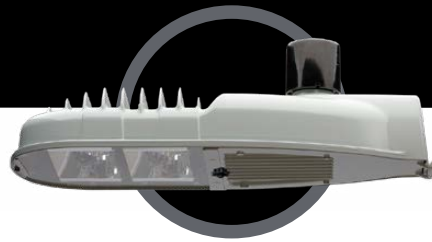




Evolve[®] LED Roadway Lighting

ERLC-ERL1-ERLH-ERL2



GE current
a Daintree company

Evolve® LED Roadway Lighting

Cobra Head (ERL1)



Project Name _____

Date _____ Type _____

Notes _____

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

CONSTRUCTION

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

OPTICAL SYSTEM

| | |
|----------------------|---|
| Lumens: | 2,000 - 10,000 |
| Distribution: | Type II, III, IV and Type II Narrow, and Type II Enhanced Backlight |
| Efficacy: | 110-143 LPW |
| CCT: | 2700K, 3000K, 4000K |
| CRI: | ≥ 70 |

ELECTRICAL

| | |
|-----------------------------------|----------------------------|
| Input Voltage: | 120-277V or 347-480V |
| Input Frequency: | 50/60Hz |
| Power Factor: | $\geq 90\%$ at rated watts |
| Total Harmonic Distortion: | $\leq 20\%$ at rated watts |

SURGE PROTECTION*

| Standard | Optional |
|-----------------------------------|---|
| <input type="checkbox"/> 10kV/5kA | <input type="checkbox"/> Secondary 10kV/5kA (R Option) or |
| | <input type="checkbox"/> Secondary 20kV/10kA (T Option) |

*Per ANSI C136.2-2018

LUMEN MAINTENANCE

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

| Lumen Codes | Distributions | LXX(10K) @ Hours | | |
|----------------|-----------------|------------------|-----------|-----------|
| | | 25,000 HR | 50,000 HR | 60,000 HR |
| 02,03,04,05,06 | A3,B3,C3, D3,E3 | L96 | L95 | L94 |
| 07,08,09 | A3,B3,C3, D3,E3 | L95 | L91 | L89 |
| 10 | A3,B3,C3, D3,E3 | L89 | L80 | L76 |

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

RATINGS

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

CONTROLS

| | |
|-----------------|---|
| Dimming: | Standard - 0-10V <input type="checkbox"/> |
| | Optional - DALI (Option U) <input type="checkbox"/> |
| Sensors: | Photo Electric Sensors (PE) available LightGrid Compatible |

WARRANTY

5 Year (Standard) 10 Year (Optional)

Evolve® LED Roadway Lighting

Cobra Head (ERL1)

Catalog Logic

Project Name _____

Date _____ Type _____

Notes _____

ERL1

| PROD. ID | VOLTAGE | LUMENS | DISTRIBUTION ³ | CCT | CONTROLS PER ANSI C136.41 | COLOR | OPTIONS |
|--------------------------|--------------------------|-----------------|----------------------------------|-------------------------|---|--------------------|--|
| E = Evolve | 0 = 120-277 ¹ | 02 ² | A3 = Type II Narrow | 27 = 2700K ⁴ | A = 7-Pin Receptacle | BLCK = Black | A = 4 Bolt Slipfitter ⁶ |
| R = Roadway | H = 347-480 ¹ | 03 | B3 = Type II Wide | 30 = 3000K ⁴ | D = 7-Pin Receptacle with Shorting Cap | DKBZ = Dark Bronze | B = Tether |
| L = Local | | 04 | C3 = Type III | 40 = 4000K | E = 7 Pin Receptacle with Long Life non-Dimming PE Control ⁵ | GRAY = Gray | F = Fusing |
| 1 = Single Module | 1 = 120 | 05 | D3 = Type IV | | | WHT= White | G = Internal Bubble Level |
| | 2 = 208 | 06 | E3 = Type II Enhanced Back Light | | Note: 0-10V control standard unless DALI Option "U" requested | | I = Optional IP66 Optical |
| | 3 = 240 | 07 | | | | | L = Tool-Less Entry |
| | 4 = 277 | 08 | | | | | R = Secondary 10kV/5kA SPD |
| | D = 347 | 09 | | | | | T = Secondary 20kV/10kA SPD |
| | 5 = 480 | 10 | | | | | U = DALI Programmable ^{7,8} |
| | | | | | | | V1 = Field Adjustable Module ¹¹ |
| | | | | | | | X = Single Pack ⁹ |
| | | | | | | | Y = Coastal Finish ¹⁰ |
| | | | | | | | XXX = Special Options |

¹ Not Available with Fusing

² Lumen Choice Only Available in 120-277V

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

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

⁵ PE Control Only available for 120-277V or Discrete 347V or 480V. Not available for 347-480V.

⁶ Lead time varies, Contact Factory

⁷ Compatible with LightGrid

⁸ Not available in 347V, 480V or 347-480V for Lumen Output Levels 07-10

⁹ Option provides single pack box per fixture. Standard packaging = 23 units per MagnaPak Container

¹⁰ Recommended for installations within 750 feet from coast. Lead time varies, check with factory.

¹¹ Not available with DALI "U" option

SUGGESTED HID REPLACEMENT

- 4,000 - 5,000 lumens to replace 100W HPS Cobra-head
- 7,000 - 8,000 lumens to replace 150W HPS Cobra-head
- 8,500 - 11,500 lumens to replace 100W HPS Cobra-head

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

| Previous | Optical Pattern | Latest | New Optical Pattern |
|---------------|------------------------------------|--------|-----------------------------|
| A1, B1 | Extra Narrow/ Narrow Asymmetric | A3 | Type II Narrow |
| C1, E1 | Asymmetric Short/ Medium | B3 | Type II Wide |
| D1, G1 | Asymmetric Forward/Extra Wide | C3 | Type III |
| F1 | Asymmetric Wide | D3 | Type IV |
| N/A | N/A | E3 | Type II Enhanced Back Light |

The information above is designed to provide a guideline to select the correct luminaire for a roadway application. The best and most accurate way to ensure the proper design is by doing a lighting layout.

Evolve® LED Roadway Lighting

Cobra Head (ERL1)

Spec Tables

Project Name _____

Date _____ Type _____

Notes _____

| LUMEN OUTPUT | DIST. | LUMENS | | | WATTAGE | | BUG RATINGS | | |
|--------------|-------|--------|-------|-------|---------|------|-------------|----------|----------|
| | | 4000K | 3000K | 2700K | 277V | 480V | 4000K | 3000K | 2700K |
| 02 | A3 | 2000 | 1900 | 1900 | 14 | N/A | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | B3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | C3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | D3 | | | | | | B0-U0-G1 | B0-U0-G1 | B0-U0-G1 |
| | E3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| 03 | A3 | 3000 | 2900 | 2800 | 22 | 26 | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | B3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | C3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | D3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | E3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| 04 | A3 | 4000 | 3900 | 3800 | 31 | 34 | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | B3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | C3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | D3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | E3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| 05 | A3 | 5000 | 4900 | 4700 | 39 | 43 | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | B3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | C3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | D3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| | E3 | | | | | | B1-U0-G1 | B1-U0-G1 | B1-U0-G1 |
| 06 | A3 | 6000 | 5800 | 5700 | 47 | 52 | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | B3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | C3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | D3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | E3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| 07 | A3 | 7000 | 6800 | 6600 | 58 | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | B3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | C3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | D3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | E3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| 08 | A3 | 8000 | 7800 | 7600 | 71 | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | B3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | C3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | D3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | E3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| 09 | A3 | 9000 | 8800 | 8500 | 84 | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | B3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | C3 | | | | | | B2-U0-G2 | B2-U0-G2 | B1-U0-G2 |
| | D3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | E3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| 10 | A3 | 9800 | 9600 | 9250 | 97 | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | B3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | C3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |
| | D3 | | | | | | B1-U0-G2 | B1-U0-G2 | B1-U0-G2 |
| | E3 | | | | | | B2-U0-G2 | B2-U0-G2 | B2-U0-G2 |

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

[Non-Shielded](#)

[Shielded](#)

Evolve® LED Roadway Lighting

Cobra Head (ERL1)

Photometric Plots

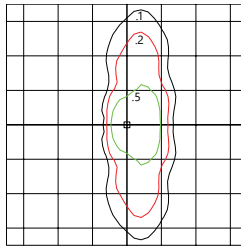
Project Name _____

Date _____ Type _____

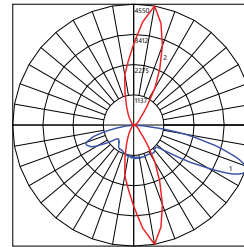
Notes _____

ERL1
Type II Narrow

5,000 Lumens
4000K
ERL1_05A340__IES



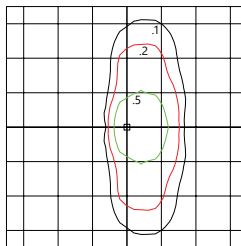
- Mounting Height at 30'
- Initial Footcandle at Grade



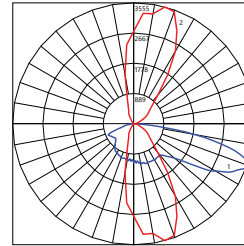
- Vertical plane at max Cd horiz. angle 80°
- Horizontal cone at max Cd vert. angle 67°

ERL1
Type II Wide

5,000 Lumens
4000K
ERL1_05B340__IES



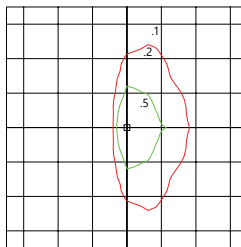
- Mounting Height at 30'
- Initial Footcandle at Grade



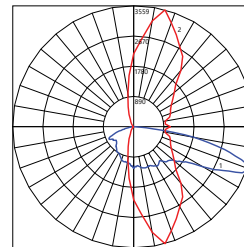
- Vertical plane at max Cd horiz. angle 75°
- Horizontal cone at max Cd vert. angle 69°

ERL1
Type III

5,000 Lumens
4000K
ERL1_05C340__IES



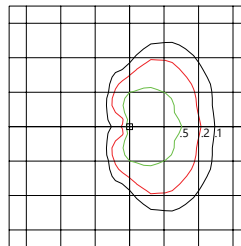
- Mounting Height at 30'
- Initial Footcandle at Grade



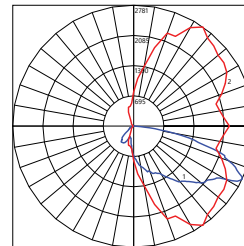
- Vertical plane at max Cd horiz. angle 75°
- Horizontal cone at max Cd vert. angle 70°

ERL1
Type IV

5,000 Lumens
4000K
ERL1_05D340__IES



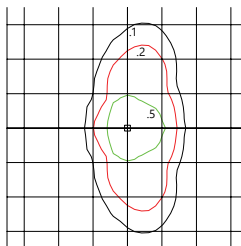
- Mounting Height at 30'
- Initial Footcandle at Grade



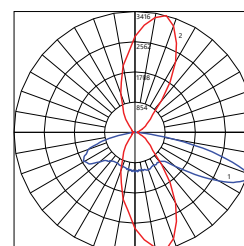
- Vertical plane at max Cd horiz. angle 55°
- Horizontal cone at max Cd vert. angle 64°

ERL1
Type II Enhanced Back Light

5,000 Lumens
4000K
ERL1_05E340__IES



- Mounting Height at 30'
- Initial Footcandle at Grade



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

Evolve® LED Roadway Lighting

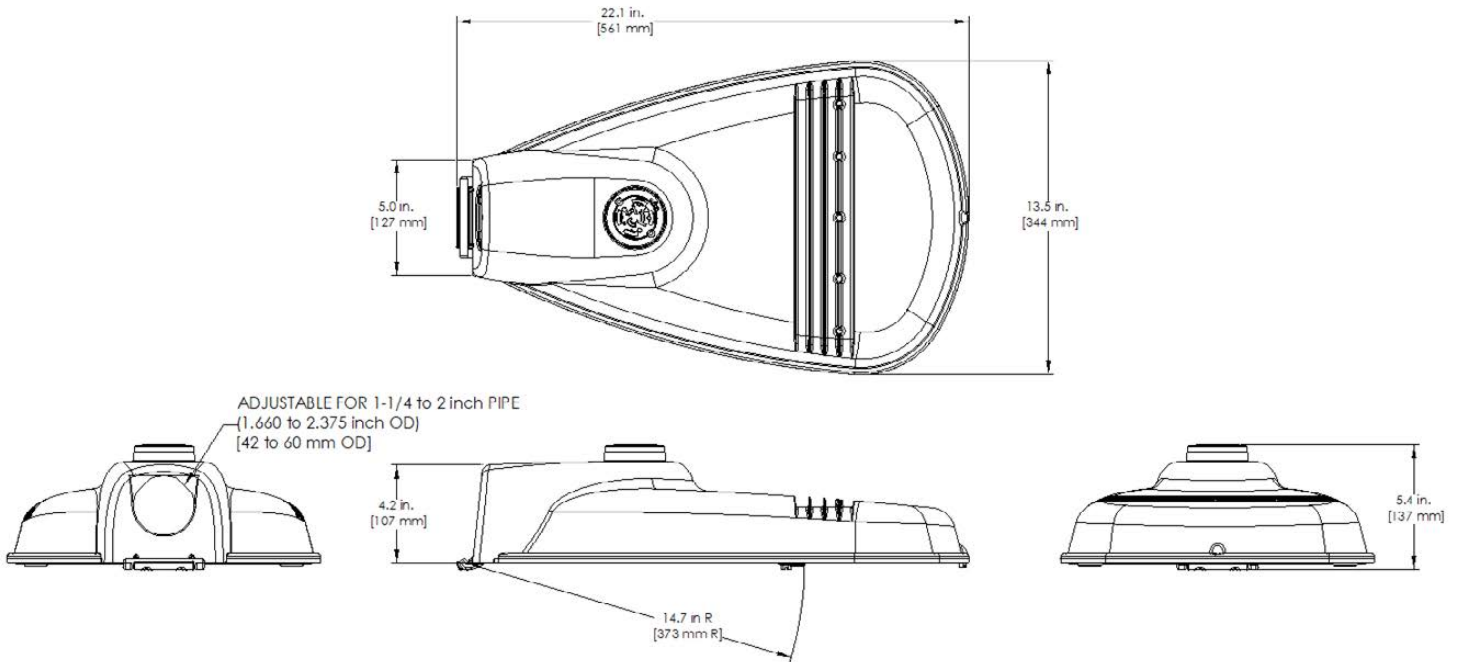
Cobra Head (ERL1)

Mounting & Accessories

Project Name _____

Date _____ Type _____

Notes _____



MOUNTING

- Adjustable for 1.25 to 2 in. nominal mounting pipe
- Integral diecast mounting pipe stop
- Slipfitter with +/- 5 degrees of leveling adjustment

EFFECTIVE PROJECTED AREA

- 0.5 sq ft max (0.046 sq m)

WEIGHT

- 12.4 lbs (5.6 kgs)

ACCESSORIES

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

See pages 22 & 23 for more detailed information on ERL1 Shields.

NETWORKED LIGHTING CONTROL



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