The MCL 250-N is a compact LED lantern, with great optical efficiency and low consumption, fitted with 12 nos. LED diodes of high intensity arrayed in two levels: an amber one and a blue one. Especially designed to mark Wrecks and New Dangers, in accordance with the IALA Recommendation No. O-133 of December 2005.

This lantern reaches a nominal range of 5 nautical miles (6 nm in T=0.85), with the flash rhythm established by this Recommendation.

Its fixing is standard, which easily allows its installation on any aids-to-navigation buoy. Manufactured with high-quality and resistant materials, the MCL 250-N provides a long service life under harsh marine conditions.

Designed according to IALA Recommendations.

### Features:

- High-efficiency luminous system.
  - 5 nm (T=0.74), 6 nm (T=0.85).
- Vertical divergence of 12° (50%Io).
- 360° horizontal output.
- 4 nos. solar modules of 7.5W each, plus 1 no. solar module of 2.5W.
- Average operation lifetime over 10 years.
- IP 67 watertightness degree (immersion resistant).
- 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 as an option.
- Ready to integrate remote monitoring via GSM, VHF or satellite, synchronization via GPS or AIS AtoN module.
- Autonomy without solar charging up to 750 hours.
- Automatic energy management, according to latitude.
- PATENTED OPTICAL SYSTEM.
**Optical System**

**Light source:** 12 nos. ultra-bright LED diodes, with high-precision acrylic lens.

**Luminous range:** 5 nm (T=0.74) 6 nm (T=0.85).

**Colours available:** Amber and blue.

**Vertical divergence:** 12° (50% Io).

**LED average life:** More than 100,000 hours.

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**Electronic control**

**Flash rhythms:** 256 (6 nos. user selectable).

**Day/night threshold:** Adjustable in lux.

**Solar charge regulation function:** Regulation in 3 phases.

**Settings:** PC / IR programmer (optional Bluetooth).

**Energy management:** Dynamic, according to latitude.

**Light intensity reduction due to low battery:** Configurable by the user.

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**Solar modules and battery**

**Solar modules:** 4 nos. of 7.5W each.
1 no. of 2.5W.

**Battery:** 40 Ah, gelled, maintenance-free.

**Autonomy without solar charging:** Up to 750 hours.

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**Materials and environment**

**Base:** Reinforced polyamide and rotomoulded polyethylene.

**Lens cover:** Acrylic, UV stabilised.

**Vibration resistance:** MIL-STD-202G, Method 204D (5G).

**Shock resistance:** MIL-STD-202G, Method 213B.

**Watertightness degree:** IP 67.

**Fixings:** Internal of 4 bolts in a 200mm diameter /External of 4 bolts in a 465mm diameter.

**Humidity resistance:** 100%. Pressure-compensation valve to avoid condensation.

**Temperature range:** From -20° to 70°C.

**Inside hardware:** Stainless steel.

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**IALA RECOMMENDATION O-133**

Bu 1.0s + 0.5s + Y 1.0s + 0.5s = 3.0s.

<table>
<thead>
<tr>
<th>Colour</th>
<th>Effective intensity</th>
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<tbody>
<tr>
<td>Amber / Blue</td>
<td>75 Cd</td>
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</table>

**Other divergences available.**

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**Options**

- Infrared (IR) programmer.
- PC programming kit.
- Bluetooth programming.
- Fixing kit for 3 bolts in a 200mm diameter.
- Other specifications available under request.
- MCL 250-N-SYNC (GPS synchronization).
- MCL 250-N-TG (GSM remote monitoring).
- MCL 250-N-TR (Radio remote monitoring).
- MCL 250-N-TS (Satellite remote monitoring).
- MCL 250-N-AIS (AIS AtoN).