

DIVISION 26 00 00
SECTION 26 50 00
SECTION 26 56 00

ELECTRICAL
LIGHTING
EXTERIOR LIGHTING
KNIGHT BOLLARD

Part 1 General

01. Summary

A. Section Includes:

1. Knight Bollard.

02. Submittals

A. Provide submittals in accordance with Section 01 33 00 – Submittal Procedures.

B. Product data:

1. Manufacturer's standard product literature.
2. Shop drawings.
3. Installation instructions.
4. Maintenance instructions.

C. Submit powdercoat finish samples for approval.

03. Quality Assurance

A. Manufacturer Qualifications:

1. Minimum 15 years experience in the manufacture of outdoor lighting.
2. Provide reference list of at least ten major transportation authorities, municipalities, universities, or other high-use public environments currently using outdoor lighting fabricated by the manufacturer.

04. Delivery, Storage and Handling

A. Handle products in accordance with manufacturer's instructions.

B. Store products in manufacturer's original packaging until ready for installation.

C. Protect products from impacts and abrasion during storage.

05. Warranty

A. Provide manufacturer's standard warranty.

1. Warranty terms: one year from date of invoice against defects in materials and workmanship.

Part 2 Products

01. Manufacturer

A. Basis-of-design product: provide bollards based on the product named.

1. Knight Bollard by Forms+Surfaces

2. Manufacturer Contact:

Forms+Surfaces

30 Pine Street

Pittsburgh, PA 15223

phone: 800-451-0410

fax: 412-781-7840

email: sales@forms-surfaces.com

website: www.forms-surfaces.com

B. Bollards

1. Materials

- a. Column: extruded aluminum with rounded corners.
- b. Head: aluminum quadrant casting with aluminum lamp housing and four borosilicate glass lenses.
- c. Ballasts (Choose one below):
 - 1) Compact fluorescent: electronic, thermally protected, 120/277V combination for 26W or 42W compact fluorescent lamp, less than 10% THD, 0°F starting temperature.
 - 2) High intensity discharge: F-can ballast, thermally protected, 120/277V, -20°F starting temperature, class B sound rating.
- d. Driver (LED only, Choose one below):
 - 1) 0-10 dimming: Input power is 122-277V. Includes high efficiency constant output current with over-voltage, short circuit, overload protection. Certifications include: IP66 (waterproof) enclosure and Class 2 rated output (UL 8750).
 - 2) Phase dimming: Input power is 120V. Includes high efficiency constant output current with over-voltage, short circuit, overload protection. Certifications include: IP66 (waterproof) enclosure and Class 2 rated output (UL 8750).
- e. Lamp (Choose one lamp below):
 - 1) Compact fluorescent:
 1. CFM26
 - a. 26W triple tube 4-pin.
 - b. Base: GX24q-3.
 - c. Luminaire lumens: 650.
 - d. Color temperature: 4,100K.
 2. CFM42
 - a. 42W triple tube 4-pin.
 - b. Base: GX24q-4.
 - c. Luminaire lumens: 1,200.
 - d. Color temperature: 4,100K.
 - 2) High intensity discharge:
 1. M70
 - a. 70W metal halide
 - b. Base: medium.
 - c. Luminaire lumens: 1,982.
 - d. Color temperature: 4,000K.
 - 3) LED
 1. 3000K
 - a. 16W custom LED light engine
 - b. Luminaire lumens: 362
 - c. Color temperature: 3,000K
 2. 4000K
 - a. 16W custom LED light engine

- b. Luminaire lumens: 362
- c. Color temperature: 4,000K

1. Finishes

- a. Column and lamp housing: polyester powdercoat (Select one option below):
 - 1) Standard Texture from Forms+Surfaces Powdercoat Chart.
 - 2) Premium Texture from Forms+Surfaces Powdercoat Chart.
 - 3) Custom RAL powdercoat color.
- b. Quadrant casting: Aluminum Texture polyester powdercoat with polished outer edges. All surfaces are clear coated.

3. Dimensions

- a. Overall: 8" square x 43.1" high.

4. Mounting (Choose one below):

- a. Standard: 3/16" thick stainless steel base plate, 7.50" square. Necessary hardware is included. Template available upon request.
- b. Optional: Embedded security core.

Part 3 Execution

01. Examination

- A. Verify that substrates are stable and capable of supporting the weight of items covered under this section.
- B. Verify that substrates have been adequately prepared to securely anchor those items that will be surface mounted.

02. Installation

- A. Install according to the manufacturer's installation instructions.
- B. Install in conformance to applicable ADA guidelines and End User's established Accessibility policies.

END OF SECTION