

E8594

LED Projector sector light signal, up to 23 M / 5 M daytime range

The E8594 is a high-performance, power efficient high 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 E8594 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. Same two-tiered design with two additional sectors providing alternating flashing on sector boundaries is available as E8595.

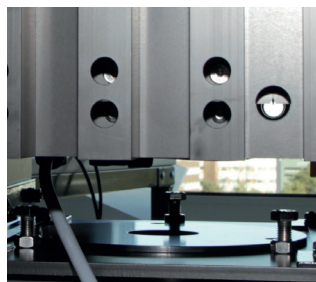
- **Power efficient Day/Night light signalling system for port entry lights or leading line systems replacement**
- **IALA colours Red, Green, White with application-specific luminous intensities up to 500 kcd**
- **Factory-customized sector configuration with precision of $\leq 0.05^\circ$ (3')**
- **Sector width up to 2.5° with total subtense of approximately 7.5°**



- **Vertical divergence 1.2°**
- **Boundary resolution typically better than 8'**
- **Robust light signal unit without programmable parts inside for supply either with ekta™ 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 flasher and telematics controller with triaxial acceleration sensor**



Two-tiered lens design
Powerful sector signals with alternating flashing sector configuration capability.



Significant sail surface
Installation quality and mast structure stability are of particular importance at high wind locations.



Abundant heat sinks
Efficient dissipation of heat ensures reliable long term operation.

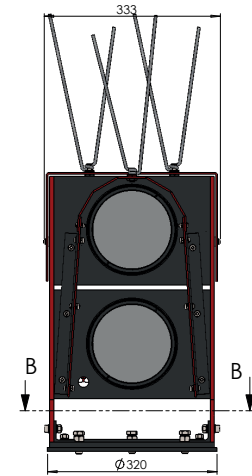
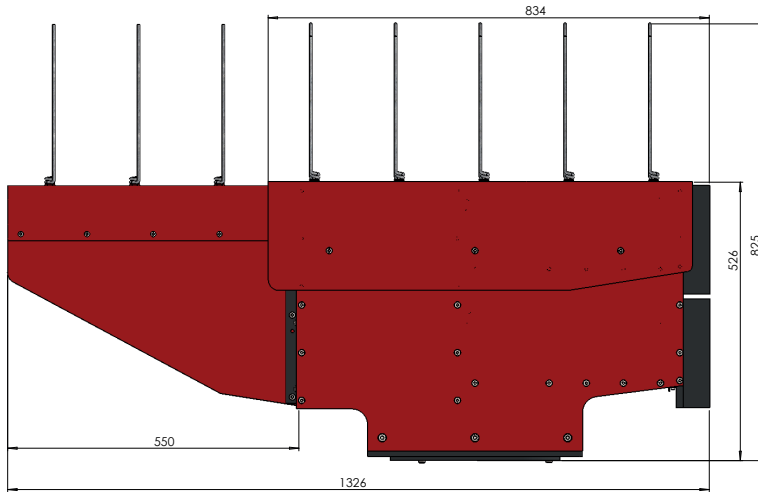


Rifle sights
Alignment is performed by looking through the aperture in the right side of the heat sink.

**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 lenses by wave particles or dirt can be avoided**

Technical Specification E8594



Optical performance

Number of sectors	3 (R, W, G)	
Typical luminous intensity of the light signal per colour	500 000 cd	
Nominal range Night (T=0.74, 0.2 μ lx) / Day (T=0.74, 1 mx)	up to 23 M / 5 M	
Subtense angle per sector (total approximately 7.5°)	$\leq 1.2^\circ$	$\leq 2.5^\circ$
Power consumption in flash	$\leq 90W$	$\leq 180W$
Vertical divergence (FWHM)	1.2°	
Achievable boundary resolution	~ 0.13° (8'... 9')	
Range of beam adjustment in field conditions, H / V	$\pm 180^\circ / \pm 2^\circ$	

Main technical specification

Light source	High Power Light Emitting Diode (LED) clusters
Vertical divergence	1.2° (FWHM)
Lens material	optical glass
Enclosure material	polycarbonate optical unit potted in resin on aluminium bottom plate, marine grade aluminium sides and protective cover, painted steel mounting plate
Weight	≤ 92 kg
Operating environment	-40 °C to +55 °C
Power supply voltage	12 VDC (10 ... 24 V)
Power consumption in flash	up to 180 W depending on configuration
Degree of ingress protection	IP 67
Overall height (excl. bird deterrents)	526 mm, width 333 mm, depth 1326 mm
Focal plane height	205 mm
Installation	3 x 14mm on 200 mm circle

Order Overview E8594

Option matrix

Sector lights for IALA Region A	E8594.RWG
Sector lights for IALA Region B	E8594.GWR
Sector lights with alternating flashing for IALA Region A	E8595.RWG
Sector lights with alternating flashing for IALA Region B	E8595.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: E8594.GWR.F2.G1

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