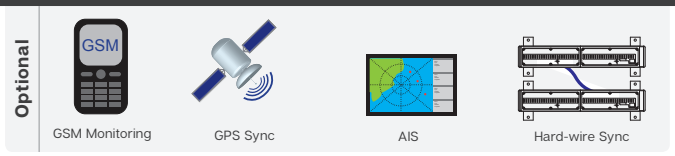
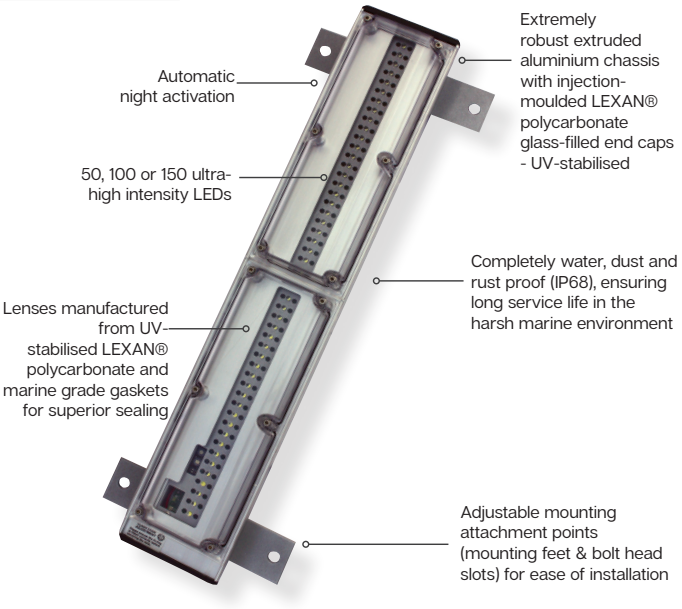
# 2ft Leading Light

SL-48




The SL-48 is a 2ft LED leading light designed to offer vessels clear night navigation and is a convenient replacement for conventional lead lighting.

The unit is available in 3 configurations utilising either single, dual, or triple row LED circuits as a light source.

The advanced circuitry of the SL-48 series comprise of a DC/DC converter, current control and automatic night activation.

The innovative, robust design of the SL-48 leading light ensures years of reliable, maintenance-free service. The unit is completely water, dust & rust proof, and vandal resistant.

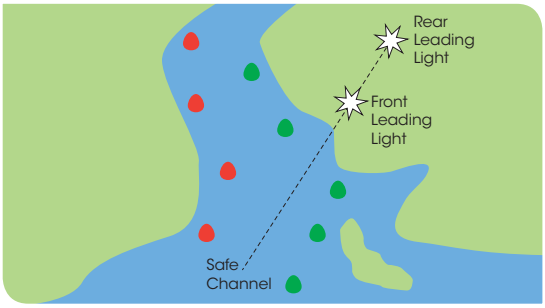
The SL-48 body is made from extruded aluminium with injection-moulded UV-stabilised LEXAN® polycarbonate glass-filled end caps for superior strength and durability. Single, dual and triple row versions have the same body width.

Individual injection-moulded LEXAN® polycarbonate lenses are fitted to the aluminium body with a marine grade gasket ensuring a superior sealing (IP68 waterproof).

The aluminium housing features 2x channels/slots which run along the entire length of the base of the SL-48. This multi-mount design allows the 2x mounting brackets/feet to be positioned as required for complete installation flexibility.

The unit operates from a standard 8 – 20 volt power supply, and may be run from a mains powered system or with solar and battery backup in the event of power failure.

The SL-48 Leading Light is also available with hard-wire or GPS Synchronisation and GSM Remote Monitoring and Control capabilities. When leading lights flash in synchronisation, they can be clearly distinguished from other navaids and confusing background lighting.







## User Advantage

- Directional 2ft LED leading light
- 7.5 - 13+ nautical mile range
- Robust design ensures a complete seal suitable for extreme weather conditions
- 256 user-adjustable flash characteristic
- Adjustable intensity settings
- Operates in conjunction with existing or purpose-built power supplies

## Optional

- Optional GPS Synchronisation & GSM Remote Monitoring
- Optional solar powered configurations available

## Reliable

- IP68 waterproof

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## Technical Specifications ·*

| | SL-48-1 | SL-48-2 | SL-48-3 |
|---|---|---|---|
| | **Single Row** | **Dual Row** | **Triple Row** |
| **Light Characteristics** | | | |
| **Light Source** | 50 ultra-high intensity LEDs | 100 ultra-high intensity LEDs | 150 ultra-high intensity LEDs |
| **Available Colours** | Red, Green, White, Yellow, Blue | Red, Green, White, Yellow, Blue | Red, Green, White, Yellow, Blue |
| **Typical Maximum Intensity (cd)†** | Red - 1540 Green - 2220 White - 2220 Yellow - 1320 Blue - 430 | Red - 3070 Green - 4160 White - 4020 Yellow - 2570 Blue - 770 | Red - 4560 Green - 6300 White - 5680 Yellow - 3820 Blue - 1140 |
| **Visible Range (NM)** | 8 | 9 | 10 |
| **Horizontal Output (degrees)** | 15 | 15 | 15 |
| **Vertical Divergence (degrees)** | 15 | 15 | 15 |
| **Available Flash Characteristics** | Up to 256 IALA recommended (user adjustable) | Up to 256 IALA recommended (user adjustable) | Up to 256 IALA recommended (user adjustable) |
| **Intensity Adjustments** | User adjustable | User adjustable | User adjustable |
| **LED Life Expectancy (hours)** | >100,000 | >100,000 | >100,000 |
| **Electrical Characteristics** | | | |
| **Current Draw (mA)** | Red, Yellow - 510<br>Blue, Green, White - 430 | Red, Yellow - 1020<br>Blue, Green, White - 860 | Red, Yellow - 1530<br>Blue, Green, White - 1290 |
| **Circuit Protection** | Polarity protected | Polarity protected | Polarity protected |
| **Nominal Voltage (V)** | 12 | 12 | 12 |
| **Temperature Range** | -40 to 80°C | -40 to 80°C | -40 to 80°C |
| **Physical Characteristics** | | | |
| **Body Material** | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised |
| **Lens Material** | LEXAN® Polycarbonate – UV-stabilised | LEXAN® Polycarbonate – UV-stabilised | LEXAN® Polycarbonate – UV-stabilised |
| **Mounting** | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) |
| **Height (mm/inches)** | 86 / 3⅜ | 86 / 3⅜ | 86 / 3⅜ |
| **Width (mm/inches)** | 200 / 7⅞ (including feet) | 200 / 7⅞ (including feet) | 200 / 7⅞ (including feet) |
| **Length (mm/inches)** | 650 / 25⅝ | 650 / 25⅝ | 650 / 25⅝ |
| **Mass (kg/lbs)** | 3.6 / 7¼ | 3.7 / 8⅛ | 3.8 / 8⅜ |
| **Product Life Expectancy** | Up to 12 years ^ | Up to 12 years ^ | Up to 12 years ^ |
| **Certifications** | | | |
| **CE** | EN61000-6-3:1997. EN61000-6-1:1997 | EN61000-6-3:1997. EN61000-6-1:1997 | EN61000-6-3:1997. EN61000-6-1:1997 |
| **IALA** | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 |
| **Quality Assurance** | ISO 9001:2015 | ISO 9001:2015 | ISO 9001:2015 |
| **Waterproof** | IP68 | IP68 | IP68 |
| **Intellectual Property** | | | |
| **Trademarks** | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd |
| **Warranty *** | 3 years | 3 years | 3 years |
| **Options Available** | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable |

† Intensity setting subject to solar availability
* Subject to standard terms and conditions
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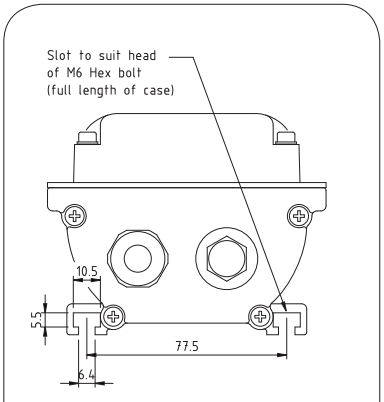
^ Refer to the Sealite website under the warranty section

CE

Ease of flash setting selection (where required) via internal rotary switches




Note: addition of GSM monitoring increases the unit's overall dimensions. Refer to installation manual for technical drawings

IALA

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# 4ft Leading Light

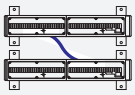
SL-96

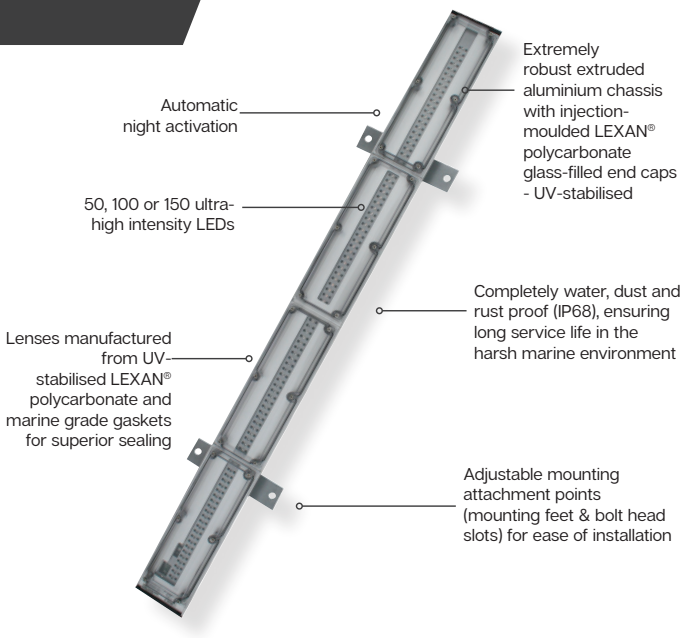
Optional

GSM Monitoring


GPS Sync


AIS


Hard-wire Sync




## The SL-96 is a 4ft LED leading light offering greater visibility to the smaller SL-48 series.

The unit is available in 3 configurations utilising either single, dual, or triple row LED circuits as a light source.

The advanced circuitry of the SL-96 series comprise of a DC/DC converter, current control and automatic night activation.

The innovative, robust design of the SL-96 leading light ensures years of reliable, maintenance-free service. The unit is completely water, dust & rust proof, and vandal resistant.

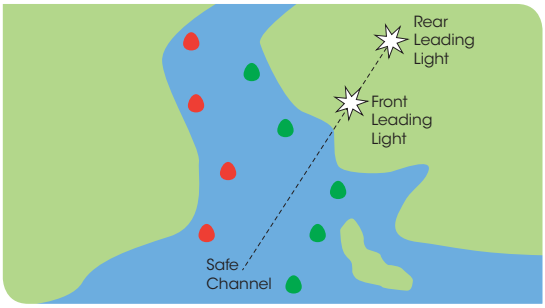
The SL-96 body is made from extruded aluminium with injection-moulded UV-stabilised LEXAN® polycarbonate glass-filled end caps for superior strength and durability. Single, dual and triple row versions have the same body width.

Individual injection-moulded LEXAN® polycarbonate lenses are fitted to the aluminium body with a marine grade gasket ensuring a superior sealing (IP68 waterproof).

The aluminium housing features 2x channels/slots which run along the entire length of the base of the SL-96. This multi-mount design allows the 2x mounting brackets/feet to be positioned as required for complete installation flexibility.

The unit operates from a standard 8 – 20 volt power supply, and may be run from a mains powered system or with solar and battery backup in the event of power failure.

The SL-96 Leading Light is also available with hard-wire or GPS Synchronisation and GSM Remote Monitoring and Control capabilities. When leading lights flash in synchronisation, they can be clearly distinguished from other navaids and confusing background lighting. confusing background lighting.




## User Advantage

- Directional 4ft LED leading light
- 8 - 14.5+ nautical mile range
- Robust design ensures a complete seal suitable for extreme weather conditions
- 256 user-adjustable flash characteristic
- Adjustable intensity settings
- Operates in conjunction with existing or purpose-built power supplies

## Optional

- Optional GPS Synchronisation & GSM Remote Monitoring
- Optional solar powered configurations available

## Reliable

- IP68 waterproof

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## Technical Specifications ·*

| | SL-96-1 | SL-96-2 | SL-96-3 |
|---|---|---|---|
| | **Single Row** | **Dual Row** | **Triple Row** |
| **Light Characteristics** | | | |
| **Light Source** | 100 ultra-high intensity LEDs | 200 ultra-high intensity LEDs | 300 ultra-high intensity LEDs |
| **Available Colours** | Red, Green, White, Yellow, Blue | Red, Green, White, Yellow, Blue | Red, Green, White, Yellow, Blue |
| **Typical Maximum Intensity (cd)†** | Red - 3070 Green - 4160 White - 4050 Yellow - 2570 Blue - 620 | Red - 5680 Green - 8050 White - 7950 Yellow - 5080 Blue - 1200 | Red - 8580 Green - 12050 White - 11900 Yellow - 7500 Blue - 1790 |
| **Visible Range (NM)** | 9 | 10 | 11 |
| **Horizontal Output (degrees)** | 15 | 15 | 15 |
| **Vertical Divergence (degrees)** | 15 | 15 | 15 |
| **Available Flash Characteristics** | Up to 256 IALA recommended (user adjustable) | Up to 256 IALA recommended (user adjustable) | Up to 256 IALA recommended (user adjustable) |
| **Intensity Adjustments** | User adjustable | User adjustable | User adjustable |
| **LED Life Expectancy (hours)** | >100,000 | >100,000 | >100,000 |
| **Electrical Characteristics** | | | |
| **Current Draw (mA)** | Red, Yellow - 1020<br>Blue, Green, White - 860 | Red, Yellow - 2040<br>Blue, Green, White - 1720 | Red, Yellow - 3060<br>Blue, Green, White - 2580 |
| **Circuit Protection** | Polarity protected | Polarity protected | Polarity protected |
| **Nominal Voltage (V)** | 12 | 12 | 12 |
| **Temperature Range** | -40 to 80°C | -40 to 80°C | -40 to 80°C |
| **Physical Characteristics** | | | |
| **Body Material** | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised | Extruded aluminium chassis with LEXAN® polycarbonate glass-filled end caps - UV-stabilised |
| **Lens Material** | LEXAN® Polycarbonate – UV-stabilised | LEXAN® Polycarbonate – UV-stabilised | LEXAN® Polycarbonate – UV-stabilised |
| **Mounting** | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) | Slots to suit head of M6 Hex bolt (full length of light body) & 4 x 11.5mm mounting holes (mounting feet) |
| **Height (mm/inches)** | 86 / 3⅜ | 86 / 3⅜ | 86 / 3⅜ |
| **Width (mm/inches)** | 200 / 7⅞ (including feet) | 200 / 7⅞ (including feet) | 200 / 7⅞ (including feet) |
| **Length (mm/inches)** | 1260 / 49⅝ | 1260 / 49⅝ | 1260 / 49⅝ |
| **Mass (kg/lbs)** | 7.4 / 16⅓ | 7.6 / 16¾ | 7.8 / 17⅛ |
| **Product Life Expectancy** | Up to 12 years ^ | Up to 12 years ^ | Up to 12 years ^ |
| **Certifications** | | | |
| **CE** | EN61000-6-3:1997. EN61000-6-1:1997 | EN61000-6-3:1997. EN61000-6-1:1997 | EN61000-6-3:1997. EN61000-6-1:1997 |
| **IALA** | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 |
| **Quality Assurance** | ISO 9001:2015 | ISO 9001:2015 | ISO 9001:2015 |
| **Waterproof** | IP68 | IP68 | IP68 |
| **Intellectual Property** | | | |
| **Trademarks** | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd |
| **Warranty *** | 3 years | 3 years | 3 years |
| **Options Available** | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable | · Power supplies/systems<br>· Hard-wire Synchronisation<br>· GPS Synchronisation<br>· GSM Remote Monitoring & Control Capabilities<br>· AIS Remote Monitoring<br>· Additional cable |

† Intensity setting subject to solar availability

* Subject to standard terms and conditions

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Refer to the Sealite website under the warranty section

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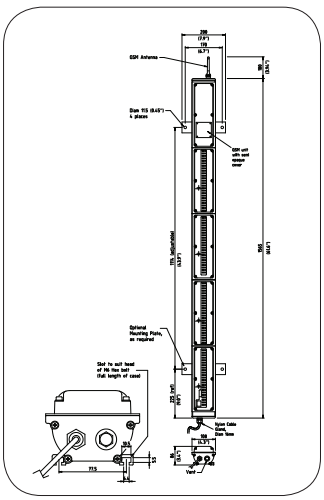

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Port Kembla, Australia

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# Sectored Port Entry Light

SL-PEL Series - 5° & 10° Models

**Standard**

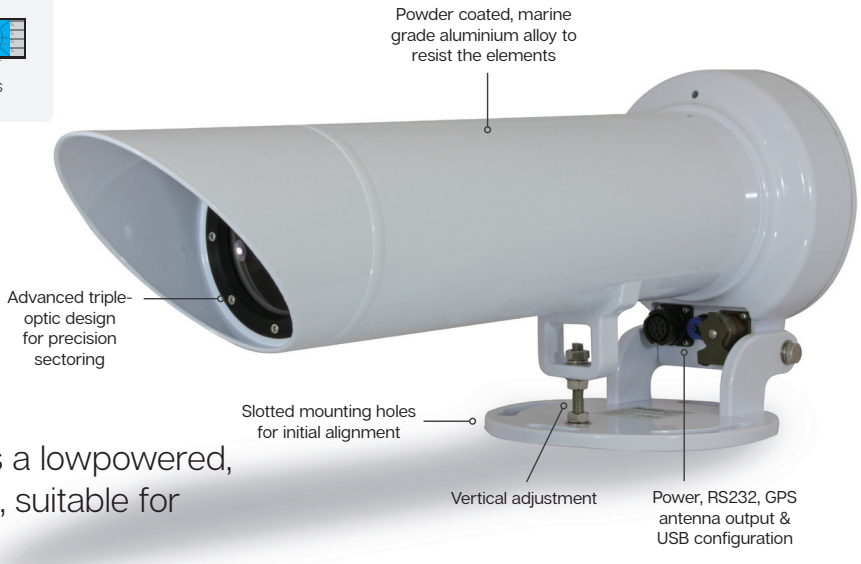
PC Configuration Tool

**Optional**

GPS Sync

GSM Monitoring

AIS




The Sealite Port Entry Light (PEL) is a lowpowered, 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

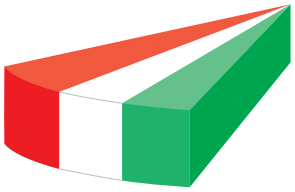
The Sealite PEL comes ready for interfacing with Sealite Type 1 or Type 3 AIS solutions, to allow port operators convenient remote monitoring of the unit via AIS message 6. In addition, important AIS message 21 information such as the name, type, and position of the navigation aid may be broadcast to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

## 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 filter
- 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
- Lightweight for ease of installation
- 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 options enables reliable synchronisation with multiple units and other AtoNs
- Independent verification of conformity to IALA colour chromaticity co-ordinates and angles of uncertainties
- Optional solar powered configurations available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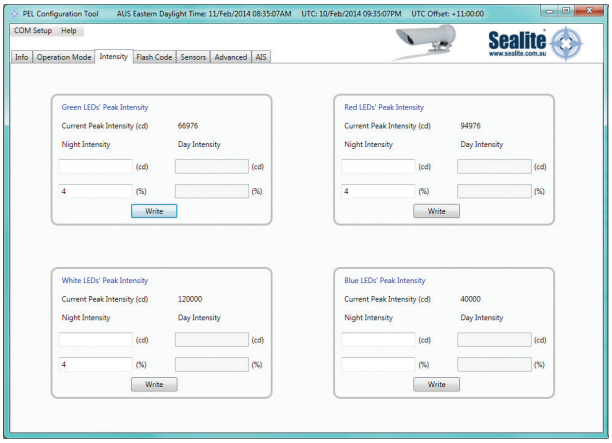
SL-PEL-5 Model

## 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 steps 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.

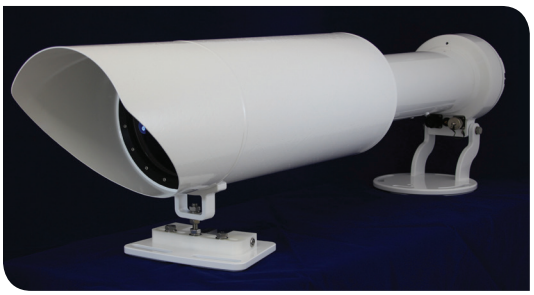


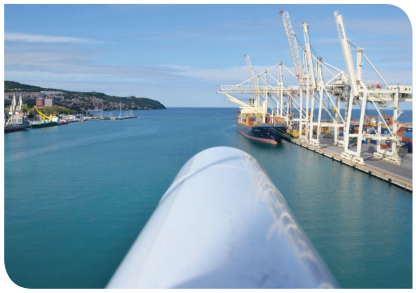

Easily program the PEL with Sealite's PC Configuration Tool

## 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.





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^ Refer to the Sealite website under the warranty section

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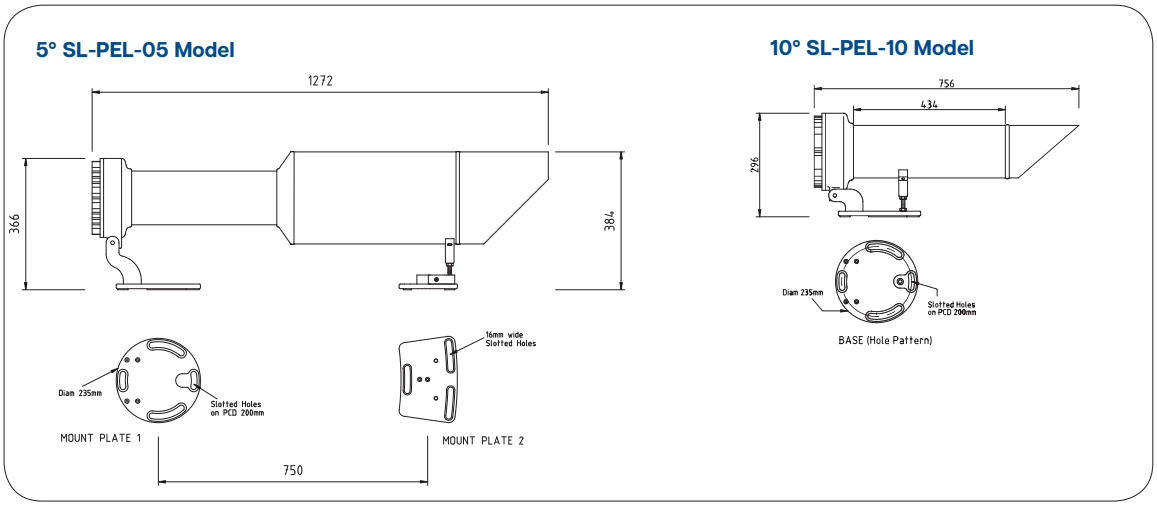
## Technical Specifications·*

| | 5° Model | 10° Model |
|---|---|---|
| | SL-PEL-05 | SL-PEL-10 |
| **Light Characteristics** | | |
| Light Source | LED | LED |
| Available Colours | Red, Green, White | Red, Green, White |
| Typical Maximum Peak Intensity (cd) | Red - 380,000<br>Green - 345,000<br>White - 505,000 | Red - 95,000<br>Green - 85,000<br>White § - 120,000 |
| Visible Range (NM) | AT @ 0.74: White sector, nighttime: up to 23.5<br>AT @ 0.85: White sector, nighttime: up to 37.5 | AT @ 0.74: White sector, nighttime: up to 20<br>AT @ 0.85: White sector, nighttime: up to 31.3 |
| Vertical Divergence (degrees) | @ 50% peak intensity: 0.85 | @ 50% peak intensity: 1.7 |
| Beam Width Overall (degrees) | 5 | 10 |
| Minimum Sector (degrees) | 0.5 | 1.0 |
| Available Flash Characteristics | User adjustable | User adjustable |
| Intensity Adjustments | Fully adjustable | Fully adjustable |
| LED Life Expectancy (hours) | >50,000 | >50,000 |
| **Electrical Characteristics** | | |
| Power (watts) | 30 watts peak x character ratio | 30 watts peak x character ratio |
| Voltage Range (VDC) | 12-24 | 12-24 |
| Nominal Voltage (VDC) | 12.5 | 12.5 |
| Temperature Range | -40 to 80°C | -40 to 80°C |
| **Physical Characteristics** | | |
| Body Material | Marine grade aluminium alloy & carbon fibre, enamel baking | Marine grade aluminium alloy, subject to enamel baking |
| Lens Material | Anti-reflection coated glass | Anti-reflection coated glass |
| Mounting | 4 x 12mm slotted holes equally spaced on 200mm PCD with additional front mounting plate consisting of 16mm slotted holes | 4 x 12mm slotted holes equally spaced on 200mm PCD |
| Length (mm/inches) | 1272 / 50 | 756 / 29¾ |
| Mass (kg/lbs) | 20 / 44 | 12 / 26½ |
| Product Life Expectancy | Up to 12 years ^ | Up to 12 years ^ |
| **Environmental Factors** | | |
| Driving Rain | MIL-STD-810F Method 506.4 | MIL-STD-810F Method 506.4 |
| Low Temperature | MIL-STD-810G Method 502.5 | MIL-STD-810G Method 502.5 |
| High Temperature | MIL-STD-810G Method 501.5 | MIL-STD-810G Method 501.5 |
| Humidity | MIL-STD-810F Method 507.4 | MIL-STD-810F Method 507.4 |
| Salt Fog | MIL-STD-810F Method 509.4 | MIL-STD-810F Method 509.4 |
| Shock | IEC 60068-2-29 Test Eb | IEC 60068-2-29 Test Eb |
| Vibration | ASTM D4169-05 cl.12.3 | ASTM D4169-05 cl.12.3 |
| **Certifications** | | |
| CE | EN61000-6-1: 2007. EN61000-6-3: 2007. | EN61000-6-1: 2007. EN61000-6-3: 2007. |
| IALA | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 |
| Waterproof | IP67. AS 60529-2004 (IEC 60529:2001) | IP67. AS 60529-2004 (IEC 60529:2001) |
| **Intellectual Property** | | |
| Trademarks | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd |
| **Warranty *** | 3 years | 3 years |
| **Options Available** | · AIS Type 1 or Type 3<br>· GSM Remote Monitoring & Control Capabilities<br>· GPS Synchronisation<br>· Variety of solar/battery configurations | · AIS Type 1 or Type 3<br>· GSM Remote Monitoring & Control Capabilities<br>· GPS Synchronisation<br>· Variety of solar/battery configurations |

^ Refer to the Sealite website under the warranty section

## Technical Illustrations

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# Sectored Port Entry Light

SL-PEL Series - 5° & 10° Models

**Standard**

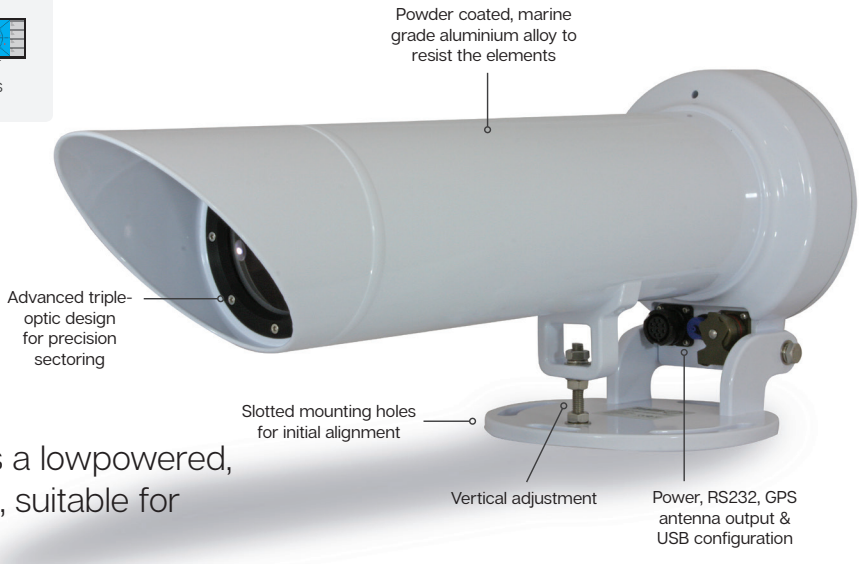
PC Configuration Tool

**Optional**

GPS Sync

GSM Monitoring

AIS




The Sealite Port Entry Light (PEL) is a lowpowered, 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

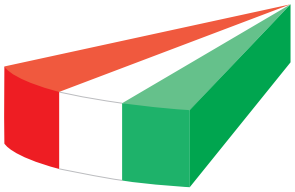
The Sealite PEL comes ready for interfacing with Sealite Type 1 or Type 3 AIS solutions, to allow port operators convenient remote monitoring of the unit via AIS message 6. In addition, important AIS message 21 information such as the name, type, and position of the navigation aid may be broadcast to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

## 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 filter
- 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
- Lightweight for ease of installation
- 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 options enables reliable synchronisation with multiple units and other AtoNs
- Independent verification of conformity to IALA colour chromaticity co-ordinates and angles of uncertainties
- Optional solar powered configurations available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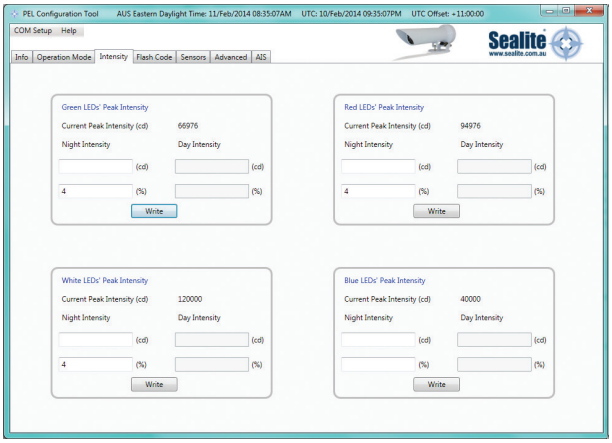
SL-PEL-5 Model

## 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 steps 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.

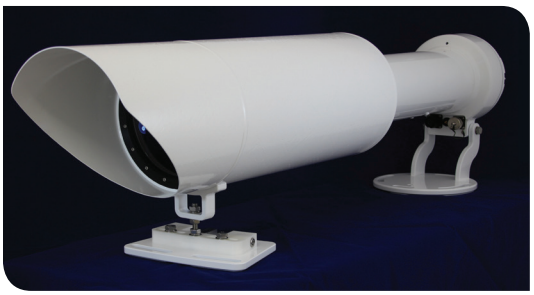


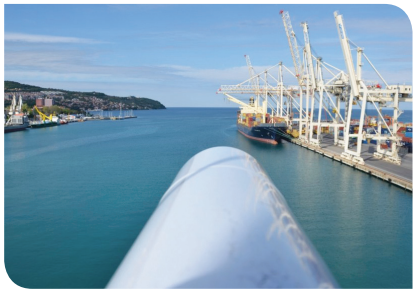

Easily program the PEL with Sealite's PC Configuration Tool

## 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.





* Specifications subject to change or variation without notice * Subject to standard terms and conditions † Intensity setting subject to solar availability
^ Refer to the Sealite website under the warranty section

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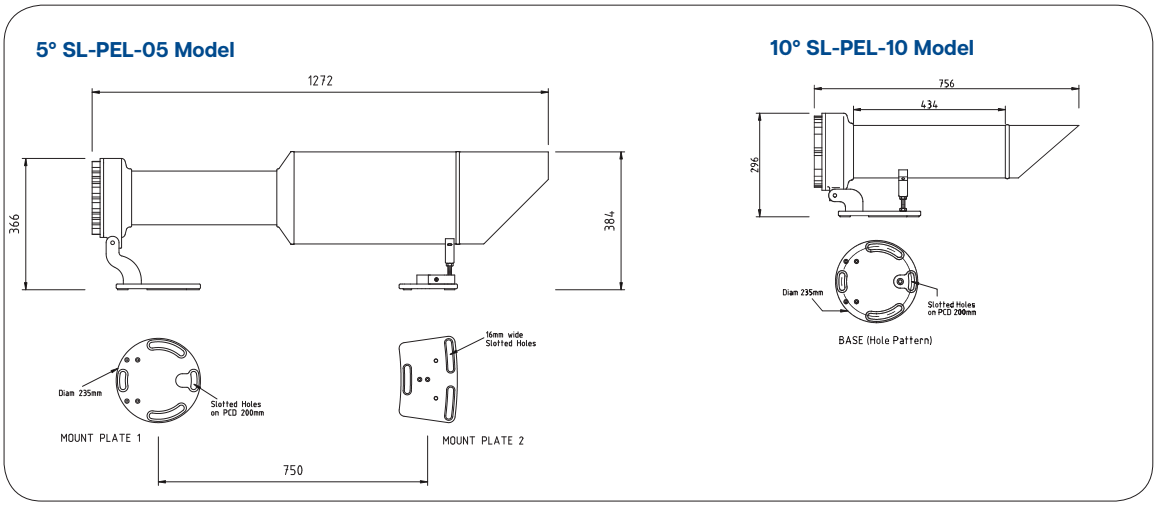
## Technical Specifications·*

| | 5° Model | 10° Model |
|---|---|---|
| | SL-PEL-05 | SL-PEL-10 |
| **Light Characteristics** | | |
| Light Source | LED | LED |
| Available Colours | Red, Green, White | Red, Green, White |
| Typical Maximum Peak Intensity (cd) | Red - 380,000<br>Green - 345,000<br>White - 505,000 | Red - 95,000<br>Green - 85,000<br>White § - 120,000 |
| Visible Range (NM) | AT @ 0.74: White sector, nighttime: up to 23.5<br>AT @ 0.85: White sector, nighttime: up to 37.5 | AT @ 0.74: White sector, nighttime: up to 20<br>AT @ 0.85: White sector, nighttime: up to 31.3 |
| Vertical Divergence (degrees) | @ 50% peak intensity: 0.85 | @ 50% peak intensity: 1.7 |
| Beam Width Overall (degrees) | 5 | 10 |
| Minimum Sector (degrees) | 0.5 | 1.0 |
| Available Flash Characteristics | User adjustable | User adjustable |
| Intensity Adjustments | Fully adjustable | Fully adjustable |
| LED Life Expectancy (hours) | >50,000 | >50,000 |
| **Electrical Characteristics** | | |
| Power (watts) | 30 watts peak x character ratio | 30 watts peak x character ratio |
| Voltage Range (VDC) | 12-24 | 12-24 |
| Nominal Voltage (VDC) | 12.5 | 12.5 |
| Temperature Range | -40 to 80°C | -40 to 80°C |
| **Physical Characteristics** | | |
| Body Material | Marine grade aluminium alloy & carbon fibre, enamel baking | Marine grade aluminium alloy, subject to enamel baking |
| Lens Material | Anti-reflection coated glass | Anti-reflection coated glass |
| Mounting | 4 x 12mm slotted holes equally spaced on 200mm PCD with additional front mounting plate consisting of 16mm slotted holes | 4 x 12mm slotted holes equally spaced on 200mm PCD |
| Length (mm/inches) | 1272 / 50 | 756 / 29¾ |
| Mass (kg/lbs) | 20 / 44 | 12 / 26½ |
| Product Life Expectancy | Up to 12 years ^ | Up to 12 years ^ |
| **Environmental Factors** | | |
| Driving Rain | MIL-STD-810F Method 506.4 | MIL-STD-810F Method 506.4 |
| Low Temperature | MIL-STD-810G Method 502.5 | MIL-STD-810G Method 502.5 |
| High Temperature | MIL-STD-810G Method 501.5 | MIL-STD-810G Method 501.5 |
| Humidity | MIL-STD-810F Method 507.4 | MIL-STD-810F Method 507.4 |
| Salt Fog | MIL-STD-810F Method 509.4 | MIL-STD-810F Method 509.4 |
| Shock | IEC 60068-2-29 Test Eb | IEC 60068-2-29 Test Eb |
| Vibration | ASTM D4169-05 cl.12.3 | ASTM D4169-05 cl.12.3 |
| **Certifications** | | |
| CE | EN61000-6-1: 2007. EN61000-6-3: 2007. | EN61000-6-1: 2007. EN61000-6-3: 2007. |
| IALA | Signal colours compliant to IALA E-200-1 | Signal colours compliant to IALA E-200-1 |
| Waterproof | IP67. AS 60529-2004 (IEC 60529:2001) | IP67. AS 60529-2004 (IEC 60529:2001) |
| **Intellectual Property** | | |
| Trademarks | SEALITE® is a registered trademark of Sealite Pty Ltd | SEALITE® is a registered trademark of Sealite Pty Ltd |
| **Warranty *** | 3 years | 3 years |
| **Options Available** | · AIS Type 1 or Type 3<br>· GSM Remote Monitoring & Control Capabilities<br>· GPS Synchronisation<br>· Variety of solar/battery configurations | · AIS Type 1 or Type 3<br>· GSM Remote Monitoring & Control Capabilities<br>· GPS Synchronisation<br>· Variety of solar/battery configurations |

^ Refer to the Sealite website under the warranty section

## Technical Illustrations

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# High Intensity LED Range Light

SL-RL Series

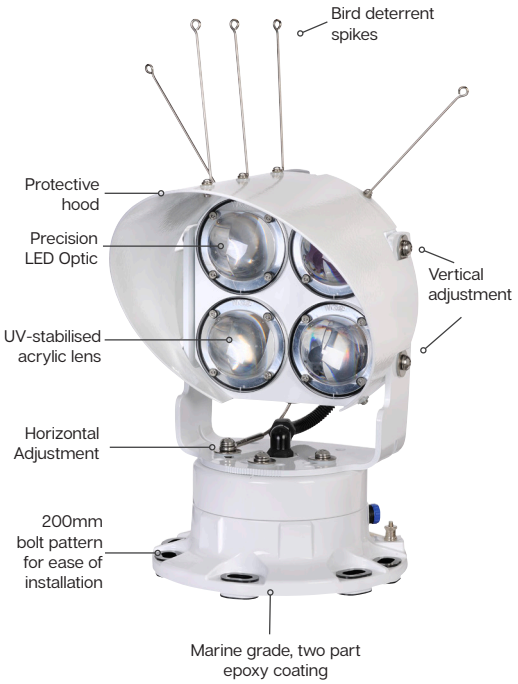
**Standard**

- IR Programmer
- PC Configuration Tool

**Optional**

- GPS Sync
- GSM Monitoring
- RS232/422/485 Port
- AIS
- Hard-wire Sync

The Sealite SL-RL Series is a long range, high intensity range light designed to give vessels clear night and/or daytime navigation. A daytime range of over 5NM and a night-time range in excess of 23NM can be achieved.




## Long Range LED Optics with Ultra-Low Power Consumption

Providing over 424,000cd, the Sealite Range Light is highly efficient and ideal for solar power systems.

## Robust Construction

The Sealite Range Light is extremely robust and of high-quality construction. The unit is built from CNC machined marine grade aluminium alloy with a marine grade two-part epoxy coating. The IP67 rated enclosure offers maximum resistance to weather.

## Advanced PC or IR Programming

Sealite's convenient PC Configuration Tool or IR programmer allows a host of features to be user set including;

- Multiple intensity settings
- 310 flash settings including custom character
- Adjustable on/off lux levels
- Low battery threshold
- GPS synchronisation offset
- Alarm conditions


## Optional GPS Synchronisation

For flash synchronisation of lanterns a GPS module may be fitted. Multiple general purpose inputs and outputs allow for hardwire synchronisation and main/standby lantern configurations.

## Optional GSM Monitoring & Control System

The SL-RL-04 lantern may also be fitted with a GSM Cell-Phone Monitoring and Control System – enabling users to access real-time diagnostics data and change lantern settings via cell-phone. The system can also be configured to send out alarm SMS text messages to designated cellular telephone numbers. Users can also have alarms and reports sent to designated email addresses.

## Optional Type 1 or Type 3 AIS

The SL-RL-04 lanterns can be integrated with class-leading, low-powered Type 1 or Type 3 AIS.

## Reliable

- Over 424,000cd, white
- Over 5NM visible daytime range
- Over 23NM visible night-time range
- Wide operating voltage range: universal DC 10–30VDC or universal AC 110–240VAC
- PC or IR Programmer for setup, diagnostic and testing
- Internal or external photocell options
- User configurable day/night and twilight intensity settings
- Advanced remote monitoring features
- Internal data-logging for long term retention of key operational parameters and alarm conditions
- Optional solar powered configurations available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## Technical Specifications·*

| | SL-RL-04 |
|---|---|
| **Light Characteristics** | |
| **Light Source** | High efficiency LED |
| **Available Colours** | White as standard. Other colours available on request |
| **Maximum Luminous Intensity (cd)†** | Refer to table |
| **Visible Range (NM)** | 3deg vertical & 3deg horizontal, white:<br>AT @ 0.74: 23.4NM night-time, 5NM daytime<br>AT @ 0.85: 37.3NM night-time, 6.3NM daytime |
| **Vertical Divergence (degrees)** | 3 as standard. Other options available |
| **Horizontal Output (degrees)** | 3 & 8 as standard. Other options available |
| **Available Flash Characteristics** | Up to 310 including 256 IALA recommended and 1 custom |
| **Intensity Adjustments** | User adjustable |
| **LED Life Expectancy (hours)** | >100,000 |
| **Electrical Characteristics** | |
| **Power (W)** | VDC Model: up to 29W VAC Model: up to 38W, 50VA |
| **Circuit Protection** | Polarity protected |
| **Nominal Voltage (VDC)** | VDC Model: 10–30 VDC VAC Model: 110–240 VAC, 50-60Hz |
| **Physical Characteristics** | |
| **Body Material** | Marine grade two-part epoxy coating |
| **Lens Material** | UV-stabilised acrylic |
| **Lens Design** | Multiple LED optic |
| **Mounting** | 3 & 4 hole 200mm bolt pattern |
| **Height (mm/inches)** | 332 / 13 |
| **Width (mm/inches)** | 226 / 9 |
| **Depth (mm/lbs)** | 317/12½ |
| **Mass (kg/lbs)** | 7.5 / 16.5 |
| **Service Life** | 15 years |
| **Environmental Standards** | |
| **Shock** | MIL-STD-202G Test Condition H, Method 213B 30G vertical and 35G horizontal shock |
| **Vibration** | MIL-STD-202G, Test Condition B, Method 204D 5G in all axes |
| **Ice Loading** | Rated to withstand 22kg/m$^2$ |
| **Wind Exposure** | Rated to withstand 140 knots |
| **Hail Impact** | Rated to withstand 25mm diameter ice ball impact at 20m/s |
| **Humidity** | 0 – 100%, condensing |
| **Temperature Range** | -40 to 80°C |
| **Certifications** | |
| **CE & Electrical** | FCC Part 15 Rules & ICES-003.<br>EN61000-6-1: 2007 (IEC61000-6-1:2005) Part 6-1 Immunity.<br>EN61000-6-3: 2007 (IEC61000-6-3: 2006) Electromagnetic compatibility (EMC) - Part 6-3 Emission.<br>IEC61000-4-2: 2008 Ed 2 Part 4-2 Electrostatic discharge immunity test Level 4.<br>IEC61000-4-3: 2010 Ed 3.2 Part 4-3. Radiated, radio-frequency, electromagnetic field immunity.<br>IEC61000-4-6: 2008 Ed3. Electromagnetic compatibility (EMC) - Part 4-6 Immunity. |
| **IALA** | Signal colours compliant to IALA E-200-1 |
| **Quality Assurance** | ISO9001:2015 |
| **Waterproof** | IP67 |
| **Intellectual Property** | |
| **Trademarks** | SEALITE® is a registered trademark of Sealite Pty Ltd |
| **Warranty*** | |
| **3-year warranty** | |
| **Options Available** | |

- GPS Synchronisation
- AIS Type 1 or Type 3 (External)
- GSM Monitoring & Control System (External for AC, Internal for DC)
- RS232/422/485 Port
- Hard-wire Synchronisation
- Variety of solar/battery configurations
- Multiple divergence lens
- Bird deterrent spikes

· Specifications subject to change or variation without notice * Subject to standard terms and conditions † Intensity setting subject to solar availability ^ Refer to the Sealite website under the warranty section

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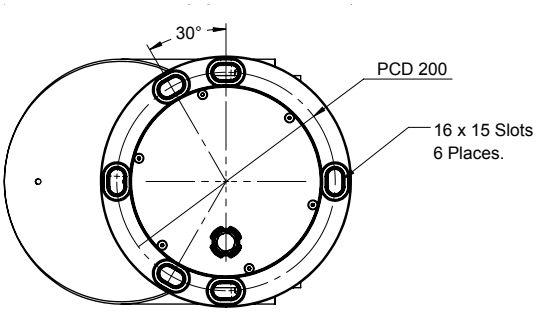
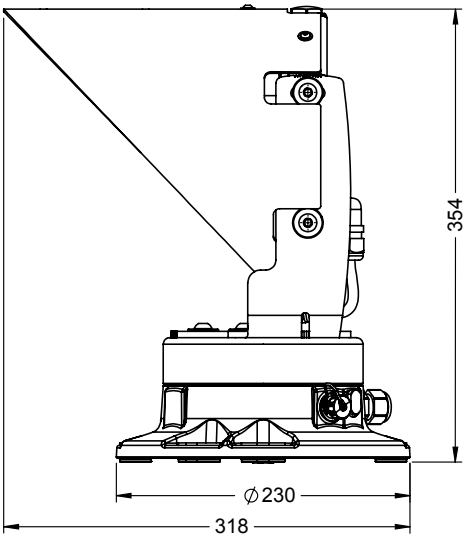
## Technical Illustration




| Optical Performance | | | | |
|---|---|---|---|---|
| Maximum luminous intensity (cd) | | | | |
| Divergence (deg) | RED | GREEN | WHITE | YELLOW |
| 3(V) x 3(H) | 120,000 | 150,000 | 424,000 | 150,000 |
| 3(V) x 8(H) | 60,000 | 53,000 | 140,000 | 50,000 |

† Intensity setting subject to solar availability

* Subject to standard terms and conditions

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