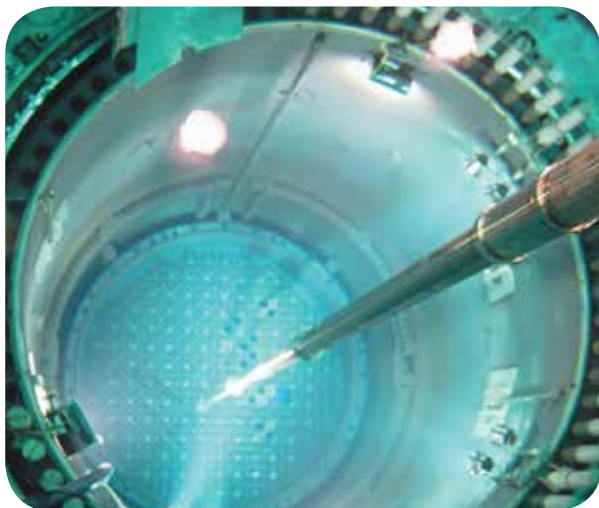


# BIRNS CORONA

The BIRNS Corona is an advanced, high intensity nuclear-grade floodlight — a brilliant, high pressure sodium vapor system with 132,000 lumens and a 24,000 hour lamp life. Its unique mirror-finish parabolic reflector maximizes light output, and the system can be operated indefinitely in air, immersed in cold water without damage, and relamped, tool-free by hand in 60 seconds.

## High Performance . . . Under Pressure®

The BIRNS Corona, BIRNS Model 5220, is designed with proven BIRNS nuclear lighting technology in concert with the immense illumination and long lamp life afforded by high intensity discharge (HID) high pressure sodium vapor. It has unmatched light output, is easily decontaminated, and uses 1kW commercially available lamps — providing the lowest operating costs of any industry lighting system. With a rugged, all stainless steel construction, it can easily be turned on its yoke for directional purposes. Its rigid housing has a reinforced screen and specially tailored spring activated screen retention pin for immense levels of mechanical protection and safety.



## Applications

The powerful BIRNS Corona is trusted in nuclear power stations worldwide for brilliant illumination of fuel pools, reactor cavities during fuel handling and for turbine inspection — or any application requiring long-term use, low maintenance and massive light output.



## Exclusive Features:

- 130,000 lumens
- Unique mirror-finish parabolic reflector maximizes light output
- 24,000 hour lamp life
- Versatile and rugged design
- Commercially available 1kW lamps (less than \$250 each)
- TCLP-compliant ultra-low-mercury lamps standard
- Easy tool-free 60-second screen removal and relamping
- Unparalleled strength and rigidity of housing
- Rugged, type 304 stainless-steel indexed connectors
- Reinforced screen provides additional mechanical protection

## Ordering Information

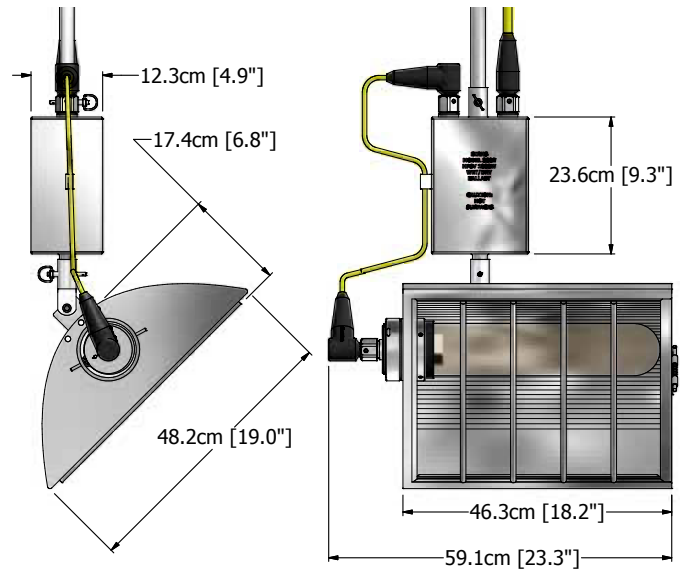
### BIRNS Model 5220-TA includes:

- BIRNS Model 5220 Lighthouse
- Model 3802 Wet/Dry Ballast
- Item 17F-028 Ballast-to-Light Cable Assembly
- Item 17F-048 Power-to-Ballast Cable Assembly (30m/100 ft.) [specify other length if desired]
- Item 44N-002 Mounting Pole (lift bail and T-bar) [specify other pole if desired]

## Mounts

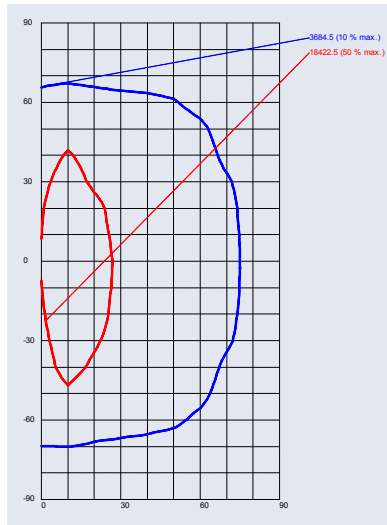
BIRNS offers a wide range of poles and other standard mounting and suspension products, and engineers can custom-mount products to suit specific configurations and requirements.

## Specifications

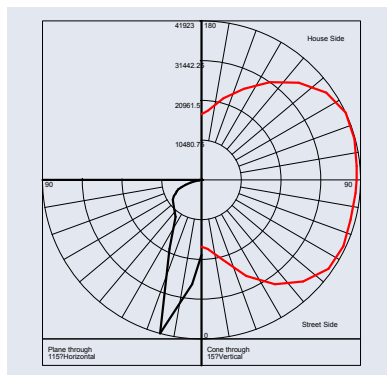


Weight in air: 5220 Light - 13.0kg (28.5 lbs.); 3802 Ballast - 19.4kg (42.5 lbs.)

### Isocandela



### Polar Candela



### LIGHTING/PHOTOMETRIC

HPSV Lamp Type:	TCLP-compliant, ultra-low-Hg, E39 base, 1000W
Bulb Designation:	E-25, Ø79.4mm (3.125 in.) nominal diameter
Start Time:	3-4 minutes to 90%; 1 minute hot-restart to 90% of peak output
Operating Position:	Universal (i.e. any position)
Rated Average Lifetime:	24,000+ hours

### LIGHT OUTPUT

Lumens:	130,000 initial, 117,000 mean
Correlated Color Temp.:	2100K; 22 CRI
CIE Chromaticity Coord.:	X c .512; Y c .420

### ENVIRONMENTAL

Protection Level:	IP68
Depth Rating:	30m (100 FSW) plus 50% safety margin

### EXPECTED RADIATION TOLERANCE

Super-Vutron Cable:	4 x 10 <sup>4</sup> Gy (4 x 10 <sup>6</sup> R)
Polyurethane Cable:	4 x 10 <sup>5</sup> Gy (4 x 10 <sup>7</sup> R)
O-Rings:	3 x 10 <sup>7</sup> Gy (3 x 10 <sup>9</sup> R)
Dome Support Ring:	1 x 10 <sup>7</sup> Gy (1 x 10 <sup>9</sup> R)

### ELECTRICAL

Input Voltage:	115 +/- 15 VAC (standard); 220/240 VAC also available
Supply Frequency:	60Hz (standard; 50Hz also available)
Cable Size:	16 AWG type SO, 3 conductor (standard)
Cable Current Rating:	12 Amperes maximum
Cable Voltage Rating:	600 Volts maximum

### MATERIALS

All Housing Parts:	Stainless steel type 304, electropolished
All Hardware:	Stainless steel type 18-8
Dome:	Fused silica crystal
Dome Cushion Support Ring:	Polyurethane
O-Rings:	Ethylene Propylene Diene Monomer (EPDM)
Connector Shells:	Stainless steel type 316, passivated per ASTM A967-05
Connector Inserts:	Glass-reinforced epoxy (GRE)
Connector Pins:	Copper alloy, gold-plated per MIL-G-45204
Cable (Super-Vutron):	CSPE jacket, EPDM insulation

## AREVA Inc.

### Chris Gallier

Product Development Manager  
and Business Manager

Chris.Gallier@areva.com

Tel: 434.832.3510 – Cell: 434.841.6047

us.areva.com

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