GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2
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 a traditional HID fixture for additional operating cost savings.

Features:
- Optimized roadway photometric distributions
- Evolve® light engine consisting of reflective technology designed to optimize application efficiency and minimize glare
- 70 CRI at 2700K, 3000K and 4000K typical.
- –40°C to 50°C UL Ambient Typical.
- ULOR = 0 (zero uplight)
- Designed & Assembled in USA

Applications:
- Local Roadways
- Collector Roadways
- Major Roadway/Streets

Compatible with LightGrid Outdoor Wireless Control System

To learn more about GE Evolve® LED Roadway Lighting, go to: www.currentbyge.com
Typical Specifications: ERL1-ERLH-ERL2

LED & Optical
- **Output Range:** 1900 – 30000 lm
- **Photometric Options:** Type II Narrow, Type II Wide, Type III, Type IV
- **System Efficacy:** 100 - 145 LPW
- **CCT:** 2700K, 3000K, 4000K; LEDs @ 70 CRI

Lumen Maintenance Tables
Projected Lxx per IES TM-21 at 25°C for reference:

<table>
<thead>
<tr>
<th>PRODUCT ID</th>
<th>Lumen Output Codes</th>
<th>LXX10K@HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>25,000 HR</td>
<td>50,000 HR</td>
</tr>
<tr>
<td>ERL1</td>
<td>02,03,04,05,06</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>07,08,09</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>10</td>
<td>89</td>
</tr>
<tr>
<td>ERLH</td>
<td>10,11</td>
<td>97</td>
</tr>
<tr>
<td></td>
<td>13,14</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>15,16</td>
<td>94</td>
</tr>
<tr>
<td>ERL2</td>
<td>16, 18, 19, 21, 23</td>
<td>96</td>
</tr>
<tr>
<td></td>
<td>25, 27, 28</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>94</td>
</tr>
</tbody>
</table>

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

Electrical
- **Input Voltage:** 120-277 volt and 347-480 volt
- **Input Frequency:** 50/60Hz
- **Power Factor (PF)**: >90%
- **Total Harmonic Distortion (THD)**: <20%

Ratings
- **Surge Protection:** per ANSI C136.2-2015:
  - 6kV/3kA “Basic: (120 Strikes)” - Standard on ERL1 02-06
  - 10kV/5kA “Enhanced: (40 Strikes)” - Standard on ERL1 07 - 10, ERLH, ERL2

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.**

Controls
- **Dimming:**
  - Standard: 0-10V; Optional: DALI (120-277V Only)
- **Sensors:**
  - Photo electric sensors (PE) available.
  - LightGrid™ compatible

Warranty
- **System Warranty:** 5 Year Standard, 10 Year Optional

Construction & Finish
- **Housing:**
  - Die Cast Enclosure
  - Casting-integral heat sink for maximum heat transfer
- **Lensing:** Impact resistant tempered glass, standard
- **Paint:** Corrosion resistant polyester powder painted, minimum 2.0 mil. thickness.
  - Standard Colors: Dark Bronze, Black, & Gray
  - RAL & custom colors available
  - Optional coastal finish available.
- **Weight:** 12.4lbs (5.6kg) – 24lbs (10.9kg)

Environmental:
- Compliant with the materials restrictions of RoHS
- **EMI:** Title 47 CFR Part 15 Class A
- **Vibration:** 3G per ANSI C136.31-2010
- **LM-79 testing in accordance with IESNA Standards**
- **Std. Optical enclosure rated per ANSI C136.25-2009:**
  - ERL1/ERLH/ERL2 = IP65, Optional: IP66

International Dark Sky Association listed. 2700K or 3000K must be selected to meet IDA certification and approval.

**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 to do a lighting layout utilizing AGI.**

<table>
<thead>
<tr>
<th>Suggested HID Replacement Lumen Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>~4,000–5,000 lumens to replace 100W HPS Cobra-head</td>
</tr>
<tr>
<td>~7,000–8,800 lumens to replace 150W HPS Cobra-head</td>
</tr>
<tr>
<td>~8,500–11,500 lumens to replace 200W HPS Cobra-head</td>
</tr>
<tr>
<td>~11,500–14,000 lumens to replace 250W HPS Cobra-head</td>
</tr>
<tr>
<td>~21,000–30,000 lumens to replace 400W HPS Cobra-head</td>
</tr>
</tbody>
</table>

Note: Actual replacement lumens may vary based upon mounting height, pole spacing, design criteria, etc.
<table>
<thead>
<tr>
<th>PROD. ID</th>
<th>VOLTAGE</th>
<th>LUMEN OUTPUT</th>
<th>DISTRIBUTION*</th>
<th>CCT</th>
<th>CONTROLS</th>
<th>COLOR</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E</td>
<td>02</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>Gray</td>
<td>Type III</td>
</tr>
<tr>
<td>R</td>
<td>03</td>
<td>120-277V</td>
<td>E3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>Black</td>
<td>Type III</td>
</tr>
<tr>
<td>L</td>
<td>04</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>Dark Bronze</td>
<td>Type III</td>
</tr>
<tr>
<td>S</td>
<td>05</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
<tr>
<td>E</td>
<td>06</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
<tr>
<td>E</td>
<td>07</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
<tr>
<td>E</td>
<td>08</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
<tr>
<td>E</td>
<td>09</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
<tr>
<td>E</td>
<td>10</td>
<td>120-277V</td>
<td>A3, B3, C3, D3</td>
<td>3000K</td>
<td>ANSI C136.41 7-pin</td>
<td>N/A</td>
<td>Type III</td>
</tr>
</tbody>
</table>

* Not available with F option. Must choose a discrete voltage with F option.

** Not available with E controls option.

---

**Options:**
- 10kV/5kA SPD
- Tool-Less Entry
- LED Dimmable
- Secondary 347V/5kV SPD
- DALI Programmable
- IES
- Tool-Less Exit
- Variable Output via Field Adjustable Module
- Coastal Finish
- Special Options

---

**NOTE:**
- Discrete output available for 347-480V or 347-120V.
- Selection of output is based on initial lumens and system wattage.
- The system wattage is based on the number of output units and their corresponding wattage ratings.
- The typical system wattage is calculated by multiplying the lumens output by the CCT (Color Temperature) and dividing by 1000.
- The IES file number is determined by the configuration of the output units and their corresponding file numbers.

---

**Project name:**

---

**Date:**

---

**Type:**

---
**Photometrics:**

**Evolve® LED Streetlight (ERL1)**

**ERL1**
Type II Narrow
(05A340)

5,000 Lumens 4000K  
ERL1_05A340___IES

---

**ERL1**
Type II Wide
(05B340)

5,000 Lumens 4000K  
ERL1_05B340___IES

---

**ERL1**
Type III
(05C340)

5,000 Lumens 4000K  
ERL1_05C340___IES

---

**ERL1**
Type IV
(05D340)

5,000 Lumens 4000K  
ERL1_05D340___IES

---

**ERL1**
Type II Enhanced Back Light
(05E340)

5,000 Lumens 4000K  
ERL1_05E340___IES
GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

**INITIAL LUMENS**

**TYPICAL**

**SYSTEM WATTAGE**

**TYPICAL**

**BUS RATING**

**IES FILE NUMBER**

<table>
<thead>
<tr>
<th>PROD. ID</th>
<th>VOLTAGE</th>
<th>LUMEN</th>
<th>DISTRIBUTION</th>
<th>CCT</th>
<th>CONTROLS</th>
<th>COLOR</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E = Evolve</td>
<td>R = Roadway</td>
<td>L = Local</td>
<td>H = High Output</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- E3 = Type III
- D3 = Type II Wide
- C3 = Type II Narrow
- B3 = Type II Narrow
- A3 = Type II Narrow
- E = ANSI C136.41 7-pin with Shorting Cap
- D = ANSI C136.41 7-pin with non-Dimming PE Control
- H = High Output
- L = Local
- R = roadway
- O = ANSI C136.41 7-pin with non-Dimming PE Control
- # Not available with F option.
- * Not available with Fusing. Must choose a discrete voltage with F option.
- ** Not available with DALI (U) option.
- ☠ Not available in 347V, 480V or 347-480V.
- + Compatible with LightGrid 2.0 nodes.
- ** Not available with DALI (L) option.

***NOTE:** Dimming controls wired for 0-10V standard unless DALI option "U" requested.

**NOTE:** Dimming controls wired for 0-10V standard unless DALI option "U" requested.

- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
Photometrics:
Evolve® LED Streetlight (ERLH)

**ERLH**
Type II Narrow
(13A340)

- 13,000 Lumens
- 4000K
- ERLH_13A340___.IES

**ERLH**
Type II Wide
(13B340)

- 13,000 Lumens
- 4000K
- ERLH_13B340___.IES

**ERLH**
Type III
(13C340)

- 13,000 Lumens
- 4000K
- ERLH_13C340___.IES

**ERLH**
Type IV
(13D340)

- 13,000 Lumens
- 4000K
- ERLH_13D340___.IES

**ERLH**
Type II Enhanced Back Light
(13E340)

- 13,000 Lumens
- 4000K
- ERLH_13E340___.IES
**GE Evolve®
LED Roadway Lighting**

**ERL2**

<table>
<thead>
<tr>
<th>PROD. ID</th>
<th>VOLTAGEX</th>
<th>LUMEN OUTPUT</th>
<th>DISTRIBUTION</th>
<th>CCT</th>
<th>CONTROLS</th>
<th>COLOR</th>
<th>OPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>E = Evolve R = Roadway L = Local 2 = Double Module</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0 = 120-277V 1 = 120 2 = 208 3 = 240 4 = 277 5 = 480 6 = 347 7 = 347-480X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B3-U0-G4 B3-U0-G4 B3-U0-G3 ERL2_27B340_.IES ERL2_27B330_.IES ERL2_27B327_.IES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D3-U0-G4 B3-U0-G4 B3-U0-G4 ERL2_27D340_.IES ERL2_27D330_.IES ERL2_27D327_.IES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E3-U0-G4 B3-U0-G4 B3-U0-G4 ERL2_27E340_.IES ERL2_27E330_.IES ERL2_27E327_.IES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Nominal IES Type characterizing subject to typical variation, individual units may differ. 

** Typical variation, See Table **

---

**Project Name**

---

**Date**

---

**Type**

---

**IES File Number**

**Color**

---

**Options**

---

**Control**

---

**Lumen Output**

**Typical Initial Lumens**

**Typical System Wattage**

**Bugg Rating**

**IES File Number**

**Color**

---

**Options**

---

**Control**

---

**Note:** Dimming controls wired for 0-10V standard unless DALI option “U” requested.

---

* Not available with fusing. Must choose a discrete voltage with F option. 
Not available with E controls option.

---

* Not available.

---

* Not available with 347-480V or 347V.

---

* Not available with DALI (U) option.

---

* 26 fixtures per Magnapack.
Photometrics:
Evolve® LED Streetlight (ERL2)

ERL2
Type II Narrow
(23A340)
23,000 Lumens
4000K
ERL2_23A340___.IES

ERL2
Type II Wide
(23B340)
23,000 Lumens
4000K
ERL2_23B340___.IES

ERL2
Type III
(23C340)
23,000 Lumens
4000K
ERL2_23C340___.IES

ERL2
Type IV
(23D340)
23,000 Lumens
4000K
ERL2_23D340___.IES

ERL2
Type II Enhanced Back Light
(23E340)
23,000 Lumens
4000K
ERL2_23E340___.IES
GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

Product Dimensions:
Evolve® LED Streetlight (ERL1)

- Approximate net weight: 12.4 lbs (5.6kgs) - 15.5 lbs (7.0kgs) with XFMR
- Effective Projected Area (EPA): 0.5 sq ft max (0.046 sq m)
GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

Product Dimensions:
Evolve® LED Streetlight (ERLH)

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)
GE Evolve®
LED Roadway Lighting
ERL1-ERLH-ERL2

Product Dimensions:
Evolve® LED Streetlight (ERL2)

- Approximate net weight: 24.0 lbs (10.9 kgs)
  Contact manufacturer for specific configuration weight.
- Effective Projected Area (EPA): 0.57 sq ft max (0.053 sq m)