### Marine Lanterns

### LED 160

# Full range lantern for fixed and floating installations

This all-round LED 160 lantern has world-class optical performance with options for buoys and fixed installations. Three different lantern options available covering a range from 3 NM up to 12NM (Tc = 0,74)

- Standard IALA colours Red, Green, White, Yellow and Blue
- Best in class optical performance
- New designed rugged injection
  moulded aluminium housing
- Field installation easy thanks to the integrated junction box with 3 cable entries
- Extremely low power consumption, suitable for solar and battery operation
- Integrated 16A solar panel charger
- Adjustable intensity and range
- The lantern is available in two different versions. LED 160 with Narrow 5° and with Wide 10° vertical divergence, and the LED 160H with a 2,5° vertical divergence.
- Programming with all Sabik
  wireless programmers
- Optionally integrated GPS synchronization
- Optionally integrated GSM/GPS remote monitoring
- New: programmable up to 50 meters distance using Bluetooth technology









Optics Optics designed for high power LEDs.



Supply cable Integrated junction box with up to 3 cable entries.



Cable connection Connection to spring type terminal block.



Grounding plug The base plate has a grounding plug to enable good protection against electromagnetic interference.



Programming Combined IR programming and photocell window in lantern base.



PTFE breathing Vent for pressure release for both junction box and lantern housing.



GSM/GPS monitoring Special designed lantern top for GSM and GPS antennas.



Bird spike Bird spike with thread to be installed in the center of the lantern top.



Lantern colour Lantern colour is clearly indicated by the colour plate.



Installation The bottom plate supports installation on structure with 3x M12 or 4xM12 bolts on a 200 mm diameter.



Innovative Bluetooth app Lantern can be programmed and battery status checked up to 50 meters distance with standard android and IOS mobile phones.



PDA Programmer Wireless two-way infra red communication with Sabik PDA programmer.

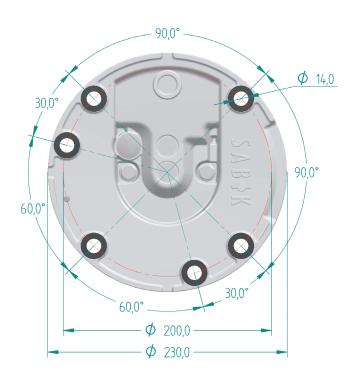


Sabik Easy Programmer User friendly and compact wireless two-way programmer.

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### Technical Specification LED 160





#### Optical performance

Maximum fixed intensit	y LED 160H (2,5° @	50% of top intensi	ty)	
Max power 48 W		4300 cc		
Maximum fixed intensit	y LED 160N (5° @	50% of top intensity	)	
	1150 cd	1200 cd	1000 cd	1850 cd
Power consumption	13 W	16 W	16 W	16 W
Maximum fixed intensit	y LED 160W (10° @	50% of top intensi	ty)	
	620 cd	720 cd	620 cd	1100 cd
Power consumption	13 W	16 W	16 W	16 W

#### Main Technical Specification

Lens visual/Mechanical diameter	160 mm
Lens material	UV stabilized Acrylic
Light source	High Power Light Emitting Diodes
Vertical divergence	2,5°@50% of peak intensity (FWHM) 5°@50% of peak intensity (FWHM) 10°@50% of peak intensity (FWHM)
Weight	3,3 kg
Temperature range	-40° – +60°C
Supply Voltage	10 – 32 VDC
Solar Panel Charger	16 ampere PWM charger
Power consumption	12 W – 17 W
Power consumption LED 160H	48 W
Degree of protection	IP 67

### Order Overview LED 160

#### Option matrix

Optical feedback OPT 1L	Integrated LED performance measurement	
GPS sync OPT 4L	Integrated GPS sync including GPS antenna	
LightGuard GSM + GPS OPT 9L	Integrated GSM/GPS based monitoring including GSM/GPS antennas	
Battery control card OPT 11L	Control card for secondary (emergency) battery	

#### Product codes

LED 160H High intensity lantern	LED 160N Lantern with narrow lens designed for fixed structures	LED 160W Lantern with wide lens designed for buoys	Colour
LED 160HW	LED 160NW	LED 160WW	white
	LED 160NR	LED 160WR	red
	LED 160NG	LED 160WG	green
	LED 160NY	LED 160WY	yellow
	LED 160NB	LED 160WB	blue

#### Product code example: LED 160NGOPT9L

- LED 160NG is Sabik code for LED 160 with narrow lens in green
- with a selection of option 9 integrated GSM/GPS monitoring