

ARCHITECTURAL BOLLARDS



 NORTH STAR LIGHTING, INC.

Architectural Bollards by THORN and North Star

The right bollard will not only provide safe illumination in pedestrian areas but they will also enhance the architecture of the landscape. Architects may prefer bollards instead of post lights because of their pedestrian scale and comfortable low glare optics. And, because they rarely are higher than 3'- 4', they do not take away from the building's panorama that the architect was trying to create in the first place.

THORN and North Star bollards are designed with low glare and better uniformity. Cone and louver optics project the light downward providing "puddles" of light that become indirect low-glare beacons to guide pedestrians. Bollards with opal or etched lenses produce better uniformity and better vertical footcandles; and, lower wattage lamps may be used to prevent disabling glare. THORN and North Star offer many of these choices!

Bollards must often take abuse because they are so close to high traffic areas. Only high quality aluminum extrusions and castings are used with a low-copper content. Paint adhesion is very important to prevent peeling and corrosion of the finish. A dipping method for the chromate pre-treat process is used so that the entire bollard is treated inside and out to insure excellent adhesion from the powdercoat process.

Several architectural finishes are offered as standard colors, or, if a custom color is desired, please consult the factory regarding pricing and delivery requirements.

THORN and North Star bollards offer architectural styling, low-glare optics, excellent quality and an outstanding value!



Shown: BLT Series Taurus Bollard



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THORN® PROMENADE™ BOLLARD
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BLC SERIES
COLUMBUS BOLLARD
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BLX SERIES
STARTECH BOLLARD
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BLA SERIES
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BLD SERIES
CONCORD BOLLARD
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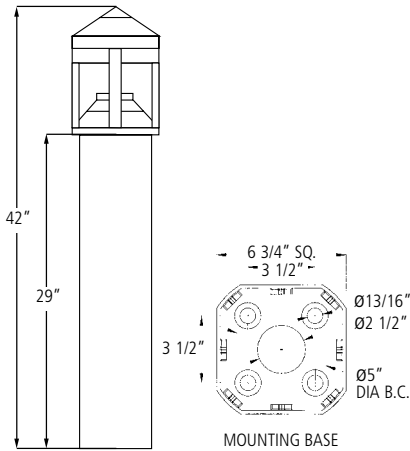
BLT SERIES
TAURUS BOLLARD
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BLP SERIES

THORN® Promenade™ Bollard



SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with clear acrylic cylinder providing excellent uniform light pattern utilizing a sand-blasted band to reduce glare. An opal polycarbonate cone at the top of the fixture provides a decorative beacon with optional color filters to change the beacon color. Luminaire top is secured to the bottom housing with (4) 5/1-18 stainless steel Allen-head set screws for easy removal for lamp replacement.

Optics/Lens

Type V cone optics with diffuse surface. Virgin acrylic lens is 3/16" thick with internal sand-blasted band producing very efficient and uniform light transmission.

Lower Housing

8" dia. extruded aluminum (.125 wall) with top casting to facilitate luminaire head attachment and mounted to base plate with (3) 3/8"-16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook galvanized steel anchor bolts on a 5" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.

| PHOTOMETRY | | | | | | | | | |
|--|-----------------------------------|------|------|------|------|------|------|------|-------|
| ETCHED ACRYLIC LENS w/ TYPE V CONE (EA 5C) | | | | | | | | | |
| WATTAGE | 32W | 50W | 70W | 50W | 70W | 26W | 32W | 42W | 75W |
| LAMP | MH-PS | MH | MH | HPS | HPS | CFM | CFM | CFM | INCAN |
| LUMENS | 3500 | 3400 | 5500 | 4000 | 6400 | 1800 | 2200 | 3200 | 1220 |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | |
| 2' | 7.9 | 7.7 | 12.4 | 5.6 | 9.0 | 4.1 | 5.0 | 7.2 | 2.7 |
| 4' | 11.6 | 11.2 | 18.2 | 8.3 | 13.2 | 5.9 | 7.3 | 10.6 | 4.0 |
| 6' | 3.2 | 3.1 | 5.0 | 2.3 | 3.6 | 1.6 | 2.0 | 2.9 | 1.1 |
| 8' | 1.8 | 1.8 | 2.9 | 1.3 | 2.1 | 0.9 | 1.2 | 1.7 | 0.6 |
| 10' | 1.1 | 1.1 | 1.8 | 0.8 | 1.3 | 0.6 | 0.7 | 1.0 | 0.4 |
| 12' | 1.0 | 0.9 | 1.5 | 0.7 | 1.1 | 0.5 | 0.6 | 0.9 | 0.3 |

| ORDERING GUIDE | | | | | | | | | |
|----------------|-----------------|-----------------------------|----------------------------|------|---|---|---|---|---|
| SERIES | TOP (C) Cone | LENS (EA) Etched Acrylic | OPTICS (5C) Type V Cone | WATT | LAMP (H) MH (S) HPS (F) Fluor. | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V (MT) Multi-Tap | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
| BLP | C | EA | 5C | 50 | H | () | () | () | |
| BLP | C | EA | 5C | 70 | H | () | () | () | |
| BLP | C | EA | 5C | 50 | S | (120) (277) | () | () | |
| BLP | C | EA | 5C | 70 | S | () | () | () | |
| BLP | C | EA | 5C | 26 | F | (120) (277) (347) | () | () | |
| BLP | C | EA | 5C | 32 | F | (120) (277) (347) | () | () | |
| BLP | C | EA | 5C | 42 | F | (120) (277) (347) | () | () | |
| BLP | C | EA | 5C | 75 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

Columbus Bollard 8" Round

SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with clear acrylic cylinder and diffused cone for uniform lighting without reflector glare. Head may be removed for re-lamping by loosening stainless steel set screws.

Optics/Lens

Type V cone optics with diffuse surface. Virgin acrylic lens is 3/16" thick.

Lower Housing

8" dia. extruded aluminum (.125 wall) with top casting to facilitate luminaire head mounting and cast bottom plate for mounting onto anchor bolts.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

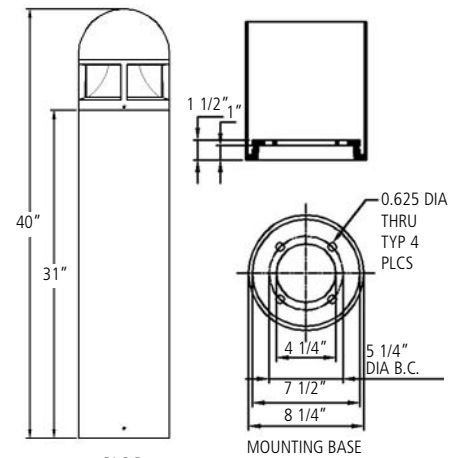
Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook steel anchor bolts on a 5 1/4" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

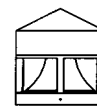
Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.



BLC-R



BLC-C



PHOTOMETRY

| WATTAGE LAMP LUMENS | CLEAR ACRYLIC LENS w/ TYPE V CONE (CA 5C) | | | | | | | | | |
|---------------------------|---|-----------|------------|------------|------------|-------------|------------|------------|------------|---------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 100W INCAN |
| | 3400 | 5500 | 8500 | 4000 | 6400 | 9500 | 1800 | 2200 | 3200 | 1750 |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | | |
| 2' | 4.5 | 7.2 | 11.2 | 5.3 | 8.4 | 12.5 | 2.4 | 2.9 | 4.2 | 2.3 |
| 4' | 7.8 | 12.6 | 19.4 | 9.1 | 14.6 | 21.7 | 4.1 | 5.0 | 7.3 | 4.0 |
| 6' | 3.3 | 5.3 | 8.3 | 3.9 | 6.2 | 9.2 | 1.7 | 2.1 | 3.1 | 1.7 |
| 8' | 1.5 | 2.4 | 3.6 | 1.7 | 2.7 | 4.1 | 0.8 | 0.9 | 1.4 | 0.8 |
| 10' | 0.3 | 0.4 | 0.7 | 0.3 | 0.5 | 0.8 | 0.1 | 0.2 | 0.3 | 0.1 |
| 12' | 0.2 | 0.3 | 0.5 | 0.2 | 0.4 | 0.5 | 0.1 | 0.1 | 0.2 | 0.1 |

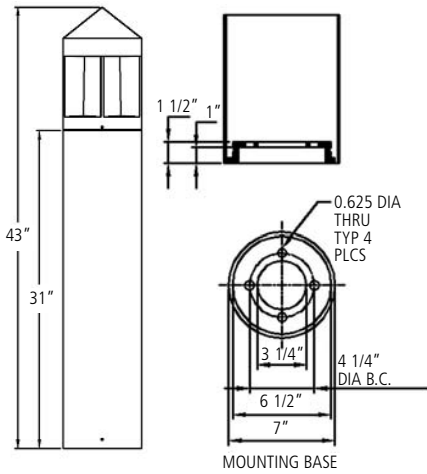
ORDERING GUIDE

| SERIES | TOP (R) Round (C) Cone | LENS (CA) Clear Acrylic | OPTICS (5C) Type V Cone | WATT | LAMP (H) MH (S) HPS (F) Fluor. (MT) Multi-Tap | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V (MT) Multi-Tap | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|------------------------------|-------------------------------|-------------------------------|------|---|---|--|---|---|
| | | | | | | | | | |
| BLC | () | CA | 5C | 50 | H | () | () | () | |
| BLC | () | CA | 5C | 70 | H | () | () | () | |
| BLC | () | CA | 5C | 100 | H | () | () | () | |
| BLC | () | CA | 5C | 50 | S | (120) (277) | () | () | |
| BLC | () | CA | 5C | 70 | S | () | () | () | |
| BLC | () | CA | 5C | 100 | S | () | () | () | |
| BLC | () | CA | 5C | 26 | F | (120) (277) (347) | () | () | |
| BLC | () | CA | 5C | 32 | F | (120) (277) (347) | () | () | |
| BLC | () | CA | 5C | 42 | F | (120) (277) (347) | () | () | |
| BLC | () | CA | 5C | 100 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

BLX SERIES

Startech Bollard 8" Square



SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with opal glass cylinder providing excellent uniform light. Vertical cast aluminum blades provide vandal protection from larger objects with little reduction of light output. Head may be removed for re-lamping by loosening stainless steel set screws.

Optics/Lens

Opal glass globe provides efficient light transmission while eliminating lamp image or hot spots.

Lower Housing

8" sq. extruded aluminum (.125 wall) with top casting to facilitate luminaire head mounting. Housing is mounted to base plate with (4) 3/8"-16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook steel anchor bolts on a 4 1/4" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.

PHOTOMETRY

| WATTAGE LAMP LUMENS | OPAL GLASS LENS VERTICAL CAST LOUVERS (O GV CL) | | | | | | | | | |
|---------------------------|---|-----------|------------|------------|------------|-------------|------------|------------|------------|---------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 100W INCAN |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | | |
| 2' | 4.5 | 7.2 | 11.2 | 5.3 | 8.4 | 12.5 | 2.4 | 2.9 | 4.2 | 2.3 |
| 4' | 7.8 | 12.6 | 19.4 | 9.1 | 14.6 | 21.7 | 4.1 | 5.0 | 7.3 | 4.0 |
| 6' | 3.3 | 5.3 | 8.3 | 3.9 | 6.2 | 9.2 | 1.7 | 2.1 | 3.1 | 1.7 |
| 8' | 1.5 | 2.4 | 3.6 | 1.7 | 2.7 | 4.1 | 0.8 | 0.9 | 1.4 | 0.8 |
| 10' | 0.3 | 0.4 | 0.7 | 0.3 | 0.5 | 0.8 | 0.1 | 0.2 | 0.3 | 0.1 |
| 12' | 0.2 | 0.3 | 0.5 | 0.2 | 0.4 | 0.5 | 0.1 | 0.1 | 0.2 | 0.1 |

ORDERING GUIDE

| SERIES | TOP (C) Cone | LENS (CG) Opal Glass | OPTICS (VCL) Vert. Cast Louvers | WATT | LAMP (H) MH (S) HPS (F) Fluor. (MT) Multi-Tap | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|-----------------|-------------------------|------------------------------------|------|---|---|---|---|---|
| | | | | | | | | | |
| BLX | C | OG | VCL | 50 | H | () | () | () | |
| BLX | C | OG | VCL | 70 | H | () | () | () | |
| BLX | C | OG | VCL | 100 | H | () | () | () | |
| BLX | C | OG | VCL | 50 | S | (120) (277) | () | () | |
| BLX | C | OG | VCL | 70 | S | () | () | () | |
| BLX | C | OG | VCL | 100 | S | () | () | () | |
| BLX | C | OG | VCL | 26 | F | (120) (277) (347) | () | () | |
| BLX | C | OG | VCL | 32 | F | (120) (277) (347) | () | () | |
| BLX | C | OG | VCL | 42 | F | (120) (277) (347) | () | () | |
| BLX | C | OG | VCL | 100 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

Atlantic Bollard 7" Round

SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with opal glass cylinder providing excellent uniform light. Vertical cast aluminum blades provide vandal protection from larger objects with little reduction of light output. Head may be removed for re-lamping by loosening stainless steel set screws.

Optics/Lens

Opal glass globe provides efficient light transmission while eliminating lamp image or hot spots.

Lower Housing

7" dia. extruded aluminum (.125 wall) with welded top casting to facilitate luminaire head mounting. Lower housing is mounted to base plate with (3) 3/8"-16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

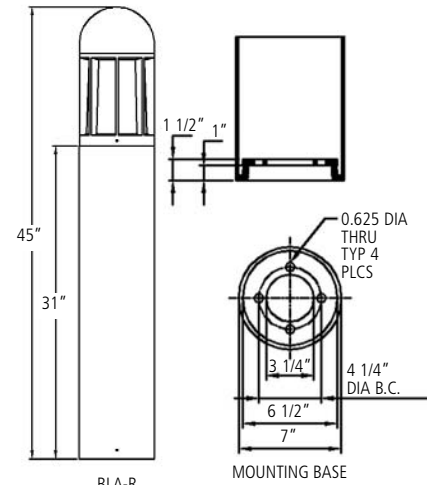
Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook steel anchor bolts on a 4 1/4" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.



BLA-C



PHOTOMETRY

| WATTAGE LAMP LUMENS | OPAL GLASS (OG5 O) | | | | | | | | | |
|---------------------------|-----------------------------------|-----------|------------|------------|------------|-------------|------------|------------|------------|---------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 100W INCAN |
| | 3400 | 5500 | 8500 | 4000 | 6400 | 9500 | 1800 | 2200 | 3200 | 1750 |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | | |
| 2' | 5.4 | 8.7 | 13.4 | 6.3 | 10.1 | 15.0 | 2.8 | 3.5 | 5.0 | 2.8 |
| 4' | 9.3 | 15.1 | 23.3 | 11.0 | 17.6 | 26.1 | 4.9 | 6.0 | 8.8 | 4.8 |
| 6' | 4.0 | 6.4 | 9.9 | 4.7 | 7.5 | 11.1 | 2.1 | 2.6 | 3.7 | 2.0 |
| 8' | 1.7 | 2.8 | 4.4 | 2.1 | 3.3 | 4.9 | 0.9 | 1.1 | 1.6 | 0.9 |
| 10' | 0.3 | 0.5 | 0.8 | 0.4 | 0.6 | 0.9 | 0.2 | 0.2 | 0.3 | 0.2 |
| 12' | 0.2 | 0.4 | 0.6 | 0.3 | 0.4 | 0.7 | 0.1 | 0.2 | 0.2 | 0.1 |

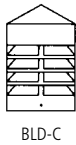
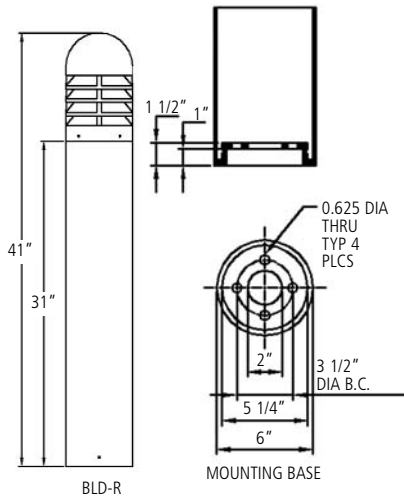
ORDERING GUIDE

| SERIES | TOP (R) Round (C) Cone | LENS (OG) Opal Glass | OPTICS (50) Type V | WATT | LAMP (H) MH (S) HPS (F) Fluor. | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V (MT) Multi-Tap | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|------------------------------|----------------------------|-----------------------|------|---|---|--|---|---|
| | | | | | | | | | |
| BLA | C | OG | 50 | 50 | H | () | () | () | |
| BLA | C | OG | 50 | 70 | H | () | () | () | |
| BLA | C | OG | 50 | 35 | S | (120) | () | () | |
| BLA | C | OG | 50 | 50 | S | (120) (277) | () | () | |
| BLA | C | OG | 50 | 70 | S | () | () | () | |
| BLA | C | OG | 50 | 26 | F | (120) (277) (347) | () | () | |
| BLA | C | OG | 50 | 32 | F | (120) (277) (347) | () | () | |
| BLA | C | OG | 50 | 42 | F | (120) (277) (347) | () | () | |
| BLA | C | OG | 50 | 100 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

BLD SERIES

Concord Bollard 6" Round



SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with 4 external cast louvers for vandal protection and to direct the light downward with no direct glare from the light source. Opal glass jar is threaded onto die-cast plate. Head may be removed for re-lamping by loosening stainless steel set screws.

Optics/Lens

Opal glass globe provides efficient light transmission while eliminating lamp image or hot spots and louvers direct the main light down below 60°.

Lower Housing

6" dia. extruded aluminum (.125 wall) with welded top casting to facilitate luminaire head mounting and mounted to base plate with (3) 3/8"-16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook steel anchor bolts on a 3 1/2" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.

PHOTOMETRY

| WATTAGE LAMP LUMENS | CLEAR ACRYLIC LENS TYPE V LOUVERS (CA 5 L) | | | | | | | | | |
|---------------------------|--|-----------|------------|------------|------------|-------------|------------|------------|------------|---------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 100W INCAN |
| | 3400 | 5500 | 8500 | 4000 | 6400 | 9500 | 1800 | 2200 | 3200 | 1750 |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | | |
| 2' | 1.8 | 3.0 | 4.6 | 2.2 | 3.5 | 5.2 | 1.0 | 1.2 | 1.7 | 1.0 |
| 4' | 1.2 | 1.9 | 2.9 | 1.4 | 2.2 | 3.3 | 0.6 | 0.8 | 1.1 | 0.6 |
| 6' | 0.4 | 0.6 | 0.9 | 0.4 | 0.7 | 1.0 | 0.2 | 0.2 | 0.3 | 0.2 |
| 8' | 0.2 | 0.3 | 0.4 | 0.2 | 0.3 | 0.4 | 0.1 | 0.1 | 0.1 | 0.1 |
| 10' | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 | 0.1 | 0.0 |
| 12' | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.0 | 0.0 | 0.1 | 0.0 |

ORDERING GUIDE

| SERIES | TOP (R) Round (C) Cone | LENS (OG) Opal Glass | OPTICS (5CL) Type V Cast Louvers | WATT | LAMP (H) MH (S) HPS (F) Fluor. (MT) Multi-Tap | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|------------------------------|----------------------------|--|------|---|---|--|---|---|
| | | | | | | | | | |
| BLD | () | OG | 5CL | 50 | H | () | () | () | |
| BLD | () | OG | 5CL | 70 | H | () | () | () | |
| BLD | () | OG | 5CL | 100 | H | () | () | () | |
| BLD | () | OG | 5CL | 50 | S | (120) (277) | () | () | |
| BLD | () | OG | 5CL | 70 | S | () | () | () | |
| BLD | () | OG | 5CL | 100 | S | () | () | () | |
| BLD | () | OG | 5CL | 26 | F | (120) (277) (347) | () | () | |
| BLD | () | OG | 5CL | 32 | F | (120) (277) (347) | () | () | |
| BLD | () | OG | 5CL | 42 | F | (120) (277) (347) | () | () | |
| BLD | () | OG | 5CL | 100 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

Taurus Bollard 7" Round

SPECIFICATIONS

Luminaire Head

Die-cast aluminum construction with 7 internal diffuse aluminum louvers for excellent uniformity and wide light distribution with minimal direct glare from the light source. Clear acrylic lens shields the lamp and louver assembly. Head may be removed for re-lamping by loosening stainless steel set screws.

Optics/Lens

Clear acrylic lens and aluminum louvers provide efficient light transmission directing the main light down below 75°.

Lower Housing

7" dia. extruded aluminum (.125 wall) with top casting to facilitate luminaire head mounting. Lower housing is mounted to base plate with (3) 3/8"-16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

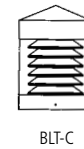
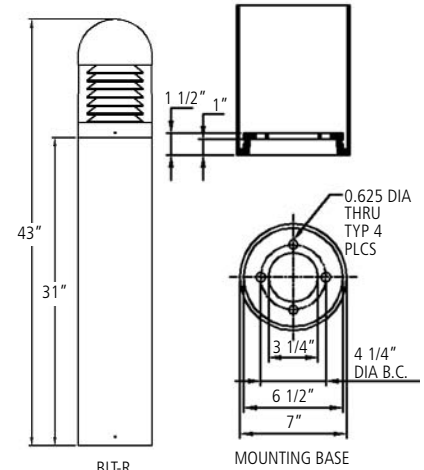
Mounting

Cast aluminum base plate is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook galvanized steel anchor bolts on a 4 1/4" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.



PHOTOMETRY

| WATTAGE LAMP LUMENS | CLEAR ACRYLIC LENS TYPE V LOUVERS (CA 5 L) | | | | | | | | | |
|---------------------------|--|-----------|------------|------------|------------|-------------|------------|------------|------------|---------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 100W INCAN |
| | 3400 | 5500 | 8500 | 4000 | 6400 | 9500 | 1800 | 2200 | 3200 | 1750 |
| Distance | Horizontal Foot Candles (Initial) | | | | | | | | | |
| 2' | 8.6 | 13.9 | 21.5 | 10.1 | 16.2 | 24.0 | 4.5 | 5.6 | 8.1 | 4.4 |
| 4' | 7.1 | 11.5 | 17.8 | 8.4 | 13.4 | 19.9 | 3.8 | 4.6 | 6.7 | 3.7 |
| 6' | 3.7 | 6.0 | 9.2 | 4.3 | 6.9 | 10.3 | 2.0 | 2.4 | 3.5 | 1.9 |
| 8' | 1.6 | 2.5 | 3.9 | 1.8 | 2.9 | 4.3 | 0.8 | 1.0 | 1.5 | 0.8 |
| 10' | 0.6 | 1.0 | 1.5 | 0.7 | 1.1 | 1.7 | 0.3 | 0.4 | 0.6 | 0.3 |
| 12' | 0.5 | 0.8 | 1.2 | 0.5 | 0.9 | 1.3 | 0.2 | 0.3 | 0.4 | 0.2 |

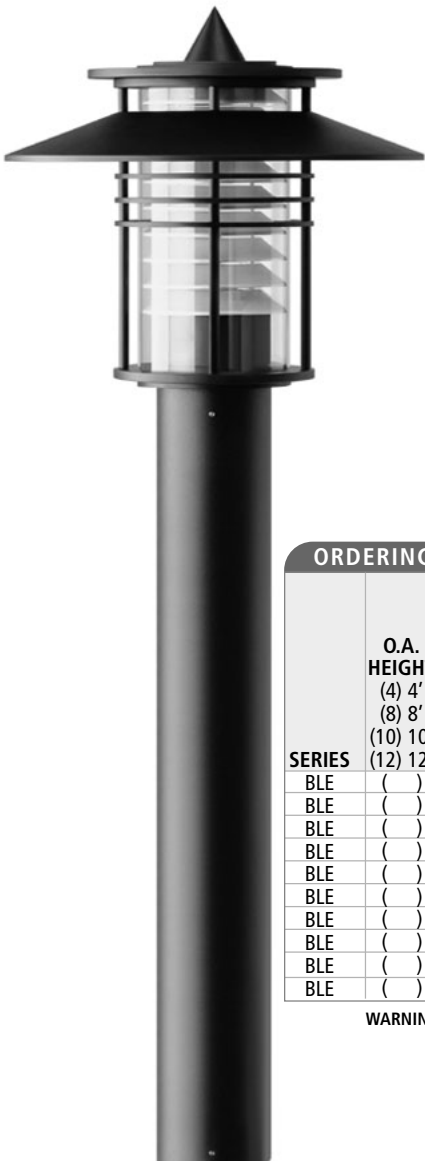
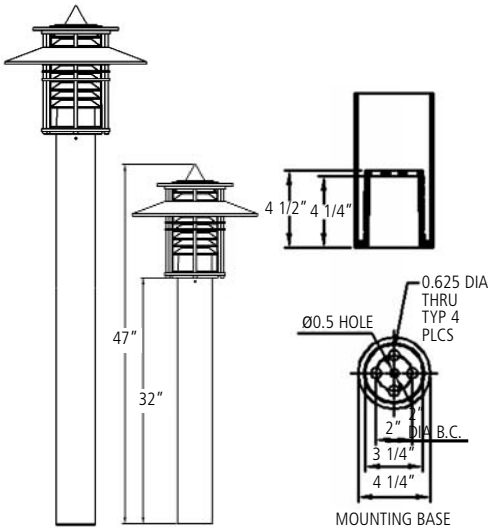
ORDERING GUIDE

| SERIES | TOP (R) Round (C) Cone | LENS (CA) Clear Acrylic | OPTICS (5C) Type V Louvers | WATT | LAMP (H) MH (S) HPS (F) Fluor. (MT) Multi-Tap | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V (MT) Multi-Tap | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|------------------------------|-------------------------------|----------------------------------|------|---|---|--|---|---|
| | | | | | | | | | |
| BLT | () | CA | 5L | 50 | H | () | () | () | |
| BLT | () | CA | 5L | 70 | H | () | () | () | |
| BLT | () | CA | 5L | 100 | H | () | () | () | |
| BLT | () | CA | 5L | 35 | S | (120) | () | () | |
| BLT | () | CA | 5L | 50 | S | (120) (277) | () | () | |
| BLT | () | CA | 5L | 70 | S | () | () | () | |
| BLT | () | CA | 5L | 26 | F | (120) (277) (347) | () | () | |
| BLT | () | CA | 5L | 32 | F | (120) (277) (347) | () | () | |
| BLT | () | CA | 5L | 42 | F | (120) (277) (347) | () | () | |
| BLT | () | CA | 5L | 100 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2

BLE SERIES

Euro Bollard



SPECIFICATIONS

Luminaire Head

Available in different post heights. Internal anchor base is pedestrian friendly for high traffic areas. Die-cast aluminum construction with 7 internal diffuse aluminum louvers for excellent uniformity and wide light distribution with minimal direct glare from the light source. Luminaire tenon slips into 3 7/8" dia. post. Top may be removed for re-lamping by loosening stainless steel screws.

Optics/Lens

Clear acrylic or glass lens and aluminum louvers provide efficient light transmission directing the main light down below 75°. Opal or opaque lens provides uniform lighting without louvers.

Lower Housing

Post is aluminum pipe with 4 1/2" O.D. and a 3 7/8" I.D. internal support sleeve welded on top and bottom for strength. Post is mounted to base tenon with (3) 3/8" -16 flat-head stainless steel screws.

Electrical

Socket is medium base porcelain 4kv pulse rated. Compact fluorescent socket is GX24q-3(26W/32W) and GX24q-4(42W). HID ballast is core and coil, available in HPF.

Mounting

Heavy duty cast aluminum base tenon is mounted on (4) 3/8" x 9" + 2 1/2" zinc plated L-hook galvanized steel anchor bolts on a 2" bolt circle dia. (use factory supplied template for latest dimensions). Base of bollard can be leveled with bottom washers and nuts then tightened-down with top washers and nuts (supplied).

Finish

Standard finish is thermoset powdercoating. Special finishes and colors may be requested by consulting the factory.

U.L. Listed for Wet Locations. IP55 Rated.

PHOTOMETRY

| WATTAGE LAMP LUMENS | CLEAR ACRYLIC LENS TYPE V CONE (C A5 C) | | | | | | | | | |
|---------------------------|---|-----------|------------|------------|------------|-------------|------------|------------|------------|--------------|
| | 50W MH | 70W MH | 100W MH | 50W HPS | 70W HPS | 100W HPS | 26W CFM | 32W CFM | 42W CFM | 75W INCAN |
| | 3400 | 5500 | 8500 | 4000 | 6400 | 9500 | 1800 | 2200 | 3200 | 1220 |
| Distance | Horizontal Foot Candles (Initial) @ 4' MH | | | | | | | | | |
| 2' | 11.7 | 19.0 | 29.3 | 13.8 | 22.1 | 32.7 | 6.2 | 7.6 | 11.0 | 4.2 |
| 4' | 4.3 | 6.9 | 10.7 | 5.0 | 8.1 | 12.0 | 2.3 | 2.8 | 4.0 | 1.5 |
| 6' | 1.4 | 2.3 | 3.5 | 1.6 | 2.6 | 3.9 | 0.7 | 0.9 | 1.3 | 0.5 |
| 8' | 1.1 | 1.8 | 2.7 | 1.3 | 2.1 | 3.1 | 0.6 | 0.7 | 1.0 | 0.4 |
| 10' | 0.4 | 0.6 | 1.0 | 0.5 | 0.7 | 1.1 | 0.2 | 0.2 | 0.4 | 0.2 |
| 12' | 0.3 | 0.5 | 0.7 | 0.3 | 0.5 | 0.8 | 0.2 | 0.2 | 0.3 | 0.1 |

ORDERING GUIDE

| SERIES | O.A. HEIGHT (4) 4' (8) 8' (10) 10' (12) 12' | TOP (C) Cone | LENS (CA) Clear Acrylic (CG) Clear Glass (OA) Opal Acrylic (OG) Opaque Glass | OPTICS (5L) Type V Louvers (5) w/OA or OG Lens | WATT | LAMP (H) MH (S) HPS (F) Fluor. (I) Incan. | VOLTAGE (120) 120V (208) 208V (240) 240V (277) 277V (347) 347V (MT) Multi-Tap | BALLAST (C) CWA (HX) High Reactance | FINISH (BZ) Bronze (BK) Black (AL) Alum. (WH) White | OPTIONS (SF) Sgl. Fuse (DF) Dbl. Fuse |
|--------|--|-----------------|--|--|------|---|---|--|---|---|
| | | | | | | | | | | |
| BLE | () | C | CA | 5L | 50 | H | () | () | () | |
| BLE | () | C | CA | 5L | 70 | H | () | () | () | |
| BLE | () | C | CG | 5L | 100 | H | () | () | () | |
| BLE | () | C | CA | 5L | 35 | S | (120) | () | () | |
| BLE | () | C | CA | 5L | 70 | S | () | () | () | |
| BLE | () | C | CG | 5L | 100 | S | () | () | () | |
| BLE | () | C | CA | 5L | 26 | F | (120) (277) (347) | () | () | |
| BLE | () | C | CA | 5L | 32 | F | (120) (277) (347) | () | () | |
| BLE | () | C | CA | 5L | 42 | F | (120) (277) (347) | () | () | |
| BLE | () | C | CA | 5L | 75 | I | (120) | () | () | |

WARNING: Check local electrical codes regarding voltages permitted other than 120V vs National Electric Code, Section 2



THORN and North Star bollards offer architectural styling, low-glare optics, excellent quality and an outstanding value!



Top: BLX Series Startech Bollard
 Above: BLD Series Concord Bollard
 Right: BLP Series THORN® Promenade



Shown: BLE Series Euro Bollard

LAMP CHART

| SOURCE | WATTAGE | LAMP | ANSI BALLAST # | AVG. LIFE (hours) | INITIAL LUMENS | MEAN LUMENS | EFFICACY LUMENS/WATT | SOCKET |
|--------------|---------|------|----------------|-------------------|----------------|-------------|----------------------|--------|
| Incandescent | 75 | A19 | | 750 | 1220 | | 16.3 | Medium |
| Incandescent | 100 | A19 | | 750 | 1750 | | 17.5 | Medium |
| Metal Halide | 50 | E17 | M110 | 15,000 | 3450 | 2000 | 68.0 | Medium |
| Metal Halide | 70 | E17 | M98 | 15,000 | 5200 | 3900 | 71.4 | Medium |
| Metal Halide | 100 | E17 | M90 | 15,000 | 8500 | 5525 | 85.0 | Medium |
| HPS | 35 | E17 | S76 | 16,000 | 2100 | 1935 | 60.0 | Medium |
| HPS | 50 | E17 | S68 | 24,000 | 3700 | 3420 | 74.0 | Medium |
| HPS | 70 | E17 | S62 | 24,000 | 6300 | 5350 | 90.0 | Medium |
| HPS | 100 | E17 | S54 | 24,000 | 8800 | 7500 | 88.0 | Medium |

| SOURCE | WATTAGE | LAMP | MIN. START TEMP. (°F) | AVG. LIFE (hours) | INITIAL LUMENS | MEAN LUMENS | EFFICACY LUMENS/WATT | SOCKET |
|-------------|---------|-------|-----------------------|-------------------|----------------|-------------|----------------------|---------|
| Fluorescent | 26 | CFM26 | 32°F | 10,000 | 1800 | 1530 | 69.2 | GX24q-3 |
| Fluorescent | 32 | CFM32 | 32°F | 10,000 | 2200 | 1870 | 68.8 | GX24q-3 |
| Fluorescent | 42 | CFM42 | 32°F | 10,000 | 3200 | 2720 | 76.2 | GX24q-4 |



North Star Lighting and THORN provide a variety of lighting solutions for a wide range of indoor and outdoor lighting applications.



 **NORTH STAR LIGHTING, INC.**

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