244 mA	309 mA	379 mA	462 mA	471 mA	618 mA
Current (a) @277V		90 mA	128 mA	158 mA	192 mA	235 mA	240 mA	271 mA
Optics								
SYM	4000K	3,295	4,070	4,998	5,951	7,032	8,423	9,549
	BUG Rating	B1-U5-G2	B1-U5-G3	B1-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3
	3000K	3,183	3,931	4,828	5,748	6,793	8,136	9,224
	BUG Rating	B1-U5-G2	B1-U5-G2	B1-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3
	2700K	3,024	3,735	4,586	5,461	6,453	7,729	8,762
	BUG Rating	B1-U5-G2	B1-U5-G2	B1-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3	B2-U5-G3

Light Engine		A3	A4	A5	A6	A7	A8	A9
Nominal Power (Watts)		21	30	37	46	56	57	71
Wattage Label		20	30	40	50	60	60	70
Current (a) @120V		182 mA	250 mA	314 mA	390 mA	475 mA	480 mA	618 mA
Current (a) @277V		81 mA	118 mA	144 mA	173 mA	212 mA	214 mA	271 mA
Optics								
ASYM	4000K	3,122	3,866	4,687	5,488	6,357	7,989	9,057
	BUG Rating	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G4	B1-U5-G4
	3000K	3,016	3,734	4,527	5,301	6,140	7,717	8,749
	BUG Rating	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G4	B1-U5-G4
	2700K	2,865	3,548	4,301	5,036	5,833	7,331	8,311
	BUG Rating	B1-U5-G2	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B1-U5-G3	B2-U5-G3

Lumen Maintenance

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
ULA-A8-D-U-ASYM	40°C	>73%	71,000
ULA-A8-D-U-ASYM	40°C	>85%	139,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

FADC Settings

FADC Position	Lumen Multiplier
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Note: +/-5% typical value

Project		Catalog #		Type	
Prepared by		Notes		Date	



Streetworks

LXF / LXT Lexington

Decorative Post Top Luminaire

Product Features



Product Certifications



Quick Facts

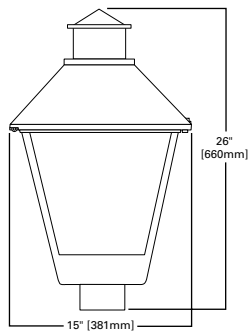
- Replaces up to 400W equivalent HID
- Asymmetric & Symmetric distributions
- 0-10V dimming driver standard
- UL 1449/MOV surge protection available

Interactive Menu

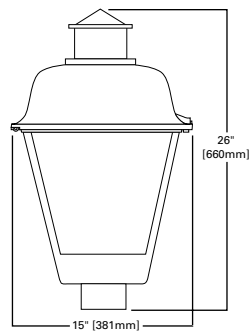
- Ordering Information [page 2](#)
- Product Specifications [page 2](#)
- Energy and Performance Data [page 3](#)

Dimensional Details

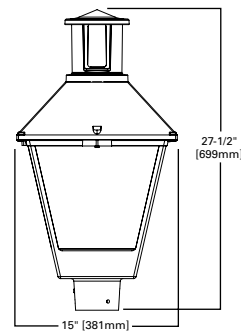
LXF



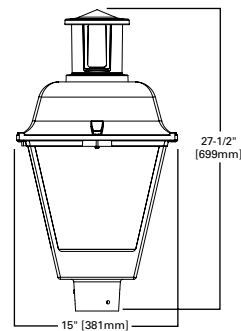
LXT



LXF - Tall Cupola



LXT - Tall Cupola



Ordering Information

SAMPLE NUMBER: LXF-PA1-20-740-U-T2U-CL-BK-10MSP-PR7

Product Family ¹	Configuration	Wattage Bucket	Color Temperature	Voltage	Distribution	Lens	Finish
LXF =Lexington LXT =Lexington w/ Traditional Top	PA16 =Light Square (16 LED) ² PA1 =Direct Mount Rectangle (24 LED)	20 =20W 30 =30W 40 =40W 50 =50W 60 =60W 70 =70W 80 =80W ³ 90 =90W ³ 100 =100W ³	740 =70CRI, 4000K 727 =70CRI, 2700K 827 =80CRI, 2700K 730 =70CRI, 3000K 750 =70CRI, 5000K AMB =Amber 590nm	U =Universal (120-277V) 2 =120V 8 =480V ⁴ 9 =347V	T2R =Type II Roadway T2U =Type II Urban T3 =Type III T4W =Type IV Wide 5WQ =Type V Square Wide SL3 =Type III w/ Spill Control	[Blank] =Open (No Lens) A =Refractive Lens Panels CL =Clear Lens Panel FL =Frosted Lens TL =Textured Lens Panel	BK =Black AP =Grey BZ =Bronze WH =White
Options (Add as Suffix)			Controls		Accessories (Order Separately)		
10K =Series 10kV UL 1449 Surge Protective Device 20K =Series 20kV UL 1449 Surge Protective Device 20KI =Series 20kV UL 1449 Surge Protective Device with light indicator 20MSP =Parallel 20kV MOV Surge Protective Device 10MSP =10kV MOV Surge Protection Device HA =50°C High Ambient Temperature ⁵ S =Dual Corner Snap Latches C =Single Center Snap Latch J =Factory Installed Decorative Ladder Rest HSS =Factory installed house side shield TC =Tall Cupola ⁶ PSC =Photocontrol Shorting Cap LLPC =Long Life Photocontrol Included FADC =Field Adjustable Dimming Controller ⁸ BC = Bird Cone ⁷ Dxxxxx =DOT Configuration - Contact Quotes Team Uxxxxx =Utility Configuration - Contact Quotes Team			5LTD =DALI PR =NEMA Photocontrol Receptacle PR7 =NEMA 7-PIN Twistlock Photocontrol Receptacle NPC =NEMA Photocontrol - Multi-Tap LLPC =Long Life Photocontrol included		TA1BK =Decorative Ladder Rest for Field Installation (Black) OA/RA1013 =Photocontrol Shorting Cap OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V OA1223 =10kV Surge Module Replacement HS-LX-16 =Field installed House Side Shield for PA16 HS-LX-24 =Field installed House Side Shield for PA1 VGS-ARCH =Short Vertical Drop Shield VGL-ARCH =Long Vertical Drop Shield LXT-A-PANELS =Refractive lens panels (set of 4) LXT-CL-PANELS =Clear lens panels (set of 4) LXT-FL-PANELS =Frosted lens panels (set of 4) LXT-TL-PANELS =Texture lens panels (set of 4)		
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP13001EN for additional support information. 2. 20W -70W only. Square is not removable in the field. 3. PA1 Rectangle only. 4. Only for use with 480V Wye systems. Per NEC, not for use with ungrounded systems, impedance grounded systems or corner grounded systems (commonly known as Three Phase Three Wire Delta, Three Phase High Leg Delta and Three Phase Corner Grounded Delta systems). 5. HA not available with HSS option. 6. Use Tall Cupola to accommodate 7-pin Networked Lighting Controllers 7. Not available with lens panels. 8. Cannot be used with PR7 or other motion response control options. 9. Controls system is not available with photocontrol receptacles (PR, PR7) or other controls systems (FADC, SPBx).							

Product Specifications

Construction

- Hinged die-cast aluminum top with cupola cover
- Captive retaining screw standard closure, with options for single center spring latch or two corner spring latches
- Die-cast aluminum base housing
- Other finish colors available; Consult your Streetworks representative
- ANSI wattage/source label

Optics

- Choice of six patented, high efficiency AccuLED Optics™ technology manufactured from injection-molded acrylic
- Optics are precisely designed to shape the light output, maximizing efficiency and application spacing; AccuLED Optics™ technology creates consistent distributions with the scalability to meet customized application requirements
- Offered standard in various CCTs and a minimum of 70 CRI, plus Amber option
- For the ultimate level of spill light control, an optional house-side shield accessory can be field or factory installed

- Optics are IP66 enclosure rated
- Offered open sided as a standard with four lens options
- Lenses are field installable and removable and can be ordered separately

Electrical

- LED drivers mount to die-cast aluminum back housing for optimal heat sinking, operation efficacy, and prolonged life
- Standard drivers feature electronic universal voltage (120-277V, 50/60Hz), 347V 60Hz or 480V 60Hz operation, greater than 0.9 power factor, less than 20% harmonic distortion, and is suitable for operation in -40°C to 40°C ambient environments.
- 10 kV/10 kA common and differential mode and 10 kV MOV surge protection available
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected

Mounting

- Self-aligning pole-top fitter fits 2-3/8" and 3" O.D. tenons
- Square headed 1-1/4" polymer coated mounting bolts

Finish

- Cast components finished in a Super durable TGIC polyester powder coat paint, 2.5 mil nominal thickness for superior protection against fade and wear
- Optional colors include bronze, grey, and white. RAL and custom color matches available. Additional charges and lead time apply.

Shipping Data

- Approximate Net Weight: 25 lbs. (11 kgs.)
- Effective Projected Area: 1.7 (Sq. Ft.)

Warranty

- Five-year limited warranty. Consult website for details www.cooperlighting.com/legal

LENS OPTIONS



Clear lens



Textured lens



Frosted lens



Refractive lens

Tool-less Snap Latch



(Center Mount Shown)

Energy and Performance Data

Power and Lumens

Light Engine		PA16-20	PA16-30	PA16-40	PA16-50	PA16-60	PA16-70
Nominal Power (Watts)		22	29	40	53	62	72
Wattage Label		20	30	40	50	60	70
Current (A) @120V		0.18	0.24	0.34	0.44	0.52	0.60
Current (A) @277V		0.08	0.11	0.15	0.19	0.22	0.26
Current (A) @347V		0.06	0.08	0.12	0.15	0.18	0.21
Current (A) @480V		0.05	0.06	0.08	0.11	0.13	0.15
Optics							
T2R	4000K	2862	3704	4679	5890	6662	7399
	Lumens per Watt	131	127	116	111	107	103
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2
	3000K	2613	3382	4272	5378	6083	6755
	Lumens per Watt	120	116	106	101	98	94
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2
T2R-A	4000K	2705	3501	4422	5567	6297	6993
	Lumens per Watt	124	120	110	105	102	97
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G3
	3000K	2470	3197	4037	5083	5749	6385
	Lumens per Watt	113	109	100	96	93	89
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2
T2R-CL	4000K	2816	3645	4603	5795	6555	7280
	Lumens per Watt	129	125	115	109	106	101
	BUG Rating	B1 U2 G1	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2
	3000K	2571	3328	4203	5291	5985	6647
	Lumens per Watt	118	114	105	100	97	92
	BUG Rating	B1 U2 G1	B1 U2 G1	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2
T2R-FL	4000K	2649	3429	4330	5452	6166	6848
	Lumens per Watt	122	117	108	103	99	95
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2419	3131	3954	4978	5630	6252
	Lumens per Watt	111	107	98	94	91	87
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3
T2R-TL	4000K	2697	3491	4409	5550	6278	6972
	Lumens per Watt	124	120	110	105	101	97
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G3
	3000K	2462	3187	4026	5068	5732	6366
	Lumens per Watt	113	109	100	95	92	88
	BUG Rating	B1 U2 G1	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2
T2U	4000K	3003	3887	4909	6180	6991	7763
	Lumens per Watt	138	133	122	116	113	108
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2
	3000K	2742	3549	4482	5643	6383	7088
	Lumens per Watt	126	122	111	106	103	98
	BUG Rating	B1 U0 G1	B1 U0 G1	B2 U0 G2	B2 U0 G2	B2 U0 G2	B2 U0 G2

Light Engine		PA16-20	PA16-30	PA16-40	PA16-50	PA16-60	PA16-70
Nominal Power (Watts)		22	29	40	53	62	72
Wattage Label		20	30	40	50	60	70
Current (A) @120V		0.18	0.24	0.34	0.44	0.52	0.60
Current (A) @277V		0.08	0.11	0.15	0.19	0.22	0.26
Current (A) @347V		0.06	0.08	0.12	0.15	0.18	0.21
Current (A) @480V		0.05	0.06	0.08	0.11	0.13	0.15
Optics							
T2U-A	4000K	2844	3681	4649	5853	6620	7352
	Lumens per Watt	130	126	116	110	107	102
	BUG Rating	B1 U2 G1	B1 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
	3000K	2597	3361	4245	5344	6045	6713
	Lumens per Watt	119	115	106	101	98	93
	BUG Rating	B1 U2 G1	B1 U2 G1	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
T2U-CL	4000K	2955	3825	4831	6081	6879	7639
	Lumens per Watt	136	131	120	115	111	106
	BUG Rating	B1 U2 G1	B1 U2 G1	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
	3000K	2698	3492	4411	5553	6281	6975
	Lumens per Watt	124	120	110	105	101	97
	BUG Rating	B1 U2 G1	B1 U2 G1	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
T2U-FL	4000K	2784	3603	4551	5730	6481	7197
	Lumens per Watt	128	123	113	108	105	100
	BUG Rating	B1 U3 G2	B1 U3 G2	B2 U3 G2	B2 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2542	3290	4155	5231	5917	6571
	Lumens per Watt	117	113	103	99	95	91
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G3	B2 U3 G3	B2 U3 G3
T2U-TL	4000K	2854	3694	4666	5874	6644	7378
	Lumens per Watt	131	127	116	111	107	102
	BUG Rating	B1 U2 G1	B1 U3 G1	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
	3000K	2606	3373	4260	5363	6066	6736
	Lumens per Watt	120	116	106	101	98	94
	BUG Rating	B1 U2 G1	B1 U2 G1	B2 U3 G2	B2 U3 G2	B2 U3 G2	B2 U3 G2
T3	4000K	2908	3764	4754	5985	6769	7517
	Lumens per Watt	133	129	118	113	109	104
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B2 U0 G2
	3000K	2655	3437	4340	5464	6181	6864
	Lumens per Watt	122	118	108	103	100	95
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2
T3-A	4000K	2760	3572	4512	5680	6425	7135
	Lumens per Watt	127	122	112	107	104	99
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2520	3262	4120	5186	5866	6514
	Lumens per Watt	116	112	102	98	95	90
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3

Light Engine		PA16-20	PA16-30	PA16-40	PA16-50	PA16-60	PA16-70
Nominal Power (Watts)		22	29	40	53	62	72
Wattage Label		20	30	40	50	60	70
Current (A) @120V		0.18	0.24	0.34	0.44	0.52	0.60
Current (A) @277V		0.08	0.11	0.15	0.19	0.22	0.26
Current (A) @347V		0.06	0.08	0.12	0.15	0.18	0.21
Current (A) @480V		0.05	0.06	0.08	0.11	0.13	0.15
Optics							
T3-CL	4000K	2857	3698	4670	5880	6651	7386
	Lumens per Watt	131	127	116	111	107	103
	BUG Rating	B1 U2 G1	B1 U3 G1	B1 U3 G2	B1 U3 G2	B2 U3 G2	B2 U3 G2
	3000K	2609	3376	4264	5368	6072	6743
	Lumens per Watt	120	116	106	101	98	94
	BUG Rating	B1 U2 G1	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G2
T3-FL	4000K	2701	3496	4415	5559	6288	6982
	Lumens per Watt	124	120	110	105	101	97
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2466	3192	4032	5075	5741	6375
	Lumens per Watt	113	109	100	96	93	89
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3
T3-TL	4000K	2746	3554	4489	5651	6392	7099
	Lumens per Watt	126	122	112	106	103	99
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2507	3245	4099	5160	5836	6481
	Lumens per Watt	115	111	102	97	94	90
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3
T4W	4000K	2922	3782	4777	6014	6802	7554
	Lumens per Watt	134	130	119	113	110	105
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B2 U0 G2
	3000K	2668	3453	4361	5491	6211	6897
	Lumens per Watt	122	118	108	103	100	96
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2
T4W-A	4000K	2782	3601	4548	5725	6476	7192
	Lumens per Watt	128	123	113	108	104	100
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2540	3288	4152	5228	5913	6566
	Lumens per Watt	117	113	103	98	95	91
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3
T4W-CL	4000K	2879	3726	4706	5925	6702	7443
	Lumens per Watt	132	128	117	112	108	103
	BUG Rating	B1 U3 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G3	B2 U3 G3
	3000K	2629	3402	4297	5410	6119	6795
	Lumens per Watt	121	117	107	102	99	94
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G3

Light Engine		PA16-20	PA16-30	PA16-40	PA16-50	PA16-60	PA16-70
Nominal Power (Watts)		22	29	40	53	62	72
Wattage Label		20	30	40	50	60	70
Current (A) @120V		0.18	0.24	0.34	0.44	0.52	0.60
Current (A) @277V		0.08	0.11	0.15	0.19	0.22	0.26
Current (A) @347V		0.06	0.08	0.12	0.15	0.18	0.21
Current (A) @480V		0.05	0.06	0.08	0.11	0.13	0.15
Optics							
T4W-FL	4000K	2722	3523	4450	5602	6336	7037
	Lumens per Watt	125	121	111	105	102	98
	BUG Rating	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G4
	3000K	2485	3217	4063	5115	5785	6425
	Lumens per Watt	114	110	101	96	93	89
	BUG Rating	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3
T4W-TL	4000K	2766	3580	4522	5693	6439	7150
	Lumens per Watt	127	123	112	107	104	99
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2525	3269	4129	5198	5879	6529
	Lumens per Watt	116	112	103	98	95	91
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3
5WQ	4000K	3102	4015	5071	6384	7221	8019
	Lumens per Watt	142	138	126	120	116	111
	BUG Rating	B2 U0 G1	B3 U0 G1	B3 U0 G1	B3 U0 G2	B3 U0 G2	B3 U0 G2
	3000K	2832	3666	4630	5829	6593	7322
	Lumens per Watt	130	126	115	110	106	102
	BUG Rating	B2 U0 G1	B3 U0 G1	B3 U0 G1	B3 U0 G1	B3 U0 G2	B3 U0 G2
5WQ-A	4000K	2981	3858	4873	6135	6939	7706
	Lumens per Watt	137	132	121	116	112	107
	BUG Rating	B2 U3 G2	B2 U3 G2	B3 U3 G3	B3 U3 G3	B3 U3 G3	B3 U3 G3
	3000K	2722	3523	4449	5602	6336	7036
	Lumens per Watt	125	121	111	105	102	98
	BUG Rating	B2 U3 G2	B2 U3 G2	B3 U3 G2	B3 U3 G3	B3 U3 G3	B3 U3 G3
5WQ-CL	4000K	3070	3974	5019	6318	7147	7936
	Lumens per Watt	141	136	125	119	115	110
	BUG Rating	B2 U3 G1	B3 U3 G2	B3 U3 G2	B3 U3 G2	B3 U3 G2	B3 U3 G2
	3000K	2803	3628	4582	5769	6525	7246
	Lumens per Watt	129	124	114	109	105	101
	BUG Rating	B2 U3 G1	B3 U3 G1	B3 U3 G2	B3 U3 G2	B3 U3 G2	B3 U3 G2
5WQ-FL	4000K	2908	3764	4754	5985	6769	7517
	Lumens per Watt	133	129	118	113	109	104
	BUG Rating	B2 U3 G2	B2 U3 G2	B3 U3 G3	B3 U3 G3	B3 U3 G3	B3 U3 G3
	3000K	2655	3437	4340	5464	6181	6864
	Lumens per Watt	122	118	108	103	100	95
	BUG Rating	B2 U3 G2	B2 U3 G2	B2 U3 G3	B3 U3 G3	B3 U3 G3	B3 U3 G3

Light Engine		PA16-20	PA16-30	PA16-40	PA16-50	PA16-60	PA16-70
Nominal Power (Watts)		22	29	40	53	62	72
Wattage Label		20	30	40	50	60	70
Current (A) @120V		0.18	0.24	0.34	0.44	0.52	0.60
Current (A) @277V		0.08	0.11	0.15	0.19	0.22	0.26
Current (A) @347V		0.06	0.08	0.12	0.15	0.18	0.21
Current (A) @480V		0.05	0.06	0.08	0.11	0.13	0.15
Optics							
5WQ-TL	4000K	2970	3844	4855	6112	6914	7678
	Lumens per Watt	136	132	121	115	112	107
	BUG Rating	B2 U3 G2	B3 U3 G2	B3 U3 G2	B3 U3 G3	B3 U3 G3	B3 U3 G3
	3000K	2712	3510	4433	5581	6313	7010
	Lumens per Watt	124	120	110	105	102	97
	BUG Rating	B2 U3 G2	B2 U3 G2	B3 U3 G2	B3 U3 G3	B3 U3 G3	B3 U3 G3
SL3	4000K	2774	3590	4535	5709	6457	7171
	Lumens per Watt	127	123	113	108	104	100
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2
	3000K	2533	3278	4140	5213	5896	6548
	Lumens per Watt	116	112	103	98	95	91
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2
SL3-A	4000K	2646	3425	4326	5446	6159	6840
	Lumens per Watt	121	117	108	103	99	95
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3
	3000K	2416	3127	3949	4972	5624	6245
	Lumens per Watt	111	107	98	94	91	87
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3
SL3-CL	4000K	2731	3535	4465	5620	6357	7060
	Lumens per Watt	125	121	111	106	103	98
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3
	3000K	2494	3227	4076	5132	5805	6446
	Lumens per Watt	114	111	101	97	94	90
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3
SL3-FL	4000K	2583	3343	4223	5316	6013	6677
	Lumens per Watt	118	114	105	100	97	93
	BUG Rating	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3	B2 U3 G3
	3000K	2358	3053	3855	4854	5490	6097
	Lumens per Watt	108	105	96	91	89	85
	BUG Rating	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3
SL3-TL	4000K	2636	3412	4309	5425	6136	6814
	Lumens per Watt	121	117	107	102	99	95
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3
	3000K	2407	3115	3934	4953	5603	6222
	Lumens per Watt	110	107	98	93	90	86
	BUG Rating	B1 U2 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B1 U3 G3	B1 U3 G3

Light Engine		PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100
Nominal Power (Watts)		21	31	40	54	64	74	83	94	96
Wattage Label		20	30	40	50	60	70	80	90	100
Current (A) @120V		0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80
Current (A) @277V		--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35
Current (A) @347V		--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28
Current (A) @480V		--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21
Optics										
T2R	4000K	2747	3854	4990	6436	7436	8339	9115	9827	9952
	Lumens per Watt	131	124	125	119	116	113	110	105	104
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2
	3000K	2502	3510	4545	5861	6772	7595	8301	8950	9063
	Lumens per Watt	119	113	114	109	106	103	100	95	94
	BUG Rating	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G1	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2	B1 U0 G2
T2R-A	4000K	2546	3572	4625	5965	6891	7729	8448	9108	9223
	Lumens per Watt	121	115	116	110	108	104	102	97	96
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2319	3253	4212	5432	6276	7039	7694	8295	8400
	Lumens per Watt	110	105	105	101	98	95	93	88	88
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3
T2R-CL	4000K	2668	3743	4847	6252	7223	8100	8854	9546	9667
	Lumens per Watt	127	121	121	116	113	109	107	102	101
	BUG Rating	B1 U2 G1	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G2	B2 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2430	3409	4415	5693	6578	7377	8063	8694	8804
	Lumens per Watt	116	110	110	105	103	100	97	92	92
	BUG Rating	B1 U2 G1	B1 U2 G1	B1 U2 G2	B1 U3 G2	B1 U3 G2	B1 U3 G2	B2 U3 G2	B2 U3 G3	B2 U3 G3
T2R-FL	4000K	2484	3485	4512	5819	6723	7540	8242	8886	8998
	Lumens per Watt	118	112	113	108	105	102	99	95	94
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2262	3174	4109	5300	6123	6867	7506	8093	8195
	Lumens per Watt	108	102	103	98	96	93	90	86	85
	BUG Rating	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3
T2R-TL	4000K	2545	3570	4622	5961	6887	7724	8443	9103	9218
	Lumens per Watt	121	115	116	110	108	104	102	97	96
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3
	3000K	2317	3251	4210	5429	6272	7035	7689	8290	8395
	Lumens per Watt	110	105	105	101	98	95	93	88	87
	BUG Rating	B1 U2 G1	B1 U3 G2	B1 U3 G2	B1 U3 G2	B1 U3 G3	B1 U3 G3	B2 U3 G3	B2 U3 G3	B2 U3 G3

Light Engine		PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100
Nominal Power (Watts)		21	31	40	54	64	74	83	94	96
Wattage Label		20	30	40	50	60	70	80	90	100
Current (A) @120V		0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80
Current (A) @277V		--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35
Current (A) @347V		--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28
Current (A) @480V		--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21
Optics										
T2U	4000K	2,799	3,926	5,084	6,557	7,576	8,497	9,287	10,013	10,139
	Lumens per Watt	133	127	127	121	118	115	112	107	106
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
	3000K	2,549	3,576	4,630	5,972	6,899	7,738	8,458	9,119	9,234
	Lumens per Watt	121	115	116	111	108	105	102	97	96
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T2U-A	4000K	2,613	3,666	4,747	6,122	7,073	7,933	8,671	9,349	9,467
	Lumens per Watt	124	118	119	113	111	107	104	99	99
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
	3000K	2,380	3,339	4,323	5,576	6,442	7,225	7,897	8,514	8,622
	Lumens per Watt	113	108	108	103	101	98	95	91	90
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B3-U3-G3
T2U-CL	4000K	2,721	3,817	4,943	6,375	7,365	8,260	9,029	9,735	9,858
	Lumens per Watt	130	123	124	118	115	112	109	104	103
	BUG Rating	B1-U2-G1	B1-U2-G1	B2-U3-G2	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
	3000K	2,478	3,477	4,502	5,806	6,708	7,523	8,223	8,865	8,978
	Lumens per Watt	118	112	113	108	105	102	99	94	94
	BUG Rating	B1-U2-G1	B1-U2-G1	B2-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3
T2U-TL	4000K	2,604	3,653	4,730	6,100	7,048	7,905	8,640	9,315	9,433
	Lumens per Watt	124	118	118	113	110	107	104	99	98
	BUG Rating	B1-U2-G1	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,371	3,327	4,308	5,556	6,419	7,199	7,869	8,484	8,591
	Lumens per Watt	113	107	108	103	100	97	95	90	89
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T2U-FL	4000K	2,555	3,584	4,640	5,985	6,914	7,755	8,476	9,138	9,254
	Lumens per Watt	122	116	116	111	108	105	102	97	96
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,326	3,264	4,226	5,450	6,297	7,062	7,719	8,323	8,428
	Lumens per Watt	111	105	106	101	98	95	93	89	88
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T2U-HSS	4000K	2,037	2,858	3,701	4,773	5,514	6,185	6,760	7,288	7,380
	Lumens per Watt	97	92	93	88	86	84	81	78	77
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2
	3000K	1,855	2,603	3,371	4,347	5,022	5,632	6,156	6,638	6,721
	Lumens per Watt	88	84	84	81	78	76	74	71	70
	BUG Rating	B0-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2
SL3	4000K	2,772	3,888	5,035	6,494	7,502	8,414	9,197	9,916	10,041
	Lumens per Watt	132	125	126	120	117	114	111	105	105
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	3000K	2,524	3,541	4,586	5,914	6,833	7,663	8,376	9,030	9,145
	Lumens per Watt	120	114	115	110	107	104	101	96	95
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G3	B2-U0-G3

Light Engine		PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100
Nominal Power (Watts)		21	31	40	54	64	74	83	94	96
Wattage Label		20	30	40	50	60	70	80	90	100
Current (A) @120V		0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80
Current (A) @277V		--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35
Current (A) @347V		--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28
Current (A) @480V		--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21
Optics										
SL3-A	4000K	2,570	3,606	4,669	6,022	6,958	7,803	8,529	9,196	9,312
	Lumens per Watt	122	116	117	112	109	105	103	98	97
	BUG Rating	BUG Rating	BUG Rating	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
	3000K	2,341	3,284	4,253	5,484	6,336	7,106	7,767	8,375	8,480
	Lumens per Watt	111	106	106	102	99	96	94	89	88
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4
SL3-CL	4000K	2,640	3,704	4,796	6,185	7,146	8,014	8,760	9,445	9,564
	Lumens per Watt	126	119	120	115	112	108	106	100	100
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,404	3,373	4,368	5,633	6,508	7,299	7,978	8,601	8,710
	Lumens per Watt	114	109	109	104	102	99	96	91	91
	BUG Rating	B1-U2-G2	B1-U2-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
SL3-TL	4000K	2,563	3,596	4,656	6,005	6,938	7,781	8,505	9,170	9,286
	Lumens per Watt	122	116	116	111	108	105	102	98	97
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4
	3000K	2,334	3,275	4,241	5,469	6,318	7,086	7,746	8,351	8,456
	Lumens per Watt	111	106	106	101	99	96	93	89	88
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
SL3-FL	4000K	2,507	3,517	4,554	5,873	6,785	7,610	8,318	8,968	9,081
	Lumens per Watt	119	113	114	109	106	103	100	95	95
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	3000K	2,283	3,203	4,147	5,349	6,180	6,931	7,575	8,167	8,271
	Lumens per Watt	109	103	104	99	97	94	91	87	86
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
SL3-HSS	4000K	2,322	3,257	4,217	5,439	6,284	7,047	7,703	8,305	8,410
	Lumens per Watt	111	105	105	101	98	95	93	88	88
	BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	3000K	2,114	2,966	3,841	4,953	5,723	6,418	7,015	7,564	7,659
	Lumens per Watt	101	96	96	92	89	87	85	80	80
	BUG Rating	B0-U0-G1	B0-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
T3	4000K	2,800	3,927	5,086	6,559	7,578	8,498	9,289	10,015	10,142
	Lumens per Watt	133	127	127	121	118	115	112	107	106
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3
	3000K	2,550	3,577	4,631	5,973	6,901	7,740	8,460	9,121	9,236
	Lumens per Watt	121	115	116	111	108	105	102	97	96
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
T3-A	4000K	2,622	3,678	4,763	6,143	7,097	7,960	8,700	9,380	9,498
	Lumens per Watt	125	119	119	114	111	108	105	100	99
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4
	3000K	2,338	3,350	4,338	5,594	6,463	7,249	7,923	8,542	8,650
	Lumens per Watt	114	108	108	104	101	98	95	91	90
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3

Light Engine		PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100
Nominal Power (Watts)		21	31	40	54	64	74	83	94	96
Wattage Label		20	30	40	50	60	70	80	90	100
Current (A) @120V		0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80
Current (A) @277V		--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35
Current (A) @347V		--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28
Current (A) @480V		--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21
Optics										
T3-CL	4000K	2,719	3,814	4,939	6,370	7,359	8,253	9,021	9,726	9,849
	Lumens per Watt	129	123	123	118	115	112	109	103	103
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B2-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,476	3,473	4,498	5,801	6,702	7,516	8,216	8,858	8,970
	Lumens per Watt	118	112	112	107	105	102	99	94	93
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B1-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T3-TL	4000K	2,623	3,680	4,765	6,146	7,100	7,963	8,704	9,384	9,503
	Lumens per Watt	125	119	119	114	111	108	105	100	99
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4
	3000K	2,389	3,351	4,340	5,597	6,466	7,252	7,927	8,546	8,654
	Lumens per Watt	114	108	109	104	101	98	96	91	90
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
T3-FL	4000K	2,563	3,595	4,656	6,004	6,937	7,780	8,504	9,169	9,284
	Lumens per Watt	122	116	116	111	108	105	102	98	97
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	3000K	2,334	3,274	4,240	5,468	6,318	7,086	7,745	8,350	8,455
	Lumens per Watt	111	106	106	101	99	96	93	89	88
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
T3-HSS	4000K	2,121	2,975	3,853	4,969	5,740	6,438	7,037	7,587	7,683
	Lumens per Watt	101	96	96	92	90	87	85	81	80
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	3000K	1,931	2,710	3,509	4,525	5,228	5,863	6,409	6,910	6,997
	Lumens per Watt	92	87	88	84	82	79	77	74	73
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
T4W	4000K	2,779	3,899	5,048	6,511	7,522	8,436	9,221	9,942	10,067
	Lumens per Watt	132	126	126	121	118	114	111	106	105
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
	3000K	2,531	3,550	4,598	5,929	6,850	7,683	8,398	9,054	9,168
	Lumens per Watt	121	115	115	110	107	104	101	96	95
	BUG Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
T4W-A	4000K	2,619	3,674	4,757	6,135	7,088	7,949	8,689	9,368	9,486
	Lumens per Watt	125	119	119	114	111	107	105	100	99
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	3000K	2,385	3,346	4,332	5,587	6,455	7,240	7,913	8,532	8,639
	Lumens per Watt	114	108	108	103	101	98	95	91	90
	BUG Rating	B1-U3-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
T4W-CL	4000K	2,712	3,804	4,926	6,353	7,340	8,232	8,998	9,701	9,824
	Lumens per Watt	129	123	123	118	115	111	108	103	102
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G2	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3
	3000K	2,470	3,465	4,486	5,786	6,685	7,497	8,195	8,835	8,947
	Lumens per Watt	118	112	112	107	104	101	99	94	93
	BUG Rating	B1-U2-G1	B1-U3-G2	B1-U3-G2	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G3

Power and Lumens

Light Engine		PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100
Nominal Power (Watts)		21	31	40	54	64	74	83	94	96
Wattage Label		20	30	40	50	60	70	80	90	100
Current (A) @120V		0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80
Current (A) @277V		--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35
Current (A) @347V		--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28
Current (A) @480V		--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21
Optics										
T4W-TL	4000K	2,595	3,640	4,714	6,079	7,024	7,877	8,610	9,283	9,400
	Lumens per Watt	124	117	118	113	110	106	104	99	98
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
	3000K	2,363	3,315	4,293	5,537	6,397	7,174	7,841	8,454	8,561
	Lumens per Watt	113	107	107	103	100	97	94	90	89
	BUG Rating	B1-U2-G2	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4
T4W-FL	4000K	2,540	3,563	4,614	5,950	6,874	7,710	8,427	9,086	9,200
	Lumens per Watt	121	115	115	110	107	104	102	97	96
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B2-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G5	B2-U3-G5
	3000K	2,313	3,245	4,202	5,419	6,261	7,021	7,675	8,274	8,379
	Lumens per Watt	110	105	105	100	98	95	92	88	87
	BUG Rating	B1-U3-G2	B1-U3-G3	B1-U3-G3	B1-U3-G3	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4	B2-U3-G4
T4W-HSS	4000K	2,081	2,919	3,780	4,875	5,633	6,317	6,905	7,445	7,539
	Lumens per Watt	99	94	94	90	88	85	83	79	79
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
	3000K	1,895	2,659	3,443	4,440	5,130	5,753	6,288	6,780	6,866
	Lumens per Watt	90	86	86	82	80	78	76	72	72
	BUG Rating	B0-U0-G1	B0-U0-G1	B0-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G2
5WQ	4000K	2,936	4,118	5,333	6,878	7,946	8,912	9,741	10,502	10,635
	Lumens per Watt	140	133	133	127	124	120	117	112	111
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
	3000K	2,674	3,751	4,857	6,264	7,237	8,116	8,871	9,565	9,685
	Lumens per Watt	127	121	121	116	113	110	107	102	101
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5WQ-A	4000K	2,765	3,879	5,023	6,478	7,485	8,394	9,175	9,892	10,017
	Lumens per Watt	132	125	126	120	117	113	111	105	104
	BUG Rating	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G4	B4-U3-G4
	3000K	2,518	3,533	4,575	5,900	6,816	7,645	8,356	9,009	9,123
	Lumens per Watt	120	114	114	109	106	103	101	96	95
	BUG Rating	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3
5WQ-CL	4000K	2,845	3,991	5,168	6,665	7,701	8,637	9,440	10,178	10,306
	Lumens per Watt	135	129	129	123	120	117	114	108	107
	BUG Rating	B2-U3-G1	B3-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3	B4-U3-G3
	3000K	2,591	3,635	4,707	6,070	7,013	7,865	8,597	9,269	9,386
	Lumens per Watt	123	117	118	112	110	106	104	99	98
	BUG Rating	B2-U2-G1	B3-U3-G2	B3-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3
5WQ-TL	4000K	2,753	3,863	5,002	6,451	7,453	8,358	9,136	9,850	9,974
	Lumens per Watt	131	125	125	119	116	113	110	105	104
	BUG Rating	B2-U3-G2	B3-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B4-U3-G3	B4-U3-G3
	3000K	2,508	3,518	4,555	5,875	6,787	7,612	8,320	8,971	9,084
	Lumens per Watt	119	11	114	109	106	103	100	95	95
	BUG Rating	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3

Power and Lumens

Light Engine	PA1-20	PA1-30	PA1-40	PA1-50	PA1-60	PA1-70	PA1-80	PA1-90	PA1-100	
Nominal Power (Watts)	21	31	40	54	64	74	83	94	96	
Wattage Label	20	30	40	50	60	70	80	90	100	
Current (A) @120V	0.18	0.26	0.34	0.45	0.53	0.62	0.70	0.78	0.80	
Current (A) @277V	--	0.12	0.15	0.21	0.24	0.28	0.31	0.35	0.35	
Current (A) @347V	--	0.10	0.13	0.16	0.19	0.22	0.24	0.28	0.28	
Current (A) @480V	--	0.07	0.09	0.13	0.14	0.17	0.18	0.21	0.21	
Optics										
5WQ-FL	4000K	2,703	3,792	4,910	6,333	7,316	8,206	8,969	9,670	9,792
	Lumens per Watt	129	122	123	117	114	111	108	103	102
	BUG Rating	B2-U3-G2	B2-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G4	B3-U4-G4	B3-U4-G4
	3000K	2,462	3,453	4,472	5,767	6,663	7,473	8,168	8,807	8,918
	Lumens per Watt	117	111	112	107	104	101	98	94	93
	BUG Rating	B2-U3-G2	B2-U3-G2	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G3	B3-U3-G4	B3-U3-G4

Lumen Maintenance

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
PA1	Up to 40°C	> 98%	> 800,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
10°C	1.02
15°C	1.01
25°C	1.00
40°C	0.99
50°C	0.96

 [View LXF/LXT IES files](#)

FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	46%
3	55%
4	62%
5	72%
6	77%
7	82%
8	85%
9	90%
10	100%

Note: +/-5% typical value



EPTT Town & Country LED Post Top

The Evolve® LED Post Top Town & Country (EPTT) offers energy efficiency and quality of light in a classic look and style. The advanced LED optical system provides improved horizontal and vertical uniformity, reduced glare and improved lighting control.

Construction

Housing:	Die-cast aluminum housing with traditional lantern design. Cupola compatible with C136.41-2010 PE's, Shorting Caps and LightGrid Nodes
Refractors:	Acrylic, Polycarbonate, None/Open
Lens:	Impact resistant UV resistant polymer
Paint:	Corrosion resistant polyester powder paint, minimum 2.0 mil thickness Standard = Black, Dark Bronze RAL & custom colors available
Weight:	14 - 18 lbs (6.2 - 8 kg)

Optical System

Lumens:	2,070-7,970
Distribution:	Symmetric Asymmetric
Efficacy:	72-130
CCT:	2700K, 3000K, 4000K, 5000K
CRI (Min):	≥70

Electrical

Input Voltage:	120-277V
Input Frequency:	50/60Hz
Power Factor:	≥ 90% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection*

STANDARD	OPTIONAL
10kV/5kA	Secondary 10kV/5kA (R Option)

*Per ANSI C136.2-2015

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

DISTRIBUTION	LXX(10K) @ HOURS		
	25,000 HR	50,000 HR	60,000 HR
02, 03	L99	L99	L98
04, 05, 06, 07	L96	L91	L89

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Ambient Temperature Factor

AMBIENT TEMP (°C)	INITIAL FLUX FACTOR	AMBIENT TEMP (°C)	INITIAL FLUX FACTOR
10	1.02	30	0.99
20	1.01	40	0.98
25	1.00	50	0.97

Ratings

Operating Temperature:	-40°C to 50°C (Optical Code 02-06) -40°C to 40°C (Optical Code 07)
Vibration:	3G per ANSI C136.31-2010
LM-79:	Testing in accordance with IES Standards

Controls

Dimming:	Standard - 0-10V Optional - DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ Compatible

Warranty

5 Year (Standard)

10 Year (Optional)



Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

Ordering Information

EPTT 02

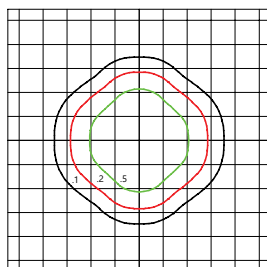
PROD. ID	GEN	VOLTAGE	LUMENS	DISTRIBUTION	REFRACTOR	CCT	CONTROLS PER ANSI C136.41	MOUNTING	COLOR	OPTIONS
E = Evolve	02	0 = 120-277V	02 = 2000 lm	A = Symmetric	A = Acrylic	27 = 2700K ¹	A = ANSI C136.41 7-Pin PE Receptacle ²	P = Pole Mounted	BLCK = Black	L = Tool-Less Entry
P = Post Top			03 = 3000 lm	B = Asymmetric	P = Polycarbonate	30 = 3000K ¹	D = ANSI C136.41 7-Pin PE Receptacle w/ Shorting Cap		DKBZ = Dark Bronze	P06 = Prewire with 6 ft of 14/3 Cable
TT = Town & Country Traditional			04 = 4000 lm		N = None ¹	40 = 4000K	E = ANSI C136.41 7-Pin PE Receptacle w/ non Dimming PE			R = Secondary 10kV/5kA
			05 = 5000 lm			50 = 5000K				U = DALI Programmable ²
			06 = 6000 lm							Y = Coastal Finish ³
			07 = 7000 lm							XXX = Special Options

¹ Select for IDA Approved Units
² Compatible with LightGrid+™ Nodes
³ Recommended for installations within 750 feet of coast. Lead time varies, check with factory.

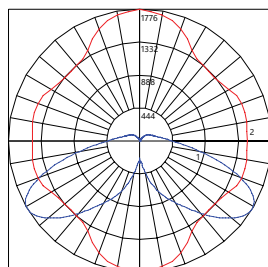
LUMEN OUTPUT	DIST. CODE	DESCRIPTION	REFRACTOR CODE	TYPICAL INITIAL LUMENS			WATTAGE	BUG RATINGS		
				2700K	3000K	4000K/5000K		2700K	3000K	4000K/5000K
02	A	Symmetric	A	2600	2810	2930	25	B1-U3-G2	B1-U3-G2	B1-U3-G2
03	A	Symmetric	A	3070	3310	3450	29	B2-U3-G2	B2-U3-G2	B2-U3-G2
04	A	Symmetric	A	4230	4560	4760	41	B2-U3-G2	B2-U3-G2	B2-U3-G2
05	A	Symmetric	A	5150	5560	5790	50	B2-U3-G3	B2-U3-G3	B2-U4-G3
06	A	Symmetric	A	5710	6160	6410	56	B2-U4-G3	B2-U4-G3	B3-U4-G3
07	A	Symmetric	A	6960	7500	7820	72	B3-U4-G3	B3-U4-G3	B3-U4-G3
02	B	Asymmetric	A	2430	2630	2730	25	B1-U3-G2	B1-U3-G2	B1-U3-G2
03	B	Asymmetric	A	2870	3100	3220	29	B1-U3-G2	B1-U3-G2	B1-U3-G2
04	B	Asymmetric	A	3950	4270	4440	41	B1-U3-G3	B1-U3-G3	B1-U3-G3
05	B	Asymmetric	A	4810	5190	5410	50	B1-U4-G3	B2-U4-G3	B2-U4-G3
06	B	Asymmetric	A	5330	5750	5990	56	B2-U4-G3	B2-U4-G3	B2-U4-G3
07	B	Asymmetric	A	6500	7010	7300	72	B2-U4-G3	B2-U4-G3	B2-U4-G3
02	A	Symmetric	P	2070	2230	2330	25	B1-U3-G1	B1-U3-G1	B1-U3-G1
03	A	Symmetric	P	2440	2630	2740	29	B1-U3-G1	B1-U3-G2	B1-U3-G2
04	A	Symmetric	P	3370	3630	3780	41	B2-U3-G2	B2-U3-G2	B2-U3-G2
05	A	Symmetric	P	4100	4420	4600	50	B2-U3-G2	B2-U4-G2	B2-U4-G2
06	A	Symmetric	P	4540	4900	5100	56	B2-U4-G2	B2-U4-G2	B2-U4-G2
07	A	Symmetric	P	5530	5970	6220	72	B2-U4-G3	B2-U4-G3	B3-U4-G3
02	B	Asymmetric	P	1930	2090	2170	25	B1-U3-G2	B1-U3-G1	B1-U3-G2
03	B	Asymmetric	P	2280	2460	2560	29	B1-U3-G2	B1-U3-G2	B1-U3-G2
04	B	Asymmetric	P	3140	3390	3530	41	B1-U3-G2	B1-U3-G2	B1-U3-G2
05	B	Asymmetric	P	3830	4130	4300	50	B1-U3-G2	B1-U4-G3	B1-U4-G3
06	B	Asymmetric	P	4240	4580	4770	56	B1-U4-G3	B1-U4-G3	B2-U4-G3
07	B	Asymmetric	P	5170	5580	5810	72	B2-U4-G3	B2-U4-G3	B2-U4-G3
02	A	Symmetric	N	2840	3070	3190	25	B2-U0-G1	B2-U0-G1	B2-U0-G1
03	A	Symmetric	N	3350	3620	3770	29	B2-U0-G1	B2-U0-G1	B2-U0-G1
04	A	Symmetric	N	4620	4980	5190	41	B2-U0-G1	B3-U0-G1	B3-U0-G1
05	A	Symmetric	N	5620	6070	6320	50	B3-U0-G1	B3-U0-G1	B3-U0-G1
06	A	Symmetric	N	6230	6720	7000	56	B3-U0-G1	B3-U0-G1	B3-U0-G1
07	A	Symmetric	N	7590	8190	8530	72	B3-U0-G1	B3-U0-G1	B3-U0-G1
02	B	Asymmetric	N	2660	2870	2980	25	B1-U0-G1	B1-U0-G1	B1-U0-G1
03	B	Asymmetric	N	3130	3380	3520	29	B1-U0-G1	B1-U0-G1	B1-U0-G1
04	B	Asymmetric	N	4320	4660	4850	41	B1-U0-G1	B1-U0-G1	B1-U0-G2
05	B	Asymmetric	N	5250	5670	5900	50	B1-U0-G2	B1-U0-G2	B1-U0-G2
06	B	Asymmetric	N	5820	6280	6540	56	B1-U0-G2	B1-U0-G2	B2-U0-G2
07	B	Asymmetric	N	7090	7650	7970	72	B2-U0-G2	B2-U0-G2	B2-U0-G2

For additional information on EPTT IES files, please refer to LED.com

EPTT
Symmetric (Acrylic Refractor)
7,820 Lumens
5,000K
EPTT02_07AA50_-120-277V.IES

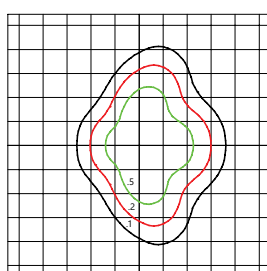


- Grid Distance in Units of Mounting Height at 16'
- Initial Footcandle Values at Grade

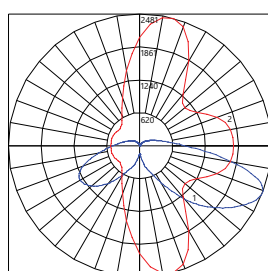


- Vertical plane through horizontal angle of Max. Cd at 90°
- Horizontal cone through vertical angle of Max. Cd at 58°

EPTT
Asymmetric (Acrylic Refractor)
7,300 Lumens
5,000K
EPTT02_07BA50_-120-277V.IES

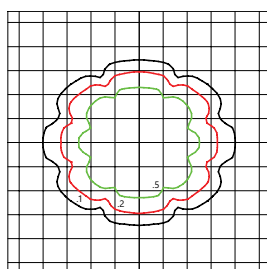


- Grid Distance in Units of Mounting Height at 16'
- Initial Footcandle Values at Grade

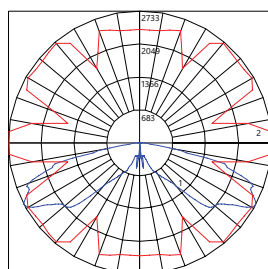


- Vertical plane through horizontal angle of Max. Cd at 75°
- Horizontal cone through vertical angle of Max. Cd at 69°

EPTT
Symmetric (No Refractor)
8,530 Lumens
5,000K
EPTT02_07AN50_-120-277V.IES

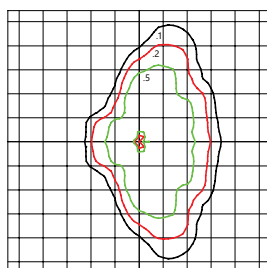


- Grid Distance in Units of Mounting Height at 16'

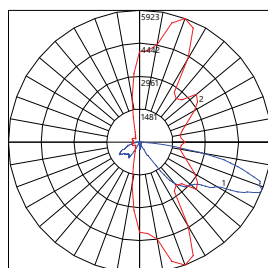


- Vertical plane through horizontal angle of Max. Cd at 5°
- Horizontal cone through vertical angle of Max. Cd at 62°

EPTT
Asymmetric (No Refractor)
7,970 Lumens
5,000K
EPTT02_07BN50_-120-277V.IES

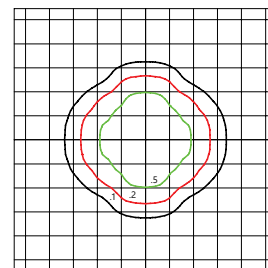


- Grid Distance in Units of Mounting Height at 16'

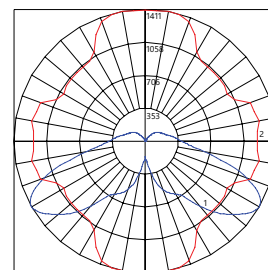


- Vertical plane through horizontal angle of Max. Cd at 70°
- Horizontal cone through vertical angle of Max. Cd at 62°

EPTT
Symmetric (Poly Refractor)
6,220 Lumens
5,000K
EPTT02_07AP50_-120-277V.IES

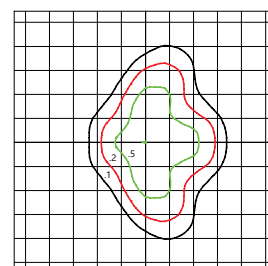


- Grid Distance in Units of Mounting Height at 16'
- Initial Footcandle Values at Grade

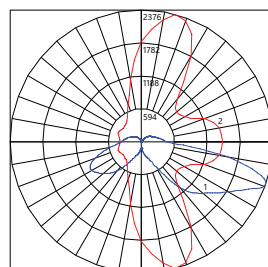


- Vertical plane through horizontal angle of Max. Cd at 80°
- Horizontal cone through vertical angle of Max. Cd at 60°

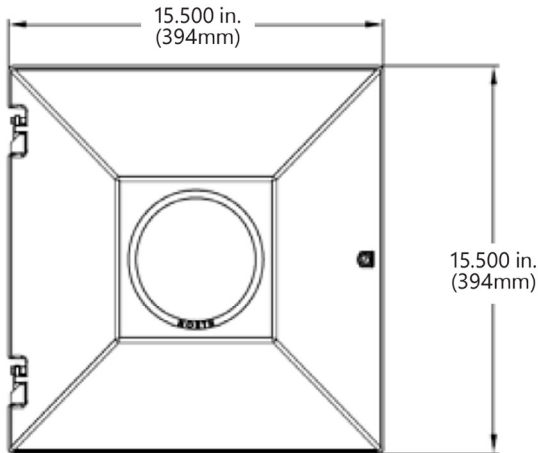
EPTT
Asymmetric (Poly Refractor)
8,810 Lumens
5,000K
EPTT02_07BP50_-120-277V.IES



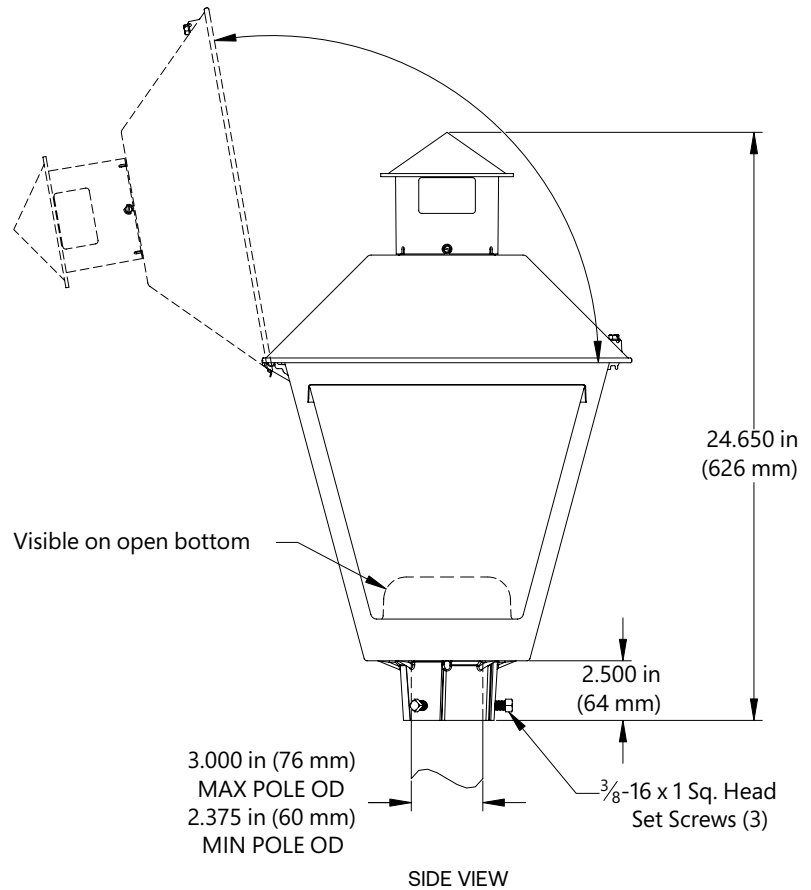
- Grid Distance in Units of Mounting Height at 16'
- Initial Footcandle Values at Grade



- Vertical plane through horizontal angle of Max. Cd at 75°
- Horizontal cone through vertical angle of Max. Cd at 71°



TOP VIEW



SIDE VIEW

Mounting

- Mounts to 2-3/8 to 3-inch (60-76mm) OD vertical tenon
- Suggested Mounting Height = 8-18 ft. (2.5 - 5.5M)

Effective Projected Area

- 1.6 sq. ft. max (0.15 sq M max)

Weight

- 14 lbs (6.2 kgs) - 18 lbs (8 kgs)

EPTT House Side Shields

PART NUMBER	DESCRIPTION
LSPX-TT	Perforated Shield for Open Sided or Refractor Designs
LSSX-TT	Solid "Black" Shield for Open Sided or Refractor Designs

Network Lighting Controls



Current's LightGrid+™ Outdoor Lighting Control System is designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.



ERL1 Cobra Head LED Roadway Lighting

The Evolve® LED Roadway ERL1 Luminaire is optimized utilizing advanced LED reflective optical system for local, collector and major roadways. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life.

Construction

Housing:	Aluminum die cast enclosure casting integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
	Corrosion resistant powder paint, ≥ 2.0 mil thickness
Paint:	(RAL & custom colors available) Standard = Black, Dark Bronze, Gray, White Optional = Coastal Finish
Weight:	12.4 lbs (5.6 kgs)

Optical System

Lumens:	2,000 - 15,700
Distribution:	Type II ,III, IV, Type II Narrow and Type II Enhanced Backlight
Efficacy:	111-140 LPW
CCT:	2700K, 3000K, 4000K and 5000K
CRI:	≥70

Electrical

Input Voltage:	120-277V or 347-480V
Input Frequency:	50/60Hz
Power Factor:	≥ 90% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection*

STANDARD	OPTIONAL
10kV/5kA	Secondary 10kV/5kA (R Option) or Secondary 20kV/10kA (T Option)

*Per ANSI C136.2-2018

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	DISTRIBUTIONS	LXX(10K) @ HOURS		
		25,000 HR	50,000 HR	60,000 HR
02,03,04,05,06	A5, B5, C5, D5, E5	L96	L94	L93
07,08	A5, B5, C5, D5, E5	L99	L98	L98
09	A5, B5, C5, D5, E5	L98	L97	L96
10	A5, B5, C5, D5, E5	L94	L87	L84
11	A5, B5, C5, D5, E5	L93	L85	L82
12	A5, B5, C5, D5, E5	L96	L95	L94
13	A5, B5, C5, D5, E5	L96	L94	L93
14	A5, B5, C5, D5, E5	L95	L92	L91
15	A5, B5, C5, D5, E5	L93	L88	L86
16	A5, B5, C5, D5, E5	L91	L85	L83

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Ratings

Operating Temp:	-40°C to 50°C
Vibration:	3G per ANSI C136.31-2018
LM-79:	Testing in accordance with IES Standards
EMI:	Title 47 CFR Part 15 Class A
RoHS:	Complies with the material restrictions of RoHS

Controls

Dimming:	Standard-0-10V Optional-DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ Compatible

Warranty

5 Year (Standard)

10 Year (Optional)



Ordering Information

ERL1

PROD. ID	VOLTAGE	LUMENS	DISTRIBUTION³	CCT	CONTROLS PER ANSI C136.41	COLOR	OPTIONS
E = Evolve	0 = 120-277V ^{1,2}	02 = 2000 lm²	A5 = Type II Narrow	27 = 2700K⁴	A = 7-Pin Receptacle	GRAY = Gray	A = 4 Bolt Slipfitter⁵
R = Roadway	H = 347-480V¹	03 = 3000 lm	B5 = Type II	30 = 3000K⁴	D = 7-Pin Receptacle with Shorting Cap	BLCK = Black	B = Tethers C1 = Captive Door
L = Local	1 = 120V	04 = 4000 lm	C5 = Type III	40 = 4000K	E = 7-Pin Receptacle with non-dimming Long Life PE	DKBZ = Dark Bronze	F = Fusing
1 = Single Module	2 = 208V	05 = 5000 lm	D5 = Type IV	50 = 5000K	Note: 0-10V standard	WHITE = White	G = Internal Bubble Level
	3 = 240V	06 = 6000 lm	E5 = Type II Enhanced Back Light	I = Optional IP66 Optical Enclosure			
	4 = 277V	07 = 7000 lm		L = Tool-Less Entry			
	8 = 120-240V¹¹	08 = 8000 lm		R = Enhanced Surge Protection (10kV/5kA)			
	5 = 480V	09 = 9000 lm		T = Secondary 20kV/10kA SPD			
	D = 347V	10 = 10000 lm		U = DALI Programmable ^{6,7}			
		11 = 11000 lm		V1 = Field Adjustable Module ^{10, 12}			
		12 = 12000 lm		X = Single Pack⁸			
		13 = 13000 lm		Y = Coastal Finish⁹			
		14 = 14000 lm		XXX = Special Options			
		15 = 15000 lm					
		16 = 16000 lm					

¹ Fusing requires discrete voltage.

² 02 Lumen Level, Voltage options 1, 2, 3 and 8 only

³ Nominal IES Type and classing subject to typical variation, individual units may differ

⁴ Select 2700K or 3000K CCT for IES approved units

⁵ Lead time varies, contact Factory

⁶ Compatible with LightGrid+™

⁷ Not available in 347V, 480V or 347-480V for Lumen Output Levels 08-16

⁸ Option provides single pack box per fixture. Standard packaging = 23 units per MagnaPak Container

⁹ Recommended for installations within 750 feet from coast. Lead time varies, check with factory.

¹⁰ Not available with DALI "U" option

¹¹ Only available with 02 Lumen Code

¹² Not compatible with 02 Lumen Code

Suggested HID Replacement

Approximately 2,000-3,000 lumens to replace 50W-70W HPS Cobra-head

Approximately 4,000-5,000 lumens to replace 100W HPS Cobra-head

Approximately 7,000-9,000 lumens to replace 150W HPS Cobra-head

Approximately 9,000-12,000 lumens to replace 200W HPS Cobra-head

Approximately 12,000-16,000 lumens to replace 250W HPS Cobra-head

Note: actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.

LUMEN OUTPUT	DIST.	TYPICAL INITIAL LUMENS			WATTAGE		BUG RATINGS		
		5000K/ 4000K	3000K	2700K	120V 277V	347V 480V	5000K/4000K	3000K	2700K
02	A5	2000	1900	1900	15*	N/A	B1-U0-G1	B1-U0-G1	B1-U0-G1
	B5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	C5						B1-U0-G1	B0-U0-G1	B0-U0-G1
	D5						B0-U0-G1	B0-U0-G1	B0-U0-G1
	E5						B1-U0-G1	B1-U0-G1	B1-U0-G1
03	A5	3000	2900	2800	22	26	B1-U0-G1	B1-U0-G1	B1-U0-G1
	B5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	C5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	D5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	E5						B1-U0-G1	B1-U0-G1	B1-U0-G1
04	A5	4000	3900	3800	29	33	B1-U0-G1	B1-U0-G1	B1-U0-G1
	B5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	C5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	D5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	E5						B1-U0-G1	B1-U0-G1	B1-U0-G1
05	A5	5000	4900	4700	37	39	B1-U0-G1	B1-U0-G1	B1-U0-G1
	B5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	C5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	D5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	E5						B2-U0-G2	B1-U0-G1	B1-U0-G1
06	A5	6000	5800	5700	46	49	B2-U0-G2	B2-U0-G2	B2-U0-G2
	B5						B1-U0-G1	B1-U0-G1	B1-U0-G1
	C5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	D5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	E5						B2-U0-G2	B2-U0-G2	B2-U0-G2
07	A5	7000	6700	6200	50	51	B2-U0-G2	B2-U0-G2	B2-U0-G2
	B5						B1-U0-G2	B1-U0-G2	B1-U0-G1
	C5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	D5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	E5						B2-U0-G2	B2-U0-G2	B2-U0-G2
08	A5	8000	7600	7100	59		B2-U0-G2	B2-U0-G2	B2-U0-G2
	B5						B2-U0-G2	B2-U0-G2	B1-U0-G2
	C5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	D5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	E5						B2-U0-G2	B2-U0-G2	B2-U0-G2
09	A5	9000	8600	8000	68		B2-U0-G2	B2-U0-G2	B2-U0-G2
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	D5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	E5						B2-U0-G2	B2-U0-G2	B2-U0-G2

NOTE: * 120-240V only

For additional information on ERL1 IES files, please click one of the following links:

Shielded

LUMEN OUTPUT	DIST.	TYPICAL INITIAL LUMENS			WATTAGE		BUG RATINGS		
		5000K/ 4000K	3000K	2700K	120V 277V	347V 480V	5000K/4000K	3000K	2700K
10	A5	10000	9600	8900	76		B2-U0-G2	B2-U0-G2	B2-U0-G2
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G2	B2-U0-G2	B1-U0-G2
	D5						B1-U0-G2	B1-U0-G2	B1-U0-G2
	E5						B3-U0-G3	B2-U0-G2	B2-U0-G2
11	A5	11000	10500	9700	87		B3-U0-G3	B3-U0-G3	B2-U0-G2
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	D5						B2-U0-G2	B2-U0-G2	B1-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
12	A5	12000	11500	11100	93		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	D5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
13	A5	13000	12400	12000	102		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G3	B2-U0-G2	B2-U0-G2
	D5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
14	A5	14000	13400	13000	110		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	D5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
15	A5	15000	14400	13900	121		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B2-U0-G2	B2-U0-G2
	C5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	D5						B2-U0-G2	B2-U0-G2	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
16	A5	15700	15000	14600	129		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B2-U0-G2
	C5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3

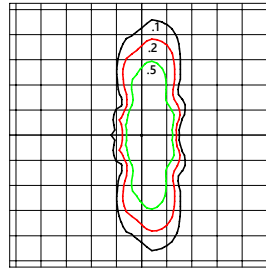
For additional information on ERL1 IES files, please click one of the following links:

Non-Shielded

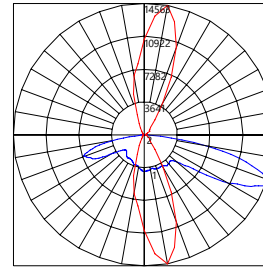
Shielded

ERL1
Type II Narrow

15700 Lumens
5000K
ERL1_16A550___IES



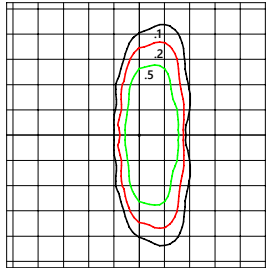
- Mounting Height at 30'
- Initial Footcandle at Grade



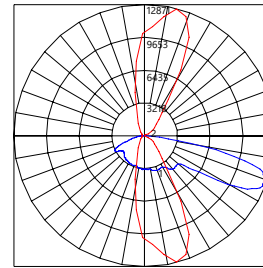
- Vertical plane at max Cd horiz. angle 80°
- Horizontal cone at max Cd vert. angle 68°

ERL1
Type II Wide

15700 Lumens
5000K
ERL1_16B550___IES



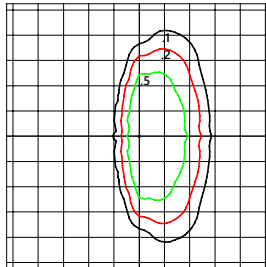
- Mounting Height at 30'
- Initial Footcandle at Grade



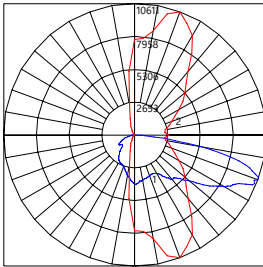
- Vertical plane at max Cd horiz angle 75°
- Horizontal cone at max Cd vert. angle 70°

ERL1
Type III

15700 Lumens
5000K
ERL1_16C550___IES



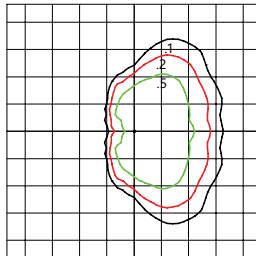
- Mounting Height at 30'
- Initial Footcandle at Grade



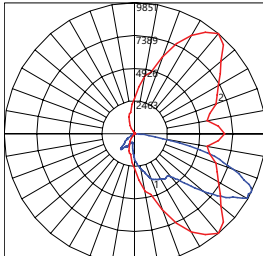
- Vertical plane at max Cd horiz angle 70°
- Horizontal cone at max Cd vert. angle 70°

ERL1
Type IV Short

15700 Lumens
5000K
ERL1_16D550___IES



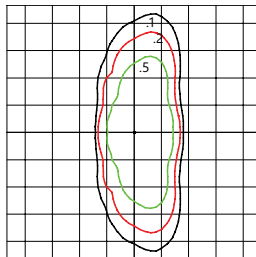
- Mounting Height at 40'
- Initial Footcandle at Grade



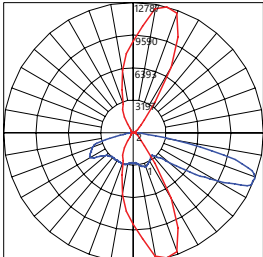
- Vertical plane at max Cd horiz angle 50°
- Horizontal cone at max Cd vert. angle 63°

ERL1
Type II Medium

15700 Lumens
5000K
ERL1_16E550___IES

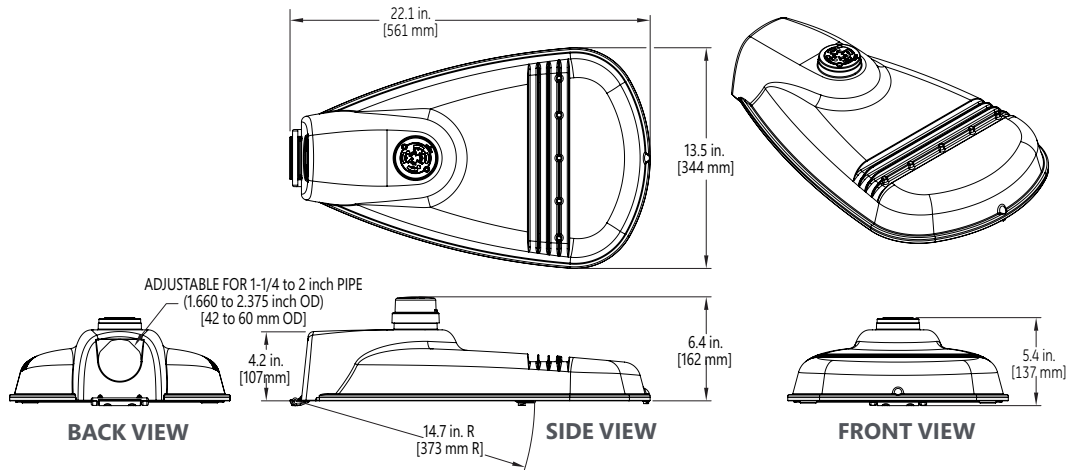


- Mounting Height at 40'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz angle 75°
- Horizontal cone at max Cd vert. angle 69°

ISO illuminate diagrams and polar plots are representative of the SKUs illustrated. Refer to IES files for SKU specific information.



Mounting

- Adjustable for 1.25 to 2 in. nominal mounting pipe (1.660 to 2.375 inch OD)
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

Effective Projected Area

- 0.5 sq ft max (0.046 sq m)

Weight

- 12.4 lbs (5.6 kgs)

Accessories

SAP Number	Part Number	Description
93029237G	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238G	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239G	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V
28299	PEC0TL	Long Life PE 120-277V
93147530	PECHTL	Long Life PE 347-480V
73251	SCCL-PECTL	Shorting Cap

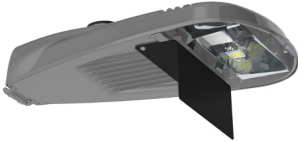
Network Lighting Controls



Current's **LightGrid+**™ Outdoor Lighting Control System is designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.

HOUSE SIDE SHIELDS

ERL1 Shields

Product Code:	93024487G	Description:	ELSHS-ERL1-BLCK
Product Code:	93046386G	Description:	ELSHS-ERL1-GRAY
Product Code:	93068998	Description:	ELSHS-ERL1-DKBZ
			

STREET SIDE SHIELDS

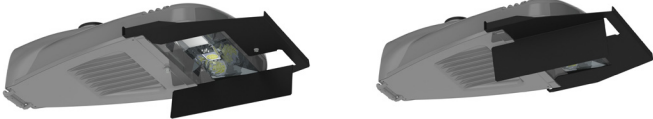
ERL1 Shields

Product Code:	93092595	Description:	ELSFS-ERL1-BLCK-10
Product Code:	93108740G	Description:	ELSFS-ERL1-GRAY-10
Product Code:	93092906	Description:	ELSFS-ERL1-BLCK-15
Product Code:	93105144G	Description:	ELSFS-ERL1-GRAY-15
Product Code:	93088130	Description:	ELSFS-ERL1-BLCK-20
Product Code:	93088131G	Description:	ELSFS-ERL1-GRAY-20
			

SIDE SHIELDS (L&R)

Shipped as a kit - L & R can be used independently

ERL1 SHIELDS

Product Code:	93118695G	Description:	ELS-ERL1H-LEFTRIGHTSIDEKIT-BLCK-10
			

FOOTNOTES:

- 1) 10 = 1" Shield Depth; 15 = 1.5" Shield Depth; 20 = 2" Shield Depth
- 2) Black is recommended to reduce potential for glare coming off of the shield
- 3) Use "House Side" Shield to block light trespass behind the pole
- 4) Use "Street Side" / Front Shield to block light trespass across the street

Evolve®



CUSTOMER NAME _____ Case No. 2025-00114
Attachment to Response to METRO Question No. 11
PROJECT NAME _____
DATE _____ TYPE _____ Page 111 of 127
CATALOG NUMBER _____ Waldrab

ERL2 Cobra Head LED Roadway Lighting

The Evolve® LED Roadway ERL2 Luminaire is optimized utilizing advanced LED reflective optical system for local, collector and major roadways. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life.

Construction

Housing:	Aluminum die cast enclosure. Casting Integral heat sink for maximum heat transfer
Lens:	Impact resistant tempered glass
	Corrosion resistant polyester powder painted, minimum 2.0 mil thickness
Paint:	(RAL & custom colors available) Standard = Black, Dark Bronze Gray, White Optional = Coastal Finish
Weight:	24.0 lbs (10.9 kgs)

Optical System

Lumens:	16,000 - 32,000
Distribution:	Type II Narrow, Type II Wide, Type III, Type IV and Type II Enhanced Back light
Efficacy:	112-140 LPW
CCT:	2700K, 3000K, 4000K, 5000K
CRI (Min):	70 CRI

Electrical

Input Voltage:	120-277V or 347-480V
Input Frequency:	50/60Hz
Power Factor:	≥ 90% at rated watts
Total Harmonic Distortion:	≤ 20% at rated watts

Surge Protection*

STANDARD	OPTIONAL
10kV/5kA	Secondary 10kV/5kA (R Option) or Secondary 20kV/10kA (T Option)

*Per ANSI C136.2-2018

Lumen Maintenance

Projected Lxx per IES TM-21-11 at 25°C

LUMEN CODES	DISTRIBUTIONS	LXX(10K) @ HOURS		
		25,000 HR	50,000 HR	60,000 HR
16	A5, B5, C5, D5, E5	L99	L99	L99
18	A5, B5, C5, D5, E5	L99	L98	L98
19	A5, B5, C5, D5, E5	L99	L98	L97
20	A5, B5, C5, D5, E5	L97	L96	L95
21	A5, B5, C5, D5, E5	L94	L87	L85
23	A5, B5, C5, D5, E5	L97	L96	L95
25	A5, B5, C5, D5, E5	L96	L95	L95
27	A5, B5, C5, D5, E5	L96	L94	L94
28	A5, B5, C5, D5, E5	L96	L94	L93
30, 31	A5, B5, C5, D5, E5	L95	L93	L92
32	A5, B5, C5, D5, E5	L94	L91	L90

Note: Projected Lxx based on LM80 (≥ 10,000 hour testing). Accepted Industry tolerances apply to initial luminous flux and lumen maintenance measurements.

Ratings

Operating Temp:	-40°C to 50°C *
Vibration:	3G per ANSI C136.31-2018
LM-79:	Testing in accordance with IES Standards
EMI:	Title 47 CFR Part 15 Class A
RoHS:	Complies with the material restrictions of RoHS

*ERL2 (32K Lumen 347-480V SKU) operates at -40°C to 45°C

Controls

Dimming:	Standard-0-10V Optional-DALI (Option U)
Sensors:	Photo Electric Sensors (PE) available LightGrid+™ Compatible

Warranty

5 Year (Standard)

10 Year (Optional)



Not all product variations listed on this page are DLC qualified. Visit www.designlights.org/search to confirm qualifications.

Current @

gecurrent.com/brands/evolve

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Rev 02/12/25
OLP3238_ERL2_Gen5_R04

Ordering Information

ERL2

PROD. ID	VOLTAGE	LUMENS (LM)	DISTRIBUTION ³	CCT	CONTROLS PER ANSI C136.41	COLOR	OPTIONS
E = Evolve	0 = 120-277V ¹	16 = 16,000 lm	A5 = Type II Narrow	27 = 2700K ²	A = 7-Pin Receptacle	GRAY = Gray	A = 4 Bolt Slipfitter ⁴
R = Roadway	H = 347-480V ¹	18 = 18,000 lm	B5 = Type II Wide	30 = 3000K ²	D = 7-Pin Receptacle with Shorting Cap	BLCK = Black	B = Tether
L = Local	1 = 120V	19 = 19,000 lm	C5 = Type III	40 = 4000K	E = 7-Pin Receptacle with	DKBZ = Dark Bronze	F = Fusing
2 = Double Module	2 = 208V	21 = 21,000 lm	D5 = Type IV ¹⁰	50 = 5000K	non-Dimming Long Life PE ⁵ Note: 0-10V control standard unless DALI Option "U" requested	WHITE = White	G = Internal Bubble Level
	3 = 240V	20 = 19,965 lm	E5 = Type II Enhanced Back Light				I = Optional IP66 Optical Enclosure
	4 = 277V	23 = 23,000 lm					L = Tool-Less Entry
	D = 347V	25 = 25,000 lm					R = Secondary 10kV/5kA SPD
	5 = 480V	27 = 27,000 lm					T = Secondary 20kV/10kA SPD ¹
		28 = 28,000 lm					U = DALI Programmable ^{6,7}
		30 = 30,000 lm					V1 = Field Adjustable Module ⁹
		31 = 31,000 lm					Y = Coastal Finish ⁸
	32 = 32,000 lm				XXX = Special Options		

¹ Not Available with Fusing
² Select 2700K or 3000K CCT for IDA approved units
³ Nominal IES Type classing subject to typical variation, individual units may differ
⁴ Lead time varies, contact Factory
⁵ Per ANSI C136.10-2017
⁶ Compatible with LightGrid+™
⁷ Not available in 347V, 480V or 347-480V
⁸ Recommended for installations within 750 feet from coast. Lead time varies, check with factory.
⁹ Not available with DALI "U" option
¹⁰ Forward throw distribution. Classifies as Type III for lumen codes 23-32. Review IES curve for application.

Suggested HID Replacement

Approximately 21,500 -32,000 lumens to replace 400W HPS
Cobra-head

Note: actual replacement lumens may vary based upon mounting height, pole spacing,
design criteria, etc.

LUMEN OUTPUT	DIST.	TYPICAL INITIAL LUMENS			WATTAGE		BUG RATINGS		
		5000K/ 4000K	3000K	2700K	120V 277V	347V 480V	5000K/4000K	3000K	2700K
16	A5	16000	15300	14200	114		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B2-U0-G2
	C5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G2
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
18	A5	18000	17200	16000	130		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G3	B2-U0-G3	B2-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
19	A5	19000	18200	16900	140		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G3	B3-U0-G3	B2-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
20	A5	19965	19200	18625	145		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G3	B3-U0-G3	B2-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
21	A5	21000	20100	18600	160		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
23	A5	23000	22000	21300	177		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G3
	D5						B2-U0-G3	B2-U0-G3	B2-U0-G3
	E5						B3-U0-G3	B3-U0-G3	B3-U0-G3
25	A5	25000	24000	23200	191		B3-U0-G3	B3-U0-G3	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B2-U0-G4	B2-U0-G4	B2-U0-G3
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4

For additional information on ERL2 IES files, please click one of the following links:

LUMEN OUTPUT	DIST.	TYPICAL INITIAL LUMENS			WATTAGE		BUG RATINGS		
		5000K/ 4000K	3000K	2700K	120V 277V	347V 480V	5000K/4000K	3000K	2700K
27	A5	27000	25900	25100	212		B4-U0-G4	B4-U0-G4	B3-U0-G3
	B5						B3-U0-G3	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B2-U0-G4	B2-U0-G4	B2-U0-G4
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4
28	A5	28000	26800	26000	223		B4-U0-G4	B4-U0-G4	B4-U0-G4
	B5						B3-U0-G4	B3-U0-G3	B3-U0-G3
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B3-U0-G4	B3-U0-G4	B2-U0-G4
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4
30	A5	30000	28800	27900	242		B4-U0-G4	B4-U0-G4	B4-U0-G4
	B5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4
31	A5	31000	29700	28800	252		B4-U0-G4	B4-U0-G4	B4-U0-G4
	B5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4
32	A5	32000	30700	29700	265		B4-U0-G4	B4-U0-G4	B4-U0-G4
	B5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	C5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	D5						B3-U0-G4	B3-U0-G4	B3-U0-G4
	E5						B4-U0-G4	B4-U0-G4	B4-U0-G4

For additional information on ERL2 IES files, please click one of the following links:

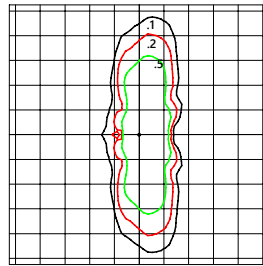
ERL2

Type II Narrow

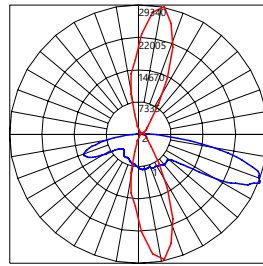
32,000 Lumens

5000K

ERL2_32A550____.IES



- Mounting Height at 30'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz. angle 80°
- Horizontal cone at max Cd vert. angle 68°

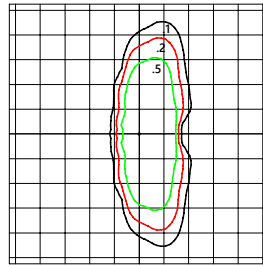
ERL2

Type II Wide

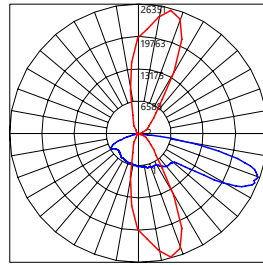
32,000 Lumens

5000K

ERL2_32B550____.IES



- Mounting Height at 30'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz. angle 75°
- Horizontal cone at max Cd vert. angle 70°

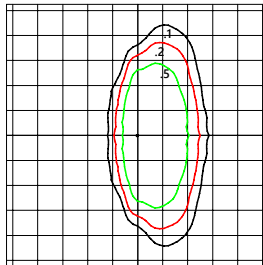
ERL2

Type III

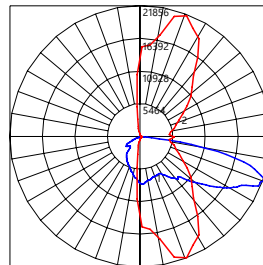
32,000 Lumens

5000K

ERL2_32C550____.IES



- Mounting Height at 30'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz. angle 70°
- Horizontal cone at max Cd vert. angle 70°

ERL2

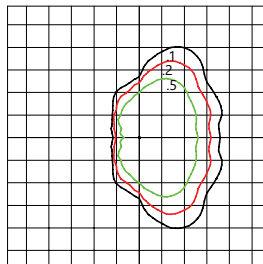
Type III (FWT)

32,000 Lumens

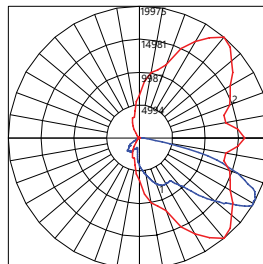
5000K

ERL2_32D550____.IES

Forward Throw



- Mounting Height at 30'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz. angle 50°
- Horizontal cone at max Cd vert. angle 59°

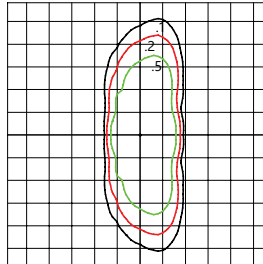
ERL2

Type II Medium

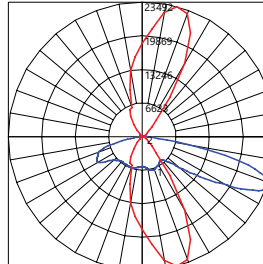
32,000 Lumens

5000K

ERL2_32E550____.IES

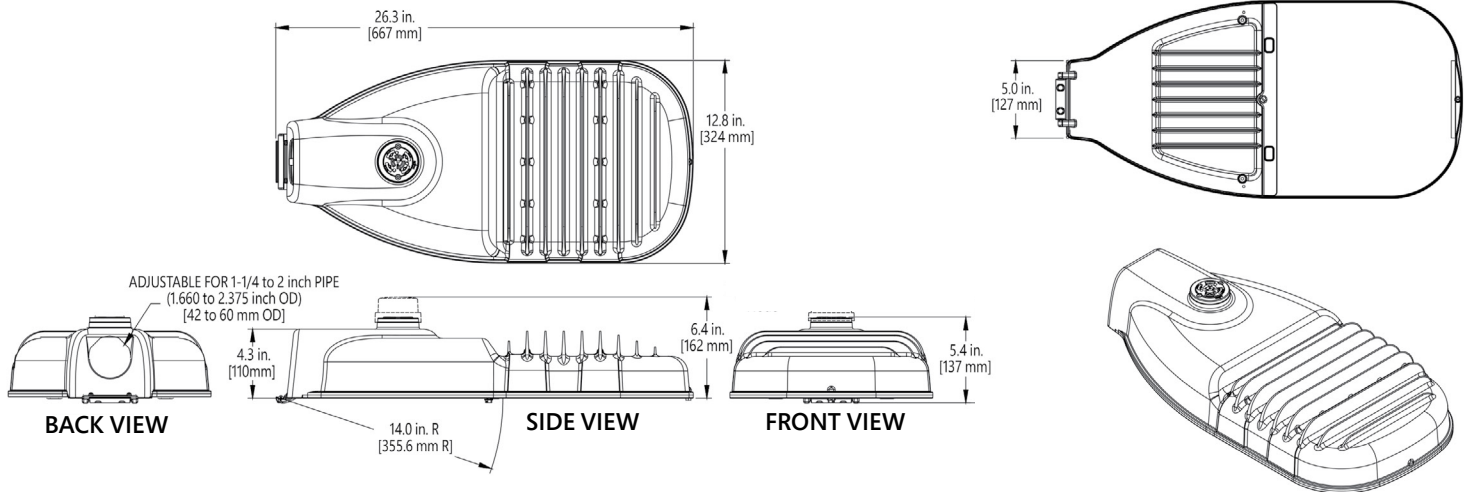


- Mounting Height at 30'
- Initial Footcandle at Grade



- Vertical plane at max Cd horiz. angle 75°
- Horizontal cone at max Cd vert. angle 67°

ISO illuminate diagrams and polar plots are representative of the SKUs illustrated. Refer to IES files for SKU specific information.



Mounting

- Adjustable for 1.25 to 2 in. nominal mounting pipe (1.660 to 2.375 inch OD)
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

Effective Projected Area

- 0.57 sq ft max (0.053 sq m)

Weight

- 24.0 lbs (10.9 kgs)

Accessories

SAP NUMBER	PART NUMBER	DESCRIPTION
93029237G	PED-MV-LED-7	ANSI C136.41 Dimming PE, 120-277V
93029238G	PED-347-LED-7	ANSI C136.41 Dimming PE, 347V
93029239G	PED-480-LED-7	ANSI C136.41 Dimming PE, 480V
28299	PEC0TL	Long Life PE 120-277V
93147530	PECHTL	Long Life PE 347-480V
73251	SCCL-PECTL	Shorting Cap

Network Lighting Controls



Current's LightGrid+™ Outdoor Lighting Control System is designed for Street and Roadway Applications. It enables remote monitoring, control, and asset management of a single fixture or a group of fixtures through a web enabled Central Management System.

HOUSE SIDE SHIELDS

ERL2 Shields

Product Code:	93070722	Description:	ELSHS-ERL2-BLCK
Product Code:	93085564G	Description:	ELSHS-ERL2-GRAY
Product Code:	93096747G	Description:	ELSHS-ERL2-DKBZ
			

STREET SIDE SHIELDS

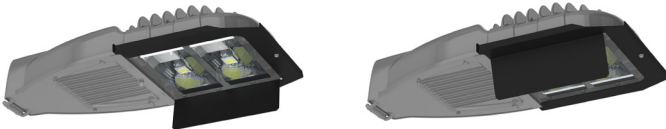
ERL2 Shields

Product Code:	93132955G	Description:	ELSFS-ERL2-BLCK-20
Product Code:	93132986G	Description:	ELSFS-ERL2-GRAY-20
			

SIDE SHIELDS (L&R)

Shipped as a kit - L & R can be used independently

ERL2 SHIELDS

Product Code:	93132989G	Description:	ELS-ERL2- LEFTRIGHTSIDEKIT- BLCK-10
			

FOOTNOTES:

- 1) 10 = 1" Shield Depth; 15 = 1.5" Shield Depth; 20 = 2" Shield Depth
- 2) Black is recommended to reduce potential for glare coming off of the shield
- 3) Use "House Side" Shield to block light trespass behind the pole
- 4) Use "Street Side" / Front Shield to block light trespass across the street

Project	Catalog #	Type
Prepared by	Notes	Date



Interactive Menu

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- Control Options [page 5](#)

Streetworks

Archeon Large

Roadway Luminaire

Product Certifications & Features



Product Specifications

OPTICAL

- 5 patented AccuLED high efficiency roadway and area optical distributions
- 7 color temperature options
 - » 70 CRI: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K
 - » 80 CRI: 2700K
- House side shield for spill light control; available factory-installed or as field-installed accessory.

ELECTRICAL

- 120-277V, 240-480V, 347V, and 480V; 50/60Hz
- Standard 0-10V dimming
- 10kV and 20kV surge protection options with series or parallel configurations
- -40°C to 40°C ambient temperature operating range
- Standard 3-position terminal block
- Luminaire available with the field adjustable dimming controller (FADC) to manually adjust wattage and reduce the total lumen output and light levels. Comes pre-set to the highest position at the lumen output selected

PHYSICAL CHARACTERISTICS

- Heavy-duty die-cast aluminum housing and door
- Lineman-friendly features standard for easy maintenance. Includes tool-less entry and 3-position terminal block with easy access for service wires
- Four-bolt / two-bracket slipfitter with cast-in pipe stop and 2.5" leveling steps
- Fixed-in-place bird guard seals around 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) mounting arms

- Optional 15" pole mount arm available with round pole adapter and mounting hardware included
- Housing finished in 5-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness
- 5 standard color options. RAL and custom colors also available. (Additional charges and lead time apply)

CONTROLS

- Available with ANSI C136.10 3-pin or C136.41 7-pin control receptacle.
- Optional Field Adjustable Dimming Control (FADC) module allows for manual adjustment of lumen output and power usage; factory preset to highest output level. Enables a single SKU to cover multiple field applications
- Optional 4-pin Zhaga Book 18 receptacle for integration of onboard sensors with DALI- and D4i-enabled drivers
- Fully compatible with CLS Trellix Infrastructure UNB (Ultra Narrow Band) and cellular network lighting controls platforms. Enables wireless collection of luminaire performance and status data and asset management for luminaires installed in the field

COMPLIANCE

- Meets ANSI C136.25 for IP66 optical enclosure rating
- Meets ANSI C136.31 for 3G luminaire vibration. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications
- Meets ANSI C136.15 for luminaire field identification label standard
- Meets ANSI C136.22 internal label standard

- Safety listing - Wet Location UL 1598
- 3,000-hours per ASTM B117, with a scribe rating of 7 per ASTM D1654 for standard color finish
- DarkSky approved for 3000K CCT and warmer, with mounting options less than 10° of tilt.
- BAA domestic preference option meets BAA requirements. See [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information
- FHWA and FTA agencies are utilizing their BAA rules for BABA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the [DOMESTIC PREFERENCES](#) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

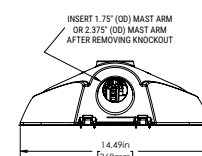
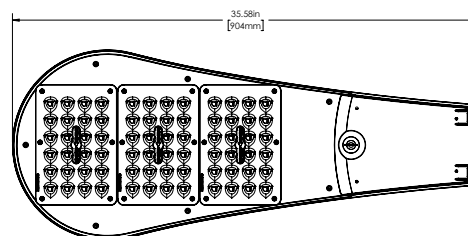
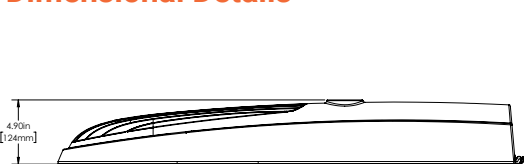
SHIPPING DATA

- Approximate Net Weight: 27 lbs. (12.2 kgs.)
- Effective Projected Area: 0.86 (Sq. Ft.)
- Carton Size: 19.375" x 9.688" x 40.688"
- Pallet Size: 42" x 48"
- Cartons/Pallet: 10

WARRANTY

- Five year limited warranty, consult website for details www.cooperlighting.com/legal

Dimensional Details



Ordering Information

SAMPLE ORDER NUMBER: ARCH-L-PA3-90-740-U-T2R-A15-AP-10K-PR

Product Family ^{1, 2}	Light Engine	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Finish	
ARCH-L =Archeon Large BAA-ARCH-L =Archeon Large Buy American Act Compliant ²⁶ TAA-ARCH-L =Archeon Large Trade Agreements Act Compliant ²⁶ BABA-ARCH-L =Archeon Large Build America Buy America Act Compliant ³⁰	PA3 =(3) Direct Mount Rectangle (72 LED)	90 100 110 120 130 140 150 160 170 180	190 200 210 220 230 240 250 260 270 280	722 =70 CRI, 2200K 727 =70 CRI, 2700K 730 =70 CRI, 3000K 735 =70 CRI, 3500K 740 =70 CRI, 4000K 750 =70 CRI, 5000K 827 =80 CRI, 2700K AMB =Amber, 590nm ^{21,22}	U =Universal (120-277V) 8 =480V ⁴ 9 =347V ⁴ DV =277-480V DuraVolt Drivers ^{4,5}	T2R =Type II Roadway T2U =Type II Urban T3 =Type III T4W =Type IV Wide 5WQ =Type V Square Wide	[Blank] =None A15 =15" Straight Mast Arm ASJS15 =Adjustable Slipfitter (Factory set at 15° degrees) ASJS25 =Adjustable Slipfitter (Factory set at 25° degrees) ASJS45 =Adjustable Slipfitter (Factory set at 45° degrees)	AP =Grey BZ =Bronze BK =Black DP =Dark Platinum WH =White
Options (Add as Suffix)				Controls				
10K =Series 10kV UL 1449 Surge Protective Device 20K =Series 20kV UL 1449 Surge Protective Device 20KI =Series 20kV UL 1449 Surge Protective Device with light indicator 10MSP =Parallel 10kV MOV Surge Protective Device 20MSP =Parallel 20kV MOV Surge Protective Device K =Level Indicator HA =50°C High Ambient Temperature ¹⁰ HSS =Factory Install House Side Shield ¹¹ PSC =Photocontrol Shorting Cap NPC =NEMA Photocontrol - Multi-Tap LLPC =Longlife Photocontrol Included FADC =Field Adjustable Dimming Controller ²³ CC =Coastal Construction ²⁴ Dxxxxx =DOT Configuration - Contact Quotes Team ²⁸ Uxxxxx =Utility Configuration - Contact Quotes Team ²⁸				PR =NEMA 3-PIN Twistlock Photocontrol Receptacle ⁶ PR7 =NEMA 7-PIN Twistlock Photocontrol Receptacle SPB1 =Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting ²⁵ SPB2 =Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting ²⁵ SPB4 =Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting ²⁵ MS/DIM-L08 =Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{3,7} MS/DIM-L20 =Motion Sensor for Dimming Operation, Maximum 9' - 20' Mounting Height ^{3,7} MS/DIM-L40 =Motion Sensor for Dimming Operation, Maximum 21' - 40' Mounting Height ^{3,7} LWR-LW =Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Heights ^{3,8,9} LWR-LN =Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Heights ^{3,8,9} WPS2-XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting ^{18, 19, 20, 21, 29} WPS4-XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting ^{18, 19, 20, 21, 29} SLTD =DALI ³				
Accessories (Order Separately) ^{17,27}								
OA / RA1013 =Photocontrol Shorting Cap OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V OA1223 =10kV Surge Module Replacement A15-XX =Arm (15" Straight Arm) ^{12, 14} FSIR-100 =Wireless Configuration Tool for Occupancy Sensor ¹⁵ HS-ARCH =Field Install ARCH House Side Shield ^{11, 13}				VGS-ARCH =Short Vertical Drop Shield VGL-ARCH =Long Vertical Drop Shield ASJS15-XX =Adjustable slipfitter (Factory set at 15 degrees) ¹⁴ ASJS25-XX =Adjustable slipfitter (Factory set at 25 degrees) ¹⁴ ASJS45-XX =Adjustable slipfitter (Factory set at 45 degrees) ¹⁴				
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information. 2. Nominal wattage values will be labeled on fixture as per ANSI C136.15. For specific fixture wattage, refer to Power and Lumen tables. 3. Only available in universal voltage. 4. 480V not to be used with ungrounded or impedance grounded systems. 5. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit, www.signify.com/duravolt for more information. Not available with any motion/occupancy sensor control options except SPB. 6. If "PR" selected, dimming functionality not available, dimming leads will be capped. 7. The FSIR-100 accessory is required to adjust parameters. 8. Enlighted wireless system is not available with photocontrol receptacle (not required). 9. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for Enlighted application information. 10. HA option not available with the following configurations: 250W+, 210W+ if paired with HSS, SLTD 150W+, or 240W+. 11. HSS not available with 5WQ distribution, SLTD 270W+. 12. Round pole adapter and mounting hardware included. "M" drill pattern. 13. Requires three house side shields. 14. Replace XX with color designation. 15. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information. 16. Utilizes internal step-down transformer when 347V or 480V is selected. 17. Controls system is not available with photocontrol (BPC), photocontrol receptacle (PR or PR7), or other controls systems (MS, LWR, DALI, or DIM). 18. Replace XX with sensor color (WH, BZ or BK). 19. Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F). 20. For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinX system and software and requires system components to be installed for operation. See website for more WaveLinX application information. 21. Not available with HA option. 22. Amber 590nm +/-5nm for wildlife and observatory use. Supplied in PA3 90 wattage bucket only. 23. Cannot be used with PR7 or other motion response control options. 24. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. 25. Smart device with Sensor Configuration mobile application by Wattstopper required to change system defaults. See Controls Section for details. 26. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 27. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 28. Customer specific specifications utilizes standard products with small adjustments to meet unique requirements such as packaging, labels, wattage adjustments, etc. 29. Controls system is not available with photocontrol receptacles (PR , PR7) or other controls systems (FADC, SPBx). 30. Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.								

Energy and Performance Data

Power and Lumens (PA3 Light Engine)

Light Engine - PA3*		PA3-190	PA3-200	PA3-210	PA3-220	PA3-230	PA3-240	PA3-250	PA3-260	PA3-270	PA3-280
Power (Watts)		189	201	211	222	229	242	251	261	273	279
Wattage Label		190	200	210	220	230	240	250	260	270	280
Input Current @ 120V (A)		1.58	1.68	1.76	1.85	1.91	2.01	2.10	2.18	2.27	2.33
Input Current @ 277V (A)		0.71	0.75	0.78	0.82	0.85	0.89	0.92	0.96	0.99	1.02
Input Current @ 347V (A)		0.58	0.61	0.64	0.67	0.70	0.73	0.76	0.78	0.81	0.84
Input Current @ 480V (A)		0.44	0.46	0.48	0.50	0.52	0.54	0.57	0.58	0.60	0.62
Optics											
T2R	4000K/5000K	27,868	29,218	30,114	31,168	31,950	33,030	33,790	34,591	35,538	36,067
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
	3000K	25,380	26,608	27,424	28,384	29,097	30,080	30,772	31,501	32,364	32,846
	BUG Rating	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T3	4000K/5000K	27,678	29,017	29,906	30,954	31,731	32,804	33,557	34,351	35,294	35,818
	BUG Rating	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
	3000K	25,205	26,425	27,235	28,189	28,896	29,874	30,560	31,283	32,141	32,620
	BUG Rating	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4
T4W	4000K/5000K	27,562	28,896	29,781	30,825	31,598	32,667	33,417	34,210	35,148	35,670
	BUG Rating	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5	B3-U0-G5
	3000K	25,100	26,316	27,122	28,072	28,777	29,749	30,433	31,154	32,008	32,484
	BUG Rating	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5	B3-U0-G5
5WQ	4000K/5000K	28,535	29,917	30,834	31,913	32,715	33,820	34,598	35,418	36,389	36,929
	BUG Rating	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
	3000K	25,986	27,246	28,080	29,063	29,791	30,801	31,507	32,254	33,138	33,630
	BUG Rating	B5-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4	B5-U0-G4
T2U	4000K/5000K	27,592	28,929	29,815	30,858	31,633	32,703	33,454	34,247	35,186	35,709
	3000K	25,128	26,344	27,151	28,103	28,808	29,783	30,467	31,188	32,044	32,519
	BUG Rating	B3-U0-G3	B3-U0-G3	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4	B4-U0-G4

Energy and Performance Data

Lumen Maintenance

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
PA3	Up to 40°C	> 98%	> 800,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

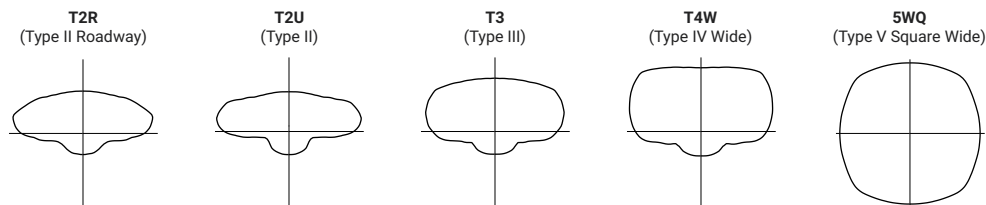
FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: +/-5% typical value

[View Archeon Large IES files](#)

Optical Distributions



Control Options

Photocontrol (PR and PR7)

Photocontrol receptacles (PR and PR7) provide a flexible solution to enable “dusk-to-dawn” lighting by sensing light levels. Advanced control systems compatible with ANSI C136.41 7-pin standards can be utilized with the PR7 receptacle.

Dimming Occupancy Sensor (SPB, MS/DIM-LXX)

These sensors are factory installed in the luminaire housing. When the SPB or MS/DIM sensor options are selected, the occupancy sensor is connected to a dimming driver and the entire luminaire dims when there is no activity detected. When activity is detected, the luminaire returns to full light output. The MS/DIM sensor is factory preset to dim down to approximately 50 percent power with a time delay of five minutes. SPB motion sensors require the Sensor Configuration mobile application by Wattstopper to change factory default dimming level, time delay, sensitivity and other parameters. Available for iOS and Android devices. The SPB sensor is factory preset to dim down to approximately 10% power with a time delay of five minutes. The MS/DIM occupancy sensors require the FSIR-100 programming tool to adjust factory defaults.

Enlighted Wireless Control and Monitoring (LWR-LW and LWR-LN)

Enlighted is a connected lighting solution that combines a broad selection of energy-efficient LED luminaires with a powerful integrated wireless sensor system. The sensor controls the lighting system in compliance with the latest energy codes and collects valuable data about building performance and use. Software applications turn the granular data into information through energy dashboards and specialized apps that make it simple and help optimize the use of building resources, beyond lighting. For additional details, refer to the Enlighted product guides.

Project	Catalog #	Type
Prepared by	Notes	Date



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- Mounting Details [page 3](#)
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- Optical Distributions [page 4](#)

Streetworks

Archeon Medium

Roadway Luminaire

Product Certifications & Features



Product Specifications

OPTICAL

- 5 patented AccuLED high efficiency roadway and area optical distributions
- 7 color temperature options
 - » 70 CRI: 2200K, 2700K, 3000K, 3500K, 4000K, 5000K
 - » 80 CRI: 2700K
- House side shield for spill light control; available factory-installed or as field-installed accessory.

ELECTRICAL

- 120-277V, 240-480V, 347V, and 480V; 50/60Hz
- Standard 0-10V dimming
- 10kV and 20kV surge protection options with series or parallel configurations
- -40°C to 40°C ambient temperature operating range
- Standard 3-position terminal block

PHYSICAL CHARACTERISTICS

- Heavy-duty die-cast aluminum housing and door
- Lineman-friendly features standard for easy maintenance. Includes tool-less entry and 3-position terminal block with easy access for service wires
- Four-bolt / two-bracket slipfitter with cast-in pipe stop and 2.5" leveling steps
- Fixed-in-place bird guard seals around 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) mounting arms
- Optional 15" pole mount arm available with round pole adapter and mounting hardware included
- Housing finished in 5-stage super TGIC polyester powder coat paint, 2.5 mil nominal thickness

- 5 standard color options. RAL and custom colors also available. (Additional charges and lead time apply)

CONTROLS

- Available with ANSI C136.10 3-pin or C136.41 7-pin control receptacle.
- Optional Field Adjustable Dimming Control (FADC) module allows for manual adjustment of lumen output and power usage; factory preset to highest output level. Enables a single SKU to cover multiple field applications
- Optional 4-pin Zhaga Book 18 receptacle for integration of onboard sensors with DALI- and D4i-enabled drivers
- Fully compatible with CLS Trellix Infrastructure UNB (Ultra Narrow Band) and cellular network lighting controls platforms. Enables wireless collection of luminaire performance and status data and asset management for luminaires installed in the field

COMPLIANCE

- Meets ANSI C136.25 for IP66 optical enclosure rating
- Meets ANSI C136.31 for 3G luminaire vibration. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications
- Meets ANSI C136.15 for luminaire field identification label standard
- Meets ANSI C136.22 internal label standard
- Safety listing - Wet Location UL 1598
- 3,000-hours per ASTM B117, with a scribe rating of 7 per ASTM D1654 for standard color finish

- DarkSky approved for 3000K CCT and warmer, with mounting options less than 10° of tilt.
- DLC and DLC Premium listed – visit designlights.org to confirm listed variations
- BAA domestic preference option meets BAA requirements. See [DOMESTIC PREFERENCES](https://www.cooperlighting.com/domestic-preferences) website or consult the CLS Domestic Preferences team for more information
- FHWA and FTA agencies are utilizing their BAA rules for BAA compliance. Cooper's products with a BAA designation are manufactured in the US and utilize a BAA COTS exemption rule for compliance. To verify a configured product with specific accessories and options meet BABA Domestic Preference Requirements; submit this catalog number to Cooper Lighting Quotation team for validation by our Engineering and Manufacturing teams. Please refer to the [DOMESTIC PREFERENCES](https://www.cooperlighting.com/domestic-preferences) website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

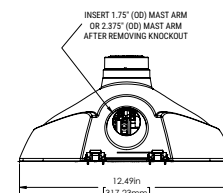
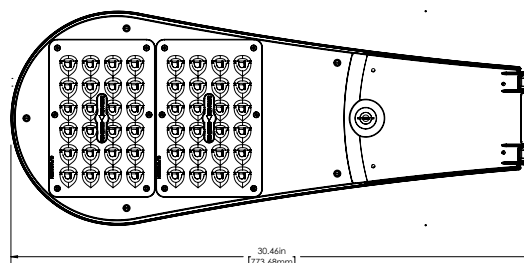
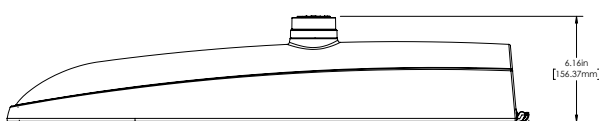
SHIPPING DATA

- Approximate Net Weight: 18 lbs. (8.16 kgs.)
- Effective Projected Area: 0.71 sqft
- Carton Size: 14 5/8" x 7 1/4" x 31 1/8"
- Pallet Size: 50" x 50"
- Cartons/Pallet: 24

WARRANTY

- Five year limited warranty, consult website for details www.cooperlighting.com/legal

Dimensional Details



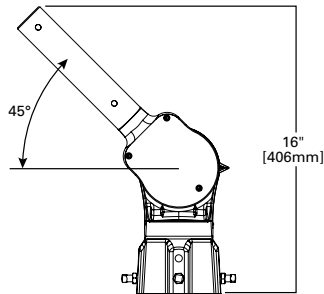
Ordering Information

SAMPLE ORDER NUMBER: ARCH-M-PA2-40-740-U-T2R-A15-AP-10K-PR

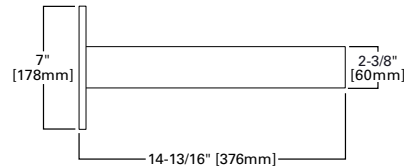
Product Family ^{1, 2}	Light Engine	Wattage Bucket	Color Temperature	Voltage	Distribution	Mounting	Finish
ARCH-M =Archeon Medium BAA-ARCH-M =Archeon Medium Buy American Act Compliant ²⁸ TAA-ARCH-M =Archeon Medium Trade Agreements Act Compliant ²⁸ BABA-ARCH-M =Archeon Medium Build America Buy America Act Compliant ³³	PA2 =(2) Direct Mount Rectangle (48 LED)	40 50 60 70 80 90 100 110 120 130 140 150 160	722 =70CRI, 2200K 727 =70CRI, 2700K 730 =70CRI, 3000K 735 =70CRI, 3500K 740 =70CRI, 4000K 750 =70CRI, 5000K 827 =80CRI, 2700K ⁴ AMB =Amber, 590nm ^{18, 24}	U =Universal (120-277V) 8 =480V ^{4, 5} 9 =347V ⁴ DV =277-480V DuraVolt Drivers ^{4, 5, 30}	T2R =Type II Roadway T2U =Type II Urban T3 =Type III T4W =Type IV Wide 5WQ =Type V Square Wide	[Blank] =None A15 =15" Straight Mast Arm ¹⁴ ASJS15 =Adjustable Slipfitter (Factory set at 15° degrees) ASJS25 =Adjustable Slipfitter (Factory set at 25° degrees) ASJS45 =Adjustable Slipfitter (Factory set at 45° degrees)	AP =Grey BZ =Bronze BK =Black DP =Dark Platinum WH =White
Options (Add as Suffix)			Controls				
10K =Series 10kV UL 1449 Surge Protective Device 20K =Series 20kV UL 1449 Surge Protective Device 20KI =Series 20kV UL 1449 Surge Protective Device with light indicator 10MSP =Parallel 10kV MOV Surge Protective Device 20MSP =Parallel 20kV MOV Surge Protective Device K =Level Indicator HA =50°C High Ambient Temperature HSS =Factory Install House Side Shield ¹³ PSC =Photocontrol Shorting Cap NPC =NEMA Photocontrol - Multi-Tap LLPC =Longlife Photocontrol Included FADC =Field Adjustable Dimming Controller ²⁵ CC =Coastal Construction ²⁶ DXXXX =Department of Transportation - Customer specific details ³¹ UXXXX =Utility - Customer specific details ³¹			PR =NEMA 3-PIN Twistlock Photocontrol Receptacle ⁷ PR7 =NEMA 7-PIN Twistlock Photocontrol Receptacle SPB1 =Dimming Occupancy Sensor with Bluetooth Interface, <8' Mounting ²⁷ SPB2 =Dimming Occupancy Sensor with Bluetooth Interface, 8'-20' Mounting ²⁷ SPB4 =Dimming Occupancy Sensor with Bluetooth Interface, 21'-40' Mounting ²⁷ MS/DIM-L08 =Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{4, 9} MS/DIM-L20 =Motion Sensor for Dimming Operation, Maximum 9' - 20' Mounting Height ^{4, 9} MS/DIM-L40 =Motion Sensor for Dimming Operation, Maximum 21' - 40' Mounting Height ^{4, 9} LWR-LW =Enlighted Wireless Sensor, Wide Lens for 8' - 16' Mounting Heights ^{4, 10, 11} LWR-LN =Enlighted Wireless Sensor, Narrow Lens for 16' - 40' Mounting Heights ^{4, 10, 11} WPS2XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 7' - 15' Mounting ^{21, 22, 23, 32} WPS4XX =WaveLinX Pro, SR Driver, Dimming Motion and Daylight, WAC Programmable, 15' - 40' Mounting ^{21, 22, 23, 32} 5LTD =DALI ³				
Accessories (Order Separately) ^{17, 29}							
OA / RA1013 =Photocontrol Shorting Cap OA1223=10kV Surge Module Replacement OA/RA1014 =NEMA Photocontrol - 120V OA/RA1016 =NEMA Photocontrol - Multi-Tap OA/RA1027 =NEMA Photocontrol - 480V OA/RA1201 =NEMA Photocontrol - 347V OA1223 =10kV Surge Module Replacement A15-XX =Arm (15" Straight Arm) ^{14, 16} ASJS15-XX =Adjustable slipfitter (Factory set at 15 degrees) ¹⁶			ASJS25-XX =Adjustable slipfitter (Factory set at 25 degrees) ¹⁶ ASJS45-XX =Adjustable slipfitter (Factory set at 45 degrees) ¹⁶ FSIR-100 =Wireless Configuration Tool for Occupancy Sensor ¹⁷ HS-ARCH =Field Install ARCH House Side Shield ^{18, 15} VGS-ARCH =Short Vertical Drop Shield VGL-ARCH =Long Vertical Drop Shield				
NOTES: 1. Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WPS13001EN for additional support information. 2. Nominal wattage values will be labeled on fixture as per ANSI C136.15. For specific fixture wattage, refer to Power and Lumens table. 3. Only available in universal voltage. 4. Not available at 40W or 50W. 5. 480V not to be used with ungrounded or impedance grounded systems. 6. Extended lead times may apply. 7. If "PR" selected, dimming functionality not available. Dimming leads will be capped. 8. Only available in Universal voltage. 9. The FSIR-100 accessory is required to adjust parameters. 10. Enlighted wireless system is not available with photocontrol receptacle (not required) 11. Enlighted wireless sensors are factory installed and require network components LWP-EM-1, LWP-GW-1, and LWP-PoE8 in appropriate quantities. See website for Enlighted application information. 12. HA option not available with the following configurations, 347/480V 150W and 160W if paired with HS-ARCH or 5LTD 140 160W. 13. HSS not available with 5WQ distribution. 14. Round pole adapter and mounting hardware included. "M" drill pattern. 15. Archeon Medium requires two house side shields. 16. Replace XX with color designation. 17. This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Cooper Lighting Solutions for more information. 18. Amber 590nm +/- 5nm for wildlife and observatory use. Supplied in PA2-60 wattage bucket only. 19. Utilizes internal step-down transformer when 347V or 480V is selected. 20. Controls system is not available with photocontrol (BPC), photocontrol receptacle (PR or PR7), or other controls systems (MS, LWR, DALI, or DIM). 21. Replace XX with sensor color (WH, BZ or BK). 22. Sensor passive infrared (PIR) may be overly sensitive with operating below -20°C (-4°F). 23. For this device to be field-configurable, requires WAC Gateway components WAC-PoE and WPOE-120 in appropriate quantities. Only compatible with WaveLinX system and software and requires system components to be installed for operation. See website for more WaveLinX application information. 24. Not available with HA option. 25. Cannot be used with PR7 or other motion response control options. 26. Coastal construction finish salt spray tested to over 5,000-hours per ASTM B117, with a scribe rating of 9 per ASTM D1654. 27. Smart device with Sensor Configuration mobile application by Wattstopper required to change system defaults. 28. Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements. 29. Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information. 30. DuraVolt drivers feature added protection from power quality issues such as loss of neutral, transients and voltage fluctuations. Visit www.signify.com/duravolt for more information. Not available in 70W or below. Not available with any control option except SPB. 31. Customer specific specifications utilizes standard products with small adjustments to meet unique requirements such as packaging, labels, wattage adjustments, etc. 32. Controls system is not available with photocontrol receptacles (PR , PR7) or other controls systems (FADC, SPBx). Only product configurations with these prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or the Build America Buy America Act (BABA). BABA is the minimum Government compliance requirement for the Build America Buy America standards which is part of the Infrastructure and Investment Jobs Act (IIJA). Individual Government Agencies may have more stringent compliance standards. Please refer to the DOMESTIC PREFERENCES website or consult the CLS Domestic Preferences team for more information. Components shipped separately may be separately analyzed under domestic preference requirements.							

Mounting Details

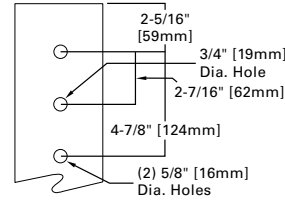
Adjustable Slipfitter Offset Arm



15" Straight Arm



Type "M" - Drilling Pattern



Energy and Performance Data

Power and Lumens (PA2 Light Engine)

[Supplemental Performance Guide](#)

Light Engine - PA2*		PA2-40	PA2-50	PA2-60	PA2-70	PA2-80	PA2-90	PA2-100	PA2-110	PA2-120	PA2-130	PA2-140	PA2-150	PA2-160
Power (Watts)		38	48	63	73	83	92	101	111	122	131	141	151	161
Wattage Label		40	50	60	70	80	90	100	110	120	130	140	150	160
Input Current @ 120V (A)		0.318	0.399	0.527	0.609	0.693	0.768	0.846	0.925	1.020	1.100	1.180	1.260	1.340
Input Current @ 277V (A)		0.145	0.178	0.243	0.275	0.309	0.342	0.374	0.407	0.453	0.486	0.518	0.553	0.586
Input Current @ 347V (A)		--	--	0.188	0.216	0.245	0.271	0.298	0.325	0.371	0.400	0.428	0.458	0.487
Input Current @ 480V (A)		--	--	0.146	0.165	0.185	0.203	0.222	0.240	0.286	0.304	0.323	0.344	0.363
Optics														
T2R	4000K/5000K Lumens	6,489	8,063	10,434	11,891	13,299	14,714	15,925	17,033	18,278	19,311	20,317	21,323	22,189
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3
	3000K Lumens	5,911	7,342	9,502	10,829	12,111	13,400	14,501	15,512	16,646	17,586	18,502	19,418	20,206
	Bug Rating	B1-U0-G1	B1-U0-G2	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3
T2U	4000K/5000K Lumens	6,411	7,965	10,306	11,747	13,138	14,535	15,731	16,826	18,056	19,076	20,070	21,064	21,918
	Bug Rating	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	3000K Lumens	5,838	7,253	9,385	10,698	11,963	13,238	14,325	15,323	16,443	17,373	18,277	19,182	19,961
	Bug Rating	B2-U0-G1	B3-U0-G1	B3-U0-G1	B3-U0-G2	B3-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
T3	4000K/5000K Lumens	6,649	8,013	10,367	11,816	13,216	14,621	15,825	16,926	18,164	19,190	20,190	21,189	22,050
	Bug Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
	3000K Lumens	5,873	7,297	9,441	10,761	12,036	13,317	14,410	15,415	16,542	17,476	18,388	19,297	20,081
	Bug Rating	B1-U0-G2	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3
T4W	4000K/5000K Lumens	6,416	7,971	10,313	11,756	13,147	14,547	15,742	16,839	18,070	19,091	20,085	21,080	21,936
	Bug Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
	3000K Lumens	5,843	7,259	9,392	10,706	11,973	13,247	14,336	15,334	16,455	17,385	18,292	19,197	19,977
	Bug Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3	B3-U0-G3
5WQ	4000K/5000K Lumens	6,619	8,223	10,640	12,127	13,563	15,007	16,241	17,372	18,642	19,694	20,721	21,747	22,629
	Bug Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B5-U0-G3	B5-U0-G3	B5-U0-G3
	3000K Lumens	6,029	7,489	9,690	11,043	12,353	13,666	14,789	15,820	16,977	17,935	18,870	19,804	20,609
	Bug Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3	B5-U0-G3	B5-U0-G3

Energy and Performance Data

Lumen Maintenance

Light Engine	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Theoretical L70 (Hours)
PA2	Up to 40°C	> 98%	> 800,000

Lumen Multiplier

Ambient Temperature	Lumen Multiplier
0°C	1.02
10°C	1.01
25°C	1.00
40°C	0.99
50°C	0.97

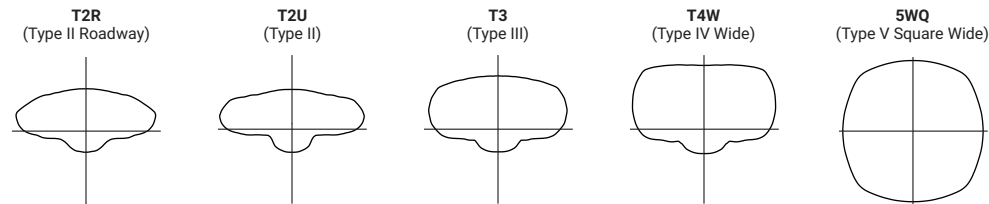
FADC Settings

FADC Position	Percent of Typical Lumen Output
1	25%
2	48%
3	56%
4	65%
5	75%
6	80%
7	85%
8	90%
9	95%
10	100%

Note: +/-5% typical value

 View Archeon Medium IES files

Optical Distributions



HPS STOCK AND ESTIMATED BUDGET IMPACT 2025

TYPE OF FIXTURE	WATTAGE	BESCO STOCK **	HOWARD STOCK**	2024 USAGE TOTAL-KU & LG&E	PRICE PER BULB	PRICE PER PHOTOCELL	TOTAL COST OF PHOTOCELLS	TOTAL COST OF BULBS	TOTAL COST OF BULBS AND PHOTOCELLS	BESCO AND HOWARD STOCK TOTALS	LED EQUIVALENT PRICE	TOTAL COST IF BULBS WERE REPLACED WITH LED	2025 DEPLETING BESCO SHELF STOCK**	2025 DEPLETING BESCO AND HOWARD STOCK**
HPS	50	36	0	192	8.39	5.11	981.12	1610.88	2592	36	171.4	32908.8	27224.4	27484.95
HPS	70	63	3340	5801	6.74	5.11	29643.11	39098.74	68741.85	3403	171.4	994291.4	984239.75	456975.34
HPS	100	3918	6000	13968	6.62	5.11	71376.48	92468.16	163844.64	9918	175.82	2455853.76	1812949.14	712071
HPS	150	0	14861	1200	6.95	5.11	6132	8340	14472	14861	183.41	220092	220092	MULTIPLE YEARS
HPS	200	96	0	2088	8.16	5.11	10669.68	17038.08	27707.76	96	237.42	495732.96	474214.56	474214.56
HPS	250	721	85560	1284	7.06	5.11	6561.24	9065.04	15626.28	86281	237.42	304847.28	142442.03	MULTIPLE YEARS
HPS	400	0	0	3304	8.04	5.11	16883.44	26564.16	43447.6	0	345.47	1141432.88	1141432.88	1141432.88
HPS	1000	6	0	0	43.28		0	0	0	6		0	0	0
SUM							142247.07	194185.06	336432.13			5645159.08	4802594.76	2812178.73
*NO CHANGE IN PRICING FROM 2024-2025 ACCORDING TO BESCO														
** AS OF 02-24-25														