

Portable Lighting Systems



Portable LED lighting systems for airports



Solar powered
Polaris



Polaris



Charging Unit

Polaris - Portable Light Fixtures



Specially designed for remote aerodromes

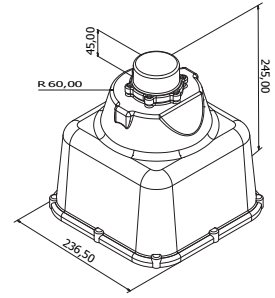
APP - Approach Centre Light and Crossbars (white)

THR - Threshold Wing Bar light (green)

RWE - Runway Edge light (white)

TND - Runway End light (red) / Threshold light (green)

TWE- Taxiway Edge light (blue light)



The POLARIS light unit is lightweight, durable, waterproof and has been developed for fast deployment by non-skilled operators and will operate in the worst environmental conditions.

All the units are equipped with high power LEDs, matched by dedicated optics to drastically increase photometric performances, save on power consumption and reduce life cycle costs (compared to incandescent lamps).

Autonomy depends on the operating mode, the level of light and number of LEDs. The Running time is from 14 hours (full power, steady, RWE omnidirectional) up to 24 days (low power, flashing, APP).

Features

- No lamp changing for the entire lifetime of the light unit
- Extended battery life
- 15 hours maximum recharge time
- Simple drop-in charging system
- Minim 1000 cd
- Minim 100 000 hours
- Bidirectional and omnidirectional
- Low voltage battery protection
- Control options: manual, photocell or radio
- Flashing or steady signal
- Charge level indication
- Power consumption max 4W for low intensity
- Power consumption max 12.5W for low intensity
- Lead acid battery
- Autonomy of minimum 300 hours for minimum intensity



Functioning mode

- Steady,
- Flashing,
- Internal light sensor included,
- WiFi, radio control minimum 1.5 km distance
- ON/OFF button on each portable light, for local/manual command

Functioning mode

Mechanical characteristics

- Body made from polycarbonate UV protected
- Disperser made from polycarbonate or glass
- Antenna detachable,
- Live time of body 15 years,
- Frangible coupling,

Environment

- -20 ° to 50° degree
- IP 67,
- Wind of maximum 160 km/h

Remote control

- From the portable remote control the lights can be turned ON /OFF and the user can choose the brightness step
- As an option, a complex radio control system can be used to access and control all the functions of the lights.

Battery Charging

The battery charger is made of individual trays designed to host the POLARIS fittings during storage.



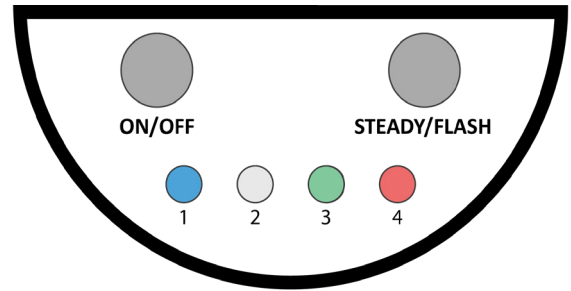
Charging rack with 5,10,15 or 20 charging posts



Individual charger

Battery Monitoring & Charging

The battery status is constantly monitored and a set of four LEDs gives a permanent indication.



Polaris - Solar Powered



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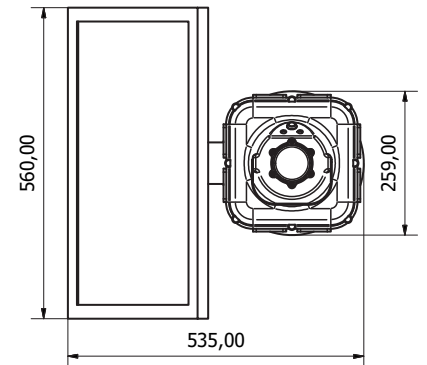
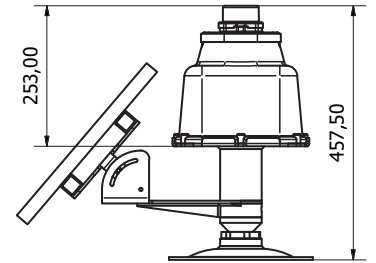
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THR - Threshold Wing Bar light (green)

RWE - Runway Edge light (white)

TND - Threshold light (green light) / Runway end light (red)

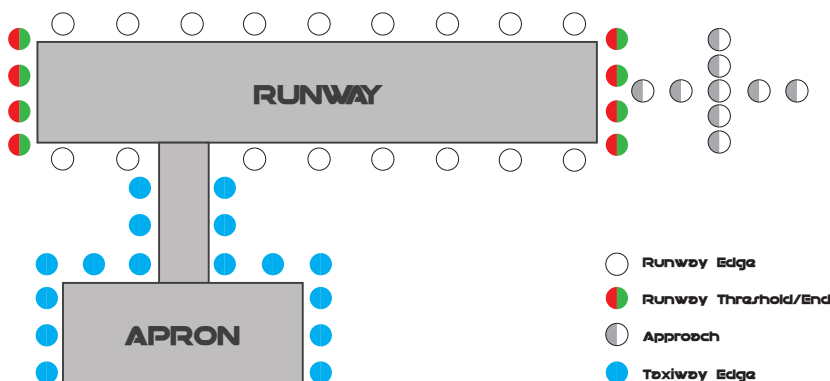
TWE - Taxiway Edge light (blue)



Features

- Wireless control and emergency ON/OFF button
- Casing made of UV-stabilized polycarbonate.
- Total battery capacity of 144W.
- Number of cycles : minimum 1200
- Solar panel of 30 W, mono or polycrystallin
- Internal charger included

Polaris System



The POLARIS can be used as a standalone fitting or as part of a complete Transportable Runway Lighting Kit. The POLARIS Lighting kit is used to set-up a temporary or semi-permanent lighting system in order to allow aircraft to land on grass strips, frozen lakes, roadways or as emergency runway lighting on major Airports.

Using optional IR LED sources, the system can also be NVG compatible.

The POLARIS meets the standards of International Civil Aviation Organization (ICAO) Annex 14, Federal Aviation Administration FAA (specifically: FAA AC 150/5345-46D; FAA AC 150/5345-50B for portable runway lighting);

Polaris **Medium** Intensity Photometric Specifications



The light intensities indicated below are higher than the values corresponding to Brightness 4 of a High Intensity System as required by ICAO, Annex 14, Aerodromes, Volume I, Aerodrome Design and Operations, Seventh Edition, July 2016

FIXTURE TYPE	POWER (W)	MAIN BEAM				SECONDARY BEAM		
		HORIZONTAL Azimuth	VERTICAL Elevation	MINIMUM AVERAGE	MINIMUM	HORIZONTAL Azimuth	VERTICAL Elevation	MINIMUM AVERAGE
APP	9 W	-10°/+10°	2.5°/13.5°	6100 cd	3100 cd	-14°/+14°	1.5°/14.5°	1700 cd
THR	7.5 W	-7°/+7°	0.5°/10.5°	3500 cd	2500 cd	-11.5°/+11.5°	0°/11.5°	500 cd
TND- Green	7 W	-5.5°/+5.5°	1°/10°	3800 cd	2500 cd	-7.5°/+7.5°	0°/11.5°	1200 cd
TND- Red		-6°/+6°	0.25°/4.75°	1000 cd	650 cd	-7.5°/+7.5°	0°/7.5°	500 cd
RWE	12.5W	-5.5°/+5.5°	0°/7°	3300 cd	2200 cd	-7.5°/+7.5°	0°/9.5°	1300 cd

Autonomy depending on fixtures brightness level

FIXTURE TYPE	Brightness level 100% (30%*)		Brightness level 30% (10%*)		Brightness level 10% (3%*)	
	POWER (W)	AUTONOMY (hours)	POWER (W)	AUTONOMY (hours)	POWER (W)	AUTONOMY (days)
APP	9 W	16 hours	2.7 W	53 hours	0.9 W	6.5 days
THR	7.5 W	19 hours	2.25 W	65 hours	0.75 W	8 days
TND- Green/Red	7 W	20 hours	2.1 W	68 hours	0.7 W	8.5 days
RWE	12.5W	11 hours	3.75 W	38 hours	1.25 W	4.8 days

*The brightness level for elevated high intensity lights specified in ICAO

Polaris **Low** Intensity Photometric Specifications



The values indicated below are higher than the **10%** threshold specified in ICAO, Annex 14, Aerodromes, Volume I, Aerodrome Design and Operations, Seventh Edition, July 2016

FIXTURE TYPE	POWER (W)	MAIN BEAM				SECONDARY BEAM		
		HORIZONTAL Azimuth	VERTICAL Elevation	MINIMUM AVERAGE	MINIMUM	HORIZONTAL Azimuth	VERTICAL Elevation	MINIMUM AVERAGE
APP	3 W	-10°/+10°	2.5°/13.5°	2000 cd	1000 cd	-14°/+14°	1.5°/14.5°	500 cd
THR	2.5 W	-7°/+7°	0.5°/10.5°	1100 cd	800 cd	-11.5°/+11.5°	0°/11.5°	160 cd
TND- Green	2.5 W	-5.5°/+5.5°	1°/10°	1200 cd	800 cd	-7.5°/+7.5°	0°/11.5°	400 cd
TND- Red		-6°/+6°	0.25°/4.75°	300 cd	200 cd	-7.5°/+7.5°	0°/7.5°	160 cd
RWE	4 W	-5.5°/+5.5°	0°/7°	1100 cd	700 cd	-7.5°/+7.5°	0°/9.5°	430 cd

Autonomy depending on fixtures brightness level

FIXTURE TYPE	Brightness level 100% (10%*)		Brightness level 30% (3%*)	
	POWER (W)	AUTONOMY (hours)	POWER (W)	AUTONOMY (days)
APP	3 W	48 hours	1 W	6 hours
THR	2.5 W	57 hours	0.8 W	7.5 hours
TND- Green/Red	2.5 W	57 hours	0.8 W	7.5 hours
RWE	4W	36 hours	1.2 W	5 hours

*The brightness level for elevated high intensity lights specified in ICAO

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