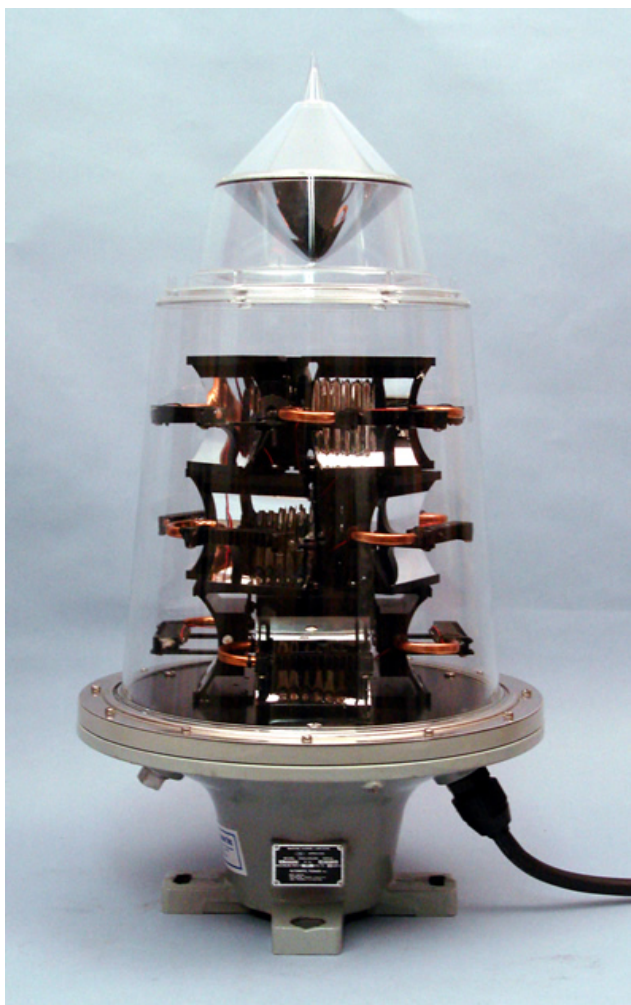


# FA-250LED LR Series Long Range (+17 nm) Marine Lantern



(L) = 70% @ 60,000 Hours



The FA-250 LED LR lanterns offer the AtoN authority a LED lantern with the highest Lumen Maintenance value available in the market today. Lumen Maintenance (L) is an important factor to consider in using LED lanterns because unlike incandescent lamps, LEDs do not burn out--rather, they lose their lumen output over time.

The lumen output degradation is a factor of HEAT. Automatic Power's Procyon LED light modules use a patented\*, sealed, ACTIVE heat pipe transfer system that pulls heat away from the LED heat pad and dissipates it to a large surface area heat sink. Coupled with the large area volume of the lantern, the lantern maintains 70% of its initial output for 60,000 hours--this is the highest achievable (L) value possible with today's LED technology.

The FA-250 uses a long range LED optic with a nominal range of up to 24 nautical miles (T=0.85). The Procyon light module consists of a linear array, very high flux, LED's individually mounted in a parabolic reflector. The highly efficient reflector uses a state of the art dichroic hybrid spectral metal coating.

Groups of reflectors are assembled in stacked arrays and the array system is driven by specially designed electronics. The exterior is the standard FA-250 precision molded cover. The FA-250LED controller provides flash control, current limiting to the LED, photocell input, synchronization terminal and AC transformer (if required).

### FA-250LED LR Models

LR12-BX	LR120-BX
LR12-CX	LR120-CX
LR24-BI or BX	LR240-BX
LR24-CX	LR240-CX

LR= Long Range

12 = 12V nominal (10.5 -30VDC input)

24 = 24V nominal (20-40VDC input)

120 = 120VAC 50/60 Hz input

240 = 240VAC 50/60 Hz input

B = 2 tier (8 Procyon light modules)

C = 3 tier (12 Procyon light modules)

X = electronic controller mounted in external NEMA 4x enclosure

I = electronic controller located in lantern base.

\*Patent No.: US 7,461,952 B2

### MECHANICAL DATA

- **Lighting Source:** Stacked array of high flux, high efficiency 1x16 Procyon LED Light Engines. > 90% efficiency.
- **Height:** 750 mm. **Weight:** 20 kg.
- **Materials:** Precision-molded, high-temperature, acrylic cover. Cast aluminum base and frame. Stainless steel fittings and neoprene O-rings.
- **Mounting:** 4 each 20 mm diameter holes on 200 mm bolt circle.
- **Controller Housing:** NEMA 4x fiberglass.
- **Operating Temperature:** -40°C to +55°C

### ELECTRIC CONTROL MODULE

- **Input:** 120/240 VAC 50-60 HZ, 10.5-30 Volts DC or 20-40 Volts DC. Reverse polarity protected.
- **Power:** Maximum 690 W on flash to maintain Lumen Maintenance L (70). 1.0 watt quiescent current. 12 selectable power level settings.
- **Synchronization** terminal for UNIFLASH® III wireless synchronization system or hardwired sync circuit.
- **256 Selectable** flash rhythms.
- **ATONIS** ready for AIS Msg 21 and Msg 6 monitoring

### See related products catalog sheets:

FA-250LED MR for Medium Range (12 nm) Lantern

FA-250LED MR-HA for Class I Div 2 Rated Lantern

FA-250LED L-864 for FAA (ETL) certified L-864 Beacon

Form N° 081209A



# FA-250LED LR

## PHOTOMETRIC DATA (conforms to IALA chromaticity and 90th percentile intensity standards)

**Beam:** 360 degrees horizontal. Uniformity within +/-15%.  
**Vertical Divergence:** 3.2 degrees to 50% ; 8 degrees to 10%  
**Lumen Maintenance (L):** 70% at 60,000 hours (highest achievable for existing LED technology)

### 3-Tier LED PHOTOMETRICS (CD-Fixed)

Input Power, W	WHITE	RED	GREEN	YELLOW
690	43500		30450	15708
540	33990		23790	12275
360	22650	12458	15855	8180
180	11340	6237	7950	4095
90	5670	3120	3975	2048

### 2-Tier LED PHOTOMETRICS (CD-Fixed)

460	29000		20300	10472
360	22660		15860	8183
240	15100	8305	10570	5453
120	7550	4153	5285	2726
60	3780	2080	2650	1365

### Maximum CD (nm) at 30% Duty Cycle, T= 0.74

Flash Length	1.0 sec flash		0.5 sec flash	
No. of Tiers	2	3	2	3
Avg Power (W) Wh, G, Y	120 W	120 W	120 W	120 W
Red	72 W	108 W	72 W	108 W
Power on Flash Wh, G, Y	400 W	400 W	400 W	400 W
Red	240 W	360 W	240 W	360 W
<b>Candlepower (Nautical Miles)</b>				
White	20997 (16)	20975 (16)	17990 (16)	17971 (16)
Red	6921 (13)	10382 (14)	5930 (13)	8895 (14)
Green	14697 (15)	14682 (15)	12592 (15)	12579 (15)
Yellow	7582 (14)	7575 (14)	6497 (13)	6490 (13)

### Max CD (nm) attainable at Duty Cycle ≤ 17%, T= 0.74

Flash Length	1.0 sec flash	0.5 sec flash
No. of Tiers	3	3
Avg Power (W) Wh, G, Y	120 W	120 W
Red	62 W	62 W
Power on Flash Wh, G, Y	690 W	690 W
Red	360 W	360 W
<b>Candlepower (Nautical Miles)</b>		
White	36250 (17)	31060 (17)
Red	10382 (14)	8895 (14)
Green	25375 (16)	21741 (16)
Yellow	13090 (15)	11216 (15)

Specifications subject to change without notice

