Pharos Marine Automatic Power

BROCHURE

PMAPI-BL35-XX

Medium Intensity LED Bridge Light

Channel Centre, Channel Margin, Channel Main

4 NM at 0.74T / 4 NM at 0.85T

IALA Recommendation O-113 and USCG 33 CFR 118 Approved. Lights required by the regulations shall be of sufficient candlepower as to be visible against the background lighting at a distance of at least 2,000 yards on 90 percent of the nights of the year. They are located as prescribed, with colors and arcs of visibility as specified.

OVERVIEW

The PMAPI-BL35 is the new standard in LED bridge lights for marking channels, obstructions and safe passage of bridges over navigable waters throughout the USA.

- LEDs on a protected metal core PCB for maximum useful life
- Flexible electronic configurations
- Use as Green Channel Center, 180° Red Channel Margin, and White Channel Main lights

KEY FEATURES

- **AC/DC input:** 120-240 VAC or 12-24 VDC input options
- **Sectored lens:** 180° form fitting sectored lens (Optional)
- **Zero condensation:** designed specifically for inversion with strategically placed vent
- **Rugged, weather-resistant construction materials:** High impact resistant polycarbonate for ice, ultraviolet exposure, salt air and seawater spray at a wide range of ambient temperatures
- **High intensity, energy efficient fan beam LED array:** Maximum visible range up to 4NM at 0.74T
- **IR Remote:** Powering on & off, set / retrieve configuration parameters such as flash pattern, effective intensity, day/night control, etc.
- **USCG approved colors:** Single color LED engine - Red, Green or White
- **Longevity** - Estimated average service life of 10 years

PERFORMANCE FEATURES

- **Intensity control:** Effective lantern intensity set on Schmidt-Clausen method
- **Flash character control:** 256 programmable flash characters and 2 custom flash characters
- **Day/Night transition level settings:** Programmable for active at all times or only after sunset. Day / Night level settings (sunset / sunrise transition) can be field programmed
- **Calendar control** - Programmable season on/off date
- **Input protection** - Lantern power input is reversed polarity protected for field repair
- **Storage mode** - Automatic storage mode with adjustable automatic wake up
- **Programmable sleep and test modes**
- **Dynamic compensation circuitry for the candela low output, based on internal temperature, LED flash duration and LED color, to always keep the same programmed output intensity**

OPTIONAL FEATURES

- **External I/O port:** Allows connection to an external monitoring device or for hardwired synchronisation to other lanterns

SWING ARM ASSEMBLIES

- Customized to meet customer requirements
- Available in aluminum, anodized aluminum or galvanized steel
- Includes locking mechanism for easy maintenance
- Includes customer choice of NEMA 4X junction boxes or rigid metal conduit boxes

OPTICAL CHARACTERISTICS

LED Color	WHITE	RED	GREEN
Light source	12 White LEDs	12 Red LEDs	12 Green LEDs
Visible range (NM)[1]	4	4	4
Effective intensity range (cd) [2]	10 - 151[3]	10 - 151[3]	10 - 151[3]
Horizontal divergence	180° or 360°	180° or 360°	180° or 360°
Vertical divergence at 50% intensity	10°	10°	10°
Peak intensity (cd)	32	32	32

Notes:

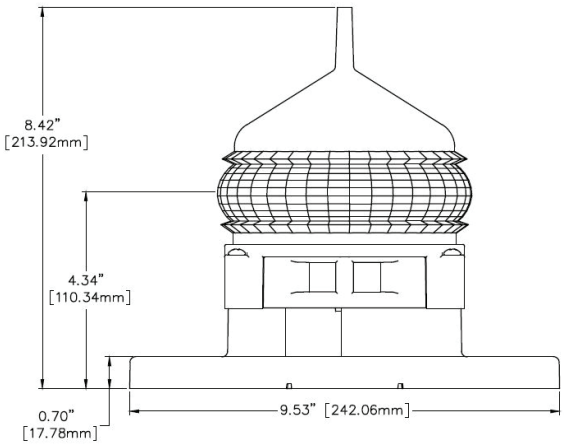
[1] Visible range based on IALA standards at atmospheric transmissivity of 0.74
[2] Effective intensity computed from Blondel Rey method
[3] Maximum Effective Intensity limited by ambient temperature and flash length.

PHYSICAL SPECIFICATIONS

Operating temperature range (°C)	-30°C to +°50C
Operation humidity (%)	100
IP Rating	IP68*
Body material	UV stabilized polycarbonate
Lens material	Acrylic
Mounting	3 - 4 hole, Ø 200mm

DIMENSIONS

Width (mm / in)	242mm / 9.53”
Depth (mm / in)	242mm / 9.53”
Height (mm / in)	214 mm / 8.42 in
Weight (kg / lb)	1.18 kg / 2.6 lb



STANDARDS

EMI/EMC	EN55015:2013 ratiated and conducted emissions* EN61547:2009 Immunity FCC 47 CFR Section 15 Class A*
Optical Test	IALA Recommendation E-122 (2001) and E-200-3 Part 3 (2008)
Colour	IALA Recommendation E-200-1 Part 1
Daylight	IALA Recommendation 1038
Power Supply	IEC60945 Section 7 normal and peak voltage, and reverse polarity protection
Ingress	IP68 to IEC60529
Shock	MIL-STD-202G Method 213B Cond H*
Vibration	MIL-STD-202G Method 204D Cond B*
Immersion	MIL-STD-202G Method 104A Cond B withstands immersion to 1m depth*
Ice	Standard

ORDERING

Catalog number scheme: PMAPI-BL35-XX-C-ZZ

XX = Input Power

- AC = 120 - 240 VAC
- DC = 12 - 24 VDC

C = Colour (G = Green, R = Red, W = White, Y = Yellow)

- G = Green
- R = Red
- W = White

ZZ = Options:

- 00 = No Options
- 01 = External IO
- 02 = 180° Sector

Example: PMAPI-BL35-AC-R-02 = 120-240 VAC External Power, Red with 180° Sectored Lens

PMIR-1 = IR Remote

All values are subject to change without notice.

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