# LED Round & Square Bollards

ENVIROLUX® ENERGY SYSTEMS

## Project Information

Project Name: | Fixture Type:

Complete Catalog #: | Date:

Comments:

The EnviroLux EES-B1Q and EES-B2Q LED Cutoff Bollards with UV-stabilized polycarbonate lenses and sealed optical compartments are designed to replace HID lighting systems up to 70w MH or HPS. These fixtures are ideal for retail centers, industrial parks, schools and universities, public transit and airports, office buildings and medical facilities.

## Specifications and Features:

### Housing:
Extruded Aluminum Housing with Flush Mounting Base & Vandal-Resistant Screws, Flat, Dome or Pyramid Tops, Internal Driver Tray for Easy Maintenance.

### Listing & Ratings:
CSA: Listed for Wet Locations, ANSI/UL 1598, 8750 IP66 Sealed LED Compartment.

### Finish:
Textured Architectural Bronze or Black Powdercoat Finish Over a Chromate Conversion Coating. Custom Colors Available Upon Request.

### Reflector:
Reflective White UV-Stabilized Polycarbonate Cone Reflector

### Lens:
Clear UV-Stabilized Polycarbonate or SoftLED LumaLens Opal UV-Stabilized Polycarbonate Vandal-Resistant Lens.

### Mounting Options:
Mounting Kit with 8″ Anchor Bolts, Included.

### LED:
Aluminum Boards

### Wattage:
Array: 23w, System: 27w; (70w HID Equivalent)

L70 25°C — 106,000 Hours

### Driver:
Electronic Driver, 120-277V, 50/60Hz or 347V, 50/60Hz; Less Than 20% THD and PF>0.90. Standard Internal Surge Protection 2kV. 0-10V Dimming Standard for a Dimming Range of 100% to 10%; Dimming Source Current is 150 Microamps.

### Controls:
Fixtures Ordered with Factory-Installed Motion Sensor Controls are Internally Wired for Switching and/or 1-10V Dimming Within the Housing. Remote Direct Wired Interface of 1-10V Dimming is Not Implied and May Not Be Available, Please Consult Factory. Fixtures are Tested with EnviroLux Controls and May Not Function Properly With Controls Supplied By Others. Fixtures are NOT Designed for Use with Line Voltage Dimmers.

### Warranty:
7-Year Warranty for -20°C to +40°C Environment.

See Page 3 for Projected Lumen Maintenance Table.

7 YEARS

**EESB1Q - Round Flat Top (Clear Lens)**

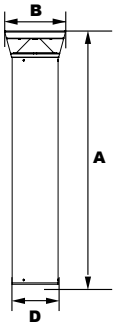
**EESB2Q - Square Flat Top (LumaLens)**

**Shown with "S3" Sensor**

**Shown with GFCI**

**EESB1BQ - Round Dome Top**

**EESB2CQ - Square Pyramid Top**




### Dimensions

| | |
|---|---|
| **Width (B)** | 9¼″ (234mm) |
| **Diameter (D)** | 7″ (180mm) |
| **Height (A)** | **Flat Top:** 35¾″ (908mm)<br>**Dome Top:** 38⅛″ (968mm)<br>**Pyramid Top:** 38⅛″ (968mm) |

---

Complete Units
Ordering Information
Example: EES-B2CQF1X23U4KCZ30SF

# LED Round & Square Bollards

| | F | 1X23 | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Model** | **Optic** | **Wattage** | **Driver** | **CCT** | **Lens** | **Color** | **Height** | **Options** |
| | **F**=Wide Beam Spread | **1X23**=23w | **U**=120-277V<br>**C**=347V | **3K**=3000K*<br>**4K**=4000K<br><br>*B2Q model only. | | **Z**=Bronze<br>**B**=Black<br>**C**=Custom (Consult Factory) | **(Leave Blank)**= 34¾″ Standard Height<br>**30**=30″ Height | |

**EESB1Q**=Round Bollard, Flat Top
**EESB1BQ**=Round Bollard, Dome Top
**EESB2Q**=Square Bollard, Flat Top
**EESB2CQ**=Square Bollard, Pyramid Top

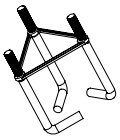
**C**=Clear UV-Stabilized Polycarbonate Vandal-Resistant Lens
**L**=SoftLED LumaLens Opal UV-Stabilized Polycarbonate Vandal-Resistant Lens

**SF**=Single Fuse (120-277V Only)
**DF**=Double Fuse (120-277V Only)
**SP**=Surge Protection
**GF1**=GFCI Outlet, 15A, 120V
**S3**=Internal Microwave Sensor (120-277V Only)

IP66

# LED Round & Square Bollards

## Accessories & Replacement Parts:



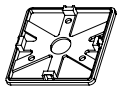
MK

BREBASE*

P17122

P17121

BORBASE



BOSBASE

BOADP1

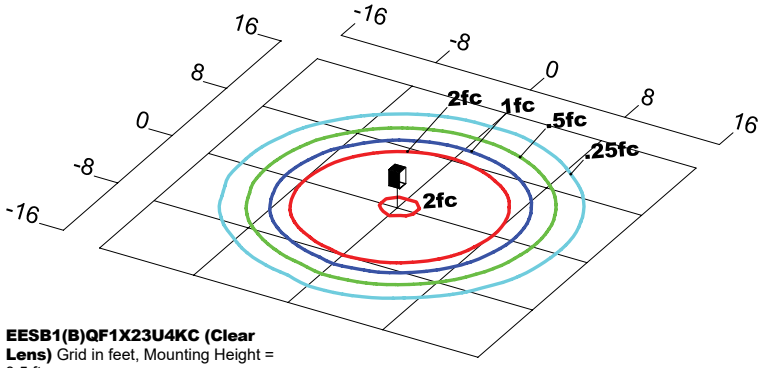
***Shown Mounted**

| Mounting Accessories (Order Separately, Field Installed) | |
|---|---|
| MK4 | Mounting Kit, Includes Bracket & Three (3) 4″ Anchor Bolts |
| MK8 | Mounting Kit, Includes Bracket & Three (3) 8″ Anchor Bolts |
| MK12 | Mounting Kit, Includes Bracket & Three (3) 12″ Anchor Bolts |
| MK15 | Mounting Kit, Includes Bracket & Three (3) 15″ Anchor Bolts |
| BREBASE* | Bollard Retrofit Base Kit Adapts New Bollards to Most Existing Bolt Patterns. Fits all DuraGuard Bollards. Die Cast with Powdercoat Finish, Hardware Included. 11½″ Dia. x 1½″ H |
| *Specify Color: Z=Bronze, B=Black, C=Custom (Consult Factory) | |

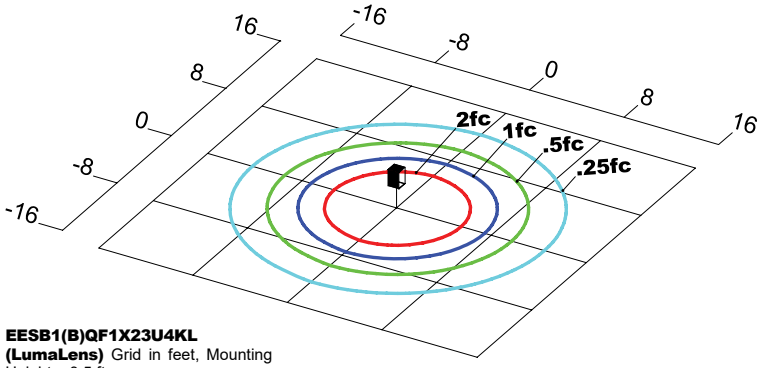
| Accessories (Order Separately, Field Installed) | |
|---|---|
| P17122 | Remote Programming Tool for P17121 |

| Replacement Parts (Order Separately, Field Installed) | |
|---|---|
| P17121 | Internal Microwave Sensor (120-277V Only) |
| BORBASE* | Die Cast Base Plate with Powdercoat Finish Over a Chromate Conversion Coating. Fits B1. |
| BOSBASE* | Die Cast Base Plate with Powdercoat Finish Over a Chromate Conversion Coating. Fits B2. |
| BOADP1 | Adapter Plate with Gaskets for Outlet Boxes. Fits EnviroLux Bollards. Die Cast with Bronze Powdercoat Finish. |
| *Specify Color: Z=Bronze, B=Black, C=Custom (Consult Factory) | |

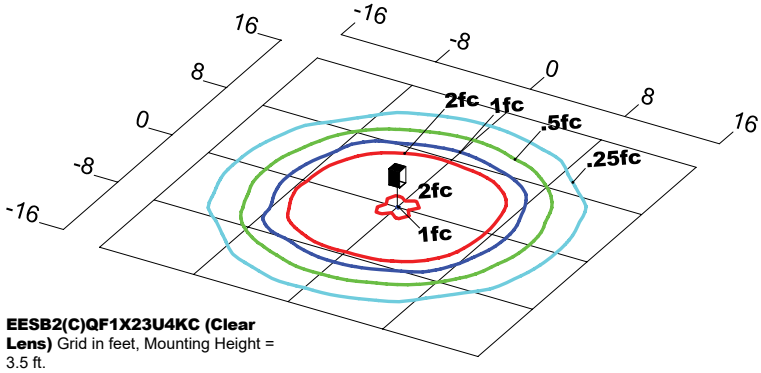
## Photometric Data



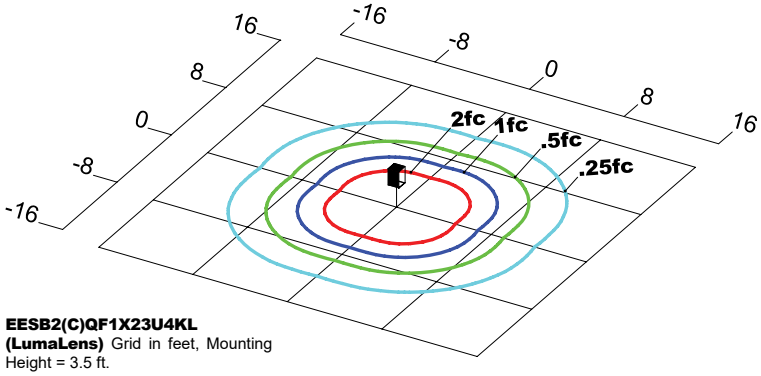

**EESB1(B)QF1X23U4KC (Clear Lens)** Grid in feet, Mounting Height = 3.5 ft.




**EESB1(B)QF1X23U4KL (LumaLens)** Grid in feet, Mounting Height = 3.5 ft.




**EESB2(C)QF1X23U4KC (Clear Lens)** Grid in feet, Mounting Height = 3.5 ft.




**EESB2(C)QF1X23U4KL (LumaLens)** Grid in feet, Mounting Height = 3.5 ft.

# LED Round & Square Bollards

ENVIROLUX® ENERGY SYSTEMS

## Photometric Performance

| LED Board Watts | Drive Current (mA) | Input Watts | Bollards | 4000 CCT 80 CRI | | | | | 3000 CCT 80 CRI | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Lumens | LPW | B | U | G | Lumens | LPW | B | U | G |
| LED 23w | 116 | 27 | B1Q (Clear Lens) | 2,093 | 78 | 1 | 3 | 1 | - | - | - | - | - |
| | | | B1Q (LumaLens) | 1,338 | 50 | 1 | 3 | 1 | - | - | - | - | - |
| | | | B2Q (Clear Lens) | 2,133 | 79 | 1 | 3 | 1 | 1,966 | 73 | 1 | 3 | 1 |
| | | | B2Q (LumaLens) | 1,287 | 48 | 1 | 3 | 1 | 1,187 | 44 | 1 | 3 | 1 |

## Projected Lumen Maintenance

| Data shown for 4000 CCT | | | Compare to MH | | | |
|---|---|---|---|---|---|---|
| TM-21-11 | Input Watts | Initial | 25,000 Hrs | 50,000 Hrs | 100,000 Hrs | Calculated L70@ 25°C |
| B1 L70 Lumen Maintenance @ 25°C / 77°F | 27 | 1.00 | 0.93 | 0.86 | 0.72 | 106,000 |
| B2 L70 Lumen Maintenance @ 25°C / 77°F | 27 | 1.00 | 0.93 | 0.86 | 0.72 | 106,000 |

| TM-21-11 | Input Watts | Initial | 25,000 Hrs | 50,000 Hrs | 100,000 Hrs | Calculated L70@ 50°C |
|---|---|---|---|---|---|---|
| B1 L70 Lumen Maintenance @ 50°C / 122°F | 27 | 1.00 | 0.91 | 0.83 | 0.66 | 88,000 |
| B2 L70 Lumen Maintenance @ 50°C / 122°F | 27 | 1.00 | 0.91 | 0.83 | 0.66 | 88,000 |

| TM-21-11 | Input Watts | Initial | 25,000 Hrs | 50,000 Hrs | 100,000 Hrs | Calculated L80@ 40°C |
|---|---|---|---|---|---|---|
| B1 L80 Lumen Maintenance @ 40°C / 104°F | 27 | 1.00 | 0.92 | 0.84 | 0.67 | 61,000 |
| B2 L80 Lumen Maintenance @ 40°C / 104°F | 27 | 1.00 | 0.92 | 0.84 | 0.67 | 61,000 |

**NOTES:**

1. Projected per IESNA TM-21-11. Data references the extrapolated performance projections for the 116mA base model in a 25°C ambient, based on 10,000 hours of LED testing per IESNA LM-80-08.
2. Compare to MH box indicates suggested Light Loss Factor (LLF) to be used when comparing to Metal Halide (MH) systems.