



## E8593

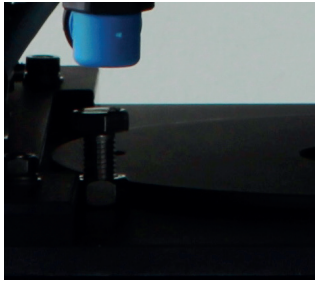
LED Projector sector light signal, up to 21 M / 4 M daytime range

The E8593 is a high-performance, power efficient medium intensity marine LED Projector sector lantern with beam configuration tailored to customer requirements at the factory. All E859X Lanterns feature factory configured Day and Night mode luminous intensity selectable by a single digital input, supporting 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). The field proven E8593 design can be offered with optional Opposite-Isophase sector signal control for producing rhythmic characters reducing the latency of spatial awareness update for the mariners: the white sector signal is active during the eclipse of coloured sectors and vice versa, resulting in immediate awareness about leaving the white sector without the usual delay caused by the common eclipse. A two-tiered design with two additional sectors providing alternating flashing on sector boundaries is available as E8595.

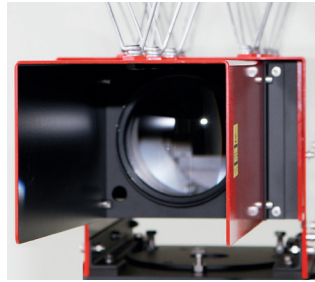
- **Power efficient Day/Night light signalling system for port entry lights or leading line systems replacement**
- **IALA colours Red, Green, White with application-specific luminous intensities nearly uniform up to 250 kcd**
- **Factory-customized sector configuration with precision of  $\leq 0.05^\circ$  (3')**
- **Sector width up to  $2.5^\circ$  with total subtense of approximately  $7.5^\circ$**



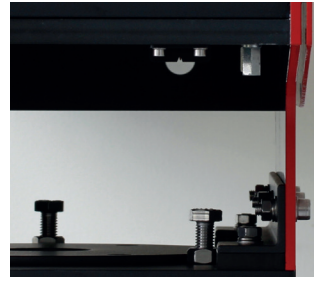
- **Vertical divergence either  $1.2^\circ$  or  $2.5^\circ$**
- **Boundary resolution typically better than 8'**
- **Robust light signal unit without programmable parts inside for supply either with ekta™ control and monitoring systems, or for integration with third party equipment**
- **Day and Night mode luminous intensities configured in hardware as required - down to 10% by current and further by implementing PWM**
- **Internal optical LED performance diagnostics with condition output**
- **Available with optional Opposite-Isophase sector signal control**
- **Optionally available in "smart" version with externally integrated**



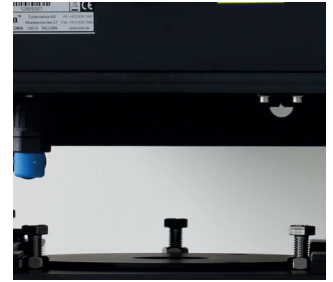
**Vertical beam tilting arrangement**  
The Lantern can be tilted within the limits of  $\pm 2^\circ$  by adjusting the three levelling bolts on the pedestal.



**Lens hood**  
Supplied detached to minimize the shipping volume.



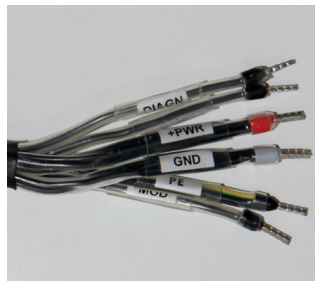
**Rifle sights**  
Mechanical parts fitted permanently to the right side of the bottom plate.



**Mounting arrangement**  
Three  $\text{Ø}16$  mm mounting holes on a 200 mm circle.



**Standard power/signal connector**  
Most ekta™ lights use similar 7-pole receptacle.



**Cable termination**  
The power/signal cable wires are crimped at the free flying end.

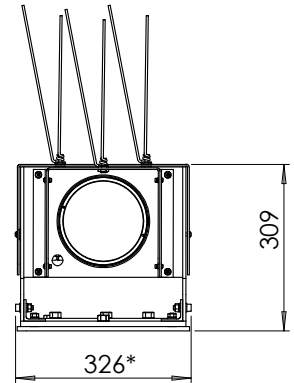
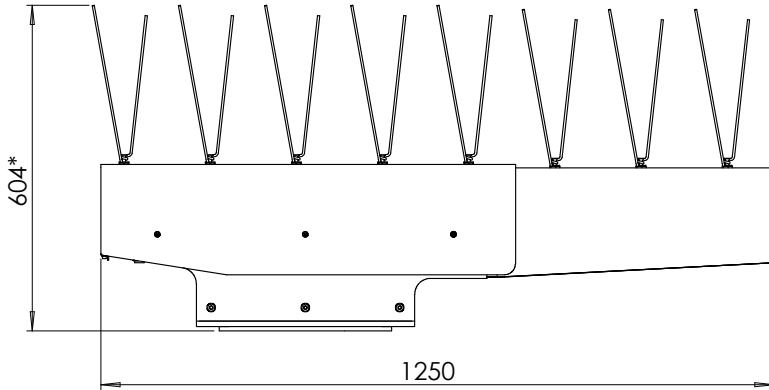


**Optional integrated flasher**  
Equipment from simple flashers to programmable TelFiCon™ - Flashers can be integrated on the back side.

**flasher and telematics controller with triaxial acceleration sensor integrated on the Lantern for Structural Health Monitoring of the AtoN mast**

- Easy to install – requires only simple procedures for aiming the composite beam vertically
- No maintenance needed where sprinkling of the lens by wave particles or dirt can be avoided

## Technical Specification E8593



### Optical performance

<b>Number of sectors</b>	3 (R, W, G)		
<b>Typical luminous intensity of the light signal per colour</b>	250,000 cd		
<b>Nominal range, Night / Day (T=0.74)</b>	up to 21 M / 4 M		
<b>Subtense angle per sector (total approximately 7.5°)</b>	≤ 1.2°	≤ 1.2°	≤ 2.5°
<b>Vertical divergence angle</b>	1.2°	2.5°	1.2°
<b>Power consumption in flash</b>	≤ 45 W	≤ 90 W	≤ 90 W
<b>Achievable boundary resolution</b>	~ 0.1° (6'... 9')		
<b>Beam direction adjustment in field conditions, Hor/Vert</b>	± 180° / ± 2°		

### Main technical specification

<b>Light source</b>	High Power Light Emitting Diode (LED) clusters
<b>Vertical divergence</b>	1.2° or 2.5° (FWHM)
<b>Lens material</b>	optical glass
<b>Enclosure material</b>	polycarbonate optical unit potted in resin on aluminium bottom plate, marine grade aluminium sides and protective cover, painted steel mounting plate
<b>Weight</b>	< 50 kg
<b>Operating environment</b>	-40 °C to +55 °C
<b>Power supply voltage</b>	12 VDC (10 ... 24 V)
<b>Power consumption in flash</b>	up to 90 W depending on configuration
<b>Degree of ingress protection</b>	IP 67
<b>Overall height (excl. bird deterrents)</b>	309 mm, width 326 mm, depth 1250 mm
<b>Focal plane height</b>	205 mm
<b>Installation</b>	3 x 14mm on 200 mm circle

## Order Overview E8593

### Option matrix

Sector lights for IALA Region A	E8593.RWG
Sector lights for IALA Region B	E8593.GWR

### Accessories

Bird deterrent rod set (incl. screws)	8264.050
Cable Connector, 90deg, female 6 + PE-position	C016 30F006 100 10
Programmable Flasher, integrated	E8672
Programmable Flasher with GPS, integrated	E8672.G
TelFiCon™-Flasher for complete AtoN telematics, integrated	E9272

### Product codes

Since this product is usually ordered in AtoN site specific configuration, simple ordering codes covering all possible alternatives are not available. When contacting the supplier for price quotations, please request a spreadsheet for filling in the known requirements for simplifying the process.

### Product code example: E8593.GWR.F2.G1

- Projector sector light for IALA Region B with integrated Flasher E8672 and GPS capability



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