

NS SERIES MARINE LIGHT

Medium Intensity LED Marine Lantern

3 - 6.3 NM at 0.74T / 3.5 - 7.8 NM at 0.85T



Class A, B and C compliant in accordance with USCG 8th District 33 CFR Part 67 for artificial island and structures, and 33 CFR Part 66 for 3 and 6.3 NM private navigation aids.



OVERVIEW

The NS SERIES MARINE LIGHT is a 3 - 6.3NM weather-protected marine lantern with a high intensity LED light source that can be combined with optional GPS synchronization and External IO port.

- LEDs on a protected metal core PCB for maximum useful life
- Flexible electronic configurations
- Use on offshore platforms, port and harbor, aquaculture, fixed or floating structures

KEY FEATURES

- **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 7.8NM at 0.85T pending flash character in optimal conditions
- **IR Remote:** Powering on & off, set / retrieve configuration parameters such as flash pattern, effective intensity, day/night control, etc.
- **IALA approved colors:** Single color LED engine - white, yellow, red or green
- **Integrated bird deterrent:** No additional accessories required
- **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
- **Ripple delay** - 0.05 to 12.7 seconds & master/slave sync options
- **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

- **GPS Synchronisation:** Optional internally mounted hardware will allow the lantern to flash in-sync with other PMAPI and third party lanterns that are GPS synced
- **External I/O port:** Allows connection to an external monitoring device or for hardwired synchronisation to other lanterns

OPTICAL CHARACTERISTICS

| LED Color | WHITE | YELLOW | RED | GREEN |
|---|-----------------------|-----------------------|-----------------------|-----------------------|
| Light source | 12 White LEDs | 12 Yellow LEDs | 12 Red LEDs | 12 Green LEDs |
| Visible range (NM) ¹ | 3 - 6.3 | 3 - 6.3 | 3 - 6.3 | 3 - 6.3 |
| Effective intensity range (cd) ² | 10 - 180 ³ | 10 - 180 ³ | 10 - 180 ³ | 10 - 180 ³ |
| Horizontal divergence | 360° | 360° | 360° | 360° |
| Vertical divergence at 50% intensity | 7° | 7° | 7° | 7° |
| Peak intensity (cd) | 325 | 325 | 325 | 325 |

Notes:

¹ Visible range based on IALA standards at atmospheric transmissivity of 0.74

² Effective intensity computed from Blondel Rey method

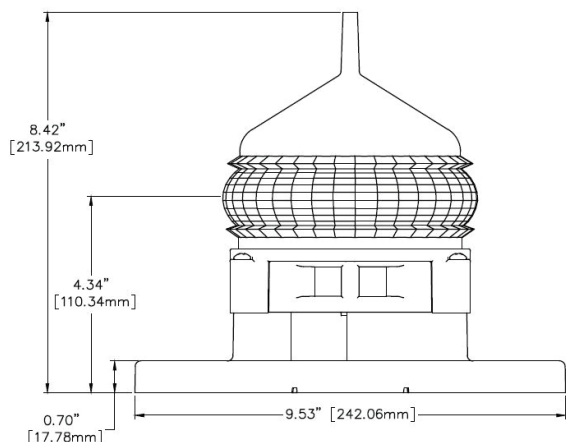
³ Maximum Effective Intensity limited by ambient temperature and flash length.

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 radiated 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-NS35-XX-C-ZZ

XX = Input Power

AC = 120 - 240 VAC

DC = 12 or 24 VDC

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

G = Green

W = White

R = Red

Y = Yellow

ZZ = Options:

00 = No Options

04 = 180° Lens

01 = GPS

05 = GPS and 180° Lens

02 = GPS & External IO

06 = GPS, External IO & 180° Lens

03 = External IO

07 = External IO & 180° Lens

Example: PMAPI-NS35-AC-G-00 = 120-240 VAC External Power, Green with 360° Lens

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