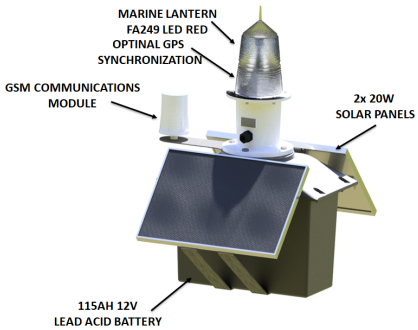
Pharos Marine Automatic Power

BROCHURE

FA-249 RF 14

LED Marine Lantern 3 - 10 NM at 0.74T

Also available for Class 1 Division 2



Self-contained Solar version with AIS or GPRS/SAT monitoring

OVERVIEW

The FA-249 RF 14 LED Marine Lantern is a rugged, compact and lightweight signal lanternparticularly suited for buoys, fixed platforms, bridges, barges, low-powered warning lights and others.

Adapted from the original FA-249 marine lantern due to its widespread use and excellent reputation as a buoy lantern, this state of the art LED system is constructed to withstand the mechanical stresses of service on buoys and includes a number of features designed to endure harsh marine elements while maintaining structural integrity and reducing the need for maintenance.

KEY FEATURES

- A Qualified Product to U. S. Coast Guard Specification 205
- Extremely high flux LEDs mounted on a RF-14 LED array system, driven by specially designed electronics
- LED array available in 1X6, 1X4, 1x8, 3X4 configurations
- A 3-piece lens mounting system of molded Lexan with stainless steel thumb screws that fully compresses the lens gasket and provides strong positive closure of the lantern
- High efficiency Buck-Boost Constant Current LED Driver >90% efficiency
- No heat sink needed
- LED intensity control via externally programmable command or 16 position HEX switch
- Able to detect any single LED open/short or abnormal LED power increases or drops with feedback provided through Power Monitor IC.
- Built-in 6 amp high efficiency Ideal Diode Solar Controller with programmable charging voltage threshold
- Programmable Night (on) and Day (off) sun switch thresholds
- RS-485 serial communication port for monitoring and/or light synchronization
- Unlimited flash characteristics with 255 factory preset codes with three positions for User custom codes, either selectable through the flash code selector switch or external control lines
- Battery backed up real time clock/calendar for seasonal control
- Built in accelerometer for alarming/notification on the impact of the mounting structure
- Both Solar Input and Battery Input are reverse polarity protected along with Surge Protection
- All inputs and outputs have current and voltage protection to resist damage from misuse
- Gen 3 PMAPI Pulse Sync with higher reliability over longer cable runs and large numbers of units
- Expansion socket with capability to wirelessly sync or program using optional radio modules

OPTIONAL FEATURES

- 316L Stainless Steel Body
- Monitoring Systems (AIS, GSM, GPS)
- Solar panels, Batteries
- Hazardous Area ZN1 version

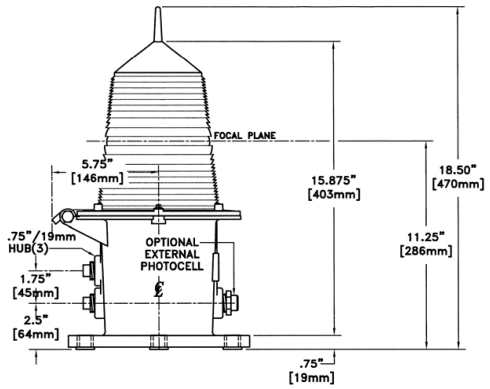
**AVAILABLE FOR C1D2. FM APPROVED

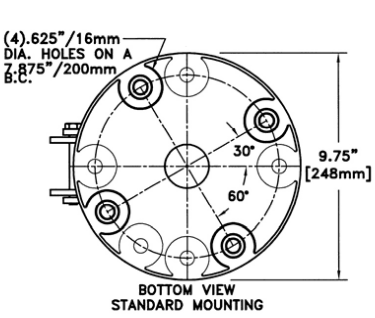
CERTIFICATES

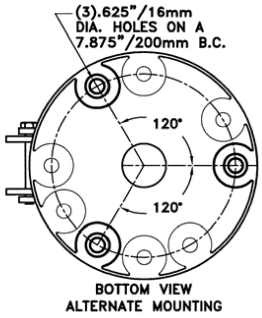
- NI/I/2/ABCD/T6 Ta = +54°C; T5 Ta = +65°C; T4A Ta = +85°C
- NI/I/2/IIC/T6 Ta = +54°C; T5 Ta = +65°C Zone 2
- Coding: II 3 G T3; Ta -20°C to +40°C

PHYSICAL SPECIFICATIONS

Height	470 mm (18.5 in)
Weight	2.22 kg (4.9 lbs)
Input Voltage	Available in 6, 12, 24, VDC or 120, 230 VAC
Power Consumption	Varies by configuration
Avaliable Colours	White, Red, Green,Yellow, and Blue
Lens Type	155 mm 360°, Visibility Acrylic Fresnel lens
Visability	Varies by configuration
Vertical Divergence	Varies by configuration
Monitor and Control	Optical
Lantern Housing	Molded Lexan® Lensring and Base
Mounting	(4) 16 mm (5/8 in) holes on a 200 mm (7⅞ in) bolt circle 3-Hole mounting pattern also available
Operational Temperature	-20°C to +55°C (-68°F to +131°F)
Ingress Rating	IP-56 (FM) / IP-66







3 X 4 LED Array - Candela @ Battery Power

RED	GREEN	WHITE	YELLOW
48Cd @ 3W	84Cd @ 4.1W	116Cd @ 4.1W	52Cd @ 4.5W
144Cd @ 7.5W	191Cd @ 9.6W	298Cd @ 9.5W	149Cd @ 10.8W
214Cd @ 12.6W	291Cd @ 17.7W	477Cd @ 17.2W	218Cd @ 17.9W
273Cd @ 18.5W	343Cd @ 24.4W	617Cd @ 24.2W	257Cd @ 26W

Vertical Divergence: 16° @ 50%; 22° @ 10%
Maximum average power: 6.4W; Optional 12W and 23W heat sink available

1 X 8 LED Array - Candela @ Battery Power

RED	GREEN	WHITE	YELLOW
224Cd @ 3.1W	312Cd @ 4.8W	338Cd @ 3W	TBA
421Cd @ 5.8W	518Cd @ 9.4W	1013Cd @ 9.8W	TBA
595Cd @ 9.8W	710Cd @ 16.1W	1572Cd @ 16.6W	TBA
793Cd @ 14.2W	852Cd @ 23.5W	2330Cd @ 35W	TBA

Vertical Divergence: 7° @ 50%; 15 @ 10%
Maximum average power 6.4W; optional 12W and 23W heat sink availabl

1 X 6 LED Array - Candela @ Battery Power

RED	GREEN	WHITE	YELLOW
114Cd @ 2.3W	158Cd @ 2.9W	243Cd @ 3W	175Cd @ 3.4W
222Cd @ 4.6W	285Cd @ 6.8W	522Cd @ 7.1W	338Cd @ 7.4W
354Cd @ 7.9W	386Cd @ 12.2W	812Cd @ 12.7W	474Cd @ 14.2W
420Cd @ 10.7W	442Cd @ 18.5W	1055Cd @ 18.8W	511Cd @ 17.8W

Vertical Divergence: 6° @ 50%; 12° @ 10%
Maximum average power: 6.4W; Optional 12W heat sink available

1 X 4 LED Array - Candela @ Battery Power

RED	GREEN	WHITE	YELLOW
65Cd @ 1.6W	95Cd @ 1.9W	120Cd @ 2W	85Cd @ 2.2W
140Cd @ 3.6W	176Cd @ 4.7W	268Cd @ 4.8W	138Cd @ 4.3W
212Cd @ 6.4W	234Cd @ 8.3W	400Cd @ 8.5W	173Cd @ 6.6W
276Cd @ 9.5W	276Cd @ 11.4W	517Cd @ 12.5W	195Cd @ 8.9W

Vertical Divergence: 7° @ 50%; 15° @ 10%
Maximum average power: 6.4W; Optional 12W heat sink available

Self-contained Solar Version

**All values are subject to change without notice.*