

# GEM®1 LED Performance Bollard

ALUMINUM SHAFT

**Type:**  
**Job:**  
**Catalog number:**

**Approvals:**

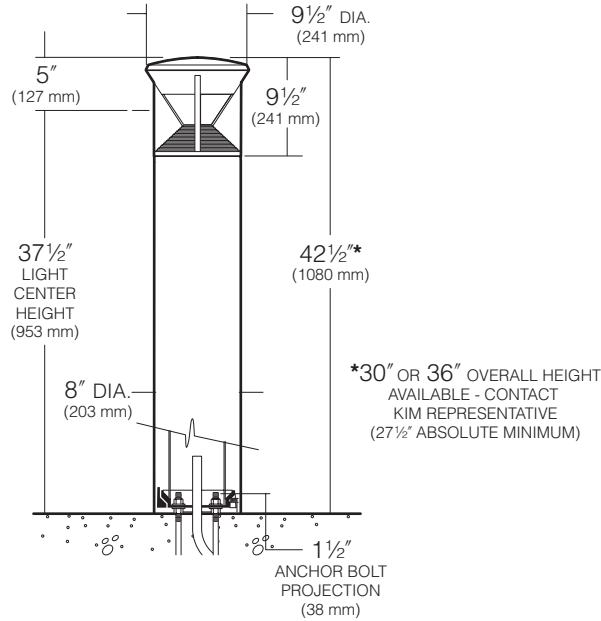
|             |                   |  |         |
|-------------|-------------------|--|---------|
| <b>GEM1</b> | /                 | /  | /       |
| Fixture     | Electrical Module | Top Cap Finish<br>(Includes top cap and shaft) | Options |
| See page 2  |                   | See page 3                                     |         |

## Specifications

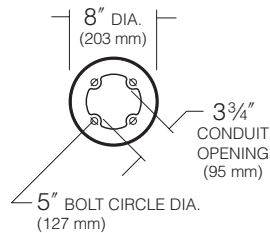
### GEM Models

#### GEM1

Maximum weight: 28 lb



#### BASE PLAN GEM ALUMINUM SHAFT



**Top Cap:** Die-cast, low copper (< 0.6% Cu) aluminum secured to rib body by captive stainless steel allen cap screws. For lamp access, allen screws shall not require complete removal.

**Supports:** Die-cast, low copper (< 0.6% Cu) aluminum supports secured in place as a complete cage assembly. The top section provides a cutoff lamp compartment. The supports are secured to the shaft by four stainless steel tie rods.

**Reflector:** Thermally tempered soda lime glass sealed with silicone gaskets top and bottom.

**Shaft:** One-piece aluminum extrusion, .125" minimum wall thickness with a heavy cast aluminum anchor base concealed within the shaft. Hex socket stainless steel set screws shall lock the shaft onto the cast frangible anchor base.

**LED Optical System:** A total of 9 mid power LED emitters configured in a rectangular array comprised together as a module. Two (2) modules, 18 diodes for Type I version; three (3) modules, 27 diodes for Type III version; and four (4) modules, 36 diodes for Type V version. Available in 580nm Amber, 3000K, 4000K and 5000K color temperatures.

**LED Driver:** Universal voltage from 120 to 277V with a ±10% tolerance. -40°F. starting temperature. All drivers are Underwriters Laboratories recognized.

**Anchor Bolts:** Four C " x 10" + 2" zinc plated J-bolts, each with two nuts, washers and a rigid pressed board template.

**Finish:** Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured, triglycidal isocyanurate (TGIC) polyester powdercoat finish.

**Listed to:** UL 1598 Standard for Luminaires - UL 8750 Standard for Safety for Light Emitting Diode (LED) Equipment for use in Lighting Products and CSA C22.2#250.0 Luminaires. RoHS compliant. Meets Buy American provisions within ARRA.

**CAUTION:** Fixtures must be grounded in accordance with national, state and/or local electrical codes. Failure to do so may result in serious personal injury.

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## Standard Features



|   |  |   |  |  |
|---|--|---|--|--|
| <p><b>Fixture</b></p>   | <p>Cat. No. <b>GEM1</b> Fixture with Aluminum Shaft</p>  |   |  |  |
| <p><b>Electrical Module</b><br/>LED = Light Emitting Diode</p>  | <p>Cat. Nos. for LED Electrical Modules available:</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center; vertical-align: top;"> <p><b>xL</b></p> <p><b>Source:</b></p> <ul style="list-style-type: none"> <li>  18L= Type I</li> <li>  27L= Type III</li> <li>  36L= Type V</li> </ul> </td> <td style="text-align: center; vertical-align: top;"> <p><b>xK</b></p> <p><b>Color Temperature:</b></p> <ul style="list-style-type: none"> <li>  2K = 580nm - Amber</li> <li>  3K = 3000K</li> <li>  4K = 4000K</li> <li>  5K = 5000K</li> </ul> </td> <td style="text-align: center; vertical-align: top;"> <p><b>UV</b></p> <p><b>Voltage:</b></p> <ul style="list-style-type: none"> <li>  <b>UV</b> Universal Voltage shall range from 120V-277V</li> </ul> </td> </tr> </table>  | <p><b>xL</b></p> <p><b>Source:</b></p> <ul style="list-style-type: none"> <li>  18L= Type I</li> <li>  27L= Type III</li> <li>  36L= Type V</li> </ul>  | <p><b>xK</b></p> <p><b>Color Temperature:</b></p> <ul style="list-style-type: none"> <li>  2K = 580nm - Amber</li> <li>  3K = 3000K</li> <li>  4K = 4000K</li> <li>  5K = 5000K</li> </ul>   | <p><b>UV</b></p> <p><b>Voltage:</b></p> <ul style="list-style-type: none"> <li>  <b>UV</b> Universal Voltage shall range from 120V-277V</li> </ul> |
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| <p><b>Finish</b><br/>TGIC thermoset polyester powder coat paint over a titanated zirconium conversion coating on fixture and shaft.</p>   | <p><b>Top Cap</b></p> <table border="0" style="width: 100%;"> <tr> <td style="width: 50%;"> <p>Cat. No.: Color:</p> <ul style="list-style-type: none"> <li>  <b>BLS</b> Black Gloss Smooth</li> <li>  <b>BLT</b> Black Matte Textured</li> <li>  <b>DBS</b> Dark Bronze Gloss Smooth</li> <li>  <b>DBT</b> Dark Bronze Matte Textured</li> <li>  <b>GTT</b> Graphic Matte Textured</li> <li>  <b>LGS</b> Light Grey Gloss Smooth</li> </ul> </td> <td style="width: 50%;"> <p>Cat. No.: Color:</p> <ul style="list-style-type: none"> <li>  <b>LGT</b> Light Grey Matte Textured</li> <li>  <b>PSS</b> Platinum Silver Gloss Smooth</li> <li>  <b>VGT</b> Verde Green Matte Textured</li> <li>  <b>WHS</b> White Gloss Smooth</li> <li>  <b>WHT</b> White Matte Textured</li> <li>  <b>CC<sup>1</sup></b> Custom Color</li> </ul> </td> </tr> </table> <p><sup>1</sup>Custom colors subject to additional charges, minimum quantities and extended lead times. Consult representative. Custom color description: _____</p> <p><b>Aluminum Riser (Shaft)</b><br/>Aluminum Riser shaft is finished to match fixture with TGIC thermoset polyester powder coat paint over a titanated zirconium conversion coating.</p> | <p>Cat. No.: Color:</p> <ul style="list-style-type: none"> <li>  <b>BLS</b> Black Gloss Smooth</li> <li>  <b>BLT</b> Black Matte Textured</li> <li>  <b>DBS</b> Dark Bronze Gloss Smooth</li> <li>  <b>DBT</b> Dark Bronze Matte Textured</li> <li>  <b>GTT</b> Graphic Matte Textured</li> <li>  <b>LGS</b> Light Grey Gloss Smooth</li> </ul> | <p>Cat. No.: Color:</p> <ul style="list-style-type: none"> <li>  <b>LGT</b> Light Grey Matte Textured</li> <li>  <b>PSS</b> Platinum Silver Gloss Smooth</li> <li>  <b>VGT</b> Verde Green Matte Textured</li> <li>  <b>WHS</b> White Gloss Smooth</li> <li>  <b>WHT</b> White Matte Textured</li> <li>  <b>CC<sup>1</sup></b> Custom Color</li> </ul> |  |
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| <p><b>0-10V Dimming Interface</b></p>   | <p>Driver has a 0-10V dimming interface with a dimming range of 10-100%. Is compatible with most control systems.</p> <div style="text-align: right;"> </div>  |   |  |  |

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## Optional Features

|   |   |  |
|---|---|--|
| <p><b>Houseside Shield</b><br/>                 Cat. No.   <b>HS</b><br/>                   <b>No Option</b></p>  | <p>90° houseside shield.<br/>                 .032" thick aluminum, painted to match fixture.</p>   |                     |
| <p><b>Battery Back-up</b><br/>                 Cat. No.   <b>EM</b><br/>                   <b>No Option</b></p>   | <p>Internal battery pack provides 90 minutes of supplemental light at 25% of initial lamp lumens.</p>   | <br>Battery Back-up |
| <p><b>Optional Duplex Receptacle</b><br/>                 Cat. No.   <b>DR</b><br/>                   <b>DR-GFI</b><br/>                   <b>No Option</b></p> | <p>Mounted 18" from bottom of shaft, in a cast aluminum box that is internally welded and sealed with a gasketed While-In-Use cover with locking tab. Painted to match bollard.</p> <p><b>DR</b> weather proof duplex receptacle rated 20A, 125V.<br/> <b>DR-GFI</b> weather proof duplex receptacle with ground fault circuit interrupter rated 20A, 125V.</p> |  |

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## Lumen Data

| Electrical Drive Current - @350mA |           |              |           |              |           |              |
|-----------------------------------|-----------|--------------|-----------|--------------|-----------|--------------|
| Volts - AC                        | Type 1    |              | Type 3    |              | Type 5    |              |
|                                   | Amps - AC | System Watts | Amps - AC | System Watts | Amps - AC | System Watts |
| 120                               | 0.18      | 21           | 0.26      | 31           | 0.34      | 41           |
| 208                               | 0.10      | 21           | 0.15      | 31           | 0.20      | 41           |
| 240                               | 0.09      | 21           | 0.13      | 31           | 0.17      | 41           |
| 277                               | 0.08      | 21           | 0.11      | 31           | 0.15      | 41           |

| B.U.G. Rating (TM15) in Lumens where B = Backlight, U = Uplight, G = Glare |          |          |          |
|--|----------|----------|----------|
| Temperature  | TYPE 1   | TYPE 3   | TYPE 5   |
| 3000K  | B1 U3 G1 | B1 U3 G1 | B1 U3 G1 |
| 4000K  | B1 U3 G1 | B1 U3 G1 | B1 U3 G1 |
| 5000K  | B1 U3 G1 | B1 U3 G1 | B1 U3 G1 |

| Absolute Lumens |        |        |        |
|-----------------|--------|--------|--------|
| Temperature     | TYPE 1 | TYPE 3 | TYPE 5 |
| 3000K           | 1101   | 1750   | 2290   |
| 4000K           | 1129   | 1794   | 2349   |
| 5000K           | 1142   | 1815   | 2376   |

LED performance and lumen output continues to improve at a rapid pace. For custom optics and color temperature configurations, contact factory.