

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF KENTUCKY UTILITIES)
COMPANY FOR AN ADJUSTMENT OF ITS) CASE NO. 2016-00370
ELECTRIC RATES AND FOR CERTIFICATES OF)
PUBLIC CONVIENCE AND NECESSITY)

**LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT'S
NOTICE OF FILING**

Pursuant to the Commission's Order dated April 17, 2019, Lexington-Fayette
Government, by counsel, provides notice of filing Exhibit DJ-8, which is attached hereto.

Respectfully submitted,



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Government*

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, I certify that the April 17, 2019, electronic filing of this document is a true and accurate copy of the same document being filed in paper medium; that the electronic filing will be transmitted to the Commission on April 17, 2019; that there are currently no parties that the Commission has excused from participation by electronic means in this proceeding; and that an original paper medium of the document will be delivered to the Commission within two business days.

A handwritten signature in blue ink, appearing to read "M. J. O'Connell", is written above a horizontal line.

Counsel for LFUCG

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Exhibit DJ-8



LED NEMA Head Series

LNH2 Security Lighting

PRODUCT OVERVIEW



Features:

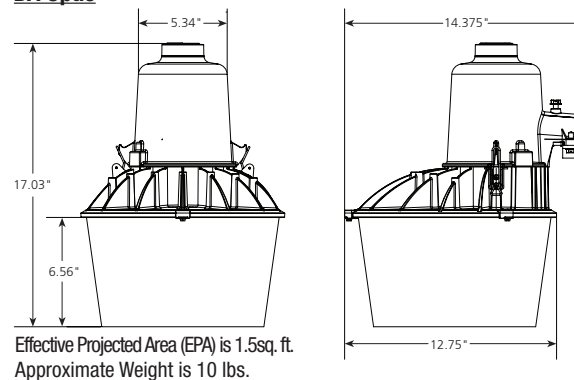
- Diecast aluminum head
Mounts to 1-1/4" – 2" (1-5/8" – 2-3/8" OD) mast arms
- Lineman friendly latch for tool-less access to the electrical assembly
- Multiple optical distributions both with and without an acrylic refractor
- Color temperature is 4,000K, 70 CRI
- Suitable temperature range of -40 °C – 40 °C
- 10KV/5KA surge protection is standard on all units
- IP66 rated borosilicate glass optic ensures longevity and minimizes dirt depreciation
- NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 5 pin and 7 pin receptacles optionally available.
- Premium solid state locking-style photocontrol – PCSS (10 year rated life)
Extreme long life solid state locking-style photocontrol – PCL1 (20 year rated life)
- FCC Part 15 compliant
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Applications:

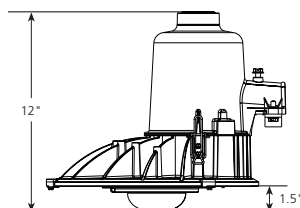
Security
Storage yards
Loading areas
Receiving areas
Rural residences

DIMENSIONS

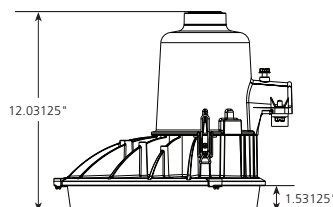
BA Optic



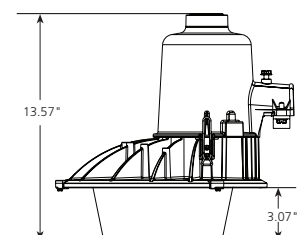
NA Optic



NU Optic



SA Optic



LED NEMA Head Series

LNH2 Security Lighting

ORDERING INFORMATION

EXAMPLE: LNH2 LU1 MVOLT R3 BA

Series	Performance Package	Voltage	Distribution	Optics
LNH2 LNH2 LED	LU1 2300 Lumens	MVOLT 120V-277V	R3 Roadway Type III	BA Open Bottom Acrylic
LNH2PKG¹ Package	LU2 3000 Lumens		R5 Roadway Type V	NA No Acrylic Refractor
LNL2PKG² Long Life Package	LU3 3800 Lumens			NU No Acrylic Refractor-Zero Uplight
	LU4 4900 Lumens			SA Open Bottom Small Acrylic Refractor
	LU5 6600 Lumens			

Options	Accessories
---------	-------------

Paint

(blank) Unpainted (standard)
GY Gray

Photocontrol Receptacle

(blank) 3 Pin NEMA Photocontrol Receptacle
P5 5 Pin Photocontrol Receptacle
P7 7 Pin Photocontrol Receptacle
NR No Receptacle

Supply wire

(blank) 5' of 14 Ga. Leads Prewired to Terminal Block
NW No Prewire

Misc.

PCSS 10 yr. Rated Solid State Photocontrol
PCL1 20 yr. Rated Solid State Photocontrol
PCCC Long Life Solid State Photocontrol with Remote Control On/Off
NL NEMA Label
SH Shorting Cap
SPK Sample Pack

LNH2REF BA Acrylic refractor for Field Installation
LNH2SREF SA refractor for Field Installation

Notes:

- LNH2PKG-Package (includes 24", 1-1/4" diameter mast arm, PCSS photocontrol, 5' of prewire and hardware)
- LNL2PKG-Package (includes 24", 1-1/4" diameter mast arm, PCLL Long Life photocontrol, 5' of prewire and hardware)



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www.americanelectricalighting.com

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Warranty Five-year limited warranty. Complete warranty terms located at: www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx
 Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Please contact your sales representative for the latest product information.

LED NEMA Head Series

LNH2 Security Lighting

DESIGN DATA

Performance Package					
	Distribution	Optics	Lumens	Input Watts	LPW
LU1	R3	SA	2256	17	133
		BA	2225		131
		NA	2313		136
		NU	2211		130
	R5	SA	2348		138
		BA	2294		135
		NA	2401		141
		NU	2317		136
LU2	R3	SA	2890	24	120
		BA	2850		119
		NA	2964		123
		NU	2832		118
	R5	SA	3008		125
		BA	2939		122
		NA	3075		128
		NU	2968		124
LU3	R3	SA	3716	37	100
		BA	3664		99
		NA	3834		104
		NU	3641		98
	R5	SA	3918		106
		BA	3828		103
		NA	4006		108
		NU	3867		105
LU4	R3	SA	4734	39	121
		BA	4668		120
		NA	4854		124
		NU	4639		119
	R5	SA	4914		126
		BA	4801		123
		NA	5023		129
		NU	4849		124
LU5	R3	SA	6314	64	99
		BA	6226		97
		NA	6474		101
		NU	6187		97
	R5	SA	6585		103
		BA	6433		101
		NA	6732		105
		NU	6498		102

Lamp Lumen Depreciation @ 25 °C		
	50,000 hrs	75,000 hrs
LU1	97%	96%
LU2	97%	96%
LU3	97%	96%
LU4	97%	95%
LU5	95%	93%



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American Revolution LED

Series 247L

PRODUCT OVERVIEW



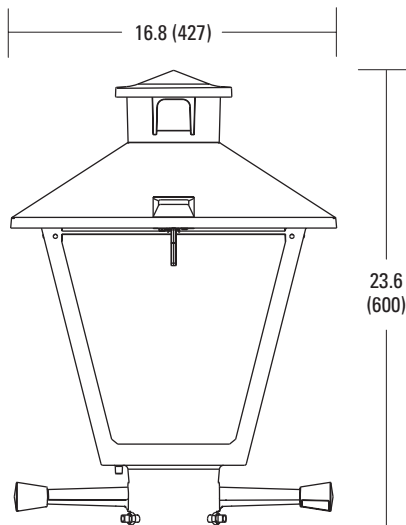
Features:

- Die-cast aluminum housing and hood for long-life performance
- Die-cast trigger latch (TL) and captive thumb screws option available for easy access to internal components
- Optical assembly designed for maximum performance, available in Type II, Type III and Type V
- Hinged hood and captive thumb screws provision afford quick, easy access to electrical and optical area for servicing
- Slipfitter with three set screws allows secure installation to pole sizes 2-3/8" or 3" O.D.
- Surge protection device (standard) exceeds ANSI C62.41 Category C1 criteria (surge tested at 10kV/5kA)
- Complies with ANSI: C136.2, C136.10, C136.15
- CSA listed and suitable for up to 30°C ambient
- Rated L70, LED life greater than 100,000 hours at 25°C
- Replaces up to 150W HPS light source incumbant models
- LED electronic 0V-10V dimmable driver
- DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Applications:

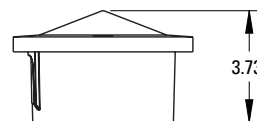
Streetscapes
Walkways
Pathways
Parks

DIMENSIONS

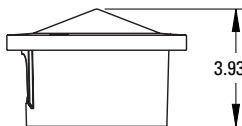


Effective Projected Area (EPA)

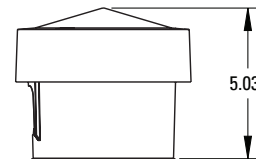
The EPA for the American Revolution Series 247 is 1.6 sq. ft.
P5 or P7 option total height is 24.9 (633).
Approx. Wt. = 36 lbs.



Cupola height
P3 without ROAM
Shown in line diagram



Cupola height
P5/P7 without ROAM



Cupola height
P5/P7 with ROAM

All dimensions are inches (millimeters) unless otherwise noted.

American Revolution LED

Series 247L

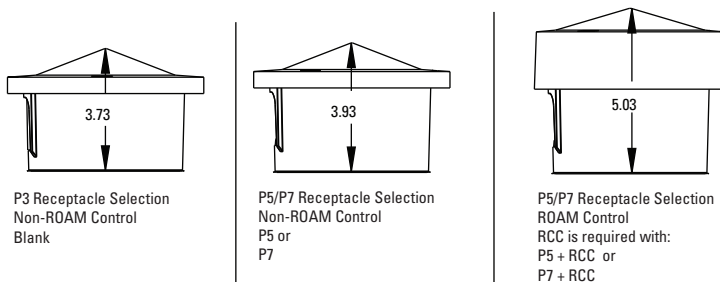
ORDERING INFORMATION

Example: 247L 20LEDE70 MVOLT 4K R3 AY

Series	Performance Package	Voltage	Color Temperature (CCT)
247L American Revolution LED	20LEDE10 20 Chips, 1050 mA Driver, 72 input watts 20LEDE70 20 Chips, 700 mA Driver, 45 input watts 10LEDE10 10 Chips, 1050 mA Driver, 38 input watts 10LEDE70 10 Chips, 700 mA Driver, 25 input watts 10LEDE53 10 Chips, 525 mA Driver, 18 input watts 10LEDE35 10 Chips, 350 mA Driver, 13 input watts	MVOLT Multi-volt, 120-277V 347 347V 480 480V	3K 3000K 4K 4000K 5K 5000K

Distribution	Optics	Options	
R2 Type II R3 Type III R5 Type V	AY Acrylic PY Polycarbonate	<u>Paint</u> ¹ (blank) Black (standard) GY Gray DDB Dark Bronze WH White BZ Bronze	<u>Miscellaneous</u> SS Stainless steel hardware NL NEMA Label XL Not CSA Listed TL Tool-less Entry LDR ⁷ Ladder Rest SH Shorting Cap SHX ⁶ Not CSA Listed Shorting Cap HSB House Side Shield Black HSW House Side Shield White CR Enhanced Corrosion Resistant Finish RCC ⁸ ROAM Dimming Node Cupola Cover
		<u>Photocontrol</u> (blank) 3 pin NEMA Photocontrol Receptacle (standard) NR ² No Photocontrol Receptacle P5 ³ 5 pin NEMA Photocontrol Receptacle (dimmable driver included) P7 ³ 7 pin NEMA Photocontrol Receptacle (dimmable driver included) PCLL ^{4,5} Solid State Long Life Photocontrol PCSS ^{4,5,6} Not CSA Listed Solid State Long Life Photocontrol (120-277V)	<u>Accessories</u> RNC57 ³ ROAM Dimming Node Cupola Cover

Cupola size based on type of control and receptacle



Notes:

- Other colors available, please contact factory
- PC and SH not available with NR option
- Taller cupola cover (RCC) is required when used with ROAM or other similar wireless monitoring control systems
- Standard failure mode="Fail On"
- Photocontrols supplied with ANSI Standard Turn-On levels
- XL option is required
- Ships with unit, field installed
- Required when using ROAM or other similar wireless monitoring control systems



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American Revolution LED

Series 247L

OPERATING CHARACTERISTICS

DLC products are listed in **BOLD**.
Non DLC products are indicated by shaded box.

LED Quantity, mA, CCT	Input Watts	TOTAL LUMENS											
		R2-AY	LPW	R3-AY	LPW	R5-AY	LPW	R2-PY	LPW	R3-PY	LPW	R5-PY	LPW
20LEDE10 3K	73	5,495	75	5,553	76	6,068	83	5,156	71	5,210	71	5,694	78
20LEDE10 4K	73	5,900	81	5,962	82	6,516	89	5,451	75	5,576	76	6,111	84
20LEDE10 5K	73	5,937	81	5,999	82	6,556	90	5,568	76	5,626	77	6,149	84
20LEDE70 3K	46	4,103	89	4,147	90	4,531	99	3,848	84	3,889	85	4,249	92
20LEDE70 4K	46	4,407	96	4,453	97	4,867	106	4,115	89	4,164	91	4,545	99
20LEDE70 5K	46	4,434	96	4,481	97	4,897	106	4,140	90	4,184	91	4,573	99
10LEDE10 3K	39	2,936	75	2,967	76	3,242	83	2,779	71	2,808	72	3,068	79
10LEDE10 4K	39	3,153	81	3,187	82	3,482	89	2,959	76	2,990	77	3,267	84
10LEDE10 5K	39	3,173	81	3,206	82	3,504	90	2,981	76	3,011	77	3,292	84
10LEDE70 3K	26	2,115	81	2,137	82	2,336	90	2,012	77	2,034	78	2,223	86
10LEDE70 4K	26	2,271	87	2,295	88	2,508	96	2,106	81	2,128	82	2,326	89
10LEDE70 5K	26	2,285	88	2,309	89	2,523	97	2,126	82	2,148	83	2,347	90
10LEDE53 3K	19	1,662	87	1,681	88	1,836	97	1,561	82	1,578	83	1,724	91
10LEDE53 4K	19	1,785	94	1,804	95	1,972	104	1,670	88	1,688	89	1,845	97
10LEDE53 5K	19	1,796	95	1,816	96	1,984	104	1,683	89	1,702	90	1,859	98
10LEDE35 3K	14	1,150	82	1,162	83	1,270	91	1,079	77	1,090	78	1,191	85
10LEDE35 4K	14	1,234	88	1,248	89	1,364	97	1,162	83	1,175	84	1,284	92
10LEDE35 5K	14	1,243	89	1,256	90	1,372	98	1,165	83	1,177	84	1,287	92



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Consistent with LEED® goals & Green Globes™ criteria for light pollution reduction

Autobahn Series ATBS Roadway & Security Lighting

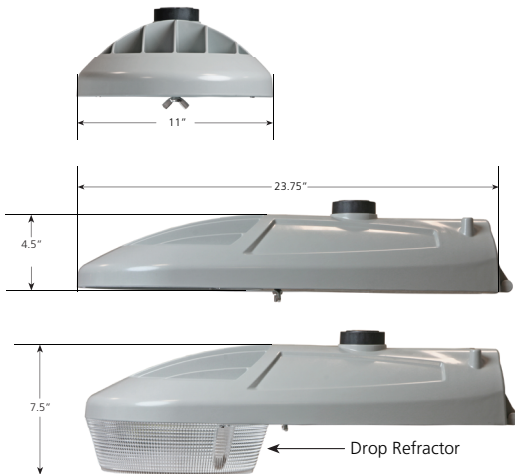
PRODUCT OVERVIEW



Applications:

- Residential streets
- Parking lots
- General security lighting

DIMENSIONS



Effective Projected Area (EPA) The EPA for the ATBS is 0.3 sq. ft., Approx. Wt. = 12 lbs. (5 kg)

STANDARDS

DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

Color temperatures of $\leq 3000\text{K}$ must be specified for International Dark-Sky Association certification.

Rated for -40°C to 40°C ambient

CSA Certified to U.S. and Canadian standards

Complies with ANSI: C136.2, C136.10, C136.14, C136.31, C136.15, C136.37

Note: Actual performance may differ as a result of end-user environment and application. Specifications subject to change without notice.

Features:

OPTICAL

Same Light: Performance is comparable to 50W – 150W HPS and up to 175W Mercury Vapor roadway and security lighting luminaires.

White Light: Correlated color temperature - 4000K, 70 CRI minimum, 3000K, 70 CRI minimum or optional 5000K, 70 CRI minimum.

IP66 rated borosilicate glass optics ensure longevity and minimize dirt depreciation. Unique IP66 rated LED light engines provide 0% uplight and restrict backlight to within sidewalk depth, providing optimal application coverage and optimal pole spacing.

Available distributions are Type II, III, and V roadway distributions. When used with the optional acrylic refractor the unit provides approximately 10% uplight and increased vertical foot-candles

ELECTRICAL

Expected Life: LED light engines are rated $>100,000$ hours at 25°C , L70. Electronic driver has an expected life of 100,000 hours at a 25°C ambient.

Lower Energy: Saves an expected 40-60% over comparable HID luminaires.

Robust Surge Protection: Three different surge protection options provide a minimum of IEEE/ANSI C62.41 Category C (10kV/5kA) protection. 20kV/10kA surge protection is also available.

MECHANICAL

Includes standard AEL lineman-friendly features such as tool-less entry, 3 station terminal block and quick disconnects. Bubble level located inside the electrical compartment for easy leveling at installation.

Rugged die-cast aluminum housing and door are polyester powder-coated for durability and corrosion resistance. Rigorous five-stage pre-treating and painting process yields a finish that achieves a scribe creepage rating of 8 (per ASTM D1654) after over 5000 hours exposure to salt fog chamber (operated per ASTM B117).

Mast arm mount is adjustable for arms from 1-1/4" to 2" (1-5/8" to 2-3/8" O.D.) diameter. The 2-bolt clamping mechanism provides 3G vibration rating per ANSI C136.

The Wildlife shield is cast into the housing (not a separate piece).

CONTROLS

NEMA 3 pin photocontrol receptacle is standard, with the Acuity designed ANSI standard 5 pin and 7 pin receptacles optionally available.

Premium solid state locking-style photocontrol – PCSS (10 year rated life) Extreme long life solid state locking-style photocontrol – PCL1 (20 year rated life)

Optional onboard Adjustable Output module allows the light output and input wattage to be modified to meet site specific requirements, and also can allow a single fixture to be flexibly applied in many different applications.

Autobahn Series ATBS

Roadway & Security Lighting

ORDERING INFORMATION

Example: ATBS A MVOLT R2

Series	Performance Packages	Voltage	Optics
ATBS Autobahn LED Roadway & Security	A 2,500 lumens B 3,200 lumens C 3,800 lumens E 4,700 lumens F 5,400 lumens G 6,100 lumens H 7,100 lumens I 8,500 lumens	MVOLT Multi-volt, 120-277V	R2 Roadway Type II R3 Roadway Type III R5 Roadway Type V D2 Type II, Drop Refractor included D3 Type III, Drop Refractor included D5 Type V, Drop Refractor included

Options

Color Temperature (CCT)

(Blank) 4000K CCT, 70 CRI Min.
3K 3000K CCT, 70 CRI Min.
5K 5000K CCT, 70 CRI Min.

Paint

Blank Gray (Standard)
BK Black
WH White
BZ Bronze

Surge Protection

Standard 10kV/5kA SPD
Blank Acuity SPD-10kV/5kA with inductive filter (Standard)
20 20kV/10KA SPD
MP MOV Pack
IL SPD with Indicator Light

Misc.

HSS House Side Shield
NL NEMA Label

XL Not CSA Certified

Controls

(Blank) 3 Pin NEMA Photocontrol Receptacle
NR¹ No Photocontrol Receptacle
DM² 0V-10V Dimmable Driver
P5 5 Pin Photocontrol Receptacle (dimmmable driver included)
P7 7 Pin Photocontrol Receptacle (dimmmable driver included)
PCSS¹ DTL DSS Photocontrol
PCL¹ DTL DLL Photocontrol 120-277V
AO Field Adjustable Output
SH Shorting Cap

Install Packages

PKGS DTL DSS Photocontrol
PKGL DTL DLL Photocontrol
 Packages ship with selected photocontrol, 24", 1 1/4" diameter arm, 5' of prewire and mounting hardware

Accessories

ATBSREF Drop Refractor for field installation
ATBSHSS House Side Shield for field installation
ATBSLTS Light Trespass Shield for field installation

Notes

1. Not available with Install Packages.
2. Not available with AO option.



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Autobahn Series ATBS

Roadway & Security Lighting

PERFORMANCE PACKAGE

Performance Package	Distribution	Lumens	Input Watts	LPW	50K Hours	LLD @ 25°C 75K Hours	100K Hours
A	R2	2,514	19	132	0.93	0.89	0.85
	R3	2,515		132			
	R5	2,649		139			
	D2	2,394		126			
	D3	2,372		125			
	D5	2,521		133			
B	R2	3,166	24	132	0.93	0.89	0.85
	R3	3,167		132			
	R5	3,336		139			
	D2	3,015		126			
	D3	2,988		124			
	D5	3,175		132			
C	R2	3,784	31	122	0.93	0.89	0.85
	R3	3,780		122			
	R5	4,029		130			
	D2	3,604		116			
	D3	3,566		115			
	D5	3,835		124			
E	R2	4,770	40	119	0.93	0.89	0.85
	R3	4,704		118			
	R5	4,867		122			
	D2	4,543		114			
	D3	4,438		111			
	D5	4,650		116			
F	R2	5,392	47	115	0.93	0.89	0.85
	R3	5,407		115			
	R5	5,175		110			
	D2	5,135		109			
	D3	5,101		109			
	D5	5,051		107			
G	R2	6,235	50	125	0.94	0.92	0.90
	R3	6,101		122			
	R5	6,404		128			
	D2	5,938		119			
	D3	5,756		115			
	D5	6,193		124			
H	R2	7,194	60	120	0.94	0.92	0.90
	R3	7,141		119			
	R5	7,508		125			
	D2	6,851		114			
	D3	6,737		112			
	D5	7,150		119			
I	R2	8,653	76	114	0.94	0.92	0.90
	R3	8,525		112			
	R5	9,003		118			
	D2	8,241		108			
	D3	8,042		106			
	D5	8,574		113			

Note: Information shown above is based on 4000K nominal system data. Individual fixture performance may vary. Specifications subject to change without notice.



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DESCRIPTION

The Navion™ roadway LED luminaire combines world class optical performance, energy efficiency, and outstanding versatility to meet the requirements of any roadway application. Patented AccuLED Optics™ technology delivers unparalleled uniformity and budget-beating operating costs for municipal streets and highways. UL/cUL listed for wet locations, IP66 enclosure rating available.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Heavy-duty cast aluminum housing and door with extruded aluminum heat sink. Tool-less entry, hinged removable power tray door for easy maintenance. 3G vibration rated.

Optics

Choice of 16 patented, high-efficiency AccuLED Optics. The optics are precisely designed to shape the distribution maximizing efficiency and application spacing. AccuLED Optics create consistent distributions with the scalability to meet customized application requirements. Offered standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K, 5000K and 6000K CCT. For the ultimate level of spill light control, an optional house side shield accessory is available and can be field or factory installed. The house side shield is designed to seamlessly integrate with the SL2, SL3, SL4 or AFL optics.

Electrical

LED drivers are mounted to the removable die-cast aluminum door for optimal heat sinking and ease of maintenance. 120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 480V is compatible for use with 480V Wye systems only. 10kV UL 1449 surge protection standard. Thermal management incorporates both conduction and convection to transfer heat rapidly away from the LED source for optimal efficiency and light output. Ambient operating temperature from -40°C to 40°C; 50°C ambient capability available. Standard three-position tunnel type compression terminal block. Greater than 90% lumen maintenance expected at 60,000 hours. Light squares are IP66 enclosure rated. Available in standard 1A drive current and optional 600mA, 800mA and 1200mA drive currents (nominal).

Mounting

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" or 2" mounting arms.

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. Heat sink is anodized aluminum. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.



NVN NAVION

1-6 Light Squares
LED

ROADWAY LUMINAIRE



CERTIFICATION DATA

UL/cUL Wet Location Listed
ISO 9001
IP66 Light Squares
3G Vibration Rated
DesignLights Consortium™ Qualified*

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V 50/60 Hz,
347V 60 Hz, 480V 60 Hz
-40°C Minimum Temperature
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.):

(Fixture Only)

1 Square 0.89
2 Square's 1.0
3 Square's 1.2
4 Square's 1.2
6 Square's 1.4

(Fixture with AI Arm)

1 Square 1.2
2 Square's 1.3
3 Square's 1.5
4 Square's 1.5
6 Square's 1.7

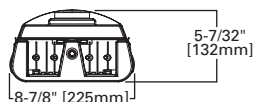
SHIPPING DATA

Approximate Net Weight:

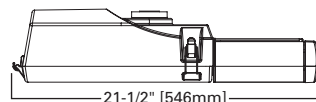
1 Square 17 lbs. (7.7 kgs.)
2 Square's 22 lbs. (10.0 kgs.)
3 Square's 26 lbs. (11.8 kgs.)
4 Square's 31 lbs. (14.1 kgs.)
6 Square's 36 lbs. (16.3 kgs.)

DIMENSIONS

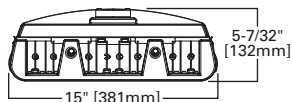
1, 2 or 3 Light Squares



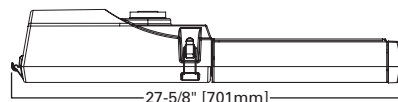
1 Light Square



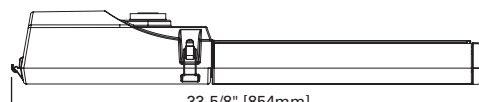
4 or 6 Light Squares



2 or 4 Light Squares

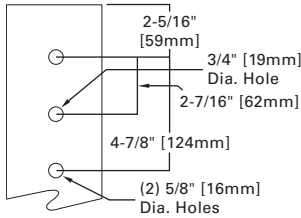


3 or 6 Light Squares



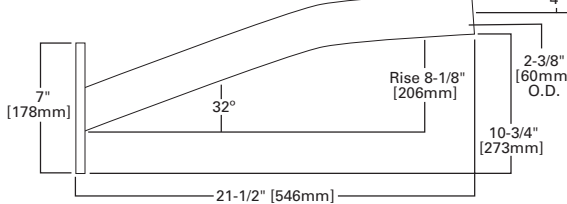
ARM DRILLING

TYPE "M"



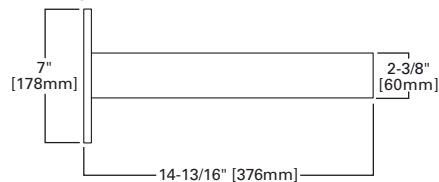
OPTIONAL ARM

Upsweep Arm

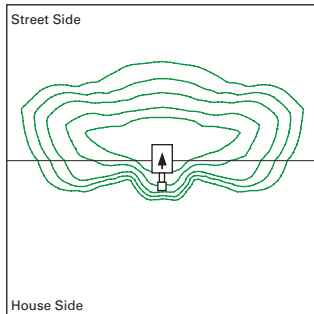


OPTIONAL ARM

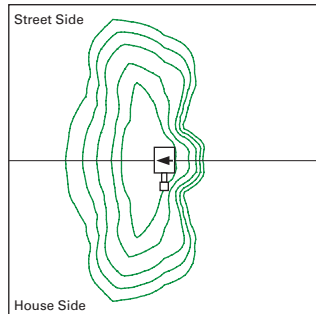
15" Straight Arm



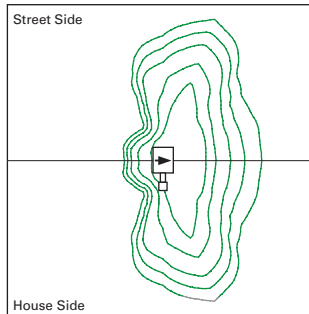
OPTIC ORIENTATION



Standard



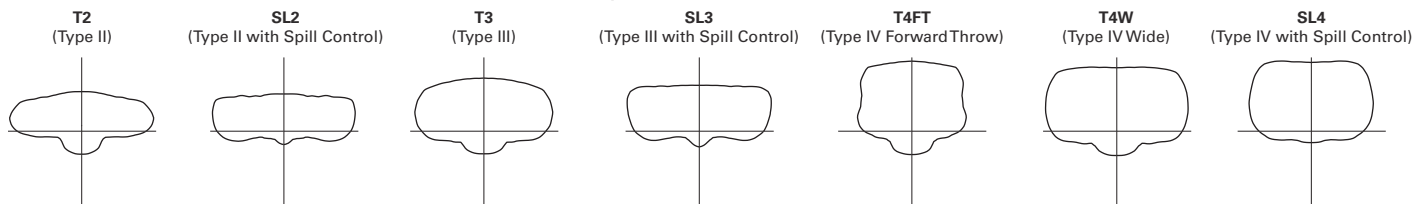
Optics Rotated Left @ 90° (L90)



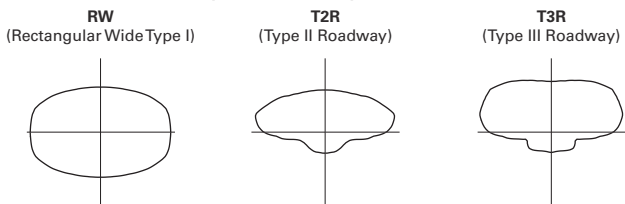
Optics Rotated Right @ 90° (R90)

OPTICAL DISTRIBUTIONS

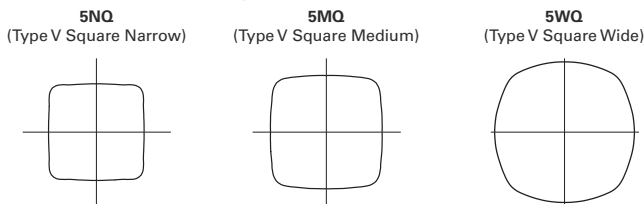
Asymmetric Area Distributions



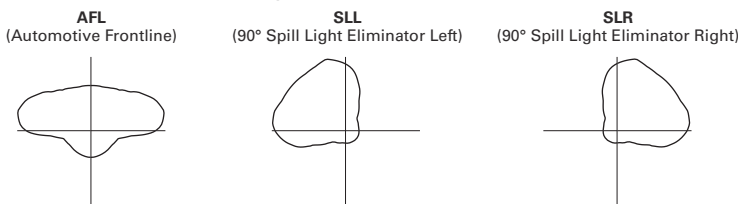
Asymmetric Roadway Distributions



Symmetric Distributions



Specialized Distributions



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

LUMEN MAINTENANCE

Drive Current	Ambient Temperature	TM-21 Lumen Maintenance (60,000 Hours)	Projected L70 (Hours)
Up to 1A	Up to 50°C	> 95%	416,000
1.2A	Up to 40°C	> 90%	205,000

NOMINAL POWER LUMENS (1.2A)

Number of Light Squares	1	2	3	4	5	6	
Nominal Power (Watts)	67	129	191	258	320	382	
Input Current @ 120V (A)	0.58	1.16	1.78	2.31	2.94	3.56	
Input Current @ 208V (A)	0.33	0.63	0.93	1.27	1.57	1.87	
Input Current @ 240V (A)	0.29	0.55	0.80	1.10	1.35	1.61	
Input Current @ 277V (A)	0.25	0.48	0.70	0.96	1.18	1.39	
Input Current @ 347V (A)	0.20	0.39	0.57	0.78	0.96	1.15	
Input Current @ 480V (A)	0.15	0.30	0.43	0.60	0.73	0.85	
Optics							
T2	4000K/5000K Lumens	6,560	13,079	19,450	26,197	32,287	38,679
	3000K Lumens	5,807	11,578	17,217	23,190	28,580	34,239
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
T2R	4000K/5000K Lumens	7,023	14,003	20,823	28,046	34,566	41,410
	3000K Lumens	6,217	12,395	18,433	24,826	30,598	36,656
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T3	4000K/5000K Lumens	6,704	13,366	19,877	26,771	32,995	39,527
	3000K Lumens	5,934	11,832	17,595	23,698	29,207	34,989
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	4000K/5000K Lumens	6,817	13,590	20,211	27,221	33,551	40,192
	3000K Lumens	6,034	12,030	17,891	24,096	29,699	35,578
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4FT	4000K/5000K Lumens	6,754	13,468	20,028	26,975	33,247	39,828
	3000K Lumens	5,979	11,922	17,729	23,878	29,430	35,256
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4W	4000K/5000K Lumens	6,623	13,204	19,636	26,448	32,597	39,048
	3000K Lumens	5,863	11,688	17,382	23,412	28,855	34,565
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	4000K/5000K Lumens	6,570	13,099	19,481	26,238	32,338	38,740
	3000K Lumens	5,816	11,595	17,245	23,226	28,626	34,293
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	4000K/5000K Lumens	6,693	13,345	19,845	26,728	32,943	39,464
	3000K Lumens	5,925	11,813	17,567	23,660	29,161	34,934
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL4	4000K/5000K Lumens	6,393	12,747	18,957	25,532	31,468	37,698
	3000K Lumens	5,659	11,284	16,781	22,601	27,855	33,370
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G5	B2-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	6,889	13,737	20,428	27,513	33,910	40,622
	3000K Lumens	6,098	12,160	18,083	24,355	30,017	35,959
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
5MQ	4000K/5000K Lumens	7,137	14,230	21,162	28,502	35,129	42,083
	3000K Lumens	6,318	12,596	18,733	25,230	31,096	37,252
	BUG Rating	B3-U0-G1	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	4000K/5000K Lumens	6,972	13,901	20,673	27,844	34,318	41,111
	3000K Lumens	6,172	12,305	18,300	24,648	30,378	36,391
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4	B5-U0-G4
SLL/SLR	4000K/5000K Lumens	5,920	11,801	17,550	23,638	29,134	34,901
	3000K Lumens	5,240	10,446	15,535	20,924	25,789	30,894
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5
RW	4000K/5000K Lumens	6,849	13,654	20,305	27,349	33,707	40,379
	3000K Lumens	6,063	12,087	17,974	24,209	29,837	35,743
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
AFL	4000K/5000K Lumens	6,866	13,691	20,360	27,423	33,798	40,489
	3000K Lumens	6,078	12,119	18,023	24,275	29,918	35,841
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 70 CRI.

NOMINAL POWER LUMENS (1A)

Number of Light Squares	1	2	3	4	5	6	
Nominal Power (Watts)	59	113	166	225	279	333	
Input Current @ 120V (A)	0.51	1.02	1.53	2.03	2.55	3.06	
Input Current @ 208V (A)	0.29	0.56	0.82	1.11	1.37	1.64	
Input Current @ 240V (A)	0.26	0.48	0.71	0.96	1.19	1.41	
Input Current @ 277V (A)	0.23	0.42	0.61	0.83	1.03	1.23	
Input Current @ 347V (A)	0.17	0.32	0.50	0.64	0.82	1.00	
Input Current @ 480V (A)	0.14	0.24	0.37	0.48	0.61	0.75	
Optics							
T2	4000K/5000K Lumens	5,980	11,922	17,731	23,881	29,433	35,259
	3000K Lumens	5,293	10,553	15,695	21,139	26,054	31,211
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
T2R	4000K/5000K Lumens	6,402	12,765	18,982	25,566	31,510	37,749
	3000K Lumens	5,667	11,300	16,803	22,631	27,893	33,415
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T3	4000K/5000K Lumens	6,111	12,185	18,119	24,404	30,078	36,032
	3000K Lumens	5,409	10,786	16,039	21,602	26,625	31,896
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
T3R	4000K/5000K Lumens	6,214	12,389	18,424	24,815	30,585	36,639
	3000K Lumens	5,501	10,967	16,309	21,966	27,074	32,433
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
T4FT	4000K/5000K Lumens	6,157	12,277	18,257	24,590	30,307	36,307
	3000K Lumens	5,450	10,868	16,161	21,767	26,828	32,139
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5
T4W	4000K/5000K Lumens	6,038	12,036	17,900	24,109	29,715	35,596
	3000K Lumens	5,345	10,654	15,845	21,341	26,304	31,510
	BUG Rating	B1-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G5	B3-U0-G5
SL2	4000K/5000K Lumens	5,989	11,941	17,758	23,918	29,479	35,315
	3000K Lumens	5,301	10,570	15,719	21,172	26,095	31,261
	BUG Rating	B1-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL3	4000K/5000K Lumens	6,102	12,165	18,090	24,365	30,030	35,975
	3000K Lumens	5,401	10,768	16,013	21,568	26,583	31,845
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
SL4	4000K/5000K Lumens	5,828	11,620	17,281	23,274	28,686	34,365
	3000K Lumens	5,159	10,286	15,297	20,602	25,393	30,420
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5	B3-U0-G5
5NQ	4000K/5000K Lumens	6,280	12,522	18,621	25,080	30,912	37,031
	3000K Lumens	5,559	11,084	16,483	22,201	27,363	32,780
	BUG Rating	B2-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2	B5-U0-G3
5MQ	4000K/5000K Lumens	6,506	12,972	19,291	25,982	32,023	38,362
	3000K Lumens	5,759	11,483	17,076	22,999	28,347	33,958
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G4	B5-U0-G4
5WQ	4000K/5000K Lumens	6,356	12,672	18,845	25,382	31,284	37,476
	3000K Lumens	5,626	11,217	16,682	22,468	27,693	33,174
	BUG Rating	B3-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4	B5-U0-G4
SLL/SLR	4000K/5000K Lumens	5,396	10,758	15,999	21,548	26,558	31,815
	3000K Lumens	4,777	9,523	14,162	19,074	23,509	28,163
	BUG Rating	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G5
RW	4000K/5000K Lumens	6,243	12,447	18,510	24,931	30,727	36,809
	3000K Lumens	5,526	11,018	16,385	22,069	27,200	32,583
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
AFL	4000K/5000K Lumens	6,259	12,480	18,560	24,998	30,810	36,909
	3000K Lumens	5,540	11,047	16,429	22,128	27,273	32,672
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3	B3-U0-G3

* Nominal data for 70 CRI.

NOMINAL POWER LUMENS (800MA)

Number of Light Squares	1	2	3	4	5	6	
Nominal Power (Watts)	44	85	124	171	210	249	
Input Current @ 120V (A)	0.39	0.77	1.13	1.54	1.90	2.26	
Input Current @ 208V (A)	0.22	0.44	0.62	0.88	1.06	1.24	
Input Current @ 240V (A)	0.19	0.38	0.54	0.76	0.92	1.08	
Input Current @ 277V (A)	0.17	0.36	0.47	0.72	0.83	0.95	
Input Current @ 347V (A)	0.15	0.24	0.38	0.49	0.63	0.77	
Input Current @ 480V (A)	0.11	0.18	0.29	0.37	0.48	0.59	
Optics							
T2	4000K/5000K Lumens	4,831	9,633	14,325	19,294	23,780	28,487
	3000K Lumens	4,276	8,527	12,680	17,079	21,050	25,217
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4
T2R	4000K/5000K Lumens	5,172	10,313	15,337	20,656	25,458	30,499
	3000K Lumens	4,578	9,129	13,576	18,285	22,535	26,998
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
T3	4000K/5000K Lumens	4,937	9,844	14,639	19,717	24,301	29,112
	3000K Lumens	4,370	8,714	12,958	17,453	21,511	25,770
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
T3R	4000K/5000K Lumens	5,021	10,009	14,886	20,049	24,711	29,602
	3000K Lumens	4,445	8,860	13,177	17,747	21,874	26,204
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4
T4FT	4000K/5000K Lumens	4,975	9,919	14,751	19,867	24,487	29,334
	3000K Lumens	4,404	8,780	13,058	17,586	21,676	25,966
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	4,878	9,725	14,462	19,479	24,008	28,759
	3000K Lumens	4,318	8,609	12,802	17,243	21,252	25,457
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G4	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	4,839	9,648	14,348	19,324	23,817	28,532
	3000K Lumens	4,283	8,540	12,701	17,106	21,083	25,257
	BUG Rating	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4	B3-U0-G4
SL3	4000K/5000K Lumens	4,930	9,829	14,616	19,685	24,263	29,066
	3000K Lumens	4,364	8,701	12,938	17,425	21,478	25,729
	BUG Rating	B1-U0-G2	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4
SL4	4000K/5000K Lumens	4,709	9,388	13,962	18,804	23,176	27,765
	3000K Lumens	4,168	8,310	12,359	16,645	20,515	24,578
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4	B2-U0-G5
5NQ	4000K/5000K Lumens	5,074	10,117	15,045	20,263	24,975	29,919
	3000K Lumens	4,492	8,956	13,318	17,937	22,108	26,484
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G2
5MQ	4000K/5000K Lumens	5,257	10,481	15,586	20,992	25,873	30,995
	3000K Lumens	4,653	9,278	13,797	18,582	22,903	27,437
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
5WQ	4000K/5000K Lumens	5,135	10,238	15,226	20,507	25,276	30,279
	3000K Lumens	4,546	9,063	13,478	18,153	22,374	26,803
	BUG Rating	B3-U0-G1	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3	B5-U0-G4
SLL/SLR	4000K/5000K Lumens	4,360	8,692	12,926	17,410	21,457	25,705
	3000K Lumens	3,859	7,694	11,442	15,411	18,994	22,754
	BUG Rating	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4	B3-U0-G4
RW	4000K/5000K Lumens	5,044	10,056	14,955	20,143	24,826	29,740
	3000K Lumens	4,465	8,902	13,238	17,831	21,976	26,326
	BUG Rating	B2-U0-G1	B3-U0-G1	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
AFL	4000K/5000K Lumens	5,057	10,083	14,995	20,197	24,892	29,820
	3000K Lumens	4,476	8,925	13,274	17,878	22,034	26,397
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G2	B3-U0-G3

* Nominal data for 70 CRI.

NOMINAL POWER LUMENS (600MA)

Number of Light Squares	1	2	3	4	5	6	
Nominal Power (Watts)	34	66	96	129	162	193	
Input Current @ 120V (A)	0.30	0.58	0.86	1.16	1.44	1.73	
Input Current @ 208V (A)	0.17	0.34	0.49	0.65	0.84	0.99	
Input Current @ 240V (A)	0.15	0.30	0.43	0.56	0.74	0.87	
Input Current @ 277V (A)	0.14	0.28	0.41	0.52	0.69	0.81	
Input Current @ 347V (A)	0.11	0.19	0.30	0.39	0.49	0.60	
Input Current @ 480V (A)	0.08	0.15	0.24	0.30	0.38	0.48	
Optics							
T2	4000K/5000K Lumens	3,940	7,855	11,682	15,734	19,392	23,231
	3000K Lumens	3,488	6,953	10,341	13,928	17,166	20,564
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G3
T2R	4000K/5000K Lumens	4,218	8,410	12,507	15,734	20,761	24,871
	3000K Lumens	3,734	7,445	11,071	14,911	18,378	22,016
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3
T3	4000K/5000K Lumens	4,026	8,028	11,938	16,079	19,817	23,740
	3000K Lumens	3,564	7,106	10,568	14,233	17,542	21,015
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B3-U0-G3	B3-U0-G4
T3R	4000K/5000K Lumens	4,094	8,163	12,139	16,350	20,151	24,140
	3000K Lumens	3,624	7,226	10,745	14,473	17,838	21,369
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G4
T4FT	4000K/5000K Lumens	4,057	8,089	12,029	16,201	19,968	23,921
	3000K Lumens	3,591	7,160	10,648	14,341	17,676	21,175
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G2	B2-U0-G3	B2-U0-G4	B3-U0-G4
T4W	4000K/5000K Lumens	3,978	7,930	11,794	15,885	19,578	23,453
	3000K Lumens	3,521	7,020	10,440	14,061	17,330	20,761
	BUG Rating	B1-U0-G1	B2-U0-G2	B2-U0-G2	B3-U0-G3	B3-U0-G4	B3-U0-G4
SL2	4000K/5000K Lumens	3,946	7,868	11,700	15,759	19,423	23,268
	3000K Lumens	3,493	6,965	10,357	13,950	17,193	20,597
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B3-U0-G3	B3-U0-G4
SL3	4000K/5000K Lumens	4,020	8,015	11,919	16,053	19,786	23,703
	3000K Lumens	3,559	7,095	10,551	14,210	17,515	20,982
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G4	B3-U0-G4
SL4	4000K/5000K Lumens	3,840	7,656	11,386	15,335	18,900	22,642
	3000K Lumens	3,399	6,777	10,079	13,575	16,730	20,043
	BUG Rating	B1-U0-G2	B1-U0-G3	B1-U0-G3	B1-U0-G3	B2-U0-G4	B2-U0-G4
5NQ	4000K/5000K Lumens	4,138	8,250	12,269	16,525	20,367	24,398
	3000K Lumens	3,663	7,303	10,861	14,628	18,029	21,597
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
5MQ	4000K/5000K Lumens	4,287	8,547	12,710	17,118	21,099	25,276
	3000K Lumens	3,795	7,566	11,251	15,153	18,677	22,374
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3
5WQ	4000K/5000K Lumens	4,188	8,349	12,417	16,723	20,612	24,692
	3000K Lumens	3,707	7,391	10,992	14,803	18,246	21,857
	BUG Rating	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B5-U0-G3	B5-U0-G3
SLL/SLR	4000K/5000K Lumens	3,555	7,088	10,541	14,197	17,498	20,962
	3000K Lumens	3,147	6,274	9,331	12,567	15,489	18,556
	BUG Rating	B1-U0-G1	B1-U0-G2	B2-U0-G3	B2-U0-G3	B2-U0-G3	B3-U0-G4
RW	4000K/5000K Lumens	4,113	8,201	12,196	16,426	20,245	24,252
	3000K Lumens	3,641	7,260	10,796	14,540	17,921	21,468
	BUG Rating	B2-U0-G1	B3-U0-G1	B3-U0-G2	B4-U0-G2	B4-U0-G2	B4-U0-G2
AFL	4000K/5000K Lumens	4,124	8,223	12,229	16,470	20,299	24,318
	3000K Lumens	3,651	7,279	10,825	14,579	17,969	21,526
	BUG Rating	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G2

* Nominal data for 70 CRI.

CONTROL OPTIONS

0-10V (DIM)

This fixture is offered standard with 0-10V dimming driver(s). The DIM option provides 0-10V dimming wire leads for use with a lighting control panel or other control method.

Photocontrol (4 and 4N7)

Photocontrol receptacles (4 and 4N7) 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 4N7 receptacle.

After Hours Dim (AHD)

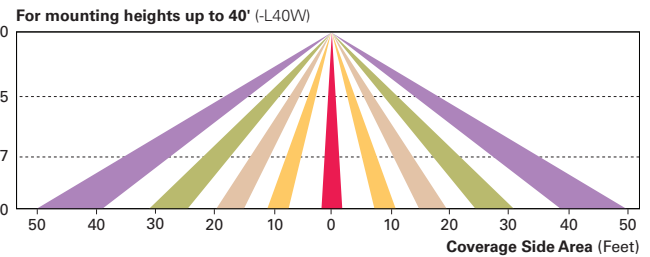
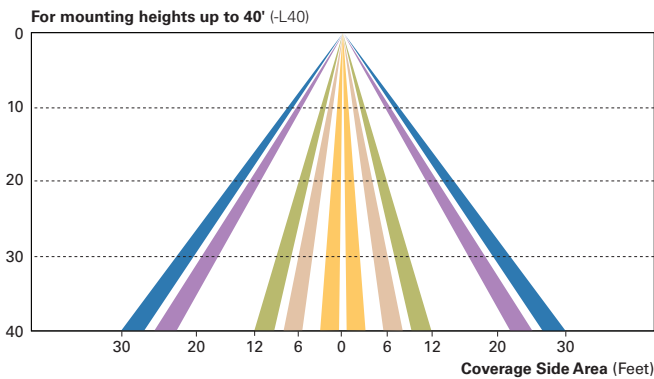
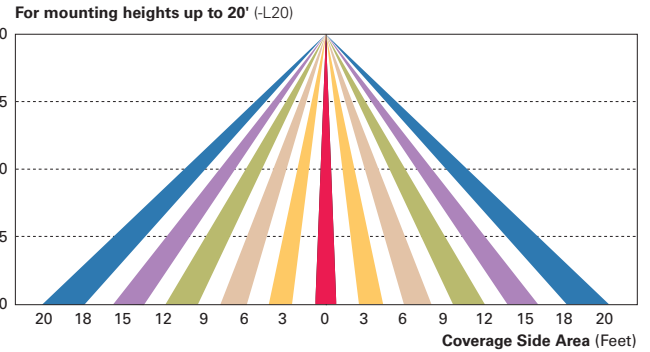
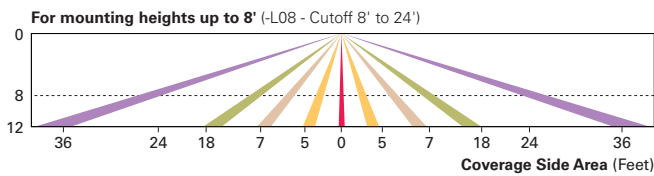
This feature allows photocontrol-enabled luminaires to achieve additional energy savings by dimming during scheduled portions of the night. The dimming profile will automatically take effect after a “dusk-to-dawn” period has been calculated from the photocontrol input. Specify the desired dimming profile for a simple, factory-shipped dimming solution requiring no external control wiring. Reference the After Hours Dim supplemental guide for additional information.

Dimming Occupancy Sensor (MS/DIM-LXX, MS/X-LXX and MS-LXX)

These sensors are factory installed in the luminaire housing. When the MS/DIM-LXX sensor option is 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. The MS-LXX sensor is factory preset to turn the luminaire off after five minutes of no activity. The MS/X-LXX is also preset for five minutes and only controls the specified number of light engines to maintain steady output from the remaining light engines.

These occupancy sensors includes an integral photocell that can be activated with the FSIR-100 accessory for “dusk-to-dawn” control or daylight harvesting - the factory preset is OFF. The FSIR-100 is a wireless tool utilized for changing the dimming level, time delay, sensitivity and other parameters.

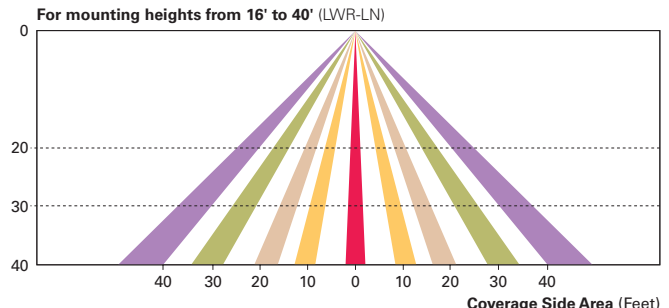
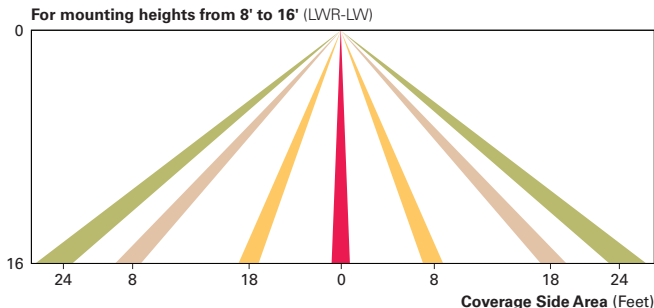
A variety of sensor lens are available to optimize the coverage pattern for mounting heights from 8'-40'.



LumaWatt Wireless Control and Monitoring System (LWR-LW and LWR-LN)

The LumaWatt system is a peer-to-peer wireless network of luminaire-integral sensors for any sized project. Each sensor is capable of motion and photo sensing, metering power consumption and wireless communication. The end-user can securely create and manage sensor profiles with browser-based management software. The software will automatically broadcast to the sensors via wireless gateways for zone-based and individual luminaire control. The LumaWatt software provides smart building solutions by utilizing the sensor to provide easy-to-use dashboard and analytic capabilities such as improved energy savings, traffic flow analysis, building management software integration and more.

For additional details, refer to the LumaWatt product guides.



ORDERING INFORMATION

Sample Number: NVN-AF-01-E-U-T3R-10K-4-AP

Product Family ^{1,2}	Light Engine	Number of Light Squares ³	Driver	Voltage	Distribution	Surge Protection
NVN=Navion	AF	01=1 02=2 03=3 04=4 06=6	E=Non-Dimming D=Dimming (0-10V) ⁴	U=Universal (120-277V) 8=480V ⁵ 9=347V ⁶	T2=Type II T2R=Type II Roadway T3=Type III T3R=Type III Roadway T4FT=Type IV Forward Throw T4W=Type IV Wide 5NQ=Type V Narrow 5MQ=Type V Square Medium 5WQ=Type V Square Wide SL2=Type II w/Spill Control SL3=Type III w/Spill Control SL4=Type IV w/Spill Control SLL=90° Spill Light Eliminator Left SLR=90° Spill Light Eliminator Right RW=Rectangular Wide Type I AFL=Automotive Frontline	10K=Cooper 10kV Surge Module (Standard) X=Driver Surge Protection Only ⁷
Options (Add as Suffix)						
2L=Two Circuits ⁸ 7030=70 CRI / 3000K ⁹ 7050=70 CRI / 5000K ⁹ 7060=70 CRI / 6000K ⁹ 8030=80 CRI / 3000K ⁹ 600=Drive Current Factory Set to 615mA ^{10,11} 800=Drive Current Factory Set to 800mA ^{10,11} 1200=Drive Current Set to 1.2mA 4=NEMA Twistlock Photocontrol Receptacle 4N7=NEMA 7-PIN Twistlock Photocontrol Receptacle ¹² IP66=IP66 Rated HA=50°C High Ambient ¹³ L90=Optics Rotated 90° Left R90=Optics Rotated 90° Right CE=CE Marking ¹⁴				MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ¹⁵ MS/DIM-L20=Motion Sensor for Dimming Operation, 9' - 20' Mounting Height ¹⁵ MS/DIM-L40=Motion Sensor for Dimming Operation, 21' - 40' Mounting Height ¹⁵ MS/X-L08=Bi-Level Motion Sensor, Maximum 8' Mounting Height ¹⁶ MS/X-L20=Bi-Level Motion Sensor, 9' - 20' Mounting Height ¹⁶ MS/X-L40=Bi-Level Motion Sensor, 21' - 40' Mounting Height ¹⁶ K=Level Indicator AI=Site Arm Included ¹⁷ A15=Arm Included (15" Straight Arm) ¹⁸ LCF=Light Square Trim Plate Painted to Match Housing HSS=Factory Installed House Side Shield ¹⁹ DIMRF-LW=LumaWatt Wireless Sensor, Wide Lens for 8' - 16' Mounting Heights ^{20,21} DIMRF-LN=LumaWatt Wireless Sensor, Narrow Lens for 16' - 40' Mounting Heights ^{20,21} AHD145=After Hours Dim, 5 Hours ²² AHD245=After Hours Dim, 6 Hours ²² AHD255=After Hours Dim, 7 Hours ²² AHD355=After Hours Dim, 8 Hours ²²		
Color				Accessories (Order Separately)		
AP=Grey (Standard) BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White				OA/RA1016=NEMA Photocontrol - Multi-Tap OA/RA1027=NEMA Photocontrol - 480V OA/RA1201=NEMA Photocontrol - 347V OA/RA1013=Photocontrol Shorting Cap OA/RA1014=NEMA Photo Control - 120V OA1223=10kV Surge Module Replacement FSIR-100=Wireless Configuration Tool for Motion Sensor ²³ LS/HSS=Field Installed House Side Shield ²⁴ A15=15" Straight Arm ¹⁷		

- NOTES:**
- DesignLights Consortium™ Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.
 - 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.
 - Standard 1A drive current. Standard 4000K CCT and nominal 70 CRI.
 - Must specify 4N7 option.
 - 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).
 - Requires the use of an internal step down transformer when combined with sensor options. Not available with sensor at 1200mA. Not available in combination with the HA high ambient and sensor options at 1A.
 - Consult factory for driver surge protection values.
 - Low-level output varies by number of light squares specified. Consult factory. Requires two or more light squares. No terminal block with 2L options.
 - Use dedicated IES files for 3000K, 5000K and 6000K when performing layouts. These files are published on the Navion luminaire product page on the website. Extended lead times apply.
 - 1 Amp standard. Use dedicated IES files for 600mA, 800mA and 1200mA when performing layouts. These files are published on the Navion luminaire product page on the website.
 - Not available with any MS/DIM or DIMRF options.
 - Only available with dimming driver.
 - Not available with 1200mA.
 - CE is not available with the 1200mA, DIMRF, MS, MS/X, MS/DIM, 4 or 4N7 options. Available in 120-277V only.
 - Sensor mounted externally. Must specify dimming driver. Consult factory for more information.
 - Sensor mounted externally. Available in 2, 3, 4 or 6 Light Square configurations. Replace "X" with number of Light Squares in low output mode. For ON/OFF operation, replace "X" with "0". Maximum two Light Squares in low output mode. Not available with dimming driver. No terminal block with bi-level operation.
 - 22" upsweep arm. Round pole adapter included.
 - Round pole adapter and mounting hardware included, "M" drilling pattern.
 - Only for use with SL2, SL3, SL4 and AFL distributions. The Light Square trim plate is painted black when the HSS option is selected.
 - LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See www.eaton.com/lighting for LumaWatt application information.
 - LumaWatt wireless system is not available with 4N7 (Not needed) or with 600mA, 800mA or 2L options.
 - Requires the use of 4 or 4N7 photocontrol receptacle with photocontrol accessory. See After Hours Dim supplemental guide for additional information.
 - This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.
 - One required for each light square.

DESCRIPTION

The Traditionaire LED outdoor luminaire displays the old-fashioned charm of traditional area lighting, enhancing any setting with distinctive styling. As a decorative luminaire, the Traditionaire LED tastefully complements the architectural and environmental design of parks and roadways. The high-lumen downlight configuration uses Eaton's patented LightBAR™ technology to deliver uniform and efficient illumination to pedestrian and roadway applications.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Hinged (stainless steel hinge pins) die-cast aluminum housing and cover with cupola. 3G vibration tested to ensure strength of construction and longevity in application.

Optics

Choice of six patented, high-efficiency AccuLED Optic™ technology manufactured from injection-molded acrylic. Optics are precisely designed to shape the light output, maximizing efficiency and application spacing. AccuLED Optic technology, creates consistent distributions with the scalability to meet customized application requirements. Offered Standard in 4000K (+/- 275K) CCT and minimum 70 CRI. Optional 3000K CCT, 5000K CCT and 5700K CCT. For the ultimate level of spill

light control, an optional house-side shield accessory can be field or factory installed. The house-side shield is designed to seamlessly integrate with the SL2 or SL3 optics.

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. All fixtures are shipped standard with 10kV/10kA common – and differential – mode surge protection. LightBARs feature an IP66 enclosure rating and

maintain greater than 95% lumen maintenance at 60,000 hours per IESNA TM-21.

Mounting

Self-aligning pole-top fitter for 3" O.D. pole tops or vertical tenons. Square headed 1-1/4" polymer coated mounting bolts with a lock nut.

Finish

Cast components finished in a super durable black 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.

Warranty

Five-year warranty.

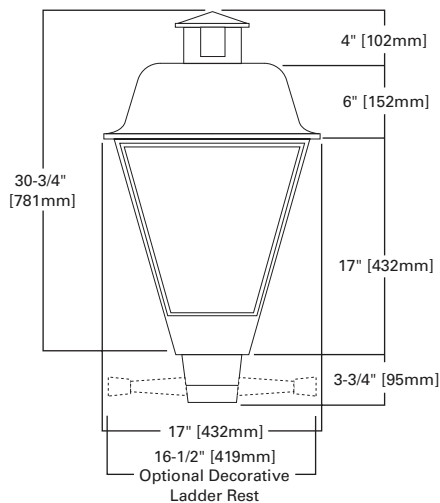


UTLD TRADITIONAIRE LED DOWNLIGHT

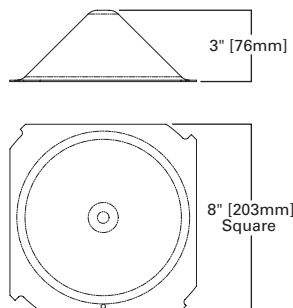
1 - 3 LightBARs
Solid State LED

DECORATIVE POST TOP
LUMINAIRE

DIMENSIONS



OPTIONAL BIRD CONE



CERTIFICATION DATA

UL/cUL Listed
LM79 / LM80 Compliant
3G Vibration Rated
IP66 LightBARs
ISO 9001

ENERGY DATA

Electronic LED Driver
>0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 & 60Hz, 347V/60Hz,
480V/60Hz
-40°C Minimum Temperature
40°C Ambient Temperature Rating

EPA

Effective Projected Area: (Sq. Ft.)
2.3

SHIPPING DATA

Approximate Net Weight:
37 lbs. (17 kgs.)

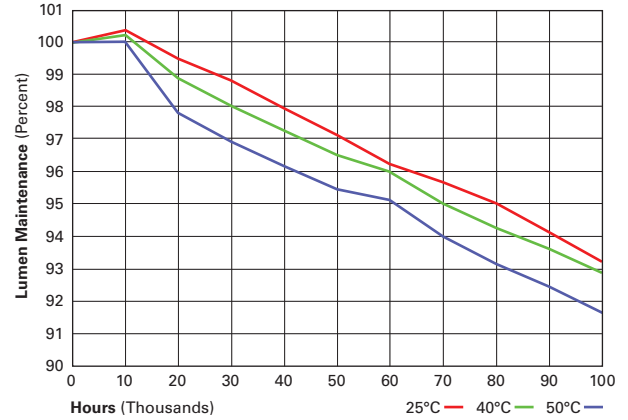
POWER AND LUMENS (STANDARD CONFIGURATION - NO LENSES OR BIRD CONE)

LUMEN MAINTENANCE

LED LightBARS	E01	E02	E03	F01	F02	F03	
Number of LEDs	21 LEDs	21 LEDs	21 LEDs	7 LEDs	7 LEDs	7 LEDs	
Power (Wattage)	25	52	75	26	55	78	
Current @ 120V (A)	0.21	0.43	0.63	0.22	0.46	0.65	
Current @ 277V (A)	0.09	0.19	0.27	0.09	0.20	0.28	
Optics							
T2	Lumens	2,678	5,356	8,033	2,211	4,421	6,632
	BUG Rating	1-0-1	2-0-2	2-0-2	1-0-1	2-0-2	2-0-2
T3	Lumens	2,695	5,391	8,086	2,225	4,450	6,676
	BUG Rating	1-0-1	2-0-2	3-0-3	1-0-1	2-0-2	2-0-2
T4	Lumens	2,637	5,274	7,911	2,177	4,354	6,531
	BUG Rating	1-0-1	1-0-2	1-0-2	1-0-1	1-0-2	1-0-2
SL2	Lumens	2,646	5,292	7,937	2,184	4,368	6,552
	BUG Rating	1-0-1	1-0-2	2-0-2	1-0-1	1-0-1	2-0-2
SL3	Lumens	2,629	5,258	7,886	2,170	4,340	6,510
	BUG Rating	1-0-1	1-0-2	2-0-2	1-0-1	1-0-1	1-0-2
5MQ	Lumens	2,815	5,630	8,445	2,324	4,648	6,972
	BUG Rating	2-0-1	3-0-1	3-0-2	2-0-1	3-0-1	3-0-1
5WQ	Lumens	2,825	5,651	8,476	2,333	4,665	6,997
	BUG Rating	2-0-1	3-0-1	3-0-2	2-0-1	3-0-1	3-0-2

Ambient Temperature	25,000 Hours*	50,000 Hours*	60,000 Hours*	100,000 Hours	Theoretical L70 (Hours)
25°C	> 99%	> 97%	> 96%	> 93%	> 450,000
40°C	> 98%	> 97%	> 96%	> 92%	> 425,000
50°C	> 97%	> 96%	> 95%	> 91%	> 400,000

* Per IESNA TM-21 data.



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

ORDERING INFORMATION

Sample Number: UTLD-F03-LED-D-U-T3-4N7

Product Family	Number of LightBARS 1,2	Source Type	Driver	Voltage	Distribution
UTLD=Traditionaire™ LED Downlight	E01=(1) 21 LED LightBAR E02=(2) 21 LED LightBARS E03=(3) 21 LED LightBARS F01=(1) 7 LED LightBAR F02=(2) 7 LED LightBARS F03=(3) 7 LED LightBARS	LED=Solid State Light Emitting Diodes	E=Non-Dimming D=Dimming 3	U=Universal (120-277V) 8=480V 4 9=347V	T2=Type II T3=Type III SL2=Type II w/Spill Control SL3=Type III w/Spill Control 5MQ=Type V Square Medium 5WQ=Type V Square Wide
Options (Add as Suffix)				Accessories (Order Separately)	
4=NEMA Photocontrol Receptacle 4N7=NEMA 7-PIN Twistlock Photocontrol Receptacle 5 W=20' #10 Leads S=Snap Latches for Tool-less Light Replacement U=UL/CSA Listed J=Factory Installed Ladder Rest 7030=70 CRI / 3000K CCT 6 7050=70 CRI / 5000K CCT 6 7060=70 CRI / 5700K CCT 6 8030=80 CRI / 3000K CCT 6 2L=Two Circuits 7 A=Refractive Lens Panels 8 LCF=LightBAR Cover Plate Matches Housing Finish BC=Bird Cone 8 HSS=Factory Installed House Side Shield 9 AP=Grey BZ=Bronze WH=White				TA1BK=Decorative Ladder Rest for Field Installation OA1222=10kV Surge Replacement Module LB/HSS-21=Field Installed House Side Shield for "E" LightBARS 9,10 LB/HSS-07=Field Installed House Side Shield for "F" LightBARS 9,10	

- NOTES:**
- 21 LED LightBAR driven at 350mA, 7 LED LightBAR driven at 1A.
 - Standard 4000K CCT and nominal 70 CRI.
 - Must specify 4N7 option.
 - 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).
 - Only available with dimming drivers.
 - Consult factory for lead times and lumen multiplier.
 - Low-level output varies by bar count. Consult factory. Requires two or more LightBARS.
 - Lens panels and bird cone can not be ordered together.
 - Only for use with SL2 and SL3 distributions.
 - One required for each LightBAR.

DESCRIPTION

The Verdeen LED roadway luminaire combines optical performance, energy efficiency, and outstanding versatility to meet the requirements of any roadway application. Advanced optical technology delivers unparalleled uniformity, scalability, and budget-beating operating costs for municipal streets and highways. UL/cUL listed for wet locations with an optional IP66 enclosure rating available.

Catalog #		Type
Project		
Comments		Date
Prepared by		

SPECIFICATION FEATURES

Construction

Heavy-duty die-cast aluminum housing and door. Tool-less entry, hinged removable door for easy maintenance. 3G vibration rated.

Optics

Optics are precisely designed to shape the distribution maximizing efficiency and fixture spacing. Offered standard in 4000K (+/- 275K) CCT and 70 CRI. Optional 5700K CCT, 5000K CCT and 3000K CCT are available.

Electrical

120-277V 50/60Hz, 347V 60Hz or 480V 60Hz operation. 10kV/10kA common- and differential- mode surge protection available. Thermal management transfers heat away

from the LED source for optimal efficiency, light output and lumen maintenance. Operates in ambient temperatures from -40°C to 40°C. 50°C HA (high ambient) option available. Standard three-position tunnel type terminal block. LED modules are IP66 rated.

Mounting

Two-bolt/one-bracket slipfitter with cast-in pipe stop and 2.5° leveling steps. Four-bolt/two-clamp mounting option. 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.

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. Consult your lighting representative at Eaton for a complete selection of standard colors.

Warranty

Five-year warranty.



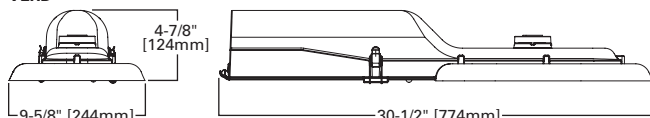
VERD VERDEON

LED

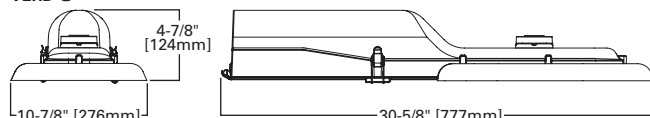
ROADWAY LUMINAIRE

DIMENSIONS

VERD

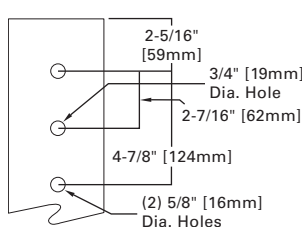


VERD-G



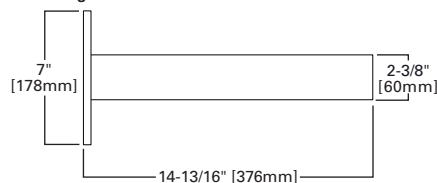
ARM DRILLING

TYPE "M"



OPTIONAL ARM

15" Straight Arm



CERTIFICATION DATA

UL and cUL Wet Location Listed
IP66-Rated Optics
3G Vibration Rated
ISO 9001
DesignLights Consortium™ Qualified*

ENERGY DATA

Electronic LED Driver
0.9 Power Factor
<20% Total Harmonic Distortion
120-277V/50 and 60Hz, 347V 60Hz,
480V 60Hz
-40°C Minimum Temperature Rating
+40°C Ambient Temperature Rating

EPA

Effective Projected Area (Sq. Ft.): 0.5

SHIPPING DATA

Approximate Net Weight:
20 lbs. (9.1 kgs.)

POWER AND LUMENS

Light Engine	A016	A018	A01	A028	A02	G-A028	G-A02	
Power (Watts)	36	51	64	72	92	103	143	
Current (a) @ 120V	0.32	0.45	0.57	0.64	0.81	0.91	1.26	
Current (a) @ 277V	0.01	0.01	0.01	0.01	0.01	0.01	0.02	
Power (Watts)	40	56	--	79	101	113	154	
Current @ 347V	0.15	0.21	--	0.29	0.37	0.42	0.57	
Current @ 480V	0.11	0.15	--	0.21	0.27	0.30	0.41	
Optics								
Type II	Lumens	3,855	4,936	5,839	7,858	9,294	12,064	15,332
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B3-U0-G3
Type III	Lumens	3,775	4,833	5,716	7,693	9,099	11,946	15,182
	BUG Rating	B1-U0-G1	B1-U0-G1	B1-U0-G1	B2-U0-G2	B2-U0-G2	B2-U0-G2	B2-U0-G2
Type IV	Lumens	3,785	4,846	5,732	7,714	9,123	11,944	15,180
	BUG Rating	B1-U0-G2	B1-U0-G2	B1-U0-G2	B1-U0-G3	B2-U0-G3	B2-U0-G3	B2-U0-G4
Type V	Lumens	3,864	4,948	5,852	7,876	9,315	12,137	15,425
	BUG Rating	B3-U0-G2	B3-U0-G2	B3-U0-G2	B3-U0-G3	B4-U0-G3	B4-U0-G3	B4-U0-G3

NOTE: Lumen output for AP Grey fixture color, 120-277V.

LUMEN MAINTENANCE

Ambient Temperature	TM-21 Lumen Maintenance (50,000 hours)	Theoretical L70 (Hours)
A01*		
25°C	>88%	>127,000
40°C	>82%	>87,000
A018, A016, A02, & A028		
Ambient Temperature	TM-21 Lumen Maintenance (50,000 hours)	Theoretical L70 (Hours)
25°C	>92%	>200,000
40°C	>90%	>145,000
G-A02 & G-A028		
Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours)	Theoretical L70 (Hours)
25°C	>91%	>250,000
40°C	>90%	>200,000

* A01 Not available in 347V or 480V.

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

ORDERING INFORMATION

Sample Number: VERD-A018-D-U-T2-4N7-AP

Product Family ^{1,2}	Light Engine ³	Driver ⁵	Voltage	Distribution
VERD=Verdeon	A01=1 LED, Full Output ⁴ A018=1 LED, Approximately 80% Output A016=1 LED, Approximately 60% Output A02=2 LEDs, Full Output A028=2 LEDs, Approximately 80% Output G-A02=High Lumen, 2 LEDs, Full Output G-A028=High Lumen, 2 LEDs, Approximately 80% Output	E=Non-Dimming D=Dimming (0-10V) ⁶	U=Universal (120-277V) 8=480V ^{7,8} 9=347V ⁷	T2=Type II T3=Type III T4=Type IV T5=Type V
Options (Add as Suffix)			Color	Accessories (Order Separately)
7030=70 CRI / 3000K CCT ⁹ 7060=70 CRI / 5700K CCT ⁹ 4=NEMA Twistlock Photocontrol Receptacle 4N7=NEMA 7-PIN Twistlock Photocontrol Receptacle ¹⁰ 10K=10kV UL 1449 Surge Protective Device 10MSP=10kV MOV Surge Protective IP66=IP66 Rated Housing HA=50°C High Ambient Temperature MS/DIM-L08=Motion Sensor for Dimming Operation, Maximum 8' Mounting Height ^{10,11,12} MS/DIM-L20=Motion Sensor for Dimming Operation, Maximum 9' - 20' Mounting Height ^{10,11,12} MS/DIM-L40=Motion Sensor for Dimming Operation, Maximum 21' - 40' Mounting Height ^{10,11,12} LWR-LN=Factory Installed LumaWatt RF Dimming Control System (Mounting Height 16' and Up) ^{13,14} LWR-LW=Factory Installed LumaWatt RF Dimming Control System (Mounting Height below 16') ^{13,14} K=Level Indicator 4B=Four-bolt, Two-clamp Mounting A15=Arm Included (15" Straight Arm) ¹⁵			AP=Grey (Standard) BZ=Bronze BK=Black DP=Dark Platinum GM=Graphite Metallic WH=White	OA1223=10kV/10kA UL 1449 Surge Module 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 FSIR-100=Wireless Configuration Tool for Motion Sensor ^{18,16} HS-VERD=Verdeon House Side Shield VGS-F/B=Vertical Glare Shield, Front/Back VGS-SIDE=Vertical Glare Shield, Side

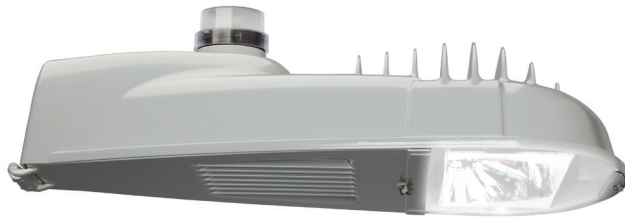
- NOTES:**
- Customer is responsible for engineering analysis to confirm pole and fixture compatibility for all applications. Refer to our white paper WP513001EN for additional support information.
 - DesignLights Consortium™ Qualified. Refer to www.designlights.org qualified products list under family models for details.
 - Standard 4000K CCT and 70 CRI.
 - Not available in 347V or 480V.
 - Consult factory for driver surge protection values.
 - Must specify 4N7 option.
 - Not available with A01 light engine.
 - 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).
 - Extended lead times apply. Use dedicated IES files for 3000K and 5700K when performing layouts. These files are published on the VERD Verdeon luminaire product page on the website.
 - Must specify dimming driver.
 - Not available with 4B option. Sensor mounted externally. Consult factory for more information.
 - The FSIR-100 accessory is required to adjust parameters.
 - LumaWatt wireless sensors are factory installed and require network components RF-EM-1, RF-GW-1 and RF-ROUT-1 in appropriate quantities. See website for LumaWatt application information.
 - LumaWatt wireless system is not available with photocontrol receptacle (not required).
 - Round pole adapter and mounting hardware included. "M" drill pattern.
 - This tool enables adjustment of parameters including high and low modes, sensitivity, time delay, cutoff and more. Consult your lighting representative at Eaton for more information.



Eaton
 1121 Highway 74 South
 Peachtree City, GA 30269
 P: 770-486-4800
www.eaton.com/lighting
 Specifications and dimensions subject to change without notice.

Evolve™ LED Roadway Lighting

LED Roadway Luminaire (ERL1-ERLH-ERS1-ERS2)



Product Features

The Evolve™ LED Roadway Luminaire is optimized for customers requiring a LED solution for local, collector and major roadways. GE's unique reflective optics are designed to optimize application efficiency and minimize glare. The modern design incorporates the heat sink directly into the unit for heat transfer to prolong LED life. This reliable unit has a 100,000 hour design life, significantly reducing maintenance needs and expense over the life of the fixture. This efficient solution lowers energy consumption compared to traditional HID fixture for additional operating cost savings.

Applications

- Designed to meet recommended luminance and illuminance requirements for local, collector and major roadway/street classifications.

Housing

- The modern design incorporates Casting-integral heatsink for maximum heat transfer.
- Meets 3G vibration per ANSI C136.31-2010.
- Die Cast Enclosure.




LED & Optical Assembly

- Evolve™ light engine consisting of reflective technology designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 3000K and 4000K typical.
- LM-79 tests and reports in accordance with IESNA standards.

Lumen Maintenance

- Lumen Maintenance per TM21.

Ratings

- /  listed, suitable for wet locations per UL 1598.
- Std. Optical enclosure rated per ANSI C136.25-2009: ERL1 = IP65, ERS1-2 = IP66, ERLH = IP65.
- Upward Light Output Ratio (ULOR) = 0.
- Compliant with the material restriction requirements of RoHS.
-  3000k must be selected to meet IDA certification and approval - ERL1 and ERLH only.

Product ID	Lumen Output	Ambient Rating
ERL1	02-09	-40°C to 50°C
ERLH	10-11	-40°C to 50°C
ERLH	13-15	-40°C to 40°C
ERS1	10-15	-40°C to 50°C
ERS2	16-23	-40°C to 50°C
ERS2	25-28	-40°C to 40°C

Delayed start may be experienced <-35°C.

Mounting

- Slipfitter with +/- 5 degree of adjustment for leveling.
- Integral die cast mounting pipe stop.
- Adjustable for 1.25 in. or 2 in. mounting pipe.

Finish

- Corrosion resistant polyester powder paint, minimum 2.0 mil. thickness.
- Standard colors: Black, Gray and Dark Bronze.
- RAL & custom colors available.
- Optional coastal finish available.

Electrical

- 120-277 VAC and 347-480 VAC.
- System power factor is >90% and THD <20%.*
- Class "A" Sound rating.
- 0-10V dimming standard or DALI dimming available upon request for 120V-277V.
- Surge Protection per ANSI C136.2-2015:
 - Standard: 6kV/3kA "Basic: (120 Strikes)"
 - Optional Secondary: 10kV/5kA "Enhanced: (40 Strikes)"
- EMI: Title 47 CFR Part 15 Class A
- Photo electric sensors (PE) available.

* System power factor and THD is tested and specified at 120V input and maximum load conditions. THD<26% for 347/480V supply with 03 power level.

Warranty

- 5 Year Standard
- 10 Year Optional

Suggested HID Replacement Lumen Levels

- ~4,000–5,000 lumens to replace 100W HPS Cobra-head
- ~7,000–8,800 lumens to replace 150W HPS Cobra-head
- ~8,500–11,500 lumens to replace 200W HPS Cobra-head
- ~11,500–14,000 lumens to replace 250W HPS Cobra-head
- ~21,000–28,000 lumens to replace 400W HPS Cobra-head

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

Ordering Number Logic

Evolve™ LED Streetlight (ERL1)



ERL1

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve R = Roadway L = Local 1 = Single Module	0 = 120-277* 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 D = 347 H = 347-480*	02* 03 04 05 06 07 08 09	A1 = Extra Narrow Asymmetric B1 = Narrow Asymmetric (Medium) C1 = Asymmetric (Short) D1 = Asymmetric Forward E1 = Asymmetric (Medium) F1 = Asymmetric (Wide) G1 = Asymmetric (Extra Wide)	30 = 3000K 40 = 4000K	A = ANSI C136.41 7-pin D = ANSI C136.41 7-pin receptacle with Shorting Cap E = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.*	GRAY = Gray BLCK = Black DKBZ = Dark Bronze	A = 4 Bolt Slipfitter † F = Fusing G = Internal Bubble Level I = IP66 Optical L = Tool-Less Entry R = Optional Secondary Enhanced Surge Protection (10kV/5kA) U = Universal DALI Programmable +^ X = Single Package # Y = Coastal Finish * XXX = Special Options
	* Not available with Fusing. Must choose a discreet voltage with F option.	See Data Table for more information. *120V only, not compatible with 0-10V dimming.	See Data Table for more information		* PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.		† Contact manufacturer for Lead-Time. # Std Packaging = 20 units per container. * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^ Not available in 347V, 480V or 347-480V for Lumen Level 07 and 08.

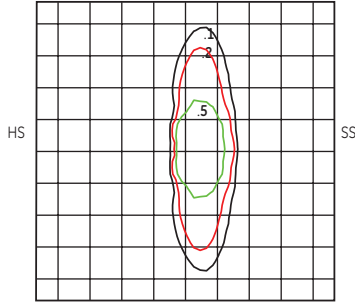
PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATING		IES FILE NUMBER							
			4000K	3000K	120-277V	347-480V	4000K	3000K	4000K		3000K					
									120-277V	347-480V	120-277V	347-480V				
ERL1	02	A1	1900	1800	15	N/A	B1-U0-G1	B1-U0-G1	ERL1_02A140	-120VIES	N/A	ERL1_02A130	-120VIES	N/A		
ERL1		B1	1900	1800			B1-U0-G0	B1-U0-G0	ERL1_02B140	-120VIES	N/A	ERL1_02B130	-120VIES	N/A		
ERL1		C1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02C140	-120VIES	N/A	ERL1_02C130	-120VIES	N/A		
ERL1		D1	1900	1800			B1-U0-G0	B1-U0-G0	ERL1_02D140	-120VIES	N/A	ERL1_02D130	-120VIES	N/A		
ERL1		E1	2000	1900			B1-U0-G0	B1-U0-G0	ERL1_02E140	-120VIES	N/A	ERL1_02E130	-120VIES	N/A		
ERL1		F1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02F140	-120VIES	N/A	ERL1_02F130	-120VIES	N/A		
ERL1		G1	2000	1900			B1-U0-G1	B1-U0-G1	ERL1_02G140	-120VIES	N/A	ERL1_02G130	-120VIES	N/A		
ERL1		A1	2800	2700			B1-U0-G1	B1-U0-G1	ERL1_03A140	-120-277VIES	ERL1_03A140	-347-480VIES	ERL1_03A130	-120-277VIES	ERL1_03A130	-347-480VIES
ERL1		B1	2900	2800			B1-U0-G1	B1-U0-G1	ERL1_03B140	-120-277VIES	ERL1_03B140	-347-480VIES	ERL1_03B130	-120-277VIES	ERL1_03B130	-347-480VIES
ERL1		C1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03C140	-120-277VIES	ERL1_03C140	-347-480VIES	ERL1_03C130	-120-277VIES	ERL1_03C130	-347-480VIES
ERL1		D1	2900	2800			B1-U0-G1	B1-U0-G1	ERL1_03D140	-120-277VIES	ERL1_03D140	-347-480VIES	ERL1_03D130	-120-277VIES	ERL1_03D130	-347-480VIES
ERL1		E1	3000	2900			B1-U0-G1	B1-U0-G1	ERL1_03E140	-120-277VIES	ERL1_03E140	-347-480VIES	ERL1_03E130	-120-277VIES	ERL1_03E130	-347-480VIES
ERL1	F1	3000	2900	B1-U0-G1	B1-U0-G1	ERL1_03F140	-120-277VIES	ERL1_03F140	-347-480VIES	ERL1_03F130	-120-277VIES	ERL1_03F130	-347-480VIES			
ERL1	G1	3000	2900	B1-U0-G1	B1-U0-G1	ERL1_03G140	-120-277VIES	ERL1_03G140	-347-480VIES	ERL1_03G130	-120-277VIES	ERL1_03G130	-347-480VIES			
ERL1	A1	3800	3700	B1-U0-G1	B1-U0-G1	ERL1_04A140	-120-277VIES	ERL1_04A140	-347-480VIES	ERL1_04A130	-120-277VIES	ERL1_04A130	-347-480VIES			
ERL1	B1	3900	3800	B1-U0-G1	B1-U0-G1	ERL1_04B140	-120-277VIES	ERL1_04B140	-347-480VIES	ERL1_04B130	-120-277VIES	ERL1_04B130	-347-480VIES			
ERL1	C1	4000	3900	B1-U0-G1	B1-U0-G1	ERL1_04C140	-120-277VIES	ERL1_04C140	-347-480VIES	ERL1_04C130	-120-277VIES	ERL1_04C130	-347-480VIES			
ERL1	D1	3900	3800	B1-U0-G1	B1-U0-G1	ERL1_04D140	-120-277VIES	ERL1_04D140	-347-480VIES	ERL1_04D130	-120-277VIES	ERL1_04D130	-347-480VIES			
ERL1	E1	4000	3900	B1-U0-G1	B1-U0-G1	ERL1_04E140	-120-277VIES	ERL1_04E140	-347-480VIES	ERL1_04E130	-120-277VIES	ERL1_04E130	-347-480VIES			
ERL1	F1	4000	3900	B1-U0-G1	B1-U0-G1	ERL1_04F140	-120-277VIES	ERL1_04F140	-347-480VIES	ERL1_04F130	-120-277VIES	ERL1_04F130	-347-480VIES			
ERL1	G1	4000	3900	B1-U0-G1	B1-U0-G1	ERL1_04G140	-120-277VIES	ERL1_04G140	-347-480VIES	ERL1_04G130	-120-277VIES	ERL1_04G130	-347-480VIES			
ERL1	A1	4800	4600	B2-U0-G1	B2-U0-G1	ERL1_05A140	-120-277VIES	ERL1_05A140	-347-480VIES	ERL1_05A130	-120-277VIES	ERL1_05A130	-347-480VIES			
ERL1	B1	4800	4600	B2-U0-G1	B2-U0-G1	ERL1_05B140	-120-277VIES	ERL1_05B140	-347-480VIES	ERL1_05B130	-120-277VIES	ERL1_05B130	-347-480VIES			
ERL1	C1	5000	4800	B2-U0-G1	B2-U0-G1	ERL1_05C140	-120-277VIES	ERL1_05C140	-347-480VIES	ERL1_05C130	-120-277VIES	ERL1_05C130	-347-480VIES			
ERL1	D1	4800	4600	B1-U0-G1	B1-U0-G1	ERL1_05D140	-120-277VIES	ERL1_05D140	-347-480VIES	ERL1_05D130	-120-277VIES	ERL1_05D130	-347-480VIES			
ERL1	E1	5000	4800	B2-U0-G1	B2-U0-G1	ERL1_05E140	-120-277VIES	ERL1_05E140	-347-480VIES	ERL1_05E130	-120-277VIES	ERL1_05E130	-347-480VIES			
ERL1	F1	5000	4800	B2-U0-G1	B2-U0-G1	ERL1_05F140	-120-277VIES	ERL1_05F140	-347-480VIES	ERL1_05F130	-120-277VIES	ERL1_05F130	-347-480VIES			
ERL1	G1	5000	4800	B2-U0-G1	B2-U0-G1	ERL1_05G140	-120-277VIES	ERL1_05G140	-347-480VIES	ERL1_05G130	-120-277VIES	ERL1_05G130	-347-480VIES			
ERL1	A1	5700	5500	B2-U0-G1	B2-U0-G1	ERL1_06A140	-120-277VIES	ERL1_06A140	-347-480VIES	ERL1_06A130	-120-277VIES	ERL1_06A130	-347-480VIES			
ERL1	B1	5800	5600	B2-U0-G1	B2-U0-G1	ERL1_06B140	-120-277VIES	ERL1_06B140	-347-480VIES	ERL1_06B130	-120-277VIES	ERL1_06B130	-347-480VIES			
ERL1	C1	6000	5800	B2-U0-G1	B2-U0-G1	ERL1_06C140	-120-277VIES	ERL1_06C140	-347-480VIES	ERL1_06C130	-120-277VIES	ERL1_06C130	-347-480VIES			
ERL1	D1	5800	5600	B1-U0-G1	B1-U0-G1	ERL1_06D140	-120-277VIES	ERL1_06D140	-347-480VIES	ERL1_06D130	-120-277VIES	ERL1_06D130	-347-480VIES			
ERL1	E1	6000	5800	B2-U0-G1	B2-U0-G1	ERL1_06E140	-120-277VIES	ERL1_06E140	-347-480VIES	ERL1_06E130	-120-277VIES	ERL1_06E130	-347-480VIES			
ERL1	F1	6000	5800	B2-U0-G1	B2-U0-G1	ERL1_06F140	-120-277VIES	ERL1_06F140	-347-480VIES	ERL1_06F130	-120-277VIES	ERL1_06F130	-347-480VIES			
ERL1	G1	6000	5800	B2-U0-G1	B2-U0-G1	ERL1_06G140	-120-277VIES	ERL1_06G140	-347-480VIES	ERL1_06G130	-120-277VIES	ERL1_06G130	-347-480VIES			
ERL1	A1	6700	6500	B2-U0-G2	B2-U0-G2			ERL1_07A140	_IES			ERL1_07A130	_IES			
ERL1	B1	6800	6600	B2-U0-G1	B2-U0-G1			ERL1_07B140	_IES			ERL1_07B130	_IES			
ERL1	C1	7000	6800	B2-U0-G1	B2-U0-G1			ERL1_07C140	_IES			ERL1_07C130	_IES			
ERL1	D1	6800	6600	B2-U0-G1	B2-U0-G1			ERL1_07D140	_IES			ERL1_07D130	_IES			
ERL1	E1	7000	6800	B2-U0-G1	B2-U0-G1			ERL1_07E140	_IES			ERL1_07E130	_IES			
ERL1	F1	7000	6800	B2-U0-G2	B2-U0-G2			ERL1_07F140	_IES			ERL1_07F130	_IES			
ERL1	G1	7000	6800	B2-U0-G2	B2-U0-G2			ERL1_07G140	_IES			ERL1_07G130	_IES			
ERL1	A1	8200	8000	B2-U0-G2	B2-U0-G2			ERL1_08A140	_IES			ERL1_08A130	_IES			
ERL1	B1	8300	8100	B2-U0-G1	B2-U0-G1			ERL1_08B140	_IES			ERL1_08B130	_IES			
ERL1	C1	8500	8200	B2-U0-G1	B2-U0-G1			ERL1_08C140	_IES			ERL1_08C130	_IES			
ERL1	D1	8300	8100	B2-U0-G1	B2-U0-G1			ERL1_08D140	_IES			ERL1_08D130	_IES			
ERL1	E1	8500	8200	B2-U0-G1	B2-U0-G1			ERL1_08E140	_IES			ERL1_08E130	_IES			
ERL1	F1	8500	8200	B2-U0-G2	B2-U0-G2			ERL1_08F140	_IES			ERL1_08F130	_IES			
ERL1	G1	8500	8200	B2-U0-G2	B2-U0-G2			ERL1_08G140	_IES			ERL1_08G130	_IES			
ERL1	A1	8400	8100	B2-U0-G2	B2-U0-G2			ERL1_09A140	_IES			ERL1_09A130	_IES			
ERL1	B1	8500	8200	B2-U0-G1	B2-U0-G1			ERL1_09B140	_IES			ERL1_09B130	_IES			
ERL1	C1	8800	8400	B2-U0-G1	B2-U0-G1			ERL1_09C140	_IES			ERL1_09C130	_IES			
ERL1	D1	8500	8200	B2-U0-G2	B2-U0-G2			ERL1_09D140	_IES			ERL1_09D130	_IES			
ERL1	E1	8800	8400	B2-U0-G1	B2-U0-G1			ERL1_09E140	_IES			ERL1_09E130	_IES			
ERL1	F1	8800	8400	B2-U0-G2	B2-U0-G2			ERL1_09F140	_IES			ERL1_09F130	_IES			
ERL1	G1	8800	8400	B2-U0-G2	B2-U0-G2			ERL1_09G140	_IES			ERL1_09G130	_IES			

Photometrics

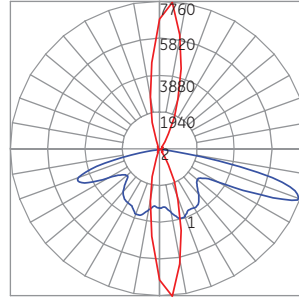
Evolve™ LED Streetlight (ERL1)

ERL1 Extra Narrow Asymmetric (08A1)

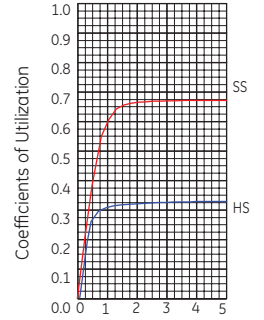
8,200 Lumens
4000K
ERL1_08A140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



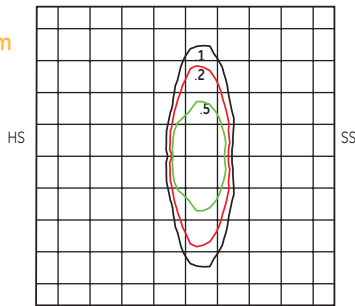
— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 70°



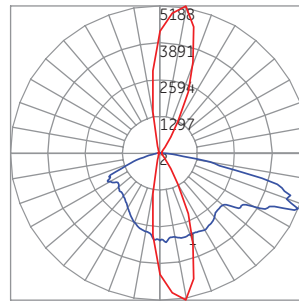
Street Width/Mounting Height

ERL1 Narrow Asymmetric Medium (08B1)

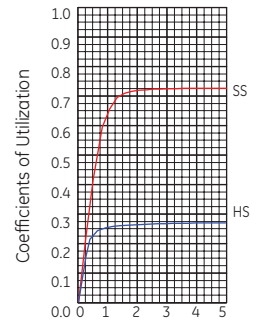
8,300 Lumens
4000K
ERL1_08B140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



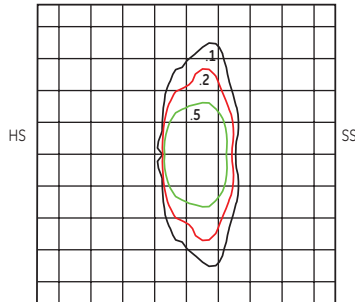
— Vertical plane through horizontal angle of maximum candlepower at 80°
— Vertical plane through horizontal angle of 68°



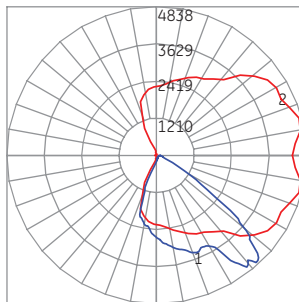
Street Width/Mounting Height

ERL1 Asymmetric Short (08C1)

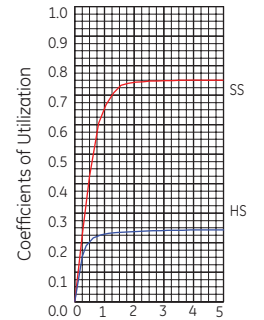
8,500 Lumens
4000K
ERL1_08C140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



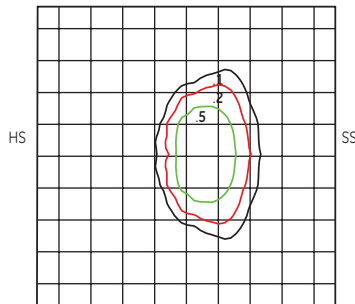
— Vertical plane through horizontal angle of maximum candlepower at 15°
— Vertical plane through horizontal angle of 42°



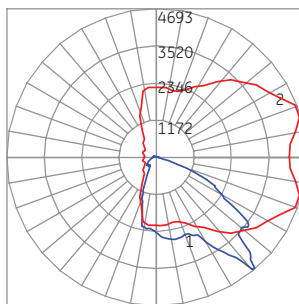
Street Width/Mounting Height

ERL1 Asymmetric Forward (08D1)

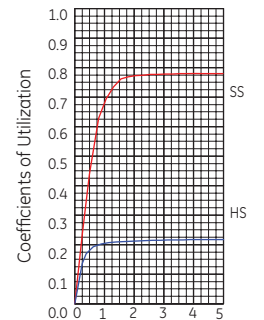
8,300 Lumens
4000K
ERL1_08D140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 15°
— Vertical plane through horizontal angle of 42°



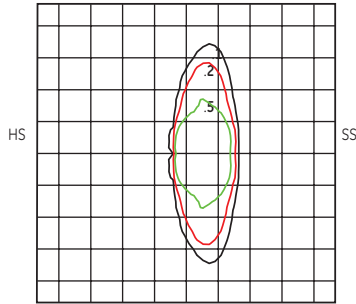
Street Width/Mounting Height

Photometrics

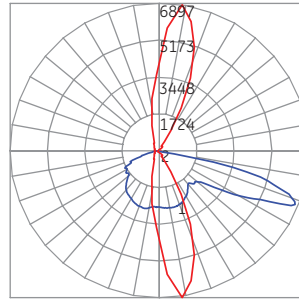
Evolve™ LED Streetlight (ERL1)

ERL1 Asymmetric Medium (08E1)

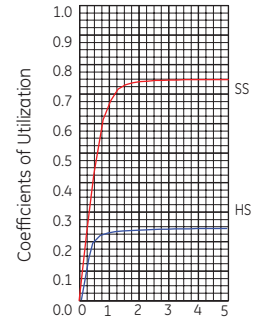
8,500 Lumens
4000K
ERL1_08E140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



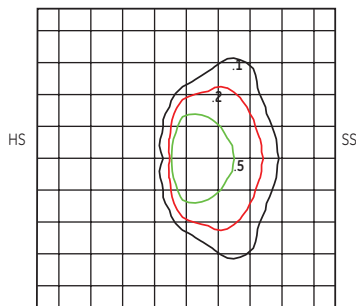
— Vertical plane through horizontal angle of maximum candlepower at 80°
— Vertical plane through horizontal angle of 69°



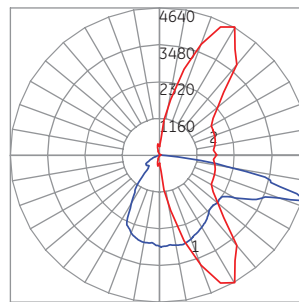
Street Width/Mounting Height

ERL1 Asymmetric Wide (08F1)

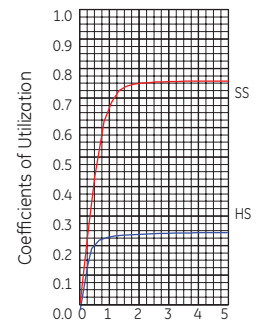
8,500 Lumens
4000K
ERL1_08F140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



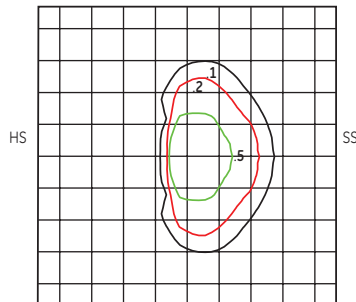
— Vertical plane through horizontal angle of maximum candlepower at 60°
— Vertical plane through horizontal angle of 73°



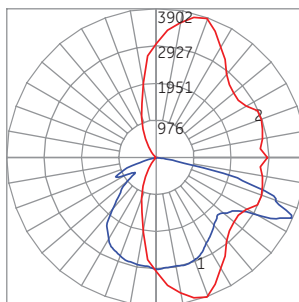
Street Width/Mounting Height

ERL1 Asymmetric Extra Wide (08G1)

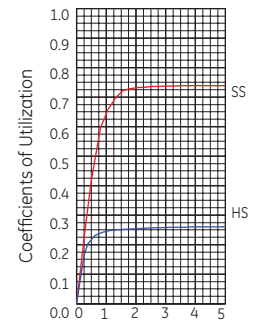
8,500 Lumens
4000K
ERL1_08G140____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 70°
— Vertical plane through horizontal angle of 66°



Street Width/Mounting Height

Ordering Number Logic

Evolve™ LED Streetlight (ERLH)



ERLH

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve R = Roadway L = Local H = High Output	0 = 120-277* 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 D = 347 H = 347-480* * Not available with Fusing. Must choose a discreet voltage with F option.	10 11 13 14 15 See Data Table for more information.	A1 = Extra Narrow Asymmetric B1 = Narrow Asymmetric (Medium) C1 = Asymmetric (Short) D1 = Asymmetric Forward E1 = Asymmetric (Medium) F1 = Asymmetric (Wide) G1 = Asymmetric (Extra Wide) See Data Table for more information	30 = 3000K 40 = 4000K	A = ANSI C136.41 7-pin D = ANSI C136.41 7-pin receptacle with Shorting Cap E = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.* * PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.	GRAY = Gray BLCK = Black DKBZ = Dark Bronze	A = 4 Bolt Slipfitter † F = Fusing G = Internal Bubble Level I = IP66 Optical L = Tool-Less Entry R = Optional Secondary Enhanced Surge Protection (10kV/5kA) U = Universal DALI Programmable + ^ X = Single Package # Y = Coastal Finish * XXX = Special Options † Contact manufacturer for Lead-Time. # Std Packaging = 20 units per container. * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^ Not available at 347V, 480V or 347-480V.

PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATING		IES FILE NUMBER	
			4000K	3000K		4000K	3000K	4000K	3000K
ERLH	10	A1	9500	9100	90	B3-U0-G2	B3-U0-G2	ERLH_10A140_IES	ERLH_10A130_IES
ERLH		B1	9800	9500		B3-U0-G1	B2-U0-G1	ERLH_10B140_IES	ERLH_10B130_IES
ERLH		C1	10000	9600		B2-U0-G1	B2-U0-G1	ERLH_10C140_IES	ERLH_10C130_IES
ERLH		D1	9800	9500		B2-U0-G2	B2-U0-G2	ERLH_10D140_IES	ERLH_10D130_IES
ERLH		E1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10E140_IES	ERLH_10E130_IES
ERLH		F1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10F140_IES	ERLH_10F130_IES
ERLH		G1	10000	9600		B2-U0-G2	B2-U0-G2	ERLH_10G140_IES	ERLH_10G130_IES
ERLH	11	A1	10900	10500	108	B3-U0-G2	B3-U0-G2	ERLH_11A140_IES	ERLH_11A130_IES
ERLH		B1	11200	10800		B3-U0-G2	B3-U0-G1	ERLH_11B140_IES	ERLH_11B130_IES
ERLH		C1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11C140_IES	ERLH_11C130_IES
ERLH		D1	11200	10800		B2-U0-G2	B2-U0-G2	ERLH_11D140_IES	ERLH_11D130_IES
ERLH		E1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11E140_IES	ERLH_11E130_IES
ERLH		F1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11F140_IES	ERLH_11F130_IES
ERLH		G1	11500	11100		B3-U0-G2	B3-U0-G2	ERLH_11G140_IES	ERLH_11G130_IES
ERLH	13	A1	12300	11900	125	B3-U0-G2	B3-U0-G2	ERLH_13A140_IES	ERLH_13A130_IES
ERLH		B1	12700	12200		B3-U0-G2	B3-U0-G2	ERLH_13B140_IES	ERLH_13B130_IES
ERLH		C1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13C140_IES	ERLH_13C130_IES
ERLH		D1	12700	12200		B3-U0-G2	B2-U0-G2	ERLH_13D140_IES	ERLH_13D130_IES
ERLH		E1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13E140_IES	ERLH_13E130_IES
ERLH		F1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13F140_IES	ERLH_13F130_IES
ERLH		G1	13000	12500		B3-U0-G2	B3-U0-G2	ERLH_13G140_IES	ERLH_13G130_IES
ERLH	14	A1	13300	12800	139	B3-U0-G3	B3-U0-G3	ERLH_14A140_IES	ERLH_14A130_IES
ERLH		B1	13700	13200		B3-U0-G2	B3-U0-G2	ERLH_14B140_IES	ERLH_14B130_IES
ERLH		C1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14C140_IES	ERLH_14C130_IES
ERLH		D1	13700	13200		B3-U0-G2	B3-U0-G2	ERLH_14D140_IES	ERLH_14D130_IES
ERLH		E1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14E140_IES	ERLH_14E130_IES
ERLH		F1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14F140_IES	ERLH_14F130_IES
ERLH		G1	14000	13500		B3-U0-G2	B3-U0-G2	ERLH_14G140_IES	ERLH_14G130_IES
ERLH	15	A1	14200	13700	161	B3-U0-G3	B3-U0-G3	ERLH_15A140_IES	ERLH_15A130_IES
ERLH		B1	14700	14200		B3-U0-G2	B3-U0-G2	ERLH_15B140_IES	ERLH_15B130_IES
ERLH		C1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15C140_IES	ERLH_15C130_IES
ERLH		D1	14700	14200		B3-U0-G2	B3-U0-G2	ERLH_15D140_IES	ERLH_15D130_IES
ERLH		E1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15E140_IES	ERLH_15E130_IES
ERLH		F1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15F140_IES	ERLH_15F130_IES
ERLH		G1	15000	14500		B3-U0-G2	B3-U0-G2	ERLH_15G140_IES	ERLH_15G130_IES

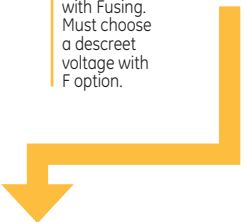
Ordering Number Logic

Evolve™ LED Streetlight (ERS1)



ERS1

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	DRIVE CURRENT	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve R = Roadway S = Scalable 1 = Single Module	0 = 120-277* 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 D = 347 H = 347-480* * Not available with Fusing. Must choose a discreet voltage with F option.	10 11 13 14 15 See Data Table for more information.	A1 = Extra Narrow Asymmetric B1 = Narrow Asymmetric (Medium) C1 = Asymmetric (Short) D1 = Asymmetric Forward E1 = Asymmetric (Medium) F1 = Asymmetric (Wide) G1 = Asymmetric (Extra Wide) See Data Table for more information	X = Not Applicable	30 = 3000K 40 = 4000K	A = ANSI C136.41 7-pin D = ANSI C136.41 7-pin receptacle with Shorting Cap E = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.* * PE Control Only available for 120-277V or 480V Discrete. Not available for 347-480V or 347V Discrete. NOTE: Dimming controls wired for 0-10V standard unless DALI option "U" requested.	GRAY = Gray BLCK = Black DKBZ = Dark Bronze	F = Fusing G = Internal Bubble Level L = Tool-Less Entry R = Optional Secondary Enhanced Surge Protection (10kV/5kA) T = 20kV/10kA Surge Protection per IEEE/ANSI C62.41.2-2002 † U = Universal DALI Programmable+ Y = Coastal Finish* XXX = Special Options * Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time. + Compatible with LightGrid 2.0 nodes. ^Not available at 347V, 480V or 347-480V.



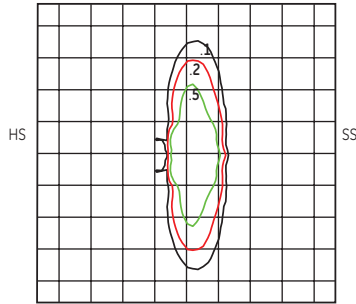
PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATING		IES FILE NUMBER	
			4000K	3000K		4000K	3000K	4000K	3000K
ERS1	10	A1	9500	9200	90	B3-U0-G2	B3-U0-G2	ERS1_10A1X40_IES	ERS1_10A1X30_IES
ERS1		B1	9800	9500		B3-U0-G1	B2-U0-G1	ERS1_10B1X40_IES	ERS1_10B1X30_IES
ERS1		C1	10000	9600		B2-U0-G1	B2-U0-G1	ERS1_10C1X40_IES	ERS1_10C1X30_IES
ERS1		D1	9800	9500		B2-U0-G2	B2-U0-G2	ERS1_10D1X40_IES	ERS1_10D1X30_IES
ERS1		E1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10E1X40_IES	ERS1_10E1X30_IES
ERS1		F1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10F1X40_IES	ERS1_10F1X30_IES
ERS1		G1	10000	9600		B2-U0-G2	B2-U0-G2	ERS1_10G1X40_IES	ERS1_10G1X30_IES
ERS1	11	A1	10900	10500	108	B3-U0-G2	B3-U0-G2	ERS1_11A1X40_IES	ERS1_11A1X30_IES
ERS1		B1	11200	10800		B3-U0-G2	B3-U0-G1	ERS1_11B1X40_IES	ERS1_11B1X30_IES
ERS1		C1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11C1X40_IES	ERS1_11C1X30_IES
ERS1		D1	11200	10800		B2-U0-G2	B2-U0-G2	ERS1_11D1X40_IES	ERS1_11D1X30_IES
ERS1		E1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11E1X40_IES	ERS1_11E1X30_IES
ERS1		F1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11F1X40_IES	ERS1_11F1X30_IES
ERS1		G1	11500	11100		B3-U0-G2	B3-U0-G2	ERS1_11G1X40_IES	ERS1_11G1X30_IES
ERS1	13	A1	12300	11900	125	B3-U0-G2	B3-U0-G2	ERS1_13A1X40_IES	ERS1_13A1X30_IES
ERS1		B1	12700	12200		B3-U0-G2	B3-U0-G2	ERS1_13B1X40_IES	ERS1_13B1X30_IES
ERS1		C1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13C1X40_IES	ERS1_13C1X30_IES
ERS1		D1	12700	12200		B3-U0-G2	B2-U0-G2	ERS1_13D1X40_IES	ERS1_13D1X30_IES
ERS1		E1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13E1X40_IES	ERS1_13E1X30_IES
ERS1		F1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13F1X40_IES	ERS1_13F1X30_IES
ERS1		G1	13000	12500		B3-U0-G2	B3-U0-G2	ERS1_13G1X40_IES	ERS1_13G1X30_IES
ERS1	14	A1	13300	12800	139	B3-U0-G3	B3-U0-G3	ERS1_14A1X40_IES	ERS1_14A1X30_IES
ERS1		B1	13700	13200		B3-U0-G2	B3-U0-G2	ERS1_14B1X40_IES	ERS1_14B1X30_IES
ERS1		C1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14C1X40_IES	ERS1_14C1X30_IES
ERS1		D1	13700	13200		B3-U0-G2	B3-U0-G2	ERS1_14D1X40_IES	ERS1_14D1X30_IES
ERS1		E1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14E1X40_IES	ERS1_14E1X30_IES
ERS1		F1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14F1X40_IES	ERS1_14F1X30_IES
ERS1		G1	14000	13500		B3-U0-G2	B3-U0-G2	ERS1_14G1X40_IES	ERS1_14G1X30_IES
ERS1	15	A1	14200	13700	161	B3-U0-G3	B3-U0-G3	ERS1_15A1X40_IES	ERS1_15A1X30_IES
ERS1		B1	14700	14200		B3-U0-G2	B3-U0-G2	ERS1_15B1X40_IES	ERS1_15B1X30_IES
ERS1		C1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15C1X40_IES	ERS1_15C1X30_IES
ERS1		D1	14700	14200		B3-U0-G2	B3-U0-G2	ERS1_15D1X40_IES	ERS1_15D1X30_IES
ERS1		E1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15E1X40_IES	ERS1_15E1X30_IES
ERS1		F1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15F1X40_IES	ERS1_15F1X30_IES
ERS1		G1	15000	14500		B3-U0-G2	B3-U0-G2	ERS1_15G1X40_IES	ERS1_15G1X30_IES

Photometrics

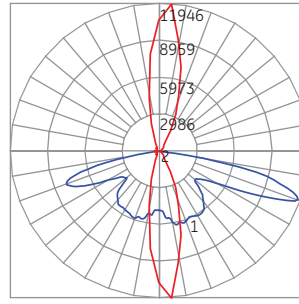
Evolve™ LED Streetlight (ERLH and ERS1)

ERLH and ERS1 Extra Narrow Asymmetric (15A1)

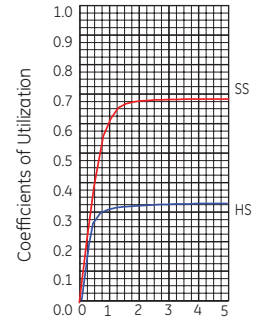
14,200 Lumens
4000K



Grid Distance in Units of
Mounting Height at 30' Initial
Footcandle Values at Grade



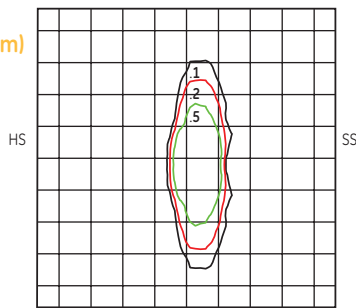
— Vertical plane through horizontal angle
of maximum candlepower at 85°
— Vertical plane through horizontal angle of 71°



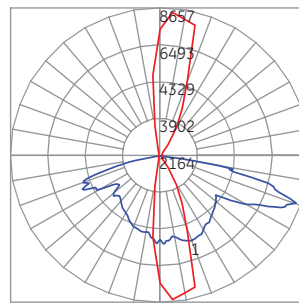
Street Width/Mounting Height

ERLH and ERS1 Narrow Asymmetric (Medium) (15B1)

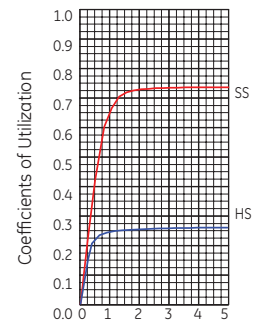
14,700 Lumens
4000K



Grid Distance in Units of
Mounting Height at 30' Initial
Footcandle Values at Grade



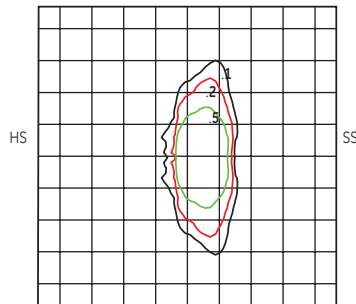
— Vertical plane through horizontal angle
of maximum candlepower at 85°
— Vertical plane through horizontal angle of 71°



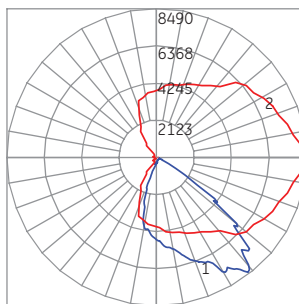
Street Width/Mounting Height

ERLH and ERS1 Asymmetric Short (15C1)

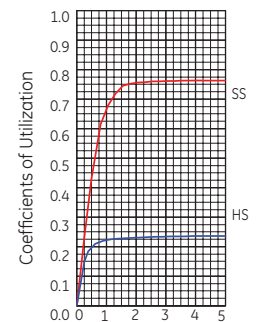
15,000 Lumens
4000K



Grid Distance in Units of
Mounting Height at 30' Initial
Footcandle Values at Grade



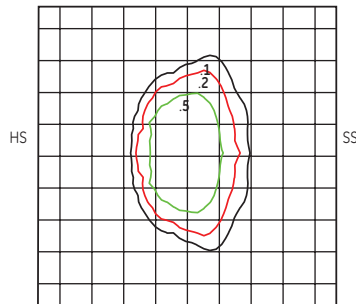
— Vertical plane through horizontal angle
of maximum candlepower at 0°
— Vertical plane through horizontal angle of 38°



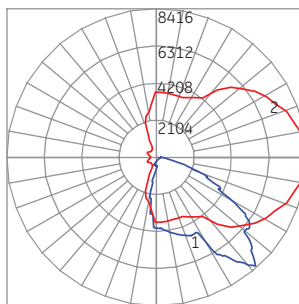
Street Width/Mounting Height

ERLH and ERS1 Asymmetric Forward (15D1)

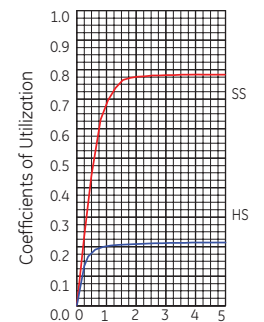
14,700 Lumens
4000K



Grid Distance in Units of
Mounting Height at 30' Initial
Footcandle Values at Grade



— Vertical plane through horizontal angle
of maximum candlepower at 5°
— Vertical plane through horizontal angle of 41°



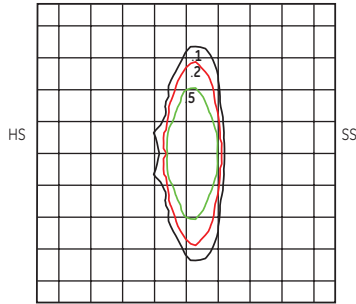
Street Width/Mounting Height

Photometrics

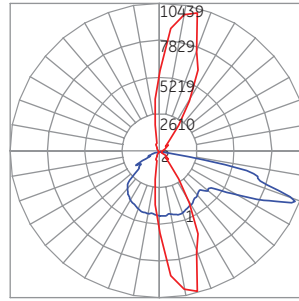
Evolve™ LED Streetlight (ERLH and ERS1)

ERLH and ERS1 Asymmetric Medium (15E1)

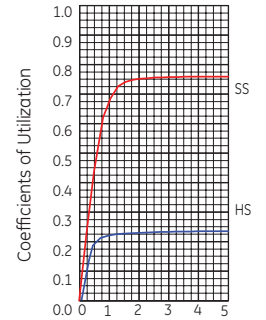
15,000 Lumens
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



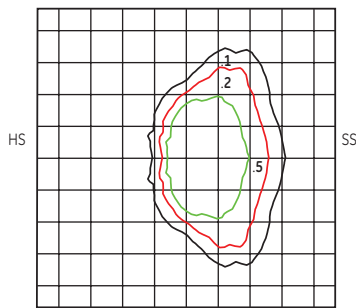
— Vertical plane through horizontal angle of maximum candela at 75°
— Vertical plane through horizontal angle of 70°



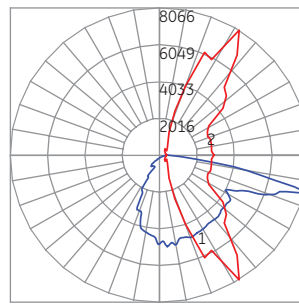
Street Width/Mounting Height

ERLH and ERS1 Asymmetric Wide (15F1)

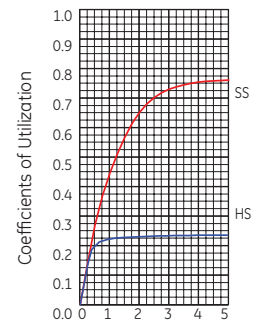
15,000 Lumens
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



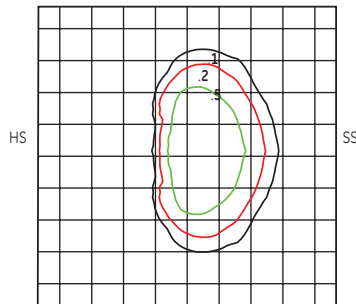
— Vertical plane through horizontal angle of maximum candela at 60°
— Vertical plane through horizontal angle of 75°



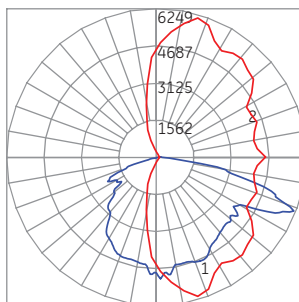
Street Width/Mounting Height

ERLH and ERS1 Asymmetric Extra Wide (15G1)

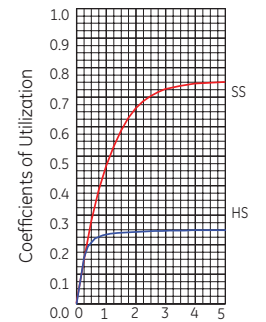
15,000 Lumens
4000K



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candela at 75°
— Vertical plane through horizontal angle of 68°



Street Width/Mounting Height

Ordering Number Logic

Evolve™ LED Streetlight (ERS2)



ERS2

PROD. ID	VOLTAGE	LUMEN OUTPUT	DISTRIBUTION	DRIVE CURRENT	CCT	CONTROLS	COLOR	OPTIONS
E = Evolve	0 = 120-277*	16	A1 = Extra Narrow Asymmetric	X = Not Applicable	30 = 3000K 40 = 4000K	A = ANSI C136.41 7-pin D = ANSI C136.41 7-pin receptacle with Shorting Cap E = ANSI C136.41 7-pin Receptacle with non-Dimming PE Control.*	GRAY = Gray BLCK = Black DKBZ = Dark Bronze	A = 4 Bolt Slipfitter † F = Fusing G = Internal Bubble Level L = Tool-Less Entry R = Optional Secondary Enhanced Surge Protection (10kV/5kA) T = 20kV/10kA Surge Protection per IEEE/ANSI C62.41.2-2002 † U = Universal DALI Programmable + ^ Y = Coastal Finish* XXX = Special Options
R = Roadway	1 = 120	18	B1 = Narrow Asymmetric (Medium)					† Contact manufacturer for Lead-Time.
S = Scalable	2 = 208	19	C1 = Asymmetric (Short)					* Recommended for installations within 1 mile from the coast. Contact Factory for Lead-Time.
2 = Double Module	3 = 240	21	D1 = Asymmetric Forward					+ Compatible with LightGrid 2.0 nodes.
	4 = 277	23	E1 = Asymmetric (Medium)					^ Not available at 347V, 480V or 347-480V.
	5 = 480	25	F1 = Asymmetric (Wide)					
	D = 347	27	G1 = Asymmetric (Extra Wide)					
	H = 347-480*	28						
	* Not available with Fusing. Must choose a discreet voltage with F option.		See Data Table for more information.					
			See Data Table for more information.					
			See Data Table for more information.					
			See Data Table for more information.					

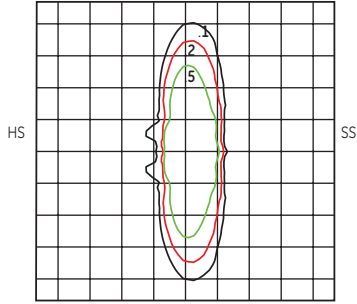
PRODUCT ID	LUMEN OUTPUT	DISTRIBUTION	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE	BUG RATING		IES FILE NUMBER	
			4000K	3000K		4000K	3000K	4000K	3000K
ERS2	16	A1	15200	14700	132	B3-U0-G3	B3-U0-G3	ERS2_16A1X40	ERS2_16A1X30
ERS2		B1	15700	15100		B3-U0-G2	B3-U0-G2	ERS2_16B1X40	ERS2_16B1X30
ERS2		C1	16000	15400		B3-U0-G2	B3-U0-G2	ERS2_16C1X40	ERS2_16C1X30
ERS2		D1	15700	15100		B3-U0-G2	B3-U0-G2	ERS2_16D1X40	ERS2_16D1X30
ERS2		E1	16000	15400		B3-U0-G2	B3-U0-G2	ERS2_16E1X40	ERS2_16E1X30
ERS2		F1	16000	15400		B3-U0-G2	B3-U0-G2	ERS2_16F1X40	ERS2_16F1X30
ERS2		G1	16000	15400		B3-U0-G2	B3-U0-G2	ERS2_16G1X40	ERS2_16G1X30
ERS2		A1	17100	16500		B3-U0-G3	B3-U0-G3	ERS2_18A1X40	ERS2_18A1X30
ERS2		B1	17600	17000		B3-U0-G2	B3-U0-G2	ERS2_18B1X40	ERS2_18B1X30
ERS2		C1	18000	17400		B3-U0-G2	B3-U0-G2	ERS2_18C1X40	ERS2_18C1X30
ERS2		D1	17600	17000		B3-U0-G2	B3-U0-G2	ERS2_18D1X40	ERS2_18D1X30
ERS2		E1	18000	17400		B3-U0-G2	B3-U0-G2	ERS2_18E1X40	ERS2_18E1X30
ERS2	F1	18000	17400	B3-U0-G3	B3-U0-G2	ERS2_18F1X40	ERS2_18F1X30		
ERS2	G1	18000	17400	B3-U0-G2	B3-U0-G2	ERS2_18G1X40	ERS2_18G1X30		
ERS2	A1	18000	17300	B3-U0-G3	B3-U0-G3	ERS2_19A1X40	ERS2_19A1X30		
ERS2	B1	18600	17900	B3-U0-G2	B3-U0-G2	ERS2_19B1X40	ERS2_19B1X30		
ERS2	C1	19000	18300	B3-U0-G2	B3-U0-G2	ERS2_19C1X40	ERS2_19C1X30		
ERS2	D1	18600	17900	B3-U0-G2	B3-U0-G2	ERS2_19D1X40	ERS2_19D1X30		
ERS2	E1	19000	18300	B3-U0-G2	B3-U0-G2	ERS2_19E1X40	ERS2_19E1X30		
ERS2	F1	19000	18300	B3-U0-G3	B3-U0-G3	ERS2_19F1X40	ERS2_19F1X30		
ERS2	G1	19000	18300	B3-U0-G3	B3-U0-G2	ERS2_19G1X40	ERS2_19G1X30		
ERS2	A1	20000	19300	B3-U0-G3	B3-U0-G3	ERS2_21A1X40	ERS2_21A1X30		
ERS2	B1	20600	19900	B3-U0-G2	B3-U0-G2	ERS2_21B1X40	ERS2_21B1X30		
ERS2	C1	21000	20300	B3-U0-G2	B3-U0-G2	ERS2_21C1X40	ERS2_21C1X30		
ERS2	D1	20600	19900	B3-U0-G2	B3-U0-G2	ERS2_21D1X40	ERS2_21D1X30		
ERS2	E1	21000	20300	B3-U0-G2	B3-U0-G2	ERS2_21E1X40	ERS2_21E1X30		
ERS2	F1	21000	20300	B3-U0-G3	B3-U0-G3	ERS2_21F1X40	ERS2_21F1X30		
ERS2	G1	21000	20300	B3-U0-G3	B3-U0-G3	ERS2_21G1X40	ERS2_21G1X30		
ERS2	A1	21900	21100	B4-U0-G3	B3-U0-G3	ERS2_23A1X40	ERS2_23A1X30		
ERS2	B1	22500	21700	B3-U0-G3	B3-U0-G2	ERS2_23B1X40	ERS2_23B1X30		
ERS2	C1	23000	22200	B3-U0-G2	B3-U0-G2	ERS2_23C1X40	ERS2_23C1X30		
ERS2	D1	22500	21700	B3-U0-G2	B3-U0-G2	ERS2_23D1X40	ERS2_23D1X30		
ERS2	E1	23000	22200	B3-U0-G2	B3-U0-G2	ERS2_23E1X40	ERS2_23E1X30		
ERS2	F1	23000	22200	B3-U0-G3	B3-U0-G3	ERS2_23F1X40	ERS2_23F1X30		
ERS2	G1	23000	22200	B3-U0-G3	B3-U0-G3	ERS2_23G1X40	ERS2_23G1X30		
ERS2	A1	23800	23000	B4-U0-G3	B4-U0-G3	ERS2_25A1X40	ERS2_25A1X30		
ERS2	B1	24500	23600	B4-U0-G3	B3-U0-G3	ERS2_25B1X40	ERS2_25B1X30		
ERS2	C1	25000	24100	B3-U0-G2	B3-U0-G2	ERS2_25C1X40	ERS2_25C1X30		
ERS2	D1	24500	23600	B3-U0-G3	B3-U0-G3	ERS2_25D1X40	ERS2_25D1X30		
ERS2	E1	25000	24100	B3-U0-G3	B3-U0-G3	ERS2_25E1X40	ERS2_25E1X30		
ERS2	F1	25000	24100	B3-U0-G3	B3-U0-G3	ERS2_25F1X40	ERS2_25F1X30		
ERS2	G1	25000	24100	B3-U0-G3	B3-U0-G3	ERS2_25G1X40	ERS2_25G1X30		
ERS2	A1	25700	24800	B4-U0-G3	B4-U0-G3	ERS2_27A1X40	ERS2_27A1X30		
ERS2	B1	26500	25600	B4-U0-G3	B4-U0-G3	ERS2_27B1X40	ERS2_27B1X30		
ERS2	C1	27000	26000	B4-U0-G3	B4-U0-G3	ERS2_27C1X40	ERS2_27C1X30		
ERS2	D1	26500	25600	B3-U0-G3	B3-U0-G3	ERS2_27D1X40	ERS2_27D1X30		
ERS2	E1	27000	26000	B4-U0-G3	B4-U0-G3	ERS2_27E1X40	ERS2_27E1X30		
ERS2	F1	27000	26000	B4-U0-G4	B4-U0-G3	ERS2_27F1X40	ERS2_27F1X30		
ERS2	G1	27000	26000	B4-U0-G3	B4-U0-G3	ERS2_27G1X40	ERS2_27G1X30		
ERS2	A1	26600	25600	B4-U0-G3	B4-U0-G3	ERS2_28A1X40	ERS2_28A1X30		
ERS2	B1	27400	26400	B4-U0-G3	B4-U0-G3	ERS2_28B1X40	ERS2_28B1X30		
ERS2	C1	28000	26900	B4-U0-G3	B4-U0-G3	ERS2_28C1X40	ERS2_28C1X30		
ERS2	D1	27400	26400	B3-U0-G3	B3-U0-G3	ERS2_28D1X40	ERS2_28D1X30		
ERS2	E1	28000	26900	B4-U0-G3	B4-U0-G3	ERS2_28E1X40	ERS2_28E1X30		
ERS2	F1	28000	26900	B4-U0-G4	B4-U0-G3	ERS2_28F1X40	ERS2_28F1X30		
ERS2	G1	28000	26900	B4-U0-G4	B4-U0-G3	ERS2_28G1X40	ERS2_28G1X30		

Photometrics

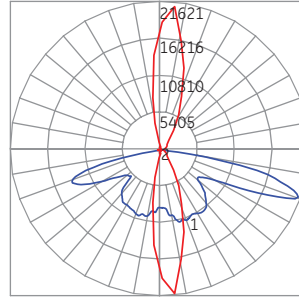
Evolve™ LED Streetlight (ERS2)

ERS2 Extra Narrow Asymmetric (27A1)

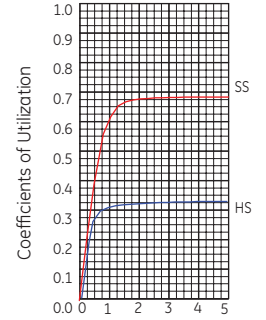
25,700 Lumens
4000K
ERS2_27A1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



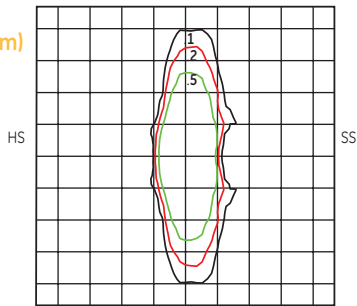
— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 71°



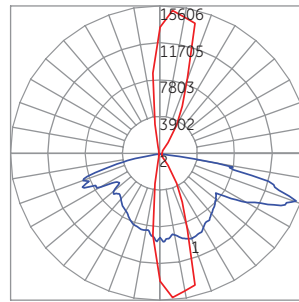
Street Width/Mounting Height

ERS2 Narrow Asymmetric (Medium) (27B1)

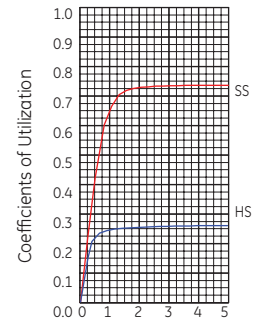
26,500 Lumens
4000K
ERS2_27B1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



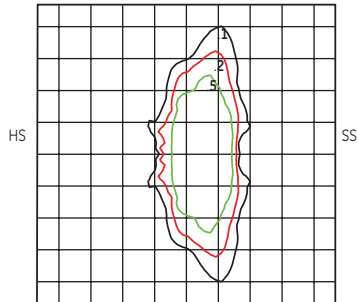
— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 71°



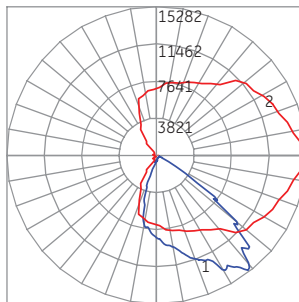
Street Width/Mounting Height

ERS2 Asymmetric Short (27C1)

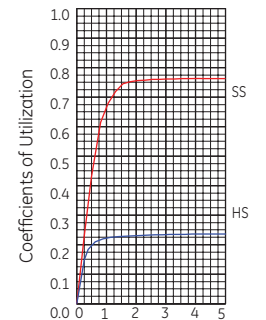
27,000 Lumens
4000K
ERS2_27C1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



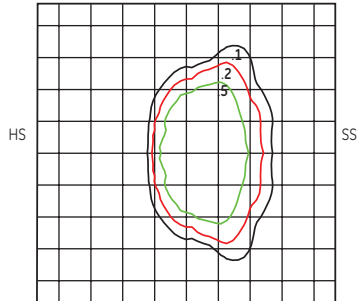
— Vertical plane through horizontal angle of maximum candlepower at 0°
— Vertical plane through horizontal angle of 38°



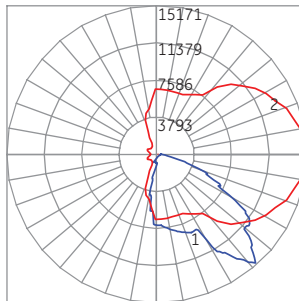
Street Width/Mounting Height

ERS2 Asymmetric Forward (27D1)

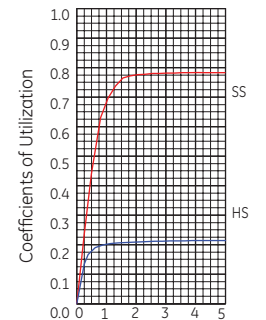
26,500 Lumens
4000K
ERS2_27D1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



— Vertical plane through horizontal angle of maximum candlepower at 5°
— Vertical plane through horizontal angle of 41°



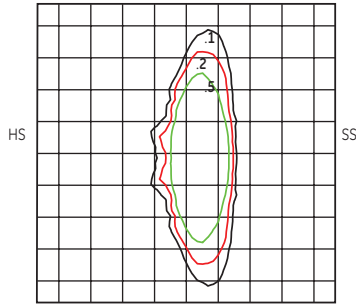
Street Width/Mounting Height

Photometrics

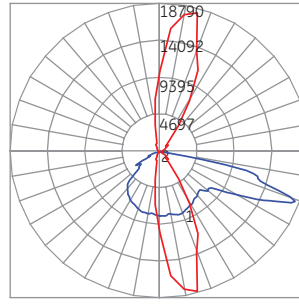
Evolve™ LED Streetlight (ERS2)

ERS2 Asymmetric Medium (27E1)

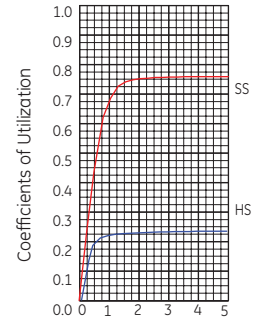
27,000 Lumens
4000K
ERS2_27E1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



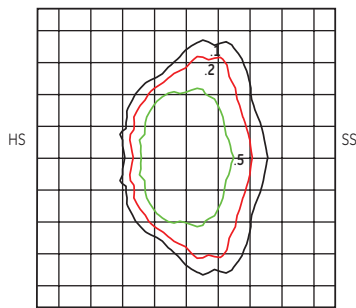
— Vertical plane through horizontal angle of maximum candlepower at 75°
— Vertical plane through horizontal angle of 70°



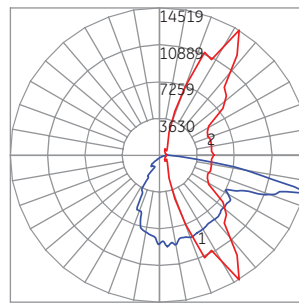
Street Width/Mounting Height

ERS2 Asymmetric Wide (27F1)

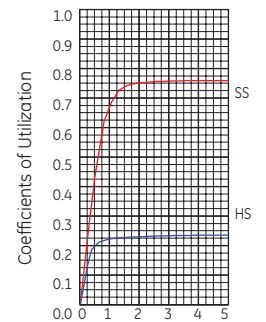
27,000 Lumens
4000K
ERS2_27F1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



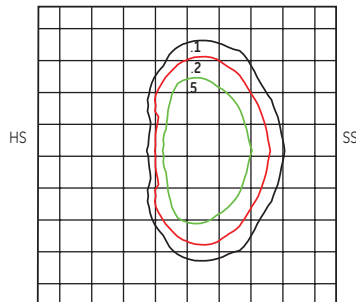
— Vertical plane through horizontal angle of maximum candlepower at 60°
— Vertical plane through horizontal angle of 75°



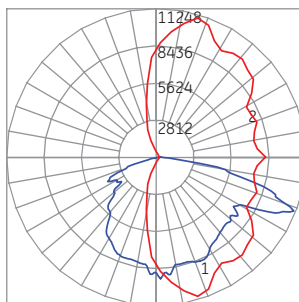
Street Width/Mounting Height

ERS2 Asymmetric Extra Wide (27G1)

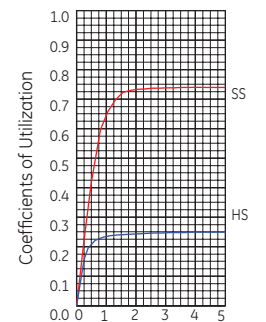
27,000 Lumens
4000K
ERS2_27G1X40____.IES



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade



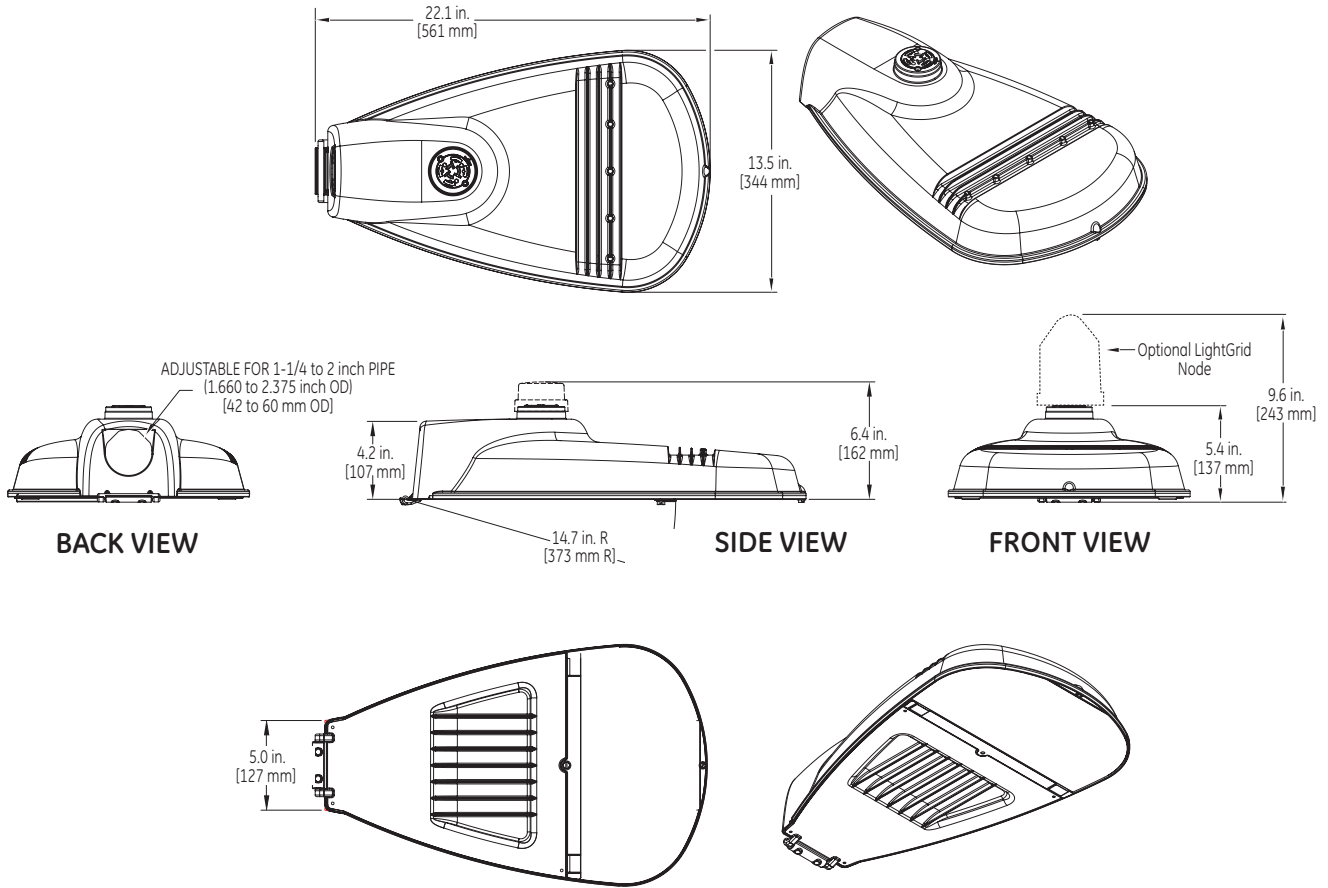
— Vertical plane through horizontal angle of maximum candlepower at 75°
— Vertical plane through horizontal angle of 68°



Street Width/Mounting Height

Product Dimensions

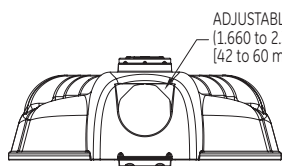
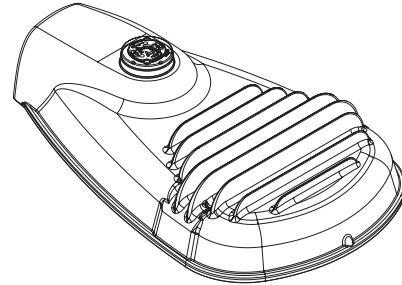
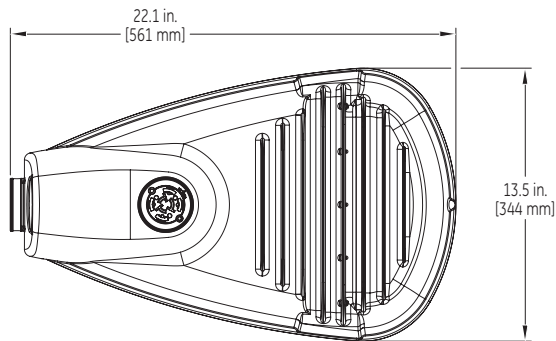
Evolve™ LED Streetlight (ERL1)



DATA	<ul style="list-style-type: none"> • Approximate net weight: 12.4 lbs (5.6 kgs) - Without XFMR • Approximate net weight: 15.5 lbs (7 kgs) - With XFMR • Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)
-------------	---

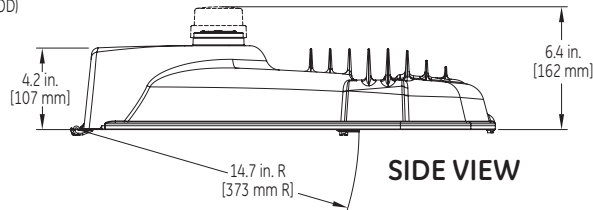
Product Dimensions

Evolve™ LED Streetlight (ERLH)

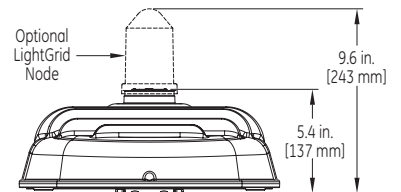


BACK VIEW

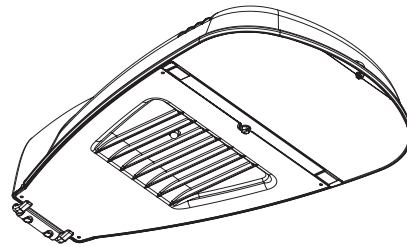
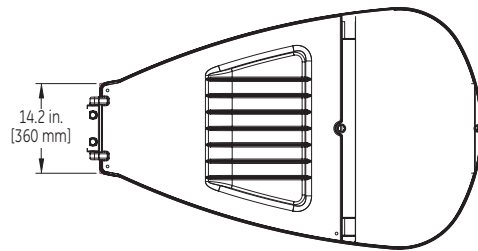
ADJUSTABLE FOR 1-1/4 to 2 inch PIPE
(1.660 to 2.375 inch OD)
(42 to 60 mm OD)



SIDE VIEW



FRONT VIEW

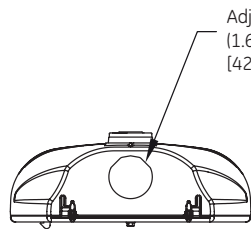
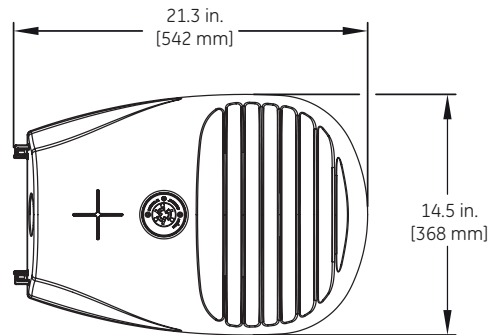


DATA

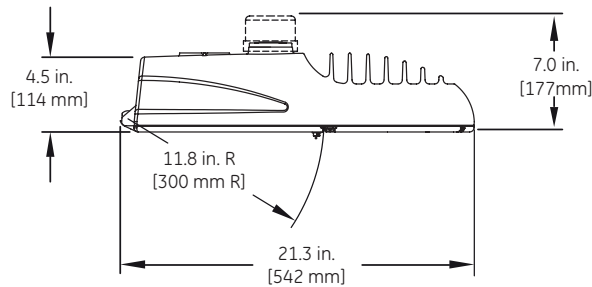
- Approximate net weight: 15.15 lbs (6.9 kgs) - 2 Bolt Slipfitter
- Approximate net weight: 15.85 lbs (7.2 kgs) - 4 Bolt Slipfitter
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)

Product Dimensions

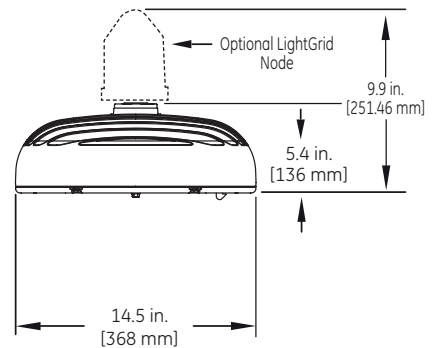
Evolve™ LED Streetlight (ERS1)



BACK VIEW



SIDE VIEW



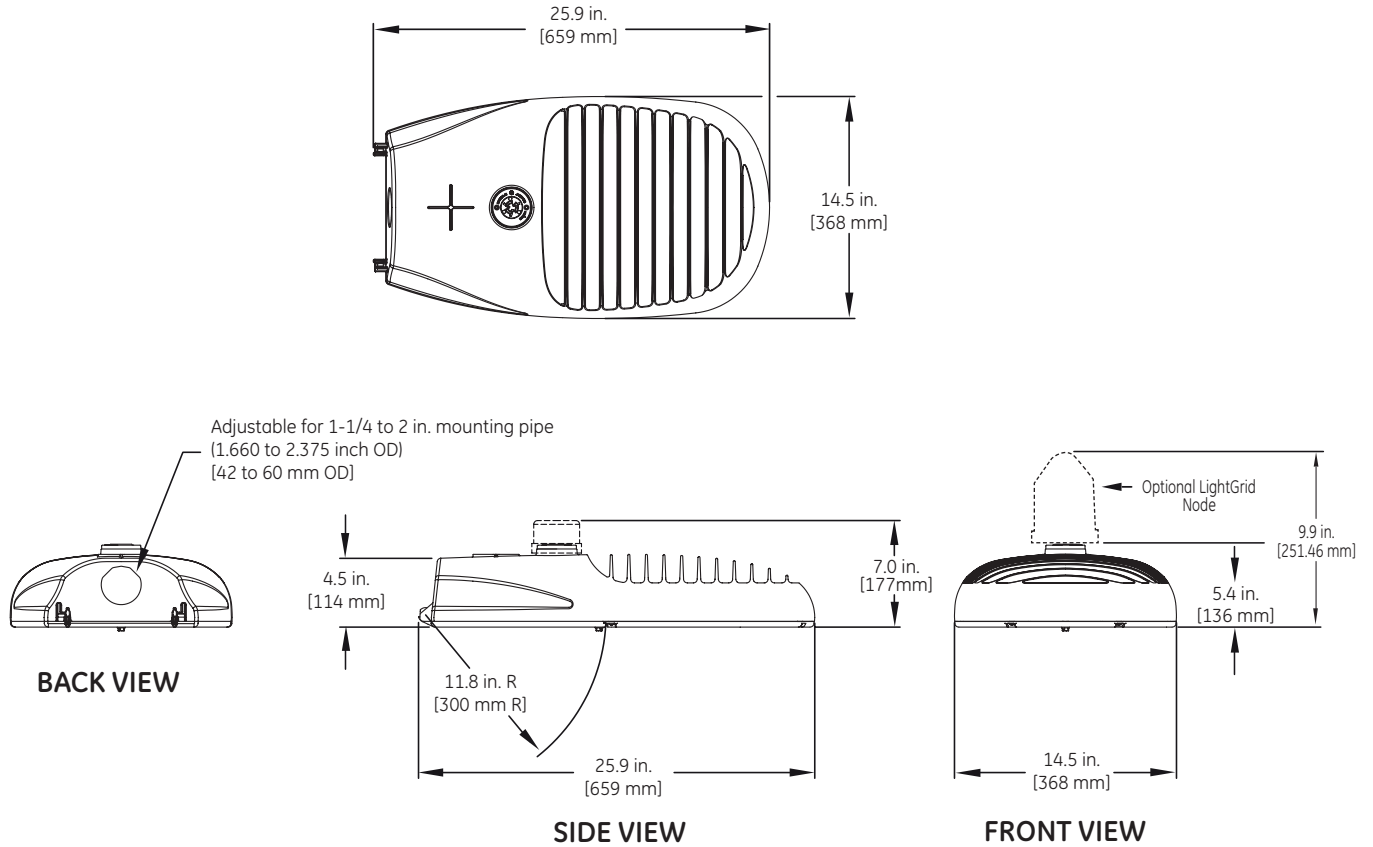
FRONT VIEW

DATA

- Approximate net weight: 20 lbs (9.1 kgs) to 25 lbs (11.4 kgs)
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)

Product Dimensions

Evolve™ LED Streetlight (ERS2)



DATA

- Approximate net weight: 25 lbs (11.4 kgs) to 29 lbs (13.2 kgs)
- Effective Projected Area (EPA): 0.7 sq ft max (0.065 sq m)



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OLP3105 (Rev 09/21/16)

GE
Lighting

Evolve™ LED Roadway Lighting

Security Light (E2SA)



imagination at work

Product Features

GE Roadway Lighting systems have been recognized for the highest quality and reliability in Outdoor, Utility, DOT and infrastructure lighting applications. The Evolve™ LED Security Light provides energy efficiency in a robust fixture built to withstand even the harshest elements. GE's advanced optical design offers various photometric options to meet your lighting requirements.

Applications

- Designed for outdoor work yards, roadside commercial establishments, suburban developments, rural areas.

Housing

- Die-cast aluminum hood

LED & Optical Assembly

- Structured LED arrays for optimized type 3 and type 5 square distributions
- Evolve™ light engine consisting of reflective technology designed to optimize application efficiency
- Utilizes high brightness LEDs, 70CRI typical at 4000K and 5000K
- LM-79 test and reports are performed in accordance with IESNA standards

Lumen Maintenance

- System rating is calculated at $L70(8K) \geq 100,000h$ at fixture $T_a = 25C$ per IESNA TM-21

Ratings

- UL/cUL listed, suitable for wet locations per UL 1598.
- UL 8750 LED equipment in Lighting Products.
- IP65 rated optical enclosure per ANSI C136.25-2009.
- Vibration rating at 1.5G (min) per ANSI C136.31-2010.
- Photo Control/Socket includes ANSI Twist Lock per ANSI C136.10 for PE function options 2, 4, and 5.
- Driver Rated Life $\geq 100,000$ hrs at 70C case temperature.
- DLC listed.

Mounting

- Slipfitter is adjustable for 1-1/4 in. to 2 in. pipe
- Mounting Hardware Kit
 - (1) 5/8 x 10 Throughbolt and Nut (15.9mm x 254mm)
 - (2) 3/8 x 3 Lag Screws (9.5mm x 76mm)

Finish

- Cast aluminum

Electrical

- 120-277 volt.
- System power factor is $>90\%$ and THD $<20\%$
- Class "A" Sound rating.
- Surge Protection per ANSI C136.2-2014
 - Standard: 6Kv/3kA "Basic" (w/extended C62.41.2 Combination Wave capacity of 120 events)
 - Optional: 10kV/5kA "Enhanced"
- EMI: Title 47 CFR 15 Class A.

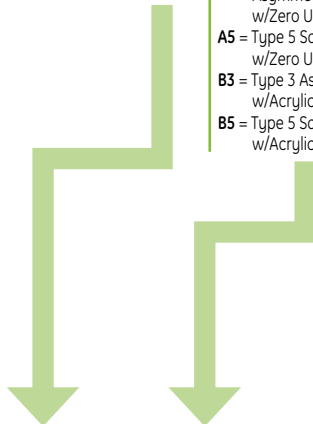
Ordering Number Logic

Evolve™ LED Security Light (E2SA)



E 2 S A **0** **--** **--** **1** **--** **A** **--** **--** **--** **--**

PROD. ID	VOLTAGE	OPTICAL CODE	PHOTOMETRIC TYPE	DRIVE CURRENT	LED COLOR TEMP	PE FUNCTION	MOUNTING	POWER LEADS	OPTIONS
E2SA = Evolve Security Light	0 = 120-277	See Charts for all levels	A3 = Type 3 Asymmetric w/Zero Uplight A5 = Type 5 Square w/Zero Uplight B3 = Type 3 Asymmetric w/Acrylic Refractor B5 = Type 5 Square w/Acrylic Refractor	1 = Standard	40 = 4000K 50 = 5000K	2 = PE Rec.* 4 = PE Rec. with Shorting Cap* 5 = PE Rec. with Control* A = ANSI C136.41-7-pin Dimming Receptacle D = ANSI C136.41-7-pin Dimming Receptacle with Shorting Cap * Compliant with ANSI C136.10	N = None L = Long 24 in Bracket	N = None 2 = 3 ft # 14 Leads 4 = 5 ft #14 Leads 5 = 8 ft #14 Leads 6 = 8 ft #10 Leads	R = Secondary Enhanced Surge Protection (10kV/5kA)* * Contact manufacturer for availability.



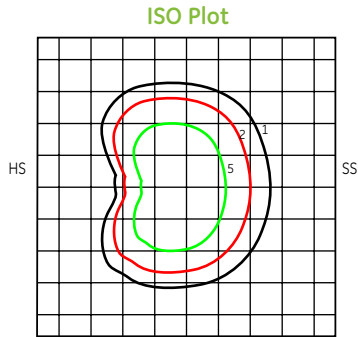
PRODUCT ID	OPTICAL CODE	PHOTOMETRIC TYPE	TYPICAL SYSTEM WATTAGE			TYPICAL INITIAL LUMENS		IES FILE NUMBERS	
			120-277V	4000K	5000K	4000K	5000K		
E2SA	A1	A3	42	3900	3900	E2SA_A1A3140	E2SA_A1A3150		
E2SA	B1		57	5600	5600	E2SA_B1A3140	E2SA_B1A3150		
E2SA	A1	A5	42	3900	3900	E2SA_A1A5140	E2SA_A1A5150		
E2SA	B1		57	5600	5600	E2SA_B1A5140	E2SA_B1A5150		
E2SA	A1	B3	42	3600	3600	E2SA_A1B3140	E2SA_A1B3150		
E2SA	B1		57	5200	5200	E2SA_B1B3140	E2SA_B1B3150		
E2SA	A1	B5	42	3600	3600	E2SA_A1B5140	E2SA_A1B5150		
E2SA	B1		57	5200	5200	E2SA_B1B5140	E2SA_B1B5150		

Photometrics

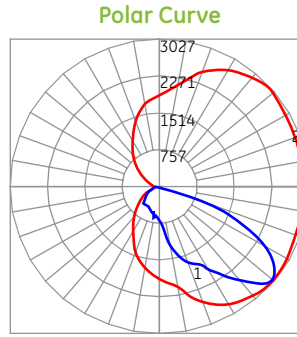
Evolve™ LED Security Light (E2SA)

E2SA Asymmetric (B1A3)

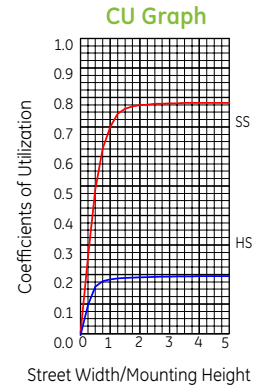
5,600 Lumens
4000K
E2SA_B1A3140.ies



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

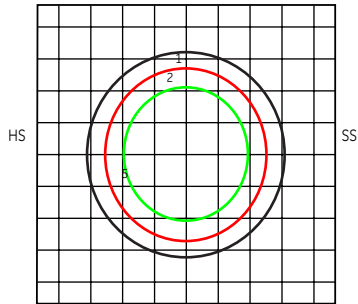


— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 0°

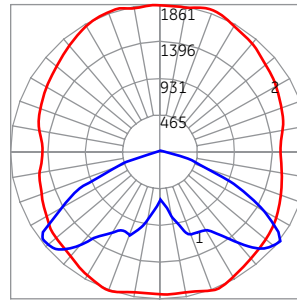


E2SA Symmetric Square (B1A5)

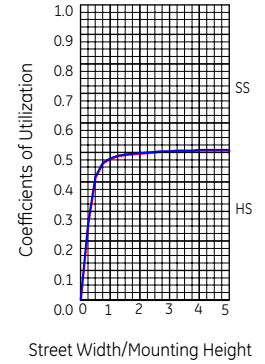
5,600 Lumens
4000K
E2SA_B1A5140.ies



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

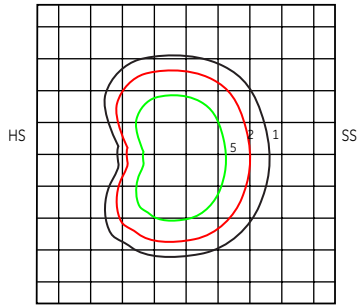


— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 0°

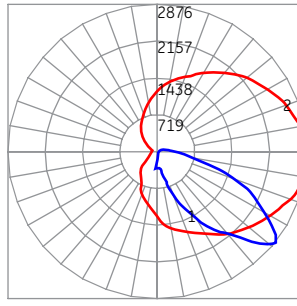


E2SA Asymmetric (B1B3)

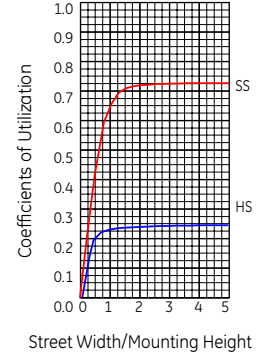
5,200 Lumens
4000K
E2SA_B1B3140.ies



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

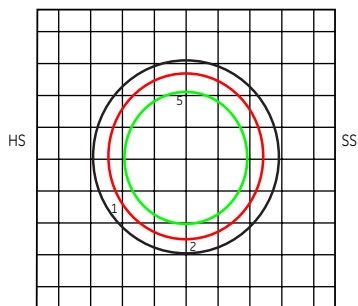


— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 0°

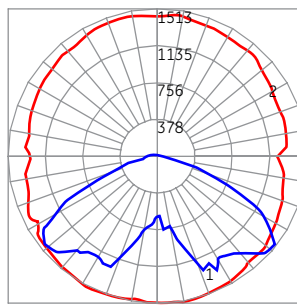


E2SA Symmetric Square (B1B5)

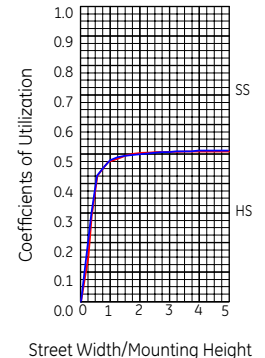
5,200 Lumens
4000K
E2SA_B1B5140.ies



Grid Distance in Units of Mounting Height at 30' Initial Footcandle Values at Grade

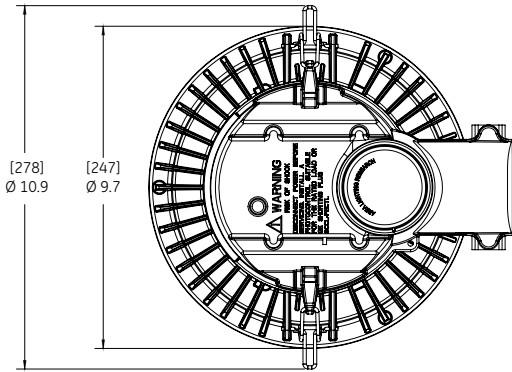


— Vertical plane through horizontal angle of maximum candlepower at 85°
— Vertical plane through horizontal angle of 0°

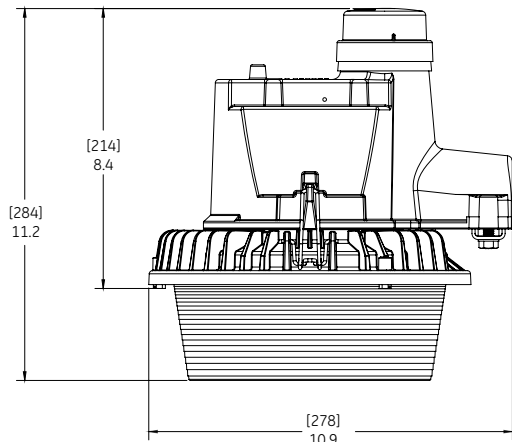
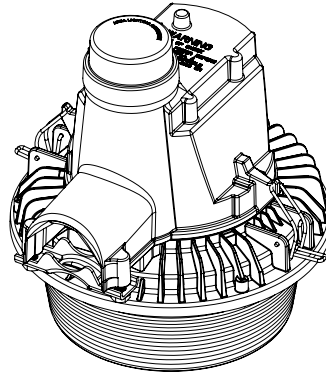


Product Dimensions

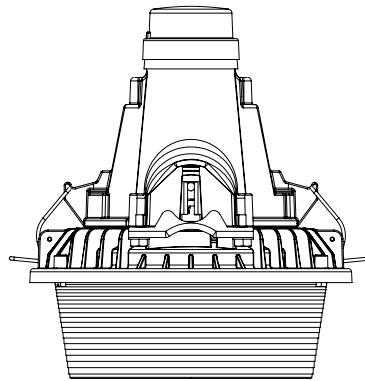
Evolve™ LED Security Light (E2SA)



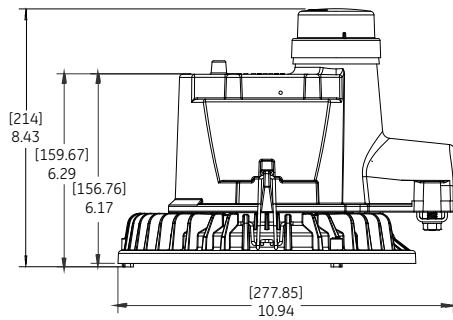
TOP VIEW



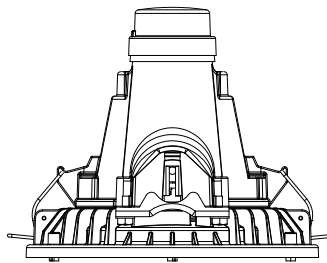
SIDE VIEW



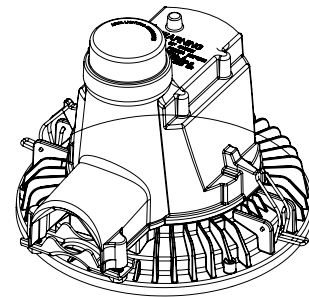
BACK VIEW



SIDE VIEW



BACK VIEW



DATA

- Approximate Net Weight 8.10 lbs
Long 24 in. (610 mm) Mounting Bracket: 16 lbs (7.3 kgs)
- Effective Projected Area: 1.37 sq. ft. max. (0.1 sq. M max.)
- Suggested Mounting Height: 12-25 ft. (4-8 M)



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