

Series cr7000 LED Marine Signal Module (one LED system shown)

SERIES **CR7000** MARINE SIGNAL MODULE

The Series cr7000 LED Marine Signal Module and Series cr7100 LED Marine Signal Lantern are designed to be a superior alternative to incandescent lanterns in the 1 to 8 mile peak intensity visibility range with lower power consumption yet greater vertical divergence.

The module mounts into the standard lens ring of a 155 mm marine lantern base in place of the 155 mm lens. It contains everything needed to replace the entire 155 mm incandescent system and includes the LEDs, the side emitting lens(es), the electronics and the Daylight Control Sensor. The predicted LED life of 100,000 hours makes the lantern much more reliable and reduces maintenance costs significantly when compared to the older incandescent lamp systems. The compact design of the CR7000 module greatly simplifies wiring and makes converting a 155 mm lantern into an LED light effortless. It is based on the patented CR Side Emitting LED lens which offers outstanding brilliance. This lens greatly simplifies the construction of the LED light head. This simplified optical system is lower in cost but can produce as much light as the large quantity LED systems presently on the market. The lens provides excellent uniformity in the horizontal plane (no molding seams) as well as a wide 7.5° to 10° symmetrical vertical divergence to 50% of peak intensity (FWHM). The state of the art flasher and driver circuits powering the LEDs provide high efficiency with its Pulse Width Modulated (PWM) constant current drive system. The three hole mounting pattern of the module matches the pattern of standard 155 mm lenses which makes change-over of a standard 155 mm lantern into an LED light straightforward; just bolt it on with the three screws, connect the power and place it into service.



Series cr7100 LED Marine Signal Lantern
(two LED system shown)

Specifications:

- Operating Voltage: 8-24 V DC
- Peak Light Intensity

in Candelas:

7.5° Vertical Divergence

	1-LED	2-LED
White	114	228
Green	82	164
Red	46	92
Amber	51	102

10° Vertical Divergence

White	300	call
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- Intensity Settings: Four (4) switch selectable intensity settings
- Vertical Divergence: 7.5° or 10° (varies on LED brightness) to 50% of peak intensity (FWHM). Symmetrical with horizontal plane.
- Rhythms: Up to 252 DIP switch selectable rhythms with four (4) additional available for infinite rhythm selection at factory.

- Electrostatic Discharge as per IEC 61000-4-2:2008, 10.0kV Air Discharge, 6.0kV Contact Discharge
- Temperature Range : -40° C to +85°C
- Colors Available: Red, Green, White and Amber all meet recommendations of International Association of Lighthouse Authorities (IALA)
- Separate constant current drivers for each LED for enhanced reliability
- Lens: Patented high efficiency, acrylic, excellent horizontal uniformity
- Daylight Control: On - 250 lux + 50 lux(dusk); Off - 320 lux (dawn) + 50 lux
- LED Manufacturer Rated Life Expectancy: 100,000 hours on steady - much longer when flashed

Materials:

Mounting Plate:

Hard coat anodized marine grade aluminum

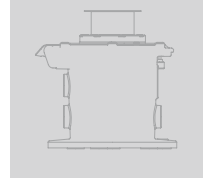
Protective Tube & Lens:

Acrylic - more scratch resistant and is superior to polycarbonate under Ultra Violet light exposure.

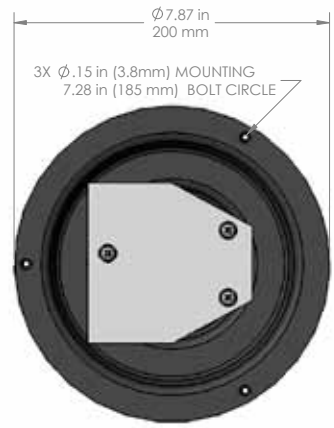
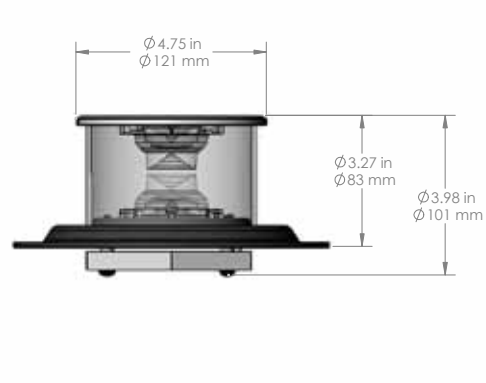
Bird Deterrent: Stainless Steel, removable for easier transport of the lantern (on 2 LED systems only)

Connector Contacts:

Gold plated

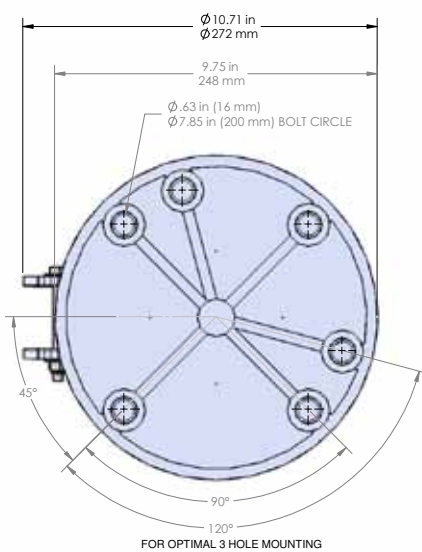


SERIES
CR7000
MARINE SIGNAL
MODULE



(two LED system shown in photos)

SERIES
CR7100
MARINE SIGNAL
LANTERN



U.S. Patents:: 7,703,950 & 7,726,837