2024 catalogue-price list





emergency lighting



Luznor Desarrollos Electrónicos, S. L., is a company specialized in the design and manufacturing of electronic security devices since its establishment in Vitoria-Gasteiz (Álava) in the year 1998.

LOCAL MANUFACTURING

The products developed by Luznor can be classified into three main groups: emergency lighting, professional torches and battery charging equipment, and are entirely developed in its single production plant.

At the same time, Luznor has always had as a principle to consolidate ties with local suppliers, ensuring a relationship of trust, a high quality perceived in the products and a transfer from R&D&i to market launch as quickly and efficiently as possible.

As reference numbers, around 80% of Luznor's supplies come from national suppliers and more than 95% of the investments are also made to national companies, promoting the growth of the nearby business network.

QUALITY

The certificate of the ISO 9001:2015 Quality Management standard since 2003 is a guarantee of the quality of Luznor's products, as well as the deep-rooted philosophy of the company of commitment to customers, offering a technical service highly valued by them.

Of course, all products comply with the applicable European Parliament and Council Directives to comply with Directive 93/68/EEC of CE marking.

RESEARCH, DEVELOPMENT & INNOVATION

Regarding its staff, Luznor has engineers and industrial technicians, which allows the company to have the necessary skills to carry out its continuous research activity.

With 20% of the staff deicated to R&D&i, the company is focused on product/service innovation using emerging technologies and new materials, improving manufacturing processes and always taking into account the sustainability of the resources used.

ENVIRONMENT

The company's commitment to the environment was made clear in 2019 by obtaining the ISO 14001:2015 Environmental Management certificate.

Likewise, Luznor won the *Green Pact Award for Good Environmental Practices* in 2019 in its fifth edition in the SME category, awarded by the Vitoria-Gasteiz City Council.

SOCIETY

Equality is a fundamental aspect for Luznor, ensuring it in all its possible forms. Since its creation, Luznor has promoted the integration of women in the industrial environment, always maintaining a percentage greater than 55% of them in the workforce and, for this reason, receiving the First Arguilan Company and Employment Award for Equality in 2006.

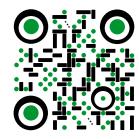
As and advanced manufacturing company, one of the Basque Country's RIS3 Smart Specialization Strategic Priorities, Luznor has made, since its creation, an important contribution to certain industrial sectors, specifically construction, transport and citizen security.

By aligning its industrial activity with the Sustainable Development Goals, Luznor helps to meet the world's technological, energy and social challenges, for example, by offering quality employment.

POSITIONING

Luznor's greatest differential value is its capability, thanks to a high level of specialization, to offer customized solutions according to the requirements set forth, ranging from its electronic and mechanical design to its validation through the relevant tests and approvals in official laboratories.

Luznor Brand is, thus, synonymous with personalized developments of maximum reliability, positioning itself, with an approximate export rate of 15%, in a market niche with high added value at an international level.





c/ Paduleta, 47 (Júndiz) 01015 Vitoria-Gasteiz (Álava) Spain

www.luznor.com luznor@luznor.com Tel. (+34) 945 200 961

Contents

EMERGENCY LUMINAIRES

Polar Series		LLE Series39
Orión Series11	* + 1	Remote control41
Dome Series13	BEACON LIGHTS	Matiz Self-contained
Tabled Series15		Accessories Matiz49
G Led Series19		Élite Self-contained
G Basic Led Series21 + Autotest25		Élite Centralized53
Accessories G Series26		Accessories Élite54
L Led Series29		PCM Centralized57
L Basic Led Series31 + Autotest33	LINEAR EMERGEN	ICY FITTINGS
Accessories L Series34		LN Series 59 + Autotest61
LLD Series37		Tube Series63
	+ Autotest 9 Orión Series 11 Dome Series 13 Tabled Series 15 G Led Series 21 + Autotest 25 Accessories G Series 26 L Led Series 29 L Basic Led Series 31 + Autotest 33 Accessories L Series 34	# Autotest

EMERGENCY CONVERSION KITS

BATTERY CHARGING EQUIPMENT



K1 Series64



K2 Series......65



CB Series81

EMERGENCY FLOODLIGHTS



PL Series......67



CBQ Series......83



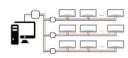


ADDITIONAL INFORMATION

PCI Software......86 Interdistances......84



PLN Series......77



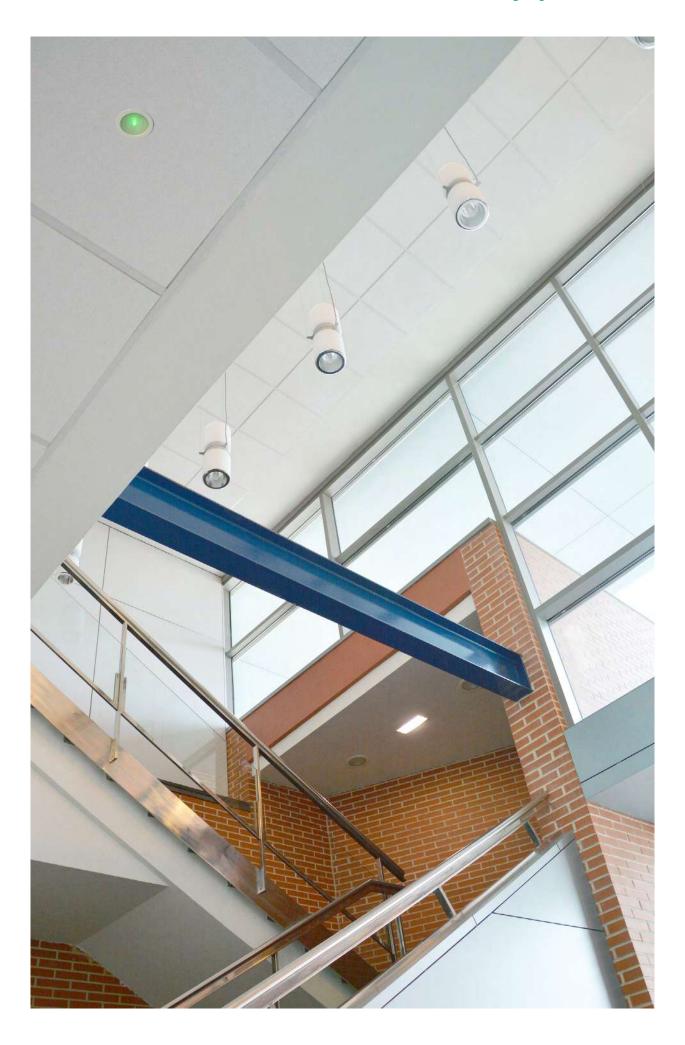
Autotest......85

LOW TEMPERATURES



FI Led Series79

The information contained in this emergency lighting catalogue is valid from the date of publication, except in the case of typographical errors. Luznor reserves the right to change them without prior notice. This list of references and prices replaces any other previously published.



Polar Series

The most minimalist emergency light. Circular and flush design. Light source consisting of 6 white crown-shaped LEDs, with a choice of colour temperature: 5,700 K (cold light) or 3,000 K (warm light). Set comprising luminaire kit, kit module and battery. Remote controllable.



Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
MB-300-BT	300	1	2.0	73.41
MB-200-BT	200	1	1.5	66.86
MB-200-2-BT	200	2	2.0	69.70
MB-150-3-BT	150	3	2.0	69.70

Maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
MB-300P-BT	300	1	6.5	86.30
MB-200P-BT	200	1	4.0	79.64
MB-200P-2-BT	200	2	4.5	82.59
MB-150P-3-BT	150	3	3.7	82.59

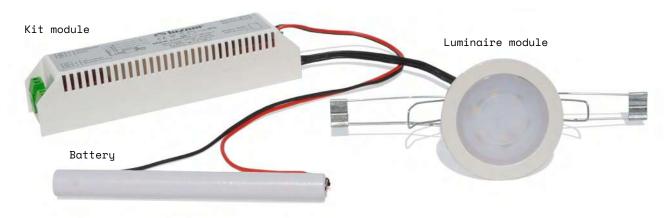
Centralizable luminaires

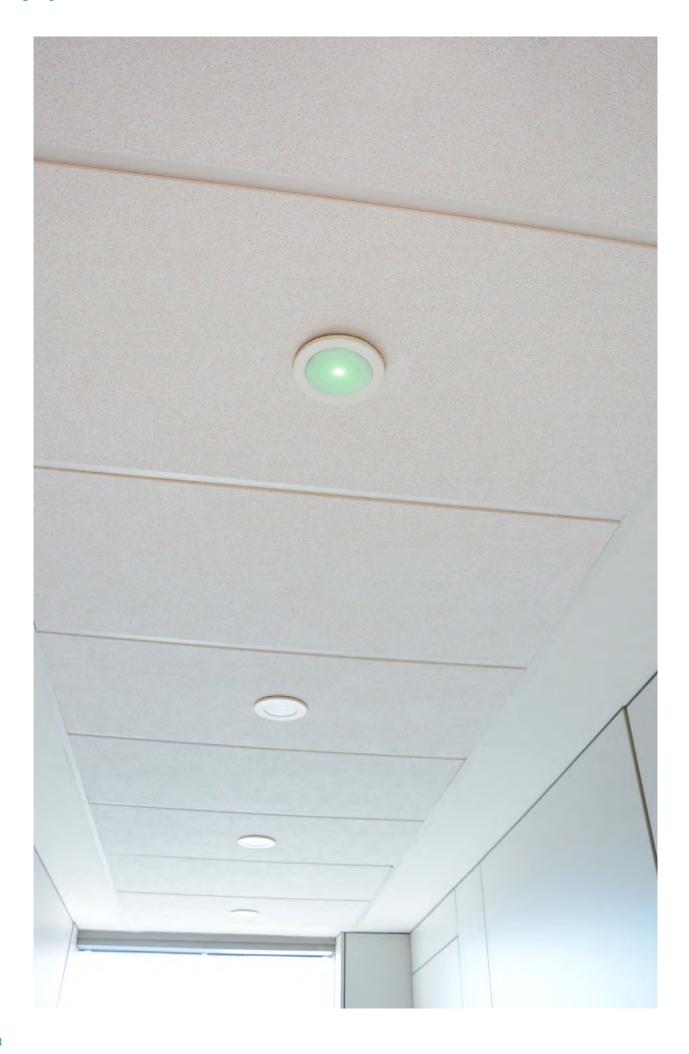
model	Φ (lm)	P net (W)	modules	power supply	RRP (€)
MB-200L-BT	200	2.5	luminaire + kit	85÷265 Vac and 120÷370 Vdc	48.13
MB-200L-BT (12Vdc)	200 or 100	2.0 or 1.0	luminaire	12 Vdc	43.31
MB-200L-BT (24Vdc)	200 or 100	2.0 or 1.0	luminaire	24 Vdc	43.31

To request different body finish and/or different diffuser type, change the corresponding letters in the reference. To request a colour temperature of 3,000 K, add "W" to the reference. To request IP55 degree of protection, add "E" to the end of the reference. Example:



- ♦ Interdistances on page 84.
- ♦ Dimensions on page 9.
- ♦ Ni-Cd (HT) battery.
- ♦ The development of the centralizable luminaires of 300 and 150 lm is available on demand.





Polar Series AUTOTEST

The most minimalist emergency light with Autotest function: a microprocessor checks the status of the emergency LEDs, the battery and the electronics on a regular basis. Light consisting of 6 white LEDs (5,700 K or 3,000 K) in the shape of a crown. Set consisting of luminaire module, kit module and battery. Remote controllable.

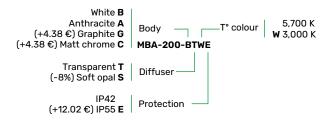




Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
MBA-300-BT	300	1	2.0	101.80
MBA-200-BT	200	1	1.5	95.24
MBA-200-2-BT	200	2	2.0	98.08
MBA-150-3-BT	150	3	2.0	98.08

To request different body finish and/or diffuser type, change the corresponding letters in the reference. To request a colour temperature of 3,000 K, add "W" to the reference. To request IP55 degree of protection, add "E" at the end of the reference. Example:



- ♦ Ni-Cd (HT) battery.
- ◊ Information about Autotest on page 85.
- ♦ Interdistances on page 84.

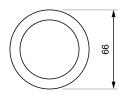
Maintained

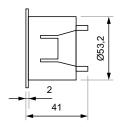
model	Φ (lm)	A (h)	P net (W)	RRP (€)
MBA-300P-BT	300	1	6.5	114.68
MBA-200P-BT	200	1	4.0	108.03
MBA-200P-2-BT	200	2	4.5	110.97
MBA-150P-3-BT	150	3	3.7	110.97

Flush mounting

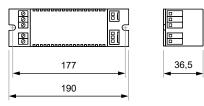
Luminaire module

Cut: Ø55 mm

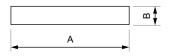




Kit module

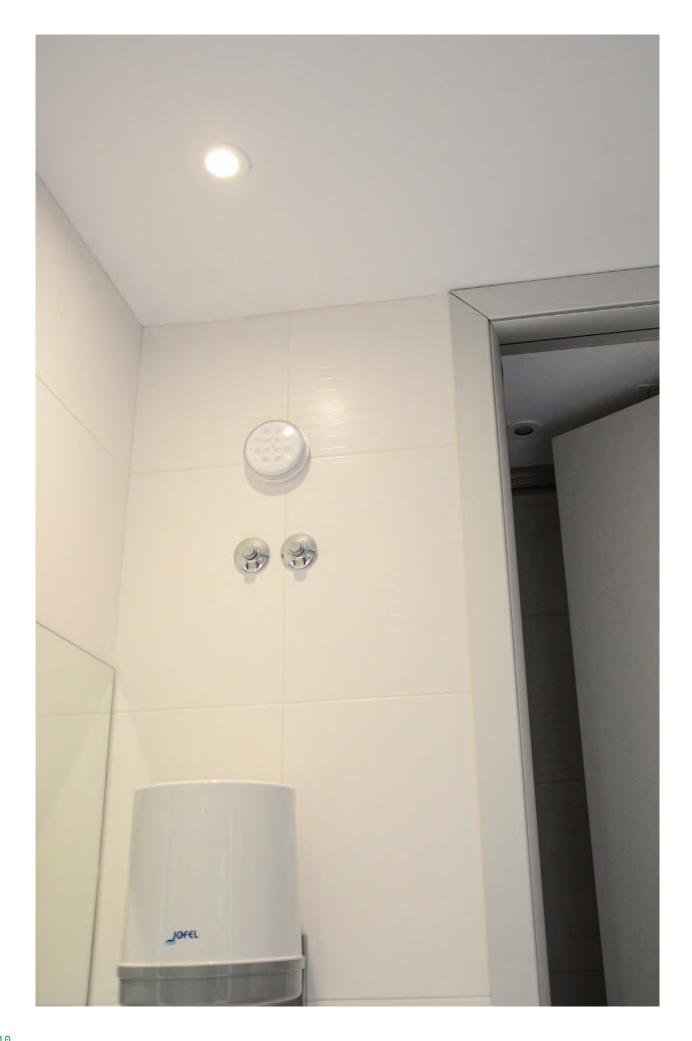


Battery module



A | 150 mm (200 or 150 lm) 128 mm (300 lm)

B | 14 mm (200 or 150 lm) 22 mm (300 lm)



Orión Series

Circular emergency luminaire of the highest aesthetic and functional quality, for environments of great social value such as hotels or hospitals. Choice of: maintained mode, with 8 LEDs arranged in a crown with cool (5,700 K) or warm (3,000 K) colour temperature, or non-maintained. Compatible with the Dome Series. Remote controllable.



In emergency mode, the 4 central LEDs light up, always at 5,700 K. If the Orión was in maintained mode before going into emergency mode, the LED crown is switched off.

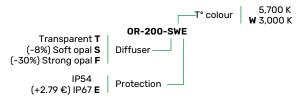


The 8 LED crown can be set at 5,700 K or 3,000 K to light when the Orión is on mains, if the maintained mode is chosen. For the crown not to light and the Orión is in non-maintained mode, a connector inside the Orión needs to be repositioned.

Maintained / Non-maintained

model	Φ (lm) emerg	Φ (lm) main	P net NM (W)	P net M (W)	A (h)	RRP (€)
OR-200-T	200	100	1.0	1.6	1	65.55
OR-100-2-T	100	100	1.0	1.6	2	65.55

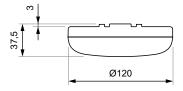
To request a different diffuser type, change the corresponding letter of the reference. To request a colour temperature of 3,000 K in maintained lighting, add "W" to the reference. To request an IP67 degree of protection, add "E" at the end of the reference. Example:



- ♦ Accessories and finishes on page 13.
- ♦ Ni-Cd (HT) battery.
- Only part of the Dome needs to be replaced to convert it into an Orión: the installation remains unchanged, energy efficiency and lighting performance are gained, and costs and waste are saved.



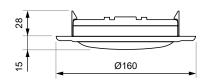
Surface mounting



Recessed mounting

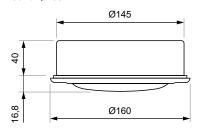
Hollow surface

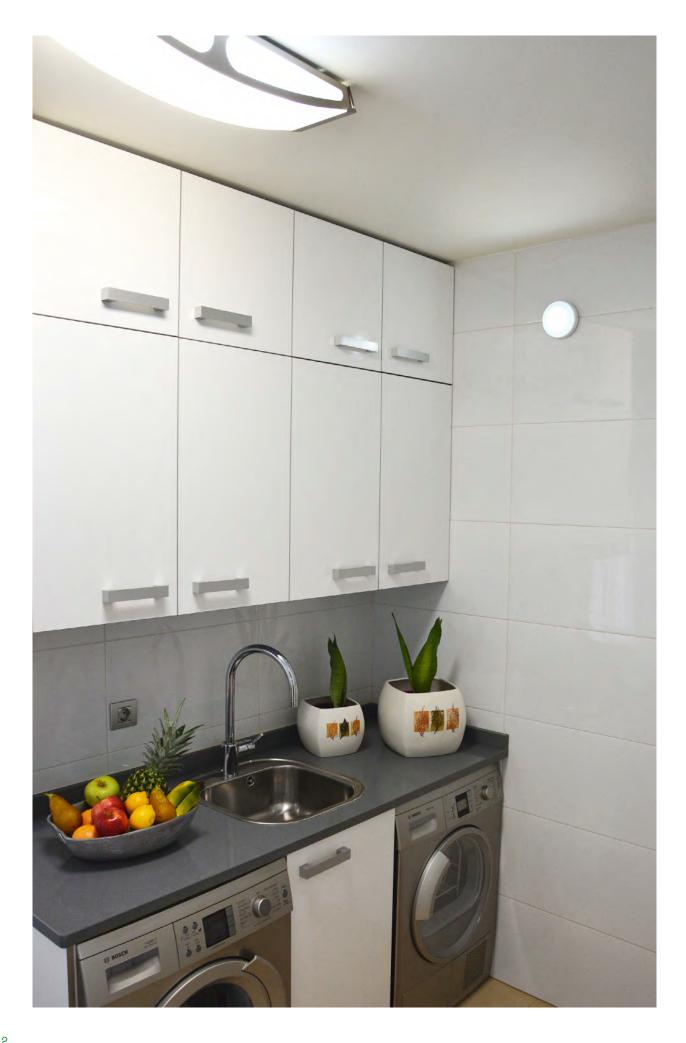
Cut: Ø130 mm



Solid surface

Cut: Ø150 mm





Dome Series

Circular residential emergency luminaire, designed for residential, hotel and hospital environments. Illimunation by means of a single LED (colour temperature: 5,700 K). Four possible levels of luminous flux, both emergency and maintained, allowing dim and pleasant ambient or night-time lighting with minimum consumption.



Maintained

model	emergency	remote	P net (W)	RRP (€)
DOME-T	yes (Ni-Cd HT)	no	3.0	71.84
DOME-T2	yes (Ni-Cd HT)	yes	3.0	79.29
DOME-T3	no	no	2.3	59.71

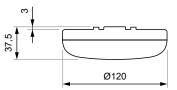
To request a different diffuser type, change the corresponding letter in the reference. To request an IP67 degree of protection, add "E" at the end of the reference. Example:



Internal connector

position	Ф (lm) main	Ф (lm) emerg	A (h)
1	77.0 (70%)	110 (100%)	1.3
2	44.0 (40%)	77 (70%)	2.0
3	11.0 (10%)	55 (50%)	3.0
4	1.1 (1%)	33 (30%)	5.0

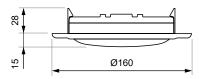
Surface mounting



Recessed mounting

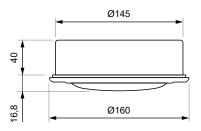
Hollow surface

Cut: Ø130 mm



Solid surface

Cut: Ø150 mm



Recessing frame

White Ref. MADOME-B RRP. 4.84 € Matt chrome Ref. MADOME-C RRP. 11.26 €

Masonry box

Ref. CEDOME RRP. 8.23 €





Tabled Series

Emergency luminaire with a ground-breaking design and unique characteristics on the market, thanks to the possibility of orienting the luminaire at 7 different angles. Modern, uniform lighting made up of an extra-flat LED panel (colour temperature: 5,000 K). Choice of maintained or non-maintained mode. Pre-plate connection system. Remote controllable.



Maintained / Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
TL-110P-T	118	1	3.6 / 2.0	80.73
TL-230P-T	235	1	4.3 / 2.0	86.24
TL-350P-T	353	1	5.2 / 2.0	96.36
TL-470P-T	470	1	6.5 / 2.0	110.58
TL-580P-T	588	1	7.4 / 2.0	124.52
TL-110P-2-T	118	2	3.6 / 2.0	90.85
TL-170P-2-T	176	2	4.3 / 2.0	101.18
TL-230P-2-T	235	2	4.3 / 2.0	109.99
TL-290P-2-T	294	2	5.2 / 2.0	124.27
TL-70P-3-T	78	3	3.6 / 2.0	90.85
TL-110P-3-T	118	3	3.6 / 2.0	94.36
TL-150P-3-T	157	3	4.3 / 2.0	109.99
TL-190P-3-T	196	3	4.3 / 2.0	117.00



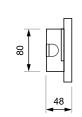
To request a different diffuser type, change the corresponding letter of the reference. Example:

TL-110P-T
Diffusor
Diffusor
T Transparent
S Soft opal (-8%)
F Strong opal (-30%)

- ♦ Ni-Cd (HT) battery.
- ♦ Protection rating: IP44.
- ♦ Orientation of the LED panel in 7 angles compared with the body: 0°, 15°, 30°, 45°, 60°, 75° and 90°.

Surface mounting





♦ Accessories and signalling on page 16.

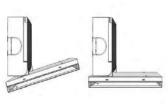












Tabled Series ACCESSORIES AND SIGNALLING

Flush mounting

Frames for flush mounting in hollow surface

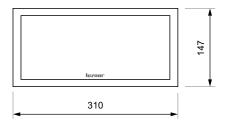


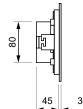
Matt chrome Ref. MT-C RRP. 13.47 €



White Ref. MT-B RRP. 6.51€

Cut: 292 x 130 mm



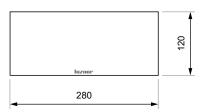


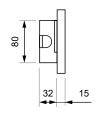


Anthracite Ref. MT-A RRP. 6.51 €

Recessed mounting

Spring kit Cut: 260 x 90 mm





Ref. MS-T RRP. 4.38 €

Suspended mounting

Suspension kit

Rod length: 0.25 m Ref. CS-T RRP. 21.28 €

Rod length: 0.75 m Ref. CS-T (75 cm) RRP. 34.04 €

Rod length: 1 m Ref. CS-T (100 cm) RRP. 34.04 €



Signs and pictograms











Ref. R1 200 x 50 mm RRP. 2.81 € Ref. R2 200 x 50 mm RRP. 2.81 € Ref. R3 200 x 100 mm RRP. 2.81 € Ref. R4 200 x 100 mm RRP. 2.81 €



SALIDA IRTEERA





Ref. R11 200 x 100 mm RRP. 2.81 €



Ref. P1 300 x 100 mm RRP. 2.81 €



Ref. P2 200 x 100 mm RRP. 2.81 €



Ref. P3 200 x 100 mm RRP. 2.81 €





G Led Series

Design and style. LED strip lighting (colour temperature: 5,000 K) with internal diffuser. The lower part of the emergency light is illuminated by three coloured LEDs (ambient or corporative), highlighting its attractive shape. Choice of maintained or non-maintained mode. Pre-plate connection system. Remote controllable.

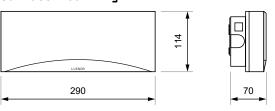


Maintained / Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
GL-110P-TTB	118	1	4.7 / 3.4	69.30
GL-230P-TTB	235	1	5.9 / 3.4	74.04
GL-350P-TTB	353	1	6.7 / 3.4	82.74
GL-470P-TTB	470	1	7.9 / 3.4	94.94
GL-580P-TTB	588	1	8.6 / 3.4	106.92
GL-110P-2-TTB	118	2	4.7 / 3.4	78.00
GL-170P-2-TTB	176	2	5.9 / 3.4	86.86
GL-230P-2-TTB	235	2	5.9 / 3.4	94.44
GL-290P-2-TTB	294	2	6.7 / 3.4	106.69
GL-70P-3-TTB	78	3	4.7 / 3.4	78.00
GL-110P-3-TTB	118	3	4.7 / 3.4	81.01
GL-150P-3-TTB	157	3	5.9 / 3.4	94.44
GL-190P-3-TTB	196	3	5.9 / 3.4	100.45

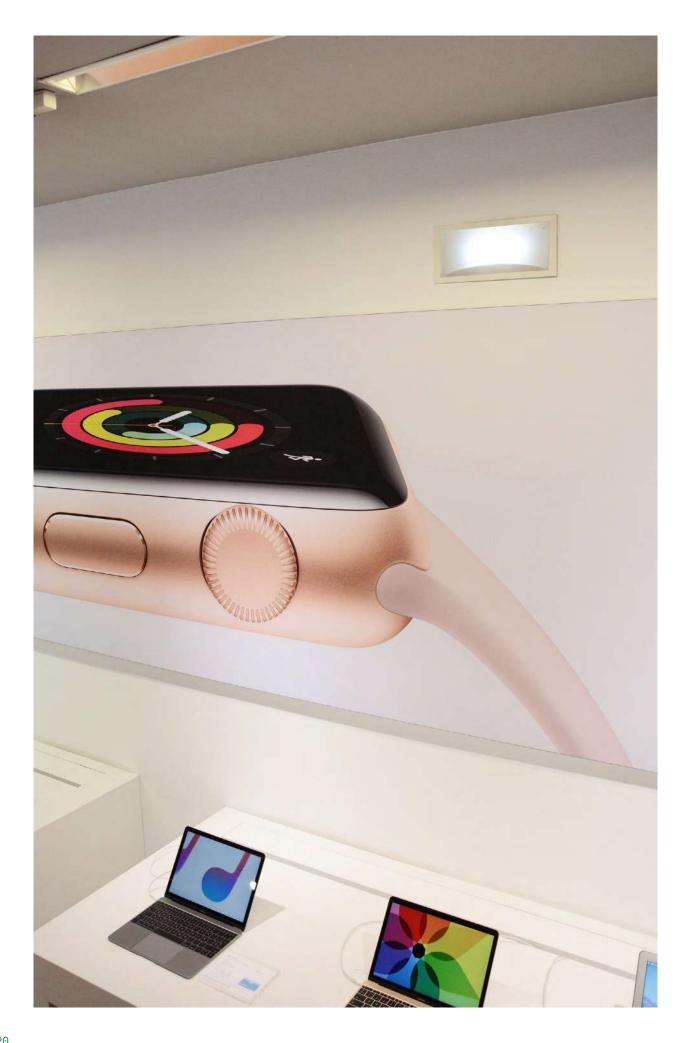
To request a different internal and external diffuser type and/or different ambient LED colour, change the corresponding letters of the reference. Example:





- ♦ Internal diffuser: allows for optimum protection of the LEDs and homogeneous illumination.
- ♦ Protection rating: IP44.
- ♦ Ni-Cd (HT) battery.
- ♦ Accessories y signalling on page 26.
- Pre-plate connection system: guides the wiring and allows the electrical connection without the need to open or manipulate the emergency luminaire, which is simply fitted by snapping it onto the pre-plate previously installed.





G Basic Led Series

Design and style in a simplified version. Illumination by LED strip (colour temperature: 5,700 K) without internal diffuser. Possibility of adding three coloured LEDs (ambient or corporative) that light up the lower part of the emergency luminaire, highlighting its attractive shape. Pre-plate connection system. Remote controllable.



Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
GL-100-T	100	1	1.4	40.91
GL-150-T	150	1	1.4	43.20
GL-200-T	200	1	1.4	45.46
GL-250-T	250	1	2.7	47.75
GL-300-T	300	1	2.7	50.01
GL-350-T	350	1	2.7	52.29
GL-400-T	400	1	2.7	54.56
GL-450-T	450	1	2.7	56.82
GL-100-2-T	100	2	1.4	45.46
GL-150-2-T	150	2	2.7	50.01
GL-200-2-T	200	2	2.7	54.56
GL-250-2-T	250	2	2.7	59.11
GL-100-3-T	100	3	2.7	50.01
GL-150-3-T	150	3	2.7	56.82

To request a different diffuser type, change the corresponding letter of the reference. To request the incorporation of the three ambient LEDs, add the corresponding letter to the reference. Example:

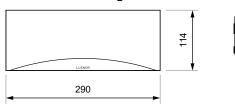


- ♦ Protection rating: IP44.
- ♦ Ni-Cd (HT) battery.
- ♦ Accessories and signalling on page 26.

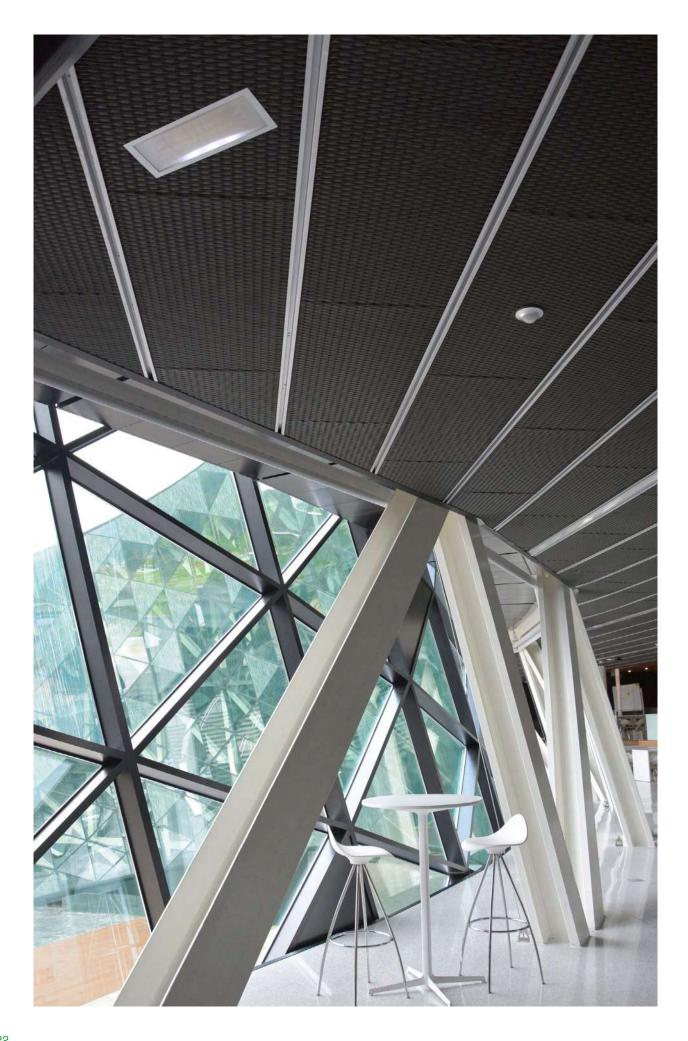
Maintained

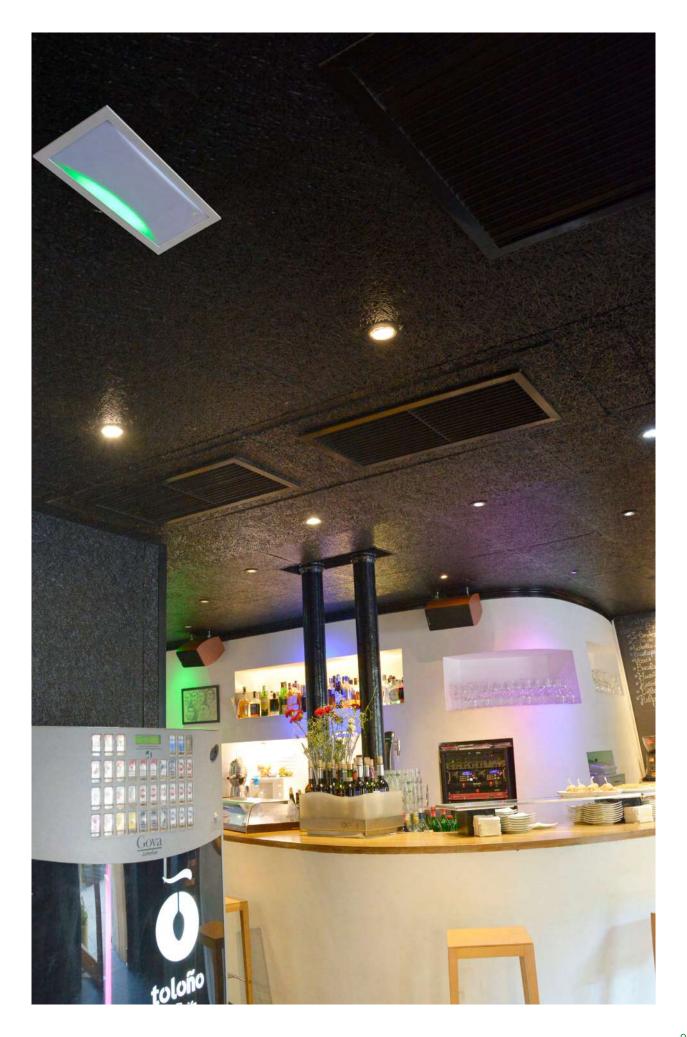
model	Φ (lm)	A (h)	P net (W)	RRP (€)
GL-100B-T	100	1	2.7	54.56
GL-150B-T	150	1	3.2	56.82
GL-200B-T	200	1	3.7	59.11
GL-250B-T	250	1	5.7	61.37
GL-300B-T	300	1	6.2	63.64
GL-350B-T	350	1	6.6	65.92
GL-400B-T	400	1	7.1	68.19
GL-450B-T	450	1	7.6	70.46
GL-100B-2-T	100	2	2.7	59.11
GL-150B-2-T	150	2	4.5	63.64
GL-200B-2-T	200	2	5.0	68.19
GL-250B-2-T	250	2	5.7	72.75
GL-100B-3-T	100	3	3.9	63.64
GL-150B-3-T	150	3	4.5	70.46

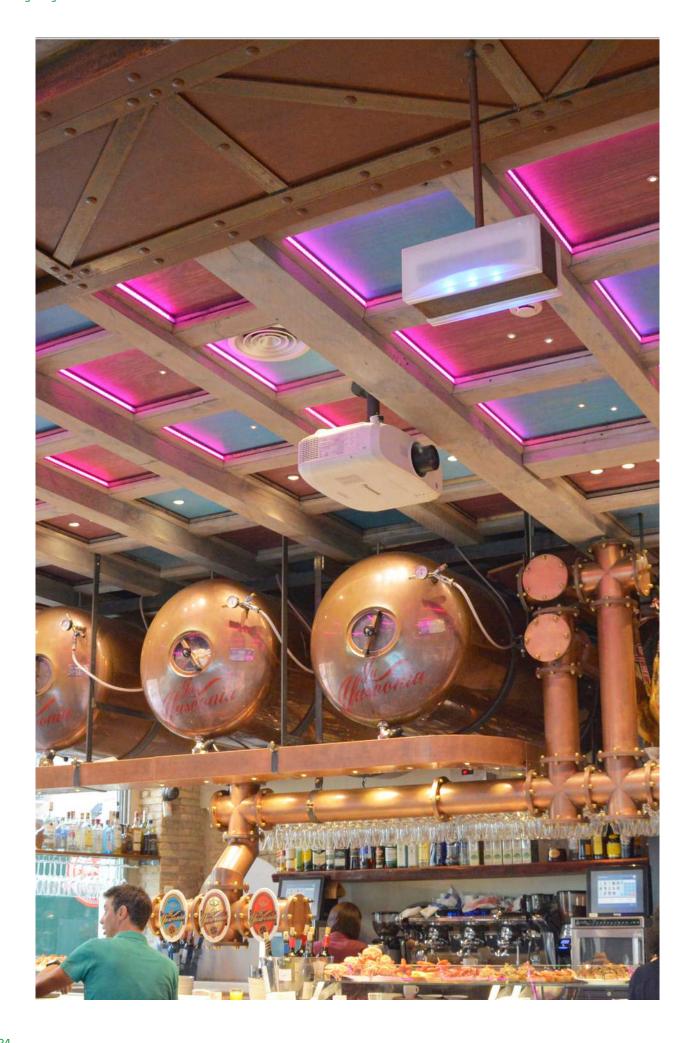
Surface mounting



Pre-plate connection system: guides the wiring and allows the electrical connection without the need to open or manipulate the emergency luminaire, which is simply fitted by snapping it onto the pre-plate previously installed.







G Basic Led Series AUTOTEST

Design and style with Autotest function: a microprocessor checks the status of the emergency LEDs, battery and electronics on a regular basis. Illumination by LED strip (colour temperature: 5,700 K) without internal diffuser. Possibility of adding three coloured LEDs (ambient or corporative) in the lower part. Remote controllable.



Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
GLA-100-T	100	1	1.4	69.29
GLA-150-T	150	1	1.4	71.58
GLA-200-T	200	1	1.4	73.85
GLA-250-T	250	1	2.7	76.11
GLA-300-T	300	1	2.7	78.40
GLA-350-T	350	1	2.7	80.66
GLA-400-T	400	1	2.7	82.94
GLA-450-T	450	1	2.7	85.21
GLA-100-2-T	100	2	1.4	73.85
GLA-150-2-T	150	2	2.7	78.40
GLA-200-2-T	200	2	2.7	82.94
GLA-250-2-T	250	2	2.7	87.48
GLA-100-3-T	100	3	2.7	78.40
GLA-150-3-T	150	3	2.7	85.21

To request a different diffuser type, change the corresponding letter in the reference. To request the incorporation of three coloured LEDs, add the corresponding letter of the reference. Example:

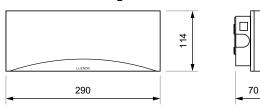


- ♦ Protection rating: IP44.
- ♦ Ni-Cd (HT) battery.
- ♦ Information about Autotest on page 85.
- Accessories and signalling on page 26.

Maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
GLA-100B-T	100	1	2.7	82.94
GLA-150B-T	150	1	3.2	85.21
GLA-200B-T	200	1	3.7	87.48
GLA-250B-T	250	1	5.7	89.76
GLA-300B-T	300	1	6.2	92.02
GLA-350B-T	350	1	6.6	94.30
GLA-400B-T	400	1	7.1	96.57
GLA-450B-T	450	1	7.6	98.84
GLA-100B-2-T	100	2	2.7	87.48
GLA-150B-2-T	150	2	4.5	92.02
GLA-200B-2-T	200	2	5.0	96.57
GLA-250B-2-T	250	2	5.7	101.12
GLA-100B-3-T	100	3	3.9	92.02
GLA-150B-3-T	150	3	4.5	98.84

Surface mounting



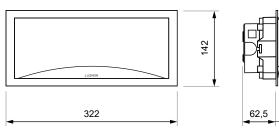
Pre-plate connection system: guides the wiring and allows the electrical connection without the need to open or manipulate the emergency luminaire, which is simply fitted by snapping it onto the pre-plate previously installed.

G (Basic) Led Series accessories and signalling

Flush mounting

Frames for flush mounting in hollow surface $% \left(1\right) =\left(1\right) \left(1\right) \left($

Cut: 298 x 124 mm





White Ref. MG-B PVP. 6.45 €

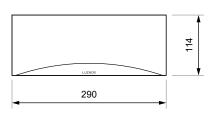
7,5

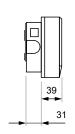
Matt chrome Ref. MG-C RRP. 13.34 €

Recessed mounting

Spring kit

Cut: 274 x 98 mm



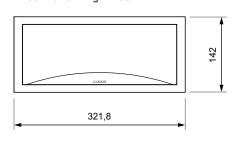


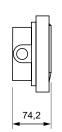


Ref. MS-G RRP. 4.34 €

Watertight mounting

IP65 watertight box







Ref. BE-G RRP. 20.13 €

Ceiling banner

Transparent Ref. BG-T RRP. 21.07 €

Soft opal Ref. BG-S RRP. 21.07 €



Suspended mounting

Suspension kit



Rod length: 0.25 m Ref. CS-G RRP. 21.07 €

Rod length: 0.75 m Ref. CS-G (75 cm) RRP. 33.71 €

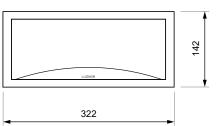
Rod length: 1 m Ref. CS-G (100 cm) RRP. 33.71 €

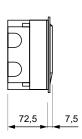
G (Basic) Led Series accessories and signalling

Flush mounting in masonry

Masonry frames

Cut: 310 x 130 mm







Signs and pictograms



Ref. R12 260 x 120 mm RRP. 2.59 €



Ref. R13 260 x 120 mm RRP. 2.59 €



Ref. R14 260 x 120 mm RRP. 2.59 €



Ref. R15 260 x 120 mm RRP. 2.59 €



Ref. R16 260 x 120 mm RRP. 2.59 €



Ref. P7 260 x 120 mm RRP. 2.59 €



Ref. P8 260 x 120 mm RRP. 2.59 €



260 x 120 mm RRP. 2.59 €



Ref. P10 260 x 120 mm RRP. 2.59 €

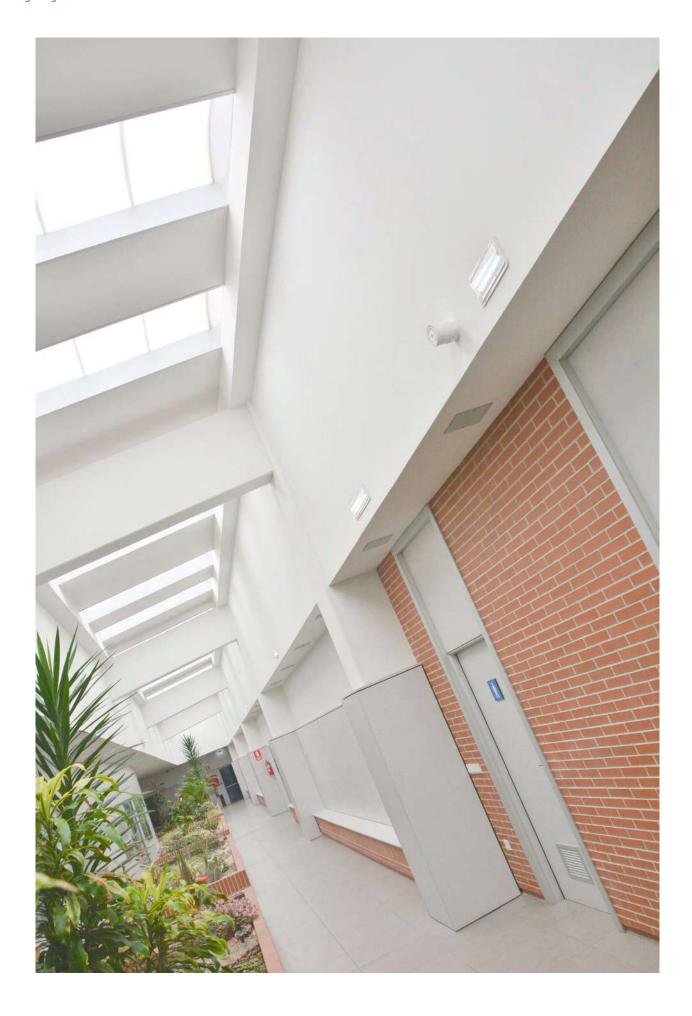


Ref. P11 260 x 120 mm RRP. 2.59 €



Ref. P12 260 x 120 mm RRP. 2.59 €





L Led Series

The timeless design emergency luminaire. LED strip lighting (colour temperature: 5,000 K) with internal diffuser, improving the energy efficiency and the aesthetic and functional value of the classic L series. Choice of maintained or non-maintained mode. Special model with 1,200 lumens non-maintained (colour temperature: 5,700 K). Remote controllable.



Maintained / Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
LL-110P-TT	118	1	4.3 / 3.0	54.68
LL-230P-TT	235	1	5.1 / 3.0	59.56
LL-350P-TT	353	1	5.8 / 3.0	68.00
LL-470P-TT	470	1	7.1 / 3.0	80.05
LL-580P-TT	588	1	8.4 / 3.1	91.81
LL-110P-2-TT	118	2	4.3 / 3.0	61.51
LL-170P-2-TT	176	2	5.1 / 3.0	70.18
LL-230P-2-TT	235	2	5.1 / 3.0	77.41
LL-290P-2-TT	294	2	5.8 / 3.0	89.52
LL-70P-3-TT	78	3	4.3 / 3.0	61.51
LL-110P-3-TT	118	3	4.3 / 3.0	64.11
LL-150P-3-TT	157	3	5.1 / 3.0	77.41
LL-190P-3-TT	196	3	5.1 / 3.0	83.56

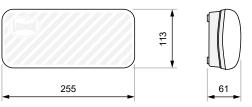
To request a different internal and external diffuser type, change the corresponding letters in the reference. Example:

LL-470P-TS Internal diffuser | T Transparent S Soft opal (-8%) F Strong opal (-30%)

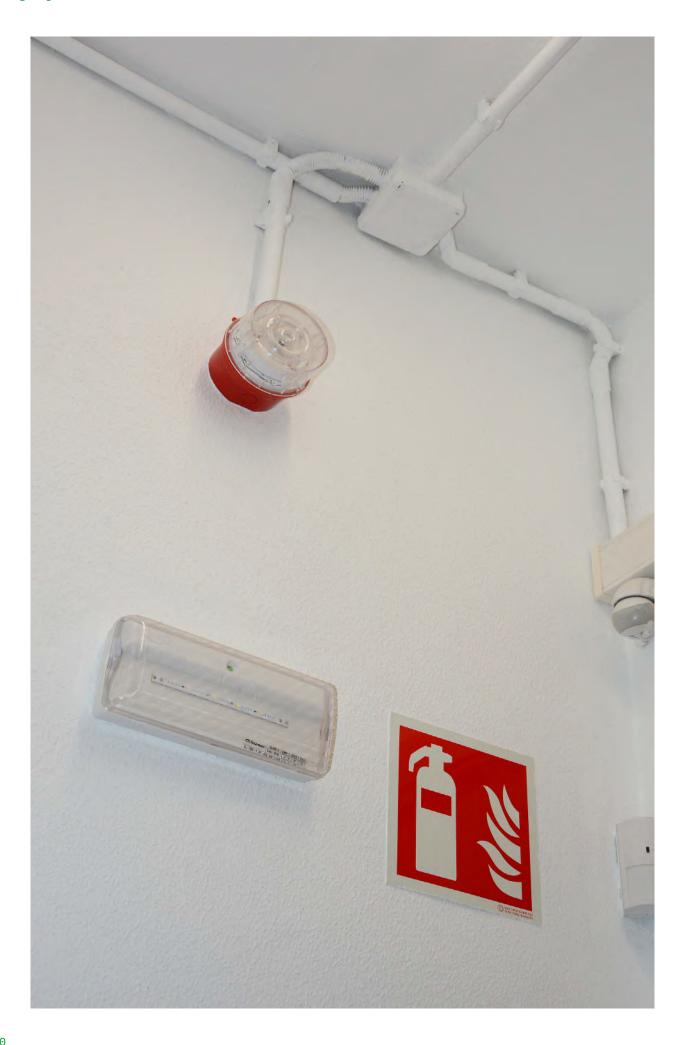
- ♦ Internal diffuser: allows for optimum protection of the LEDs and homogeneous illumination.
- ♦ Protection rating: IP42.
- Ni-Cd (HT) battery except for the special model LL-1200, with Li-Ion battery.
- Accessories and signalling on page 34.

Special model 1,200 lm NM

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LL-1200-TT	1.200	1	3.0	140.48







L Basic Led Series

The basic version of the L Led series. LED strip lighting (colour temperature: 5,700 K) with internal diffuser. It maintains the timeless design of the classic L series with softened edges and the same quality and resistance as always, but with improved performance and maximum energy efficiency in its more affordable version.



Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LL-100-T	100	1	1.5	24.10
LL-150-T	150	1	1.5	26.84
LL-200-T	200	1	1.5	33.59
LL-250-T	250	1	2.6	37.31
LL-300-T	300	1	2.6	37.94
LL-350-T	350	1	2.6	38.53
LL-400-T	400	1	2.6	40.98
LL-450-T	450	1	2.6	41.50
LL-100-2-T	100	2	1.5	34.17
LL-150-2-T	150	2	2.6	36.57
LL-200-2-T	200	2	2.6	38.68
LL-250-2-T	250	2	2.6	39.23
LL-100-3-T	100	3	2.6	36.01
LL-150-3-T	150	3	2.6	38.12

Maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
LL-100B-T	100	1	2.8	40.56
LL-150B-T	150	1	3.3	41.42
LL-200B-T	200	1	3.9	47.72
LL-250B-T	250	1	5.4	52.03
LL-300B-T	300	1	5.9	52.51
LL-350B-T	350	1	6.4	53.01
LL-400B-T	400	1	6.9	54.00
LL-450B-T	450	1	7.5	54.49
LL-100B-2-T	100	2	2.8	48.21
LL-150B-2-T	150	2	4.4	51.60
LL-200B-2-T	200	2	4.9	52.09
LL-250B-2-T	250	2	5.4	52.54
LL-100B-3-T	100	3	3.8	51.14
LL-150B-3-T	150	3	4.4	51.60

Centralizable luminaires

model	Ф (lm)	power supply	P net (W)	RRP (€)
LL-100L-S	100	85÷265 Vac and 120÷370 Vdc	1.3	35.32
LL-200L-S	200	85÷265 Vac and 120÷370 Vdc	2.4	38.41
LL-300L-S	300	85÷265 Vac and 120÷370 Vdc	3.3	40.72
LL-450L-S	450	85÷265 Vac and 120÷370 Vdc	4.9	45.25

To request a different diffuser type, change the corresponding letter in the reference. Example:





- ♦ Protection rating: IP42.
- ♦ Ni-Cd (HT) battery.
- ♦ Accessories and signalling on page 34.



Serie L Basic Led AUTOTEST

The basic version of the L Led series with Autotest function: a microprocessor checks the status of the emergency LEDs, the battery and the electronics periodically. Illumination by LED strip (colour temperature: 5,700 K) with maximum energy efficiency, without internal diffuser. Remote controllable.



Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LLA-100-T	100	1	1.5	52.49
LLA-150-T	150	1	1.5	55.21
LLA-200-T	200	1	1.5	61.79
LLA-250-T	250	1	2.6	65.69
LLA-300-T	300	1	2.6	66.33
LLA-350-T	350	1	2.6	66.91
LLA-400-T	400	1	2.6	69.65
LLA-450-T	450	1	2.6	70.16
LLA-100-2-T	100	2	1.5	62.83
LLA-150-2-T	150	2	2.6	65.22
LLA-200-2-T	200	2	2.6	67.33
LLA-250-2-T	250	2	2.6	67.89
LLA-100-3-T	100	3	2.6	64.66
LLA-150-3-T	150	3	2.6	66.77

To request a different diffuser type, change the corresponding letter in the reference. Example:



- ♦ Protection rating: IP42.
- ♦ Ni-Cd (HT) battery.
- ♦ Information about Autotest on page 85.
- ♦ Accessories and signalling on page 34.

Maintained

and the first	ф (I)	A (1-)	D (0.0)	DDD (0)
model	Ф (lm)	A (h)	P net (W)	RRP (€)
LLA-100B-T	100	1	2.8	68.94
LLA-150B-T	150	1	3.3	69.80
LLA-200B-T	200	1	3.9	76.09
LLA-250B-T	250	1	5.4	80.42
LLA-300B-T	300	1	5.9	80.90
LLA-350B-T	350	1	6.4	81.39
LLA-400B-T	400	1	6.9	82.66
LLA-450B-T	450	1	7.5	83.14
LLA-100B-2-T	100	2	2.8	76.87
LLA-150B-2-T	150	2	4.4	80.27
LLA-200B-2-T	200	2	4.9	80.75
LLA-250B-2-T	250	2	5.4	81.21
LLA-100B-3-T	100	3	3.8	79.80
LLA-150B-3-T	150	3	4.4	80.27



L (Basic) Led Series accessories and signalling

Recessed mounting

Frames for recessed mounting in hollow surface







White Ref. ML-B RRP. 5.37 €

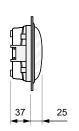
Matt chrome Ref. ML-C RRP. 11.93 €

Graphite Ref. ML-G RRP. 11.93 €





136 278 Cut: 265 x 120 mm



Anthracite Ref. ML-A RRP. 5.37 €

Flush mounting

Flush box in hollow surface



White Ref. MDP-B0 RRP. 16.48 €



Matt chrome Ref. MDP-CO RRP. 22.16 €

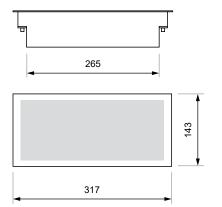


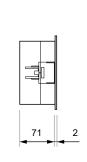
Anthracite Ref. MDP-A0 RRP. 17.73 €



Graphite Ref. MDP-G0 RRP. 22.16 €

Cut: 300 x 127 mm





Flush mounting in masonry

Masonry box



L (Basic) Led Series accessories and signalling

Flush mounting with banner

Flush box in hollow surface incl. transparent banner



White Ref. MDP-B-B0 RRP. 29.67 €

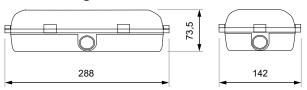
Anthracite Ref. MDP-B-A0 RRP. 30.92 €

Graphite Ref. MDP-B-G0 RRP. 35.35 €

Matt chrome Ref. MDP-B-C0 RRP. 35.35 €

Watertight mounting

IP67 watertight box





Ceiling banner

Includes special diffuser for attaching the banner.



Ref. BL-T RRP. 26.95 €

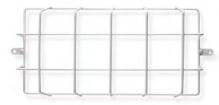
Wall banner

Includes special diffuser for attaching the banner.

Ref. BL-P RRP. 26.95 €

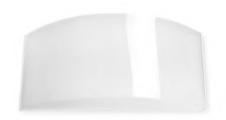


Protection grill



Ref. RJ 412 x 182 mm RRP. 51.54 €

Oval diffuser frame



Ref. MDO-BO RRP. 39.56 €

Signs and pictograms



Ref. R1

200 x 50 mm

RRP. 2.81 €

SALIDA 🕨

Ref. R2 Ref. R3



Ref. R3 200 x 100 mm RRP. 2.81 €



Ref. R4 200 x 100 mm RRP. 2.81 €



Ref. R5 200 x 100 mm RRP. 2.81 €



Ref. R8 200 x 100 mm RRP. 2.81 €



200 x 50 mm

RRP. 2.81 €

Ref. R11 200 x 100 mm RRP. 2.81 €



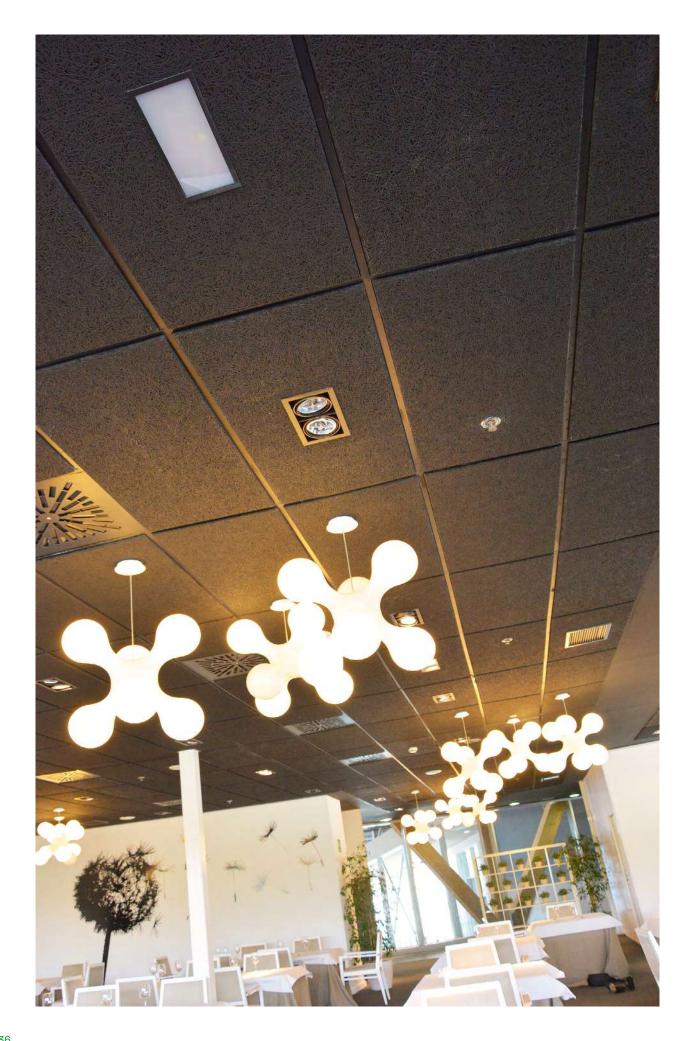
Ref. P1 300 x 100 mm RRP. 2.81 €



Ref. P2 200 x 100 mm RRP. 2.81 €



Ref. P3 200 x 100 mm RRP. 2.81 €



Serie LLD

Basic flush-mounted LED emergency luminaire, flat aesthetics and rectangular shape with sharp edges. The LLD series is an emergency luminaire of the L Basic Led series inside an MDP flush box. Fully covering opal diffuser for a minimalist finish and homogeneous and discreet illumination. Remote controllable.



Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LLD-100-B0	100	1	1.5	40.60
LLD-150-B0	150	1	1.5	43.31
LLD-200-B0	200	1	1.5	50.06
LLD-250-B0	250	1	2.6	53.78
LLD-300-B0	300	1	2.6	54.43
LLD-350-B0	350	1	2.6	55.02
LLD-400-B0	400	1	2.6	57.07
LLD-450-B0	450	1	2.6	57.59
LLD-100-2-B0	100	2	1.5	50.32
LLD-150-2-B0	150	2	2.6	52.68
LLD-200-2-B0	200	2	2.6	54.78
LLD-250-2-B0	250	2	2.6	55.32
LLD-100-3-B0	100	3	2.6	52.14
LLD-150-3-B0	150	3	2.6	54.22

Maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LLD-100B-B0	100	1	2.8	57.04
LLD-150B-B0	150	1	3.3	57.90
LLD-200B-B0	200	1	3.9	64.20
LLD-250B-B0	250	1	5.4	68.52
LLD-300B-B0	300	1	5.9	69.00
LLD-350B-B0	350	1	6.4	69.49
LLD-400B-B0	400	1	6.9	69.95
LLD-450B-B0	450	1	7.5	70.43
LLD-100B-2-B0	100	2	2.8	64.22
LLD-150B-2-B0	150	2	4.4	67.59
LLD-200B-2-B0	200	2	4.9	68.07
LLD-250B-2-B0	250	2	5.4	68.52
LLD-100B-3-B0	100	3	3.8	67.13
LLD-150B-3-B0	150	3	4.4	67.59

Centralizable luminaires

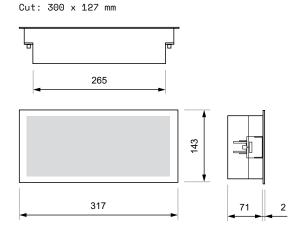
model	Ф (lm)	power supply	RRP (€)
LLD-100L-B0	100	85÷265 Vac and 120÷370 Vdc	51.47
LLD-200L-B0	200	85÷265 Vac and 120÷370 Vdc	54.53
LLD-300L-B0	300	85÷265 Vac and 120÷370 Vdc	56.79
LLD-450L-B0	450	85÷265 Vac and 120÷370 Vdc	61.30

To request different finish of the flush box frame, change the corresponding letter in the reference. Example:

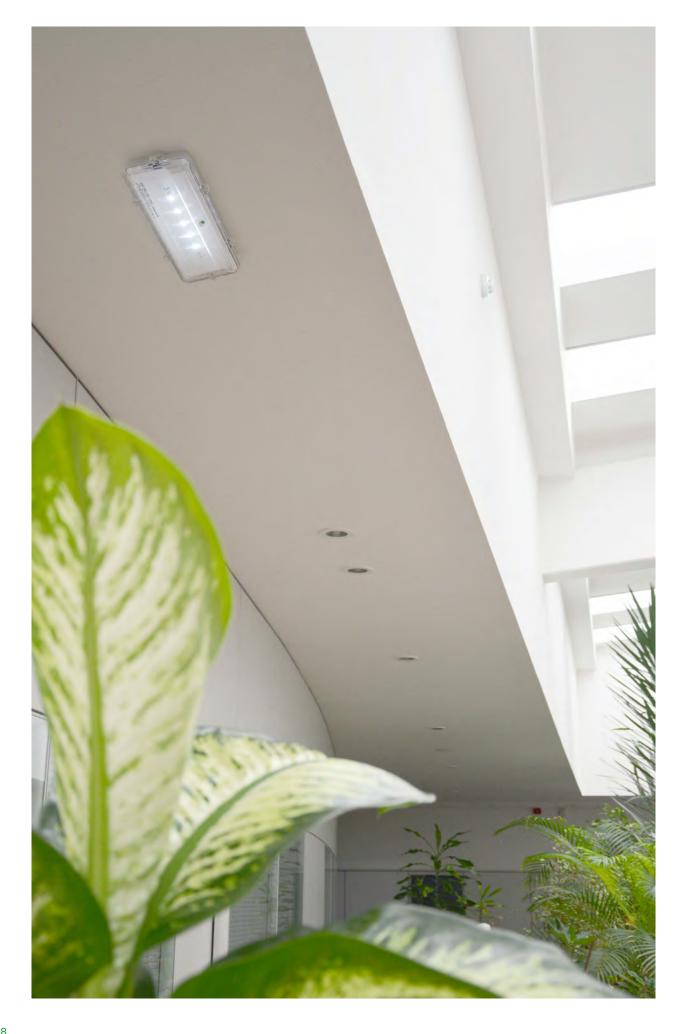


- ♦ Protection rating: IP42.
- ♦ Ni-Cd (HT) battery.

Flush mounting



♦ Finishes, accessories and signalling on page 40.



Serie LLE

Basic watertight LED emergency luminaire. The LLE series is an emergency of the L Basic Led series (medium power LED plate lighting) in a BE-L (IP67) watertight housing for surface installation. Transparent diffuser as standard, with the option of adding a second soft or strong opal diffuser. Remote controllable.



Non-maintained

model	Φ (lm)	A (h)	P net (W)	RRP (€)
LLE-100	100	1	1.5	51.21
LLE-150	150	1	1.5	53.95
LLE-200	200	1	1.5	60.70
LLE-250	250	1	2.6	64.42
LLE-300	300	1	2.6	65.06
LLE-350	350	1	2.6	65.64
LLE-400	400	1	2.6	68.36
LLE-450	450	1	2.6	68.88
LLE-100-2	100	2	1.5	61.54
LLE-150-2	150	2	2.6	63.94
LLE-200-2	200	2	2.6	66.05
LLE-250-2	250	2	2.6	66.61
LLE-100-3	100	3	2.6	63.39
LLE-150-3	150	3	2.6	65.50

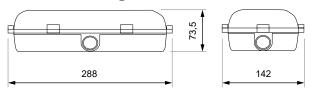
Maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
LLE-100B	100	1	2.8	67.67
LLE-150B	150	1	3.3	68.53
LLE-200B	200	1	3.9	74.84
LLE-250B	250	1	5.4	79.14
LLE-300B	300	1	5.9	79.62
LLE-350B	350	1	6.4	80.12
LLE-400B	400	1	6.9	81.38
LLE-450B	450	1	7.5	81.86
LLE-100B-2	100	2	2.8	75.59
LLE-150B-2	150	2	4.4	78.98
LLE-200B-2	200	2	4.9	79.46
LLE-250B-2	250	2	5.4	79.92
LLE-100B-3	100	3	3.8	78.52
LLE-150B-3	150	3	4.4	78.98

Centralizable luminaires

model	Φ (lm)	power supply	RRP (€)
LLE-100L-S	100	85÷265 Vac and 120÷370 Vdc	62.43
LLE-200L-S	200	85÷265 Vac and 120÷370 Vdc	65.52
LLE-300L-S	300	85÷265 Vac and 120÷370 Vdc	67.83
LLE-450L-S	450	85÷265 Vac and 120÷370 Vdc	72.36

Surface mounting



To request the addition of a second soft or strong opal diffuser, add "-S" or "-F" to the reference respectively. Example:

LLE-450B-S

Extra diffuser | S Soft opal (-8%) F Strong opal (-30%)

- ♦ Protection rating: IP67.
- ♦ Ni-Cd (HT) battery.
- ♦ Accessories on page 41.
- Supplied with three cable gland entries for cable glands size PG 13.5 and two plugs with sealing gaskets

LLD Series finishes, accessories and signalling

Flush box finishes



White Ref. BO



Matt chrome Ref. CO



Anthracite Ref. AO



Graphite Ref. GO

Signs and pictograms





IRTEERA



Ref. R6 270 x 100 mm RRP. 2.81 €









Ref. P4 270 x 135 mm RRP. 2.81 €



Ref. P5 270 x 135 mm RRP. 2.81 €



Ref. P6 270 x 135 mm RRP. 2.81 €

Ceiling banner

Transparent banner with special diffuser for anchoring.



Ref. BMDP-T0 RRP. 17.73 €



Flush mounting in masonry

Masonry box





LLE Series ACCESSORIES

Recessed mounting

Stainless steel frame for BE-L watertight box

Cut: 300 x 160 mm



Ref. MBEL-I 386 x 196 mm RRP. 26.05 €

Swivel mounting

Epoxy painted grey RAL 7035 steel orientation kit for BE-L watertight box

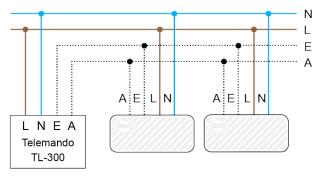


Ref. COBEL RRP. 19.36 €

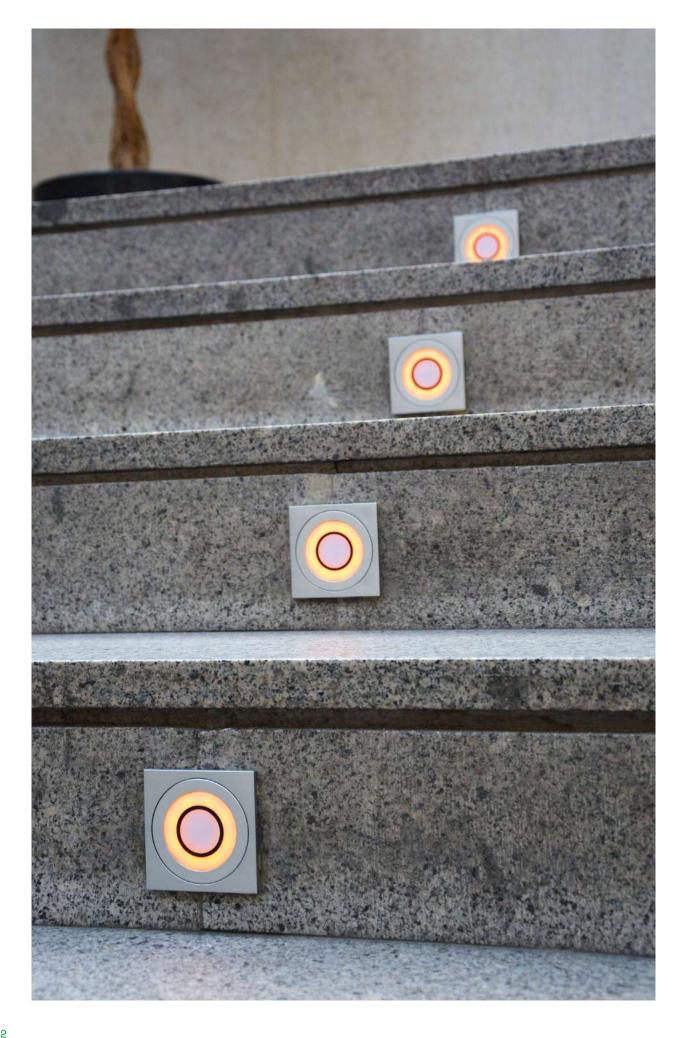
Remote control ANY REMOTE CONTROLLABLE SERIES

- ♦ The remote control allows all remote controllable series, whether emergency luminaires, beacon lights or centralizing devices, to be switched off and on again in the absence of mains power.
- ♦ Can be mounted on a M36 DIN rail (4 modules).

model	A (h)	capacity	dimensions	battery	RRP (€)
TL-300	1	300 devices	70 x 90 x 58 mm	Ni-MH	103.86

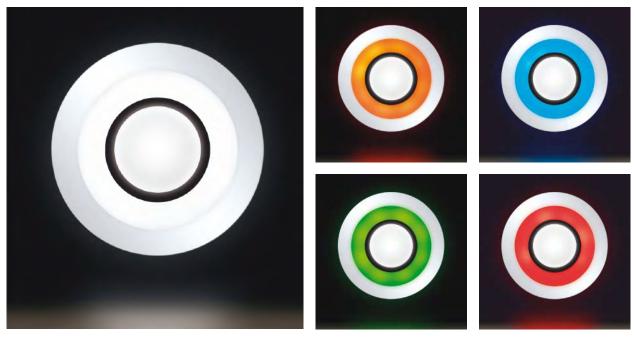






Matiz Serie SELF-CONTAINED

Self-contained beacon light, small in size and carefully designed. Composed of a central white LED and an ambient or corporative LED crown in different colours. Choice of: maintained mode (white central LED on in addition to the crown) or non-maintained (white central LED only for emergency lighting).

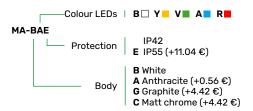


Matiz in maintained mode: in addition to the ambient LED crown in the desired colour, the central white LED is permanently lit. In emergency mode, the ambient LED crown is switched off and the central LED lights up brightly.

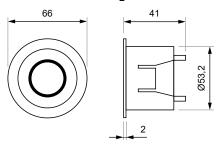
Maintained and non-maintained

model	A (h)	RRP (€)
MA-BB	1 or 2 (recharge in 24 or 48 h)	40.65

To request different finish of the body and/or different colour of the ambient LED crown, change the corresponding letters in the reference. To request IP55 protection rating, add the letter "E" to the reference. Example:



Surface mounting

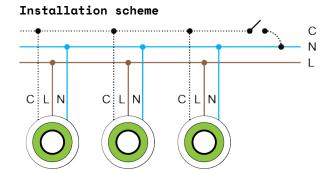


♦ Finishes and accessories on page 49.

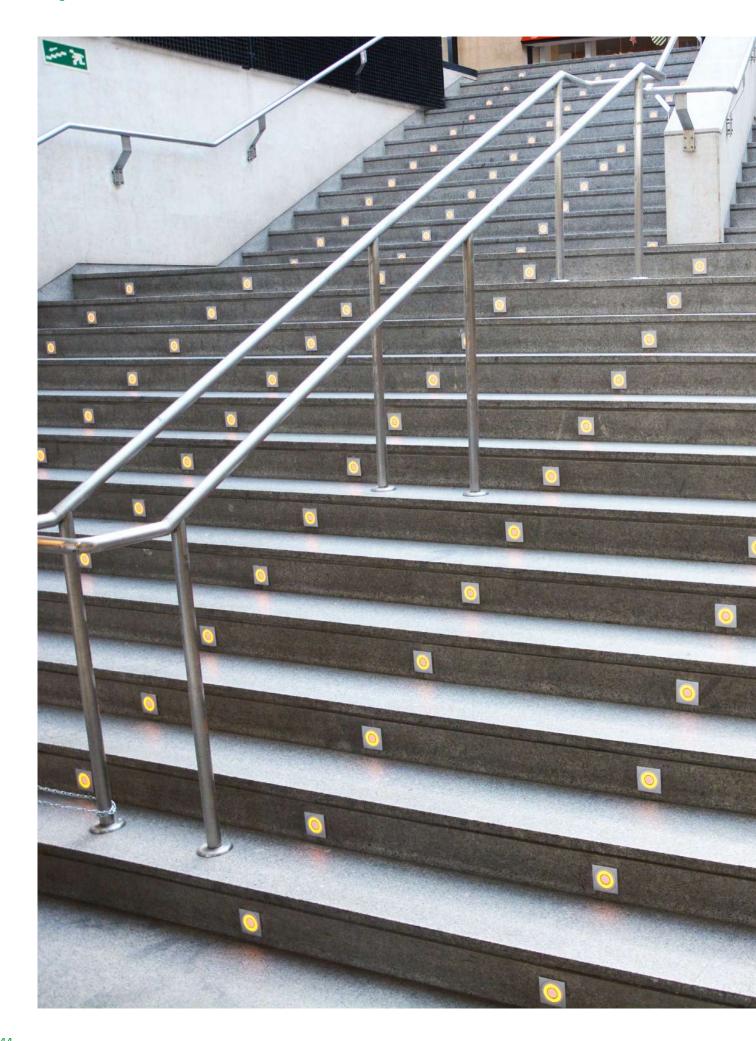
Technical characteristics

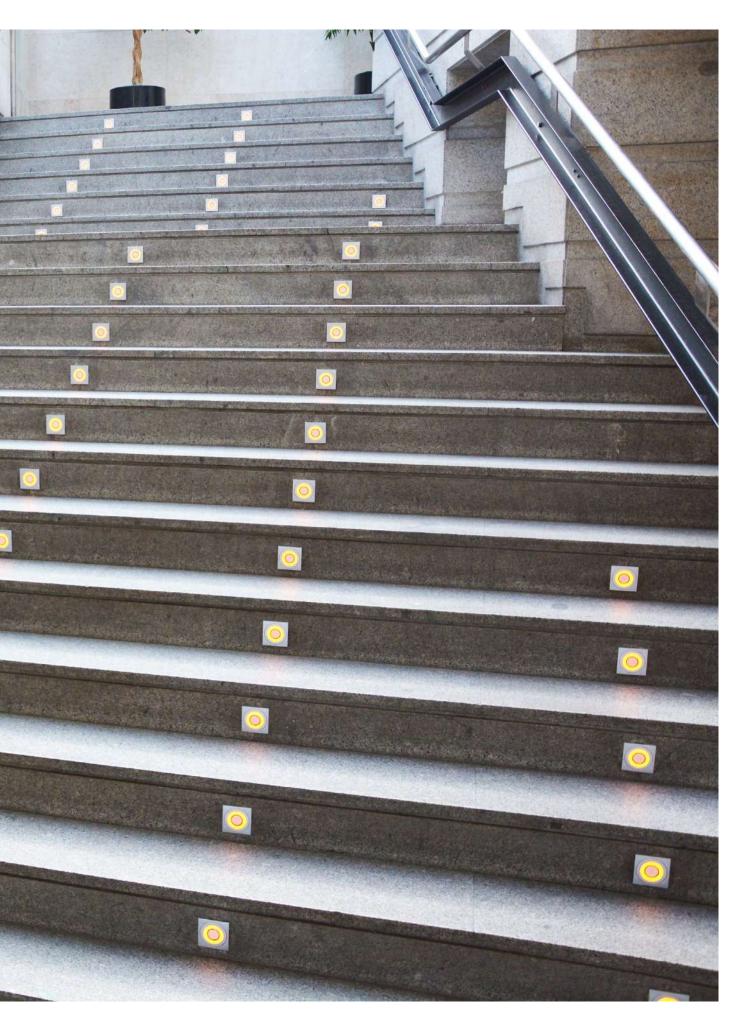
♦ Power supply
 ♦ Consumption
 ♦ Electrical insulation
 ♦ Remote controllable
 No

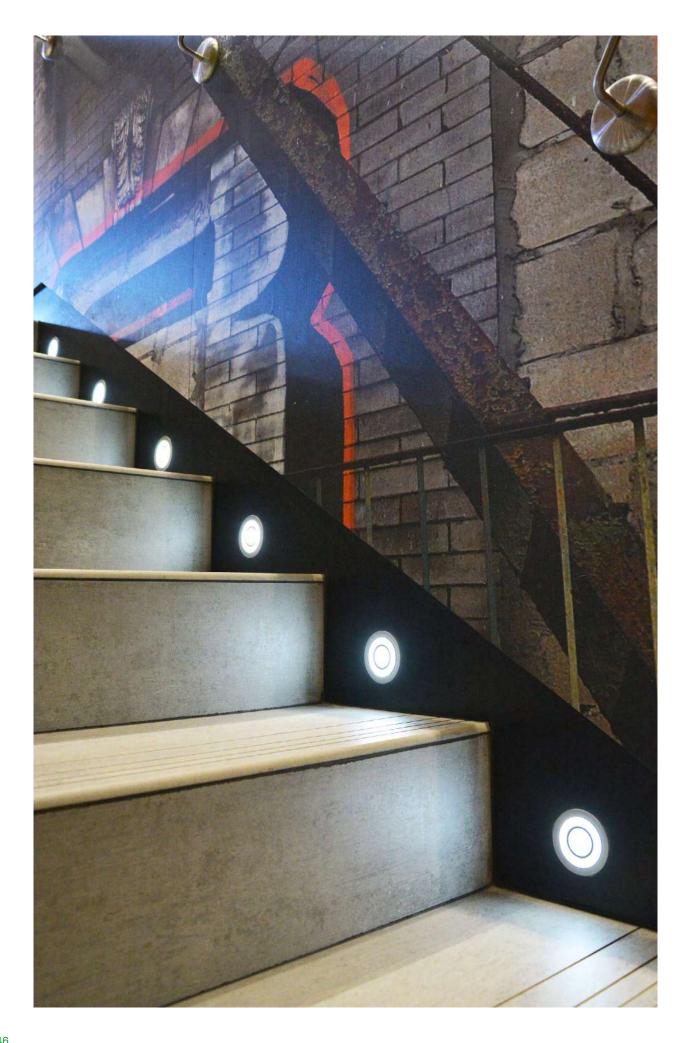
♦ Protection rating IP42 or IP55, IK08



Control line C is used to control the switching on and off of the central LED in the presence of mains power (maintained or non-maintained mode).

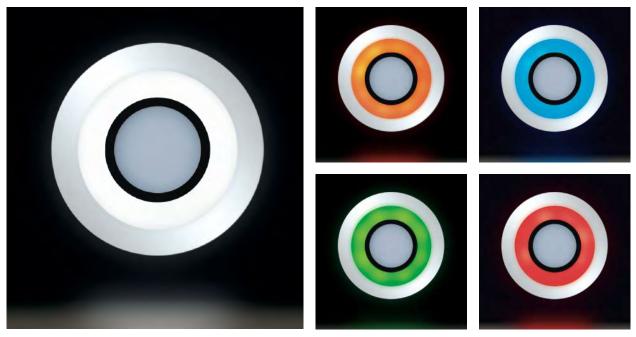






Matiz Series CENTRALIZED

Centralizaed beacon light, small in size and carefully designed. Composed by a white central LED and an ambient LED crown of different colours. Choice of: maintained mode (white central LED on in addition to the crown) or non-maintained mode (white central LED only for emergency lighting).

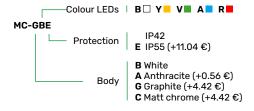


Matiz in non-maintained mode: the ambient LED crown remains on but the central white LED is permanently off. In emergency mode, the ambient LED crown is switched off and the central LED lights up brightly.

Maintained / Non-maintained

model	power supply	RRP (€)
MC-BB	24 or 12 Vdc	34.07

To request a different body finish and/or different colour of the ambient LED crown, change the corresponding letters in the reference. To request IP55 protection rating, add the letter "E" to the reference. Example:



Technical characteristics

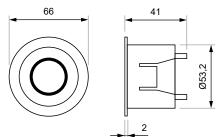
♦ Electrical insulation Class III

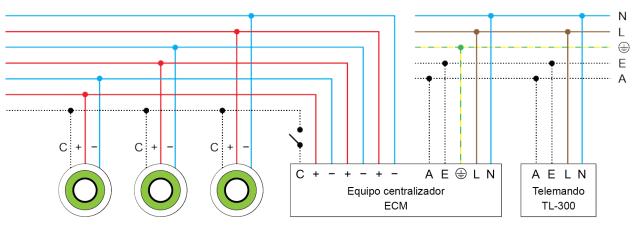
♦ Remote controllable Yes (centralizing device)

♦ Protection rating IP42 or IP55, IK08

♦ Finishes and accessories on page 49.

Surface mounting





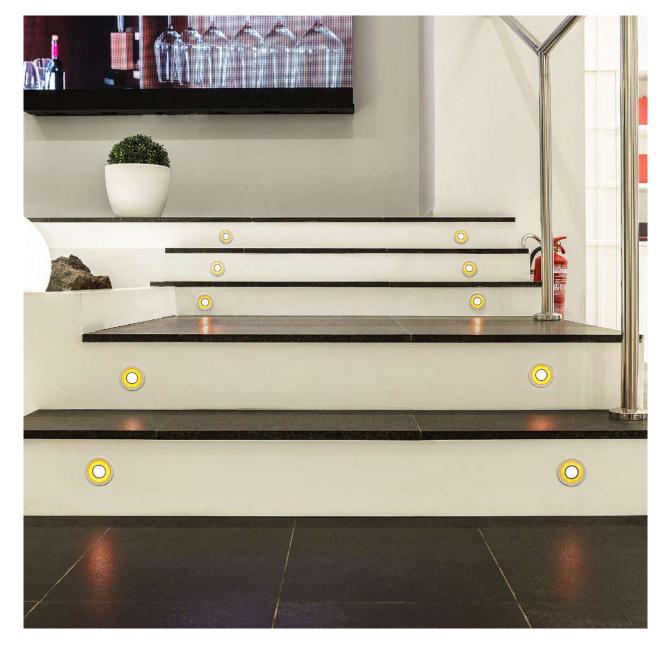
Matiz Series CENTRALIZED

Centralizing devices

- ♦ The centralizing device powers the beacon lights at 24 Vdc in presence of mains (maintained) and at 12 Vdc in emergency mode.
- ♦ Metal wall mounting cabinet with front door.
- ♦ Epoxy paint grey colour RAL 7035.
- ♦ With remote control input.
- ♦ Ni-Cd (HT) battery.
- ♦ Each team can power a maximum number of beacon lights, ensuring a 1 hour emergency autonomy.

model	A (h)	beacons	dimensions (mm)	RRP (€)
ECM-60	1	60	400 x 300 x 150	541.16
ECM-160	1	160	400 x 300 x 150	648.41
ECM-280	1	280	400 x 300 x 150	864.85
ECM-560	1	560	500 x 400 x 200	1,483.90





Matiz Series finishes and accessories

Body finish









Matt chrome

Flush mounting

Flush frames for universal round or square boxes





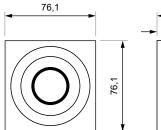


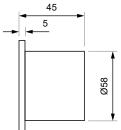
White Ref. MMU-B RRP. 3.84 €

Anthracite Ref. MMU-A RRP. 4.40 €



Graphite Ref. MMU-G RRP. 8.26 €



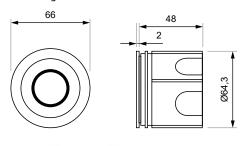




Ref. MS-MA RRP. 4.28 €

Flush mounting in masonry

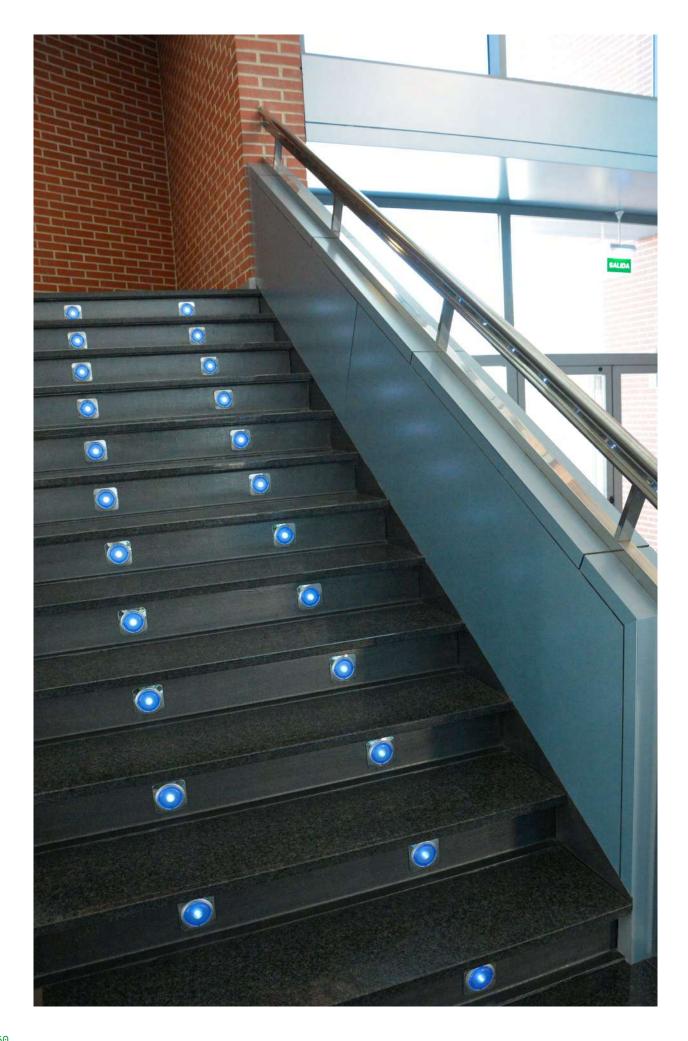
Masonry box





Ref. CE-MA RRP. 4.94 €





Élite Series self-contained

Classic beacon light with a timeless design and high resistance. Consisting of a central white LED and polycarbonate diffuser available in different colours. Self-contained (Ni-MH HT battery) and maintained mode functionning. Ideal size for installation in round or square universal box.



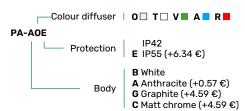
Maintained

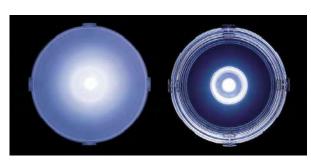
model	A (h)	RRP (€)
PA-BT	2 or 4 (recharge in 24 or 48 h)	25.09

Maintained remote controllable

model	A (h)	RRP (€)
PT-BT	2 or 4 (recharge in 24 or 48 h)	32.68

To request different body finish and/or different diffuser colour, change the corresponding letters in the reference. To request IP55 protection rating, add the letter "E" to the reference. Example:





Élite beacon light with opal or transparent diffuser.

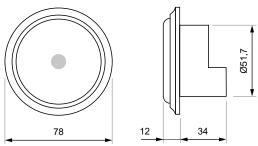
Technical characteristics

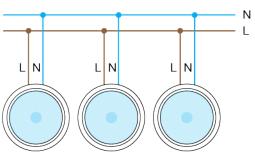
\	Power supply	230 Vac
\	Consumption	0.5 W
\	Electrical insulation	Class II
\	Remote controllable	Yes

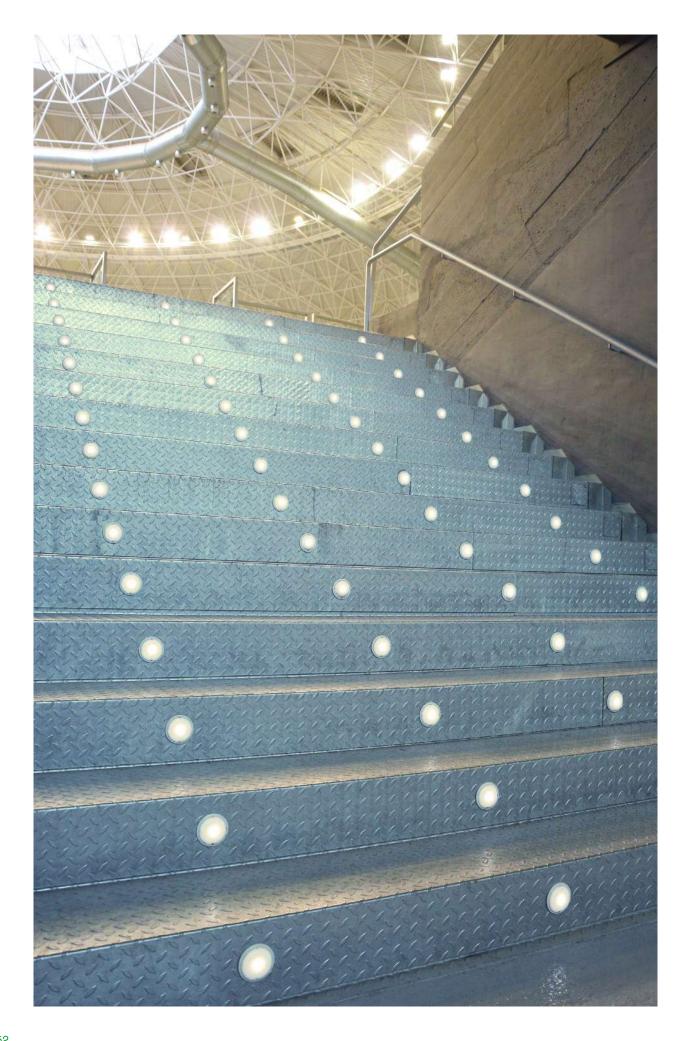
♦ Protection rating IP42 or IP55, IK08

♦ Finishes and accessories on page 54.

Surface mounting







Élite Series CENTRALIZED

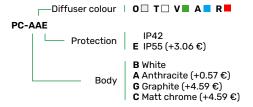
Classic beacon light with a timeless design and high resistance. Consisting of a central white LED and polycar-bonate diffuser available in various colours. Centralized (powered by a centralizing device) and maintained functioning mode. To be installed in round or square universal box.



Maintained

model	power supply	RRP (€)
PC-BT	6 Vdc	12.37

To request different body finish and/or different diffuser colour, change the corresponding letters in the reference. To request IP55 protection rating, add the letter "E" to the reference. Example:



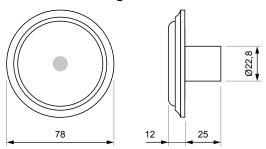
Technical characteristics

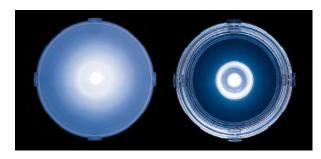
♦ Electrical insulation Class III

♦ Remote controllable (centralising device)
 ♦ Protection rating IP42 or IP55, IK08

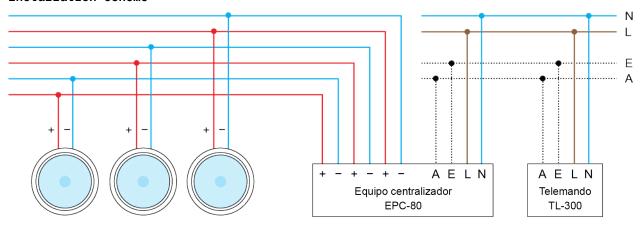
♦ Finishes and accessories on page 54.

Surface mounting





Élite beacon light with opal or transparent diffuser.



Élite Series CENTRALIZED

Centralizing device

- ♦ The centralizing device powers the beacons at 6 Vdc, both in the presence of the mains (maintained) and in emergency mode.
- It can power a maximum of 80 beacons ensuring a 1 hour autonomy in emergency mode.
- ♦ With remote control input.
- ♦ Ni-Cd (HT) battery.
- ♦ Can be mounted on a M36 DIN rail (9 modules).

model	A (h)	beacons	dimensions (mm)	RRP (€)
EPC-80	1	80	158 x 90 x 58	179.70



Élite Series finished and accessories

Body finish









Flush mounting

Flush frames for round and square universal box







Anthracite Ref. MP-A RRP. 2.47 €

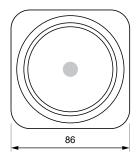


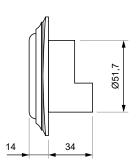
Matt chrome Ref. MP-C RRP. 6.49 €

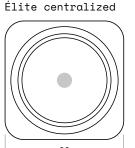


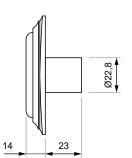
Graphite Ref. MP-G RRP. 6.49 €

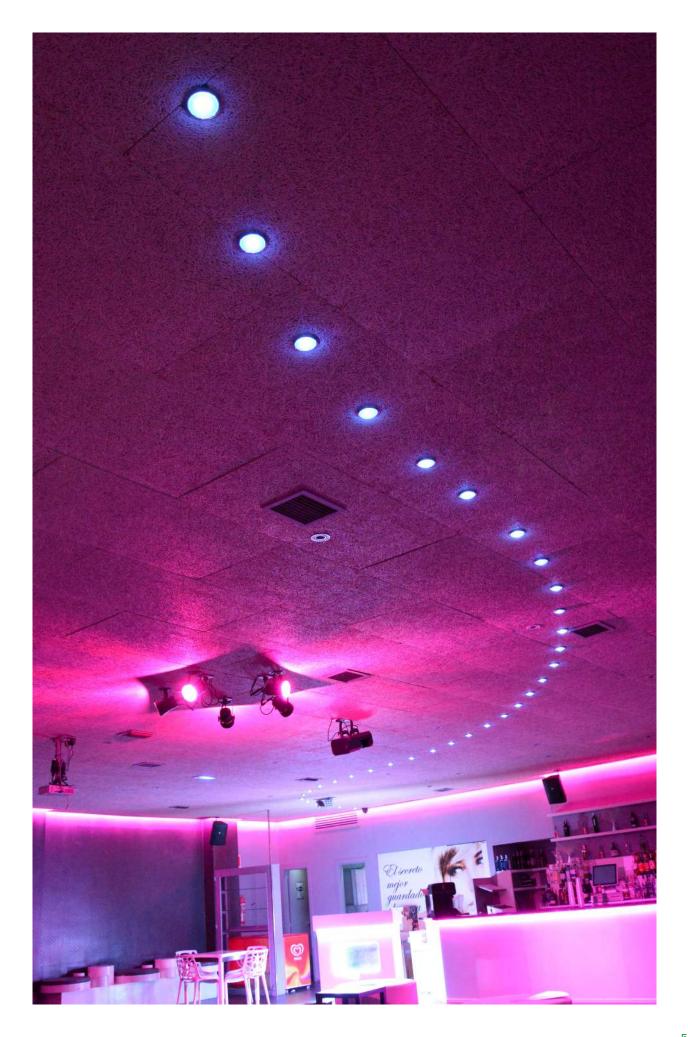
Élite self-contained

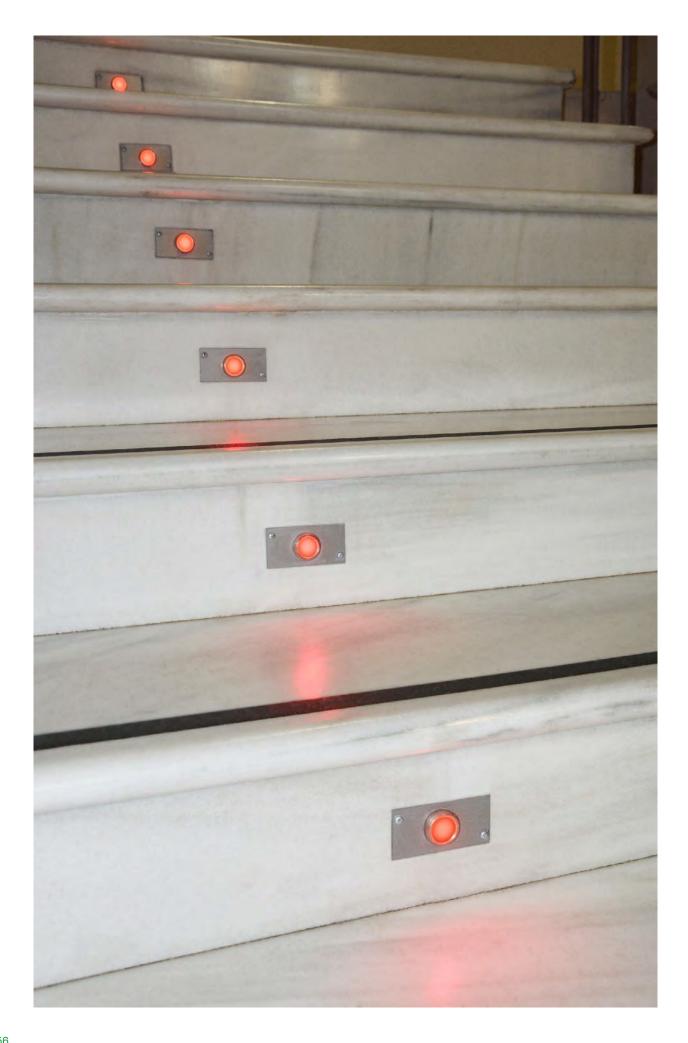












PCM Series CENTRALIZED

Beacon light of reduced dimensions and industrial yet modern aesthetics. Composed of a low-power central LED available in different colours. Centralized (powered by a centralizing device) and with maintained operation. AISI 304 stainless steel body.



Maintained

model	power supply	RRP (€)
PCM-B0	12 Vdc or 12 Vac	31.59

To request different LED colour or different diffuser type, change the corresponding letters in the reference. Example:



♦ Fastening by means of adhesive paste or optional stainless steel nut M18x1:

Ref. M01388IN0X RRP. 3.39 €

 Stainless steel frames for universal boxes or other sizes available on request.

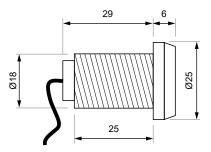
Technical characteristics

♦ Electrical insulation Class III

Remote controllable
 Yes (centralizing device)

♦ Protection rating IP67, IK08

Surface mounting

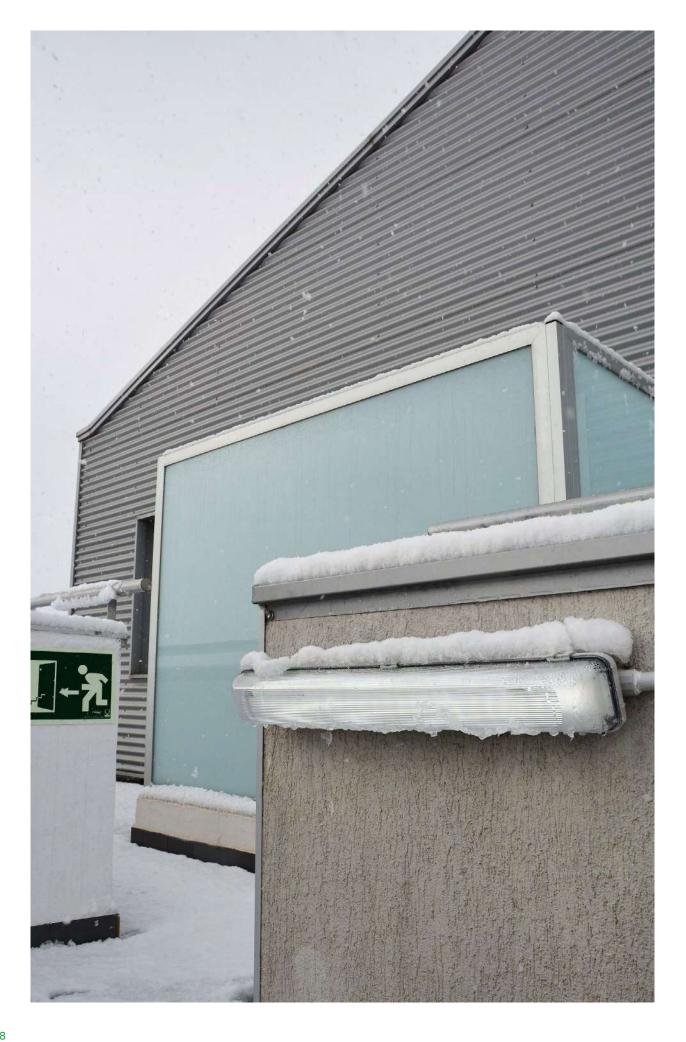


Centralizing devices

- ♦ The centralizing device powers the beacons at 12 Vdc, both in presence of the mains (maintained) and in emergency mode.
- Metal wall mounting cabinet with front door, epoxy painted grey RAL 7035.
- ♦ With remote control input.
- ♦ Ni-Cd (HT) battery.
- Each device can power a maximum number of beacons ensuring a 1 hour autonomy in emergency mode.

				1
model	A (h)	beacons	dimensions (mm)	RRP (€)
EPM-24	1	24	400 x 300 x 150	525.70
EPM-64	1	64	400 x 300 x 150	629.89
EPM-112	1	112	400 x 300 x 150	840.15
EPM-224	1	224	500 x 400 x 200	1,387.07





LN Series

Rectangular, watertight LED emergency fitting with a modern design and LED strip lighting (colour temperature: 5,700 K), for surface mounting. Includes soft opal internal diffuser in high transmittance material for optimum protection of the LEDs and homogeneous and pleasant lighting. Remote controllable.



Non maintained

model	Φ (lm)	A (h)	size	P net (W)	RRP (€)
LN1-450	450	1	1	1.5	141.20
LN1-1200	1,200	1	1	3.0	168.78
LN1-2400	2,400	1	2	4.5	245.99
LN1-4800	4,800	1	2	6.5	326.53
LN2-600	600	2	1	3.0	161.06
LN2-1200	1,200	2	2	4.5	231.66
LN2-2400	2,400	2	2	6.5	312.18

Centralizable fittings

model	Ф (lm)	size	P net (W)	RRP (€)
LN-1200L1	1,200	1	10.5	127.97
LN-2400L1	2,400	1	20.0	157.74
LN-2400L2	2,400	2	20.0	195.26
LN-4800L2	4,800	2	33.0	261.44

The supply voltage of all centralizable fittings is 85 to 265 Vac and 120 to 370 Vdc.

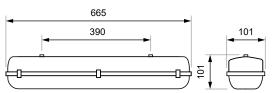
Maintained

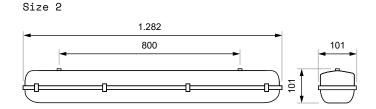
model	Φ (Im) emerg	Φ (lm) main	A (h)	size	P net (W)	RRP (€)
LN1-450P1200	450	1,200	1	1	11.0	186.43
LN1-1200P1200	1,200	1,200	1	1	14.0	206.29
LN1-900P2400	900	2,400	1	2	22.0	265.85
LN1-2400P2400	2,400	2,400	1	2	24.0	305.57
LN1-1800P4800	1,800	4,800	1	2	35.0	357.41
LN2-600P1200	600	1,200	2	1	14.0	206.29
LN2-450P2400	450	2,400	2	2	22.0	265.85
LN2-1200P2400	1,200	2,400	2	2	24.0	305.57
LN2-900P4800	900	4,800	2	2	35.0	357.41

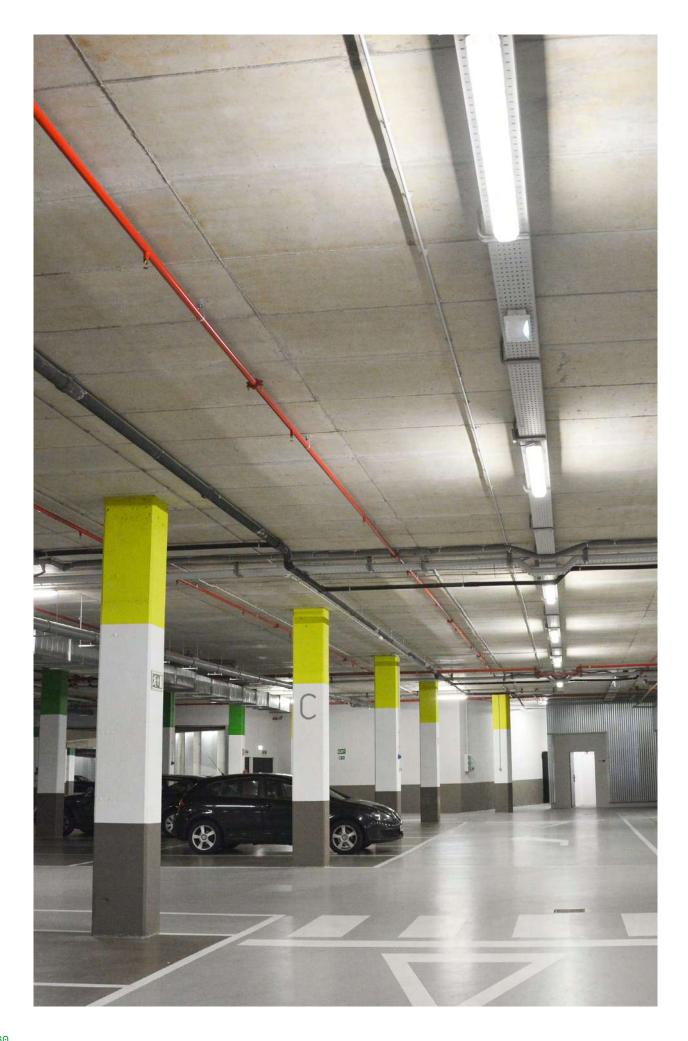
- ♦ Protection rating: IP65.
- ♦ Ni-Cd (HT) battery.

Surface mounting

Size 1







LN Series AUTOTEST

Waterproof LED emergency fitting with Autotest function: a microprocessor checks the status of the emergency LEDs, the battery and the electronics on a regular basis. Modern design and LED strip lighting (colour temperature: 5,700 K) with soft opal internal diffuser in high transmittance material. Remote controllable.



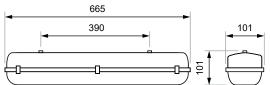
Maintained

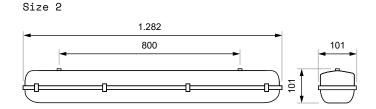
model	Φ (lm) emerg	Φ (lm) main	A (h)	size	P net (W)	RRP (€)
LNA1-450P1200	450	1,200	1	1	11.0	215.08
LNA1-1200P1200	1,200	1,200	1	1	14.0	234.94
LNA1-900P2400	900	2,400	1	2	22.0	294.52
LNA1-2400P2400	2,400	2,400	1	2	24.0	334.22
LNA1-1800P4800	1,800	4,800	1	2	35.0	386.07
LNA2-600P1200	600	1,200	2	1	14.0	234.94
LNA2-450P2400	450	2,400	2	2	22.0	294.52
LNA2-1200P2400	1,200	2,400	2	2	24.0	334.22
LNA2-900P4800	900	4,800	2	2	35.0	386.07

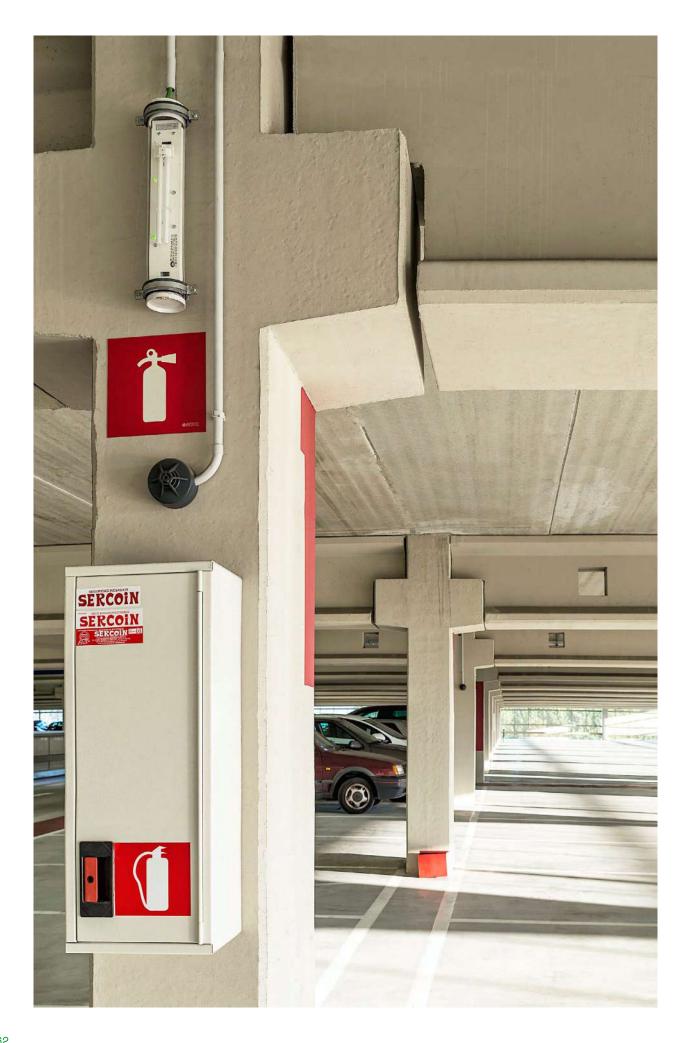
- ♦ Protection rating: IP65.
- ♦ Ni-Cd (HT) battery.
- Information about Autotest on page 93.

Surface mounting

Size 1







Tube Series

Cylindrical, watertight LED emergency fitting. It fits into two supports that allow the fitting to rotate, permitting the light beam to be directed. Lighting by means of LED strip with internal diffuser in high transmittance material for optimum protection of the LEDs and homogeneous and pleasant lighting.



Non maintained

model	Φ (lm)	A (h)	LEDs	P net (W)	RRP (€)
LTL-200	200	1	4	1.5	130.04
LTL-450	450	1	9	2.6	135.35
LTL-800	800	1	16	3.0	178.85
LTL-1200	1,200	1	24	3.0	187.89
LTL-100-2	100	2	2	1.5	128.99
LTL-200-2	200	2	4	2.6	134.20
LTL-400-2	400	2	8	3.0	175.49
LTL-600-2	600	2	12	3.0	187.89
LTL-150-3	150	3	3	2.6	134.20
LTL-250-3	250	3	5	3.0	173.83
LTL-400-3	400	3	8	3.0	187.89

Maintained

model	Ф (lm)	A (h)	LEDs	P net (W)	RRP (€)
LTL-450P	450	1	9	7.5	146.82
LTL-200P-2	200	2	4	4.9	146.82
LTL-150P-3	150	3	3	4.4	146.82

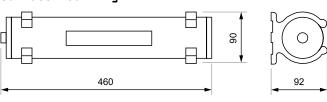
To request the supplement of the two brackets for vandal-proof fastening, add "(AV)" to the reference. Example:

LTL-1200 (AV)

Standard brackets

(AV) Vandal-proof brackets (+18.57 €)

Surface mounting



- ♦ Protection rating: IP67.
- ♦ Ni-Cd (HT) or Li-Ion battery, according to the model.
- ♦ The cable entry is from the side and is supplied with a cable gland size PG-11.
- Vandal-proof fastening: replacement of the two standard plastic brackets in which the luminaire fits with two screwed metal brackets.

Ref. Vandal-proof flange RRP. 13.75 €



K1 Series FLUORESCENT TUBES

Kit for converting fluorescent tubes to emergency. Set consisting of a charger-converter and one or two batteries, to convert linear or compact fluorescent tubes. Allows non-maintained or maintained operation by means of external ballast depending on the connection. Remote controllable.



Linear tubes T8

model	A (h)	18 W	36 W	58 W	RRP (€)
K-715	1	44%	22%	15%	86.06
K-730	1	88%	44%	30%	86.67
K-730A	2	44%	22%	15%	86.67

Lineal tubes T5

model	A (h)	80 W	RRP (€)
K-715T80	1	11%	60.68
K-730T80	1	22%	86.67
K-730AT80	2	11%	86.67

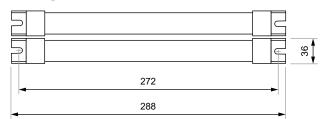
Linear tubes T5

model	A (h)	14 W	21 W	28 W	35 W	49 W	54 W	RRP (€)
K-715T	1	58%	45%	33%	29%	18%	16%	60.68
K-730T	1	100%	90%	66%	58%	36%	32%	86.67
K-730AT	2	58%	45%	33%	29%	18%	16%	86.67

Compact U tubes (G24 and 2G11)

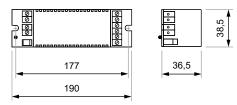
model	A (h)	10W G24Q-1	13W G24Q-1	18W G24Q-2	26W G24Q-3	18W 2G11	24W 2G11	36W 2G11	RRP (€)
K-715	1	86%	66%	48%	33%	44%	36%	22%	60.68
K-730	1	100%	100%	96%	66%	88%	72%	44%	86.67
K-730A	2	86%	66%	48%	33%	44%	36%	22%	86.67

Battery



- ♦ The K-715 and all its variations use a single battery, while the K-730 and all its variations use two batteries.
- ♦ The kits are suitable for tubes with conventional ballast and electronic ballast, but not for compact tubes with built-in starter (2 pins).
- ♦ Ni-Cd (HT) battery.

Charger-converter



K2 Series LED STRIPS

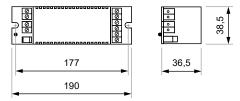
Kit for converting LED strips and other devices that operate a 12 Vdc, such as halogen lamps or fire sirens. Set consisting of a charger-converter and two batteries, that allow a maintained or non-maintained functioning depending on the connection. Remote controllable.



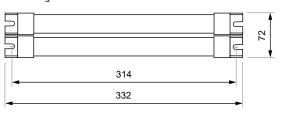
Devices at 12 Vdc

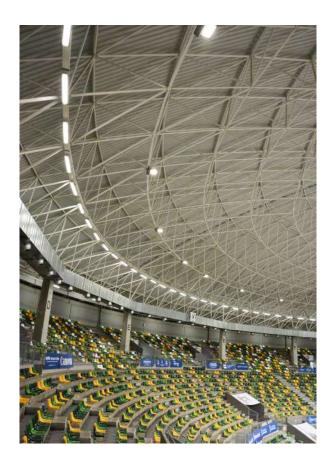
model	A (h)	power	battery	RRP (€)
K-124	1	38 W	Ni-Cd (HT)	194.23

Charger-converter

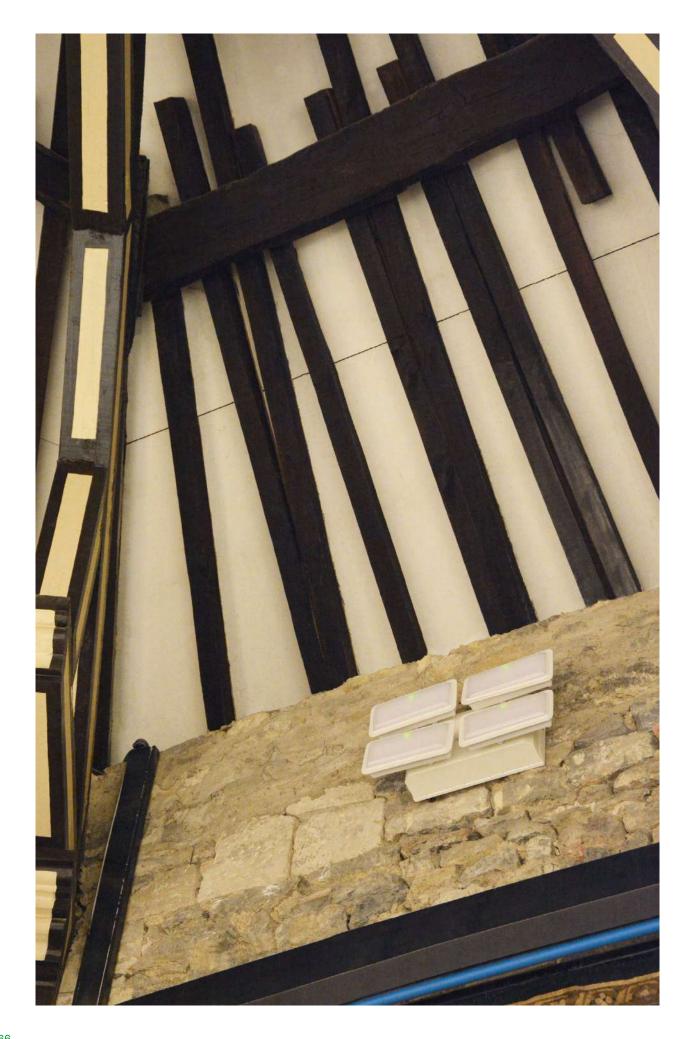


Battery









PL Series

Emergency floodlight with LED spotlights. One, two or four spotlights fitted with LED strips (colour temperature: 5,700 K) with dispersed light beam, non-orientable, for installation at great heights. Metal body with exposy paint in white RAL 9010 (IP42) and grey RAL 7035 (IP66). Remote controllable.



Non maintained IP42

model	Φ (lm)	A (h)	spots	P net (W)	RRP (€)
PL1-1200	1,200	1	1	3.0	139.07
PL1-1800	1,800	1	4	10.4	325.98
PL1-2400	2,400	1	2	4.3	382.10
PL1-3600	3,600	1	4	6.6	494.35
PL1-4800	4,800	1	4	6.6	570.77
PL2-1200	1,200	2	2	4.3	366.59
PL2-1800	1,800	2	2	6.6	408.37
PL2-2400	2,400	2	2	6.6	477.62

Maintained IP42

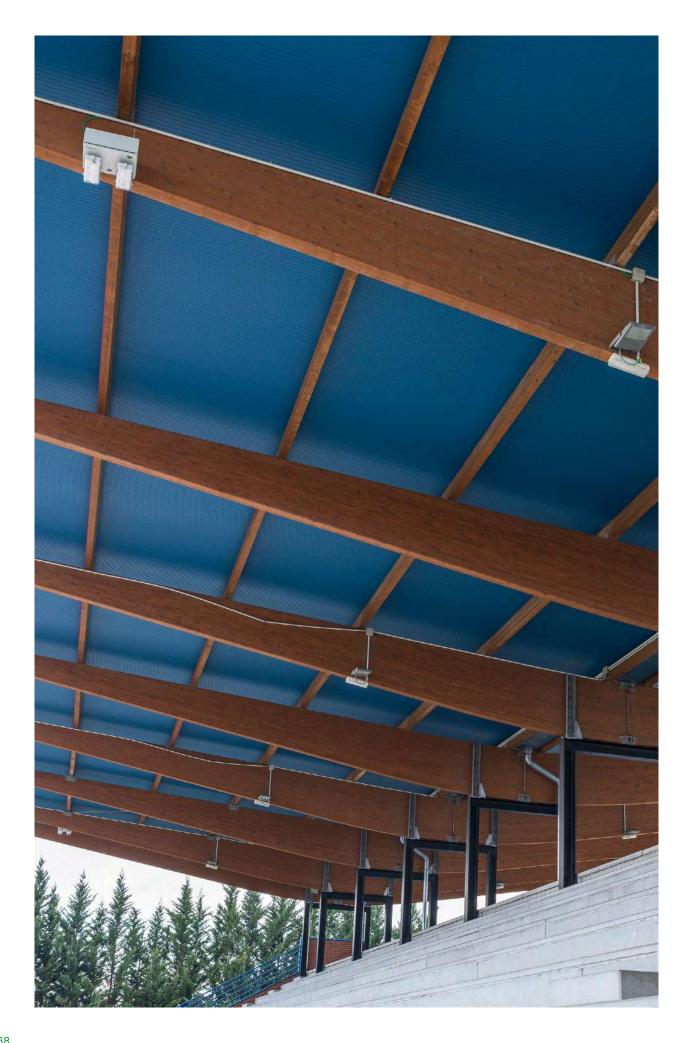
model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PL1-1800P	1,800	1	4	30.0	394.04

Non maintained IP66

model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PL1-1200E	1,200	1	1	3.0	170.67
PL1-1800E	1,800	1	4	10.4	539.25
PL1-2400E	2,400	1	2	4.3	562.10
PL1-3600E	3,600	1	4	6.6	719.40
PL1-4800E	4,800	1	4	6.6	803.38
PL2-1200E	1,200	2	2	4.3	524.64
PL2-1800E	1,800	2	2	6.6	569.68
PL2-2400E	2,400	2	2	6.6	643.92

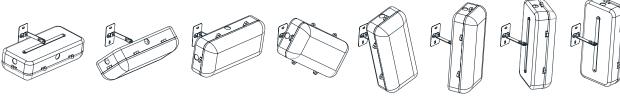
Maintained IP66

model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PL1-1800PE	1,800	1	4	30.0	611.06

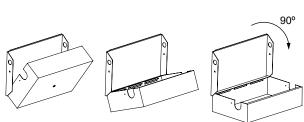


PL Series

- ♦ The PL1-1200 is the only single spot floodlight with a Li-Ion battery, while the others have Ni-Cd (HT) batteries.
- ♦ This model does not include a metal body, but consists of the spotlight itself with a system of epoxy-painted steel plates that allow it to be oriented in any direction:

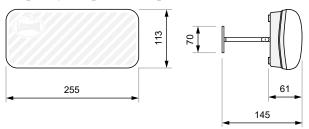


- IP42 floodlight: soft opal diffuser as standard and transparent or strong opal as an option. The floodlight is opened by folding down the cover with respect to the base fixed on the wall. The cover rests at 90°, allowing east handling of the interior.
- IP66 floodlight: transparent diffuser as standard and soft or strong opal as an option. The floodlight housing is a watertight metal cabinet with lockable door.
- ♦ The protection rating of the PL1-1200E model with a single spotlight is IP67.

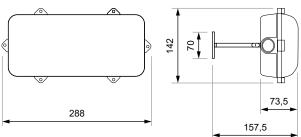


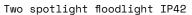
Surface mounting

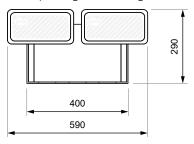
Single spotlight floodlight IP42

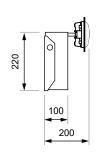


Single spotlight floodlight IP67

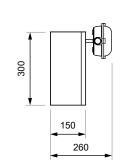




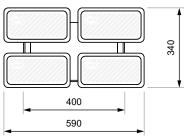


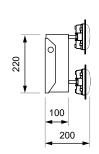


Two spotlight floodlight IP66

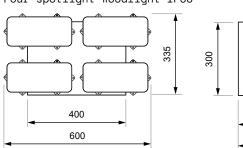


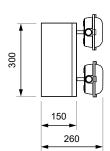
Four spotlight floodlight IP42

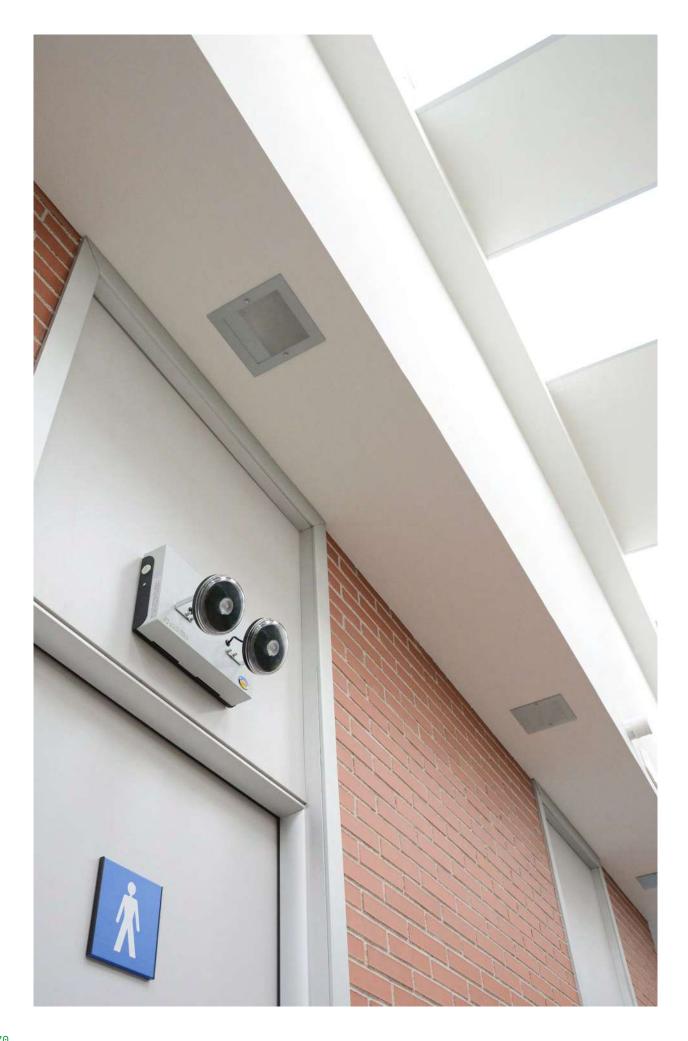




Four spotlight floodlight IP66







PH Series

Carefully designed emergency floodlight with spotlights that can be adjusted in any direction. Two or four spotlights (colour temperature: 5,000 K) with a concentrated lightbeam and high energy efficiency for installation at great heights. Small metal housing with epoxy paint in RAL 7035 grey. Remote controllable.



Non-maintained

model	Φ (lm)	A (h)	spots	P net (W)	RRP (€)
PH1-1000	1,000	1	2	2.0	317.91
PH1-2000	2,000	1	4	3.6	461.37
PH2-1000	1,000	2	2	3.6	340.87
PH2-2000	2,000	2	4	6.4	542.86

To request IP66 degree of protection, add the letter "E" to the part number. Example:

PH1-1000PE

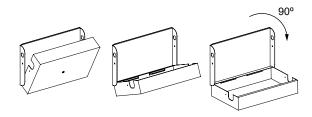
Protection | IP42 **E** IP66 (+98.60 €)

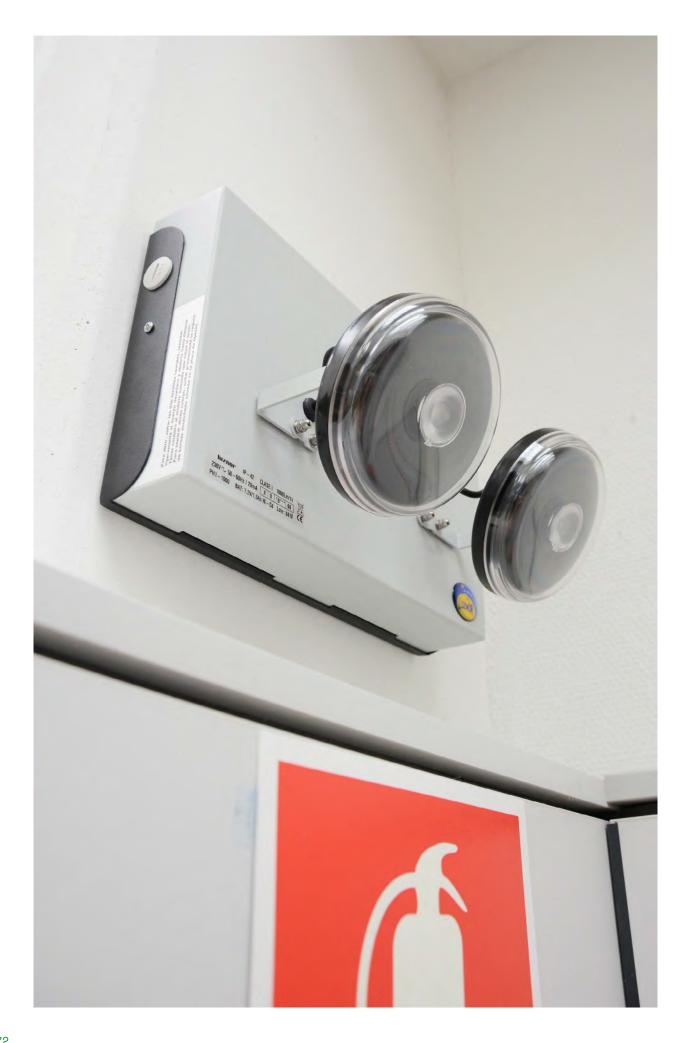
- ♦ Dimensions on page 77.
- ♦ Interdistances on page 84.
- ♦ Ni-Cd (HT) battery.

Maintained

model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PH1-1000P	1,000	1	2	13.0	391.37
PH1-2000P	2,000	1	4	24.0	534.83
PH2-1000P	1,000	2	2	15.0	414.32
PH2-2000P	2,000	2	4	17.0	615.16

- ♦ Floodlight IP66: the housing of the floodlight is a watertight metallic wall cabinet with lockable door.
- ♦ Floodlight IP42: The floodlight is opened by folding down the cover with respect to the base fixed on the wall. The cover rests at 90°, allowing east handling of the interior:





PH Series AUTOTEST

Carefully designed emergency floodlight with Autotest function: a microprocessor checks the status of the emergency LEDs, the battery and the electronics periodically. Two or four adjustable LED spotlights with concentrated lightbeam and high energy efficiency. Small metal housing. Remote controllable.





Non-maintained

model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PHA1-1000	1,000	1	2	2.0	346.57
PHA1-2000	2,000	1	4	3.6	490.03
PHA2-1000	1,000	2	2	3.6	369.52
PHA2-2000	2,000	2	4	6.4	571.52

To request IP66 degree of protection, add the letter "E" to the reference. Example:

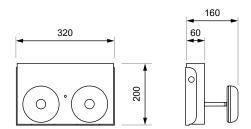
PHA1-2000E

Protection | IP42
E IP66 (+98.60 €)

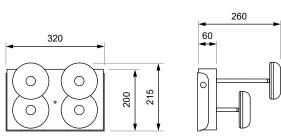
- ♦ Information about Autotest on page 85.
- ♦ Interdistances on page 84.
- ♦ Ni-Cd (HT) battery.

Surface mounting

IP42 floodlight with two spotlights



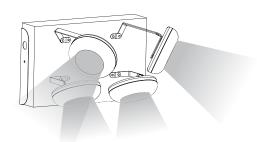
IP42 floodlight with four spotlights



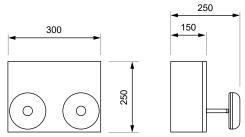
Maintained

model	Ф (lm)	A (h)	spots	P net (W)	RRP (€)
PHA1-1000P	1,000	1	2	13.0	420.03
PHA1-2000P	2,000	1	4	24.0	563.49
PHA2-1000P	1,000	2	2	15.0	442.97
PHA2-2000P	2,000	2	4	17.0	643.82

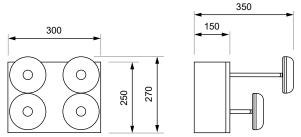
♦ Highest adjustability of the market:



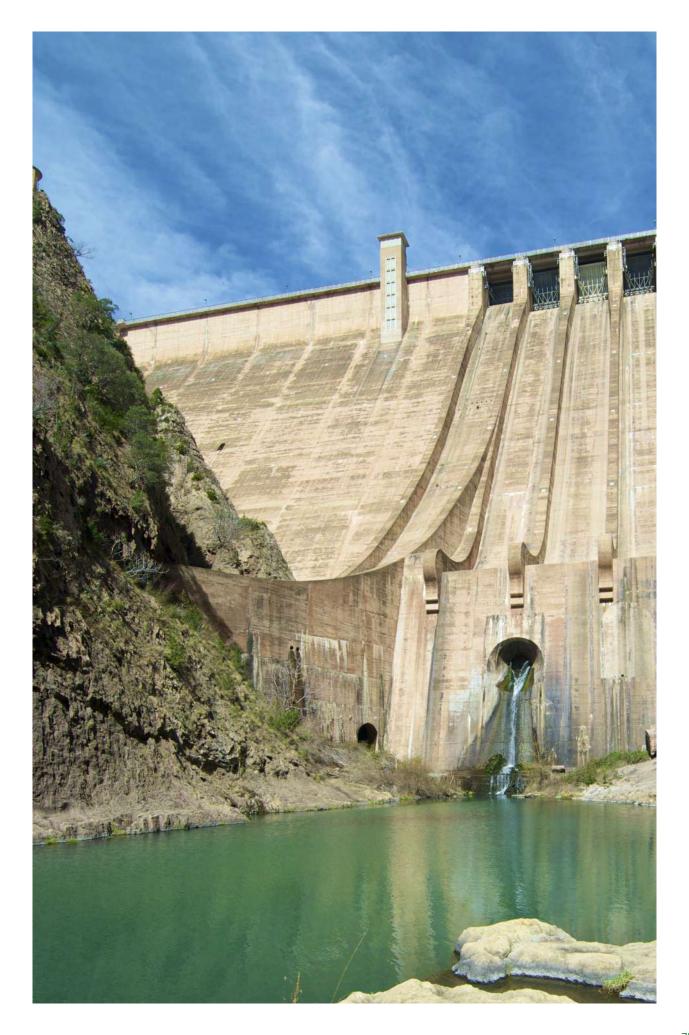
IP66 floodlight with two spotlights



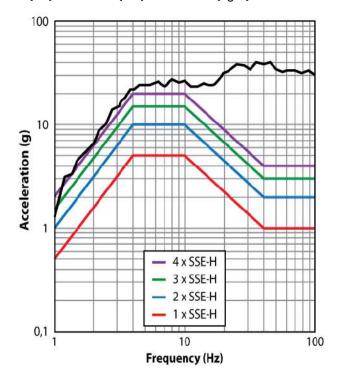
IP66 floodlight with four spotlights

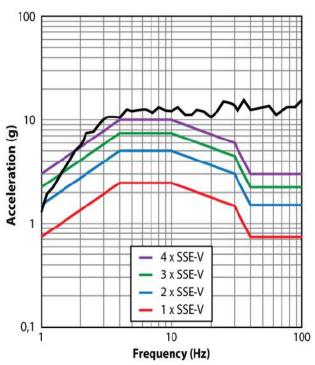






♦ It is possible to request a General Rapport of Seismic Qualification. Example of registered response spectrum (5%): horizontal (left) and vertical (right):





Technical characteristics

♦ Power supply
 ♦ Electrical insulation
 Class I

♦ Usage temperature -10°C ÷ 40°C
 ♦ Protection rating IP55, IK08

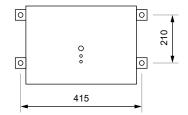
♦ Relative humidity
90% no condensation

♦ Consumption 24W (recharge) 5W (maintenance)

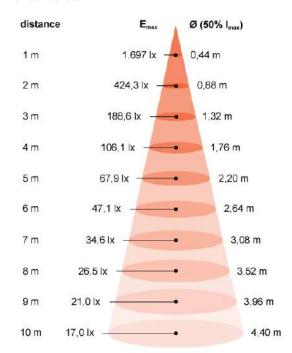
♦ Weight 20 kg (Pb battery)

weight 20 kg (Pb battery)
13 kg (Ni-MH battery)

- ♦ Cable entry is possible by any side under demand, but, by default, it is made on the left side of the floodlight by means of a cable gland of size M20.
- Includes four AISI 304 stainless steel lugs for anchoring: the distances between shafts are compatible with other Luznor floodlights for quick replacement:



- ♦ The spotlights can be adjusted in any direction by means of two swivelling axes per spotlight.
- ♦ Interdistances on page 84.
- The collimator in each spotlight provides a circular directed beam:



PLN Series

LED emergency floodlight with seismic qualification. Two adjustable LED spotlights with concentrated light-beam, (colour temperature: 5,000 K) and high energy efficiency to be installed at great heights in critical structures or areas with seismic risks, like hydroelectric and nuclear plants. Stainless steel housing. Remote controllable.





Non-maintained

Ф (lm)	A (h)	spots	battery	RRP (€)
1,000	24	2 up	Pb	3,743.25
1,000	24	2 up	Ni-MH	4,413.51
1,000	24	2 front	Pb	3,743.25
1,000	24	2 front	Ni-MH	4,413.51
2,000	12	4	Pb	4,198.52
2,000	12	4	Ni-MH	4,868.77
	1,000 1,000 1,000 1,000 2,000	1,000 24 1,000 24 1,000 24 1,000 24 2,000 12	1,000 24 2 up 1,000 24 2 up 1,000 24 2 front 1,000 24 2 front 2,000 12 4	1,000 24 2 up Pb 1,000 24 2 up Ni-MH 1,000 24 2 front Pb 1,000 24 2 front Ni-MH 2,000 12 4 Pb

♦ The battery, whether Pb (lead-acid) or Ni-MH (nickel-metal hydride), is watertight, maintenance-free, and does not release any gases.



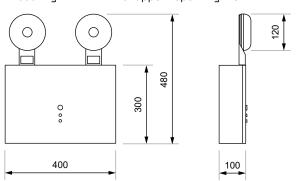
Seismic qualification according to IEEE-344.

Resists both structurally and functionally the earthquake and performs its safety function during and after the tremor.

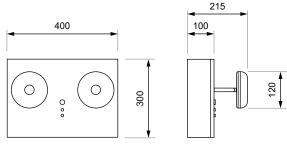
It can withstand acceleration greater than 20 g in the horizontal plane and 10 g in the vertical plane.

Surface mounting

Floodlight with two upper spotlights



Floodlight with two front spotlights





FI Led Series

LED emergency luminaire for low temperatures. This is a emergency luminaire of the LLE series adapted to work in a temperature range of -40 °C to 40 °C. The electronics regulate the temperature of the battery in any changing environment: cold chambers, contrast between night and day, etc. Remote controllable.



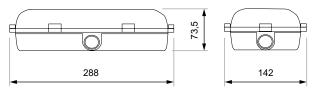
Non-maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
FIL-250	250	1	23.0	131.09
FIL-450	450	1	23.0	147.48

Maintained

model	Ф (lm)	A (h)	P net (W)	RRP (€)
FIL-250B	250	1	26.0	147.48
FIL-450B	450	1	28.0	163.86

Surface mounting



- ♦ Protection rating: IP67.
- ♦ Ni-Cd (HT) battery.
- Supplied with three cable gland entries for cable glands size PG-13.5 and two plugs with sealing gaskets.
- ♦ Colour temperature: 5,700 K (cold light).

Recessed mounting

Stainless steel frame

Cut: 300 x 160 mm



Ref. MBEL-I 386 x 196 mm RRP. 26.05 €

Adjustable mounting

Epoxy-painted steel orientation set in grey RAL 7035 $\,$



Ref. COBEL RRP. 19.36 €



CB Series BATTERY CHARGING EQUIPMENT

Uninterruptible direct current power supply system. Equipment consisting of a charger and a battery, housed in an IP22 metal cabinet with lockable door, which provides DC output voltage, both in the presence and absence of mains power.

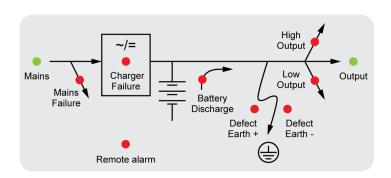


Possibilities of the standard range

output voltage (Vdc)	caliber (A)	capacity (Ah)
12 - 24 - 48 - 110 - 120	1 - 3 - 6 - 10	4 - 7 - 14

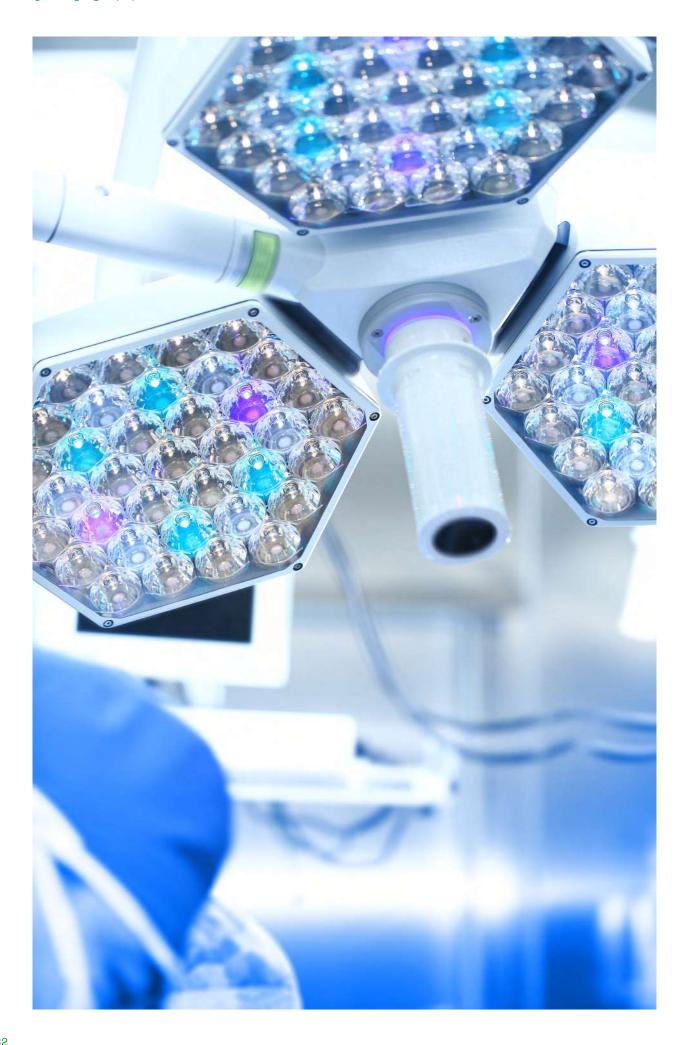
- and totally customizable.
- ♦ The charger can simultaneously supply the charging intensity of the battery and the one required for the use of the recharge, up to the value of its total size.
- ♦ The battery can be either Ni-Cd (HT) or Pb, in both cases watertight, maintenance-free and without gas evolution.

Signalling and alarms



- It incorporates a synoptical label with LED diodes located on the door, with multiple status signals and alarms.
- ♦ The remote alarm is turned on after a time delay of 10-20 seconds since any alarm occurs. A potential-free inverter contact allows this alarm to be transmitted remotely.

It is possible to request other output voltages and battery capacities: the range of CB equipment is very wide



CBQ Series OPERATING LIGHT EQUIPMENT

Uninterruptible power supply system in alternating current or direct current. Equipment providing AC output voltage in presence of mains and DC output voltage in absence of mains, in both cases 24 V. Other voltages can be established on request.



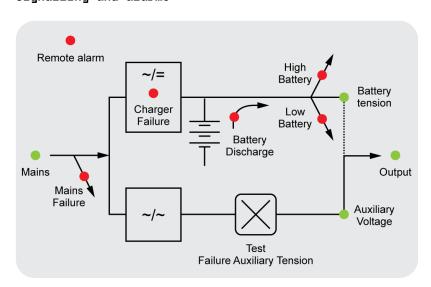


Possibilities of the standard range

output voltage	A (h)	power (W)
24 Vac or 24 Vdc	1 or 2	300 - 600 - 1,100

- It is possible to request other output voltages and powers: the CBQ equipment range is very wide and totally customizable.
- Equipment consisting of a battery charger, a battery that provides output voltage when a mains failure occurs, a transformer that provides AC output voltage and a contactor that performs the output switch to the transformer or to the battery.
- The battery is Pb: watertight, maintenance-free and without gas evolution.

Signalling and alarms



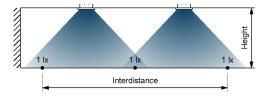
- It incorporates a synoptical label with LED diodes located on the door, with multiple status signals and alarms.
- ♦ The remote alarm is turned in after a time delay of 10-20 seconds since any alarm occurs. A potencial-free inverter contact allows this alarm to be transmitted remotely.

Interdistances

The interdistance is the maximum distance at which two luminaires may be positioned so as to ensure a minimum horizontal illumination level of 1 lux along the escape rute.

Polar Series

model		height (m)					
		2.5	3.0	3.5	5.0		
300 lm T	\odot \rightarrow \odot	9.7	10.4	11.4	13.3		
300 lm T	⊚→‰	4.0	4.3	4.7	5.2		
300 lm S	\odot \rightarrow \odot	10.1	10.9	11.6	13.1		
300 lm S	⊚→∭	4.1	4.3	4.6	5.0		
200 lm T	\odot \rightarrow \odot	8.6	9.6	10.1	11.6		
200 lm T	⊚→‰	3.6	3.9	4.1	4.4		
200 lm S	\odot \rightarrow \odot	8.9	9.6	10.0	11.3		
200 lm S	⊚→∭	3.6	3.8	4.0	4.1		
150 lm T	\odot \rightarrow \odot	8.1	8.7	9.4	10.8		
150 lm T	⊚→‰	3.3	3.5	3.7	3.5		
150 lm S	\odot \rightarrow \odot	8.2	8.7	9.3	10.0		
150 lm S	⊙→‰	3.3	3.4	3.5	3.5		

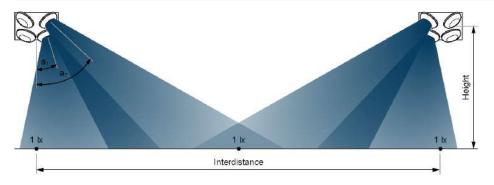


Note: These distances are approximate. The serve as a reference only in the case of linear escape routes such as corridors and in no case have the equivalent validity of a lighting study carried out using the Luznor PCI Software.

PH and PLN Series

For each heigth at which two adjacent floodlights are positioned, there is an optimum angle of aiming of the spotlights, which allows maximum interdistance between the floodlights.

model			height (m)						
			5		10		15		20
1,000 lm (2 focos)	5a→5a	24.0	(a ₁ =45°)	26.0	(a ₁ =32°)	30.0	(a ₁ =26°)	32.0	(a ₁ =23°)
1,000 lm (2 focos)	⊶∭	10.5	(a ₁ =45°)	12.0	(a ₁ =32°)	13.5	(a ₁ =26°)	14.5	(a ₁ =23°)
2,000 lm (4 focos)	88 → 88	44.0	(a ₁ =45°, a ₂ =80°)	61.0	(a ₁ =32°, a ₂ =70°)	66.0	(a ₁ =26°, a ₂ =70°)	67.0	(a ₁ =23°, a ₂ =55°)
2.000 lm (4 focos)	88→	18.5	(a₁=45°, a₂=80°)	23.0	(a₁=32°, a₂=70°)	24.0	(a ₄ =26°, a ₂ =70°)	24.0	(a ₄ =23°, a ₅ =55°)

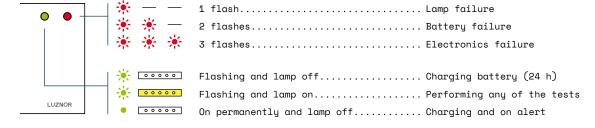


Autotest FUNCTIONING

♦ Each emergency luminaire checks constantly the battery status and the electronics in the presence of mains power and performs automatically two types of different tests:

test	verification	duration	frequency
Functional	lamp, battery and electronics	6 min	3 months
Autonomy	lamp, battery, electronics and autonomy	1, 2 or 3 h (autonomy in emergency)	12 months

- In case of failure, this is indicated on the emergency luminaire by a red LED, whether the luminaire is connected to mains or in emergency mode. After solving the fault, the reset button must be pressed during 3 seconds to inform the luminaire that it has been restored.
- ◊ Possible signals:













Sales terms 2024

OBJECT

The present sales terms are intended to define the commercial relationship between the company Luznor and its customers, which must be mutually beneficial, free and respectful at all times, without exercising dominant or coercive actions.

ORDERS

Upon receipt of an order, Luznor will send the customer an order acknowledgement indicating the price, delivery time and other specific conditions of the order. The order acknowledgement and the general sales terms will be the only valid contractual documents and will be understood to be accepted by the customer regardless of any other documents that may have been provided.

The delivery time indicated shall refer to the maximum date foreseen for leaving the factory. The delay in delivery, for reasons beyond Luznor's control, shall not be subject to rejection, cancellation or penalty.

The minimum order value is €50 before tax.

SALES PRICES

The sales prices will be those defined in Luznor's 2024 emergency lighting catalogue, those quoted in specific offers or those adjusted to the particular conditions agreed with the customer and always subject to VAT and taxes in force. The prices published in this catalogue may be revised unilaterally by Luznor.

PAYMENT TERMS

According to the law in force 15/2010 of 07 July 2010, from 01 January 2013 the maximum payment term will be 60 days, counting from the date of receipt of the goods.

For orders of less than €300 before tax, payment will be made in advance by bank transfer.

TRANSPORT

Deliveries involving postage to be paid by the customer will be made through the agency indicated by the customer or, alternatively, will be charged by Luznor in the invoice. When the delivery is made through the customer's agency, the transport will be at the customer's risk, exempting Luznor from any responsibility.

Upon receipt of the goods, regardless of the method of shipment, the customer must examine them to give their approval. If any incident is noticed due to deterioration, missing numbers or any other reason, a complaint must be made to the agency and simultaneously to Luznor, at the very moment of reception.

Luznor will not accept claims of this kind after 4 days from receipt of the goods.

RETURNS

Whatever the reason, Luznor will not accept the return of any goods invoiced more than 3 months old.

Prior to returning the material, the customer must inform the factory, at which time Luznor will issue the return authorisation form indicating the corresponding shipping instructions.

In the case of returns accepted by Luznor for crediting, this will be carried out with a minimum depreciation of 20%, as reception, revision and conditioning expenses.Returns of goods considered to be of special manufacture will not be accepted.

WARRANTY

Luznor products enjoy a 2-year warranty, which covers any manufacturing defects. Fluorescent tubes, halogen lamps, batteries or other components considered consumables are not covered by the warranty.

The warranty is conditional upon proper storage, installation and use of the product by the customer. The warranty excludes faults caused by incorrect installation, improper handling, negligence or external causes.

Products that have been modified or manipulated by non-Luznor personnel will not be covered under warranty.

RATES

The values of the recycling rates imposed on each product are not published in this catalogue and will be available on the Luznor website. These rates are only applicable to products sold on Spanish territory.

PRIVACY POLICY

Personal data will be processed by LUZNOR DESA-RROLLOS ELECTRÓNICOS, S.L., to maintain contact and communication, manage the contractual and/or commercial relationship with current and/or potential customers and suppliers and, where appropriate, send them information about our activities, products and/or services. This processing is based on: contractual and/or commercial relationship and our legitimate interest. We do not communicate data to third parties, unless legally obliged to do so. You may, where appropriate, exercise the rights recognised by the LOPD, as detailed in the privacy policy of www.luznor.com.

CODE OF CONDUCT

The customer is obliged at all times to comply with the legislation in force. The customer shall not commit, actively or passively, directly or indirectly, any kind of bribery, any violation of the basic fundamental rights of employees, nor shall it employ minors. Furthermore, the customer shall be responsible for the safety and health of its workers. It shall act in compliance with applicable environmental laws and will endeavour to promote this code of conduct among its suppliers and customers.

JURISDICTION

Any dispute between the parties, regardless of its nature or cause, shall be submitted to the jurisdiction of the courts of Vitoria-Gasteiz, excluding any other jurisdiction.

Regulations

European Parliament and Council Directives for compliance with the CE Marking Directive 93/68/EEC:

♦ 2014/35/EU Making available on the market of electrical equipment designed for use within certain voltage limits

◊ 2014/30/EU Electromagnetic compatibility

♦ 2011/65/EU Restriction of the use of certain hazardous substances in electrical and electronical equip-

ment

Other European Parliament and Council Directives:

♦ 2006/66/CE Batteries and accumulators and waste batteries and accumulators

♦ 2006/25/CE Minimum health and safety requirements regarding the exposure of workers to the risks

arising from physical agents (artificial optical radiation)

