

ROUND ARCHITECTURAL FLOODLIGHTING



**NORTH STAR**
LIGHTING

ROUND ARCHITECTURAL FLOODLIGHTING BY NORTH STAR LIGHTING



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. THORN and North Star use a dipping method for the chromate pre-treat 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.

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

RAF SERIES (RAF 1—ARCHICTECTURAL FLOOD)

CONSTRUCTION

Housing

Die-cast aluminum, heavy duty, structurally rigid and vibration resistant. Housing is finished charcoal gray using polyester powder coat. Other optional finishes are available.

Lens Door Assembly

Minimum 1/8" thick tempered glass lens, thermal and impact resistant, sealed with doorframe and housing using extruded, memory retentive silicone gasket. The doorframe is die-cast aluminum.

Base Housing

Die-cast aluminum. It is an enclosure for the electrical components. Housing/lens door assembly is separated by a shaft as shown.

Optical System

Optical system is a precise beam built in PAR lamps of your choice. Specular Anodized reflector is provided for the enhancement of the light beam.

Electrical Components

Lampholder shall be UL Listed component for the medium base, G8 or double contact bayonet base corresponding to match with the light source. Medium base lamp holder will be glazed porcelain with spring-loaded center contact, Nickel-plated copper screw shell with anti-vibration grip. It is rated for 4KV, 600V. Wire leads will be rated 18AWG, 200° C, and 600V.

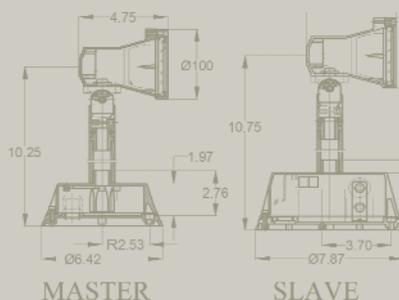
Ballast (for HID) shall be Electronic ,high power factor with reliable lamp starting temperature below -20°F for MH.

Mounting

The base can be mounted on horizontal (ground, pedestal, or post) or vertical (wall) surface. The power supply connection shall be made inside the base housing.

Listings

ETL listed and certified for UL 1598 and CSA C22.2 NO. 250.0 standards. Suitable for indoor/outdoor wet or damp location use.



ORDERING GUIDE

MODEL	WATTAGE	MOUNTING	LAMP TYPE	LAMP STYLE	INPUT VOLTAGE	BALLAST TYPE	OPTIONS
RAF 2	35	I	H	MED	120	E	V
RAF2	35-35W PAR30, T4.5 (HID)	I-Base Mount	H-Metal Halide TH-Tungsten Halogen	G8-G8.5, T4.5 MED-MED PAR30/PAR20	120-120V 277-277V**	E-ELECTRONIC X-NONE	V-Visor H-Hood
	39C-CDM-R111 (HID)		LE-LED***	DCB-DC BAY, CDM-R111	DCB-DC BAY, CDM-R111		HC- Honeycomb Lvr. CFX- Color Filter
	50-50W PAR30, MED (T.H)						
	75-75W MRI6, MED. (T.H)						"x" specify color

**Check factory for availability
***Consult factory

RAF SERIES (RAF 2—ARCHICTECTURAL FLOOD)

CONSTRUCTION

Housing

Die-cast aluminum, heavy duty, structurally rigid and vibration resistant. Housing is finished charcoal gray using polyester powder coat. Other optional finishes are available.

Lens Door Assembly

Minimum 1/8" thick tempered glass lens, thermal and impact resistant, sealed with doorframe and housing using extruded, memory retentive silicone gasket. The doorframe is die-cast aluminum.

Base Housing

Die-cast ALUMINUM. It is an enclosure for the electrical components. Housing/lens door assembly is separated by a shaft as shown.

Optical System

Optical system is a precise beam built in PAR lamps of your choice. Specular Anodized reflector is provided for the enhancement of the light beam.

Electrical Components

LAMPHOLDER shall be UL Listed component for the medium base, G8 or double contact bayonet base corresponding to match with the light source. Medium base lamp holder will be glazed porcelain with spring-loaded center contact, Nickel-plated copper screw shell with anti-vibration grip. It is rated for 4KV, 600V. Wire leads will be rated 18AWG, 200° C, and 600V.

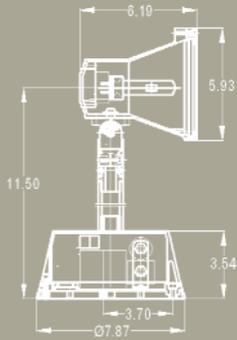
BALLAST (for HID) shall be Electronic ,high power factor with reliable lamp starting temperature below -20°F for MH.

Mounting

The base can be mounted on horizontal (ground, pedestal, or post) or vertical (wall) surface. The power supply connection shall be made inside the base housing.

Listings

ETL listed and certified for UL 1598 and CSA C22.2 NO. 250.0 standards. Suitable for indoor/outdoor wet or damp location use.



ORDERING GUIDE

MODEL	WATTAGE	MOUNTING	LAMP TYPE	LAMP STYLE	INPUT VOLTAGE	BALLAST TYPE	OPTIONS
RAF 2	35	I	H	MED	I20	E	V
RAF2	35-35W PAR30, T4.5 (HID)	I-Base Mount	H-Metal Halide	G8-G8.5, T4.5	120-120V	E-ELECTRONIC	V-Visor
	39C-CDM-R111 (HID)		TH-Tungsten Halogen	MED-MED PAR30/PAR20	277-277V**	X-NONE	H-Hood
	50-50W PAR30, MED (T.H)		LE-LED***	DCB-DC BAY, CDM-R111	DCB-DC BAY, CDM-R111		HC- Honeycomb Lvr.
	75-75W MR16, MED. (T.H)						CFX- Color Filter
							"x" specify color

**Check factory for availability
***Consult factory

RAF SERIES (RAF 3—ARCHITECTURAL FLOOD)

CONSTRUCTION

Housing

Die-cast aluminum, heavy duty, structurally rigid and vibration resistant; charcoal gray, polyester powder coat finish. Other optional other finishes are available.

Lens Door Assembly

Minimum 1/8" thick tempered glass lens, thermal and impact resistant, sealed with doorframe and housing using extruded, memory retentive silicone gasket. The door frame is die-cast aluminum

Optical System

Optical system is a one piece precision die formed aluminum and finished to specular mirror surface; designed for high performance controlled beam and low glare.

Electrical Components

LAMPHOLDER shall be glazed porcelain mogul base with spring loaded center contact; Nickel plated copper screw shell with anti-vibration grip. Rated 4KV, 600V.

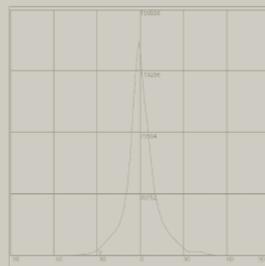
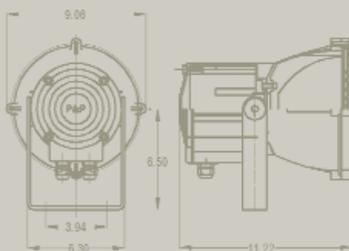
BALLAST shall be high power factor with reli-able lamp starting temperature below -40°F for HPS and -20°F for MH. Ballast coil windings are copper with class H insulation.

Mounting

Heavy duty yoke is provided with (2) 0.437 dia. Holes to mount on horizontal or vertical surface depending on application. Also sealed type water resistant cable is provided for the supply connections. The cable is rated for outdoor wet or damp location use.

Listings

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Minimum Candela = 87000 Located At Horizontal Angle = 0, Vertical Angle = 0
10° Vertical Beam Candela

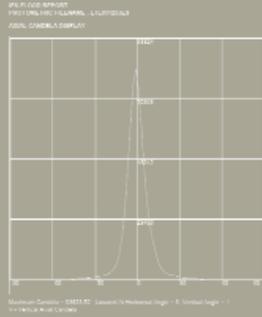
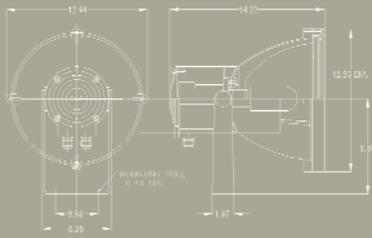


ORDERING GUIDE

MODEL	WATTAGE	OPTICS	MOUNTING	LAMP TYPE	LAMP STYLE	INPUT VOLTAGE	BALLAST TYPE	OPTIONS
RAF 3	100	3	I	H	MED	100	E	DMX
RAF3	32-32W	3-Narrow	I-Yoke	H-MH	MED-MED	MT-Multi Volt	H-C&C	V-Visor
	35-35W	4-Medium		LS-HPS	BD17/ED17/T10	120-120V	E-Electronic (120-277V only)	H-Hood
	39-39W	5-Wide				208-208V		CRL-Con. Ring lvr.
	50-50W					240-240V		CFX-
	70-70W					277-277V		Color Filter
	100-100W					347-347V		"x" specify color
						480-480V		DMX-DMX for LED

For LED Consult factory

RAF SERIES (RAF 4—ARCHITECTURAL FLOOD)



CONSTRUCTION

Housing

Die-cast aluminum, heavy duty, structurally rigid and vibration resistant; char-coal gray, polyester powder coat finish. Other optional other finishes are available.

Lens Door Assembly

Minimum 1/8" thick tempered glass lens, thermal and impact resistant, sealed with doorframe and housing using extruded, memory retentive silicone gasket. The door frame is die-cast aluminum.

Optical System

Optical system is a one piece precision die formed aluminum and finished to specular mirror surface; designed for high performance controlled beam and low glare.

Electrical Components

LAMPHOLDER shall be glazed porcelain mo-gul base with spring loaded center contact; Nickel plated copper screw shell with anti-vibration grip. Rated 4KV, 600V. BALLAST shall be high power factor with reli-able lamp starting temperature below -40°F for HPS and -20°F for MH.

Ballast coil windings are copper with class H insulation.

Mounting

Heavy duty yoke is provided with (2) 0.437 dia. Holes to mount on horizontal or vertical surface depending on application. Also sealed type water resistant cable is provided for the supply connections. The cable is rated for outdoor wet or damp location use.

Listings

ETL listed and certified for UL 1598 and CSA C22.2 NO 250.0 standards. Suitable for in-door/outdoor wet or damp location use.

ORDERING GUIDE

MODEL	WATTAGE	OPTICS	MOUNTING	LAMP TYPE	LAMP STYLE	INPUT VOLTAGE	BALLAST TYPE	OPTIONS
RAF 4	2	3	I	H	MED	MT	E	CRL
RAF4	0-70W	3-Narrow	I-Yoke	H-MH	MED-MED	MT-Multi Volt	H-C&C	V-Visor
	1-100W	4-Medium		LS-HPS	BD17	120-120V	E-Electronic (G-12)	H-Hood
	2-150W	5-Wide				208-208V		CRL-Con. Ring lvr.
						240-240V		CFX-Color Filter
						277-277V		"x" specify color
						347-347V		
						480-480V		

RAF SERIES (RAF 5—ARCHITECTURAL FLOOD)

CONSTRUCTION

Housing

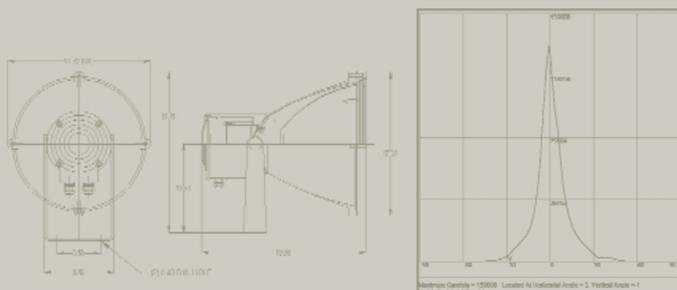
Die-cast aluminum, heavy duty, structurally rigid and vibration resistant; charcoal gray, polyester powder coat finish. Other optional other finishes are available.

Lens Door Assembly

Minimum 1/8" thick tempered glass lens, thermal and impact re-sistant, sealed with doorframe and housing using extruded, memory retentive silicone gas-ket. The door frame is die-cast aluminum

Optical System

Optical system is a one piece precision die formed aluminum and finished to specular mirror surface; designed for high performance controlled beam and low glare.



Electrical Components

LAMPHOLDER shall be glazed porcelain mogul base with spring loaded center contact; Nickel plated copper screw shell with anti-vibration grip. Rated 4KV, 600V.

BALLAST shall be high power factor with reliable lamp starting temperature below -40°F for HPS and -20°F for MH. Ballast coil windings are copper with class H insulation.

Mounting

Heavy duty yoke is provided with (2) 0.437 dia. Holes to mount on horizontal or vertical surface depending on application. Also sealed type water resistant cable is provided for the supply connections. The cable is rated for outdoor use

Listings

ETL listed and certified for UL 1598 and CSA C22.2 NO 250.0 standards. Suitable for indoor/outdoor use.



ORDERING GUIDE

MODEL	WATTAGE	OPTICS	MOUNTING	LAMP TYPE	LAMP STYLE	INPUT VOLTAGE	BALLAST TYPE	OPTIONS
RAF 5	6	3	I	H	T15	MT	H	CRL
RAF5	3-175W	3-Narrow	I-Yoke	H-MH	T15-T15	MT-Multi Volt	H-C&C	V-Visor
	4-250W	4-Medium		LS-HPS	ED18-ED18	120-120V	E-Electronic (G-12)	H-Hood
	5-200W	5-Wide		PS-PS MH	ED28-ED28	208-208V		CRL-Con. Ring lvr.
	6-400W					240-240V		CFX-Color Filter
						277-277V		"x" specify color
						347-347V		
						480-480V		



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