

FA-249 -- 155mm SIGNAL LANTERN

Featuring a highly efficient Fresnel-type acrylic drum lens system, the FA-249 signal lantern is a rugged, compact, and lightweight. It is particularly suited for buoys, fixed platforms, barges, and aviation obstruction lights.

Designed to withstand the mechanical stresses of service on buoys, the FA-249 Lantern features a three-piece lens mounting system. This system was designed to eliminate lantern failures from cracked or broken components at the lantern hinge point. It utilizes molded Lexan® for the lens ring and base where mechanical strength is at a premium.



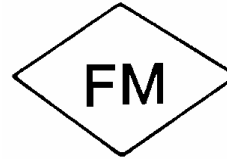
Standard Lanterns are Factory Mutual approved. NEC Class 1, Division 2 and IEC Zone 2 rated lanterns are available.

The Lexan® base houses the flasher and/or other mechanisms. Stainless steel thumb screws, or, optionally, quick opening stainless steel latches are two options for a toolless entry system that fully compresses the lens gasket and provides strong positive closure of the lantern. The stainless steel latch can be secured with a padlock to deter vandals. A bracket on which the flasher/lampchanger are mounted is secured to the inside of the base section. Fittings in the base provide outlets for electrical connection. The lamp projects into the upper section which supports the 360E acrylic lens.

The 155mm lens is acrylic from an extreme accurate mold. Years of exposure have proven acrylic to be a stable lens material. The candlepower output of the lens exceeds that of larger conventional pressed glass lenses because acrylic has a higher color transmission factor and better optical characteristics. Lenses are available in clear, red, green or yellow. A bird spike is part of the molded lens.

Candelabra, Prefocused, marine signal lamps are mounted on a rotating mechanism that automatically brings the next lamp into precise focal position when the operating lamp fails. Six-place units are able to rotate S-8 envelope lamps inside the 155 mm lens. Four-place units are able to rotate both the S-8 envelope and the larger S-II envelope lamps in the 155 mm lens.

A unique catadioptric insert is available for the FA-249



Lantern to capture the light lost out the top of the lens and redirect it to the horizontal plane. This insert increases the horizontal candlepower by 5%, giving the FA-249 the highest candlepower output available from a 155 mm lantern.

Lanterns are fitted with a sun switch, which limits lantern operation to hours of darkness only.

Photometric Data (candela)

| Lamp C-8 Filament | FA-249 | FA-249 with catadioptric insert |
|----------------------|--------|------------------------------------|
| 6V, 0.25 A | 30 | 31.5 |
| 6V, 0.46 A | 85 | 89 |
| 6V, 0.70 A | 110 | 115 |
| 6V, 0.90 A | 125 | 131 |
| 12V, 0.25A | 64 | 67 |
| 12V, 0.55A | 120 | 126 |
| 12V, 0.77A | 180 | 189 |
| 12V, 1.15A | 260 | 273 |
| 12V, 2.03A | 402 | 422 |
| 12V, 3.05A | 823 | 864 |
| 12V, 9.0A** | 3770 | 3958 |
| CC-8 Filament | | |
| 12V, 0.5A | 192 | 201 |
| 12V, 1.0A | 512 | 537 |
| 12V, 2.0A | 1050 | 1102 |
| 12V, 3.0A | 1380 | 1450 |

Halogen Lamps

| | | |
|----------|------|------|
| 12V, 20W | 939 | 990 |
| 12V, 35W | 1410 | 1475 |
| 12V, 50W | 1470 | 1540 |
| 12V, 75W | 1890 | 1980 |

Note: For red lens multiply above by 0.30. For green lens multiply above by 0.32. For amber lens multiply above by 0.68. Maximum power dissipation of lantern is 55 watts. Vertical Divergence 4.0E-4.5E to 50%.

TECHNICAL DATA

LENS:

155 mm 360E visibility acrylic Fresnel lens in clear, red, green, and amber. Sector and internally shielded lenses are available.

CANOPIC INSERT:

Optional. Increases candlepower by 5%.

FLASHCHANGER®:

Four- or Six-place motor driven, APCL-5/APCL-10 with selectable flash rhythms, pulse width modulation regulation, solar charge regulator, monitoring, synchronization, self-test function, communications port, lampout control terminal, photocell, and enhanced environmental protection.

BASE MOUNTED ACCESSORIES:

The compact size of the APCL-5 FLASHCHANGER opens up significant space in the base of the FA-249 Lantern. Automatic Power has a variety of products that takes advantage of this free space to enhance the capabilities of the FA-249 Lantern:

- (a) TR-3 Power Supply with 120/240 VAC Input and 3 amp 12 Volt flashed output.
- (b) Uniflash®-II wireless synchronization system.
- (c) UHF/VHF radio for monitoring status of buoy lighting system or radio receiver for self test actuation.
- (d) Battery Charger and Small standby battery.
- (e) Step-down transformer for AC/DC Lampchanger in fixed burning applications.

LAMPS:

Prefocussed T3.5, S-8, or S-11 envelope and C-8 or CC-8 filament, incandescent or tungsten halogen lamps to 110 watts. S-11 may only be used with a four-place lampchanger.

MATERIALS:

Acrylic lens. Lexan® base, stainless steel fittings, silicone-rubber lens gasket. ®Registered trademark.

FINISH:

White or gray color impregnated Lexan.

ACCESSORIES:

Spirit Level, Focusing Marks.

MOUNTING:

Four each 5/8 inch holes on a 7 7/8 inch bolt circle--90E apart. Three-hole base pattern is also available.

DIMENSIONS:

6.5 pounds
10in. X 10in. X 18in.

SHIPPING DATA:

10 pounds
13in X 13in X 21in.

