Pharos Marine Automatic Power

BROCHURE

FA-249HA LED GIMBALED LANTERN

Class 1 Division 2 LED Marine Lantern
5 - 10 NM at 0.74T

OVERVIEW

The FA-249 LED Gimbaled Lantern is the technological solution to the problem posed by the movement of large navigation buoys, floating production systems (FPSO) and tension leg platforms (TLP). PMAPI has adapted the FA-249 lantern to house long lived LEDs mounted in parabolic reflectors, which are mounted on a 2-axis gimbal within a silicone-filled base.

The FA-249 LED Gimbaled Lantern maintains its optic in a vertical position for inclinations of +/- 9° (18° total). This assures the full light intensity is continually available in the most severe sea conditions.

CERTIFICATES

- NI/I/2/ABCD/T6 Ta <+49°C/T5 Ta <+64°C
- NI/I/2/IIC/T6 Ta < +49°C/ T5 Ta <+64°C
- Approved by the U. S. Coast Guard for use on Class A structures in the 8th Coast Guard District at 4 watts.

KEY FEATURES

- 4 linear arrays of very high flux LEDs individually mounted in a parabolic reflector and driven by specially designed electronics
- LEDs are mounted on specially designed heat sinks to keep the temperature of the LED below 50°C to assure the design life of 60,000 hours
- Gimbal hinges are of a special polypropylene material tested to 69 million flex cycles (no metallic parts)
- The heavy silicone fluid in which the gimbal ounterweight is immersed maintains a viscosity of 100,000 SSU at all operating temperatures; this dampens any violent buoy motion and lengthens the natural period of the mechanism to over nine seconds
- External electric control module
- 15 pre-programmed flash rhythms plus 1 for user programming
- 360° horizontal beam; uniformity within ±10%

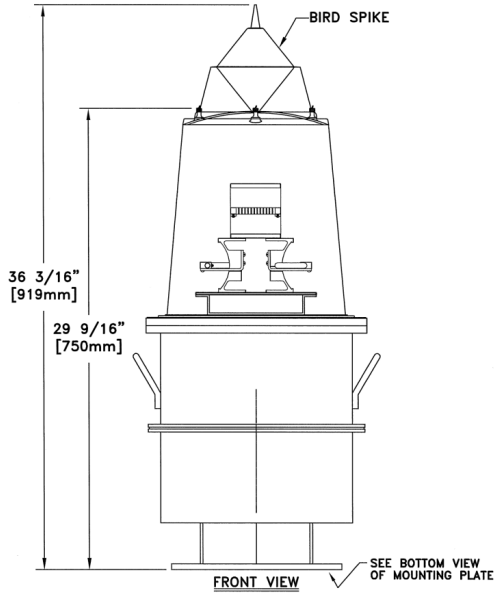
PHYSICAL SPECIFICATIONS

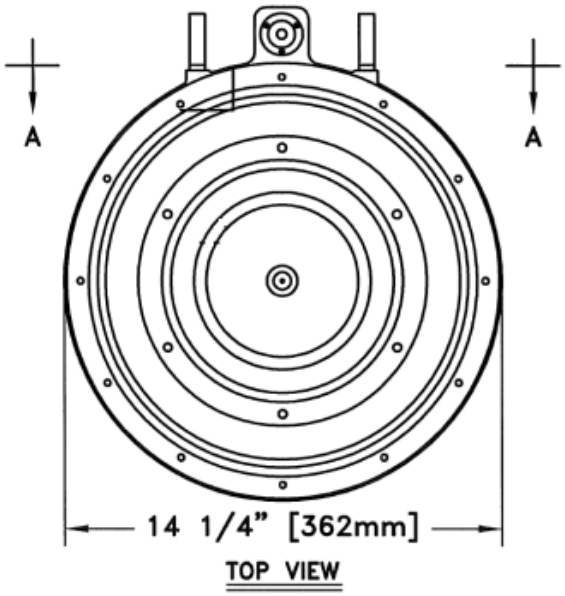
Height	919mm (36 3/16”)
Weight	29 kg (64 lbs.)
Input Voltage	10-30 VDC Reverse Polarity Protected
Power Consumption	0.7 Amps Per Day at 24V in Gulf of Mexico
Available Colours	White, Red, Green, Yellow, Blue
Len Type	250 mm Precision-Molded, Acrylic Cover
Vertical Divergence	At 50%: 3.2° Maintained Over a Range of ±9° Tilt Compensated by Gimbaled Mechanism within Lantern
Monitor and Control	Optional
Synchronization	Optional UNIFLASH® III Wireless Synchronization Syste or Hardwired Sync Circuit (Optional)
Lantern Housing	Aluminum Base
Operating Temperature	-20°C to (See Certificate Information Below)

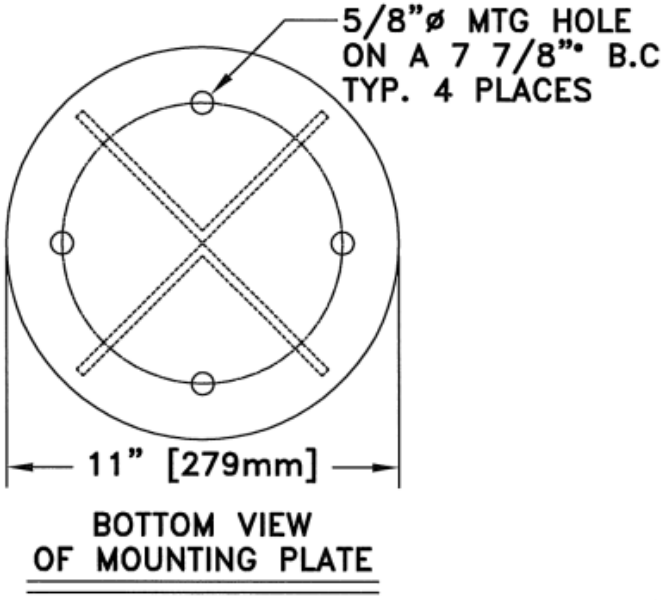
PHOTOMETRIC DATA

Input Power, W	WHITE 1x6R	RED 1x9C	GREEN 1x6R	YELLOW 1x6R
84			5170	
68		5880	4660	
50	3500	5410	3400	
36	3250	4380	3100	2250
20	2200	2560	1990	1580
10	1350	1280	1120	960
2.5	350	300	280	250

Beam: 360 degrees horizontal. Uniformity within-10%.
Vertical divergence at 50%: 3.2 degrees but maintained over a range of ±9 degree tilt compensated by the gimbaled mechanism within lantern







All values are subject to change without notice.

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