

TRADITIONAL
CONCRETE
BOLLARDS



ARCHITECTURAL AREA LIGHTING

*"to create, inspire and nurture
EXCELLENCE in each other"*



ENERGY EFFICIENCY

AAL's Traditional Concrete Bollards use electrical energy in the most efficient way. A wide variety of lamp and ballast options gives you more energy efficient design choices. The result is more light with less energy consumption.

LONGEVITY

AAL manufactures all its products to have a life span as long as the building or space they illuminate. The primary material used for all our products is aluminum to resist corrosion and the need for maintenance. Aluminum will not need the periodic refinishing required of steel products that will eventually rust and corrode. All our internal parts and fasteners are made of aluminum or stainless steel. The lamp enclosures are kept dust free and dry to prevent light degradation and maintain a high level of energy efficiency.

SUSTAINABILITY

AAL develops our products with recycling and resource management in mind. We recycle all incoming packaging materials. Our products are shipped in easy to recycle packaging materials. Our state of the art finishing system uses eco-friendly cleansing and preparation chemicals. Our powder coating process eliminates the release of volatile chemicals into the atmosphere.

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AAL is a registered continuing education provider.

The Traditional Bollards are protected by patents granted by the United States patent office. U.S. Patents D425,173 S; D426,013 S; D435,130 S; D435,309 S; D439,000 S; D440,339 S

Printed on recycled paper
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TRD-DC



TSQ-DC

**Architectural Area Lighting
Traditional Concrete Bollards**

Traditional Concrete Bollards flatter any architectural site design with their elegant, classic forms. Both the round and square bollards have three grill design options to address virtually any application requirement. Available with energy efficient sources, including LED, AAL's Traditional Concrete Bollards with reinforced concrete and cast aluminum grills are rugged and vandal resistant.



TRD-VR



TSQ-VR

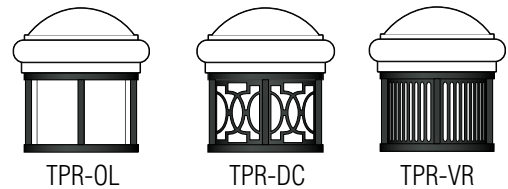
Ordering Information

FIXTURE	LAMP/BALLAST	OPTIONS	GRILL COLOR
TRD-DC	36LED-WW	90S	BLK

FIXTURE

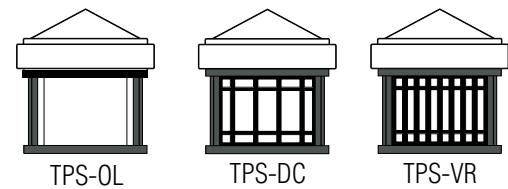
Round Pedestal

- TPR-OL Opal acrylic lens - Wt: 46 lbs
- TPR-DC Decorative cast grill, opal acrylic lens - Wt: 46 lbs
- TPR-VR Vandal resistant cast grill, opal acrylic lens - Wt: 46 lbs



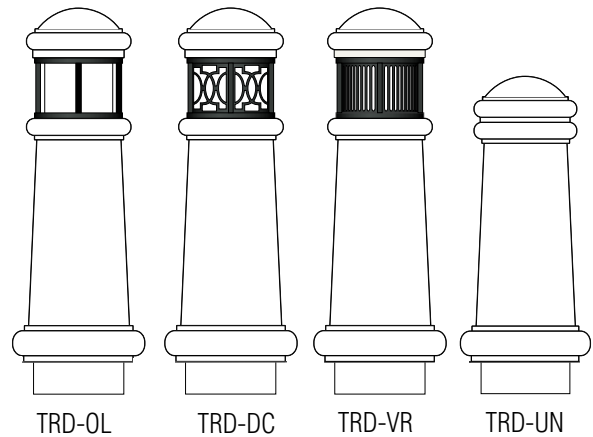
Square Pedestal

- TPS-OL Opal acrylic lens - Wt: 46 lbs
- TPS-DC Decorative cast grill, opal acrylic lens - Wt: 46 lbs
- TPS-VR Vandal resistant cast grill, opal acrylic lens - Wt: 46 lbs



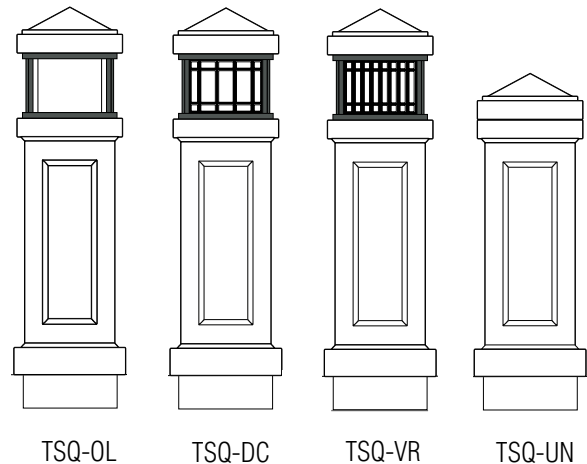
Round Bollard

- TRD-OL Opal acrylic lens - Wt: 323 lbs
- TRD-DC Decorative cast grill, opal acrylic lens - Wt: 323 lbs
- TRD-VR Vandal resistant cast grill, opal acrylic lens - Wt: 323 lbs
- TRD-UN Unlit bollard with no cast grill section - Wt: 309 lbs



Square Bollard

- TSQ-OL Opal acrylic lens - Wt: 271 lbs
- TSQ-DC Decorative cast grill, opal acrylic lens - Wt: 271 lbs
- TSQ-VR Vandal resistant cast grill, opal acrylic lens - Wt: 271 lbs
- TSQ-UN Unlit bollard with no cast grill section - Wt: 257 lbs



Note: Opal acrylic lens is lightly sandblasted when LED option is chosen.

Ordering Information

FIXTURE	LAMP/BALLAST	OPTIONS	GRILL COLOR
TRD-DC	36LED-WW	90S	BLK

LAMP/BALLAST

CF	Compact fluorescent, electronic 120 thru 277 volt ballast. Use 4-pin, 26, 32 or 42 watt T-4 lamps. -18°C min. starting temperature.
50MH	50 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
70MH	70 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
70MHT6	70 watt metal halide 120/277/347 volt ballast. Use G12 base, T-6 ceramic lamp.
100MH	100 watt metal halide 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
50HPS	50 watt high pressure sodium 120/277 volt ballast. Use medium base, ED-17 lamp.
70HPS	70 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
100HPS	100 watt high pressure sodium 120/208/240/277 volt ballast. Use medium base, ED-17 lamp.
IL-55	55 watt induction lamp system. Specify 120, 208, 240, or 277 volt ballast.
IL-85	85 watt induction lamp. Specify 120, 208, 240, or 277 volt ballast.
36LED-WW	36 light emitting diode array (37 watt). Warm white (3500K). IES Type 5. 120 thru 277 volt.
36LED-BW	36 light emitting diode array (37 watt). Bright white (5100K). IES Type 5. 120 thru 277 volt.

Lamps not included (except LED and IL options). All fixtures prewired for 277 volts, unless specified. All applicable ballasts are EISA compliant.

OPTIONS

90S	90 degree shield, field installed
180S	180 degree shield, field installed
QRS	Quartz restrike controller and socket for a T4 mini-can halogen lamp, HID version only. QRS lamp wattage not to exceed primary lamp wattage. Not available with induction or LED.
QL	Socket for a T4 mini-can halogen lamp must be field wired to a separate 120 volt, HID version only. QL lamp wattage not to exceed primary lamp wattage. Not available with induction or LED.
347	120/277/347 volt HID ballast for 70MH, 100MH, 70HPS and 100HPS only. 347 volt for 50MH and 50HPS only. Not available with induction or LED.

GRILL COLOR

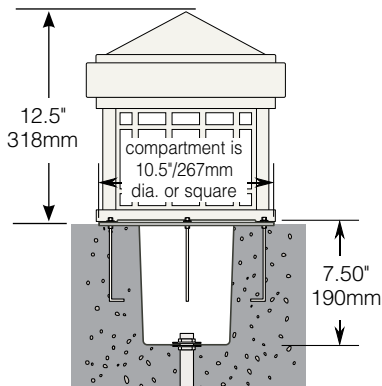
All standard and premium AAL colors available for grill.
For RAL and custom colors, please submit a 4-digit RAL number or color chip for custom colors.

LED pedestal mount versions can be used for low level lighting to illuminate pathways and planted areas, or placed on top of a column or wall. Remote mount driver compartment included.



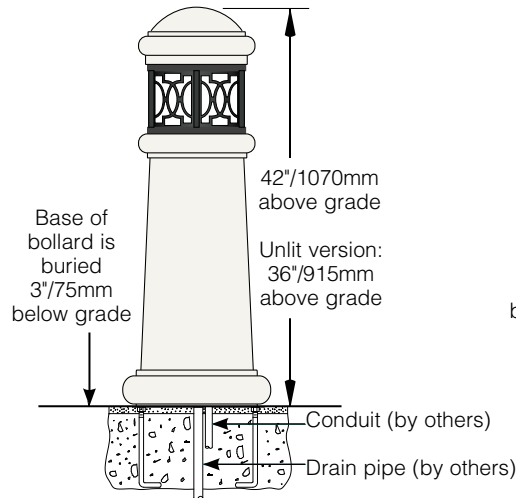
Dimensions and Photometry

PEDESTAL BOLLARD

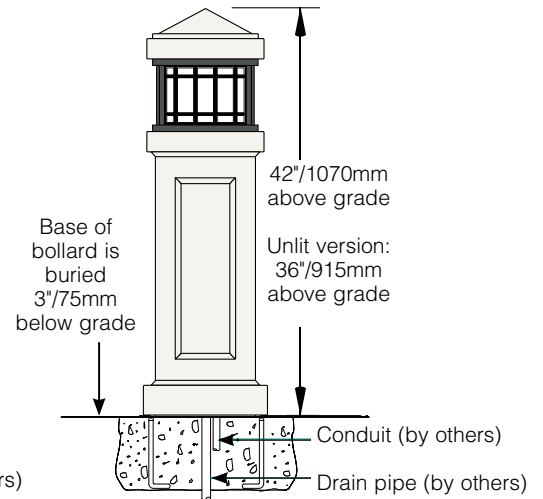


Bolt circle of ballast compartment anchor bolts is 9.25"/235mm diameter.

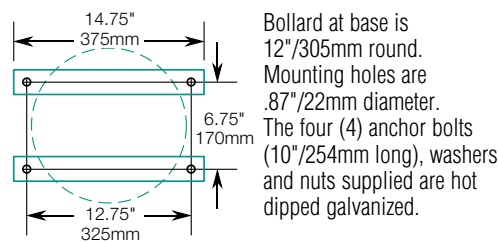
ROUND BOLLARD



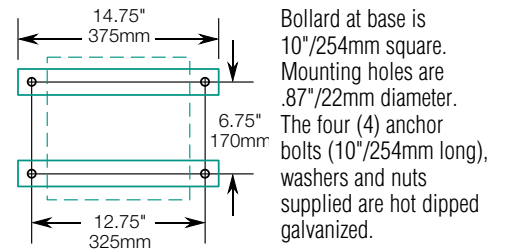
SQUARE BOLLARD



The ballast compartment can be set in a poured-in-place concrete pad.



Bollard at base is 12"/305mm round. Mounting holes are .87"/22mm diameter. The four (4) anchor bolts (10"/254mm long), washers and nuts supplied are hot dipped galvanized.



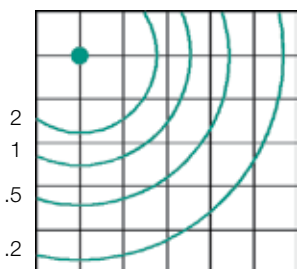
Bollard at base is 10"/254mm square. Mounting holes are .87"/22mm diameter. The four (4) anchor bolts (10"/254mm long), washers and nuts supplied are hot dipped galvanized.

Photometry

Bollards can be used to delineate an area boundary as well as provide horizontal and vertical illumination. Vertical footcandles illuminate pedestrians and objects in a space. Horizontal footcandles provide illumination on walkways.

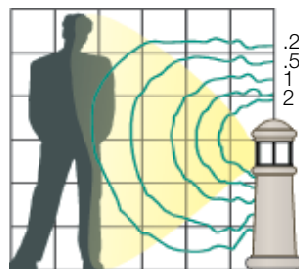
TRD-OL 70MH

Horizontal footcandles one grid equals 3'



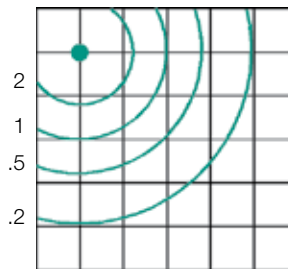
TRD-OL 70MH

Vertical footcandles one grid equals 1'



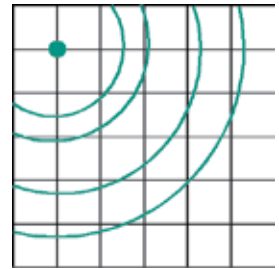
TRD-DC 70MH

Horizontal footcandles one grid equals 3'



TRD-VR 70MH

Horizontal footcandles one grid equals 3'



Specifications

Specifications

CONCRETE BODY AND CAP

The body and caps are composed of precast concrete reinforced with an internal cage structure of steel. The concrete bodies are one-piece castings with a minimum wall thickness of 2-1/4". All threaded inserts are welded to the steel reinforcing cage and cast in place. The base plate for anchoring is 1/4" hot dipped galvanized steel. Bollards are not rated for traffic barrier application.

GRILL

Grills are cast aluminum, minimum wall thickness of .250". All castings are pure aluminum #356 alloy, free of any foreign material or porosity. Grills have cast-in-place, integral mounting lugs for attachment to the concrete base. The lens is one-piece, seamless opal acrylic. Lens is lightly sandblasted when LED option is chosen. The lens is sealed at both ends with a molded silicone gasket. The grill assembly is sealed to the concrete with a silicone compression gasket on the top and bottom for weather tight operation. Recessed stainless steel screws are loosened to remove the top cap for relamping.

FINISH

Standard concrete color is a Lehigh white with a light sand blast finish. No custom color is available.

Grill finish consists of a five stage pretreatment regimen with a polymer primer sealer, oven dry off and top coated with a thermoset super TGIC polyester powder coat finish. The finish shall meet the AAMA 605.2 performance specification which includes passing a 3000 hour salt spray test for corrosion resistance.

ELECTRICAL MODULE

The electrical module consists of the ballast module and lamp housing. All housing parts are aluminum with stainless steel hardware. The ballast module is prewired on an aluminum strap mounted to the underside of the lamp housing. The electrical module is silicone gasketed for weather tight operation. The pedestal version(s) shall include an aluminum ballast enclosure for use in a field constructed base. HID ballasts are high power factor, rated for -30°C minimum starting temperature. Ballasts are wired at the factory for 277 volts, unless specified. Compact fluorescent transformers are electronic, 120 thru 277 volt for 26, 32 or 42 watt 4 pin lamps. LED components are 120 thru 277 volt. LED constant current driver operates at 350mA.

EISA COMPLIANCE

AAL is committed to complying with U.S. EISA requirements. All applicable products manufactured for sale in the United States after January 1, 2009, meet EISA requirements.

CERTIFICATION

All bollards shall be listed with ETL for outdoor, wet location use, UL1598 and Canadian CSA Std. C22.2 no.250. IP=55

WARRANTY

Fixture is warranted for three years. Ballast components carry the ballast manufacturer's limited warranty. Any unauthorized return, repair, replacement or modification of the Product(s) shall void this warranty. This warranty applies only to the use of the Product(s) as intended by AAL and does not cover any misapplication or misuse of said Product(s), or installation in hazardous or corrosive environments. Contact AAL for complete warranty language, exceptions, and limitations.

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