

## Buoy lantern E807

The buoy lantern E807 is a LED-based signal lantern with built in flasher for application in sea buoys, as well in moorings and other fixed lights. The visibility range of a lantern consisting of one LED-disc light source is 3 NM, however, it can be enhanced adding one or several LED-discs into the lantern.

### General benefits of using LED-lanterns

Long lifetime (up to ten years). This makes the maintenance costs of LED-lanterns, in comparison with traditional light bulbs, much lower because there will be no need in frequent and expensive trips to lights only for the purpose of changing of broken bulbs.

Essentially less power consumption (up to 1.5 times) because of higher efficiency of LEDs. This is very useful when using them in primary battery powered sea buoys and, also in case of lighthouses and beacons powered by solar or wind energy.

No need in colour filters and additional optics. The color of the light of LEDs is determined by the physical properties of light-emitting semiconductor crystals used in them, i.e. by the type of LEDs. Therefore, no additional colour filter is needed which could cause some loss of luminosity.

### Features

- programmable automatic control of flashing
- daylight switching ON and OFF of flashing by the external photosensor
- synchronization of flashing with other lights
- relatively intensity of the radiated light - from 10 to 30cd per disc
- wide range of power supply voltage - from 6V to 20V
- optional enlarging of power by an external resistor
- optional choice of vertical divergence



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# Specification

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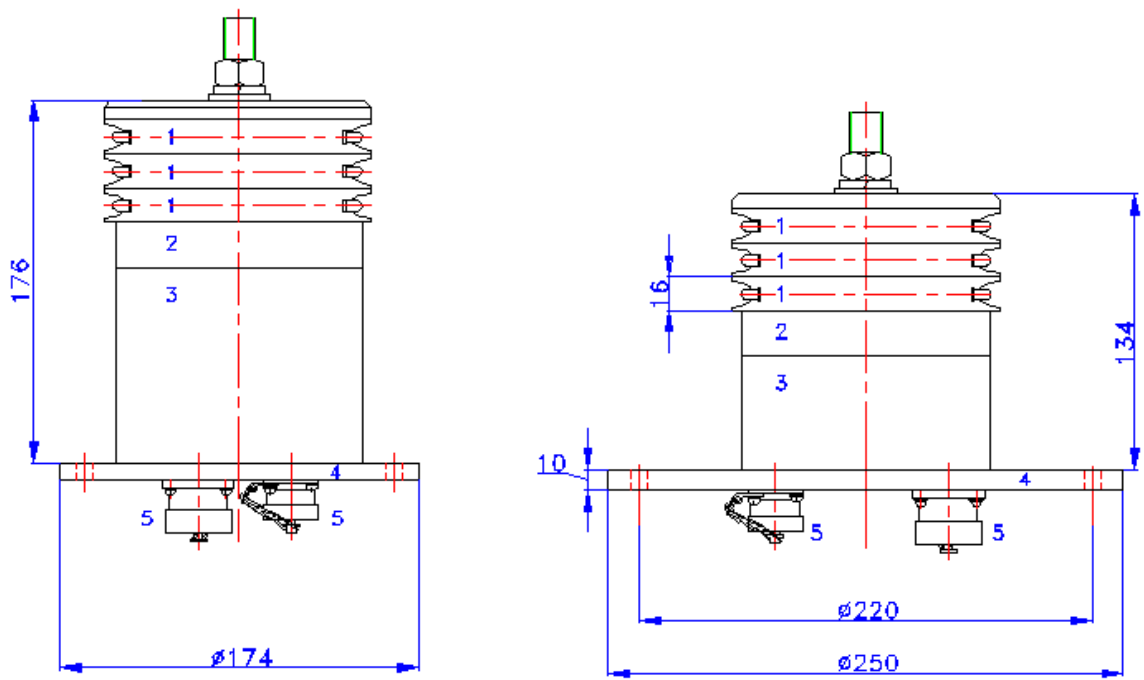
<b>Main components</b>	1...5 LED-disc light sources, flasher E864, hermetic enclosure, lantern cover*)
<b>Input voltages</b>	10V ...20V DC
<b>Power consumption of 1 disc</b>	2...3.3W
<b>Flash length (programmable)</b>	any multiples of 10ms up to 60.01s
<b>Period time (programmable)</b>	any multiples of 20ms up to 655.5s
<b>Light sources</b>	150mm LED-discs E801...E804
<b>Vertical divergence</b>	$2\theta_{1/2} > 25^\circ$
<b>Ambient temperature</b>	-30°C to +55°C**
<b>Relative humidity</b>	max 98% at +35°C
<b>Dimensions</b>	Ø248mm, height 270mm
<b>Weight (average)</b>	5.8kg

\*) customer specified \*\* the temperature range can be optionally extended

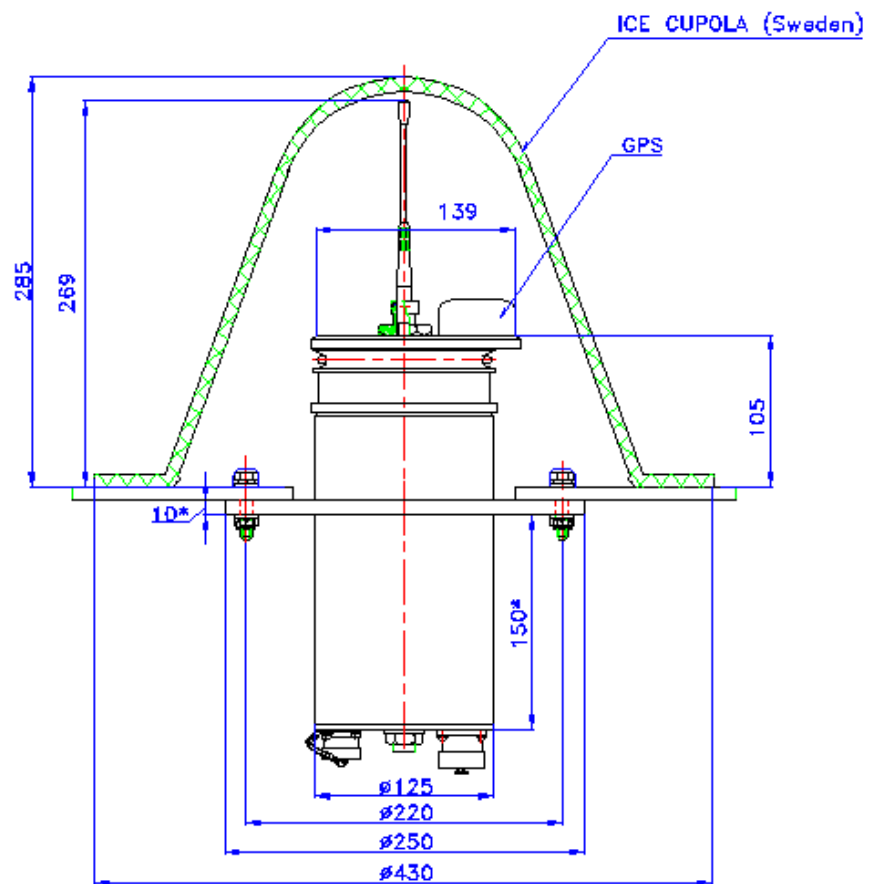
**Range Table\*\*\***

Number of LED-discs	Red E801		Yellow E802		Green E803		White E804	
	Light intensity,cd	Range, NM	Light intensity,cd	Range, NM	Light intensity,cd	Range, NM	Light intensity,cd	Range, NM
1	10(15)	2.6 (3.0)	10(15)	2.6 (3.0)	15(20)	3.0 (3.3)	10(15)	2.6 (3.0)
2	20(30)	3.3 (3.8)	20(30)	3.3 (3.8)	30(40)	3.8 (4.1)	20(30)	3.3 (3.8)
3	30(45)	3.8 (4.2)	30(45)	3.8 (4.2)	45(60)	4.3 (4.6)	30(45)	3.8 (4.2)
4	40(60)	4.1 (4.6)	40(60)	4.1 (4.6)	60(80)	4.6 (4.7)	40(60)	4.1 (4.6)
5	50(75)	4.4 (4.7)	50(75)	4.4 (4.7)	75(100)	4.7 (4.9)	50(75)	4.4 (4.7)
<b>Vert. div.</b>	$2\theta_{1/2} > 25^\circ$ (typ)		$2\theta_{1/2} > 25^\circ$ (typ)		$2\theta_{1/2} > 25^\circ$ (typ)		$2\theta_{1/2} > 15^\circ$ (typ)	
<b>Intensities and visibility ranges of LED disc versions with a lens (E80x.1)</b>								
	Red E801.1		Yellow E802.1		Green E803		White E804.1	
1	20 (30)	3.3(3.8)	20 (30)	3.3(3.8)	25 (35)	3.6(4.0)	20 (30)	3.3(3.8)
2	40(60)	4.1(4.6)	40(60)	4.1(4.6)	50(70)	4.4(4.9)	40(60)	4.1(4.6)
3	60(90)	4.7(5.3)	60(90)	4.7(5.3)	75(105)	5.0(5.4)	60(90)	4.7(5.3)
4	80(120)	5,1(5.6)	40(120)	5,1(5.6)	100(140)	5.4(5.9)	80(120)	5,1(5.6)
5	100(150)	5,4(6,0)	100(150)	5,4(6,0)	125(175)	5.6(6.2)	100(150)	5,4(6,0)
<b>Vert. div.</b>	$2\theta_{1/2} > 8^\circ$ (typ)		$2\theta_{1/2} > 8^\circ$ (typ)		$2\theta_{1/2} > 8^\circ$ (typ)		$2\theta_{1/2} > 8^\circ$ (typ)	

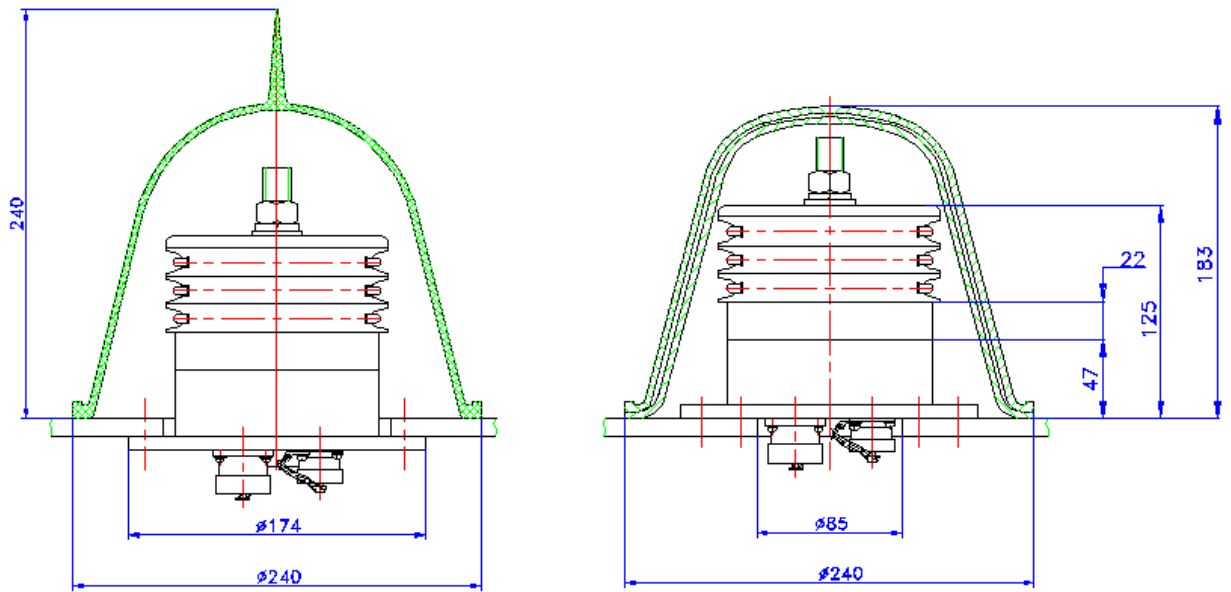
\*\*\*) at the atmospheric transparency 0.74; (x) - optionally enlarged power



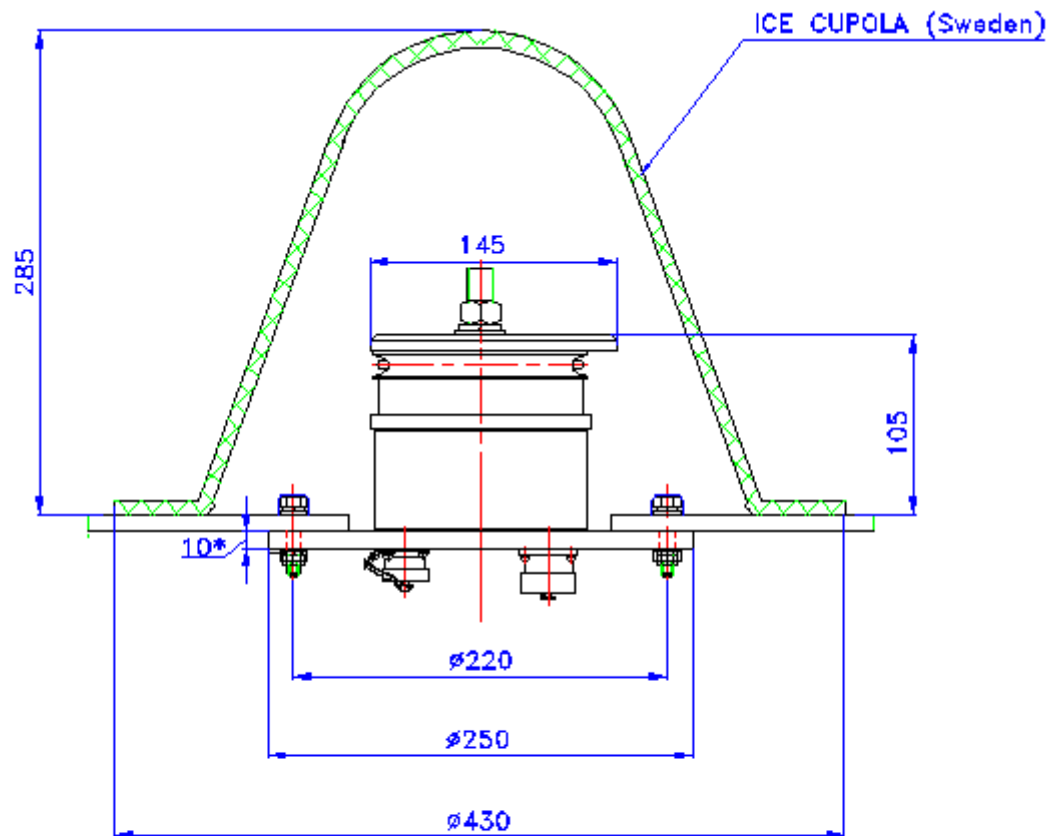
BASIC BUOY LANTERN E807 WITHOUT CUPOLA



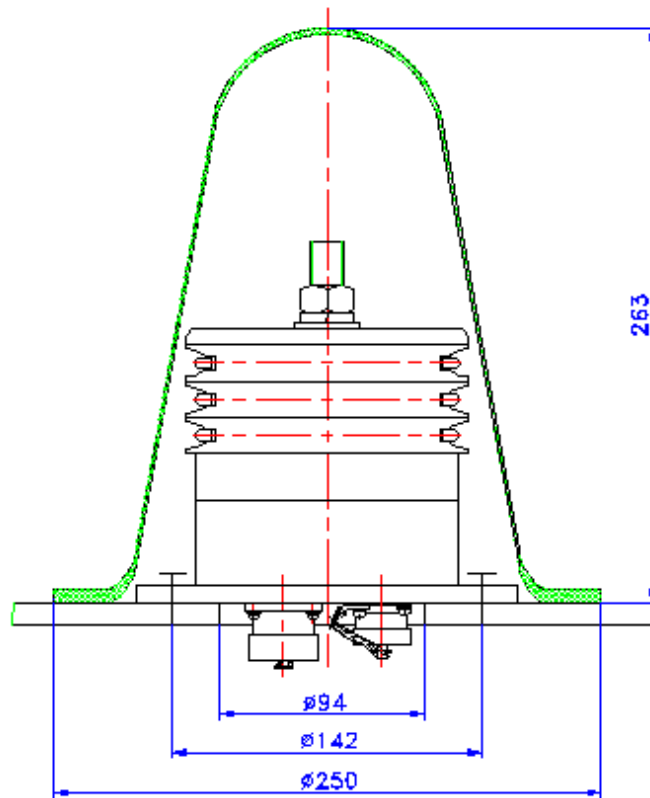
BUOY LANTERN E807 WITH GPS and COMMUNICATION (WITH ICE CUPOLA Sweden)



BUOY LANTERN E807 WITH SABIK(FI) ICE CUPOLAS



BUOY LANTERN E807 (WITH ICE CUPOLA Sweden)



BUOY LANTERN E807 WITH NO ICE CUPOLA (Sweden)