

Dual LED Range Lantern E8553

The Dual LED Range Lanterns E8553 are marine AtoN lights intended for forming leading lines (ranges) as redundant sources of a medium intensity light signal. Two fully independent arrays of high quality LEDs provide a narrow high intensity light beam of white, red or green light signal; several horizontal divergence angles of the light output are available. Luminous intensities achievable with red and green colour LEDs are still lower than in case of white LEDs (see table on page 2). SFF and/or FFL are supported (see SFFL Adapter E8656).

An E8553 consists of a light unit under a polycarbonate front screen, and of a protective frame of marine grade aluminium attached either to an adjustable pedestal for single unit applications, or to a fixed carrier frame in case of forming high-power modular range light clusters. The light unit houses two high power LED arrays with individual lenses that are mounted on a heat sink connected to marine grade aluminium back wall of the enclosure. Two independent switching power supply modules allow external control of the light signal by a low-level control signal applied to the modulation input. Front side of the light unit is formed by a field-replaceable transparent UV-stable polycarbonate cover, available from the manufacturer as a standard off-the-shelf spare part with integrated PUR seal.

Direction of the light beam in horizontal plane is adjustable by rotation of the protective frame with the light unit. Direction of the light beam in the vertical plane is adjustable by tilting of the light unit inside the protective frame. The back side of the light unit is furnished with a mount for an optical sighting scope for precise adjustment of the light beam direction.

Features

Luminous intensity (White)	$\geq 310 / 210 / 100 / 100 / 100 / 100 / 11$ kcd
Horizontal divergence FWHM	$3.5^\circ / 4^\circ / 7^\circ / 12^\circ / 15^\circ / 23^\circ / 56^\circ$
Vertical divergence FWHM	$\geq 3.4^\circ$ typical
Nominal range (T=0.74)	Up to 22 M
Power supply voltage	12 VDC or 24 VDC
Power consumption in flash	typical ≤ 34 W (max 95 W)
Estimated operational lifetime	> 50000 hours (L70)
Dimensions (W x H x D)	256 x 296 x 330 mm
Weight with pedestal	10.3 kg
Mounting hole pattern	4 x $\varnothing 14$, 167.5 mm square
Enclosure protection class	IP67
Operating environment	-40°C to $+55^\circ\text{C}$
Front cover material	UV-stable polycarbonate
Lens material	Optical grade UV-stable acrylic
Body material	Marine grade aluminium, anodized, powder coated



Please contact ekta@ekta.ee for more detailed information; product versions with other luminous intensity or horizontal divergence specifications may be available.

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E8553 Parameter	Unit	White							Red				Green			
		3.5	3.7	6.6	11.5	13.5	21.0	56.0	3.4	6.2	13.5	21.0	3.4	6.0	13.5	20.0
Hor. divergence FWHM, min	deg	3.5	3.7	6.6	11.5	13.5	21.0	56.0	3.4	6.2	13.5	21.0	3.4	6.0	13.5	20.0
Horizontal divergence FWHM, typ	deg	3.8	4.0	6.9	12.0	15.0	24.0	60.0	3.9	6.7	14.5	23.0	3.9	6.5	14.5	22.0
Horizontal divergence FWTM, min	deg	5.6	5.6	8.5	14.5				6.0	8.5			5.5	8.0		
Horizontal divergence FWTM, typ	deg	6.2	6.5	9.5	16.5				7.0	9.5			6.0	9.0		
Vertical divergence FWHM, min	deg	3.4	3.4	3.4	3.5	3.5	3.5	3.5	3.4	3.4	3.6	3.6	3.5	3.4	3.5	3.5
Vertical divergence FWHM, typical	deg	3.9	3.9	3.9	4.0	4.0	4.0	4.0	3.9	3.9	4.0	4.0	3.9	3.9	4.0	4.0
Vertical divergence FWTM, min	deg	5.4	5.5	5.5	8.0	5.5	5.5	8.0	5.5	5.5	5.5	5.5	5.0	5.0	5.0	5.0
Vertical divergence FWTM, typical	deg	5.9	6.0	6.0	9.0	6.0	6.0	9.0	6.2	6.2	6.2	6.2	5.5	5.5	5.5	5.5
Luminous intensity, min	kcd	310	210	98	98	98	96	12	66	36	36	35	115	56	56	55.0
Peak luminous intensity, typical	kcd	340	220	110	110	110	106	13	76	42	42	40	129	63	63	62.0
Power consumption, typical	W	32	32	32	46	63	95	46	16	16	32	47	32	32	65	98.0

Note: when higher luminous intensities are required, consider using a higher intensity model E8554, or combine several E8553 units in a cluster. E8553 modules with external single cable connection are available.

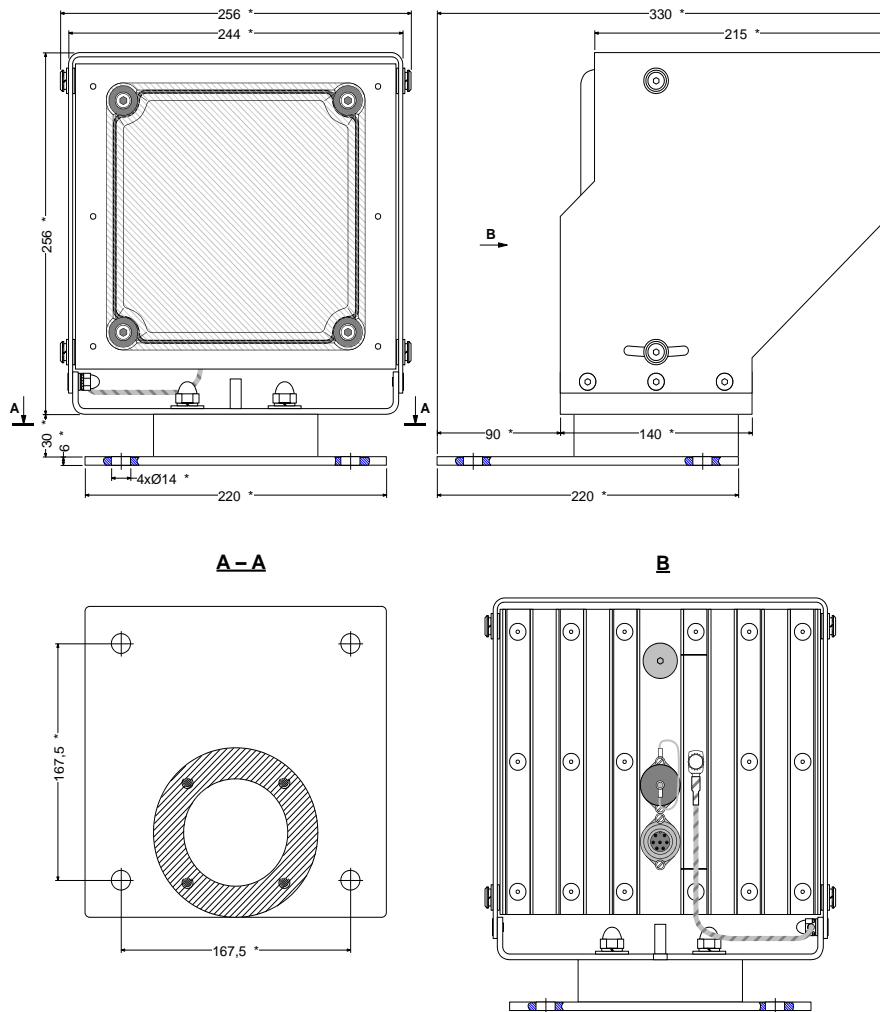


Figure 1. Dual LED Range Lantern E8553 dimensions

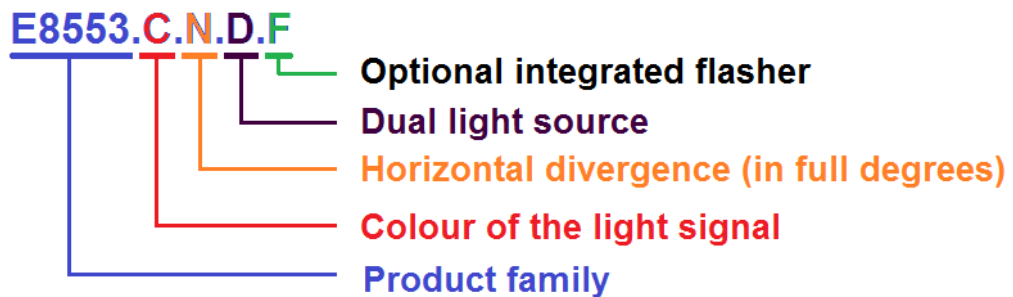


Figure 2. LED Range Lantern E8553 model numbering legend