# Family of Products: Naval Series of Bollards



 OUTDOOR LIGHTING SPECIALISTS SINCE 1972

 320 N Clark Drive · El Paso, TX 79905

 ph:(800)648-9013 toll free

 fX:(888)779-3065 toll free

# "...standing above the rest..."



#### ENDURANCE

We fabricate all our products to have a life span as long as the building or space it enlivens. Our bases are made with cast iron as our poles use formed steel to perform at maximum heights. All internal parts and fasteners are made of aluminum or stainless steel. Reflector enclosures are kept dust free and dry with the use of silicone gaskets to prevent light deterioration from contaminants.



#### DARK SKY

Our retrofit dark sky reflector is designed to enhance the luminaire in creating cutoff light distribution. Very little light is emitted above 90 degrees horizontal. Less upward light plus less wasted light equals improved energy efficiency.



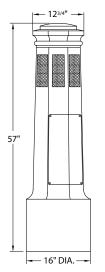
#### DURABILITY

Our state-of-the-art gas-fired infrared (IR) convection oven allows us to powder coat parts with increased speed and energy efficiency. Convection heating acts as a supplement to the IR elements, transforming heat accurately and uniformly along and across your parts. Enhancing a long lasting finish that can't be beat by convectional liquid lines. Our cutting edge finishing system is certified for AIA 2604 applications for architectural grade finishes. Gloss retention and UV are extended up to 10 years with our pattent pending process.

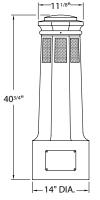


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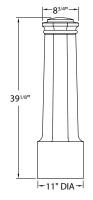
### Specifications



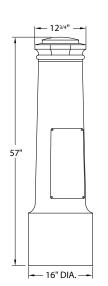
Naval Federal Secruity Illuminated



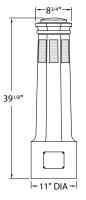
Naval Medium Illuminated



Naval Small Removable Non-Illuminated



Naval Federal Smooth Non-Illuminated



Naval Small Illuminated

#### Bollard

Bollard shall be cast aluminum. Aluminum shall be certified as pure 356 alloy free of any porosity, foreign materials or cosmetic fillers. Base casting shall be of uniform wall thickness with no warping or mold shifting. Minimum wall thickness shall be .250". The anchor bolt locations in the base shall be cast in place as part of the base casting, for maximum strength. Cast aluminum access cover shall be secured with two to four tamper proof stainless steel screws.

#### Finish

Finish shall consist of degreasing, phosphate acid etching with  $140^{\infty+}$  deionizing water, rinsed, oven dryoff and top coated with a thermoset TGIC super polyester powder coat finish designed not to chalk or fade for many years. All Niland Company powders must pass a minimum 3000-hour salt spray test for corrosion resistance.

#### Anchor Bolts

Standards bollard installation shall use 1/2" x 18" L-type anchor bolts.

#### Electrical

Electrical components are mounted to the ballast canister. The ballast canistershall be mounted securely within the bollard with stainless steel screws. All electrical components and materials shall be UL-recognized and wired by a certified UL technician. All Niland ballasts are high power factor rated for  $30 \propto C/-20 \propto F$  starting. Medium and Mogul base sockets are 5KV rated. The electrical assembly is prewired with quick disconnects for servicing. Fixture shall be UL certified for wet locations and carry all HID listings required. Ballast components shall carry the ballast manufacturers limited warranty of two years. Optional QL Induction ballasts and lamps.

#### Warranty

Niland Company warrants to repair or replace, at our option, any equipment that fails due to defects in material or workmanship within one year from date of shipment. This warranty does not include failures as a result of improper installation, mishandling or misapplication. This guarantee is limited to repair or replacement only and does not include reimbursement for expense of installation, removal of equipment, transportation or any other expenses that may be incurred. Authorization must be obtained from

BALLASTS	WATTAGE RANGE	LIGHT DIST.	VOLTAGE RANGE
☐ INC ☐ CFL ☐ HPS ☐ PSMH ☐ INDUCT.	☐ 42 ☐ 50 ☐ 70 ☐ 100	□ III □ V	□ 120 □ 240
			208 277
			MULTITAP <sup>(120,208,</sup> 240,277)

#### **Color Options**



All finishes above are standard and offered at no extra charge. Custom colors: please provide RAL number or sample chip.

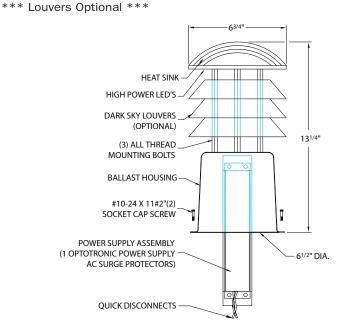




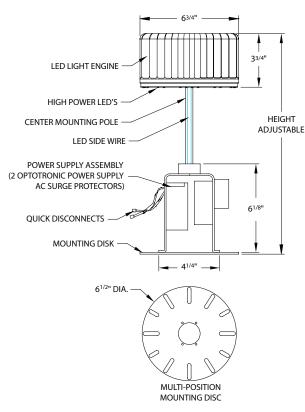
### Naval Bollard Family

### **LED** options

Bollard Retrofit LED



### Retrofit LED





#### Electrical

Electrical components are one piece plug-in. Electrical components rated for 1 amp but only draws 300 milliamps which adds to the units longevity. AC surge protector and Optotronic power supplies are prewired. LED unit reduces energy consumption up to 70%. LED driver shall be rated a full load with less than 20% THD and greater than 0.9 power factor.

### LED

LED's shall be mounted in an array on a printed circuit board and protected from mositure and corrosion with a minimum of 1 mil thickness of conformal coating. Instant On/Off soft start. AC/DC compatible. Microcontrollers optional. PF rating 1.0. Service life up to 50,000 hours life at 70% lumen maintenance.



#### Electrical

All electrical components and materials shall be UL-recognized and wired by a certified UL technician. The electrical assembly is prewired with quick disconnects for servicing. Electrical components rated for 1 amp but only draws 300 milliamps which adds to the units longevity.

#### LED

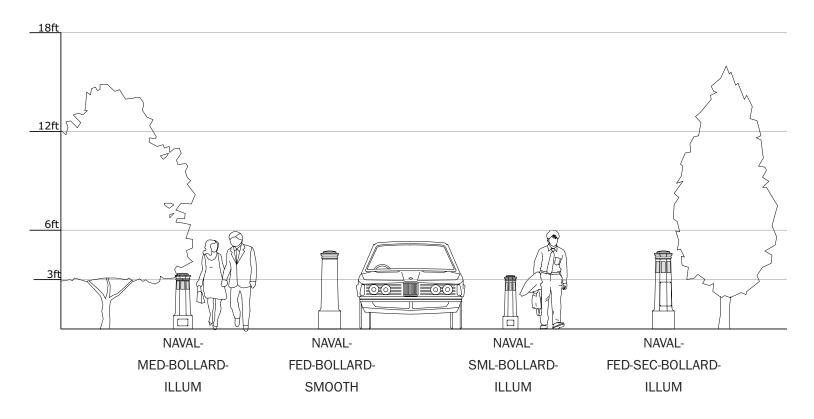
Type V medium and Type V short light distribution (without the use of external refractors). Instant On/Off soft start. AC/DC compatible. Microcontrollers optional. PF rating 1.0. Service life up to 50,000 hours life after 70% lumen maintenance. Solid State panel with light level up to 175 watt equivalent. Input volt 120-277V AC at 60Hz with surge protection.



All LED prts are made and assembled in the United States.

## Naval Bollard Family

### scaled view











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