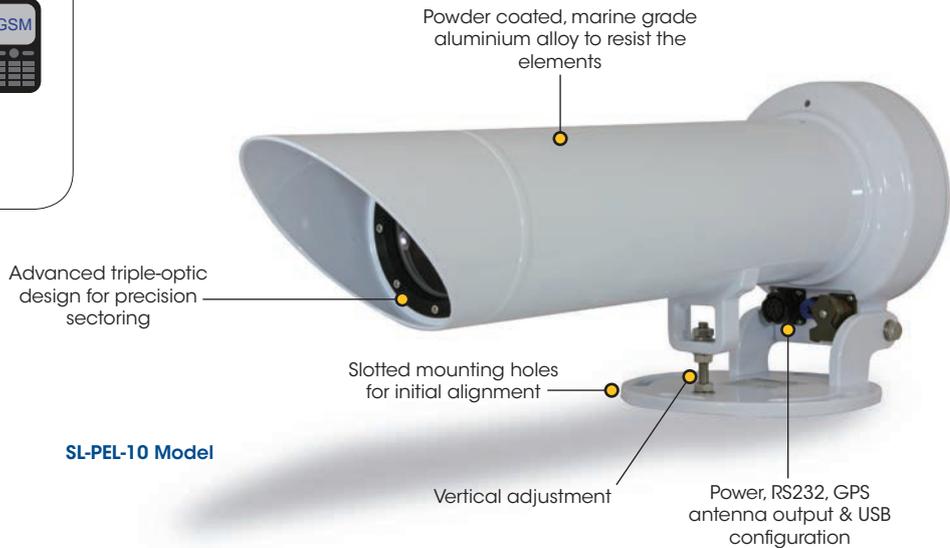
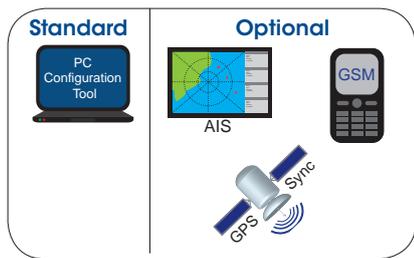


Sectored Port Entry Light

SL-PEL Series — 5° & 10° Models



SL-PEL-10 Model

The Sealite Advantage

- Low power consumption - typically uses 30 watts to achieve intensities that previously required 250 watts, making solar power possible
- LEDs can be configured for automatic night dimming, eliminating the need for moving filters
- LEDs can be individually flashed, reducing the need to employ moving oscillating boundaries
- AIS & GSM ready - comes ready for interfacing with AIS or GSM monitoring facilities
- At only 30 watts, the PEL can be run on a 12-24 volt DC supply without the need for large cables
- Ultra compact design - removing the need for split assemblies and realignment on difficult access sites
- GPS enables reliable synchronisation with multiple units and other AtoNs
- Independent verification of conformity to IALA colour chromaticity co-ordinates and angles of uncertainties
- Lightweight for ease of installation
- Optional solar powered configurations available

The Sealite Port Entry Light (PEL) is a low-powered, high-intensity precision sector light, suitable for day or night-time use.

High Precision, Long Range LED Optics

Providing over 120,000cd (10° Model) and over 500,000cd (5° Model) at 30 watts, the Sealite PEL is extraordinarily efficient and ideal for solar power systems. The light is designed to suit high-precision sector applications and provides a measured changeover between colour sectors of typically one minute of arc.

Robust, with Ultra-Low Power Consumption

The Sealite PEL is extremely robust and of high-quality construction. The unit is built from CNC machined marine grade aluminium alloy, subject to 7-stage powder coating. The IP67 rated enclosure with anti-reflection coated achromatic lenses offers maximum resistance to weather.

AIS & GSM Ready

The Sealite PEL comes ready for interfacing with Sealite Type 1 or Type 3 AIS solutions, to allow port operators convenient remote monitoring of the unit via AIS message 6. In addition, important AIS message 21 information such as the name, type, and position of the navigation aid may be broadcast to mariners within the region.

GSM monitoring facilities also allow the light to be remotely monitored and controlled by maintenance personnel through their cellular phones or web portal.

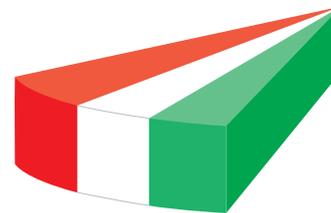
Sealite's PEL also has alarm relay contacts for remote monitoring to alert to fault conditions.



Anti-reflection coated achromatic lens to give maximum resistance to weather



Power, RS232, GPS antenna output and USB configuration



High-precision light sectoring



Sectored Port Entry Light

SL-PEL Series — 5° & 10° Models



SL-PEL-5 Model

GPS Synchronisation

The Sealite PEL may be fitted with GPS, to enable reliable synchronisation when multiple units or Sealite GPS enabled lanterns are set to the same flash character. Furthermore, offset synchronisation can be achieved using multiple units with the same divisible total flash period, for better recognition.

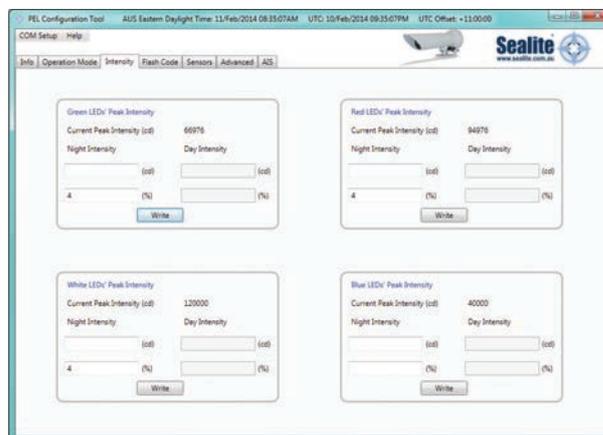
Convenient PC Programming via USB

Up to 32 sector intensity settings may be selected by the user during programming to enable in-field adjustment to offset local background lighting. Over 256 standard & custom flash codes can also be programmed, in addition to advanced features such as multiple day/night intensity settings & switching between internal and external photo-cells. In-field programming is via a built in weather-proof port eliminating the need to open the unit and expose it to the elements.

Multiple configurations & maintenance-free

The Port Entry Light can be configured to suit many channel marking and leading line applications. There are two versions available with different overall beam widths. Independently controlled LED drivers provide balanced colour output across colours, or the white centre sector can be increased in intensity to simulate filament/filter combinations.

The Port Entry Light does not require focussing or re-lamping while in service, and there are no moving parts.



Easily program the PEL with Sealite's PC Configuration Tool



Sectored Port Entry Light

SL-PEL Series — 5° & 10° Models

SPECIFICATIONS * *

SL-PEL-05

5° Model

Light Characteristics

Light Source
Available Colours
Typical Maximum Peak Intensity (cd)
Visible Range (NM)

LED
Red, Green, White
Red - 380,000
Green - 345,000
White § - 505,000
AT @ 0.74: White sector, nighttime: up to 23.5
AT @ 0.85: White sector, nighttime: up to 37.5
@ 50% peak intensity: 0.85

Vertical Divergence (degrees)
Beam Width Overall (degrees)
Minimum Sector (degrees)
Available Flash Characteristics
Intensity Adjustments
LED Life Expectancy (hours)

5
0.5
User adjustable
Fully adjustable
>50,000

Electrical Characteristics

Power (watts)
Voltage Range (VDC)
Nominal Voltage (VDC)
Temperature Range

30 watts peak x character ratio
12-24
12.5
-40 to 80°C

Physical Characteristics

Body Material
Lens Material
Mounting

Marine grade aluminium alloy & carbon fibre, enamel baking
Anti-reflection coated glass
4 x 12mm slotted holes equally spaced on 200mm PCD with additional front mounting plate consisting of 16mm slotted holes

Length (mm/inches)
Mass (kg/lbs)
Product Life Expectancy

1272 / 50
20 / 44
Up to 12 years

Environmental Factors

Driving Rain
Low Temperature
High Temperature
Humidity
Salt Fog
Shock
Vibration

MIL-STD-810F Method 506.4
MIL-STD-810G Method 502.5
MIL-STD-810G Method 501.5
MIL-STD-810F Method 507.4
MIL-STD-810F Method 509.4
IEC 60068-2-29 Test Eb
ASTM D4169-05 cl.12.3

Certifications

CE
IALA
Waterproof

EN61000-6-1: 2007. EN61000-6-3: 2007.
Signal colours compliant to IALA E-200-1
IP67. AS 60529-2004 (IEC 60529:2001)

Intellectual Property

Trademarks

SEALITE® is a registered trademark of Sealite Pty Ltd
3 years

Warranty *

Options Available

- AIS Type 1 or Type 3
- GSM Remote Monitoring & Control Capabilities
- GPS Synchronisation
- Variety of solar/battery configurations

SL-PEL-10

10° Model

LED

Red, Green, White
Red - 95,000
Green - 85,000
White § - 120,000
AT @ 0.74: White sector, nighttime: up to 20
AT @ 0.85: White sector, nighttime: up to 31.3
@ 50% peak intensity: 1.7

10
1.0
User adjustable
Fully adjustable
>50,000

30 watts peak x character ratio
12-24
12.5
-40 to 80°C

Marine grade aluminium alloy, subject to enamel baking
Anti-reflection coated glass
4 x 12mm slotted holes equally spaced on 200mm PCD

756 / 29¾
12 / 26½
Up to 12 years

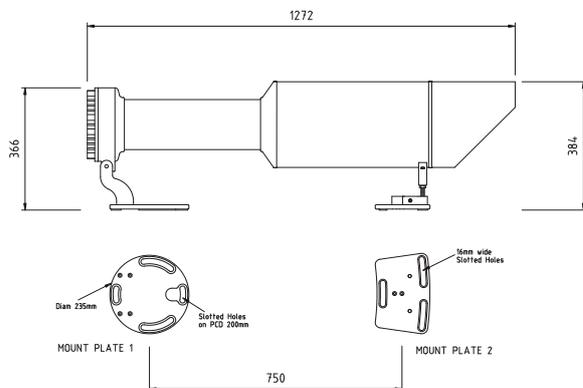
MIL-STD-810F Method 506.4
MIL-STD-810G Method 502.5
MIL-STD-810G Method 501.5
MIL-STD-810F Method 507.4
MIL-STD-810F Method 509.4
IEC 60068-2-29 Test Eb
ASTM D4169-05 cl.12.3

EN61000-6-1: 2007. EN61000-6-3: 2007.
Signal colours compliant to IALA E-200-1
IP67. AS 60529-2004 (IEC 60529:2001)

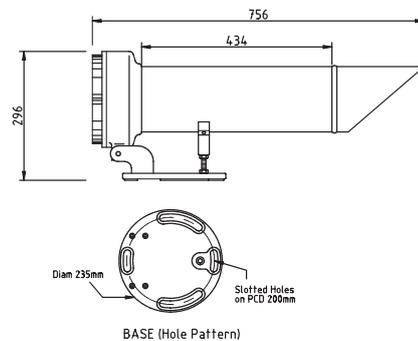
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- AIS Type 1 or Type 3
- GSM Remote Monitoring & Control Capabilities
- GPS Synchronisation
- Variety of solar/battery configurations

5° SL-PEL-05 Model



10° SL-PEL-10 Model



• Specifications subject to change or variation without notice
* Subject to standard terms and conditions
§ White intensity can be balanced with coloured intensity or increased to match historical filament lantern performance



Examples of PEL Beam Configurations

- Synchronised LEDs are programmable in both intensity and character
- Length of beam indicates intensity
- Illustration shows SL-PEL-10 with 10 x 1° sectors
- The SL-PEL-05 variant produces 10 x 0.5° sectors

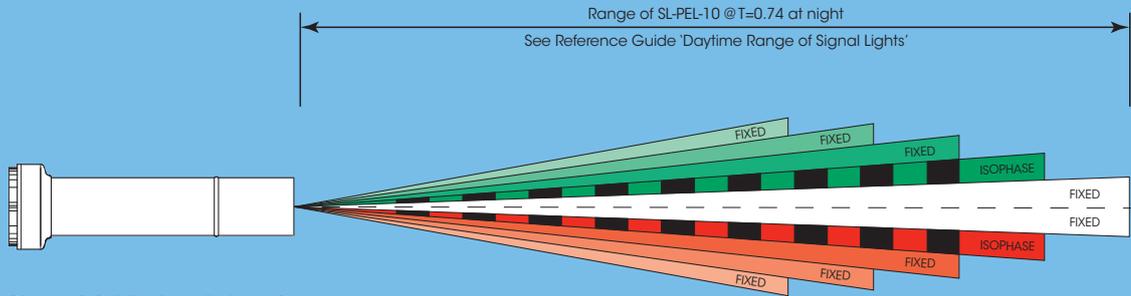


Diagram 1: Building Intensity Across Beam

- SL-PEL-10
- Boundary intensity reduction
- Automatic night dimming via PE cell (no moving filters)
- Flashing red & green boundary with no moving parts

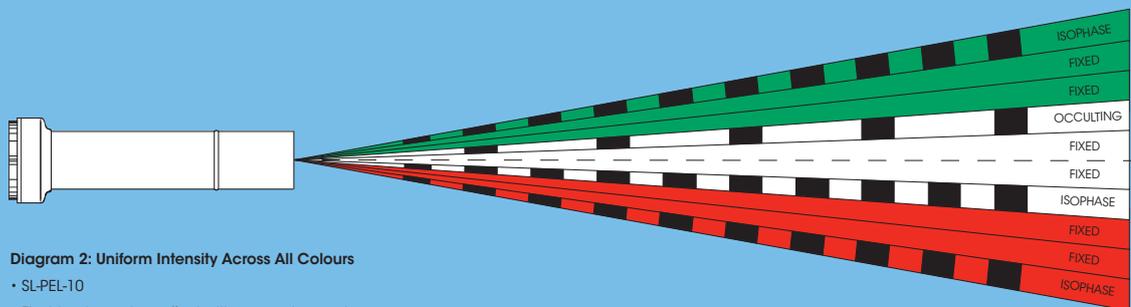


Diagram 2: Uniform Intensity Across All Colours

- SL-PEL-10
- Flashing boundary effect with no moving parts
- Full intensity across all sectors
- Automatic night dimming via PE cell (no moving filters)

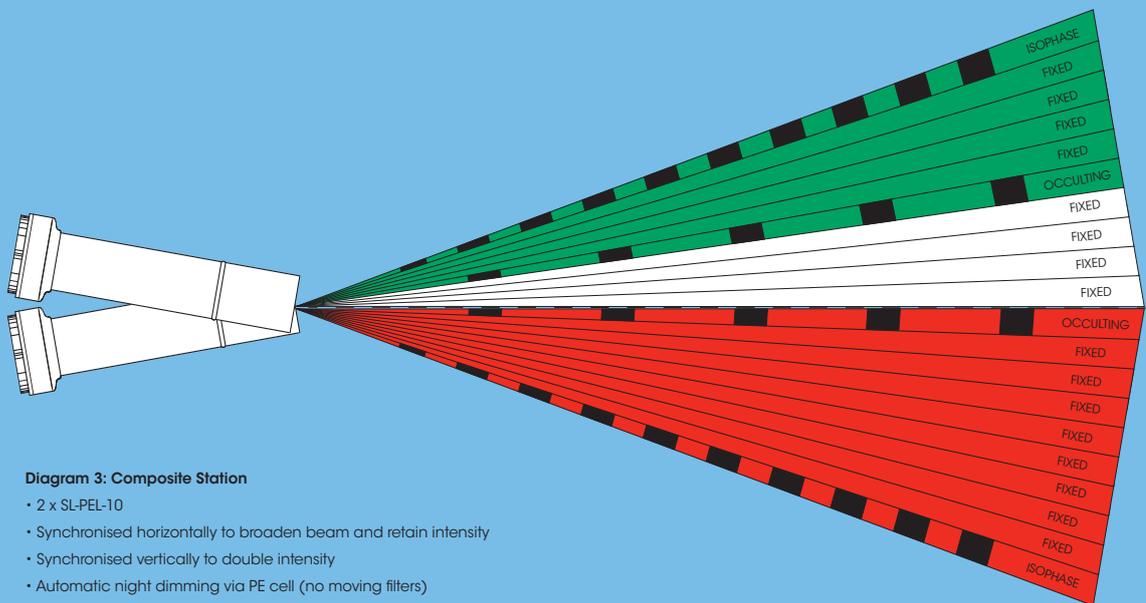


Diagram 3: Composite Station

- 2 x SL-PEL-10
- Synchronised horizontally to broaden beam and retain intensity
- Synchronised vertically to double intensity
- Automatic night dimming via PE cell (no moving filters)

