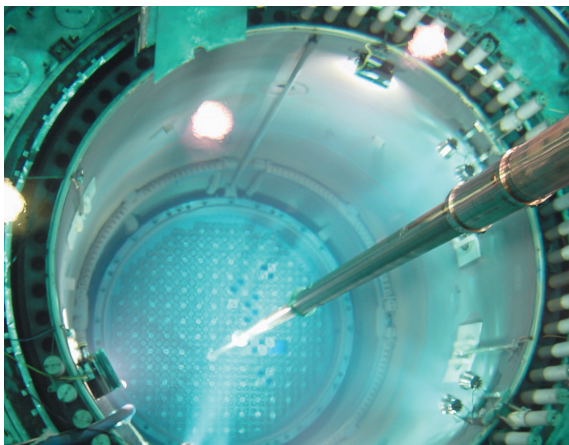


The BIRNS Corona™ is an advanced, seismically qualified, high intensity underwater floodlight. This brilliant, high pressure sodium vapor system delivers 132,000 lumens and a 24,000 hour lamp life. Its unique mirror-finish parabolic reflector maximizes light output, and the system can be operated indefinitely 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 industry's lowest operating costs. With a five year lamp life, and each lamp only \$200, the replacement cost savings over other systems are immense. The BIRNS Corona leads the industry in mechanical protection and safety as well, thanks to its rigid housing, with a reinforced screen and specially tailored spring activated screen retention pin.



EXCLUSIVE FEATURES

- 130,000+ lumens
- 24,000 hour lamp life
- Seismically qualified per IEEE-344
- Unique mirror-finish parabolic reflector maximizes light output
- Versatile and rugged design
- Commercially available 1kW lamps
- 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
- Can operate safely in air and in water

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.



BIRNS' Quality Management System is
ISO 9001:2015 Certified;
NRC 10CFR50, App. B Compliant

High Performance . . . Under Pressure®

SPECIFICATIONS

ORDERING INFORMATION

BIRNS Model 5220-TA BIRNS Corona includes:

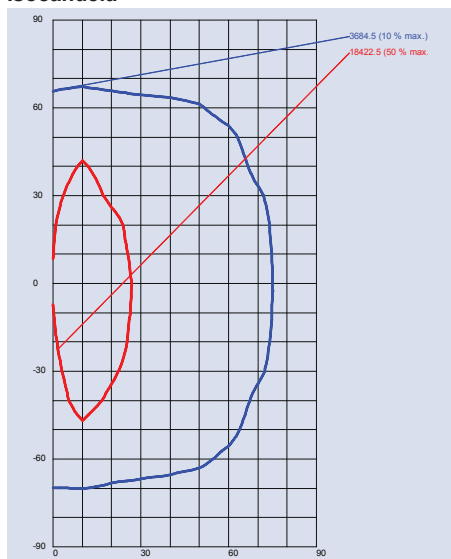
- One Model 5220 BIRNS Corona Lighthouse (luminaire)
- One Model 3802 BIRNS Wet/Dry Ballast
- One item 17F-028 Ballast-to-Light Cable Assembly
- One item 17F-048-35 Power-to-Ballast Cable Assembly (10m standard; other lengths optionally available)
- One 44N-002 SS (Stainless Steel) mounting pole, 1.5m

Optional wall bracket: 44H-007

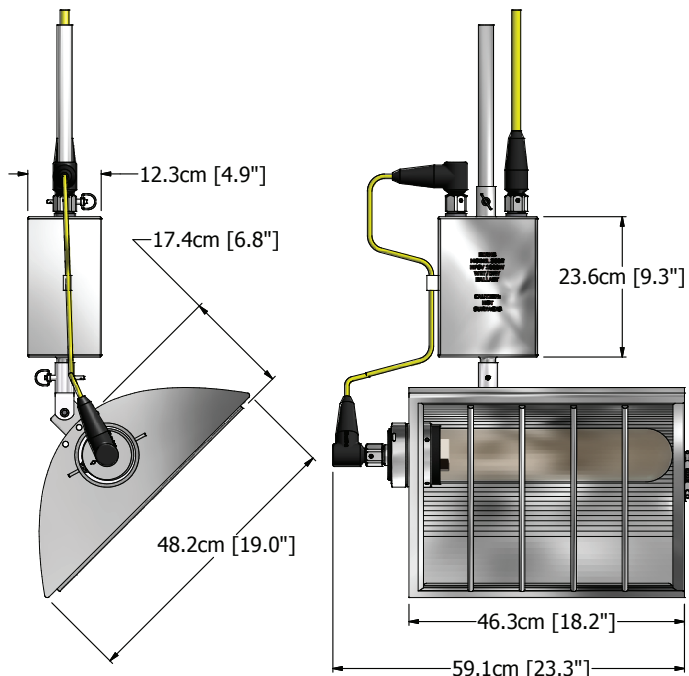
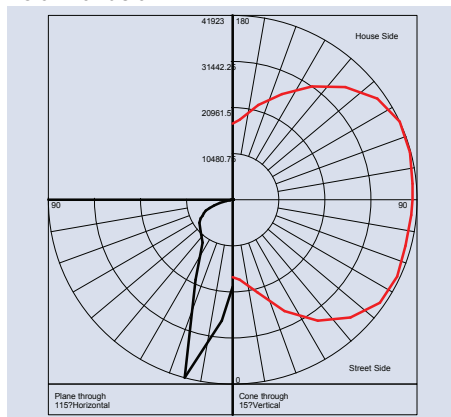
Power Cable Assemblies

- 17F-048-35 : 10m (35 ft) (standard)
- 17F-048-60 : 18m (60 ft)
- 17F-048-100 : 30m (100 ft)
- 17F-048-125 : 38m (125 ft)
- 17F-048-150 : 45m (150 ft)

Isocandela



Polar Candela



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

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 ⁴ Gy (4 x 10 ⁶ R)
Polyurethane Cable:	4 x 10 ⁵ Gy (4 x 10 ⁷ R)
O-Rings:	3 x 10 ⁷ Gy (3 x 10 ⁹ R)
Dome Support Ring:	1 x 10 ⁷ Gy (1 x 10 ⁹ 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