GE Evolve™
LED Roadway Lighting
ERL1-ERLH-ERL2
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.
- ULR = 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; High brightness LEDs @ 70 CRI

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

<table>
<thead>
<tr>
<th>PRODUCT ID LUMEN OUTPUT CODES</th>
<th>Lxx(10K)@HOURS 25,000 HR</th>
<th>Lxx(10K)@HOURS 50,000 HR</th>
<th>Lxx(10K)@HOURS 100,000 HR</th>
</tr>
</thead>
<tbody>
<tr>
<td>ERL1 02, 03, 04, 05, 06</td>
<td>L96</td>
<td>L95</td>
<td>L91</td>
</tr>
<tr>
<td>ERL1 07, 08, 09</td>
<td>L95</td>
<td>L91</td>
<td>L84</td>
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<tr>
<td>ERL1 10</td>
<td>L95</td>
<td>L91</td>
<td>L88</td>
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</tbody>
</table>

**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:
  - (Driver Internal):
    - 6kV/3kA “Basic: (120 Strikes)” - Standard on ERL1 02-06
    - 10kV/5kA “Enhanced: (40 Strikes)” - Standard on ERL1 (07 - 10), ERLH, ERL2
  - (Additional Separate Secondary SPD)
    - 10kV/5kA “Enhanced: (40 Strikes)” - Option “R”
    - 20kV/10kA “Elevated” (40 Strikes) - Option “T”
- **Safety:** UL/cUL Listed. UL 1598 listed, suitable for wet locations
- **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

Please refer to the DLC QPL website for the latest and most complete information. www.designlights.org/QPL

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

**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)

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

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

**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.

**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
- ~21,000–30,000 lumens to replace 400W HPS Cobra-head

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

**ERL1-ERLH-ERL2**

<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 = Evolve</td>
<td>R = Roadway</td>
<td>L = Local</td>
<td>1 = Single Module</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>02</td>
<td>120-277V</td>
<td>30</td>
<td>Type II Narrow</td>
<td>27 = 3700K &lt; 30 = 3000K</td>
<td>Type II Wide</td>
<td>40 = 4000K</td>
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<tr>
<td>A3</td>
<td>B3</td>
<td>C3</td>
<td>D3</td>
<td>E3</td>
<td>A = ANSI C136.41 7-pin</td>
<td>D = ANSI C136.41 7-pin</td>
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<tr>
<td>03</td>
<td>3000-6800</td>
<td>6800</td>
<td>Type III</td>
<td>58</td>
<td>Type IV</td>
<td>6000K</td>
<td></td>
</tr>
<tr>
<td>A3</td>
<td>B3</td>
<td>C3</td>
<td>D3</td>
<td>E3</td>
<td>E = ANSI C136.41 7-pin</td>
<td></td>
<td></td>
</tr>
<tr>
<td>04</td>
<td>2400</td>
<td>5800</td>
<td>Type II Enhanced</td>
<td>Select</td>
<td>ERL1_06B340_____.IES</td>
<td>ERL1_06C340_____.IES</td>
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<tr>
<td>A3</td>
<td>B3</td>
<td>C3</td>
<td>D3</td>
<td>E3</td>
<td>Output 5000K CCT</td>
<td>ERL1_06D340_____.IES</td>
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<tr>
<td>05</td>
<td>6000</td>
<td>5800</td>
<td>Bee Light</td>
<td>See Table</td>
<td>120V only, not compatible with</td>
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<td></td>
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<tr>
<td>A3</td>
<td>B3</td>
<td>C3</td>
<td>D3</td>
<td>E3</td>
<td>0-10V dimming.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>06</td>
<td>9000</td>
<td>8800</td>
<td>*Nominal IES Type classifying subject to</td>
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<td></td>
<td></td>
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<tr>
<td>A3</td>
<td>B3</td>
<td>C3</td>
<td>D3</td>
<td>E3</td>
<td>Typical variation, individual units</td>
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<td></td>
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<tr>
<td>07</td>
<td>9800</td>
<td>9600</td>
<td>may differ.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Notes:
- Dimming controls wired for 0-10V standard unless DALI option "U" requested.
- 0-10V dimming.
- 2400K available for 347-480V or 347V non-Dimming PE Control.*
- 2700K for IDA.
- Select 3400K or 4000K for Lumen output using a control supplied from a source other than GE call 1-888-694-3533, then select Option 2 at the prompt for assistance.
- Recommended for installations within 750 ft. from the coast. Contact factory for lead-time.
Photometrics:
Evolve™ LED Streetlight (ERL1)

ERL1
Type II Narrow
(05A340)

5,000 Lumens
4000K
ERL1_05A340___.IES

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

— Vertical plane through horizontal angle of Max. Cd at 80°
— Horizontal cone through vertical angle of Max. Cd at 67°

ERL1
Type II Wide
(05B340)

5,000 Lumens
4000K
ERL1_05B340___.IES

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

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

ERL1
Type III
(05C340)

5,000 Lumens
4000K
ERL1_05C340___.IES

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

— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 70°

ERL1
Type IV
(05D340)

5,000 Lumens
4000K
ERL1_05D340___.IES

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

— Vertical plane through horizontal angle of Max. Cd at 55°
— Horizontal cone through vertical angle of Max. Cd at 64°

ERL1
Type II Enhanced Back Light
(05E340)

5,000 Lumens
4000K
ERL1_05E340___.IES

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

— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 67°
**GE Evolve™**

**LED Roadway Lighting**

**ERL1-ERLH-ERL2**

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**PROD. ID** | **VOLTAGE** | **LUMEN OUTPUT** | **DISTRIBUTION** | **CCT** | **CONTROLS** | **COLOR** | **OPTIONS**
--- | --- | --- | --- | --- | --- | --- | ---
0 = 120-277V | 10 | 10 | **E** = High Output | **H** | **L** = Local | **R** = Roadway | **E** = Evolve
1 = 120 | 11 | 11
2 = 208 | 13 | 13
3 = 240 | 14 | 14
4 = 277 | 15 | 15
5 = 480 | 16 | 16
D = 347 | 347-480V

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

# Not available with E controls option.

**OUTPUT DISTRIBUTION 4000K 4000K 4000K**

<table>
<thead>
<tr>
<th>30 = 3000K</th>
<th>40 = 4000K</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; Select 3000K CCT for IES approved units.</td>
<td></td>
</tr>
</tbody>
</table>

**D3** | **B2-U0-G3** | **B2-U0-G3** | **ERLH_16D340_____.IES** | **ERLH_16D330_____.IES**

**ERLH_15D340_____.IES** | **ERLH_15D330_____.IES**

**ERLH_14D340_____.IES** | **ERLH_14D330_____.IES**

**ERLH_13D340_____.IES** | **ERLH_13D330_____.IES**

**ERLH_12D340_____.IES** | **ERLH_12D330_____.IES**

**ERLH_11D340_____.IES** | **ERLH_11D330_____.IES**

**ERLH_10D340_____.IES** | **ERLH_10D330_____.IES**

**ERLH_09D340_____.IES** | **ERLH_09D330_____.IES**

**ERLH_08D340_____.IES** | **ERLH_08D330_____.IES**

**ERLH_07D340_____.IES** | **ERLH_07D330_____.IES**

**ERLH_06D340_____.IES** | **ERLH_06D330_____.IES**

**ERLH_05D340_____.IES** | **ERLH_05D330_____.IES**

**ERLH_04D340_____.IES** | **ERLH_04D330_____.IES**

**ERLH_03D340_____.IES** | **ERLH_03D330_____.IES**

**ERLH_02D340_____.IES** | **ERLH_02D330_____.IES**

**ERLH_01D340_____.IES** | **ERLH_01D330_____.IES**

**ERLH_00D340_____.IES** | **ERLH_00D330_____.IES**

**ERLH_09D340_____.IES** | **ERLH_09D330_____.IES**

**ERLH_08D340_____.IES** | **ERLH_08D330_____.IES**

**ERLH_07D340_____.IES** | **ERLH_07D330_____.IES**

**ERLH_06D340_____.IES** | **ERLH_06D330_____.IES**

**ERLH_05D340_____.IES** | **ERLH_05D330_____.IES**

**ERLH_04D340_____.IES** | **ERLH_04D330_____.IES**

**ERLH_03D340_____.IES** | **ERLH_03D330_____.IES**

**ERLH_02D340_____.IES** | **ERLH_02D330_____.IES**

**ERLH_01D340_____.IES** | **ERLH_01D330_____.IES**

**ERLH_00D340_____.IES** | **ERLH_00D330_____.IES**

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

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**COLOR** | **OPTIONS**
--- | ---
**GRAY** | **DKBZ = Dark Bronze**

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**PROJECT NAME:**

**DATE:**

**TYPE:**
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**
**ERL1-ERLH-ERL2**

#### OPTIONS

- B = Bolt Slipfitter
- F = Fusing
- G = Internal Bubble Level
- I = IP66 Optical
- L = Tool-Less Entry
- M = Magnapack
- P = Secondary 20kV/5kA SPD
- R = Magnapack***
- S = DALI Programmable*
- V = Variable Output via Field Adjustable Module**
- XXX = Special Options

*Contact manufacturer for Lead-Time.

**Recommended for installations within 750 ft. from the coast. Contact Factory for Lead-Time.**

**Compatible with LightGrid 2.0 nodes.**

**Not available in 347V, 480V, or 347-480V.**

**Not available with DALI (U) option.**

**20 fixtures per Magnapack.**

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#### Table

<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>0 = 120-277V*</td>
<td>1 = 208</td>
<td>2 = 240</td>
<td>A = 277</td>
<td>B = 347</td>
<td>D = 347-480*</td>
<td>16</td>
<td>E = ANSI C136.6-4 7-pin</td>
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<tr>
<td>21</td>
<td>20100</td>
<td>21000</td>
<td>23000</td>
<td>25000</td>
<td>27000</td>
<td>28000</td>
<td>30000</td>
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<tr>
<td>12</td>
<td>100-208</td>
<td>140-240</td>
<td>174-2100</td>
<td>196-2300</td>
<td>214-2500</td>
<td>214-2700</td>
<td>214-2900</td>
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<td>25000</td>
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<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

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**NOTE:**

- Discrete:
- Tool-Less Entry
- Magnapack
- DALI Programmable
- Variable Output via Field Adjustable Module
- Special Options

**DIMMING:**

- Not available with F option.
- Choose a discrete voltage with F option.
- May differ.
- Typical variation, classing subject to individual units.

**COLOR CONTROL:**

- ANSI C136.41 7-pin
- ANSI C136.41 7-pin with non-Dimming PE Control

**OPTIONS:**

- Not available with PE Control Only available for 347-480V or 347V Discrete. Not available for 347-480V or 347V Discrete.

---

#### Table

<table>
<thead>
<tr>
<th>LUMEN OUTPUT</th>
<th>DISTRIBUTION</th>
<th>TYPICAL INITIAL LUMENS 4000K 5000-5200K 3000K</th>
<th>TYPICAL SYSTEM WATTAGE 120-277V 347-480V</th>
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</thead>
<tbody>
<tr>
<td>16</td>
<td>A3</td>
<td>16000</td>
<td>15300</td>
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<tr>
<td>18</td>
<td>B3</td>
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<td>20100</td>
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<td>30</td>
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<td>30000</td>
<td>28800</td>
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</table>

---

**OPTIONS:**

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

---

**NOTE:**

- Discrete:
- Tool-Less Entry
- Magnapack
- DALI Programmable
- Variable Output via Field Adjustable Module
- Special Options

**DIMMING:**

- Not available with F option.
- Choose a discrete voltage with F option.
- May differ.
- Typical variation, classing subject to individual units.

**COLOR CONTROL:**

- ANSI C136.41 7-pin
- ANSI C136.41 7-pin with non-Dimming PE Control

**OPTIONS:**

- Not available with PE Control Only available for 347-480V or 347V Discrete. Not available for 347-480V or 347V Discrete.

---

**NOTE:**

- Discrete:
- Tool-Less Entry
- Magnapack
- DALI Programmable
- Variable Output via Field Adjustable Module
- Special Options

**DIMMING:**

- Not available with F option.
- Choose a discrete voltage with F option.
- May differ.
- Typical variation, classing subject to individual units.

**COLOR CONTROL:**

- ANSI C136.41 7-pin
- ANSI C136.41 7-pin with non-Dimming PE Control

**OPTIONS:**

- Not available with PE Control Only available for 347-480V or 347V Discrete. Not available for 347-480V or 347V Discrete.
Photometrics:
Evolve™ LED Streetlight (ERL2)

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

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

— Vertical plane through horizontal angle of Max. Cd at 80°
— Horizontal cone through vertical angle of Max. Cd at 69°

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

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

— Vertical plane through horizontal angle of Max. Cd at 75°
— Horizontal cone through vertical angle of Max. Cd at 72°

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

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

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

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

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

— Vertical plane through horizontal angle of Max. Cd at 55°
— Horizontal cone through vertical angle of Max. Cd at 65°

ERL2
Type II Enhanced Back Light
(23E340)
23,000 Lumens
4000K
ERL2_23E340___.IES

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

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