LED MARINE LANTERNS

MBL150

3 - 12 NM

PC | BT | IR | GPS

OPTIONAL

MBL150

Excellent optical efficiency

The MBL150 is a LED marine flashing lantern of short and medium range, with a great optical efficiency and low consumption, fitted with LED diodes of high intensity, reaching a maximum range of 12 nautical miles.

Low consumption

Ideal for on- and off-shore solar beaconing applications requiring a low consumption, such as channels, harbour entrances, jetties, piers, buoys, structures, fish farms, etc.

Long service life

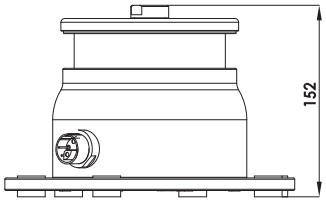
Its luminous source consists of an innovating lens system especially designed to take the maximum profit of LED diodes. Manufactured with high-quality and resistant materials, the MBL150 provides a long service life under harsh marine conditions.

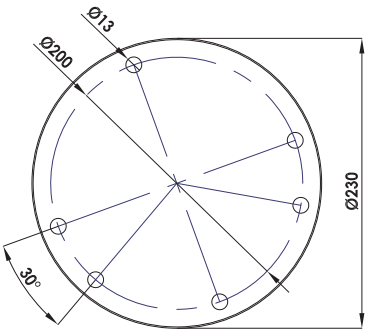
Designed according to IALA Recommendations.

FEATURES

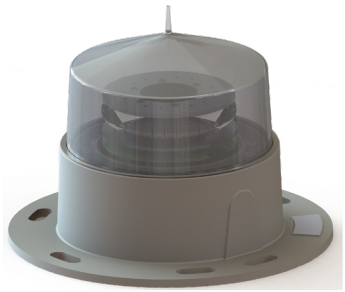
- *State-of-the-art LED technology.*
- *High-efficiency luminous system.*
  Up to 12 nm (T=0.74), 17 nm (T=0.85).
- *Vertical divergence 8° (50% I_0).*
- *360° horizontal output.*
- *Average operation lifetime over 15 years.*
- *Internal photocell adjustable in lux.*
- *IP 67 watertightness degree (immersion resistant).*
- *Linear adjustment of luminous intensity.*
- *Double RS-232 serial port for setting adjustments by PC and remote monitoring system.*
- *Programming, configuration and operating status via PC, Bluetooth or IR programmer as an option.*
- *Short-circuit, reverse-polarity and transient over-voltage protections.*
- *Minimal maintenance.*

MBL150





Aluminium version drawings.



Polyamide version.

Technical Features

Light source:	24 nos. ultra-bright LED diodes distributed circularly (360º) in up to three levels.
Luminous range:	Up to 12 nm (T=0.74) 17 nm (T=0.85).
Vertical divergence:	Up to 8º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 9 to 36 V (other voltages available under request).
Lantern consumption:	12 W per level.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Marine grade aluminium with polyurethane coating.
Lens cover:	Methacrylate or polycarbonate, UV stabilised.
Watertightness degree:	IP 67.
Programming:	PC, Bluetooth, or IR programmer as an option.

Options

Removable AISI 316 stainless steel bird deterrent.

Two RS-232 serial ports for PC programming and remote monitoring.

RS-485 MODBUS serial port.

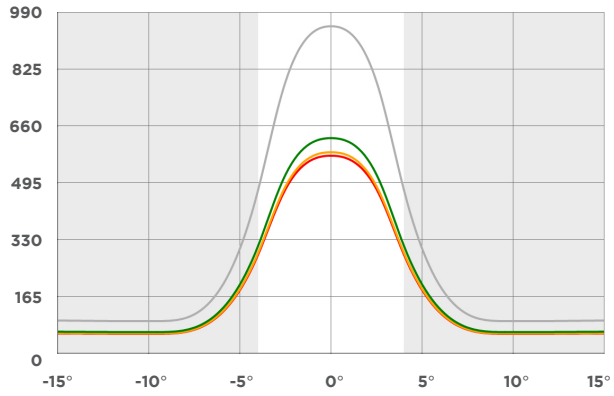
Glass-fibre reinforced polyamide PA66-GF30 version (IR programmer included and Bluetooth as an option).
Other specifications available under request.

MBL150-SYNC (GPS synchronization).

Peak intensities (Cd)

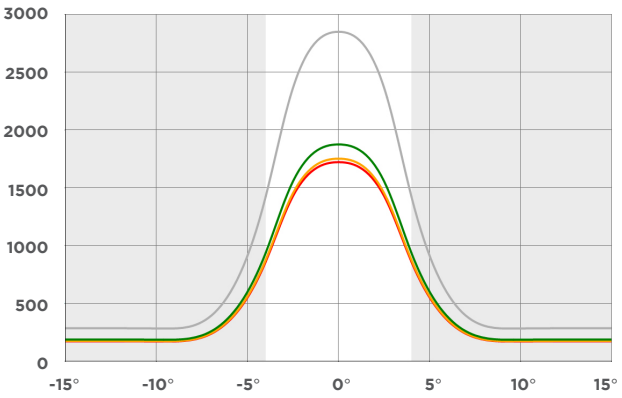
DIVERGENCE 8º | 1 LEVEL

950 Cd
625 Cd
584 Cd
574 Cd



DIVERGENCE 8º | 3 LEVELS

2850 Cd
1875 Cd
1752 Cd
1722 Cd



Specifications subject to change without previous notice.

MSM
Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com

LED MARINE LANTERNS

MBL160

3 - 12 NM

PC | BT | IR | GPS | UHF | GSM | SAT | AIS

OPTIONAL

MBL160

Excellent optical efficiency

The MBL160 is a LED marine flashing lantern of short and medium range, with a great optical efficiency and low consumption, fitted with LED diodes of high intensity, reaching a maximum range of 12 nautical miles.

Low consumption

Ideal for on- and off-shore solar beaconing applications requiring a low consumption, such as channels, harbour entrances, jetties, piers, buoys, structures, fish farms, etc.

Long service life

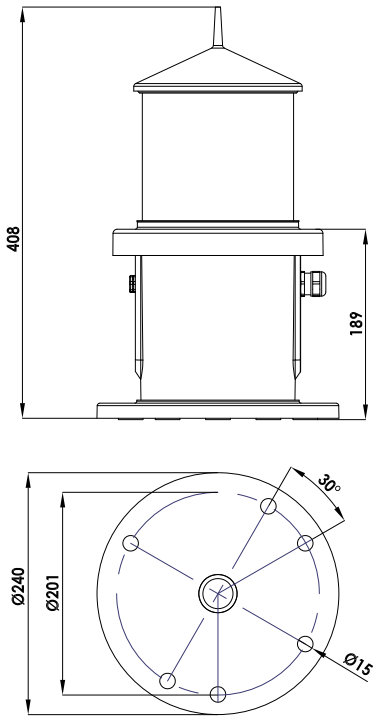
Its luminous source consists of an innovating lens system especially designed to take the maximum profit of LED diodes. Manufactured with high-quality and resistant materials, the MBL160 provides a long service life under harsh marine conditions.

Designed according to IALA Recommendations.

FEATURES

- *High-efficiency luminous system. Up to 12 nm (T=0.74), 16 nm (T=0.85).*
- *360° horizontal output.*
- *Average operation lifetime over 10 years.*
- *Internal photocell adjustable in lux.*
- *IP 68 watertightness degree (immersion resistant).*
- *Linear adjustment of luminous intensity.*
- *Double RS-232 serial port for setting adjustments by PC and remote monitoring system.*
- *Programming, configuration and operating status via PC, Bluetooth or IR programmer as an option.*
- *Ready to integrate remote monitoring via GSM, UHF, satellite or AIS AtoN, synchronization module via GPS.*
- *Short-circuit, reverse-polarity and transient over-voltage protections.*
- *PATENTED OPTICAL SYSTEM.*

MBL160



Technical Features

Light source:	3 to 12 nos. ultra-bright LED diodes, with high-precision acrylic lens, distributed in up to four levels.
Luminous range:	Up to 12 nm (T=0.74) 16 nm (T=0.85).
Vertical divergence:	From 5º to 12º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 9 to 36 V.
Lantern consumption:	From 6 to 24 W.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Glass-fibre reinforced polyamide PA66-GF30.
Lens cover:	Methacrylate, UV stabilised.
Watertightness degree:	IP 68.
Programming:	PC, Bluetooth, or IR programmer as an option.

Options

Removable bird deterrent as an option.

PC programming kit.

RS-485 MODBUS serial port.

Marine aluminium base.

Other specifications available under request.

Other divergences on request.

MBL160-HD (up to 12º divergence).

MBL160-SYNC (GPS synchronisation).

MBL160-TG (GSM remote monitoring).

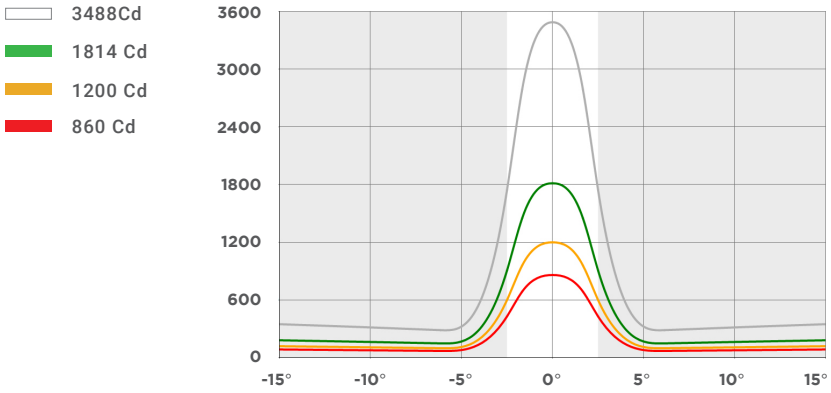
MBL160-TR (Radio remote monitoring).

MBL160-TS (Satellite remote monitoring).

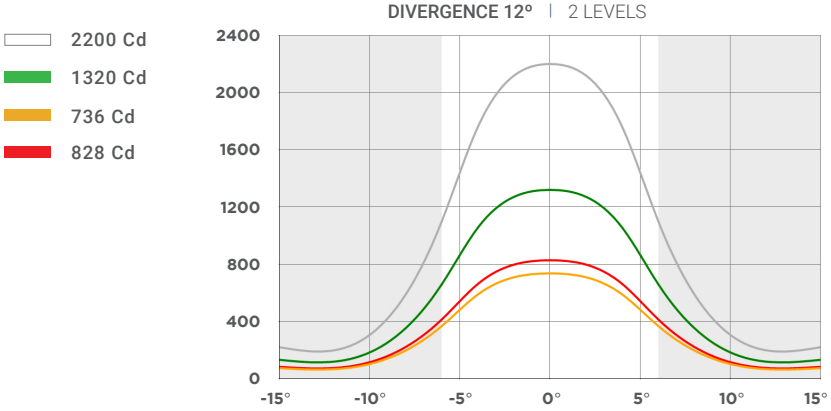
MBL160-AIS (AIS AtoN).

Peak intensities (Cd)

DIVERGENCE 5º | 4 LEVELS



DIVERGENCE 12º | 2 LEVELS



Specifications subject to change without previous notice.

MSM

Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com

LED MARINE LANTERNS

MBL170

5 - 12 NM

PC | BT | GPS | UHF | GSM | SAT | AIS

OPTIONAL

MBL170

Excellent optical efficiency

The MBL170 is a LED marine flashing lantern of short and medium range, with a great optical efficiency and low consumption, fitted with LED diodes of high intensity, reaching a maximum range of 12 nautical miles.

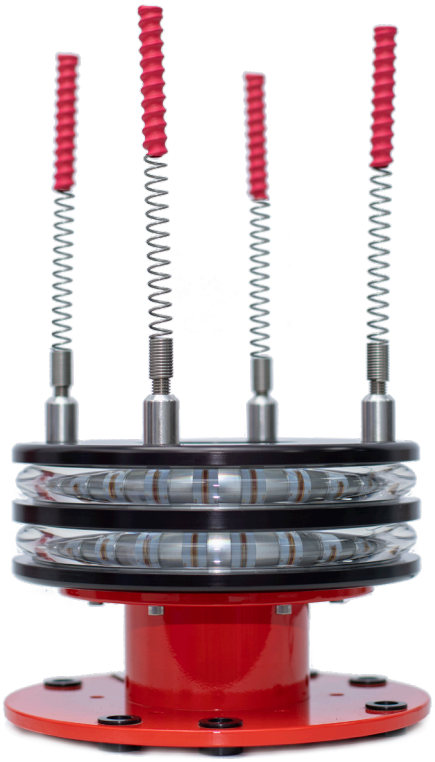
Low consumption

Ideal for on- and off-shore solar beaconing applications requiring a low consumption, such as channels, harbour entrances, jetties, piers, buoys, structures, fish farms, etc.

Long service life

Its luminous source consists of an innovating lens system especially designed to take the maximum profit of LED diodes. Manufactured with high-quality and resistant materials, the MBL170 provides a long service life under harsh marine conditions.

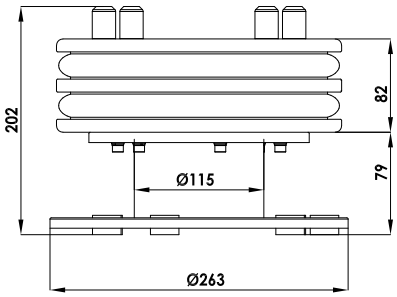
Designed according to IALA Recommendations.

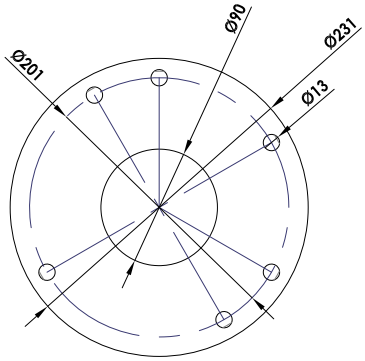


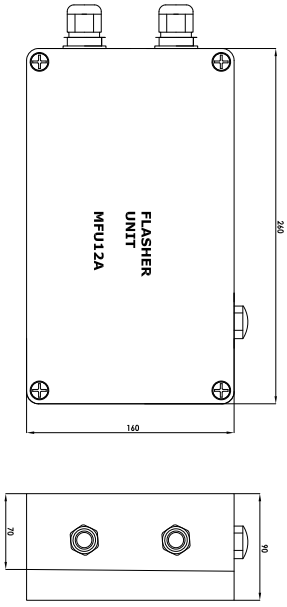
FEATURES

- *High-efficiency luminous system. Up to 12 nm (T=0.74), 15 nm (T=0.85).*
- *Vertical divergence 8° (50% I_0).*
- *360° horizontal output.*
- *Average operation lifetime over 10 years.*
- *Internal photocell adjustable in lux.*
- *IP 67 watertightness degree (immersion resistant).*
- *Linear adjustment of luminous intensity.*
- *Programming, configuration and operating status via PC or Bluetooth.*
- *Short-circuit, reverse-polarity and transient over-voltage protections.*
- *Independent tiers configuration.*
- *PATENTED OPTICAL SYSTEM.*

MBL170







External control unit

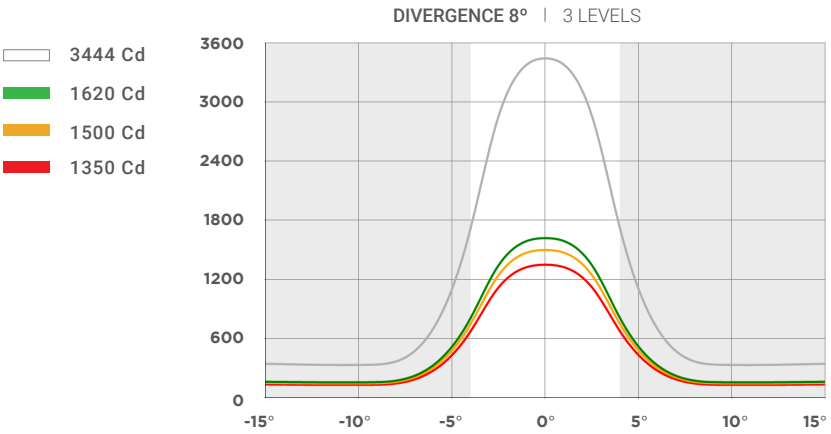
Technical Features

Light source:	24 to 72 nos. ultra-bright LED diodes, with high-precision acrylic lens, distributed in up to three levels.
Luminous range:	Up to 12 nm (T=0.74) 15 nm (T=0.85).
Vertical divergence:	Up to to 8º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 9 to 36 V.
Lantern consumption:	20 W per level.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Marine grade aluminium.
Lens cover:	Acrylic, UV stabilised.
Watertightness degree:	IP 67.
Programming:	PC or Bluetooth.

Options

PC programming kit.
RS-485 MODBUS serial port.
Other specifications available under request.
MBL170-SYNC (GPS synchronisation).
MBL170-TG (GSM remote monitoring).
MBL170-TR (Radio remote monitoring).
MBL170-TS (Satellite remote monitoring).
MBL170-AIS (AIS AtoN).

Peak intensities (Cd)



Specifications subject to change without previous notice.

Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com

LED MARINE LANTERNS

MBL400C

11 - 17 NM

PC | BT | IR | GPS | UHF | GSM | SAT | AIS

OPTIONAL

MBL400C

Excellent optical efficiency

The MBL400C is a medium-range LED flashing lantern, with a great optical efficiency, providing light beams with high accuracy. Its luminous source consists of high-intensity LED diodes, obtaining a maximum range of 17 nautical miles.

Minimal maintenance

Intended to be placed in on-shore aids-to-navigation locations, such as poles and towers, requiring a minimal maintenance, as well as hard-to-reach sites or under extreme environmental conditions.

High-accuracy lens

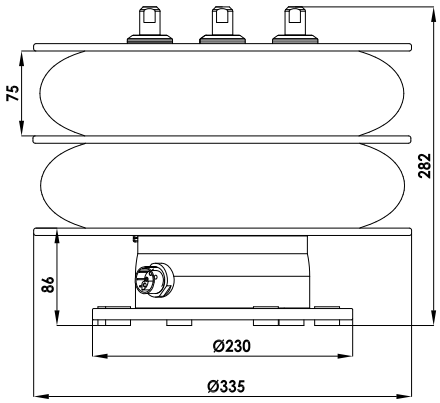
Equipped with a high precision lens made of UV resistant acrylic and protected by an impact resistant tempered glass lens cover. Manufactured with high-quality and resistant materials, the MBL400C provides a long service life under harsh marine conditions.

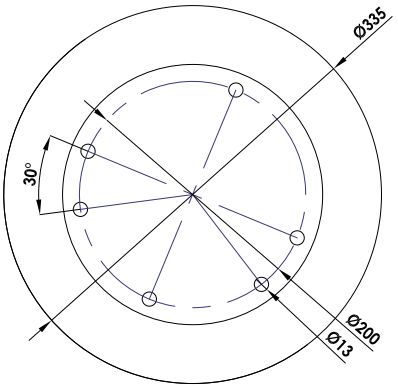
Designed according to IALA Recommendations.

FEATURES

- *State-of-the-art LED technology.*
- *High-efficiency luminous system.*
  Up to 17 nm (T=0.74), 26 nm (T=0.85).
- *Vertical divergence 2° (50% I_0).*
- *Circular acrylic lens UV stabilized.*
- *Average operation lifetime over 15 years.*
- *Photocell adjustable in lux.*
- *IP 67 watertightness degree (immersion resistant).*
- *Linear adjustment of luminous intensity.*
- *Double RS-232 serial port for setting adjustments by PC and remote monitoring system.*
- *Programming, configuration and operating status via PC, IR programmer or Bluetooth.*
- *Short-circuit, reverse-polarity, over-temperature and transient over-voltage protections.*

MBL400C





Technical Features

Light source:	36 nos. ultra-bright LED diodes, distributed circularly (360º) in up to two levels.
Luminous range:	Up to 17 nm (T=0.74) 26 nm (T=0.85).
Vertical divergence:	Up to to 2º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 10 to 36 V.
Lantern consumption:	48 W per level.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Hard anodized aluminium.
Watertightness degree:	IP 67.
Programming:	PC, Bluetooth, or IR programmer.

Options

Removable AISI 316 stainless steel bird deterrent.

PC programming kit.

RS-485 MODBUS serial port.

Other specifications available under request.

MBL400C-SYNC (GPS synchronisation).

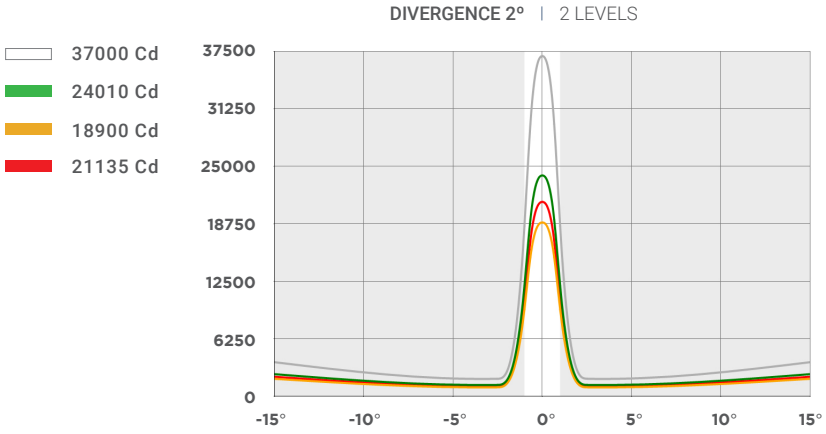
MBL400C-TG (GSM remote monitoring).

MBL400C-TR (Radio remote monitoring).

MBL400C-TS (Satellite remote monitoring).

MBL400C-AIS (AIS AtoN).

Peak intensities (Cd)



Specifications subject to change without previous notice.

MSM

Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com

LED MARINE LANTERNS

MBL400S

3 - 12 NM

PC | BT | IR | GPS | UHF | GSM | SAT | AIS

OPTIONAL

MBL400S

Excellent optical efficiency

The MBL400S is a medium-range LED sector flashing light, with a great optical efficiency, providing sectored light beams with an accuracy of up to 0.5º. Its luminous source consists of high-intensity LED diodes, obtaining a maximum range of 12 nautical miles.

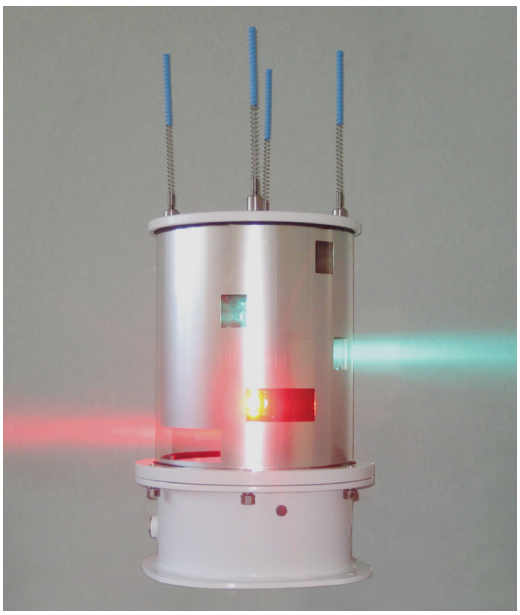
Minimal maintenance

Intended to be placed in on-shore aids-to-navigation locations, such as poles and towers, as well as hard-to-reach sites or under extreme environmental conditions.

Effective sectorisation

Its optical system utilises the point light source of the lens to make an effective sectorisation in each case. Every sector requires an individual light level, which enables practically any sector configuration.
Levels are superimposed and protected by a shock-resistant glass lens cover. Thus, each beacon is personalized as considering the required range, colours and angles of sector.

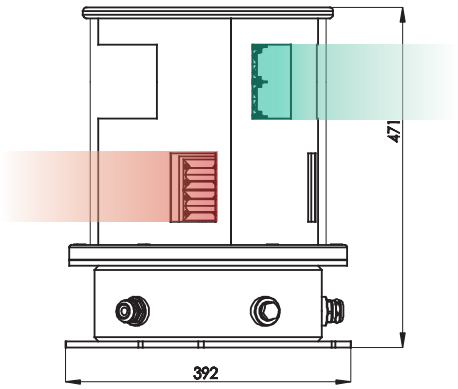
Designed according to IALA Recommendations.

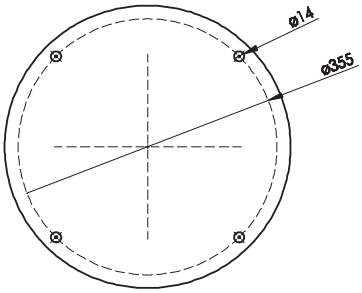


FEATURES

- *State-of-the-art LED technology.*
- *High-efficiency luminous system.*
  Up to 12 nm (T=0.74), 18 nm (T=0.85).
- *Vertical divergence 5° (50% I_0).*
- *Inner sectorised lampshade made from aluminium, laser machining.*
- *Field-diaphragm sectorisation, made to measure for each case.*
- *Average operation lifetime over 15 years.*
- *IP 67 watertightness degree (immersion resistant).*
- *Programming, configuration and operating status via PC, Bluetooth or IR programmer.*
- *Short-circuit, reverse-polarity and transient over-voltage protections.*
- *High shock resistance.*
- *Anti-humidity device to avoid condensation.*
- *PATENTED OPTICAL SYSTEM.*

MBL400S





Sectoral distribution example.

Technical Features

Light source:	Ultra-bright LED diodes, with high-precision acrylic lens.
Luminous range:	From 2 to 12 nm (T=0.74) 18 nm (T=0.85).
Vertical divergence:	Up to to 5º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 9 to 36 V.
Lantern consumption:	From 6 to 70 W.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Marine grade aluminium with polyurethane finishing.
Lampshade:	Anodised aluminium.
Lens cover:	Tempered glass, UV stabilised.
Watertightness degree:	IP 67.
Programming:	PC, Bluetooth or IR programmer.

Options

PC programming kit.

RS-485 MODBUS serial port.

Other specifications available under request.

MBL400S-SYNC (GPS synchronisation).

MBL400S-TG (GSM remote monitoring).

MBL400S-TR (Radio remote monitoring).

MBL400S-TS (Satellite remote monitoring).

MBL400S-AIS (AIS AtoN).

Peak intensities (Cd)

Levels			
1	706 Cd	532 Cd	275 Cd
2	1412 Cd	1064 Cd	550 Cd
3	2118 Cd	1596 Cd	825 Cd
10	7060 Cd	5320 Cd	2750 Cd

A minimum intensity of 706 Cd per level (white) is obtained, the intensity of the beacon will depend on the configuration and amplitude of the sectors that are needed. Each case is individually studied, configured and optimized.

Specifications subject to change without previous notice.

Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com

LED MARINE LANTERNS

MBL500LD

13 - 20 NM

PC | IR | BT | GPS | UHF | GSM | SAT | AIS

OPTIONAL

MBL500LD

Excellent optical efficiency

The MBL500LD is a long-range marine flashing lantern, with a great optical efficiency and low consumption. Its luminous source consists of high-intensity LED diodes, obtaining a maximum range of 20 nautical miles.

Minimal maintenance

Intended to be placed in on-shore aids-to-navigation locations, requiring minimal maintenance.

High-accuracy lens

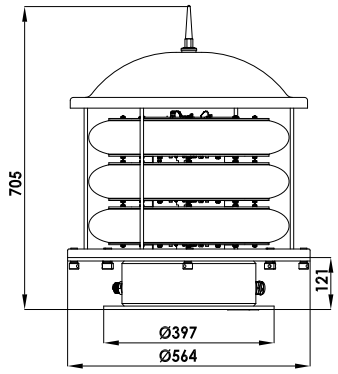
Equipped with a high precision lens made of UV resistant acrylic and protected by an impact resistant tempered glass lens cover. Manufactured with high-quality and resistant materials, the MBL500LD provides a long service life under harsh marine conditions.

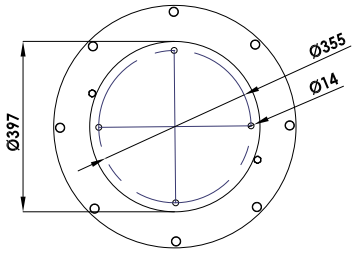
Designed according to IALA Recommendations.

FEATURES

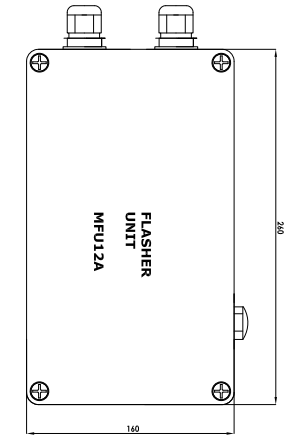
- *State-of-the-art LED technology.*
- *High-efficiency luminous system. Up to 20 nm (T=0.74), 31 nm (T=0.85).*
- *Vertical divergence 2° (50% I_0).*
- *Shock-resistant acrylic lens cover.*
- *Average operation lifetime over 15 years.*
- *Photocell adjustable in lux.*
- *IP 67 watertightness degree (immersion resistant).*
- *Linear adjustment of luminous intensity.*
- *Double RS-232 serial port for setting adjustments by PC and remote monitoring system.*
- *Programming, configuration and operating status via PC, IR programmer or Bluetooth.*
- *Short-circuit, reverse-polarity and transient over-voltage protections.*

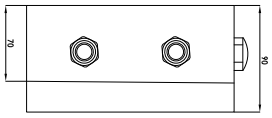
MBL500LD





MBL500LD - 3 levels





External control unit

Technical Features

Light source:	Ultra-bright LED diodes (2 or 3 levels).
Luminous range:	Up to 20 nm (T=0.74) 31 nm (T=0.85).
Vertical divergence:	Up to to 2º (50% I_o).
LED average life:	More than 100.000 hours.
Power supply:	From 20 to 36 V.
Lantern consumption:	150 W per level.
Flash rhythms:	256 (6 nos. user selectable).
Base:	Marine grade aluminium with polyurethane finishing.
Lens cover:	Acrylic, UV stabilised.
Watertightness degree:	IP 67.
Programming:	PC, Bluetooth or IR programmer.

Options

PC programming kit.

RS-485 MODBUS serial port.

Top flat cover as an option.

Other specifications available under request.

MBL500LD-SYNC (GPS synchronisation).

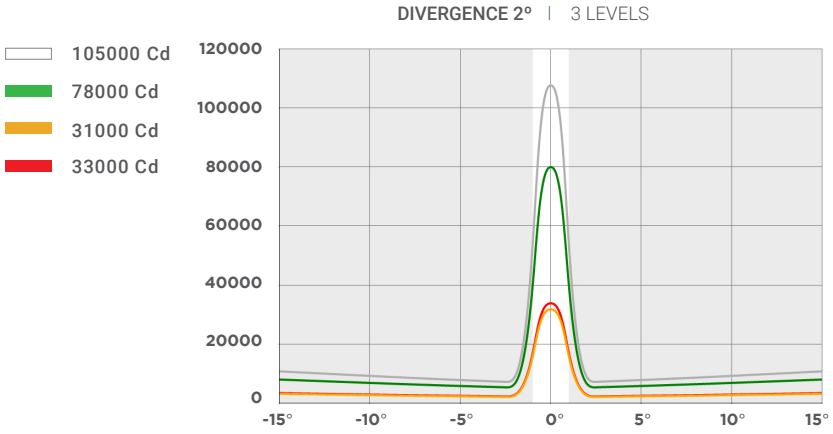
MBL500LD-TG (GSM remote monitoring).

MBL500LD-TR (Radio remote monitoring).

MBL500LD-TS (Satellite remote monitoring).

MBL500LD-AIS (AIS AtoN).

Peak intensities (Cd)



Specifications subject to change without previous notice.

Mediterráneo Señales Marítimas, S.L. / +34 96 276 10 22 / msm@mesemar.com / www.mesemar.com