obsta®

RELIABILITY IN
OBSTRUCTION
LIGHTING

CATALOGUE N° 7

OBSTRUCTION LIGHTS for

POWERLINE

TELECOM

CHIMNEY

AIRPORT

WINDTURBINE

CRANE

www.obsta.com

RELIABILITY IN OBSTRUCTION LIGHTING

SUMMARY

Company history

OBSTA, a subsidiary of CITEL group (www.citel.fr) is part of an industrial group that engineers, manufactures and sells obstruction lights for transmission lines, telecom, broadcasting towers and all kind of obstacle to air navigation since more than 30 years. Our obstruction lights are manufactured by us compliant with ICAO annex 14 chapter 6 (International Civil Aviation Organization) recommendations and the FAA (Federal Aviation Administration).
OBSTA has manufacturing facilities in France and has sales offices located in France, Germany, USA, and China through Citel.

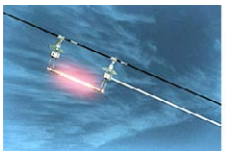
A long history

Before joining Citel in the years 90, Obsta was part of the company Claude that was manufacturing all kind of lamps. This company was created by Georges Claude (September 24th 1870 – May 23th 1960) a French physicist and chemist :

1902 : Extraction of rare gas from the air (neon, argon, xenon..) and creation of the company Air liquide
1910 : Invention of the first modern patented discharge lamp tube and creation of Claude company manufacturing all kind of discharge and incandescence lights
1960 : Invention of the first balisors for transmission lines
1992 : Bought by Citel manufacturing gas tube and surge protection
2003 : New led NAVILITE obstruction lights red fixed
2008 : New obstacle light with linear optic for discharge and LED lights.
2012 : New medium and high intensity LED lights.

Specialist in obstruction lighting

Over the years, tree large product families (neon xenon and led type) have been developed in the respect of the most severe standards, requested by our customers. OBSTA lights are designed in the respect of the latest international standards that are ICAO and FAA. They constitute a complete range of low intensity or L-810, medium intensity or L-865/L-864 and also high intensity obstruction lights, ideal for broadcasting towers, telecom mast, transmission lines, stacks and wind turbines.




- Cold neon discharge lights,
- pure cold neon discharge 5 and 13 turns OBSTA® HI STI & STI,
- 33 & 49 turns BALISOR® (conductor warning lights) red fixed obstruction lights.



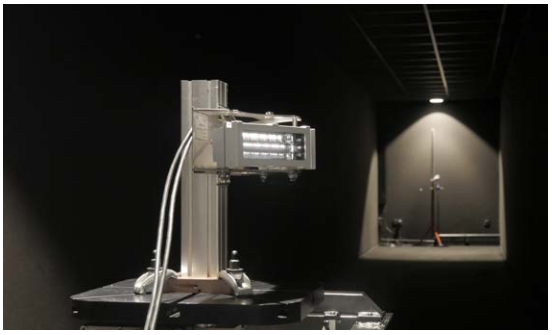
Led NAVILITE® red fixed obstruction lights (low intensity and L-810) since 2003 The NAVILITE series is dedicated to night only obstruction lights especially for telecom mast, buildings close to airports and all kind of obstacle below 45 meters high. Completely molded with 64 leds divided in 16 independent led circuits, they are ideal for all kind of obstacle

- Led and Xenon OBSTAFLASH : OBSTAFLASH white and red flashing for high structures medium intensity type A and B/C, L-865/L-864, L-865, L-864 and L-810.
High intensity type A and B

Test facilities

In order to test its products internally for standards compliance and to evolve toward greater reliability OBSTA has several test sites (France, USA) equipped with :

- Photometric band with visible and infrared capability
- 1.2/50-8/20µs hybrid wave generators up to 20 kV/10 kA
- HT digital Oscilloscope fast
- Material for test environment (damp heat, climate, shock)

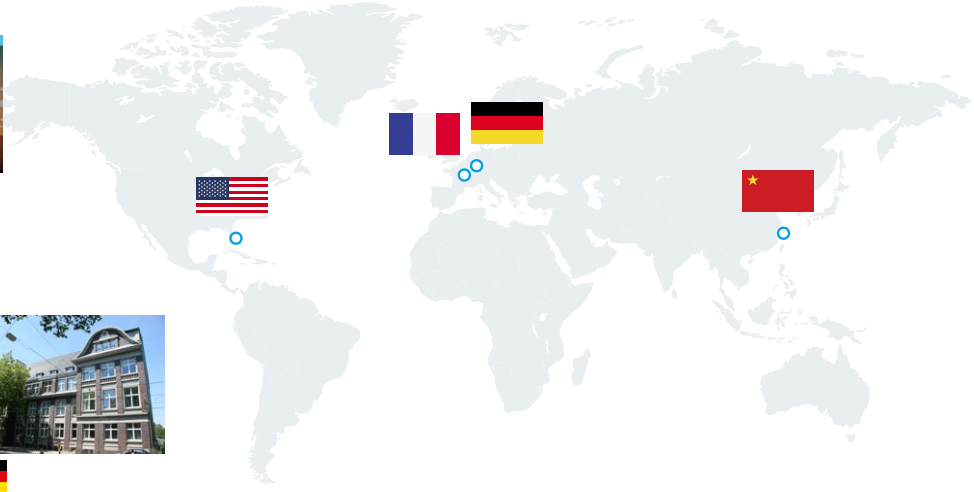


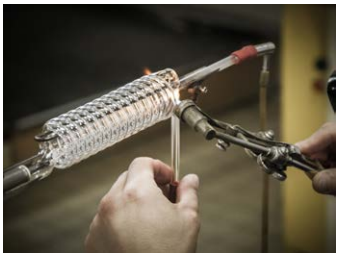
An international company

Obsta is part of CITEL group with international commercial subsidiaries.

Sèvres -
Head Office - France and Export Sales Office

Reims -
Production plant and logistics platform





Any object which could represent a hazard for low-flying aircraft must be marked by beacon lights. The ICAO (International Civil Aviation Organization - appendix 14, Chapter 6) and the FAA (Federal Aviation Administration - USA) lay down internationally-applicable rules on the characteristics of the beacons and their installation.

Some points of the regulations (depending on the type of obstacles which must be marked), and the corresponding installation rules, are given below.

Intensity	Color	Type		flashes per minute	Night (Cd)	Day (Cd)	Twilight (Cd)
		ICAO	FAA				
LOW	Red	A	-	Steady	⩾ 10	light OFF	
		B	L-810	Steady	⩾ 32.5		
MEDIUM	Red	B	L-864	30 Epm (FAA) 20-60 (ICAO)	2,000 ± 25%	-light OFF	
		C	-	Steady	2,000 ± 25%		
	White	A	L-865	40 Epm (FAA) 20-60 (OACI)	2,000 ± 25%	20,000 ± 25%*	20,000 ± 25%*
			L-866	60 Epm (FAA) 20-60 (OACI)	2,000 ± 25%	20,000 ± 25%*	20,000 ± 25%*
HIGH	White	A	L-856	40 Epm	2,000 ± 25%	200,000 ± 25%*	20,000 ± 25%*
		B	L-857	40 Epm	2,000 ± 25%	100,000 ± 25%*	20,000 ± 25%*

* : FAA requires a flash duration of 100ms max with Blondel-Rey formula for effective intensity

Extract from annex 14 ICAO

Extract from table 6-3. Characteristics of obstacle lights

Position of the obstruction lights

6.3.11 One or more low-, medium- or high intensity obstacle lights shall be located as close as practicable to the top of the object. The top lights shall be so arranged as to at least indicate the points or edges of the object highest in relation to the obstacle limitation surface.

6.3.12 Recommendation - In the case of chimney or other structure like function, the top lights should be placed sufficiently below the top so as to minimize contamination by smoke etc...

6.3.14 In the case of an extensive object or of a group of closely spaced objects, top lights shall be displayed at least on the points or edges of the objects highest in relation to the obstacle limitation surface, so as to indicate the general definition and the extent of the objects. If two or more edges are of the same height, the edge nearest the landing area shall be marked. Where low-intensity lights are used, they shall be spaced at longitudinal intervals not exceeding 45 m (150ft). Where medium-intensity lights are used, these shall be spaced at longitudinal intervals not exceeding 900 m (2950ft)

6.3.15 Recommendation - When the obstacle limitation surface concerned is sloping and the highest point above limitation surface is not the highest point of the object, additional obstacle lights should be placed on the highest point of the object.

6.3.22 The number and arrangement of low-, medium- or high-intensity obstacle lights at each level to be marked shall be such that the object is indicated from every angle in azimuth. Where a light is shielded in any direction by another part of the object, or by an adjacent object, additional lights shall be provided on that object to be lighted. If the shielded light does not contribute to the definition of the object to be lighted, it may be omitted.

In order to help you choosing the proper light you need, you will find below the most common configurations. The recommendations and rules mentioned below **are only given for information based on the ICAO recommendations, and ICAO aerodrome design manual.**

Night time marking (Red only)

The night time marking is done with **red obstruction lights**:
- low intensity type A or B (L-810)
- and/or medium intensity type B (L-864)

Day time marking (White flashing only)

The day time marking is done with **white flashing obstruction lights**:
- medium intensity type A (L-865)
- or high intensity type A or B (L-856, L-857) (For obstacle below 150 meters the use of white strobe flashing light during day time eliminate the need to paint the obstacle with red and white stripes).

Day and night time marking (White flashing or Dual Color)

The day and night time marking can be realized by using either:
- white medium intensity light working day and night
- dual color lights, white flashing during day time and red during night time

Obstruction light choices

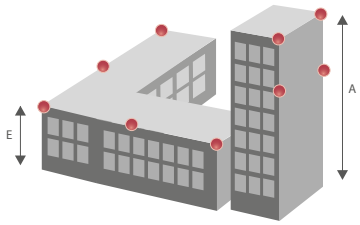
ICAO	OBSTA designation	OBSTA part number	Compliance statement
Low intensity type A (red steady burning)	NAVILITE-SOL, OBSTA-STI-48V, OBSTA-STIF-12V, BALISOR 63KV to 500KV	all	ICAO compliant (7th Edition_July 2018) EASA (European Aviation Safety Agency)
Low intensity type B (red steady burning)	NAVILITE-48V, NAVILITE-24V, NAVILITE-12V, NAVILITE-230; NAVILITE-120-240		
Low intensity type B (red steady burning) + infrared (fixed or flashing)	Combi light NAVILITE-RI-48V		
Medium intensity type A (white flashing), type B (red flashing), type C (red steady burning) and dual color	Obstaflash medium intensity series		
High intensity type A (white flashing)	OFH-120		
Medium intensity type A + feuer W rot	OF360-FW-240	113735	Verified by Ministry of Transportation of Germany

FAA + ICAO		OBSTA designation	OBSTA part number (FAA)	Compliance statement
L-810	Low intensity type B	NAVILITE-FAA	113969	FAA (150-5345-43H) L-810 certified + compliant with ICAO low intensity type B
		OBSTA-HI-STI	113110	FAA (150-5345-43G) L-810 certified + compliant with ICAO low intensity type B
L-865	Medium intensity type A (white flashing light)	Obstaflash OF360-WW-240-U; OFI360-WW-240-U; OFI120-WW-048-U;OFI120-WW-048/240-U;OFI120-WW-240-U;OFI-WW-048-U	113723U; 113723UI; 113711U; 113757U; 113713U; 113791U	FAA (150-5345-43H) L-865 certified + compliant with ICAO medium intensity type A
L-864	Medium intensity type B (red flashing light)	Obstaflash OF360-R-240; OFI360-R-240; OFI120-R-048-U;OFI120-R-048/240-U;OFI120-R-240-U;OFI-R-048;OFC-RR-240; OFC-RR-048	113724; 113724I; 113710U; 113756U; 113714U; 113790; 113790RR-240; 113790RR-048	FAA (150-5345-43H) L-864 certified + compliant with ICAO medium intensity type B
L-865/L-864	Dual color medium intensity type A and B	Obstaflash OF360-RW-240-U;OFI-RW-240-U;OFI120-RW-240-U;OFI120-RW-48/240-U;OFI120-RW-048-U;OFI360-RW-048-U	113725U;113725UI; 113715U; 113758U; 113712U; 113792U	FAA (150-5345-43H) L-865/L-864 certified + compliant with ICAO medium intensity type A & B
L-864 compatible NVG	Medium intensity type B (red + infrared flashing)	Combi lights OFC-RI-240; OFC-RI-048	113790RI-240; 113790RI-048	FAA (150-5345-43J) L-864 certified + compliant with ICAO medium intensity type B

Obstruction light accessories

	Comments
Accessories for the LED NAVILITE lights *(page 30)*	These monitoring boxes with integrated photocells are for NAVILITE beacons.
Accessories for the neon OBSTA light *(page 36)*	These junction and monitoring boxes are recommended in presence of high electromagnetic fields or hard climatic conditions.
24V or 48VDC Battery cabinet *(page 54)*	These battery cabinets for 48VDC beacons insure a 12 hours working time in case of outage of the main supply.
Photocell *(page 55)*	These photocells are available for all kind of OBSTA lights 24VDC, 48VDC, 120VAC and 240VAC.
Solar Generator *(page 64)*	Solar generator system including low intensity or medium intensity.
Warning spheres *(page 60)*	Warning spheres for transmission lines and all kinds of aerial cable
GPS synchronizer *(page 62)*	This GPS interface is compatible with all new and old OBSTA flashing light
OBSTA remote GSM *(page 63)*	This interface is only compatible with Led OBSTAFlash medium and high intensity.
TLOF for helipad *(page 65)*	HELITE-G-24

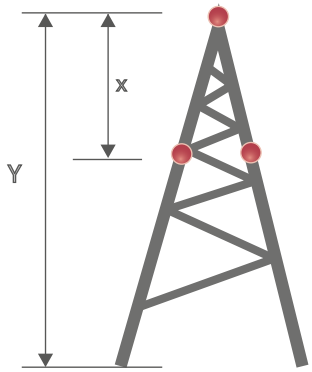
BUILDING (see diagram p 10-11)



Height	Night marking (red lights working at night only)	Day and Night marking (white flashing light for day mode and red lights for night mode)
Below 45m (150ft)	Low intensity lights type A on the perimeter of the building every 45 meters maximum	Low intensity type A on the perimeter of the building every 45 meters max. with medium intensity type A working during day time only
45m (150ft) and above	Medium intensity type B at the top with eventually intermediate levels of low intensity type B and medium intensity type B if the building is not masked by other construction	Dual color medium intensity type A+B (white during the day and red during the night) at the top with optional low intensity type B at intrmediate levels if the building is not masked by other construction
In option: 150m (500ft) and above	Alternative: above a height of 150m (500ft) high intensity lights every 105m (350ft) maximum.	

Note : Intermediate levels are recommended only if there are higher than the top fo nearby buildings.

POLE / TOWER (see diagram p 12-13)

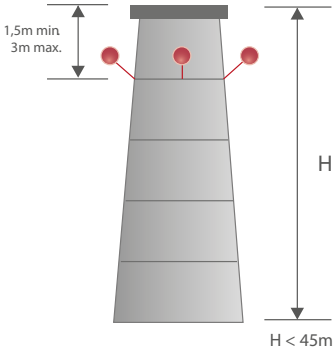


Number of lights = N = $\frac{Y(m)}{45}$

Distance between lights = X = $\frac{Y}{N}$ < 45m

Height	Night marking (red lights working at night only)	Day and night marking (white flashing light for day mode and red lights for night mode)
Below 45m (150ft)	1 or 2 low intensity type A or B at the top (L-810)	1 or 2 white medium intensity type A (L-865) at the top of the pole with low intensity working at night
45m (150ft) and above	1 or 2 medium intensity type B at the top with intermediate levels of medium intensity type B every 105 meters max., with low intensity type B in between each level of medium intensity	1 or 2 dual color medium intensity type A+B at the top with intermediate levels of dual color medium intensity type A+B every 105m max., with low intensity type B in between each level of medium intensity.
In option: 150m (500ft) and above	High intensity type A at the top with intermediate lights every 105 m maximum working during day time only and red low intensity type B and medium intensity type B working at night only. White flashing lights type A can also work day and night.	

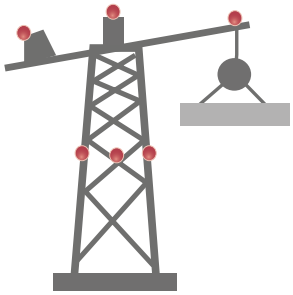
STACK (see diagram p 14-15)



Height	Night marking (red lights working at night only)	Day and Night marking (white flashing light for day mode and red lights for night mode)
Below 45m (150ft)	3 low intensity type A below the top of the stack	3 low intensity type A working at night only and medium intensity type A working during daytime only. The lights should be below the top of the stack
45m (150ft) and above	3 medium intensity type B below the top of the stack with optional intermediate level of low intensity type B every 45 meters high around the stack	3 dual color medium intensity type A+B (white during the day and red during the night) below the top of the stack, with in option 3 or more low intensity type B at intermediate levels at the top of stack
In option: 150m (500ft) and above	Alternative: above a height of 150m (500ft) high intensity lights every 105m (350ft) maximum.	

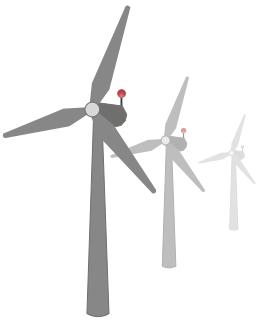
Note : for stack with diameter between 6 and 30 meters, 4 lights per level are required. For stack with diameter between 30 and 60 meters, 6 lights are required per level. And for stack with diameter abobe 60 meters, 8 lights per level are required per level.

CRANE (see diagram p 16)



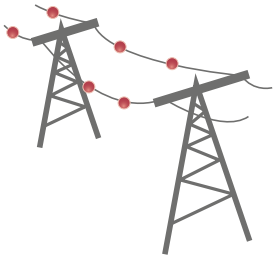
Height	Night marking only	Day marking
Below 45m (150ft)	Low intensity type A at the top of the crane-top and at each extremity of the jib and counter jib.	1 medium intensity dual color at the top of the crane-top.
45m (150ft) and above	1 medium intensity type B (L-864) at the top of the crane-top.	
105 m and above		

WIND TURBINE (see diagram p 17)



Night marking only	Day and night marking
1 or 2 Medium Intensity type B (L-864)	1 or 2 Medium Intensity dual color type A+B (L-865/L-864)

TRANSMISSION LINES (see diagram p 18)



Height	Night marking only		Day marking only
Poles	Same configuration than in the first case «pole and tower»	If it is not possible to install a light on the poles, 2 Balisors placed on each side of the pole at 10m (30ft) maximum and placed on the highest cable	Same configuration than in the first case «pole and tower»
High voltage cable	Balisors every 70m (230ft) near airport and every 105m (350ft) in other cases.		Warning spheres of 600mm diameter (2ft) every 30m (100ft)

In the case of an extended obstacle (wind turbine farm, cranes, etc...) the beacons need to be synchronized.
Beacons need to be backed up with a 12hour battery life in case of a loss of the main power line.

OBSTRUCTION LIGHTING FOR AIRPORT

Use case for an airport with building below 45 meters high except control tower higher than 45 meters

OBSTRUCTION LIGHTING FOR BUILDINGS

Three typical configurations depending on height

1 **OBSTAFLASH RED COMPACT**
Medium Intensity Red only

2 **OBSTAFLASH DUAL COLOR**
Medium Intensity White & Red

3 **OBSTAFLASH 120° or 180°**
Medium Intensity White & Red

4 **NAVILITE**
Low Intensity Red

5 **OBSTAFLASH HI**
Hight Intensity White

>150m

5 TOP LEVEL

5 MID LEVEL

<150m

TOP LEVEL 1 OR 2

INTERMEDIATE LEVEL 4

MID LEVEL 3

INTERMEDIATE LEVEL 4

Every 45 meters

4

45m

HELITE-G
Helipad light (TLOF)

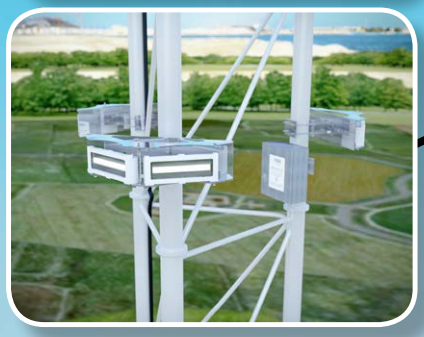
Example of configuration

OBSTRUCTION LIGHTING FOR TOWER

Towers from 105m to 150m

Day and night operation.

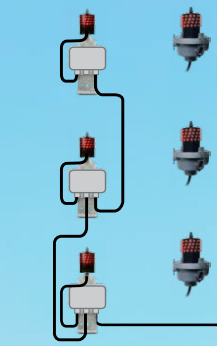
(The use of white flashing light during the day eliminates the need to paint the tower)



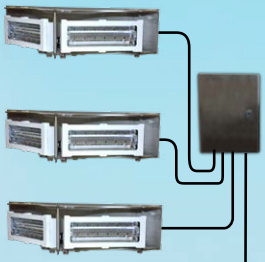
LED OBSTAFLASH 360 dual color medium intensity L-865/L-864 at top level

or **FAA fixture**

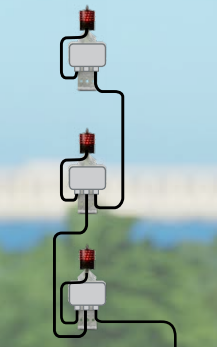
(or red only for tower with red & white painted stripes)



3 NAVILITE low intensity type B between the intermediate level and top level.



3 LED OBSTAFLASH 120 dual color medium intensity L-865/L-864 at intermediate level



3 NAVILITE low intensity type B between the bottom and the intermediate level.

110 to 240 VAC power supply and Photocell at the bottom

110 to 240 VAC

110 to 240 VAC

OBSTRUCTION LIGHTING FOR TOWERS

Use cases for towers from 45m to above 105m
Night only operation

1. 
OBSTAFLASH RED COMPACT
Medium Intensity Red only

2. 
OBSTAFLASH 120° or 180°
Medium Intensity Red

3. 
NAVILITE
Low Intensity Red

UP TO 45M

3 MID LEVEL

46-105M

1 TOP LEVEL

3 MID LEVEL

105-150M

1 TOP LEVEL

3 INTERMEDIATE LEVEL

1 OR 2 MID LEVEL

3 INTERMEDIATE LEVEL

OBSTRUCTION LIGHTING FOR STACK

Stack whithout red & white stripes 45 to 105 meters high. Lights operating Day and night.

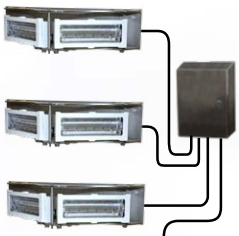




3 LED OBSTAFLASH120 dual color medium intensity ICAO compliant and L-865 / L-864 FAA ETL verified
below the top to avoid the smoke to hide the lights

RED AT NIGHT

WHITE AT DAY



3 NAVILITE at mid level

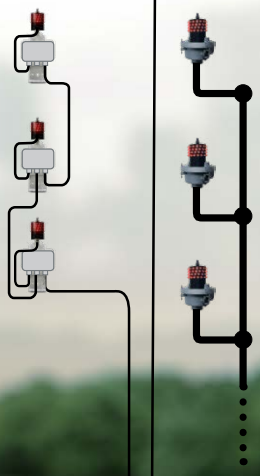
ICAO low intensity type B

Or

FAA L-810 type with NPT pipe

RED FIXED AT NIGHT

DAY OFF



110-240 VAC power supply and Photocell
at the bottom with or without batteries

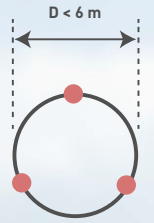
Photocell north oriented

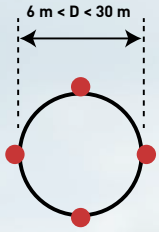
110 to 240 VAC

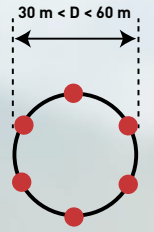
OBSTRUCTION LIGHTING FOR STACK

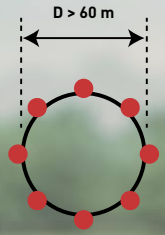
Painted stack (red & white stripes) 45 to 105 meters high, lights operating only at night.

Number of lights per level depending on the diameter of the chimney









These configurations can be modified if stack are close to each other

3 LED OBSTAFLASH120 red medium intensity
ICAO compliant and L-864 FAA ETL certified
below the top to avoid the smoke to hide the lights

RED AT NIGHT

DAY OFF

3 NAVILITE at mid level

RED FIXED AT NIGHT

DAY OFF

ICAO low intensity type B

Or

FAA L-810 type with NPT pipe

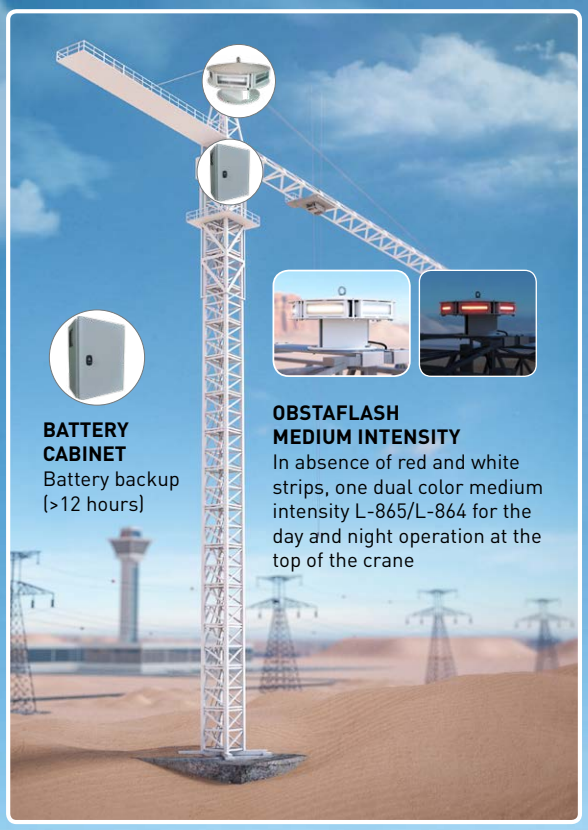
110-240 VAC power supply and Photocell
at the bottom with or without batteries

Photocell north oriented

110 to 240 VAC

OBSTRUCTION LIGHTING FOR CRANE

Use case for crane with or without red and white strips.



BATTERY CABINET
Battery backup
(>12 hours)

OBSTAFLASH MEDIUM INTENSITY
In absence of red and white strips, one dual color medium intensity L-865/L-864 for the day and night operation at the top of the crane

3 NAVILITE
3 low intensity Navilite type, on the jib, counter jib and crane-top

BATTERY CABINET
Battery backup
(>12 hours)

OBSTRUCTION LIGHTING FOR WIND TURBINE

TOP LEVEL

Red compact medium intensity

Or

Dual color medium intensity

MID LEVEL

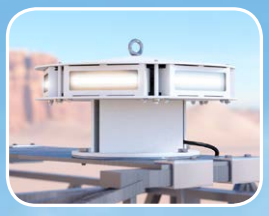
In option low intensity type E 3 Navilite

Example of configuration

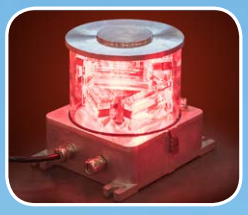
OBSTRUCTION LIGHTING FOR POWERLINE Day & night operation (Pylon >45m)

1 OFI
Medium Intensity White & Red at top level

White during daytime and red during night



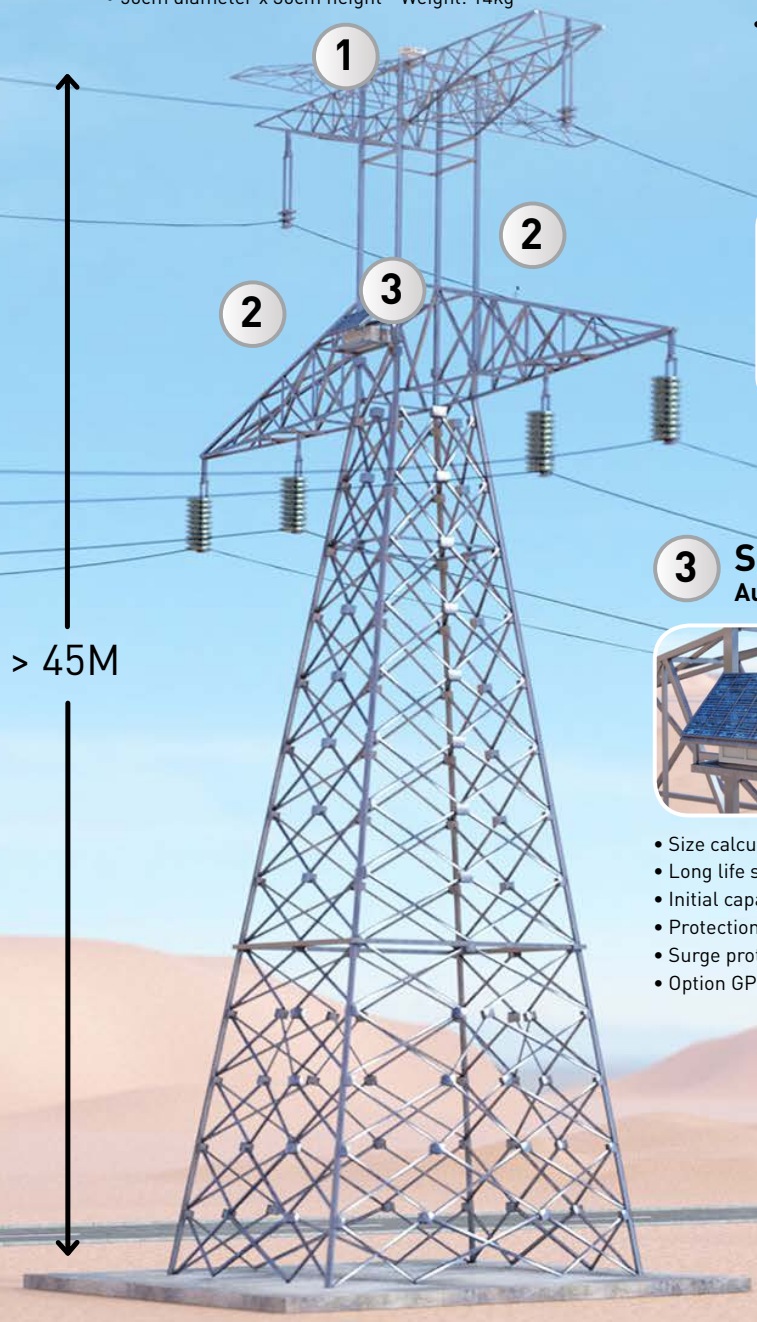

ou



- Type A & B compliant to ICAO, CAA and FAA L-865/ L-864 certified
- IP66 verified
- Easy installation with only captive parts
- 6 LED projectors in hard glass and aluminium
- 2 lights in one with 2 LED circuits in redundancy
- Surge protection included
- Optional GPS interface for synchronisation
- 50cm diameter x 30cm height - Weight: 14kg

OFC
Medium Intensity Red Only at top level

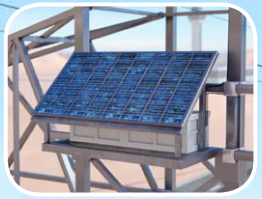
- Type B & C compliant to ICAO, CAA and FAA L-864
- Self contained and compact solution
- 6 LED Optics in hard glass and aluminium cover (no plastic)
- IP66 verified
- Easy installation with only captive parts
- 2 lights in one with 2 LED circuits in redundancy
- Very low consumption : 3W @ 20 FPM (ICAO setting)
- Surge protection included
- Optional GPS interface for synchronisation
- Available with Infrared
- Dimensions: 20cmx20cmx20cm - Weight: 5 kg



2 NAVILITE (optional)
Low intensity Red at intermediate level

- Type A & B compliant to ICAO, CAA
- Very compact with one mounting screw
- 64 LED in redundancy, resin molded
- Beacon light not grounded (Class II)
- Fully waterproof (IP67)
- No corrosion
- Bird spike
- 6cm diameter x 10cm height - Weight: 370g

3 SOLAR KIT
Autonomous power supply



- Size calculated from localization and flash per minute
- Long life solar gel batteries
- Initial capacity with at list 6 days of autonomy
- Protection of the battery against deep discharges
- Surge protection
- Option GPS synchronization & 3G modem communication

4

Example of configuration

5 PLASTIC WARNING SPHERE 600MM

Every 30M on OPGW or conductor up to 132kV

- ICAO and CAA compliant
- Polyethylene, fast mounted per half
- EPDM clamps to not damaged the cable
- No need of armor rod unless specified
- 8 drainage holes to prevent water accumulation
- Available in red, white and orange aviation

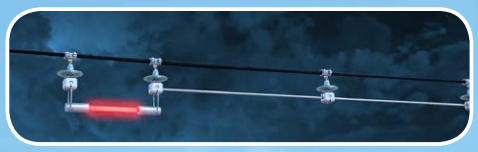
6 ALUMINIUM WARNING SPHERES 600MM

Every 30M on power cables up to 420kv and 250°c

- ICAO Compliant
- Fast mounting per half with latches
- Only 1 personne required for installation, only captive parts
- 8 drainage holes to prevent water accumulation
- Long durability in all climate conditions
- Available in white and red aviation

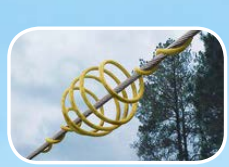
4 BALISOR - CONDUCTOR WARNING LIGHT

Night Time every 70M nearby airport, 105M otherwise

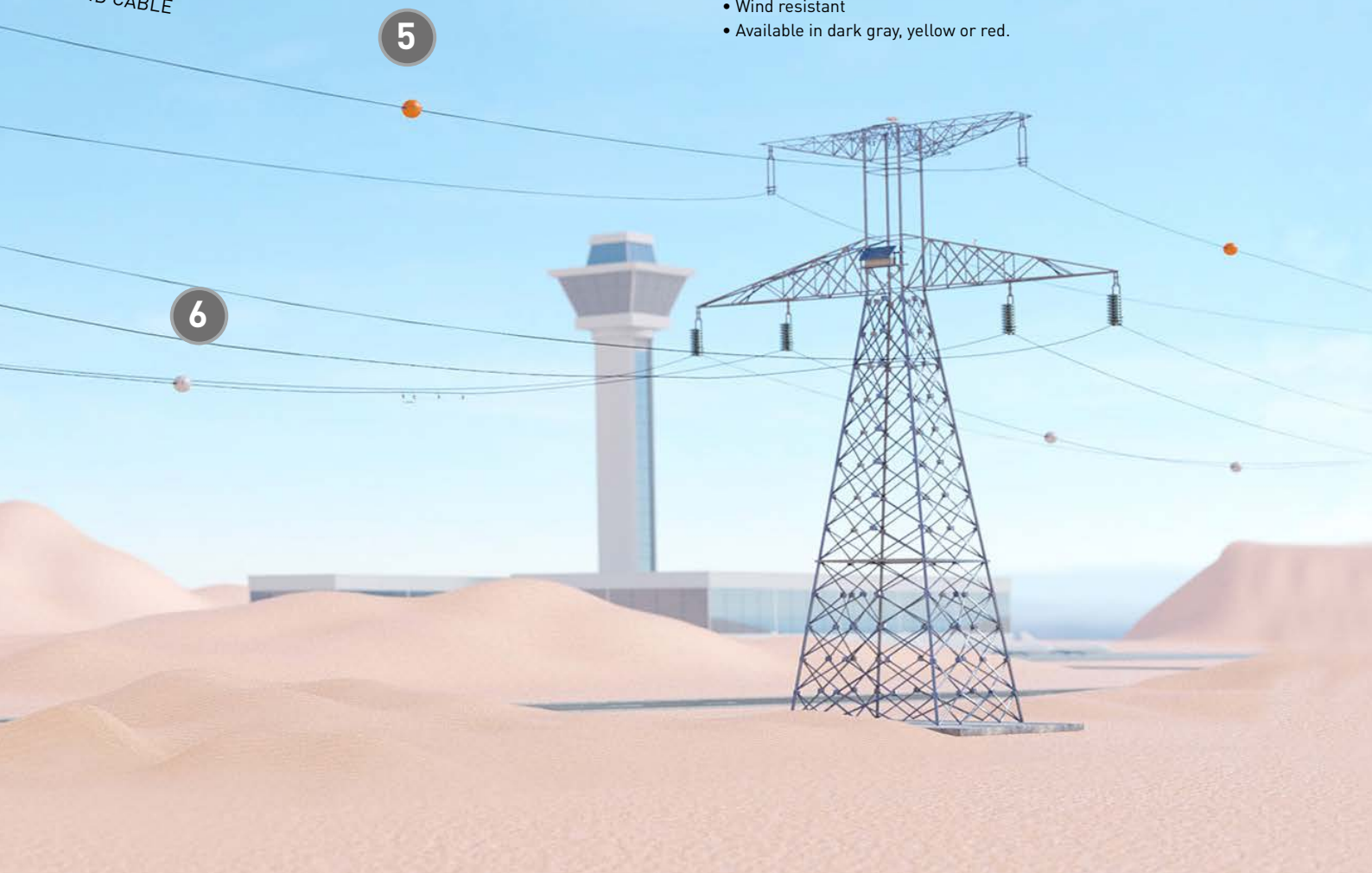


- Versions from 60KV to 550KV
- ICAO compliant Low Intensity Red steady-burning light
- Hard glass cold neon discharge tube
- OBSTA patented and manufactured in-house from 1938
- Self generation of energy in conductor
- No maintenance through decades
- Interference suppression included

7 BIRD-FLIGHT Diverter



- Made with high impact PVC with UV protection
- Full unit or half available
- Low weight
- Quick and easy manual installation
- Positive grip on the conductor
- Long service life without deterioration
- Wind resistant
- Available in dark gray, yellow or red.



NAVILITE 12 - 24 - 48 VDC

Low intensity type A and B

NAVILITE-48V-cable + stainless bracket

One-piece molded

- perfectly waterproof
- no corrosion risk
- lifetime 10 times higher than for incandescant lights
- no rise from the ground potential (due to lightning for example)
- bird spike

LED light

- Total of 64 diodes
- 16 circuits of 4 LEDS
- LED wiring 4 by 4 in active redundancy @ 90°
- molding provides perfect support of the LED inclination angle
- excellent heat dissipation

Wiring by pod

Molded cable

2 options : Pods or cable

- Continuous current 12, 24 and 48 VDC
- optional power supply through a backup power source for continuity of the marking (batteries) or through solar generator.
- Available with terminal connection or 35cm cable

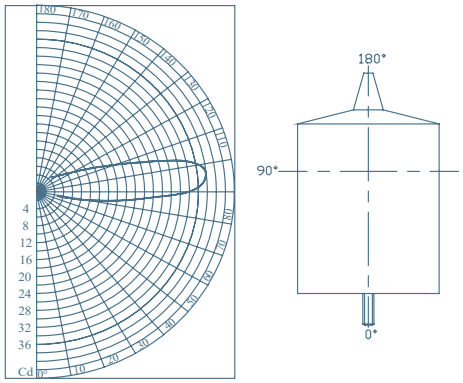
NAVILITE - XX - XXX - cable

cable : provided with 35cm of molded cable (only for 12Vdc 24Vdc and 48Vdc)
- : connection by 2 pods below light (only for voltage 12Vdc, 24Vdc and 48Vdc)

input voltage
12V : 12Vdc
24V : 24Vdc
48V : 48Vdc
SOL : only for 12Vdc solar kit
230V : 230Vac with transformer power supply
120-240 : 120Vac-240Vac with converter power supply

color
- : red only
IR : red and infrared
HI : Red with high redundancy levels of leds

LIGHT INTENSITY DIAGRAM

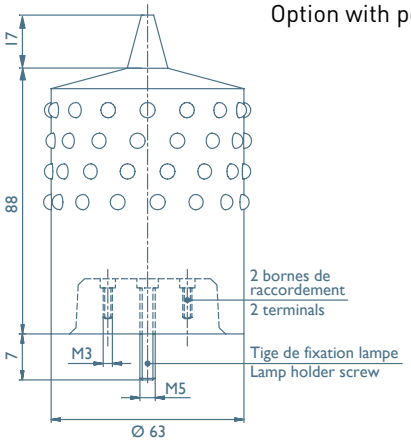


	NAVILITE Type A and B
IP degree	66
Operating temperature	-40° + 55°C
Power supply	12, 24, 48 VDC (+/-10%)
Light weight	370 g
Attachment	M5 screw (provided)
Maintenance	none

* The weight of the fixing bracket is 0.75kg

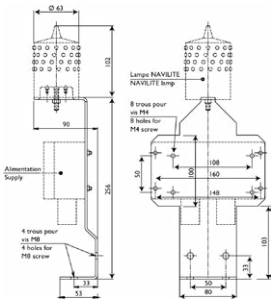
DIMENSIONS (IN MM)

Option with pods



ACCESSORIES

• Stainless steel mounting bracket - P/N 113920 for Navilite & optional box.



• Monitoring box for Navilite 48V (see page 30)
• Junction box (P/N 113943) (see page 30)
• Battery Cabinet with 12 hours power backup (see page 54)

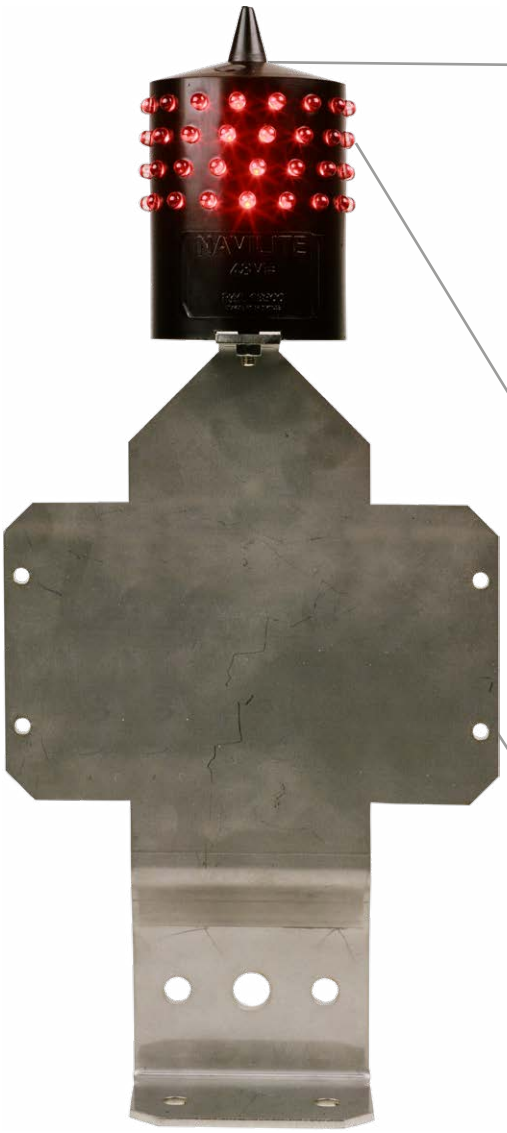
MAIN REFERENCE

	Designation	Part number	Power supply	Luminous intensity	Electrical current	Nominal power	Lifetime
Pod	**NAVILITE-48V**	**113900**	48 VDC	> 32 Cd	125 mA	6 W	decades
Pod	**NAVILITE-24V**	**113901**	24 VDC	> 32 Cd	250 mA	6 W	
Pod	**NAVILITE-12V**	**113902**	12 VDC	> 32 Cd	500 mA	6 W	
Cable	**NAVILITE-48-cable**	**113905**	48 VDC	> 32 Cd	125 mA	6 W	
Cable	**NAVILITE-24-cable**	**113906**	24 VDC	> 32 Cd	250 mA	6 W	




SOLAR NAVILITE 12 VDC

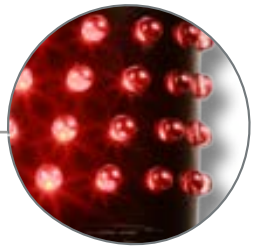
Low intensity type A



NAVILITE - SOL + stainless bracket

One-piece molded

- perfectly waterproof
- no corrosion risk
- lifetime 10 times higher than for incandescant lights
- no rise from the ground potential (due to lightning for example)
- bird spike



LED light

- Total of 64 diodes
- 16 circuits of 4 LEDS
- LED wiring 4 by 4 in active redundancy
- molding provides perfect support of the LED inclination angle
- excellent heat dissipation

OBSTA Solar kit

- Continuous current 12 VDC with regulation
- optional Obsta solar generator.
- Size depending on latitude and longitude.

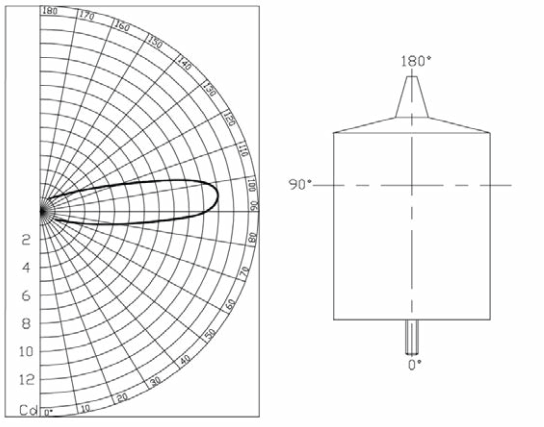
NAVILITE - XX - XXX - cable

cable : provided with 35cm of molded cable (only for 12Vdc 24Vdc and 48Vdc)
- : connection by 2 pods below light (only for voltage 12Vdc, 24Vdc and 48Vdc)

input voltage
12V : 12Vdc
24V : 24Vdc
48V : 48Vdc
SOL : only for 12Vdc solar kit
230V : 230Vac with transformer power supply
120-240 : 120Vac-240Vac with converter power supply

color
- : red only
IR : red and infrared
HI : Red with high redundancy levels of leds

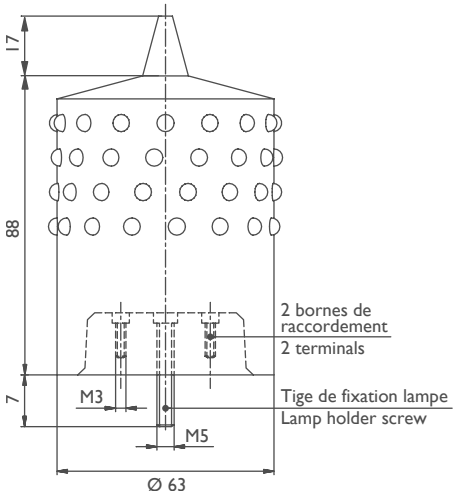
LIGHT INTENSITY DIAGRAM



	NAVILITE Type A
IP degree	66
Operating temperature	-40° + 55°C
Power supply	>12 VDC from Obsta Solar Kit
Light weight	370 g
Attachment	M5 screw (provided)
Maintenance	none

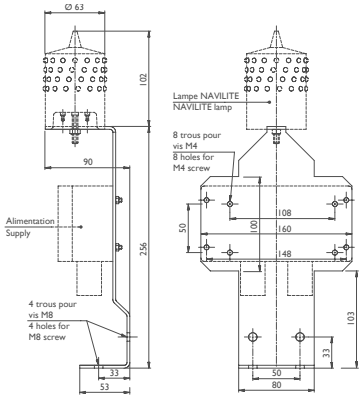
* The weight of the fixing bracket is 0.75kg

DIMENSIONS (IN MM)



ACCESSORIES

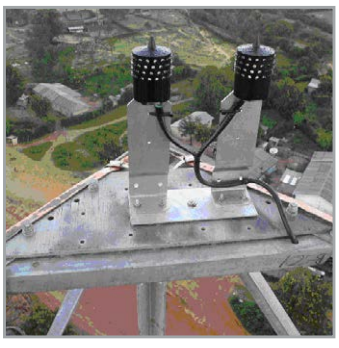
• Stainless steel mounting bracket - ref. 113920



• "Main and back-up" command box P/N 113942 for 2 NAVILITE-SOL
• Solar kit P/N 1003SOL (see page 53)

MAIN REFERENCE

Designation	Part number	Power supply	Luminous intensity	Electrical current	Nominal power	Lifetime
NAVILITE-SOL	**113903**	12 VDC	> 10 Cd	250 mA	< 3 W	Decades



NAVILITE 110-240 VAC

Low intensity type A and B

NAVILITE-240i
P/N 113909i

- for navilite-240i

• same light than Navilite-48V but with AC/DC converter and surge protection built inside

NAVILITE-230V
P/N 113909 (113905+113911)
+ stainless bracket P/N 113920

- for navilite-230V

• 230VAC power transformer providing galvanic isolation with the light (see page 31 for more information for the power supply 113911)

NAVILITE-120-240
P/N 113908 (113905+113912)
+ stainless bracket P/N 113920

- for navilite-120-240

• 120-240 VAC power converter with alarm, photocell and surge protection inside (see page 31 for more information for the power supply 113912)

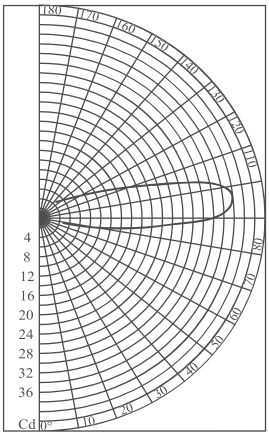
NAVILITE - XX - XXX - cable

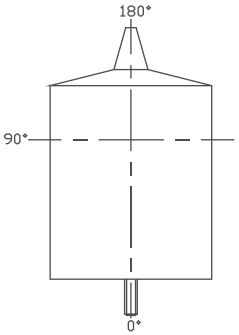
cable : provided with 35cm of molded cable (only for 12Vdc 24Vdc and 48Vdc)
- : connection by 2 pods below light (only for voltage 12Vdc, 24Vdc and 48Vdc)

input voltage
12V : 12Vdc
24V : 24Vdc
48V : 48Vdc
SOL : only for 12Vdc solar kit
230V : 230Vac with external transformer power supply
120-240 : 120Vac-240Vac with external converter power supply
240I : 120Vac-240Vac with converter power supply built inside

color
- : red only
IR : red and infrared
HI : Red with high redundancy levels of leds

LIGHT INTENSITY DIAGRAM

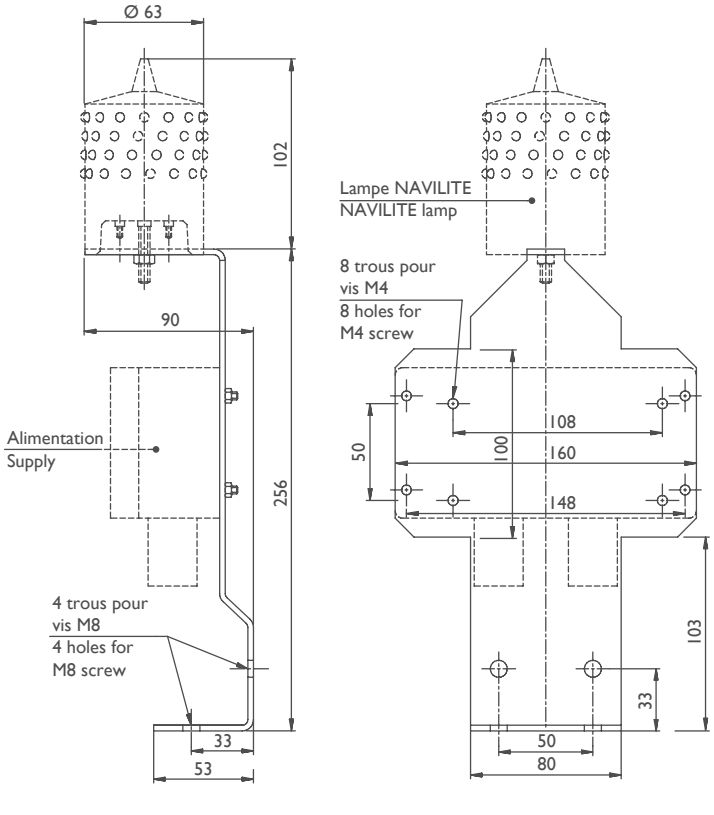


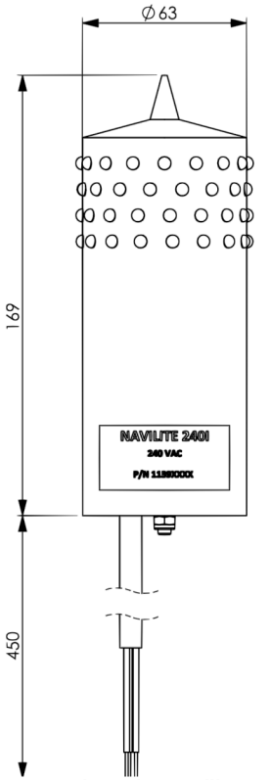


	NAVILITE Type A and B
IP degree	66
Operating temperature	-40° to + 55°C
Power supply	230 VCA (+/-10 %) = 113909 110 à 240 V (+/-10%) = 113908 and 113909I
Weight (light) (excluding fixing bracket*)	370 g = 113909 and 113909 950 g = 113909I
Attachment	by screw M5 (provided)
Maintenance	none

* The weight of the fixing bracket is 0.75kg

DIMENSIONS (IN MM)





ACCESSORIES

- Stainless steel mounting bracket ref. 113920

MAIN REFERENCE

Designation	Part number	Power supply	Luminous intensity	Electrical current	Nominal power	Lifetime
NAVILITE-230V	**113909**	230 VAC	> 32 Cd	70 mA	6 W	decades
NAVILITE-120-240	**113908**	120-240 VAC	> 32 Cd	70 mA	6 W	
NAVILITE-240I	**113909I**	120-240 VAC	> 32 Cd	70 mA	6 W	

NAVILITE IR

Led low intensity type A and B + infrared

Night Vision Goggles compatible according to OFAC directive (Switzerland)

One-piece molded

- perfectly waterproof
- no corrosion risk
- no rise from the ground potential (due to lightning for example)
- bird spike

LED light

- Total 64 red diodes + 64 infrared diodes
- 2x 16 circuits of 4 LEDS
- LED wiring 4 by 4 in active redundancy @ 90°
- molding provides perfect support of the LED inclination angle
- 2 independent circuits for red and infrared

Power supply

- Continuous current 12, 24 and 48 VDC
- optional 230VAC command box for infared leds blinking mode.

NAVILITE-RI-48V-cable

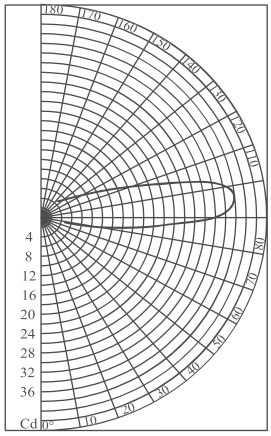
NAVILITE - XX - XXX - cable

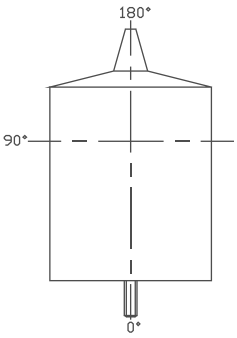
cable : provided with 35cm of molded cable (only for 12Vdc 24Vdc and 48Vdc)
- : connection by 2 pods below light (only for voltage 12Vdc, 24Vdc and 48Vdc)

input voltage
- 12V : 12Vdc
- 24V : 24Vdc
- **48V : 48Vdc**
- SOL : only for 12Vdc solar kit
- 230V : 230Vac with transformer power supply
- 120-240 : 120Vac-240Vac with converter power supply

color
- - : red only
- **IR : red and infrared**
- HI : Red with high redundancy levels of leds

LIGHT INTENSITY DIAGRAM

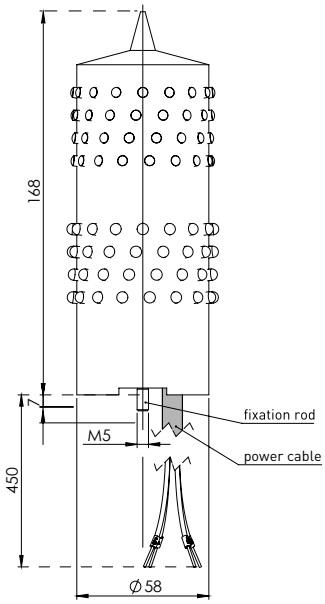




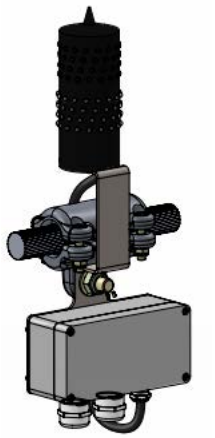
	NAVILITE Type A and B
IP degree	66
Operating temperature	-40° + 55°C
Power supply	12, 24, 48 VDC (+/-10%)
Light weight	0.92kg (excluding fixing bracket*)
Attachment	by screw M5 (provided)
Maintenance	none

* The weight of the fixing bracket is 0.75kg

DIMENSIONS (IN MM)



113905RI+113925+113943-AL



ACCESSORIES

- Stainless bracket part number 113920
- Stainless bracket for ground cable part number 113925
- Optional accessories
- junction box part number 113943-AL
- 100-240Vac command box part number 113912 for infrared blinking mode
- 48Vdc command box part number 113915 for NAVILITE infrared blinking mode

MAIN REFERENCE

	Designation	part number	Power supply	Luminous intensity	IR intensity and wavelength	Nominal power	Lifetime
cable	**NAVILITE-IR-48V-cable**	**113905IR**	48 VDC	> 32 Cd	150mW/sr @ 850nm	< 12 W	decades

NAVILITE FAA L810

FAA L-810 certified / compliant with ICAO low intensity type B

NAVILITE-FAA-100-240Vac

One-piece molded

- Light perfectly waterproof
- no corrosion risk
- no losing parts
- bird spike
- 2 x1" NPT threaded holes

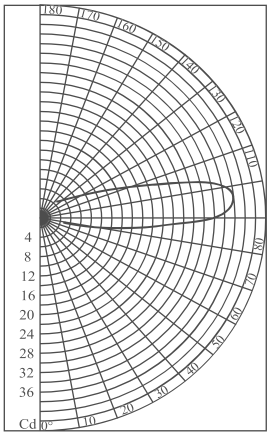
LED light

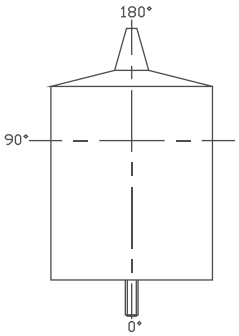
- Total of 64 diodes
- 16 circuits of 4 LEDS
- LED wiring 4 by 4 in active redundancy at 90°
- provide perfect support of the LED inclination angle
- excellent heat dissipation

Power supply

- Modular design with separate power supply in aluminium housing mounted
- 48 VDC or 110 VAC to 240 VAC power supply
- Surge protection included
- Alarm relay included

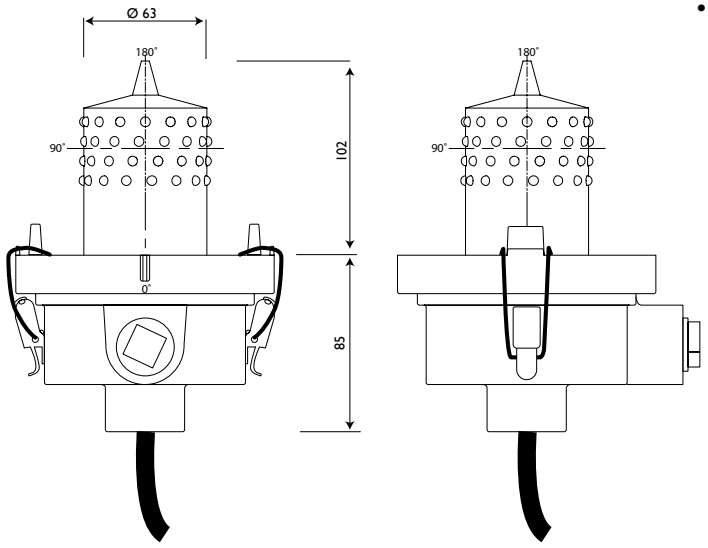
LIGHT INTENSITY DIAGRAM





	NAVILITE L-810
IP degree	65 in vertical position
Operating temperature	-40° to + 55°C
Power supply	110 VAC to 240VAC and 48VDC (+/-10%)
Weight (light)	370 g (excluding aluminium base)
Weight (light + base)	1.4 kg (fixed through vertical or horizontal NPT)

DIMENSIONS (IN MM)



ACCESSORIES

- Support for horizontal or vertical attachment
- 100-240Vac command box part number 113942 for NAVILITE 48Vdc P/N 113965 for L-810(F) mode.

MAIN REFERENCE

Designation	Part number	Power supply	Luminous intensity	Nominal power	Theorical lifetime*
NAVILITE-FAA-100-240Vac	**113969**	110 VAC to 240 VAC	> 32 Cd	6 W	decades
NAVILITE-FAA-48Vdc	**113965**	48 VDC	> 32 Cd	6 W	decades

* given by LED manufacturer

ACCESSOIRES POUR NAVILITE

Monitoring and control boxes offered with the NAVILITE are designed for an easy use and installation follow up on the complete obstruction lights system.

JUNCTION BOX FOR NAVILITE, OBSTA HI/STI AND OFC

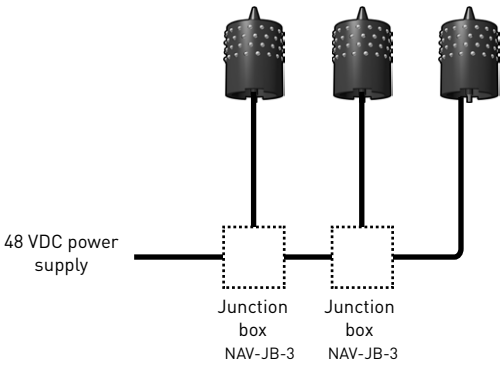
Main characteristics

- Polycarbonate box
- Junction box for 1 or 2 NAVILITE to power cable
- Suitable for all voltage
- 3 cable entries
- Terminals connections for the wires

References

Designation	part number	voltage	Number of cable entries	2 additional wires for alarms or infrared circuit
NAV-JB-3	113943	all	3	No
NAV-JB-3-AL	113943-AL	all	3	Yes

Typical configuration with Navilite-48V



230 V POWER SUPPLY FOR NAVILITE 48 VDC

Main characteristics

- 230VAC power transformer providing galvanic isolation with the light
- 3 cable entries
- Up to 4 NAVILITE-48VDC can be connected to the power supply

Reference

Designation	part number	input voltage	Number of lights	main and back-up	simultaneously	alarm	remote alarm
48V-NAV-PW-240	113911	230VAC	1-4 Navilite-48V	no	yes	no	no

COMMAND BOX FOR NAVILITE 48 VDC AND NAVILITE-SOL

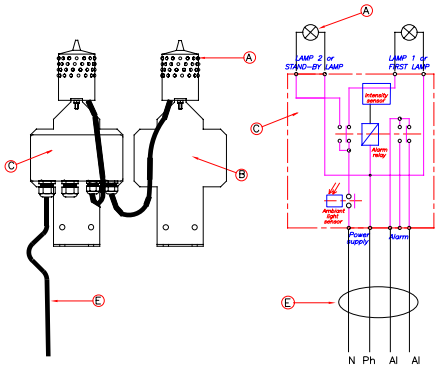
Main characteristics

- Polycarbonate box with or without transparent cover
- Redundancy wiring (one main light and one backup light)
- Integrated photocell
- Alarm monitoring in case of lights or power supply failure
- Switch from main light to backup one in case of failure
- Blinking mode (Low intensity type E, L-810(F), Navilite-RI)

Option 1: Basic Command box for navilite 48 Vdc and NAVILITE-SOL

Designation	part number	input voltage	Number of lights	main and back-up or simultaneous	Photocell	alarm	remote alarm
NAV-CMD-48	113940	48VDC	1-2 Navilite-48V	yes	yes	yes	yes
NAV-CMD-12	113942	obsta solar kit	2 Navilite-SOL	yes	no	no	no

Typical configuration with Navilite-48V



Alarm conditions :
- Low intensity of the lamp(s)
- Short-circuit of the lamp(s)
- Power supply failure

Nomenclature / Bill of materials

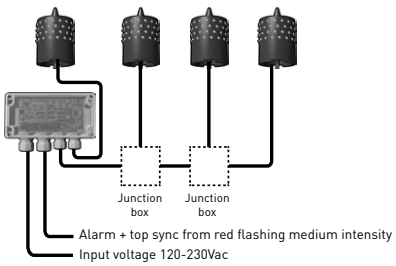
Reference	Quantity	Part number	Designation
A	2	113905	A type Navilite 48VDC
B	2	113920	Navilite bracket
C	1	113940 or 113912	Command box
E	-	113161	4x1.5 flexible cable

Cable must be shielded when used in electro-magnetic fields

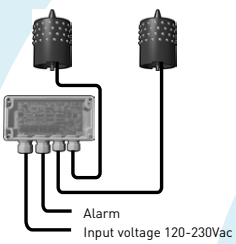
Option2: Command box for navilite 48 Vdc

Designation	part number	input voltage	Number of lights	main and back-up or simultaneous	Photocell	Surge protection	alarm	remote alarm	Mimic with Red medium intensity
48V-NAV-CMD-100/240	113912	100-240VAC	1-4 Navilite-48V	yes	yes	yes	yes	yes	yes
NAV-CMD-48-B	113915	48VDC	1-4 Navilite-48V	yes	yes	yes	yes	yes	yes

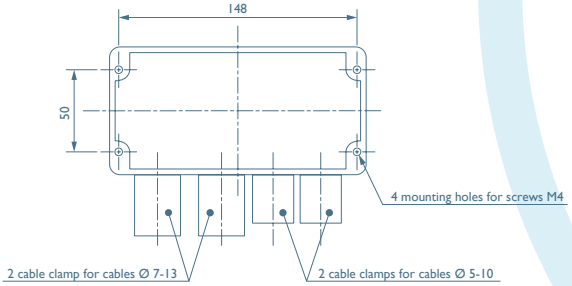
1-4 Navilite 48V
working simultaneously



2 Navilite 48V
"main & back-up" or working simultaneously



WEIGHT & DIMENSIONS (FOR ALL MODEL)

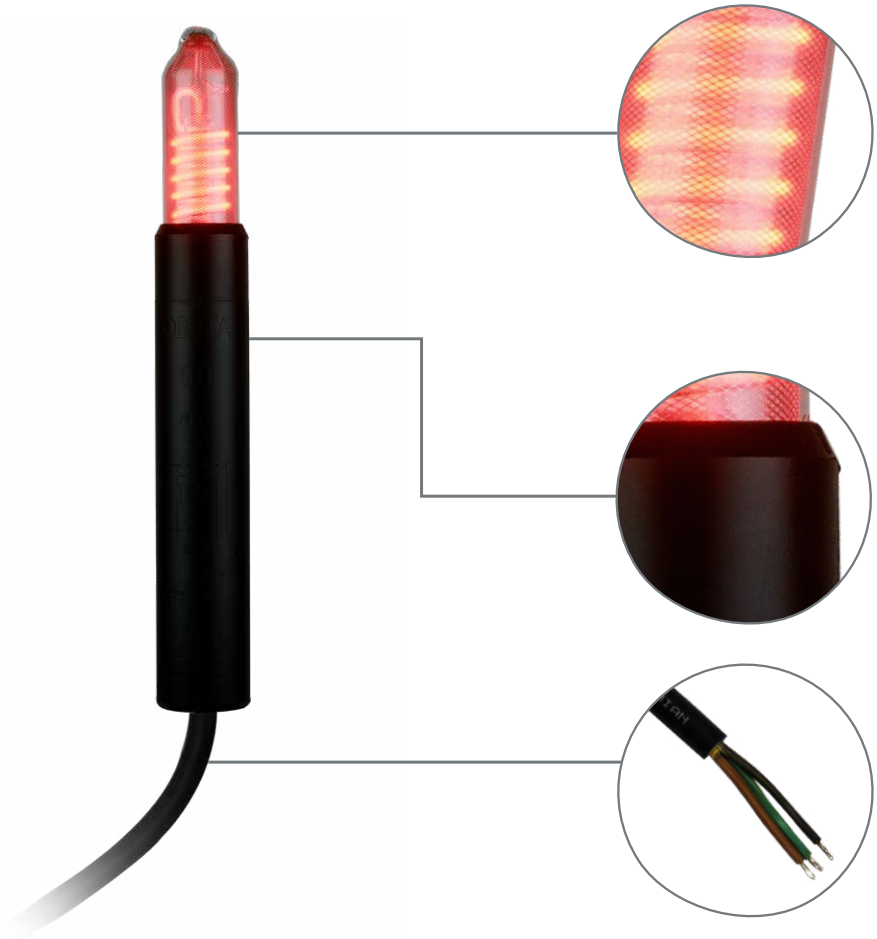


The number of cable entries depend of the model of box

IP degree (in vertical position)	65
Power Cable diameter	from 7 to 13 mm
Wire cross section	from 1 to 2.5 mm²
Attachment	4 screws type M4

OBSTA STI 48 Vdc

The OBSTA STI is devoted to the marking of all kind of obstacles supplied by a standalone DC power source in 48V.



Neon light

- 5 turns
- hard glass cover and tube
- «aviation» red color
- very long life expectancy in all climatic environment
- great light efficiency
- luminosity substantially higher than what is recommended by ICAO and FAA
- low power consumption

One-piece molded

- perfectly waterproof
- no grounding issue
- all wiring configuration available
- no rise from the ground potential (due to lightning for example)
- increased reliability

Power cable

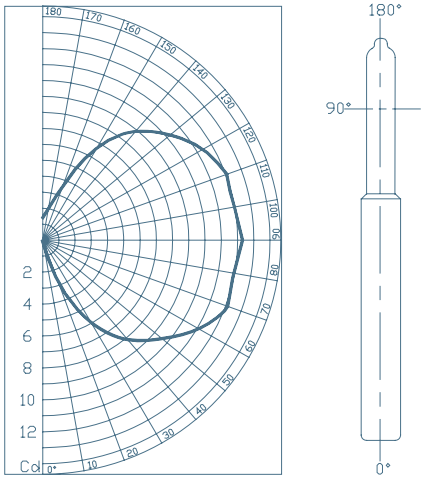
- continous Voltage
- power by a backup power source for continuity of the marking (batteries)
- protected against transient voltages
- integrated self diagnostic of the light (control of a remote signalization or a backup light possible)

Product range STI
Low intensity cold neon discharge 10CD

OBSTA STI - F

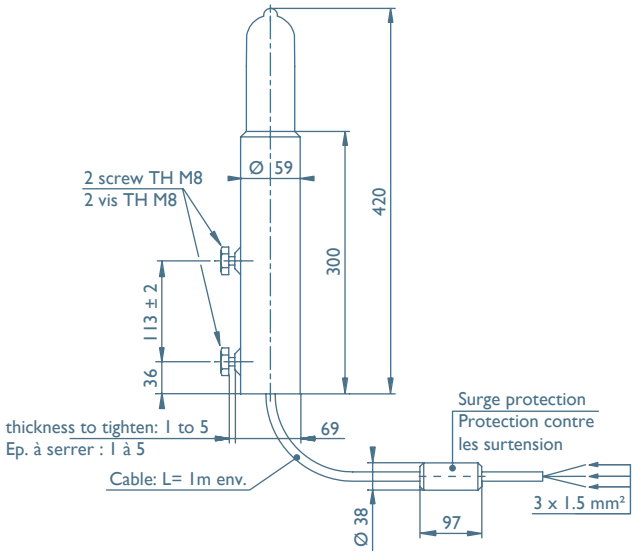
- : 48V
F : 12V

LIGHT INTENSITY DIAGRAM



	STI
IP degree	66
Operating temperature	-20° + 60°C
Power supply voltage	48 V (-10% ; + 15%)
Weight	1.5 kg
Attachment	2 screws type M8 (provided) Thikness to screw into : 1 à 5 mm
Wiring	On stripped wires (2 power wires, 2 alarm wires)

DIMENSIONS (IN MM)



SPECIAL PRECAUTIONS

For chimney installation, install the light under the top (1.5 to 3m, 5 to 10ft), as per ICAO and FAA recommendations.
For installation in intense electromagnetic fields, the use of shielded wire is highly recommended.

OTHER FUNCTIONS

- Failure remote signalization by relay (see diagram)

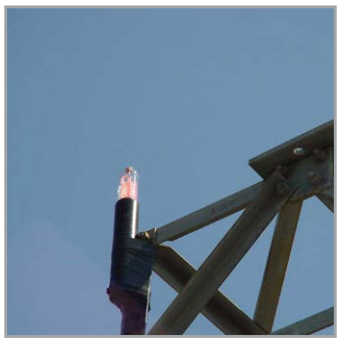
- «Active Redundancy» configuration allows the automatic turn on of a backup light and/or of an alarm in case of failure of the main light. (see diagram)
- Photocell controlled
- Light shielded as per standard EN 55011, class B

- **Junction box** (ref. 113140)
- **Stainless steel mounting bracket** (ref. 113121 for one light and 113124 for two lights)
- **Solar generator** (see page 53)
- **Connection accessories** (see page 32)

MAIN REFERENCE

Designation	part number	Power supply	Luminous intensity	Current consumption	Nominal power	Lifetime (without any light decrease*)
OBSTA-STI-48V	113200	48 V continuous	> 10 Cd	250 mA	12W	decades

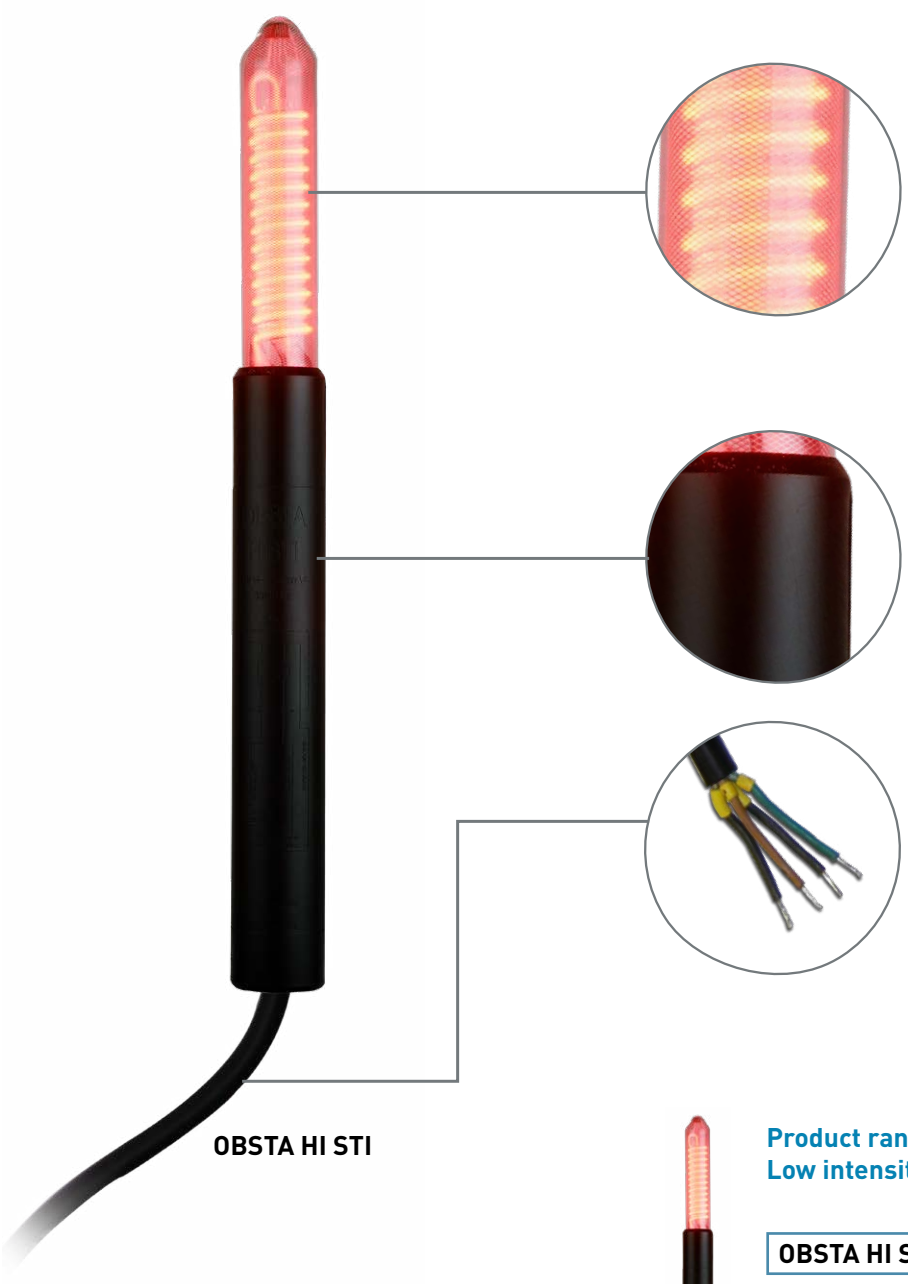
Other voltage : 12 and 24 V : consult us
* with power supply stabilize

OBSTA HISTI 110 to 240 VAC

The OBSTA HI STI is devoted to the marking of all kinds of obstacles such as buildings, airports, broadband towers, high voltage power poles. One model allow can cover every voltage from 110VAC up to 240VAC.

In intense electromagnetic fields (radiant poles, multi directional radio antennas), it is recommended to use the OBSTA HI STIM code 113150 (see page 26)
FAA L 810



OBSTA HI STI

Neon light

- 13 turns
- hard glass cover and tube
- «aviation » red color
- very long life expectancy in all climatic environment
- great light efficiency
- luminosity substantially higher than what is recommended by ICAO and FAA
- low power consumption

One-piece molded

- perfectly waterproof
- no grounding issue
- all wiring configuration available
- no rise from the ground potential (due to lightning for example)
- increased reliability

Power cable

- 110 VAC up to 240 VAC
- protected against transient overvoltages
- alarm relay in case of lamp failure or low power

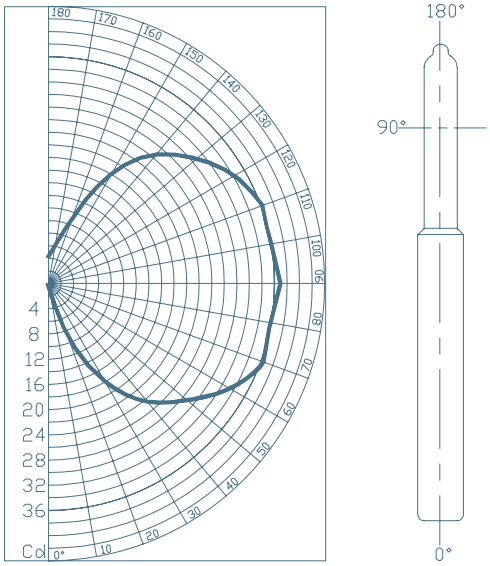
Product range HI STI
Low intensity cold neon discharge 32CD

OBSTA HI STI - F - APR

- : class II
APR : class I (only 110 up to 240VAC)

240V : 110 up to 240VAC
F 24V: 24Vdc

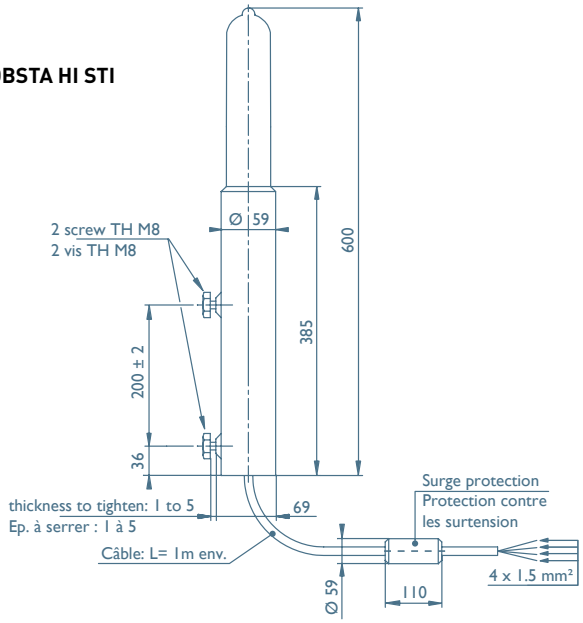
LIGHT INTENSITY DIAGRAM



	HISTI
IP degree	66
Operating temperature	-30° + 60°C
Power supply voltage	from 110 up to 240V (+/-10%) 50/60 Hz
Weight	2.3 kg
Attachment	2 screws type M8 (provided) Thikness to screw into : 1 up to 5 mm
Wiring	On stripped wires (2 power wires, 2 alarm wires)

DIMENSIONS (IN MM)

OBSTA HI STI



SPECIAL PRECAUTIONS

For chimney installation, install the light under the top (1.5 to 3m, 5 to 10ft), as per ICAO and FAA recommendations.
For installation in intense electromagnetic fields, the use of shielded wire is highly recommended.

OTHER FUNCTIONS

- Failure remote signalization by relay (see diagram)

- «Active redundancy» configuration allows the automatic turn on of a backup light and/or of an alarm in case of failure of the main light (see diagram)
- Photocell controlled
- Light shielded as per standard EN 55011, class B

- **Stainless steel mounting bracket** (ref. 113121 for one light and 113124 for two lights)

- **Connection accessories** (see page 36)

MAIN REFERENCE

Designation	OBSTA part number	Power supply	Luminous intensity	Current consumption	Nominal power	Theorical lifetime (without any light decrease*)
OBSTA HI STI	113110	from 110 V eff. up to 240 V 50/60 Hz	> 32 Cd	110V - 730 mA 240 V - 370 mA	45 W	10 years
OBSTA HI STI-APR	113113	from 110 V eff. up to 240 V 50/60 Hz	> 32 Cd	110V - 730 mA 240 V - 370 mA	45 W	10 years

* with power supply stabilized




NEON LOW INTENSITY ACCESSORIES

The range of monitoring and junction boxes we propose is defined to facilitate the implementation and monitoring of obstruction lights installation.

These metal boxes are suitable for EMC environments and severe climatic conditions.

LED & Switches

- waterproof switches & leds
- presence of supply voltage
- operating status lights
- visualization of defects
- automatic or manual operation of the installation

4 cable inputs

- connection of 1 to 3 lights in simultaneous operation
- connection of 2 lights in active redundancy
- connection of a photocell
- connection of the alarm

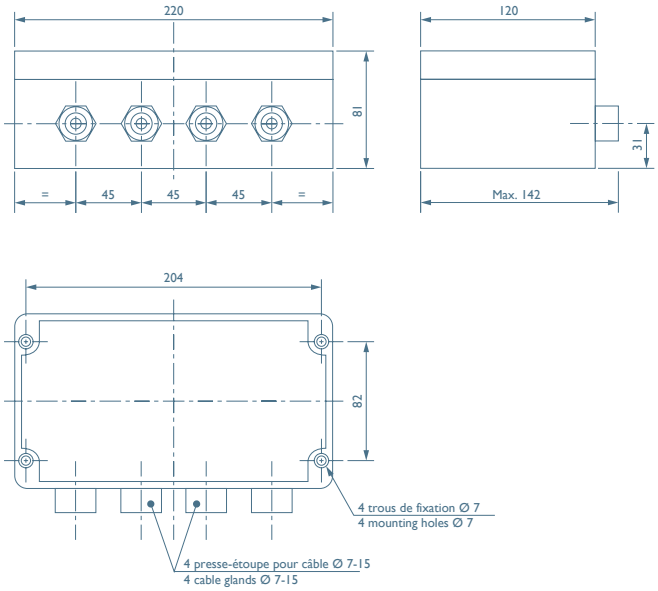
Aluminium boxes

- painted and molded aluminum boxes
- cable inputs by gland nickel plated brass
- lower part consisting of terminals and fully wired relays
- excellent waterproofing (climatic & electromagnetic)
- simple fixing & easy connection

Designation	Part number	Description
ST-JB-4	113140	Single junction box for every type of light and every voltage
STI-JB-4-ADD	113141	Single junction box for every type of light for use with function management boxes 113142, 113143 or 113144
STI-CMD-240, STI-CMD-48	113142 - 113143	Functions management box with leds and switches for OBSTA lights 48V or 230VAC
STI-AL-48	113145	Box for connection and removal alarm, for use exclusively with one or two lights OBSTA STI 48V

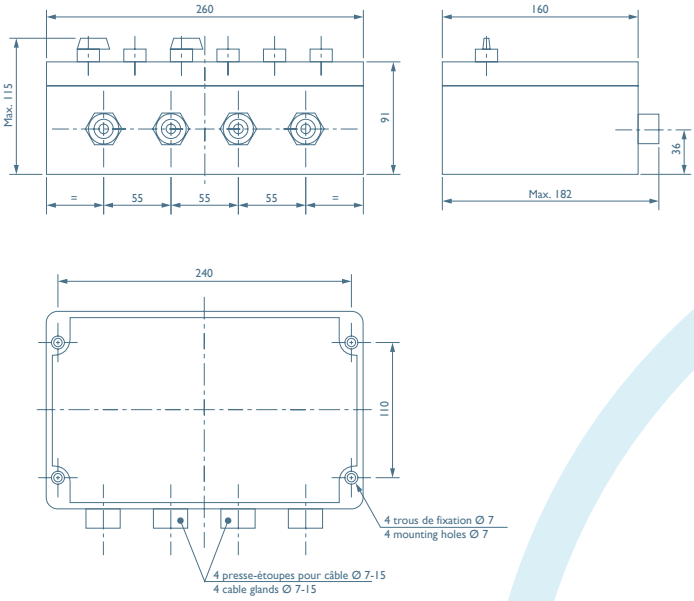
WEIGHT & DIMENSIONS (IN MM)

- Diagram A



	Accessories
IP degree	**65**
Cable entries quantity	4
Cable diameter	from 8 to 15 mm
Wire cross section	from 1 to 4 mm²
Attachment	4 screws type M5
Weight	Drawing A : 1.9 kg Drawing B : 2.8 kg

- Diagram B



Part number	Voltage	Drawing	Weight	Photocell	Display	Back up	Remote control	Number of lights
113140	all	A	1.8	yes	no	yes	no	1 to 3
113141	all	A	1.8	Used with 113142 or 113143				2
113142	230 VAC	B	2.8	yes	yes	yes	yes	< 7
113143	48 VDC	B	2.8	yes	yes	yes	yes	< 7
113145	48 VDC	A	1.9	no	no	yes	yes	2

For exact drawing, please contact us

OBSTAFLASH COMPACT OFC

L-864 FAA (AC 150/5345-43H) pending
ICAO Red Medium intensity type B & C / CAA compliant (fixed mode)

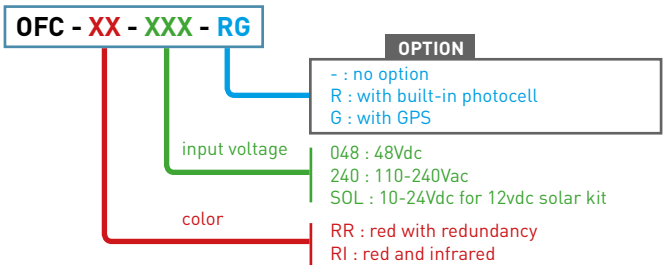
Characteristics

- Hard glass cover (no plastic) and aluminum based
- Easy installation with only captive parts
- 2 LED circuits in redundancy
- Adjustable flash 20 to 60 flashes per minutes (ICAO MI type B) or steady (CAA, ICAO MI type C)
- Alarm in case of light or power failure
- Low consumption
- Surge protection included
- "Night Vision compatible" in option as per Swiss directive and FAA regulation
- Photocell and GPS built-in in option

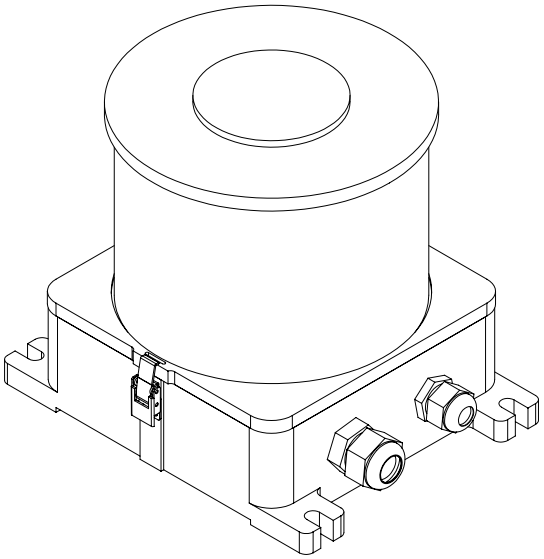
In option

Night Vision Goggles compatible according to FAA & OFAC directive (Switzerland)

Product range OBSTAFLASH COMPACT OFC
ICAO Red Medium intensity type B & C / L-864 / CAA / STAC



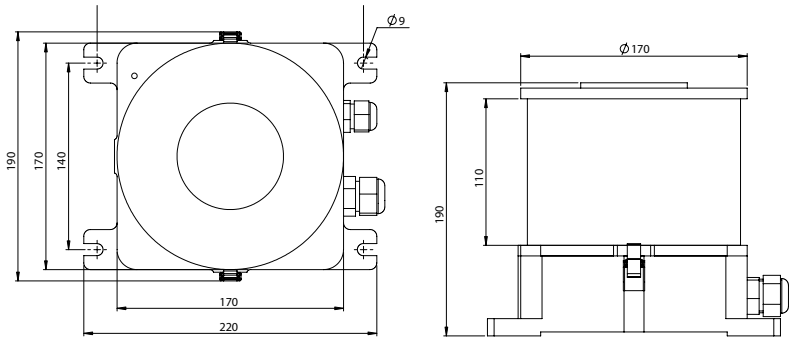
WEIGHT & DIMENSIONS (IN MM)



	OFC
IP degree	66
Operating temperature	-40°C to +55°C
Cable entries	2 nickel-plated brass
NVG compatible for OFC-RI	
IR intensity and wavelength	600mW/sr @ 800-900nm
Weight	5kg

ACCESSORIES

- Built in GPS for wireless synchronisation
- Built in Photocell for night only operation
- Optional wiring accessories
- junction box part number 113943-AL
- monitoring box for OFC & Navilite



MAIN REFERENCE FOR OFC-RR-XXX

designation	part number	Voltage	Color	Luminous intensity	Flashes per minute	Average power consumption
OFC-RR-048	**113790RR-048**	**48Vdc**	red	2000cd RMS	As per FAA/ICAO or fixed mode (MI type C, CAA)	6W
OFC-RR-240	**113790RR-240**	**100-240Vac**	red			**6W**
OFC-RR-SOL	**113790RR-SOL**	**12-24Vdc**	red		**As per ICAO**	**3W @ 20fl/minute**

MAIN REFERENCE FOR OFC-RI-XXX

designation	part number	Voltage	Color	IR intensity and wavelength	Luminous intensity	Flashes per minute	Average power consumption
OFC-RI-048	**113790RI-048**	**48Vdc**	red	600mW/sr @ 800-900nm	2000cd RMS	As per FAA	**< 10 W**
OFC-RI-240	**113790RI-240**	**100-240Vac**	red				**< 10 W**

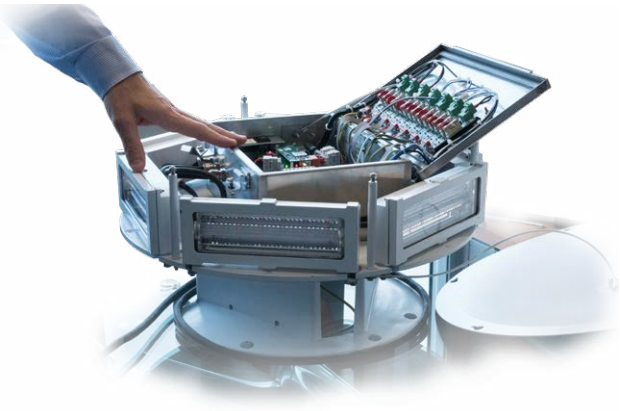
OBSTAFLASH OFI360 48Vdc

L-865/864 FAA (AC 150/5345-43H) Certified
ICAO white & red Medium intensity type A+B & C / CAA compliant (fixed mode)

Flashhead with integrated 48VDC power supply
Patent : EP 1966535B1 & US 7816843

48 Vdc Flashhead

- 6 led replaceable projectors
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic , low led current for optimal lifetime
- Integrated 48 VDC power supply inside the flashhead
- Luminous indicator for each led circuits
- Captive parts
- 48 Vdc surge protection included
- Test button and luminous indicators



Product range OBSTAFLASH OFI360
Obstaflash Medium intensity with 48Vdc integrated power supply
ICAO White and Red Medium Intensity type A and B & C / CAA /STAC

OFI360 - XX - XXX - U

- **- : ICAO**
- **U : ICAO + FAA L-865/L-864**

input voltage

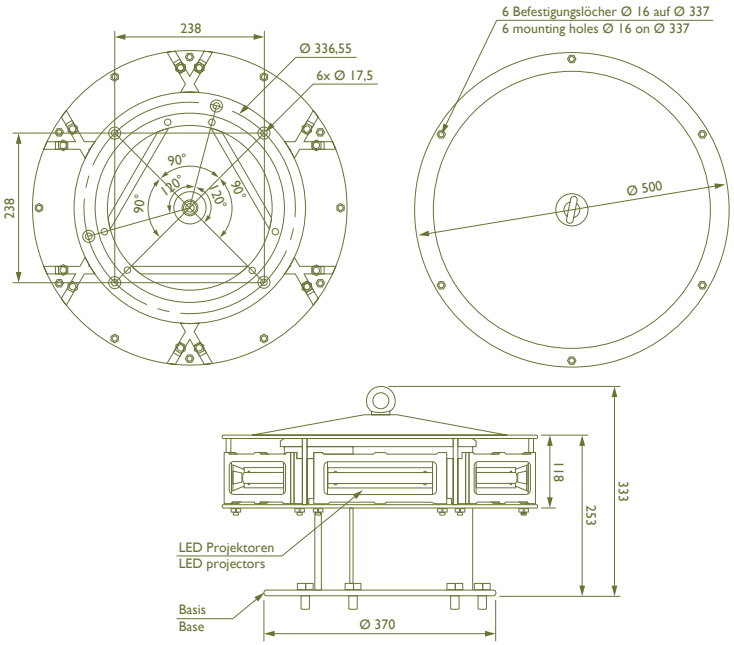
- **048 : 48Vdc**
- 240 : 110-240Vac with additional cabinet at bottom

color

- **RW : red at night and white during daytime**
- **WW : white day and night**
- RIW : red/infrared at night and white during daytime*
- R : red at night
- W : white during day time only, off at night*
- FW : white during day and feuer-W-rot at night*
- * : not FAA.

WEIGHT &DIMENSIONS (IN MM)

Flashhead



IP degree for power cabinet	65 in vertical position
Operating temperature	-30° to +55°C
Input voltage	48 Vdc +/-10%
Cable entry for flashhead, power supply, photocell and alarm	1 nickel plated brass

ACCESSORIES

- GPS inside flashhead part number 113746I for wireless synchronization
- 48vdc photocell part number 100755
- 48Vdc battery cabinet (input voltage 100-240VAC) for 12 hours back-up part number 113956 (see page 50) or with stainless enclosure part number 113509

MAIN CHARACTERISTICS

Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only (L864)	light off	2000 Cd	light off	Red	> 3°	360°	As per ICAO or FAA
White only (L865)	20 000 Cd	2000 Cd or off	White	White or off			
Dual color (L865/L864)	20 000 Cd	2000 Cd	White	Red			

MAIN REFERENCE

Designation	part number	input voltage	ICAO category	FAA category	Color
OFI360-RW-048-U	113792U	48Vdc	Medium intensity type A & B	L-865/L-864	dual color
OFI360-WW-048-U	113791U		Medium intensity type A	L-865	white
OFI360-RW-048	113792		Medium intensity type A & B or C	–	dual color
OFI360-WW-048	113791		Medium intensity type A	–	white
OFI360-R-048-U	113790		Medium intensity type B (or C, CAA)	L-864	red

KIT OBSTAFLASH OFI360 110-240 Vac

L-865/864 FAA (AC 150/5345-43H) Certified
ICAO white & red Medium intensity type A+B & C / CAA compliant (fixed mode)

Flashhead with integrated 48VDC power supply

Patent : EP 1966535B1 & US 7816843

Flashhead

- 6 led replaceable projectors
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic , low led current for optimal lifetime
- Integrated 48 VDC power supply inside the flashhead
- Luminous indicator for each led circuits
- Captive parts
- 48 Vdc surge protection included
- Test button and luminous indicators

+

120-230 VAC Power cabinet

- Available in 120 /230 Vac
- Surge protection
- Automatic day/night switch with photocell
- Test button for day and night
- Modular design
- Two side lights in option, low intensity type
- Alarm contact
- Master/slave configuration for multiple lights synchronization

Product range OBSTAFLASH OFI360
Obstaflash Medium intensity with 48Vdc integrated power supply
ICAO White and Red Medium Intensity type A and B & C / CAA /STAC

OFI360 - XX - XXX - U

- : ICAO
U : ICAO + FAA L-865/L-864

input voltage

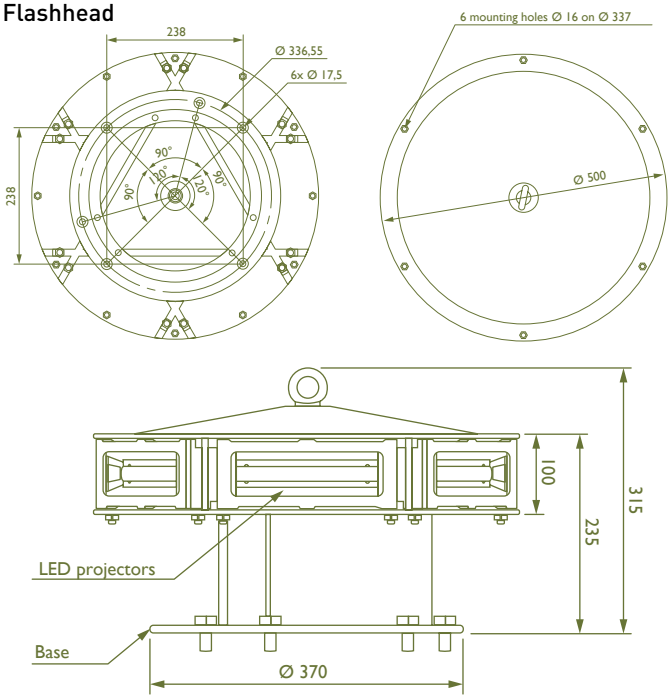
048 : 48Vdc
240 : 110-240Vac with additional cabinet at bottom

color

RW : red at night and white during daytime
WW : white day and night
RIW : red/infrared at night and white during daytime*
R : red at night
W : white during day time only, off at night*
FW : white during day and feuer-W-rot at night*
* : not available with FAA

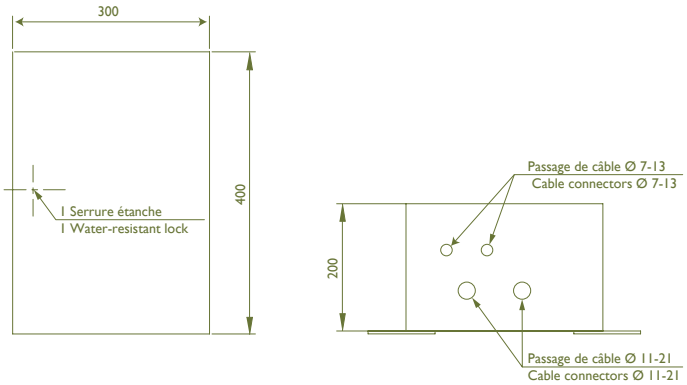
WEIGHT &DIMENSIONS (IN MM)

Flashhead



Weight: 14 kg - IP degreeIP66

Control cabinet



SETS COMPOSTION

IP degree for power cabinet	65 in vertical position
Operating temperature	-30° to +55°C
Input voltage	110 VAC to 240 VAC +/-10% 50 to 60 Hz
Cable entry for flashhead, power supply, photocell and alarm	4 nickel plated brass

ACCESSORIES

- GPS module for wireless synchronization in case it is not possible to connect the lights by wires part number 113746, see page 55
- Photocell part number 100755, see page 52

MAIN CHARACTERISTICS

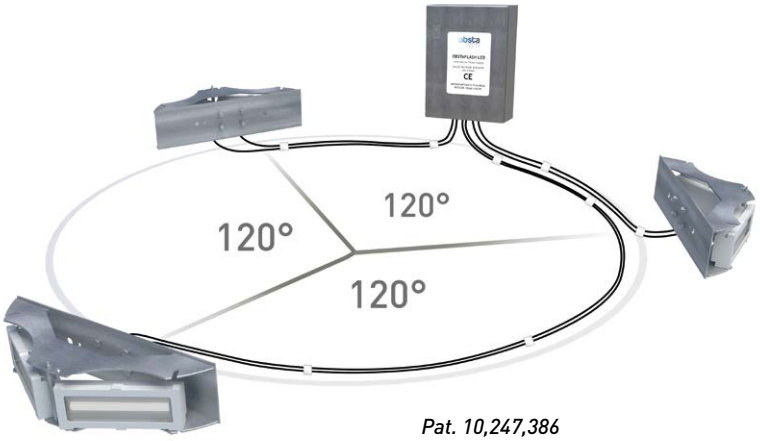
Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only (L864)	light off	2000 Cd	light off	Red	> 3°	360°	As per ICAO or FAA
White only (L865)	20 000 Cd	2000 Cd or off	White	White or off			
Dual color (L865/L864)	20 000 Cd	2000 Cd	White	Red			

MAIN REFERENCE

Designation	part number	input voltage	ICAO category	FAA category	Color
OFI360-RW-240-U	113725UI	110-240Vdc	Medium intensity type A & B	L-865/L-864	dual color
OFI360-WW-240-U	113723UI		Medium intensity type A	L-865	white
OFI360-RW-240	113725I		Medium intensity type A & B or C	-	dual color
OFI360-WW-240	113723I		Medium intensity type A	-	white
OFI360-R-240-U	113724I		Medium intensity type B (or C, CAA)	L-864	red

KIT OBSTAFLASH OFI120

L-865/864 FAA (AC 150/5345-43H) Certified
ICAO white & red Medium intensity type A+B & C / CAA compliant (fixed mode)



Pat. 10,247,386

Kit including 3 Obstaflash120

- 2 led projectors with 10 meters cable
- Aluminium and glass enveloppe
- Connection with connectors for dual color and gland for red only
- Precise optic for optimal power consumption,
- Electronic deported in external cabinet

+

Power cabinet

- Stainless enclosure
- Surge protection
- Test button for day and night, 1 luminous indicator per white led projector,
- Modular design,
- Alarm contact
- Master/slave configuration for multiple cabinet
- Connection terminal for 48V low intensity at intermediale level working at night only
- Available with or without back-up power supply

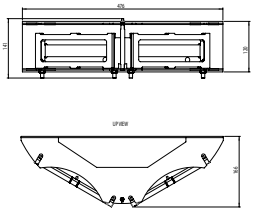
Product range OBSTAFLASH OF120
Kit including 3 Obstaflash120 medium intensity flashheads + power supply at same level, ICAO White and Red Medium intensity type A and B & C / CAA / STAC

OFI120 - XX - XXX - U - LX

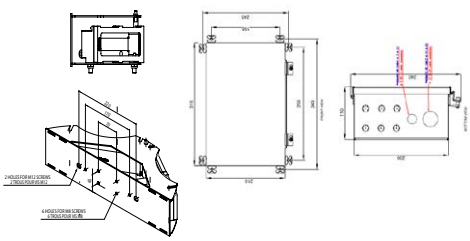
- **- : 10 meters cable per projector**
  X : X meters cable per projector (X=5, 15, 20)
- **- : ICAO**
  U : ICAO + FAA L-865/L-864
- input voltage
  240 : 110-240Vac
  048 : 48Vdc
  48/240 : 110-240Vac with second cabinet at bottom of obstacle
- color
  RW : red at night and white during daytime
  WW : white day and night
  R : red at night

COMPOSITION PER ITEMS

OFP-120

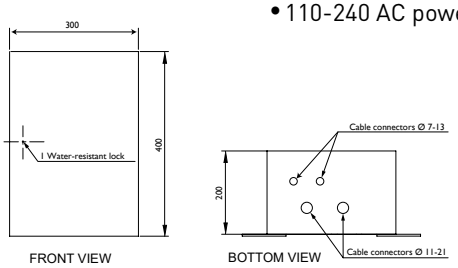


- 48VDC power cabinet



IP degree for power cabinet	65 in vertical position
Operating temperature	-30° to +55°C
Input voltage	110 VAC to 240 VAC 50 to 60 Hz or 48VDC +/-10%
Cable entry for flashhead, power supply, photocell and alarm	4 nickel plated brass

- 110-240 AC power cabinet

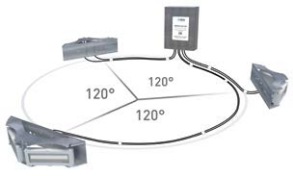
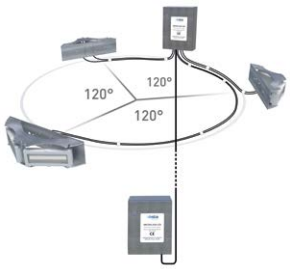


ACCESSORIES

- GPS part number 113746 for wireless synchronization
- 48vdc photocell part number 100755
- 48Vdc battery cabinet (input voltage 100-240VAC) for 12 hours back-up part number 113956 (see page 50)

MAIN CHARACTERISTICS

Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only (L864)	light off	2000 Cd	light off	Red	> 3°	360°	As per ICAO or FAA
White only (L865)	20 000 Cd	2000 Cd or off	White	White or off			
Dual color (L865/L864)	20 000 Cd	2000 Cd	White	Red			

	Designation	part number	Power supply	ICAO category	FAA category	System components
	OFI120-RW-48/240-U	113758U	110-230 VAC	Medium intensity type A and B	L-865/L-864, dual color medium intensity	3 x OFP-120-RW-10L-U + OFP-CAB-6P-L-RW-048 + OFI-CAB-1E-RW-240-U
	OFI120-WW-48/240-U	113757U		Medium intensity type A	L-865 white medium intensity	
	OFI120-R-048/240	113756U		Medium intensity type B	L-864 red medium intensity	3 x OFP-120-R-10 + OFP-JB-6P-R + OFP-CAB-6P-1E-R-240
	OFI120-RW-048-U	113712U	48VDC	Medium intensity type A and B	L-865/L-864, dual color medium intensity	3 x OFP-120-RW-10L-U + OFP-CAB-6P-L-RW-048
	OFI120-WW-048-U	113711U		Medium intensity type A	L-865 white medium intensity	
	OFI120-R-048	113710U		Medium intensity type B	L-864 red medium intensity	3 x OFP-120-R-10 + OFP-JB-6P-R + OFP-CAB-6P-6E-R-048
	OFI120-RW-240-U	113715U	110-230 VAC	Medium intensity type A and B	L-865/L-864, dual color medium intensity	3 x OFP-120-RW-10L-U + OFP-CAB-6P-L-RW-240-U
	OFI120-WW-240-U	113713U		Medium intensity type A	L-865 white medium intensity	
	OFI120-R-240	113714U		Medium intensity type B	L-864 red medium intensity	3 x OFP-120-R-10 + OFP-JB-6P-R+ OFP-CAB-6P-6E-R-240

- For more than 4 flasheads, "design your kit", see page xx.

KIT OFP-360 with complete remote power supply

The led OBSTAFLASH medium intensity is a white, red or dual color flashing obstruction light with complete power supply in the cabinet.

The OBSTAFLASH is compliant with ICAO medium intensity type A and B/C, FAA L864/L865 flashing lights. Certified by Intertek (AC 15015345-43H).

Patent : EP 1966535B1 & US 7816843

Flashhead

- 6 led projectors
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic
- Connectors for dual color or white only on each projector and interconnecting cable

Description

- Rugged design
- Easy installation
- No need of special tools to change a projector

Power cabinet

- Available in 48 Vdc or 120 /230 Vac
- Surge protection
- Automatic day/night switch with photocell
- Luminous indicator for each led circuits
- Test button for day and night
- Modular design
- Two side lights in option low intensity type
- Alarm contact
- Master/slave configuration for multiple lights synchronization

Interconnecting cable for OF360-RW or OF360-WW (cabinet to flashhead) :
CABLE-OFP-6P-RW-XS
X : lenght in meter

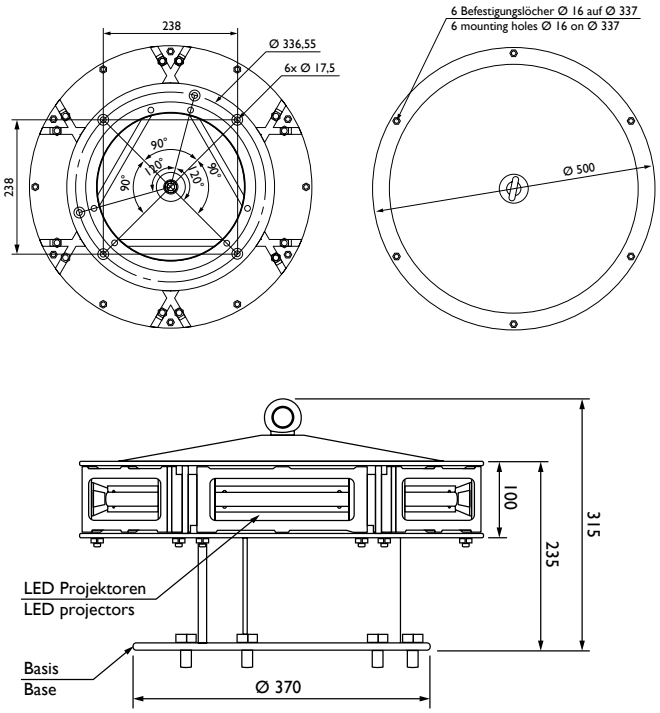
Product range OBSTAFLASH OF360
Obstaflash Medium intensity+ complete remote power supply Kit
ICAO White and Red Medium intensity type A and B & C / CAA / STAC

OF360 - XX - VVV - U

- U : - : ICAO
  U : ICAO + FAA L-865/L-864
- input voltage (VVV)
  048 : 48Vdc
  240 : 110-240Vac
- color (XX)
  RW : red at night and white during daytime
  WW : white day and night
  R : red at night only
  FW : white during day and feuer-W-rot at night

WEIGHT &DIMENSIONS (IN MM)

Flashhead



Weight: 14 kg
IP degreeIP66

SETS COMPOSTION

Obstruction lighting system Medium intensity kit	Part number
Flashhead + Control cabinet	113720, 113722, 113723U, 113725U
Connecting cable between flashhead and control cabinet	113762 LX for dual color or white only (X in meters)
48 VDC photocell	100755

Operating temperature	-30 up to +55 °C
Power cabinet	IP65 in vertical position
Input Voltage	110 Vac to 240 Vac 50/60Hz or 48V+/-10%

ACCESSORIES

- GPS module for wireless synchronization in case it is not possible to connect the lights by wires part number 113746, see page 55
- Photocell part number 100755, see page 52

Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only (L864)	light off	2000 Cd	light off	Red	> 3°	360°	As per ICAO or FAA
White only (L865)	20 000 Cd	2000 Cd or off	White	White or off			
Dual color (L865/L864)	20 000 Cd	2000 Cd	White	Red			

MAIN CHARACTERISTICS

Designation	OBSTA part number (Flashhead + stainless cabinet)	Main characteristics	Power supply	Average power consumption at 40 flashes/minute
OF360-WW-048	**113720**	White only	48 V	55 W
OF360-RW-048	**113722**	Dual color	48 V	55 W
OF360-WW-240-U	**113723U**	White only	120/230 Vac	55 W
OF360-RW-240-U	**113725U**	Dual color	120/230 Vac	55 W




OFP-180 with complete remote power supply

The led OBSTAFLASH medium intensity is a white, red or dual color flashing obstruction light with complete power supply in the cabinet. The OBSTAFLASH is compliant with ICAO medium intensity type A and B/C.

Patent : EP 1966535B1 & US 7816843

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2 or more Flashhead around obstacle

- 3 led projectors per flashhead
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic
- All electronic in stainless cabinet

Power cabinet

- Available in 48 Vdc or 120 /230 Vac
- Surge protection
- Automatic day/night switch with photocell
- Luminous indicator for each led circuits
- Test button for day and night
- Modular design
- Two side lights in option low intensity type
- Alarm contact
- Master/slave configuration for multiple lights synchronization

Patent : EP 1966535B1 & US 7816843

OFP - 180 - XX - XXX

connexion
- X : projectors with X meter cable (1, 2, 5, 10m) without connector (no junction box)
- **XL : projectors with X meter cable (1, 2, 5, 10) + connector (no junction box)**
- **JB : with junction box including 1 cable entry per projector and 1 cable entry to power supply**
- JBL : with molded junction box with 6 connectors projector + one connector for power supply

Color
- **R : red projector**
- **RW : dual color projector**

horizontal beam
- 120 : 2 projectors
- **180 : 3 projectors**
- 360 : 6 projectors

CABLE-OFP - 3P - XX - X

- **X : X meter**
- XS : X meters with one connector plug to junction box JBL or JBH

Color
- **R : red projector**
- **RW : dual color projector**

OFP-CAB - XP - XE - XX - XXX

input voltage
- 048 : power supply 48Vdc
- 240 : power supply 110-240Vac
- BAT : power supply 110-240Vac with 4 batteries 12V 12Ah

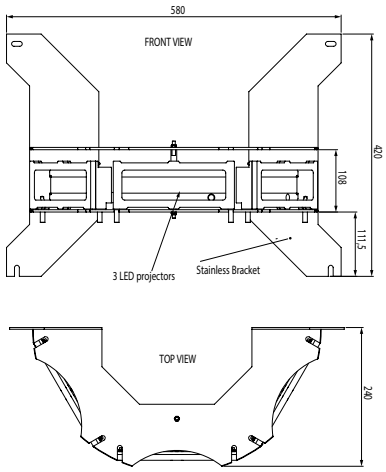
Color
- R : red only
- RW : red and white
- WW : white day and night
- W : white during day only + low intensity at night

connection to light(s) or projectors
- XE : X number of cable entry per light
- L : connector Lumberg (1 per dual color projector)

quantity of projector
- XP : X total quantity of projectors (1 up to 12 dual color or 2 to 36 red)

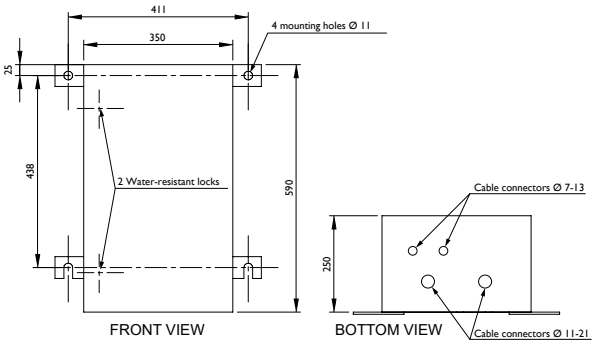
WEIGHT &DIMENSIONS (IN MM)

OFP-180

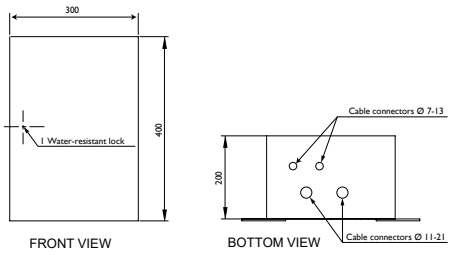


Weight: 14 kg, IP degreeIP66

Power cabinet for 3 to 4 flashheads OFP-180-RW



Power cabinet for 2 flashheads OFP-180-RW and 2 to 12 flashheads OFP-180-R



MAIN CHARACTERISTICS

Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only	light off	2000 Cd	light off	Red	> 3°	360° with 2 flashheads minimum	As per ICAO
White only	20 000 Cd	2000 Cd or off	White	White or off			
Dual color	20 000 Cd	2000 Cd	White	Red			

MAIN REFERENCE

Dual color obstruction lighting system type A+B/C (or white only)	Designation	Part number
2 to 4 Flashheads with stainless junction box	OFP-180-RW-JB	113738
Connecting cable between flashhead and power cabinet	CABLE-OFP-3P-RW	113805
Power cabinet	OFP-CAB-XP-XE-RW- XXX	See p 53 for designation

Red only obstruction lighting system type B/C	Designation	Part number
2 to 12 Flashheads with stainless junction box	OFP-180-R-JB	113745
Connecting cable between flashhead and power cabinet	CABLE-OFP-3P-R	113160
Power cabinet	OFP-CAB-XP-XE-R-XXX	See p 53 for designation

OFP-120 with complete remote power supply

The led OBSTAFLASH medium intensity is a white, red or dual color flashing obstruction light with complete power supply in the cabinet. The OBSTAFLASH is compliant with ICAO medium intensity type A and B/C.

+

+

3 or more Flashhead around obstacle

- 2 led projectors per flashhead
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic
- All electronic in stainless cabinet

Power cabinet

- Available in 48 Vdc or 120 /230 Vac
- Surge protection
- Automatic day/night switch with photocell
- Luminous indicator for each led circuits
- Test button for day and night
- Modular design
- Two side lights in option low intensity type
- Alarm contact
- Master/slave configuration for multiple lights synchronization

OFP - 120 - XX - XXX

connexion
- X : projectors with X meter cable (1, 2, 5, 10m) without connector (no junction box)
- **XL : projectors with X meter cable (1, 2, 5, 10) + connector (no junction box)**
- **JB : with junction box including 1 cable entry per projector and 1 cable entry to power supply**
- JBL : with molded junction box with 6 connectors projector + one connector for power supply

Color
- **R : red projector**
- **RW : dual color projector**

horizontal beam
- **120 : 2 projectors**
- 180 : 3 projectors
- 360 : 6 projectors

CABLE-OFP - 2P - XX - X

- **X : X meter**
- XS : X meters with one connector plug to junction box JBL or JBH

Color
- **R : red projector**
- **RW : dual color projector**

OFP-CAB - XP - XE - XX - XXX

input voltage
- 048 : power supply 48Vdc
- 240 : power supply 110-240Vac
- BAT : power supply 110-240Vac with 4 batteries 12V 12Ah

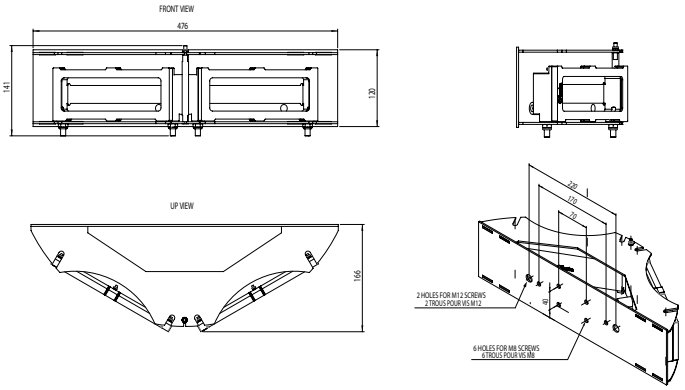
Color
- R : red only
- RW : red and white
- WW : white day and night
- W : white during day only + low intensity at night

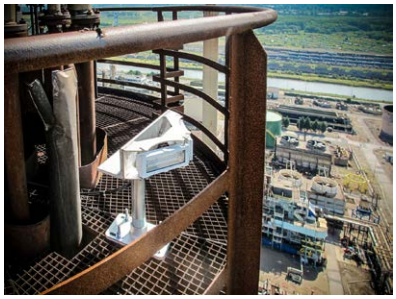
connection to light(s) or projectors
- XE : X number of cable entry per light
- L : connector Lumberg (1 per dual color projector)

quantity of projector
- XP : X total quantity of projectors (1 up to 12 dual color or 2 to 36 red)

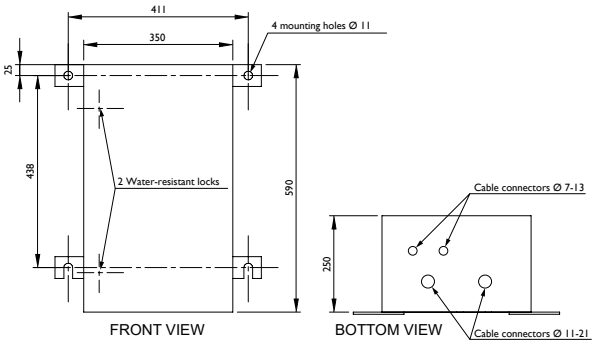
WEIGHT &DIMENSIONS (IN MM)

OFP-120

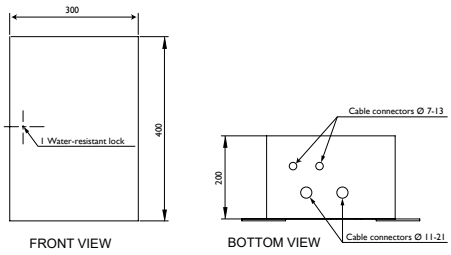




Power cabinet for 4 to 6 flashheads OFP-120-RW



Power cabinet for 3 flashheads OFP-120-RW and 3 to 12 flashheads OFP-120-R



MAIN CHARACTERISTICS

Main characteristics	Effective Luminous output on site at 0°		Color		Beam Spread		Flashes per minute
	Day	Night	Day	Night	Vertical	Horizontal	
Red only	light off	2000 Cd	light off	Red	> 3°	360° with 3 flashheads minimum	As per ICAO
White only	20 000 Cd	2000 Cd or off	White	White or off			
Dual color	20 000 Cd	2000 Cd	White	Red			

MAIN REFERENCE

Dual color obstruction lighting system type A+B/C (or white only)	Designation	Part number
3 to 6 Flashheads with stainless junction box	OFP-120-RW-JB	113747-JB
Connecting cable between flashhead and power cabinet	CABLE-OFP-2P-RW	113805
Power cabinet	OFP-CAB-XP-XE-RW- XXX	See p 53 for designation

Red only obstruction lighting system type B/C	Designation	Part number
3 to 12 Flashheads with stainless junction box	OFP-120-R-JB	113752-JB
Connecting cable between flashhead and power cabinet	CABLE-OFP-2P-R	113161
Power cabinet	OFP-CAB-XP-XE-R-XXX	See p 53 for designation

Design your medium intensity KIT

Design your Medium intensity kit with flashheads OFP-XXX.. with projectors 120, 180, 360° and with a power supply OFP-CAB-XX...

1. Choose the flashheads

The OFP medium intensity series is available in 3 configurations OBSTAFLASH120, OBSTAFLASH180 and OBSTAFLASH 360 in dua color or red only.

OFP-360

OFP-180

OFP-120

OFP - 360 - XX - XXX

- connexion
  - X : projectors with X meter cable (1, 2, 5, 10m) without connector (no junction box)
  - XL : projectors with X meter cable (1, 2, 5, 10) + connector (no junction box)
  - JB : with junction box including 1 cable entry per projector and 1 cable entry to power supply
  - JBL : with molded junction box with 6 connectors projector + one connector for power supply
- Color
  - R : red projector
  - RW : dual color projector
- horizontal beam
  - 120 : 2 projectors
  - 180 : 3 projectors
  - 360 : 6 projectors

2. Define the power cabinet

Product range OFC-CAB. OBSTA Cabinet for OFC with/without low intensity. The power cabinet depends on the number of flash-heads, their configuration (2, 3 or 6 projectors) and their color (red, white or dual color)

OFP-CAB - XP - XE - XX - XXX

- input voltage
  - 048 : power supply 48Vdc
  - 240 : power supply 110-240Vac
  - BAT : power supply 110-240Vac with 4 batteries 12V 12Ah
- Color
  - R : red only
  - RW : red and white
  - WW : white day and night
  - W : white during day only + low intensity at night
- connection to light(s) or projectors
  - XE : X number of cable entry per light
  - L : connector Lumberg (1 per dual color projector)
- quantity of projector
  - XP : X total quantity of projectors (1 up to 12 dual color or 2 to 36 red)

3. cable in option

Interconnecting cable between OFP junction box and OFP cabinet. Cable depending on numbers of projectors and their color.

CABLE-OFP - XP - XX - X

- X : X meter
- XS : X meters with one connector plug to junction box JBL or JBH
- Color
  - R : red projector
  - RW : dual color projector
- XP : total quantity of projector (2, 3, 4, 6)

3. Junction box in option (if not already coded with the flashhead)

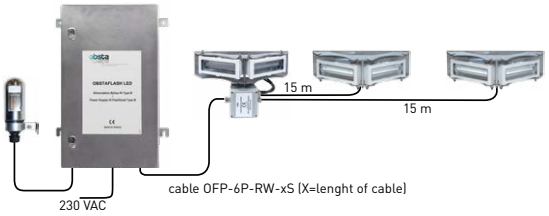
OFP - JB - XP - XX - L

- connexion to projector
  - - : with X cable entries (quantity of projector) + 1 cable entry for cable to power supply
  - L : molded with 6 connectors lumberg + one connector to power supply
- Color
  - R : red projector
  - RW : dual color projector
  - WW : dual color projector (wiring of white circuit only)
- quantity of projector
  - XP : total quantity of projector (2, 3, 4, 6)

Typical configuration

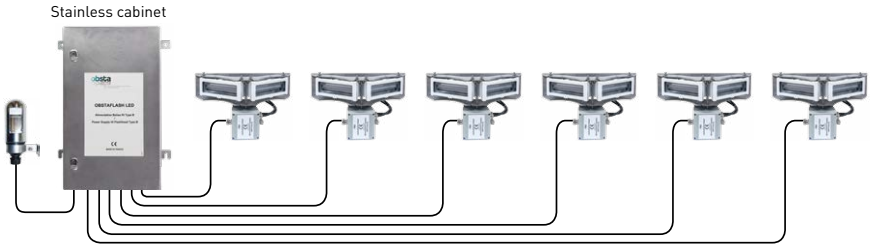
3 dual color obstaflash120 + 15 meters molded cable with connector + junction box + battery cabinet

Quantity	Designation
2	OFP-120-RW-15L
1	OFP-120-RW-JBL
1	OFP-CAB-6P-L-RW-BAT
1	Photocell-48



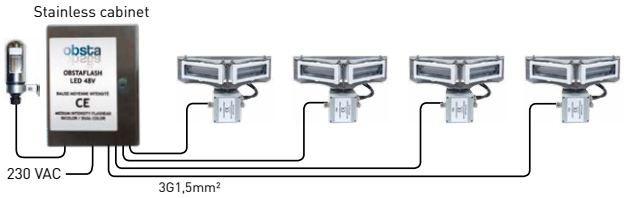
6 dual color obstaflash120 with junction box, interconnecting cable & power cabinet

Quantity	Designation
6	OFP-120-RW-JB
1	OFP-CAB-12P-6E-RW-240
1	Photocell-48
X meters	cable OFP-CABLE-2P-RW-X



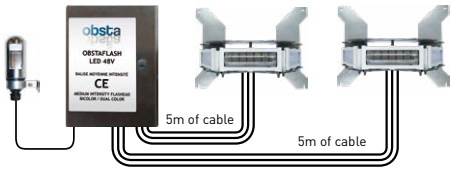
4 red obstaflash120 with junction box & power cabinet

Quantity	Designation
4	OFP-120-R-JB
1	OFP-CAB-8P-4E-R-240
1	Photocell-48
X meters	cable OFP-CABLE-2P-R-X



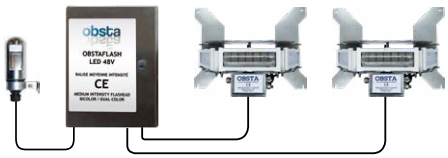
2 dual color obstaflash180 + 5 meters cable with connector & power cabinet

Quantity	Designation
2	OFP-18-RW-5L
1	OFP-CAB-6P-L-RW-240



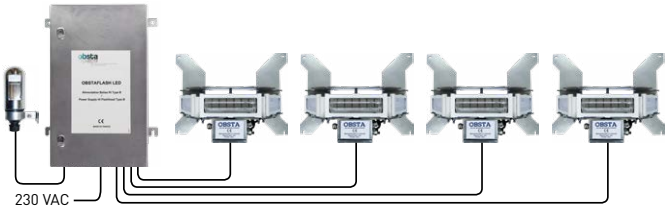
2 dual color obstaflash180 + junction box & power cabinet

Quantity	Designation
2	OFP-18-RW-JB
1	OFP-CAB-6P-2E-RW-240
1	Photocell-48
X meters	cable OFP-CABLE-3P-RW-X



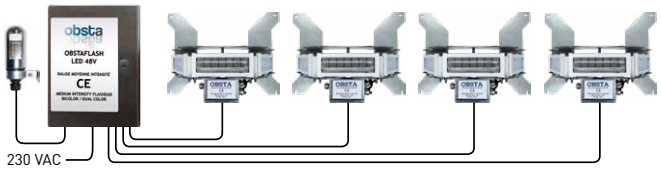
4 dual color obstaflash180 + junction box & power cabinet

Quantity	Designation
4	OFP-18-RW-JB
1	OFP-CAB-12P-4E-RW-240
1	Photocell-48
X meters	cable OFP-CABLE-3P-RW-X



4 red obstaflash180 + junction box & power cabinet

Quantity	Designation
4	OFP-18-R-JB
1	OFP-CAB-12P-4E-R-240
1	Photocell-48
X meters	cable OFP-CABLE-3P-R-X



BATTERY CABINET

The obstacles which require permanent back-up must be fed by a battery cabinet that can supply 12 hours of autonomy in case of power failure. This power cabinet draws its power from the AC main supply and outputs a DC voltage to feed 48VDC lights.

Set chargers / batteries

- metal enclosure
- 110 Vac to 240 Vac input, 48 Vdc output
- 12 hours back up
- protection against transient overvoltage on AC and DC side
- protection against deep discharge batteries
- Operating temperature : -20/+45°C
- Suitable for Navilite 48 V series, Obsta STI 48 V, OsbtaFlash medium intensity 48 V.

MAIN CHARACTERISTICS

Designation	Part number	Battery Capacity	Power supply	Output voltage	Number max. of OBSTA lights for 12 hours autonomy
48V-BAT-2,1Ah	113950	2,1 Ah	90 to 265 Vac	48 V	1 NAVILITE-48V or 1 red medium intensity 48Vdc OFC-RR-048
48V-BAT-4,5Ah	113951	4,5 Ah			2-3 NAVILITE-48V or 2 red medium intensity 48Vdc OFC-RR-048
48V-BAT-7Ah	113952	7 Ah			1 red medium intensity 48Vdc OFC-RR-048 + 3 NAVILITE-48V (or 5 NAVILITE-48V)
48V-BAT-12Ah	113953	12 Ah			8 NAVILITE-48V
48V-BAT-12Ah-RW	113953-RW	12 Ah			1 dual color medium intensity 48Vdc OFI360-RW-048 @ 20 flashes per minute
48V-BAT-18Ah	113956	18 Ah			12 NAVILITE-48V
48V-BAT-18Ah-RW	113956-RW	18 Ah			1 dual color medium intensity 48Vdc OFI360-RW-048 @ 20 or 40 flashes per minute
48V-BAT-24Ah-RW	113954	24 Ah			1 dual color medium intensity 48Vdc OFI360-RW-048 @ 20/40/60 flashes per minute

	113950	113951	113952	113953	113954	113956
Height (mm)	400	600	600	600	600	600
Width (mm)	300	400	400	400	400	400
Depth (mm)	230	230	230	230	230	230
Weight (kg)	10	22	26	30	45	45
Connection	by terminal					
Fixing	wall or placed on brackets for 113505					
Operating temperature	-20% to +45°C					

PHOTOCELL

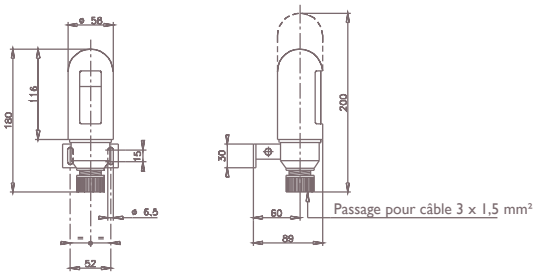
Photocell for night only operation or dual color light

- plug-in modular construction with plated contact surfaces
- automatic control of the obstruction lighting according to ambient light
- timer to prevent the functioning of the cell at inopportunes times (eg lightning)
- energy savings
- increased operational autonomy (power per power cabinet)
- works with all types of OBSTA lights (110 VAC, 230VAC, 48VDC and 24VDC) for night only operation or changing mode (day/night)

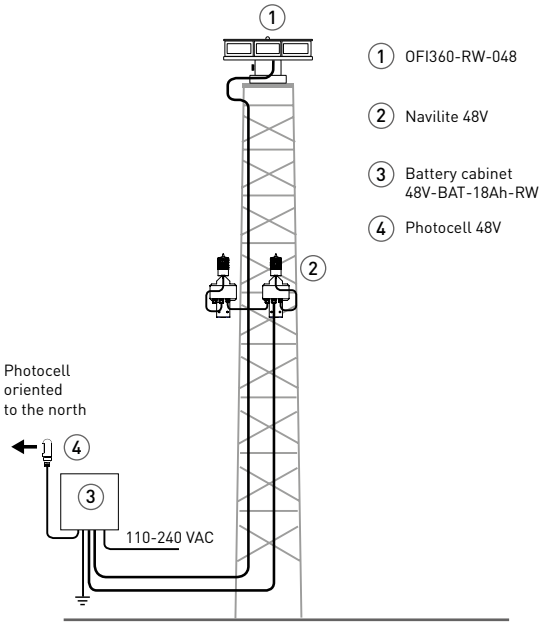
MAIN CHARACTERISTICS

PHOTOCELL	Power supply	Switching threshold of the cell
100752	230 V ~	50 lux
113667	110 V ~	
100755	48 V =	
100754	24 V =	

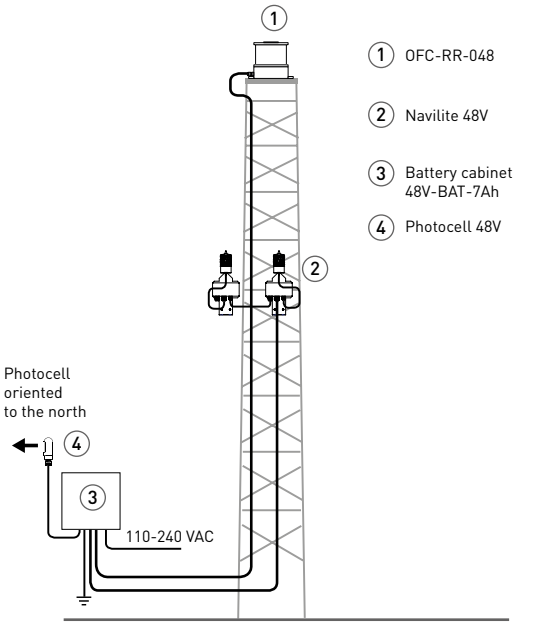
DIMENSIONS (IN MM)



IP degree	67
Operating temperature	-25 to +60°C
Voltage tolerance	-10 ; + 15 %
Consumption	1.5 VA
Weight	300 grs
Attachment	by harness and screws
Connection	screw terminal
Maintenance	none
Complementary functions	10A contact closed in darkness



Dual color medium intensity
with battery cabinet (tower 45 to 105m high)



Red medium intensity
with battery cabinet (tower 45 to 105m high)

LED OBSTAFLASH HI type A

The led OBSTAFLASH high intensity is a white color flashing obstruction light.
The OBSTAFLASH is compliant with ICAO high intensity type A, and in option medium intensity type B or C at night.

Patent : EP 1966535B1 & US 7816843

Flashhead

- 8 led dual color projectors
- Aluminium and glass envelope
- Modular design
- Easy maintenance
- Precise optic, low power consumption

Description

- 200 000 candelas during day time in white
- 20 000 candelas during twilight in white,
- 2000 candelas during the night white (red medium intensity type B or C in option),
- Rugged design
- Easy installation

Power cabinet per flashead

- Weathertight stainless steel enclosures (in vertical position),
- Surge protection
- Alarm monitoring
- Automatic day/twilight/night switch by photocell
- Luminous indicator for each projector
- Test button for day, twilight and night mode
- Modular design
- Low power consumption

Product range OBSTAFLASH OFH ICAO High Intensity type A / CAA

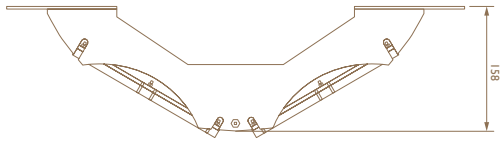
OFH-120 - XX - XXX

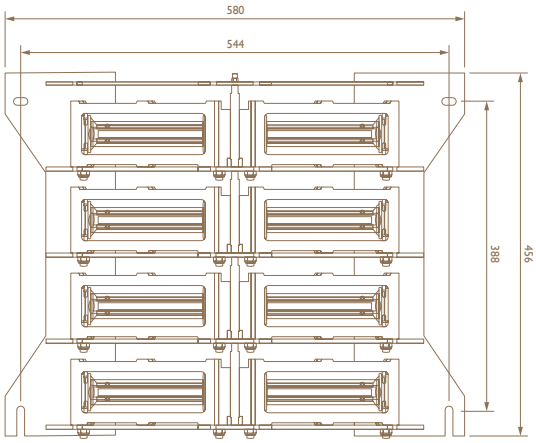
input voltage
240 : 110-240Vac

color
WW : white day tiwilight and night
RW : red at night and white during daytime & twilight

WEIGHT AND DIMENSIONS (IN MM)

Flashhead





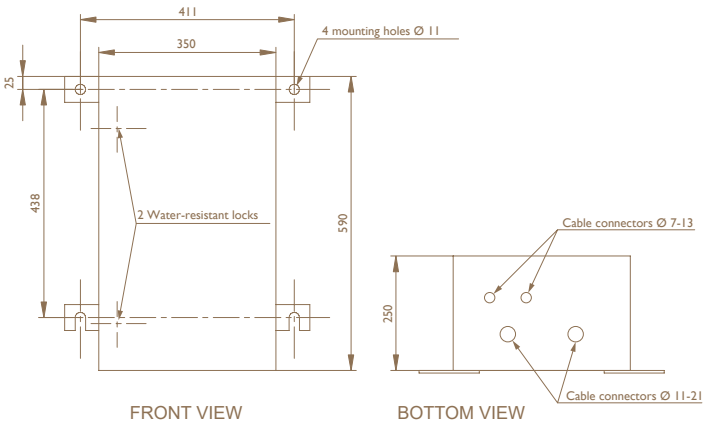
COMPOSITION

Obstruction lighting system 230 V - 50Hz	Part Number
Flashead + power cabinet	113780
Photocell day/twilight/night	113135
HI controller	

OTHER CHARACTERISTICS

- IP degree: 66 for the projectors and 65 for the stainless cabinet in vertical position,
- Weight per cabinet: 15kg,
- Weight per flashhead: 18kg (1kg per projector and 10kg for the stainless bracket),
- Temperature -30°C to +55°C,
- day/twilighy/night automatic switch by external photocell
- Autonomous synchronisation (master/slave configuration) or with external controller
- GSM modem with optical network for remote diagnostic.

POWER CABINET



Main supply	Frequency	Average wattage during day time
110V up to 240V	50/60 Hz	160 W

MAIN REFERENCE

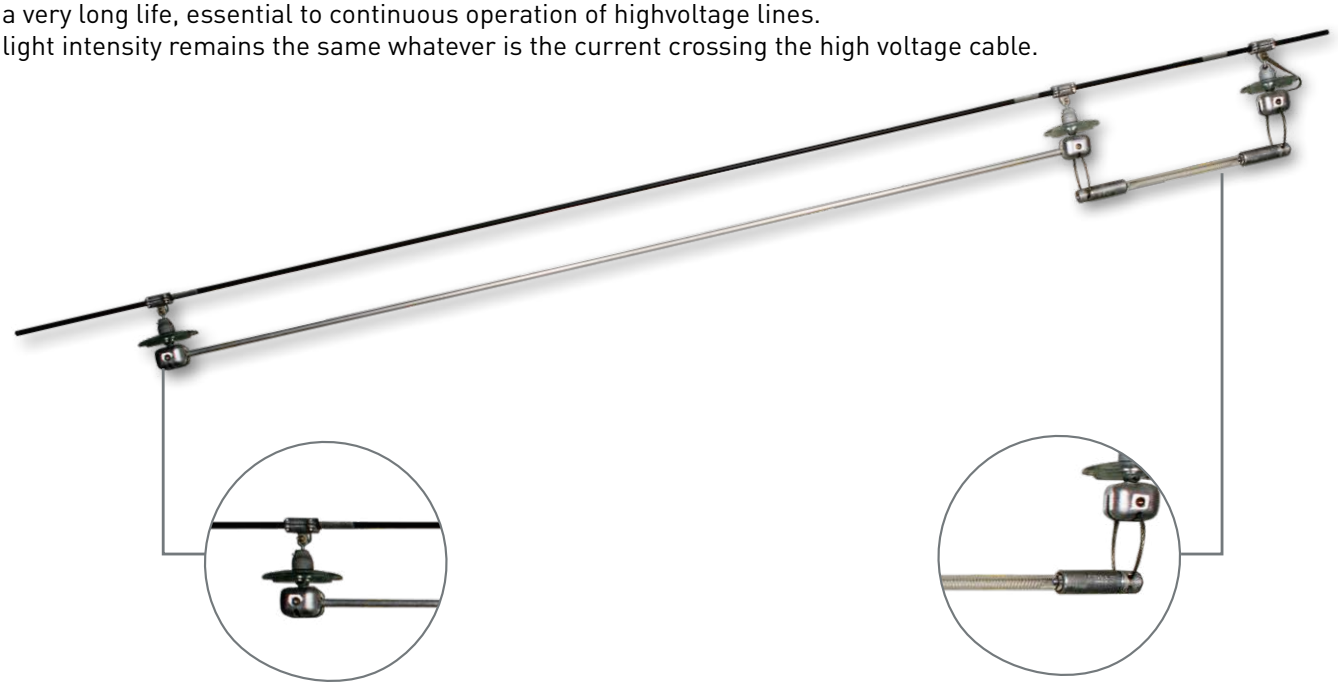
Designation	part number	Luminous Intensity			Beam spread		Flashes/minute
		Day	Twilight	Night	Vertical	Horizontal	
OFH-120-WW-240	**113780**	200 000 Cd	20 000 Cd	2000 Cd	> 3°	120°	40

BALISOR

High-voltage lines are major hazards for low-fl ying aircraft. Placing beacons on pylons is not sufficient to ensure safety due to the very long spans of cable (extract of Aerodrom Design Manual chapter 14.7 annex 4).

The BALISOR® system (created by OBSTA in the 60's) is a beacon for high voltage lines. Its conductors take the power required directly from the line.
The system is , therefore, completely self-contained.
Our standard model of BALISOR® fall into the ICAO low intensity category.

The neon discharge offers :
- inherent generation of «aviation» red light,
- a very long life, essential to continuous operation of highvoltage lines.
- light intensity remains the same whatever is the current crossing the high voltage cable.



Fixing accessories

- fixing accessory and capacitive elements in aluminium
- flexible mounting - no rigid fixation
- clamp adapted to the diameter of the cable
- exists with cable antenna

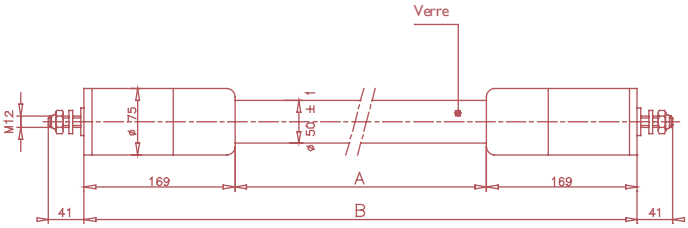
Cold neon discharge light

- hard glass envelope and tube
- "aviation" red light
- very long lifetime,
- excellent luminous efficiency
- low power consumption

MAIN CHARACTERISTICS

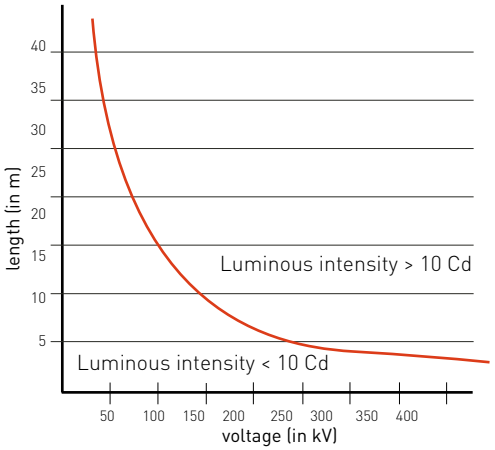
Designation	Part number	Luminous intensity	Voltage of the line	Interference suppression	Typical lifetime
BALISOR-lamp-B49	**100618**	> 10 Cd	60 kV to 550 kV	yes	> 100 000 h.
BALISOR-lamp-B33 (for balisor with cable antenna)	**100616**	> 10 Cd	60 kV to 400 kV	yes	> 100 000 h.

WEIGHT AND DIMENSIONS (IN MM)

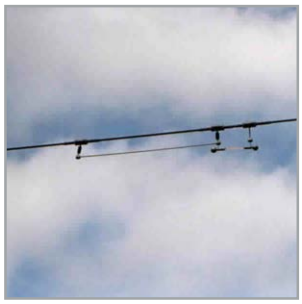


Type	A	B	Weight
Lamp type B49	563 +/- 5	901 +/-5	4.7 kg
Lamp type B33	376 +/- 5	714 +/-5	4 kg

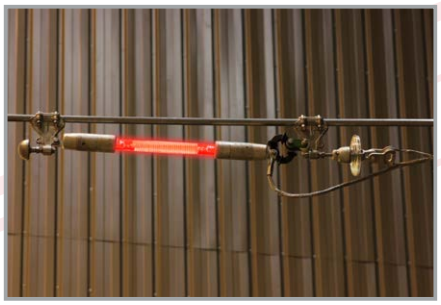
Length of the drift depending on the voltage



			Number of elements depending on voltage line			
Unit weight	**Code**	**Désignation**	**115 kV**	**132 kV**	**220 kV**	**380 kV and more**
0.85 kg	100637	Clamp	7	6	4	3
3.50 kg	100621*	Insulator	7	6	4	3
0.10 kg	100636*	Shunt braid	1	1	1	1
0.50 kg	100628	Simplified auxiliary holder	7	6	-	-
2.00 kg	100631	Lampe holder	-	-	2	2
1.35 kg	100632	Auxiliary tubing holder	-	-	2	1
1.90 kg	100623	Auxiliary tubing	5	4	2	1
0.50 kg	100606	Flexible connector	2	2	-	-
0.50 kg	100624	Lamp end suspender	2	2	-	-
4.70 kg	100618	BALISOR B lamp	1	1	1	1
4.00 kg	100616	BALISOR B33	-	-	-	-



Balisor with rigid capacitive element



Balisor with cable antenna

WARNING SPHERES

Those spherical markers are compliant with International Civil Aviation Organization (ICAO) recommendations annex 14 chapter 6 :

Paragraph 6.2.8: A marker displayed on a overhead wire, cable etc. should be spherical and not have a diameter of not less than 600mm

Paragraph 6.2.10: A marker should be of one color. When installed, white and red, or white and orange markers should be displayed alternately. The color selected should contrast with the background against it will be seen.

Warning spheres

- diameter: 610 mm
- material: polyethylene
- weight: 5 kg
- colors : orange aviation or white
- clamps: adapted to the diameter of the cable
- optional armor rods for cable and OPGW (consult us)

MAIN CHARACTERISTICS

OBSTA part number	Color *	Clamp diameter *	Armor rod *
13655	Red aviation, orange aviation, white	From 9.3 mm to 54.8 mm	Optional

* to be defined when ordering

ALUMINIUM WARNING SPHERES

The spherical markers are compliant with International Civil Aviation Organization (ICAO) recommendations annex 14 chapter 6 :

Paragraph 6.2.5.4: A marker displayed on an overhead wire, cable, etc., should be spherical and have a diameter of not less than 60 cm.

Paragraph 6.2.5.5: The spacing between two consecutive markers or between a marker and a supporting tower should be appropriate to the diameter of the marker, but in no case should the spacing exceed 30 meters where the marker diameter is 60 cm. Where multiple wires, cables, etc., are involved, a marker should be located not lower than the level of the highest wire at the point marked.

Warning spheres

- Designed for high voltage cable up to 420KV
- No losing parts during installation with only 2 screws and 4 draw latches
- overall diameter 600mm
- material: aluminum
- weight: 6.5kg
- color: white, red or aviation orange
- clamps depending on the diameter of the cable

MAIN CHARACTERISTICS

OBSTA part number	Color *	Diameter of clamps *
113655AL	Red, orange or white	from 9 mm up to 67 mm

* to be specified at time order

OBSTA GPS SYNCHRONISER

In case 2 or more flashing lights are installed on the same obstacle, ICAO and FAA request that the lights should be synchronized.
In case it is not possible to install a wire between the flashing lights, the GPS control unit from OBSTA allows synchronizing a group of flashing lights without the need of installing a cable between them.

The GPS control unit from OBSTA is a DIN rail module and allows synchronizing on an external and independent timing.

GPS synchroniser

- DIN rail mounting
- Dispswitch to select the frequency of flashes (20 to 60 flashes per minute)
- Simultaneous day/night mode switching
- Compatible with all new Led and old xenon OBSTA flashing lights

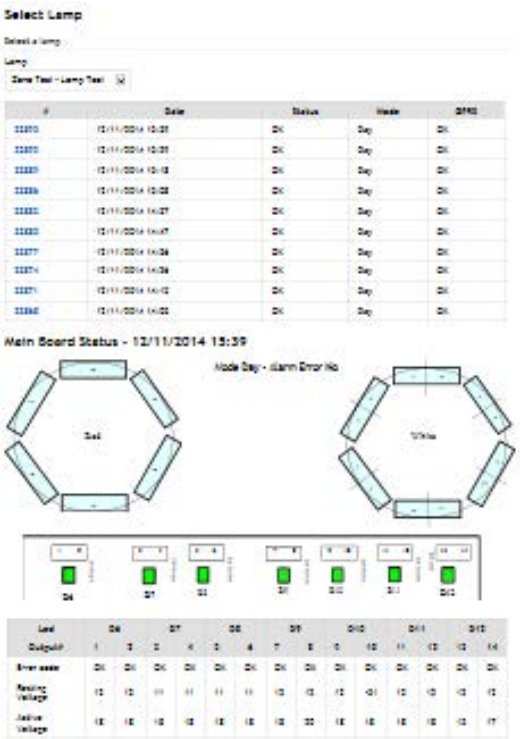
MAIN CHARACTERISTICS

Part number	Protection class	Operating temperature	Antenna cable lenght	Dimensions (in mm)	Luminous indicators
113746	IP20	-55 / +55 °C	5 meters	113x103x22	2 in front : - Red indicator for flash synchronisation - Green indicator for day/night switch

OBSTA DIAGNOSTIC GPRS

The «OBSTA diagnostic GPRS» kit allows a precise remote diagnostic of each items of the obstaflash led type in order to facilitate ther currative and preventive maintenance of the projectors and their respective power supply.

This kit includes a web interface and an obsta gprs modem (or other modem if a local internet connection is available on site) installed in the power cabinet of the obstaflash.



Features of the kit

Recording the status of the lights at preset interval :

1/ Status of the lights and their power supply
- Status of the led projectors and their associeted power supply
- Status of the synchronisation coming from the GPS or other interface
- Status of the day/night mode
- Temperature inside the power supply (only with the gprs modem)
- Configuration of the flashheads

2/ Telemetric curves
- Voltage of each led circuits
- Voltage of the power supply or batteries
- Temperature (only available with the gprs modem)

3/ Status of 3 alarm contacts coming from intermediate low intensity lights or other devices (surge protection, charger, etc).

4/ Alarm by email.

Requirement for the web interface

2 solutions are possibles :

- either by using the OBSTA web site with a secure access : https://servicegprs.obsta.com/obstaGPRS/

- either through a dedicated server using a WAR application (code and support given by OBSTA).

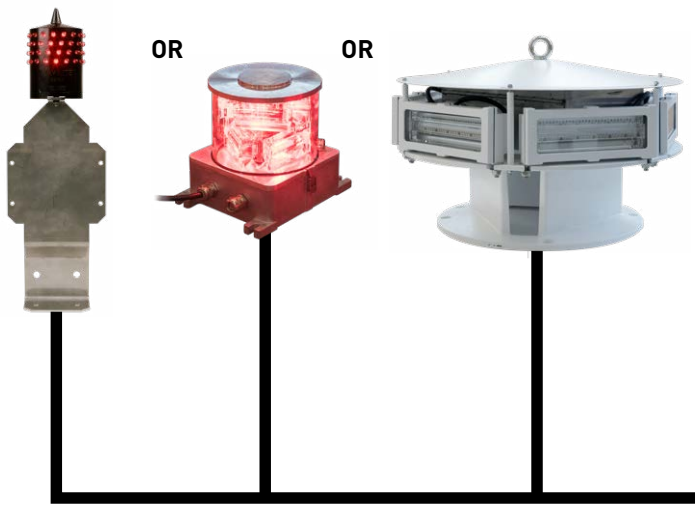
Requirement for the server : **Postgres** (database) + **tomcat**

OBSTA part number	**Power supply of the interface**	
113785	48 VDC	Suitable for 1 or 2 Obstaflash dual color or more through optical network on the same obstacle

SOLAR POWER SYSTEM

This kit consists of one or two lamps in redundancy, 12V to 48 VDC, low and/or medium intensity, that must be installed on top of the obstacle.

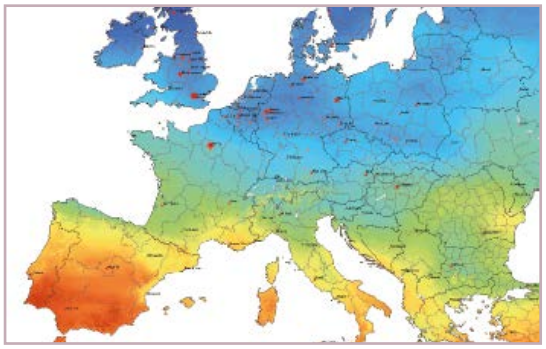
These solar kits are designed for long life (size of the batteries includes more than 5 days fo autonomy) and easy access for the maintenance fo the batteries



GPS synchroniser

- one or more photovoltaic panel(s)
- a charge controller
- long lifetime gel battery
- an aluminium frame with angle or vertical mounting bracket and battery box
- optional : 2 lights in redundancy with tilt of the main light to the emergency light in case of failure
- nominal battery capacity : 5 to 10 days depending on latitude
- easy access for maintenance of the battery

The size of the solar panel and of the battery depends on the location of the installation.
Please contact us for more information.



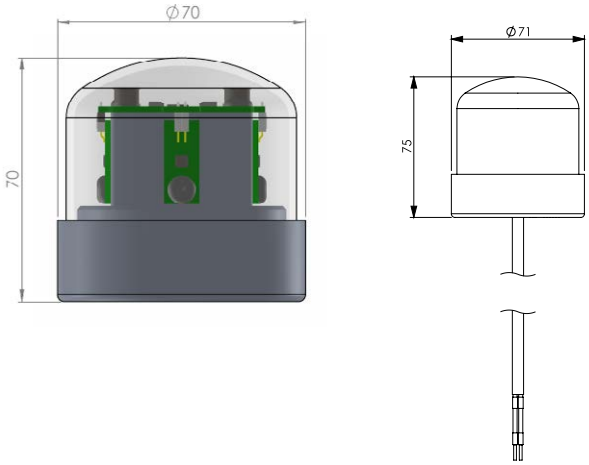
HELITE-G-24

Helipad light (TLOF)

Key points

- hard glass
- compact
- low power consumption
- compliant with ICAO Annex 14 Volume II
- DC power supply with battery cabinet in option
- LED technology (no maintenance)
- frangible support in option
- light weight

dimensions (in mm)

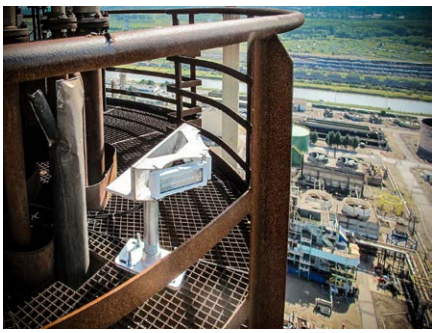


MAIN CHARACTERISTICS

Designation	Part number	Operating temperature	Color	IP degree	Attachment	Luminous intensity	Power supply
HELITE-G-24	113975	**-30/+60°C**	green	IP66	1 NPT threaded holes or 3 M4 0.7	>32cd	3w 10-36Vdc

Some OBSTA references on all continents and conditions

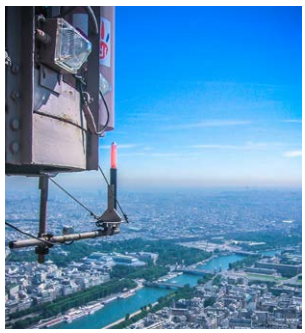
FRANCE, Oil and Gas Chimney



SPAIN, Barcelona Tower

MALAYSIA, Kuala Lumpur

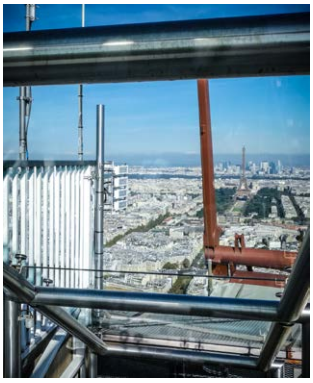
PARIS, Eiffel Tower



FRANCE, Millau

CHINA, Hong Kong

PARIS, Montparnasse Tower



USA, Texas

BRUXELLES, Diegem

ABU DHABI, Four Seasons Hotel

BEIRUT, Damac Vercase Tower

ST PETERSBURG, Gazprom tower

NIGERIA, Lagos, Eko Towers

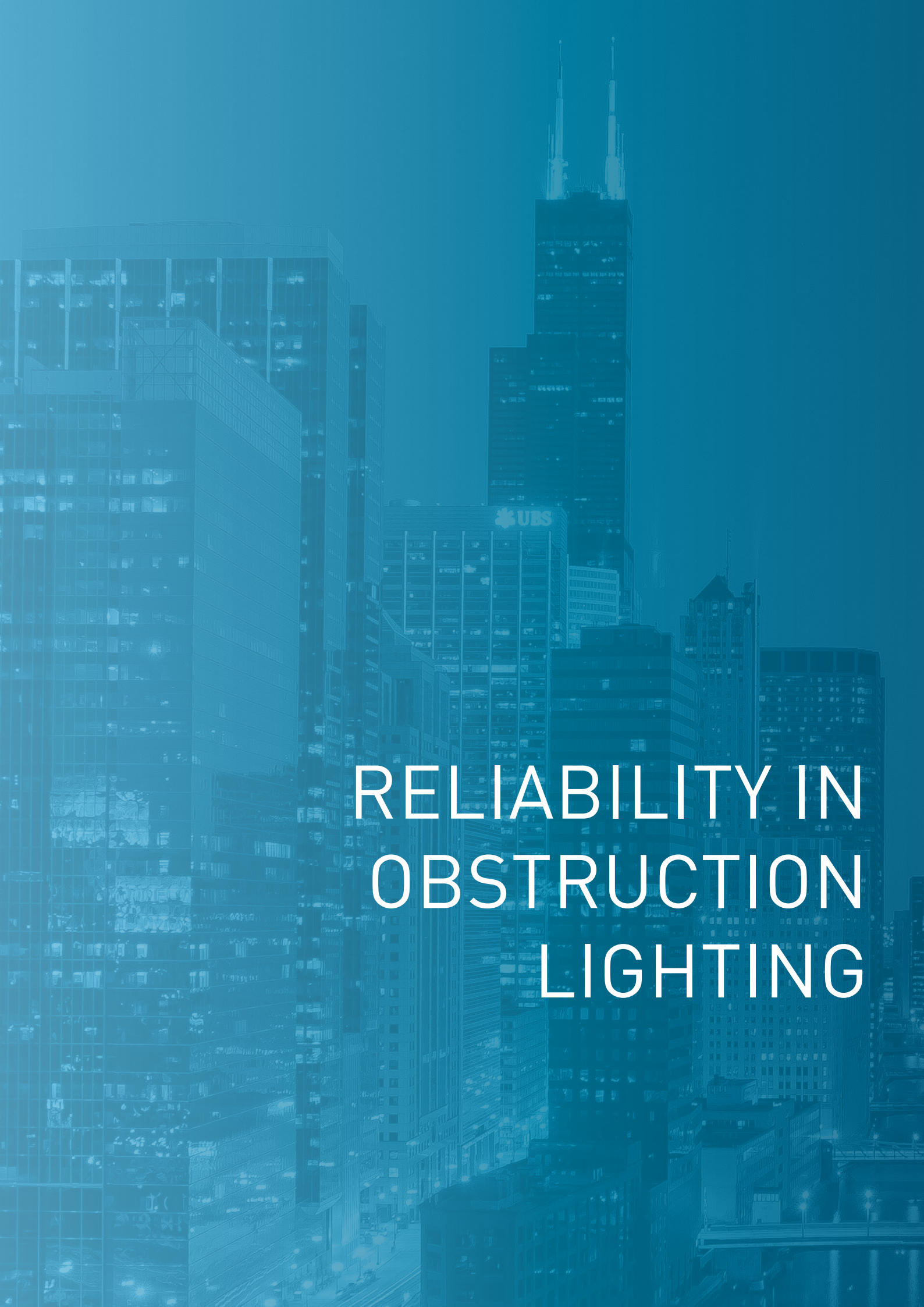
BELGIUM, Bruxelles airport

RUSSIA, Moscow

EGYPT, Ain Sokhna

ABU DHABI, UAE

Paris Airport, FRANCE. Working since 1973!



RELIABILITY IN OBSTRUCTION LIGHTING

RELIABILITY IN OBSTRUCTION LIGHTING

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