

GE
Lighting

Evolve™ LED Roadway Lighting

LED Streetlight (ERX1)



imagination at work

Product Features

The Evolve™ LED Streetlight is optimized for customers requiring a basic LED solution for local and collector 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 50,000 hour rated 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 and collector roadway / street classifications.

Housing

- The modern design incorporates the heat sink directly into the unit for heat transfer.
- Meets 2G vibration standards per ANSI C136.31-2010. For 3G rating contact manufacturer.
- Metal door assembly with tool less latch.



LED & Optical Assembly

- Structured LED array for optimized roadway photometric distribution.
- Evolve™ light engine consisting of reflective technology designed to optimize application efficiency and minimize glare.
- Utilizes high brightness LEDs, 70 CRI at 4000K & 5700K typical.
- LM-79 tests and reports are performed in accordance with IESNA standards.

Lumen Maintenance

- For Lumen Maintenance and TM-21 L70 Projections, see table on page 3.

Ratings

- /  listed, suitable for wet locations per UL 1598.
- IP65 rated optical enclosure per ANSI C136.25-2009.
- Temperature rated at -40° to 40°C.
- Upward Light Output Ratio (ULOR) = 0
- Compliant with the material restriction requirements of RoHS.

Mounting

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

Finish

- Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
- Standard colors: Black and Gray.
- RAL & custom colors available.

Electrical

- 120-277 volt.
- System power factor is >90% and THD <20%.*
- Class "A" Sound rating.
- Integral surge protection:
 - For 120-277VAC per IEEE/ANSI C62.41.2-2002, 6kV/3kA Location Category C-Low (120 Events).
- Photo electric sensors (PE) available for all voltages.

** System power factor and THD is tested and specified at 120V input and maximum load conditions.*

Warranty

- 5-year limited system warranty standard.

Ordering Number Logic

Evolve™ LED Streetlight (ERX1)



E R X 1 - - - - - **7** - - - - -

PROD. ID	VOLTAGE	OPTICAL CODE	PHOTOMETRIC TYPE	DRIVE CURRENT	LED COLOR TEMP	PE FUNCTION	COLOR	OPTIONS
E = Evolve	0 = 120 - 277		AX = Extra Narrow Asymmetric	7 = 700mA	40 = 4000K	2 = PE Rec.	GRAY = Gray	D = Dimming
R = Roadway	1 = 120*		BX = Narrow Asymmetric Medium		57 = 5700K	4 = PE Rec. with Shorting Cap	BLCK = Black	F = Fusing
X = Series	2 = 208*		CX = Asymmetric Short			5 = PE Rec. with Control	Contact manufacturer for other colors.	G = Internal Bubble Level
1 = Optical Assembly	3 = 240*	*Specify single voltage only if fuse option is selected.	DX = Asymmetric Forward			7 = Dimming PE Receptacle*†		XXX = Special Options
	4 = 277*		EX = Asymmetric Medium			9 = Dimming PE Receptacle with Shorting Cap†		
						* Order dimming control PE as a separate item		
						† When ordering PE function socket 7 or 9, a dimming option "D" must also be ordered under the "OPTIONS" column		

OPTICAL CODE	PHOTOMETRIC TYPE	TYPICAL INITIAL LUMENS		TYPICAL SYSTEM WATTAGE		BUG RATINGS*			IES FILE NUMBERS	
		4000K	5700K	120-277V		4000K & 5700K	B	U	G	
2X	AX	2,600	2,900	39			1	0	1	455343
BX		5,000	5,600	71			2	0	1	455344
2X	BX	2,700	3,000	39			1	0	1	455345
BX		5,200	5,800	71			2	0	1	455346
2X	CX	2,700	3,000	39			1	0	1	455347
BX		5,200	5,800	71			2	0	1	455348
2X	DX	2,700	3,000	39			1	0	1	455349
BX		5,200	5,800	71			1	0	1	455350
2X	EX	2,600	2,900	39			1	0	1	455351
BX		5,000	5,600	71			1	0	1	455352

*Rating values for B and G are based on rated lumens and may vary due to flux tolerances.

Lumen Maintenance

AMBIENT TEMPERATURE (°C)	INITIAL LUMENS FACTOR	INITIAL WATTS FACTOR	LED PROJECTED LUMEN MAINTENANCE FOR 50,000 HOURS*	LED PROJECTED L70 (9K)*
15	1.02	1.01	96.7%	>150,000
20	1.01	1	96.7%	>150,000
25	1	1	96.7%	>150,000
30	0.99	1	96.7%	>150,000
35	0.98	0.99	96.7%	>150,000

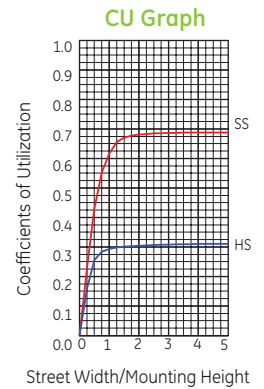
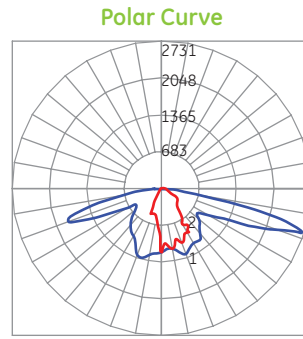
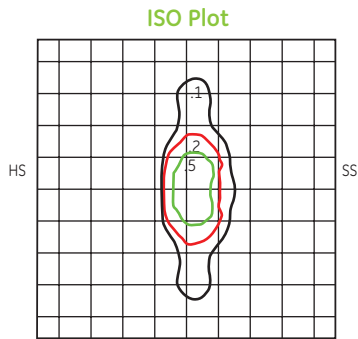
*based on LM-80 (Cree CLD AP47 Rev 5) and TM-21 for in-situ Ts = 85°C and IF = 1000mA at fixture Tambient = 25°C baseline

Photometrics

Evolve™ LED Streetlight (ERX1)

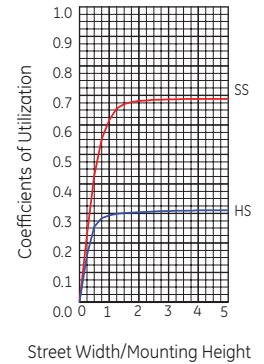
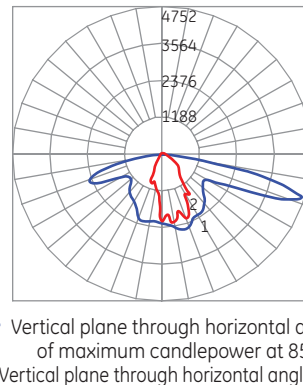
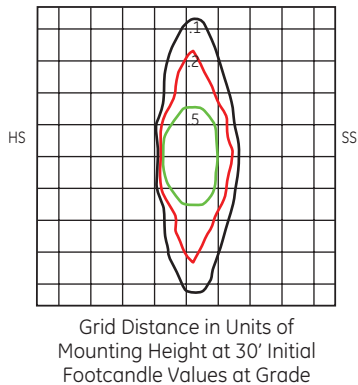
ERX1 Extra Narrow Asymmetric (2XAX)

2,900 Lumens
4000K
GE455343.ies



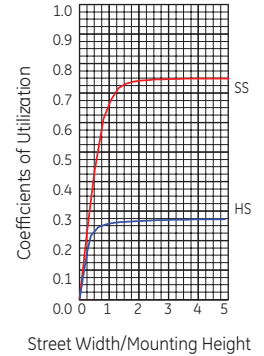
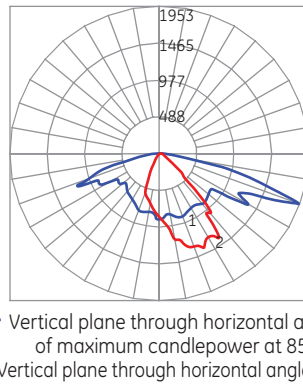
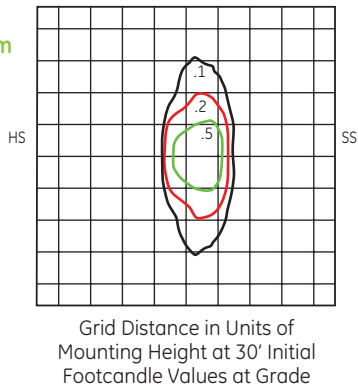
ERX1 Extra Narrow Asymmetric (BXAX)

5,600 Lumens
4000K
GE455344.ies



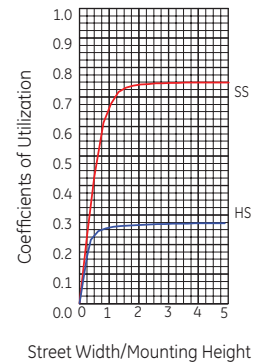
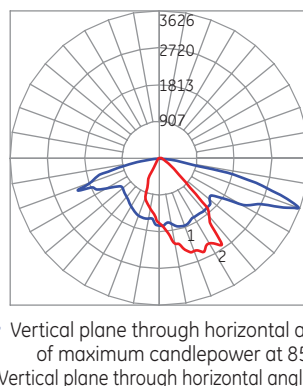
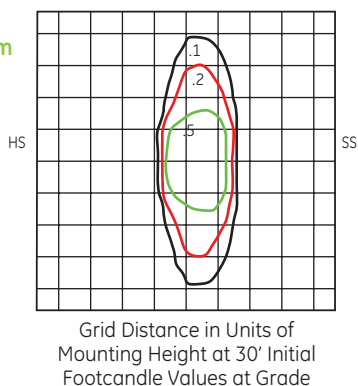
ERX1 Narrow Asymmetric Medium (2XBX)

3,000 Lumens
4000K
GE455345.ies



ERX1 Narrow Asymmetric Medium (BXX)

5,800 Lumens
4000K
GE455346.ies

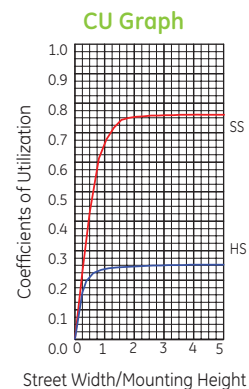
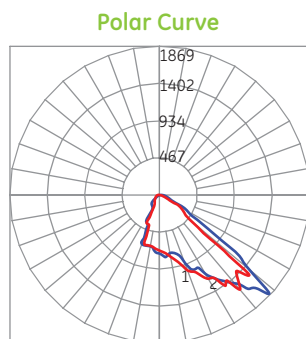
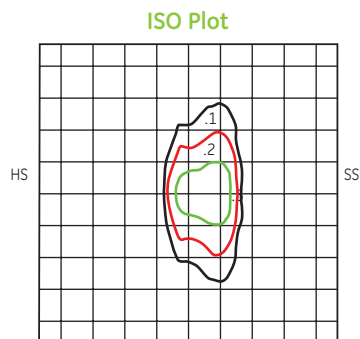


Photometrics

Evolve™ LED Streetlight (ERX1)

ERX1 Asymmetric Short (2XCX)

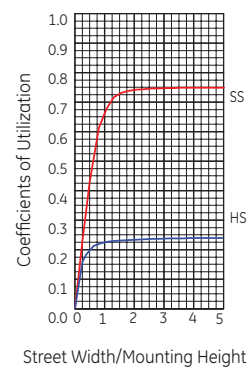
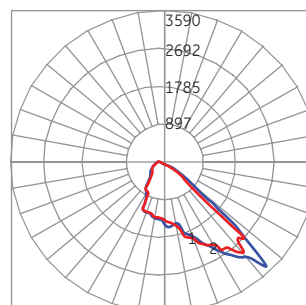
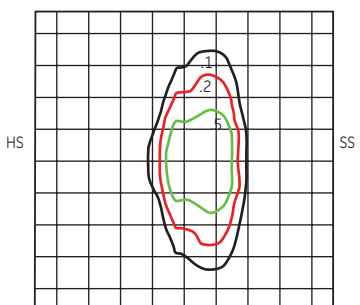
2,700 Lumens
4000K
GE455347.ies



— Vertical plane through horizontal angle of maximum candlepower at 30°
— Vertical plane through horizontal angle of 0°

ERX1 Asymmetric Short (BXCX)

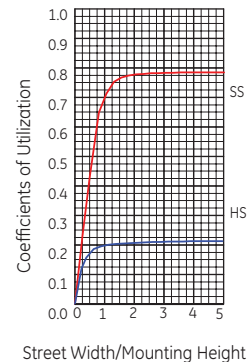
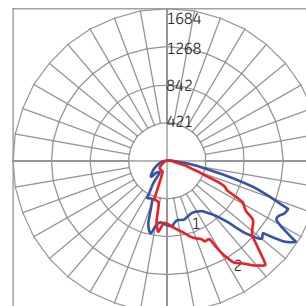
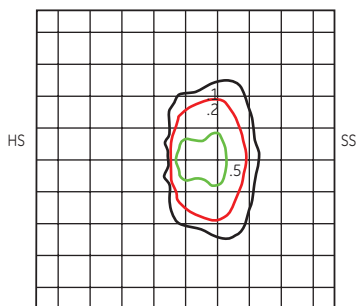
5,200 Lumens
4000K
GE455348.ies



— Vertical plane through horizontal angle of maximum candlepower at 20°
— Vertical plane through horizontal angle of 0°

ERX1 Asymmetric Forward (2XDX)

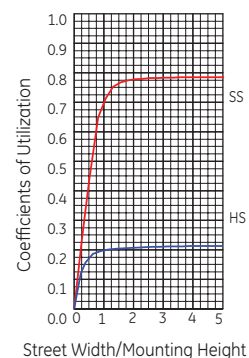
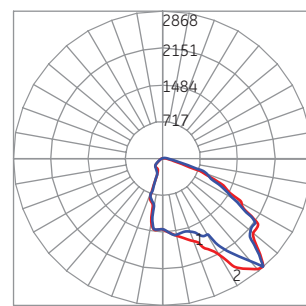
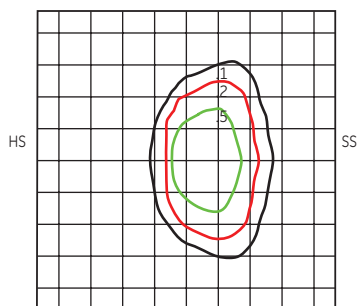
2,700 Lumens
4000K
GE455349.ies



— Vertical plane through horizontal angle of maximum candlepower at 55°
— Vertical plane through horizontal angle of 0°

ERX1 Asymmetric Forward (BXDX)

5,200 Lumens
4000K
GE455350.ies



— Vertical plane through horizontal angle of maximum candlepower at 15°
— Vertical plane through horizontal angle of 0°

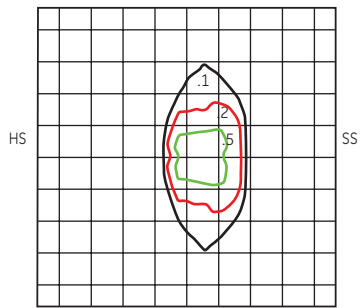
Photometrics

Evolve™ LED Streetlight (ERX1)

ERX1
Asymmetric Medium
(2XEX)

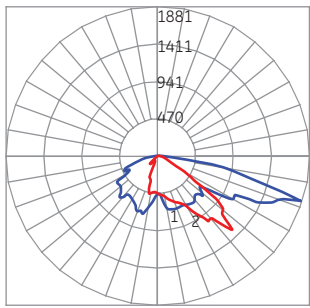
2,600 Lumens
4000K
GE455351.ies

ISO Plot



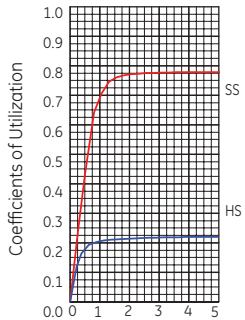
Grid Distance in Units of
Mounting Height at 30' Initial
Footcandle Values at Grade

Polar Curve



— Vertical plane through horizontal angle
of maximum candlepower at 80°
— Vertical plane through horizontal angle of 0°

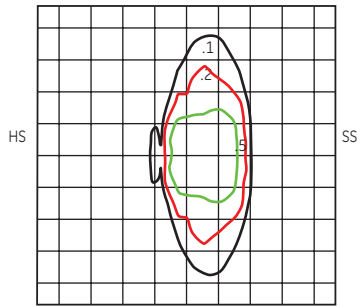
CU Graph



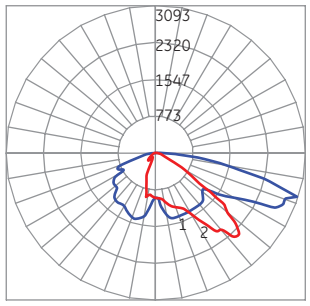
Street Width/Mounting Height

ERX1
Asymmetric Medium
(BXEX)

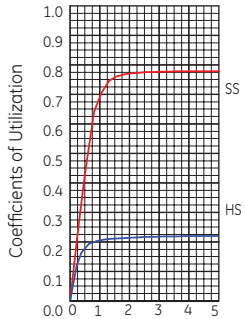
5,000 Lumens
4000K
GE455352.ies



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



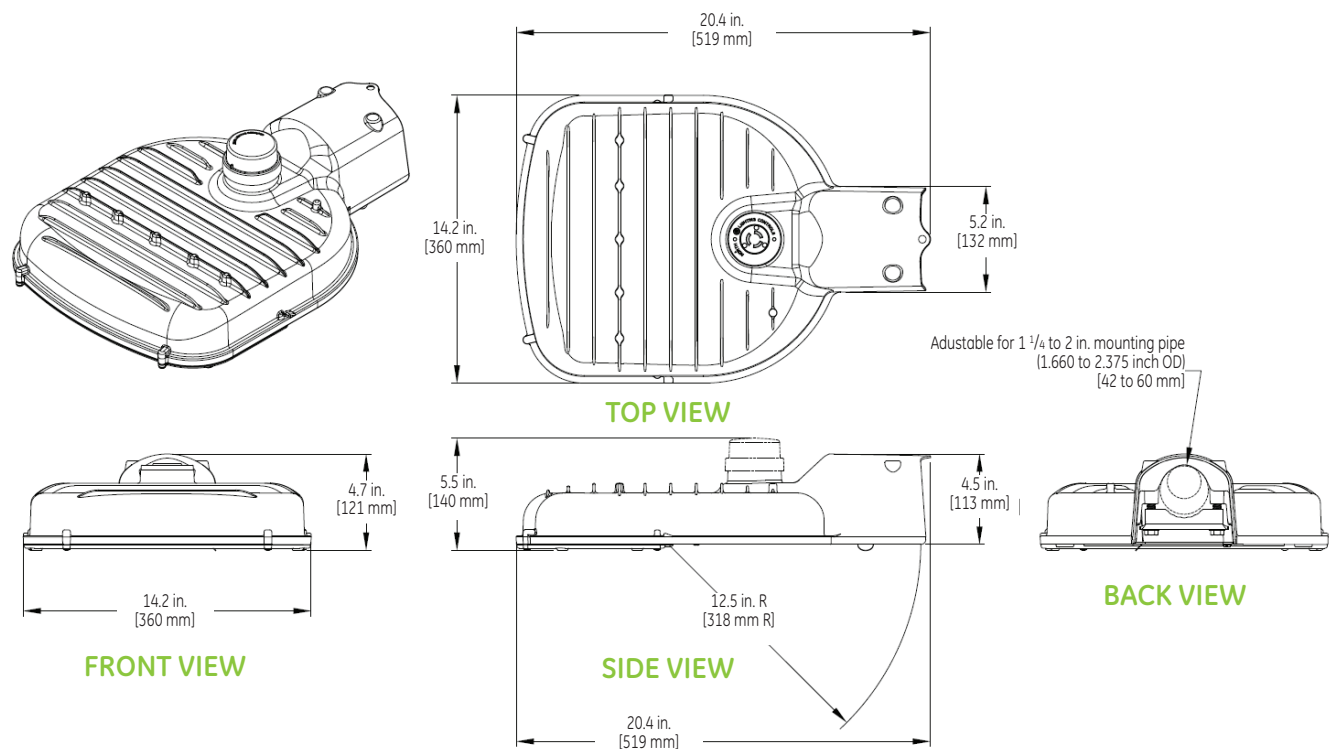
— Vertical plane through horizontal angle
of maximum candlepower at 80°
— Vertical plane through horizontal angle of 0°



Street Width/Mounting Height

Product Dimensions

Evolve™ LED Streetlight (ERX1)



DATA

- Approximate net weight: 15 lbs (6.8 kgs)
Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA): 0.7 sq ft max (0.065 sq m)



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