

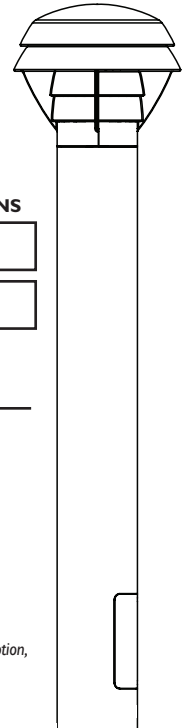
Job:
Type:
Notes:



Bollard LED

Round Full Cutoff Bollard BR840 Series, Including Motion Response

The Philips Gardco LED Bollard family features the round full cutoff bollard, the BR840 series. This sleek series features LEDs concealed below cast louvers to provide down lighting for landscape and pathway applications. The BR840 series features 4" diameter extruded aluminum shafts. Available mountings include the standard shaft, with a welded cast base mounted firmly to anchor bolts. The BR840 series also is available with a galvanized steel base tenon reinforced shaft (BR842) for applications requiring additional support, such as schools. BR840 series bollards provide full cutoff performance.



| PREFIX | HEIGHT | LED CONTROL | LED SELECTION | LIGHTED COVERAGE / LED WATTAGE | VOLTAGE | FINISH | OPTIONS |
|----------------------|----------------------|----------------------|----------------------|--------------------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Enter the order code into the appropriate box above. Note: Gardco reserves the right to refuse a configuration. Not all combinations and configurations are valid. Refer to notes below for exclusions and limitations. For questions or concerns, please consult the factory.

| PREFIX | | HEIGHT |
|--------------|---|-------------|
| BR840 | Standard Shaft | 42" 36" 30" |
| BR841 | Head Only | 7.1" |
| BR842 | School Bollard Reinforced Shaft with Galvanized Steel Tenon | 42" 36" 30" |

| LED CONTROL | |
|-------------|---|
| CWL | Constant Wattage Full Light Output Full wattage and light output only. |
| DIM | 0 - 10V Dimming Dimming controls by others. The dimming driver utilized permits dimming control via a potentiometer (by others) or via 0 - 10V control (by others.) Consult installation instructions for more information. |
| MR | Motion Response Featuring two (2) integral Passive Infrared (PIR) sensors. In the absence of motion, luminaires operate at 20% of normal power and light output (80% dimmed.) See page 3 for more information on Motion Response luminaires. |

| LED SELECTION | LIGHTED COVERAGE / LED WATTAGE | VOLTAGE |
|--------------------------|----------------------------------|---|
| CW 5,700°K, 75CRI | 360° lighted louvers - 14 LEDs | UNIV 120V through 277V, 50hz to 60hz input. |
| NW 4,000°K, 75CRI | 360 -10 10 watts at 225mA | Note: A variation of LED wattage (+/- 8%) may occur due to LED manufacturer's forward volt specification and ambient temperature. |
| | 360 -18 18 watts at 350mA | |
| | 360 -26 26 watts at 500mA | |
| WW 3,000°K, 75CRI | | |

| Solid Colors | | 180° lighted louvers - 7 LEDs ^{1,2} (Provides reduced backside light.) |
|-----------------|--|---|
| LA Amber | | 180 -10 10 watts at 450mA |
| | | 180 -18 18 watts at 700mA |

1. 180° achieved by populating half of LEDs.
2. 180° distributions include an internal house side shield to limit the amount of backlight.

| FINISH | | OPTIONS | |
|----------------------------------|--|--|----------------------------|
| BRP Bronze Paint | OC Optional Color Paint Specify RAL designation as ex: OC-RAL7024. | PCB³ Button Photocontrol | |
| BLP Black Paint | | SPR Surge Protector | |
| WP White Paint | SC Special Color Paint Specify. Must supply color chip. | | 3. Not available in BR841. |
| NP Natural Aluminum Paint | | | |

1611 Clovis Barker Road, San Marcos, TX 78666
(800) 227-0758 (512) 753-1000 FAX: (512) 753-7855 sitelighting.com

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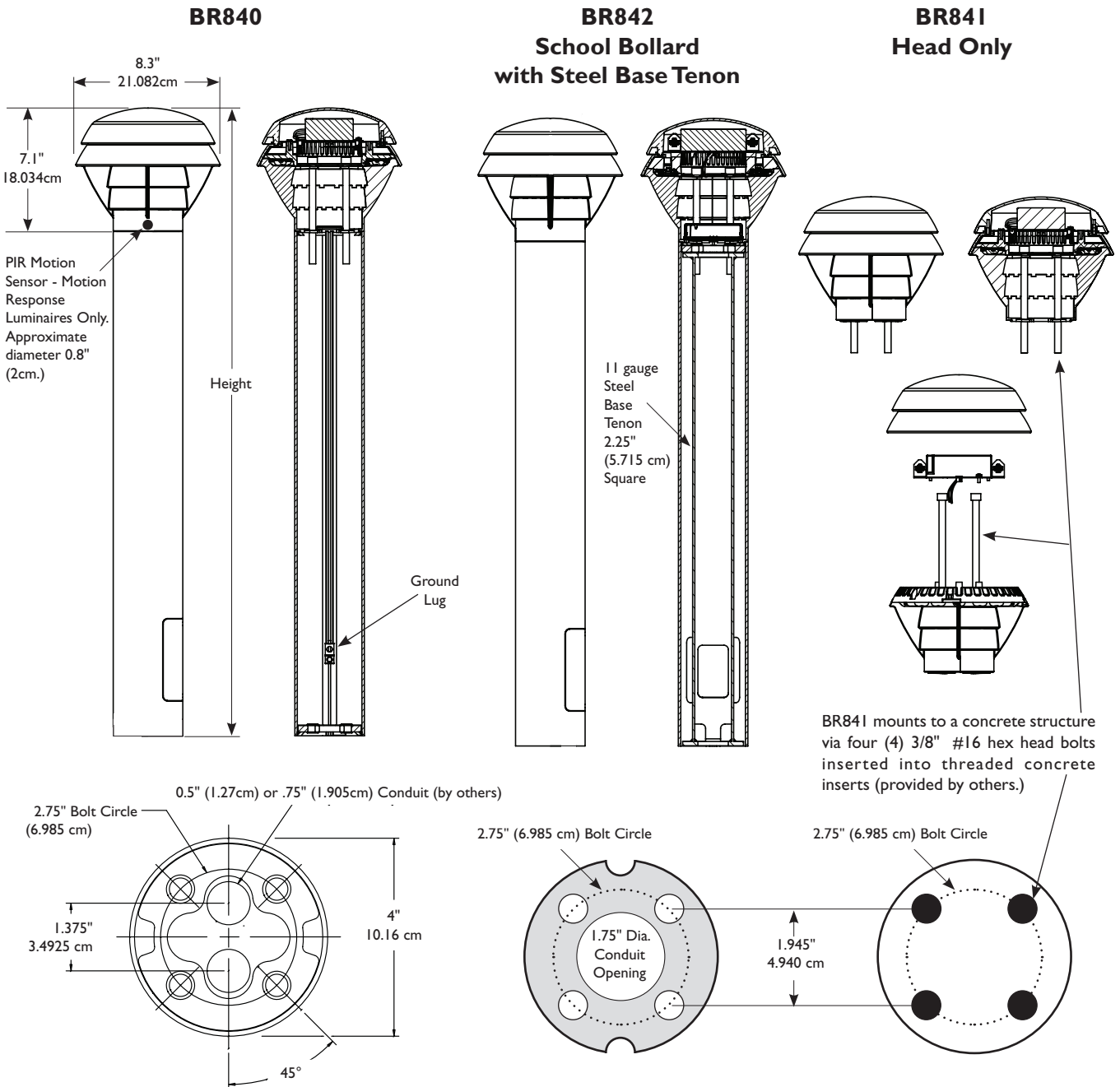




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DIMENSIONS



NOTE: Factory supplied template must be used when setting anchor bolts. Philips Gardco will not honor any claim for incorrect anchorage placement from failure to use factory supplied templates.

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SPECIFICATIONS

UPPER HOUSING: Die cast aluminum upper housing featuring shielding louvers to provide down light.

LOWER HOUSING:

BR840 :The lower housing assembly consists of a .140" wall by 4" diameter high strength 6063-T6 extruded aluminum section incorporating a flush, weather-tight gasketed hand hole cover.

BR41 : Louver head assembly is suitable for attachment to architectural elements (by others).

BR842 :The lower housing assembly consists of a .140" wall by 4" diameter high strength 6063-T6 extruded aluminum section, incorporating a flush, weather-tight gasketed hand hole cover, for placement over the galvanized steel tenon support structure. Tenon support structure is made from a .12" thick wall, 11 gauge steel, 2.25" square tube, welded to top and bottom round steel support plates. The steel tenon support structure includes an opening aligned with the aluminum shaft hand hole to permit wiring. The entire steel tenon support structure is hot dipped galvanized after fabrication.

BR842:A high strength steel mounting tenon, hot-dip galvanized after fabrication, is secured to the concrete footing with (4) 3/8" x 8" x 1 1/2" anchor bolts on a 2 3/4" bolt circle.

IP RATING: IP66 is the rating for the optical compartment.

ELECTRICAL: The LED power supply is located within the bollard head. Bollards accept from 120 Volts through 277 Volts, 50hz to 60 hz, input. supply. The LED driver is located in the upper dome. LED drivers are replaceable. LEDs provided as specified. Power factor is not less than 90%. Luminaires consume 0.0 watts in the off state.

MOTION RESPONSE LUMINAIRES:Each Motion Response (MR) luminaire includes two (2) Panasonic EKMB1203112 Passive Infrared (PIR) sensors to detect motion. When motion is not detected for a 5 minute period, luminaires automatically dim to 20% power and light, gradually over a 2 minute period. Once Motion is detected, luminaires immediately ramp to full power and light output until motion is not detected for a 5 minute period.

LED PERFORMANCE:

| PREDICTED LUMEN DEPRECIATION DATA ⁴ | | |
|--|-----------|------------------------------------|
| Ambient Temperature °C | Driver mA | L ₇₀ Hours ⁵ |
| 25 °C | 225 | 230,000 |
| | 350 | 220,000 |
| | 450 / 500 | 165,000 |
| | 700 | 150,000 |
| 40 °C | 225 | 212,000 |
| | 350 | 188,000 |
| | 450 / 500 | 150,000 |
| | 700 | 137,000 |

4. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
5. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output.

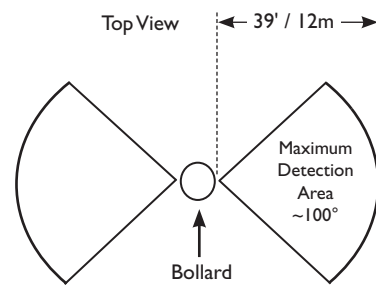
OPTICAL SYSTEM: Philips Gardco LED Bollards feature advanced Philips Gardco LED technology, assuring maximized light output. LED arrays are replaceable.

ANCHORAGE:

BR840: Base assembly consists of an internal welded cast ring section that provides for mounting to the foundation with four (4) 3/8" X 8" X 1 1/2" anchor bolts on a 2 3/4" bolt circle.

BR841:The luminaire head mounts to a concrete structure utilizing four (4) 3/8" #16 hex head bolts inserted into threaded concrete inserts (provided by others) on a 2 3/4" bolt circle.

PIR sensors are able to detect motion in the approximate patterns shown below:



Note: Motion sensors rely on specific zonal crossings to detect motion. It is possible for a person to directly approach the bollard motion sensor without crossing between zones until 15 feet from the motion sensor. The actual motion detection distance may vary based on specific application characteristics.

LUMINAIRE FINISH: Each luminaire receives a fade and abrasion resistant, electrostatically applied, thermally cured textured powdercoat finish

LABELS: All luminaires bear UL or CUL (where applicable) Wet Location labels.

WARRANTY: Philips Gardco luminaires feature a 5 year limited warranty. Philips Gardco LED luminaires with LED arrays or modules feature a 5 year limited warranty covering the LED arrays or modules. LED drivers carry a 5 year limited warranty. See Warranty Information on www.sitelighting.com for complete details and exclusions.

FULL CUTOFF PERFORMANCE: Full cutoff performance means a luminaire distribution where zero candela intensity occurs at an angle at or above 90° above nadir. Additionally, the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at a vertical angle of 80° above nadir. This applies to all lateral angles around the luminaire.

