E8554

LED range light signal for leading lights, up to 24 M range

The E8554 is a robust high-performance, long life marine LED range lantern with several standard beam configuration alternatives available. The field proven E8554 design is foreseen with life cycle extension capability by replacing the LEDs after ten to twelve years for improved power efficiency. An E8554 Lantern supports fast PWM control necessary for generating navigational signals at reduced intensities, as well as for utilizing Fixed-and-Flashing (FFL) rhythmic characters or Slow Flash Front (SFF).

- Standard IALA colours Red, Green, White
- Factory-customized luminous intensity with peak value depending on selected colour and horizontal divergence
- Uniquely uniform beam width “flat top” horizontal profile, 3.5° to 30° FWHM
- Vertical divergence ≥ 3.8° (FWHM)
- Focal height 216 mm
- Internal redundant arrays and constant current electronics, dual power/signal receptacles as standard
- Stainless steel outer frame and pedestal, aluminium heat sink / back plate
- A 4x6 matrix of 24 lenses of machined optical grade UV-stable acrylic
- UV resistant, field-replaceable polycarbonate front cover
- Robust light unit for redundant AtoN systems without programmable parts inside
- Two built-in light sensors for redundant control systems
- Day and Night mode luminous intensities are currently configured by flasher by adjusting PWM duty cycle, hard-wired D/N intensities for external selection a future option
- Optionally available in “smart” version with externally integrated flasher and telematics controller
- Optionally available without the pedestal for building LED clusters for high-intensity leading lines
High power LEDs and custom optics
Flexible platform for several horizontal divergence alternatives.

Integrated light sensors
Redundant leading light systems may use either integrated or additional light sensors.

Field-replaceable protective screen
UV-stable polycarbonate front cover with integrated PUR seal is a commercially available spare part.

Vertical beam tilting arrangement
The light module can be tilted inside the protective frame within the limits of ±6°.

Pedestal
Combination of three and four Ø16 mm mounting holes on a 200 mm ring. Horizontal beam alignment within ±8° is possible by turning the light unit on the pedestal.

Bird Deterrents
Stainless steel as standard.

Sighting Scope mount
Mechanical interface for attaching an optional Sighting Scope.

Optional integrated flasher
Alternatives range from simple robust flashers to fully programmable Flashers with GPS synchronization and calendar based seasonal operation.

“Flat top” horizontal profile
Uniquely uniform nearly up to 50% FWHM
# Technical Specification E8554

## Optical performance

<table>
<thead>
<tr>
<th>Maximum fixed intensity – E8554 Parameter</th>
<th>3.8 deg</th>
<th>4.0 deg</th>
<th>7.6 deg</th>
<th>15 deg</th>
<th>21 deg</th>
<th>29 deg</th>
<th>3.8 deg</th>
<th>4.0 deg</th>
<th>7.8 deg</th>
<th>15 deg</th>
<th>22 deg</th>
<th>30 deg</th>
<th>3.8 deg</th>
<th>4.0 deg</th>
<th>7.9 deg</th>
<th>15 deg</th>
<th>22 deg</th>
<th>30 deg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hor. divergence FWHM (typ)</td>
<td></td>
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</tr>
<tr>
<td>Hor. divergence FWTM (typ)</td>
<td>6.0 deg</td>
<td>6.0 deg</td>
<td>9.5 deg</td>
<td>17 deg</td>
<td>24 deg</td>
<td>32 deg</td>
<td>6.0 deg</td>
<td>6.0 deg</td>
<td>10 deg</td>
<td>17 deg</td>
<td>25 deg</td>
<td>33 deg</td>
<td>6.0 deg</td>
<td>6.0 deg</td>
<td>10 deg</td>
<td>18 deg</td>
<td>25 deg</td>
<td>33 deg</td>
</tr>
<tr>
<td>Vert. divergence FWHM (typ)</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>3.8 deg</td>
<td>4.0 deg</td>
<td>4.0 deg</td>
<td>4.0 deg</td>
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<td>3.8 deg</td>
<td>3.9 deg</td>
<td>3.9 deg</td>
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<td>3.9 deg</td>
</tr>
<tr>
<td>Luminous intensity (typical)</td>
<td>320 kcd</td>
<td>180 kcd</td>
<td>90 kcd</td>
<td>90 kcd</td>
<td>42 kcd</td>
<td>60 kcd</td>
<td>386 kcd</td>
<td>255 kcd</td>
<td>126 kcd</td>
<td>126 kcd</td>
<td>60 kcd</td>
<td>79 kcd</td>
<td>660 kcd</td>
<td>440 kcd</td>
<td>220 kcd</td>
<td>220 kcd</td>
<td>95 kcd</td>
<td>110 kcd</td>
</tr>
<tr>
<td>Power consumption (typical)</td>
<td>47 W</td>
<td>32 W</td>
<td>32 W</td>
<td>64 W</td>
<td>44 W</td>
<td>90 W</td>
<td>63 W</td>
<td>63 W</td>
<td>63 W</td>
<td>124 W</td>
<td>60 W</td>
<td>120 W</td>
<td>70 W</td>
<td>68 W</td>
<td>68 W</td>
<td>132 W</td>
<td>64 W</td>
<td>130 W</td>
</tr>
</tbody>
</table>

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Dual LED Range Lantern E8554

Smart LED Range Lantern E8554 with integrated flasher
Marine Lantern E8554

Main technical specification

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
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</thead>
<tbody>
<tr>
<td>Power supply voltage</td>
<td>12 VDC (9 ... 27 or 36 V)</td>
</tr>
<tr>
<td>Power consumption in flash</td>
<td>Up to 132 W depending on configuration</td>
</tr>
<tr>
<td>Light source</td>
<td>High Power Light Emitting Diodes (LED)</td>
</tr>
<tr>
<td>Vertical divergence</td>
<td>≥ 3.8° (FWHM)</td>
</tr>
<tr>
<td>Lens material</td>
<td>UV stabilized Acrylic</td>
</tr>
<tr>
<td>Operating environment</td>
<td>-40 °C to +55 °C</td>
</tr>
<tr>
<td>Degree of ingress protection</td>
<td>IP 67</td>
</tr>
<tr>
<td>Weight</td>
<td>12.2 kg (13 kg with integrated Flasher)</td>
</tr>
<tr>
<td>Overall height (excl. bird deterrents)</td>
<td>382 mm</td>
</tr>
<tr>
<td>Installation</td>
<td>3 x Ø16, 4 x Ø16, on 200 mm circle</td>
</tr>
</tbody>
</table>

Order Overview E8554

Option matrix

- Range lantern with white signal: E8554.W.N.X
- Range lantern with green signal: E8554.G.N.X
- Range lantern with red signal: E8554.R.N.X
- Range lantern with blue signal: E8554.B.N.X
- Range lantern with yellow signal: E8554.Y.N.X

Marking N specifies the horizontal divergence of the light signal: E8554.C.N.X

Marking D indicates a dual configuration of the Lantern: E8554.C.N.D

Marking F indicates an integrated flasher, identifying the type (F2=E867X): E8554.C.N.F2

Marking G indicates a flasher with GPS synchronization (G=E867X.G): E8554.C.N.X.G1

Marking T indicates an integrated telematics module (TeFiCon™-Flasher): E8554.C.N.T3

Accessories

- Transparent UV-stable polycarbonate front cover: EKJ 80-T
- Bird deterrent rod set (incl. screws): 8264.050
- Cable Connector, 90 deg, female 6 + PE-position: C016 30F006 100 10
- Sighting scope set (with carrying case): 8553.Q00
- Programmable Flasher, integrated: E8672
- Programmable Flasher with GPS, integrated: E8672.G

Product codes

Product ordering code consists of symbols describing the light signal colour, horizontal divergence, external wiring of the internal redundant LED arrays (dual as standard, single when supplied with integrated flasher or on special order).

Product code example: E8554.G.20.F2.G1

- Green range light signal with ≥20° horizontal FWHM
- with integrated flasher E8672 and GPS capability