



# LED Product Catalog

Issue 2015 - 2016



### LED Technology

### Lighting of the future

The LED lighting products fundamentally change the way people think and interact with light. The implementation of new principles, materials and control means allows us to produce lighting at its best quality and maximum efficiency. ELBA LED lighting solutions have the capacity to improve the quality of the environment and life in general.

We encourage our customers to start using as soon as possible LED lighting in order to benefit from the following advantages:

- Reduced energy consumption LED lighting is five times more efficient when it comes to energy saving,
- Prolonged lifespan the products have a lifespan of 50,000 to 100,000 hours,
- Maintenance costs near to zero durability of products offers superior benefits versus conventional products. A halogen lamp, for example, is to be replaced 12 to 20 times, while a LED product is to be replaced only one time,
- High resistance wide thermal resistance at temperatures from -35°C to +40°C,
- Controllability most LED products allow the control of the luminous flux,
- Environmentally friendly the products and materials are nonpolluting and recyclable,
- Attractive and flexible design the products are easy to install,
- Flexible light solutions newest LED sources ensure superior consistency in color and color temperature. The client can experiment with a variety of colors or ranges of color temperature to find the best suited light.

ELBA offers the best LED products for numerous application fields.

Choose today the solution that fits best your company's needs and contact us for further details.

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## Street Lighting

The products ensure an efficient lighting at night. They have a contemporary design, perfectly integrated in the urban landscape.

MATRIX 01 LED NG
MATRIX 02 LED NG
MATRIX 02 20 LED mK
MATRIX S 02 90 LED HP

MATRIX S 01 LED

MATRIX S 02 LED

DELFIN 01 10 LED NG

DELFIN 03 20 LED NG

DELFIN 03 10 LED / 03 15 LED NG DELFIN 01 4 LED LUX M DELFIN 03 5 LED LUX M







Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** aluminum housing, transparent safety glass diffuser / PC on request (IK 10). Gradual flux adjustment (50 - 75%);

Source type / Tc: high-power LED (SR EN 13 201); 6000K;

Options: 3000K; 4000K;

**CRI:** ≥80;

Total flux [lm]: 5729; 8593; 9615.

#### 230V / 50Hz / -30°C / +35°C / IP 65 / IK08

⊕ **C€** RoHS

Equivalent	Mercury 125 / 250W	Sodium 70 / 100W	Metallic hal. 70 / 150W	LED 10 / 15 / 20	LED benefits
Active power [W]	134 / 286	80 / 114	80 / 168	51 / 76 / 81	Up to 70% savings
Lifespan [hour]	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0



#### **MATRIX 02 LED NG**

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** aluminum housing, transparent safety glass diffuser;

Source type / Tc: high-power LED (SR EN 13 201); 6000K;

**Options:** 3700K - 5000K; **Total flux [lm]:** 16741; 22469.

#### 230V / 50Hz / -30°C / +35°C / IP 65 / IK08 / IK10 (PC reflector)

⊕ **(€** RoHS

Equivalent	Mercury 250 / 400W	Sodium 150W	Metallic hal. 150W	LED 30 / 40	LED benefits
Active power	286 / 440	168	168	150 / 204	Up to 50% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0





#### MATRIX 02 20 LED mK

**Application field:** main and secondary roads, alleys, parking spaces etc. Gradual flux adjustment product;

 $\label{eq:Description: aluminum housing, transparent safety glass diffuser or PC on request; \\ \textbf{Source type / Tc:} high-power LED (SR EN 13201) 6500K; \\ \\ \\ \\ \end{aligned}$ 

**CRI**: ≥70;

Total flux [lm]: 23587.

#### 230V / 50Hz / -35°C / +35°C / IP65 / IK08 / IK10 (PC reflector)

Equivalent	Mercury 250W	Sodium 150W	LED 20 LED LUX M	LED benefits
Active power	286	168	237	Up to 20% savings
Lifespan	12 000	16 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0







#### MATRIX S 01 60 LED

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** aluminum housing. Transparent safety glass diffuser. Installed on a suspended

Source type / Tc: high-power LED (SR EN 13201) 6500K. Gradual flux adjustment (50 - 75%); Options: 2600K - 4300K;

Total flux [lm]: 6320.

#### 230V / 50Hz / -30°C / +35°C / IP 65 / IK08

⊕ **C€** RoHS

Equivalent	Mercury 125W	Sodium 70W	Metallic hal. 70W	LED 60	LED benefits
Active power	134	80	80	73	Up to 40% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0

#### MATRIX S 02 90 LED HP

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** aluminum housing. Transparent safety glass diffuser / PC on request (IK 10).

Gradual flux adjustment (50 - 75%);

**Source type / Tc:** high-power LED (SR EN 13201); ; 5000K-8300K;

**Options:** 2600K - 3400K; Total flux [lm]: 22130.

#### 230V / 50Hz / -30°C / +35°C / IP 65 / IK08 / IK10 (PC reflector)

⊕ **C€** RoHS

Equivalent	Mercury 250W 2x36W	Sodium 100 / 150W	Metallic hal. 150W	LED 90 HP	LED benefits
Active power	286	168	168	210	Up to 25% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0

#### MATRIX S 02 120 LED

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** aluminum housing. Transparent safety glass reflector. Installed on a suspended

Source type / Tc: high-power LED (SR EN 13201) 6500K;

Gradual flux adjustment (50 - 75%); **Options:** 2600K - 4300K; Total flux [lm]: 12476.

#### 230V / 50Hz / -30°C / +35°C / IP 65 / IK08

⊕ **C€** RoHS

Equivalent	Mercury 250W	Sodium 150W	Metallic hal. 150W	LED 120	LED benefits
Active power	286	168	168	142	Up to 40% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0



#### **DELFIN 01 10 LED NG**

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** grey polyamide and glass fiber housing and cap. Transparent polycarbonate reflector. Steel clamp for attachment and support on street posts;

Source type / Tc: high-power LED (SR EN 13201) 6000K;

Options: 2600K - 4300K; Total flux [lm]: 2962.

#### 230V / 50Hz / -20°C / +35°C / IP65 / IK07

⊕ C€ RoHS

Equivalent	uivalent CFL 36W		LED benefits
Active power	41	23	Up to 45% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **DELFIN 03 20 LED NG**

Application field: main and secondary roads, alleys, parking spaces etc.;

**Description:** grey polyamide and glass fiber housing and cap. Transparent polycarbonate reflector:

Source type / Tc: high-power LED (SR EN 13201) 6000K;

Options: 2600K - 4300K; Total flux [Im]: 8994.

#### 230V / 50Hz / -30°C / +35°C / IP 66 / IK10

⊕ **(€** RoHS

Equivalent	Mercury 250W	Sodium 100W	Metallic hal. 100W	LED 20	LED benefits
Active power	286	114	114	80	Up to 70% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0



#### **DELFIN 03 10 LED NG / 03 15 LED NG**

 $\textbf{Application field:} \ \textbf{street}, \textbf{residential}, \textbf{pedestrian} \ \textbf{and} \ \textbf{parking} \ \textbf{lighting};$ 

**Description:** polyamide and glass fiber housing equipped with anti-condensation filter.

Transparent polycarbonate reflector, resistant to UV radiation and vandalism (IK10);

Source type / Tc: high-power LED 6000K; Options: 3000K; 4000K;

CRI: ≥65;

Total flux [lm]: 5533; 8068.

#### 230V / 50Hz / -30°C / +35°C / IP 66 / IK10

Equivalent	Mercury 125W	Sodium 70 / 100W	LED 10 LED / 15 LED	LED benefits
Active power	134	88,6 / 114	51 / 75	Up to 45% savings
Lifespan	12 000	16 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0

#### Street Lighting



#### **DELFIN 01 4 LED LUX M**

Application field: street, residential, pedestrian and parking lighting;

Description: injected housing and tube-cap, made of plastic material (polyamide with glass fiber). Transparent diffuser made of polycarbonate, resistant to UV radiation and vandalism; Source type / Tc: high-power LED 5700K;

Options: 3000K; 4000K;

**CRI:** ≥70;

Total flux [lm]: 4328.

#### 230V / 50Hz / -20°C / +35°C / IP 65 / IK07

⊕ **C€** RoHS

Equivalent	CFL 2x36W	Sodium 50W	LED 4 LED LUX M	LED benefits
Active power	69,1	66,4	34	Până la 47% economie
Lifespan	6 000	16 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Savings near to 0



#### **DELFIN 03 5 LED LUX M**

Application field: street, residential, pedestrian and parking lighting;

**Description:** polyamide and glass fiber housing equipped with anti-condensation filter.

Transparent diffuser made of polycarbonate, resistant to UV radiation and vandalism. (IK10);

Source type / Tc: high-power LED 5700K;

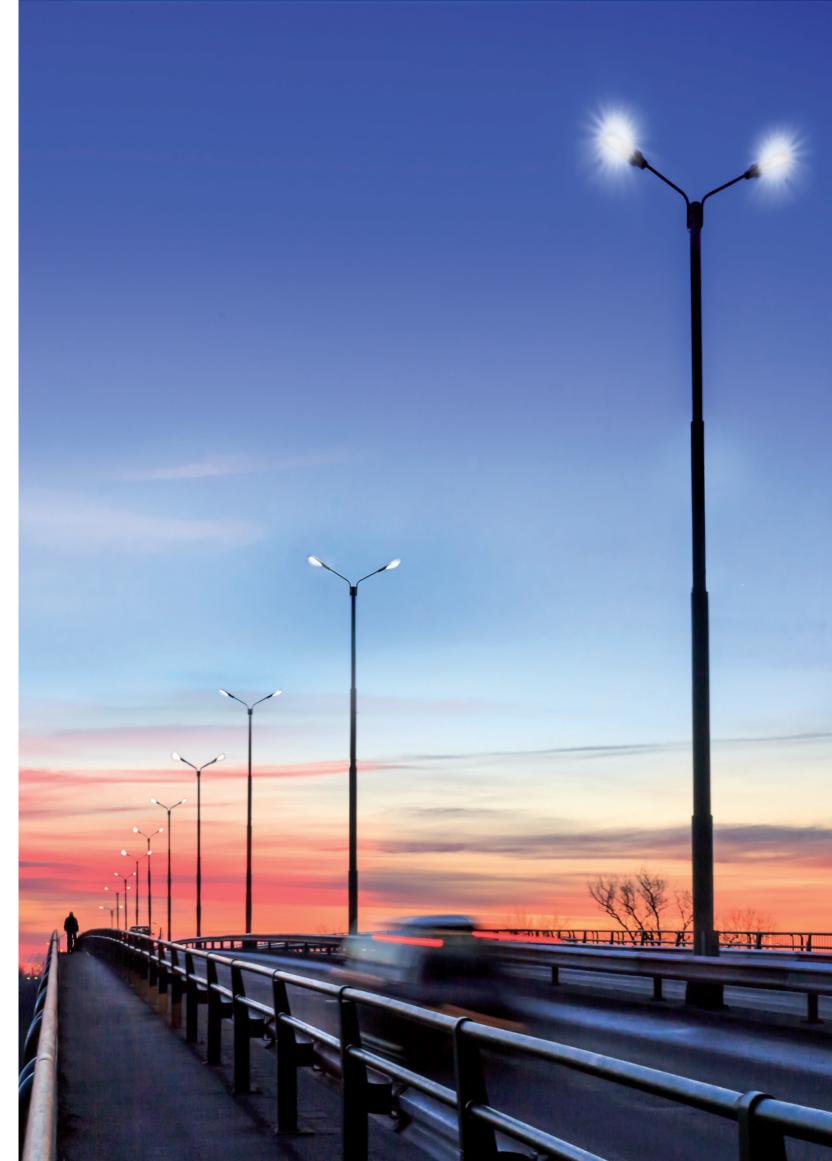
Options: 3000K; 4000K;

**CRI:** ≥70;

**Total flux [lm]:** 5513.

#### 230V / 50Hz / -30°C / +35°C / IP 66 / IK10 (Diffuser PC)

Equivalent	CFL 2x36W	Sodium 70W	LED / 5 LED LUX M	LED benefits
Active power	69,1	88,6	43	Up to 50% savings
Lifespan	6 000	16 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



## Pedestrian Lighting

The products of this category are elegant, save energy and guarantee cost savings while blending in the residential architecture and offering safety during the night.

AVIS 02 3 LED
AVIS 02 M LED (HE)
VEGA AA 106 LED

VEGA AA 107 LED VEGA AA 108 LED DELFIN 01 6 LED 12 V NG DELFIN 03 30 LED HP 24 V





#### **AVIS 02 3 LED**

**Application field:** locations that are not connected to power, parking spaces, green spaces, etc. Battery housing  $(330 \times 220 \times 180 \text{ mm})$ ;

**Description:** body, disk, braces, top cover made of grey PC, resistant to UV radiation. Transparent PC / UV resistant opal diffuser. Metal sheet reflector, painted white. Photo-voltaic panel 30W (735  $\times$  350  $\times$  25 mm; 3,5 kg). Storage battery RA 12-45 12V / 30A (198  $\times$  166  $\times$  171 mm; 13 kg). Circuit version, which allows it to operate in chain 230V/50Hz. Autonomy 12 hours;

Source type / Tc: high-power LED; CRI: ≥70; Source / Tc: 6500K;

Options: 3000K; 4000K; Total flux [lm]: 900.

12V / 230V / 50Hz / -20°C / +35°C / IP 65 / IK06

⊕ C€ RoHS

Equivalent	Fluorescent compact 18W	LED 3	LED benefits
Active power	20	9	Up to 50% savings
Lifespan	6 000	50 000	4 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **AVIS 02 30 M LED (HE)**

Application field: green spaces, alleys, residential areas, parking spaces etc.;

**Description:** body (disk and braces only on AVIS 02 30 LED) made of grey / black PC. Diffuser in transparent/opal polycarbonate UV and solar radiation resistant.

Metal sheet reflector, painted white. Painted aluminum top cover;

Source type / Tc: high-power LED 6500K;

CRI: ≥70;

Total flux [lm]: 3420; 6455.

#### 230V / 50Hz / -20°C / +35°C / IP 66 / IK06 (IK08)

⊕ **C€** RoHS

Equivalent	Mercury 80 / 125W	Sodium 50 / 70W	Metallic hal. 70W	LED 30 HE	LED benefits
Active power	94 / 134	59,5 / 80	80	41,3 / 69,5	Up to 50% savings
Lifespan	12 000	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Significant	Insignificant	Reduced to 0



#### **VEGA AA 106 LED, AA 107 LED, AA 108 LED**

 $\textbf{Application field:} \ \textbf{building entrances, residential areas, terraces, bridges, etc.;}$ 

Description: body made of cast aluminum. Glass diffuser and nitrile rubber fitting; Source type / Tc: high-power LED; 5700K - 6500K;

Source type / Tc: high-power LED; 5 Options: 2600K - 4300K;

. CRI: ≥70;

Total flux [lm]: 684.

#### 230V / 50Hz / -20°C / +35°C / IP 55 / IK03

Equivalent	Incandescence 60W	Fluo. compact 14W	LED 6	LED benefits
Active power	60	14	9	Up to 85% savings
Lifespan	1 000	6 000	50 000	Up to 50 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0

#### Pedestrian Lighting



#### **DELFIN 01 6 LED 12V NG**

Application field: independent street and residential lighting systems with photo-voltaic panels; Description: injected housing and tube-cap, made of plastic material (polyamide with glass fiber). Transparent polycarbonate diffuser, resistant to UV radiation and vandalism;

Source type / Tc: high-power LED 6000K;

**Options:** 3000K; 4000K; **CRI:** ≥70;

Total flux [lm]: 1825.

#### 12V / -20°C / +35°C / IP 65 / IK07



Equivalent	CFL 18W	LED / 6 LED	LED benefits
Active power	20	13	Up to 40% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **DELFIN 03 30 LED HP 24V**

Application field: independent street and residential lighting systems with photo-voltaic panels; Description: injected housing and tube-cap, made out of plastic material

Polycarbonate diffuser, resistant to UV radiation and vandalism;

Source type / Tc: high-power LED 5000K-8300K;

Options: 3000K; 4000K;

**CRI:** ≥70;

Total flux [lm]: 4258.

#### 24V DC / 50Hz / -30°C / +35°C / IP 66 / IK10

⊕ **C€** RoHS

Equivalent	CFL 2x24W	LED / 30 LED	LED benefits
Active power	47,4	32	Up to 20% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



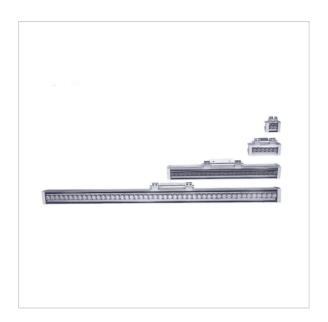
## **Architectural Lighting**

This type of lighting offers ideal solutions, which accentuate the architectural structure and underline details of buildings by direct luminous flux and different colors.

WALL WASHER 02 LED LUXOR 02 18 LED LUXOR 02 24 LED HP IMPACT 01 LED IMPACT 02 LED
IMPACT 03 LED
PCH 01 12 LED HE
RONDO 01 LED

RONDO 03 LED
DELFI LED
MINIPROJECTOR 02 3 LED 12V





#### **WALL WASHER 02 LED**

Application field: facades, bridges, clubs, shop windows and galleries;

**Description:** aluminum housing. Transparent PC diffuser / opal on request

Caps made of PC resistant to UV radiation. Attachment braces which allow orientation at 0-220°;

**Dimensions:** 95; 150; 300; 600; 900; 1200 mm;

Source type / Tc: high-power LED 6500K; Options: 2600K - 4300K;

**CRI:** ≥80;

Total flux [lm]: 228; 684; 1368; 2736; 4104; 5472;

 $\textbf{Alternatives:} \ \mathsf{monochromatic} \ (\mathsf{white} \ / \ \mathsf{other} \ \mathsf{colors}); \ \mathsf{dynamic} \ \mathsf{RGB}; \ \mathsf{with} \ \mathsf{flux} \ \mathsf{adjustment};$ 

**Light distribution on request:** 7°, 13°, 16°, 30°, 31°, 11° x 45°, 14° x 46°, 68°, 72°.



230V / 50Hz / -15°C / +35°C / IP 65 / IK07

⊕ **(€** RoHS

#### LUXOR 02 18 LED HP

Application field: facades, statues, sport fields, parks etc.;

**Description:** plastic housing black / grey, UV resistant.

Protective safety glass. Mounting bracket levels that are corrosion resistant;

Source / Tc: high-power LED 6500K;

Options: 2600K - 3400K;

**CRI:** ≥70; **Total flux [lm]:** 1983;

Alternatives with blue, red, green, yellow LEDs; Light distribution on request: 12°, 19°,34°, 58°.

#### 230V / 50Hz / -25°C / +35°C / IP 66 / IK06

⊕ **(€** RoHS

Equivalent	Linear halogen 100W	LED 18	LED benefits
Active power	100	21,7	Up to 80% savings
Lifespan	2 000	50 000	More than 25 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### LUXOR 02 24 LED HP

Application field: facades, statues, sport fields, parks etc.;

**Description:** plastic housing black / grey, UV resistant. Protective safety glass. Mounting bracket

levels that are corrosion resistant;

Source type / Tc: high-power LED 6500K;

**Options:** 2600K - 3400K;

**CRI:** ≥70;

Total flux [lm]: 5229;

Alternatives with blue, red, green, yellow LEDs;

 $\textbf{Light distribution on request:}\ 7^\circ, 13^\circ, 16^\circ, 30^\circ, 31^\circ, 11^\circ \times 45^\circ, 14^\circ \times 46^\circ.$ 

230V / 50Hz / -30°C / +35°C / IP 66 / IK06

⊕ **C€** RoHS

Equivalent	Sodium 50W	Metallic hal. 70W	LED 24 LED HP	LED benefits
Active power	59,5	80	51,3	Up to 36% savings
Lifespan	16 000	12 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0

#### **Architectural Lighting**



#### **IMPACT 01 LED**

Application field: facades, greens spaces, alleys, statues etc.;

**Description:** stainless steel sheet housing. Flat safety glass diffuser. Silicon rubber fitting. Optical unit can be installed with an angle of + 15° to the vertical ax. Cable nipple with ø 9-12 mm;

Assembly: asphalt built-in, into a PVC ø280 mm tube. Resistant to static loading: 1500 kg.;

Source type / Tc: high-power LED 6500K; Options: 2600K - 3400K; CRI: ≥70; Total flux I [Im]: 1722;

Alternatives: monochromatic (white / other colors) or dynamic RGB;

Light distribution on request: 12°, 19°, 34°, 58°.

#### 230V / 50Hz / -20°C / +35°C / IP 67 / IK08



Equivalent	Mercury 50W	LED 21	LED benefits
Active power	59,5	25,8	Over 50% savings
Lifespan	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **IMPACT 02 LED**

Aplicații: Application field: facades, greens spaces, alleys, statues etc.;

**Description:** stainless steel sheet housing. Flat safety glass diffuser. Silicon rubber fitting.

Cable nipple with ø10 mm; Assembly: asphalt built-in, into a PVC ø200 mm tube;

Source type / Tc: high-power LED;

Resistant to static loading: 1500 kg;

Alternatives: monochromatic (white / other colors) or dynamic RGB.

#### 230V / 50Hz / -20°C / +35°C / IP 67 / IK10

⊕ **C€** RoHS

Equivalent	Linear halogen 100W	LED 9	LED benefits
Active power	100	11	Up to 90% savings
Lifespan	1000	30 000	30 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **IMPACT 03 LED**

Application field: facades, greens spaces, alleys, statues etc.;

**Description:** aluminum body. Safety glass diffuser; **Assembly:** built-in, into asphalt or green space, into a PVC ø 90 mm tube. 12V transformer to 6-12 products (separate order);

Source type / Tc: high-power LED 6500K; Options: 2600K - 3400K; CRI:  $\geq$ 70; Total flux [Im]: 340; Resistant to static loading: 350 kg.;

Alternatives: with one composed lens / 3 individual lenses, monochromatic (white /other colors) or dynamic RGB: flux control:

**Light distribution on request:** a composed lens - 12°, 19°, 34°, 58°.

3 individual lenses - 16°, 24°, 41°, 46°, 84°, 18°x48°, 48°x18°, 12V÷24V / 230V / 50Hz / -20°C / +35°C / IP 67 / IK09

⊕ ⊕ CE RoHS

Equivalent	Linear halogen 60W	LED 3	LED benefits
Active power	60	3,5	Up to 90% savings
Lifespan	1000	50 000	50 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PCH 01 12 LED HE**

Application field: facades, entrances, alleys, indoor spaces etc.;

**Description:** aluminum housing and frame. Transparent glass diffuser.

Mounting frame made of painted metal sheet;

Source type / Tc: high-power LED 6500K;

Total flux [lm]: 2800;

**Light distribution on request:** 7°, 13°, 16°, 30°, 31°, 11° × 45°, 14° × 46°.

#### 12V / 230Vac / -25°C / +35°C / IP 44 / IK07 (glass) / IK10 (PC)

⊕ **C€** RoHS

Equivalent	Linear halogen 200W	LED 12	LED benefits
Active power	200	27	Up to 80% savings
Lifespan	2 000	50 000	25 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **RONDO 01 LED**

Application field: facades, statues, parks and statues;

**Description:** siluminum housing and frame. Flat safety glass diffuser. Rubber fitting. Stainless

steel mounting frame.

Cable nipple ø10 mm;

Source type / Tc: high-power LED;

Total flux [lm]: 1026;

Light distribution on request: 12°, 19°, 34°, 58°.

Alternatives: monochromatic (white / other colors) or dynamic RGB.

#### 230V / 50Hz / -20°C / +35°C / IP 66 / IK06

⊕ **C€** RoHS

Equivalent	Incandescence 100W	LED 9	LED benefits
Active power	100	11,8	Up to 90% savings
Lifespan	1000	50 000	More than 50 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **RONDO 03 LED**

Application field: facades, statues, green spaces etc.;

**Description:** grey aluminum housing. Transparent diffuser made of thermal resistant glass;

Source type / Tc: high-power LED 6500K;

**Options:** 2600K - 4300K;

**Total flux [lm]:** 1915;

**Light distribution on request:** 12°, 19°, 34°, 58°; Alternatives with blue, red, green, yellow LEDs.

#### 230V / 50Hz / -25°C / +35°C / IP 65 / IK07

Equivalent	Linear halogen 150W	LED 21	LED benefits
Active power	150	23,9	Up to 80% savings
Lifespan	2 000	50 000	More than 25 times
Maintenance cost	Significant	Insignificant	Reduced to 0

#### **Architectural Lighting**



#### **DELFI LED**

Application field: underwater lighting for a depth up to 3 m.;

Description: siluminum housing and frame. Diffuser made of flat safety glass. Rubber fitting. Stainless steel mounting frame. Cable nipple ø10 mm.;

Source type / Tc: high-power LED;

Total flux [lm]: 1026;

Light distribution on request: 12°, 19°, 34°, 58°;

 $\textbf{Alternatives:} \ \text{monochromatic (white / other colors) or dynamic RGB (with 1/2 cable sealing gasket)}.$ 

#### 230V / 50Hz / -20°C / +35°C / IP 68 / IK06

◆ CE RoHS

Equivalent	Incandescence 100W	LED 9	LED benefits
Active power	100	11,8	Up to 90% savings
Lifespan	1000	50 000	50 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **MINIPROJECTOR 02 3 LED 12V**

Application field: architectural exterior and accent lighting;

**Description:** the product can be made in static monochromatic version (with same color LEDs) and static, as well as in dynamic RGB version. The transparent PC or opal (at the RGB version) reflector is attached on the aluminum body with a rubber fitting, a stainless steel collar and 6 M 4x10 bolts;

 $\textbf{Source / Tc:} \ \textbf{high-power LED 6500K (monochromatic), RGB;}$ 

**Options:** 2700K - 3700K; 3700K - 5000K;

**CRI:** ≥70 (monochromatic); **Total flux [Im]:** 340.

12Vcc÷24Vcc / -25°C / +35°C / IP 68 / IK 09 (glass diffuser) / IK10 (PC diffuser) ⊕ **C€** RoHS

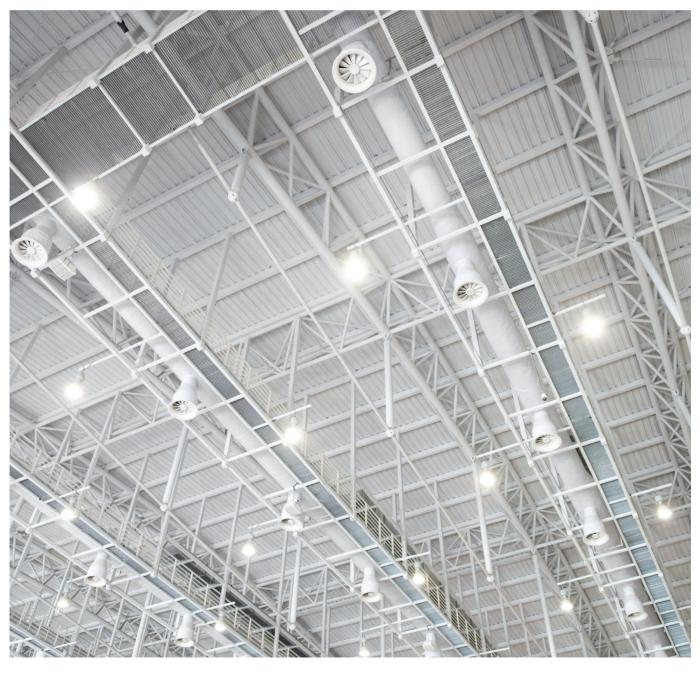
Equivalent	Incandescence 40W	Halogen 35W	LED 3	LED benefits
Active power	40	35	3,5	Up to 90% savings
Lifespan	1 000	2 000	50 000	Up to 50 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



## Industrial Lighting

Efficient lighting solutions for industrial halls, warehouses, manufacturing spaces, production lines or factories. The industrial lighting has a powerful luminous flux and a long lifespan.

PREMIUM LUX 12/20 LED IP65 FIRAD 11 2RX5BX14 LED BOLO EI 04 4 LED BOLO EI 04 6 LED PO 01 LED LB LED





#### PREMIUM LUX 12/20 LED IP 65

Application field: general indoor lighting for rooms or protective medium height spaces (6-8m);

Description: projector housing made of steel sheet, thermal safety glass or transparent polycarbonate which is UV resistant and protects the optical compartment;

Source type / Tc: high-power LED 5700K;

Options: 3000K; 4000K;

**CRI:** ≥70;

Total flux [lm]: 10357; 17431.

#### 230V / 50Hz / -30°C / -40°C÷+40°C / IP 65 / IK08 (PC diffuser).

⊕ **CE** RoHS

Equivalent	Sodium 250 / 400W	Metallic hal. 250 / 400W	LED 12 LED / 20 LED	LED benefits
Active power	286 / 440	286 / 440	100 / 165	Up to 62% savings
Lifespan	16 000	12 000	50 000	Up to 4 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### FIRAD 11 2RX5BX14 LED

**Application field:** general indoor lighting, public buildings, industrial spaces, shops, warehouse spaces malls:

**Description:** fixture and bar made of white epoxy-polyester powder coated steel sheet;

Diffuser made of white epoxy-polyester powder coated steel sheet; Diffuser made of white PMMA - opal (PMO) or transparent polycarbonate (PCT);

Source type / Tc: module LED 4000K;

**CRI:** ≥70;

Total flux [lm]: 6585.

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK02

⊕ **(€** RoHS

Equivalent	Т8	LED	LED benefits
Active power	2 X 58	71,2	Up to 40% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **BOLO EI 04 4 LED**

**Application field:** industrial areas with high humidity, vapors, corrosive gases, warehouses, stair housings etc.;

**Description:** white / grey PC body. Transparent colored or colorless PC diffuser;

Source type / Tc: high-power LED 3500K;

**CRI:** ≥70;

Total flux [lm]: 1005;

Options with 1 or 2 cable sealing gaskets.

#### 230V / 50Hz / -20°C / +35°C / IP 54 / IK08

Equivalent	Incandescence 100W	LED 4	LED benefits
Active power	100	10,3	Up to 90% savings
Lifespan	1 000	50 000	More than 50 times
Maintenance cost	Significant	Insignificant	Reduced to 0

#### Industrial Lighting





**Application field:** industrial areas with high humidity, vapors, corrosive gases, warehouses, stair housings etc.;

Description: white / grey PC body;

Source type / Tc: high-power LED 6500K;

CRI: ≥80;

Total flux [lm]: 767;

Options with 1 or 2 cable sealing gaskets.

#### 24V AC / 24V AC/DC / -30°C / +35°C / IP 54 / IK08

◆ C€ RoHS

Equivalent	Incandescence 75W	LED 6	LED benefits
Active power	75	7	Up to 90% savings
Lifespan	1000	50 000	More than 50 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PO 01 LED**

**Application field:** industrial areas with high humidity, vapors, corrosive gases, warehouses, stair housings etc.;

**Description:** aluminum alloy housing. Steel wire collars protected against corrosion.

Transparent glass protection;

Source type / Tc: module LED; 6500K; CRI: ≥70;

Total flux [lm]: 609, 620.

#### 24V DC / 230V / 50Hz / -5°C / +35°C / IP 54 / IK08

⊕ GE RoHS

Equivalent	Incandescence 60W	LED LED module	LED benefits
Active power	60	6/8	Up to 90% savings
Lifespan	1000	50 000	More than 50 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **LB LED**

 $\textbf{Application field:} \ \text{air navigation lighting for obstacles below 3 000 m altitude;}$ 

**Description:** PC housing, UV resistant. Filter diffuser made of red PC – UV resistant. Lugs for remote connection of a green alarm LED in case of a malfunction;

Assembly: on an ø60 mm pipe, attached with a clamp. On metal sheet with 4 M 6x45 bolts;

Source type / Tc: high-power LED, whit lateral emission, individually powered. Malfunction of one LED doesn't compromise the function of the others;

Malfunction of one LED doesn't of Minimum intensity [cd]: 10.

#### 48V ca / 50Hz / 230V / 50Hz / -40°C / +40°C / IP 66 / IP44 (Terminals) IK08 ♦ **€** RoHS

Equivalent	Incandescence 100W	LED 4	LED benefits
Active power	100	15 / 14,3	Up to 85% savings
Lifespan	1000	50 000 - 100 000	100 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



# Safety lighting

The fixtures are signalizing the entry and exit ways in buildings.

They are made according to safety standards and represent the optimal solution for emergency cases.

CISA MARTE M LED
CISA 02 M LED TEMPORA
CISA 04 LED





#### **CISA MARTE M LED**

Application field: exits from different locations, paths etc. Non-permanent lighting;

Description: housing, reflector and PC diffuser. Ni-Cd sealed storage batteries 3,6V / 600mAh / 3,6V / 1200mAh

LED which signals the charging of the battery. Test button for checking the system in safety mode. The electronic assembly ensures the charging of the battery, as well as the switching to safety mode. Adhesive foil with various graphic displays;

Autonomy: 1,5 / 3 hours;

Source: module with high-power LED.

#### 230V / 50Hz / 0°C / +35°C / IP 65 / IK02

□ **CE** RoHS

Equivalent	Fluorescent compact 8W	LED LED module	LED benefits
Active power	9	3,1	Up to 65% savings
Lifespan	15 000	50 000	More than 3 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **CISA 02 M LED TEMPORA**

Application field: exits from different locations, paths etc. Non-permanent lighting;

Description: housing, reflector and PC diffuser. Ni-Cd sealed storage batteries 3,6V / 600mAh / 3,6V / 1200mAh. LED which signals the charging of the battery. The electronic assembly ensures

3,6V / 1200mAh. LED which signals the charging of the battery. The electronic assembly ensure the charging of the battery, as well as the switching to safety mode. Adhesive foil with various graphic displays;

Autonomy: 1,5 / 3 hours;

Source: module with high-power LED.

#### 230V / 50Hz / 0°C / +35°C / IP 41 / IK02

□ **(€** RoHS

Equivalent	Fluorescent compact 8W	LED LED module	LED benefits
Active power	9	3,1	Up to 65% savings
Lifespan	15 000	50 000	More than 3 times
Maintenance cost	Significant	Insignificant	Reduced to 0



#### CISA 04 LED

Application field: exits from different locations, paths etc. Permanent lighting;

 $\label{eq:Description: Power Power$ 

Autonomy: 1,5 / 3 hours; Source: stick with LEDs.

#### 230V / 50Hz / -5°C / +35°C / IP 40 / IK02

□ **(€** RoHS

Equivalent	Fluorescent compact 8W	LED Stick LED	LED benefits
Active power	9	2	Up to 80% savings
Lifespan	15 000	50 000	More than 3 times
Maintenance cost	Significant	Insignificant	Reduced to 0

### Indoor Lighting

Modern lighting made for commercial use in malls, shops or restaurants, as well as offices, receptions or hotel rooms.

FIDA ELECTRA LED FIDI ELECTRA LED LINDA 14 LED FIPAD 05 LED

FIA 11 LED ANDA LED

PSFL 07 LED 1360

PSFL 08 LED 1360
PSFL 07 LED 1800 LM
PSFL 08 LED 2400 LM

WALL LUMINAIRE CALYPSO

ATH 01 LED NANO 01 LED

MINIPROJECTOR UFO / UFO 02

DUAL 01 20 LED CIF MARTE LED

CIF 02 TEMPORA LED

FIRADS-15 3RX4BX30 LED FIRADS-16 1RX5BX42 LED

LINETA-04 1RX5B-33 LED LINETA NOVA





#### FIDA ELECTRA LED

Application field: offices, hotels, malls, hospitals, restaurants etc.;

Mounting: visible;

**Description:** steel sheet fixture painted white. PMMA opal diffuser, for high light distribution;

Source type / Tc: high-power LED 4000K;

Options: 3000; 6500K; CRI: >85;

Total flux [lm]: 5264; 3951.

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK06

⊕ **C€** RoHS

Equivalent	T8 4x18 W	T5 4x14 W	LED 4Rx2B / 3Rx2B	LED benefits
Active power	79	62	56.3 / 42,9	Up to 30% savings
Lifespan	6 000	24 000	50 000	Up to 2,5 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### FIDI ELECTRA LED

Application field: offices, hotels malls, hospitals, restaurants etc.;

Mounting: built-in into the ceiling, modular;

**Description:** steel sheet fixture painted white. PMMA opal diffuser, for high light distribution;

Source type / Tc: high-power LED 4000K;

**Options:** 3000K; 6500K; **CRI:** ≥ 85;

Total flux [lm]: 5264; 3951.

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK06

⊕ **C€** RoHS

Equivalent	T8 4x18 W	T5 4x14 W	LED 4Rx2B / 3Rx2B	LED benefits
Active power	79	62	56,3 / 42,9	Up to 30% savings
Lifespan	6 000	24 000	50 000	Up to 2,5 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### **LINDA 14 LED**

 $\textbf{Application field:} \ general \ indoor \ lighting;$ 

**Description:** steel housing powder coated white; PMMA opal diffuser, for high light distribution (PMO); gear included in the product and made according to specific regulations;

Source type / Tc: high-power LED 6500K;

**Options:** 3000K, 4000K;

**CRI:** ≥85;

Total flux [lm]: 1317; 2634; 5268.

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK02

Equivalent	T8 18 W	T8 36 W	T8 2x36 W	LED 1Rx2B	LED 1Rx4B	LED 2Rx4B	LED benefits
Active power	18	36	72	14,9	29,4	56,8	Up to 20% savings
Lifespan	6 000	6 000	6 000	50 000	50 000	50 000	Up to 8 times more
Maintenance cost	Semnif.	Semnif.	Semnif.	Inexist.	Inexist.	Inexist.	Reduced to 0



#### **FIPAD 05 LED**

Application field: general indoor lighting for humid areas with noncombustible dust;

**Description:** fixture made of polyester reinforced with glass fiber - corrosion, humidity and acid resistant. Color light grey. PMMA opal diffuser. Polyurethane foam fitting.

LED fixture replace all power range for fluorescent tubes of current powers

18W - 14.9W; 36W - 29.4W; 58W - 36.4W; 2x18W - 29.4W; 2x36W - 56.8W; 2x58W - 71.2W;

Source type / Tc: high-power LED 4000K; Options: 3000K; 6500K;

CRI: ≥85;

Total flux [lm]: 1317, 2634, 3293, 3951, 5268, 6585.

#### 230V / 50Hz / -20°C / +35°C / IP 65 / IK03



Equivalent	Т8	T5	LED	LED benefits
Active power	36	30	29,4	Up to 20% savings
Lifespan	6 000	24 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### FIA 11 LED

Application field: general indoor lighting;

**Description:** steel fixture and bar, powder coated with epoxy polyester paint.

Fixture caps made from ABS. Round diffuser (Dr) made of white PMMA;

Source type / Tc: high-power LED 4000K; Options: 3000K; 6500K;

CRI: ≥85;

Total flux [lm]: 1317, 2634, 3293.

#### 230V / 50Hz / -5°C / +35°C / IP 40 / IK06

⊕ **C€** RoHS

Equivalent	Т8	T5	LED	LED benefits
Active power	36	30	28,7	Up to 20% savings
Lifespan	6 000	24 000	50 000	Up to 8 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### **ANDA LED**

Application field: lighting for humid and dusty spaces;

**Description:** polycarbonate housing, including bar for attachment by clamping. Polycarbonate bar, polycarbonate opal diffuser with longitudinal striation;

Source type / Tc: high-power LED 4000K;

**Options:** 3000K; 6500K; **CRI:** ≥85;

Total flux [lm]: 1317.

#### 230V / 50Hz / -5°C / +35°C / IP 44 / IK09

Equivalent	Т8	LED	LED benefits
Active power	18	12,6	Up to 30% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PSFL 07 LED - CLIO**

Application field: offices, hotels, malls, restaurants, hospitals etc.;

**Description:** white PC diffuser. PMMA opal diffuser. Attachment: steel spring with protection against corrosion:

Source type / Tc: high-power LED 5000K;

Options: equipped with emergency lighting with a 1h, 3h autonomy;

**CRI:** ≥80;

Total flux [lm]: 1800; 2400.

#### 230V / 50Hz / -5°C / +35°C / IP 44 apparent / IP 20 built-in / IK08

⊕ **(€** RoHS

Equivalent	Fluo. compact 1x18W / 2x18W	LED module	LED benefits
Active power	20 / 38	17 / 28	Up to 20% savings
Lifespan	10 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PSFL 08 LED**

Application field: general indoor lighting for public buildings;

**Description:** body (reflector), white PC frame; attachment elements: elastic attachment springs made of steel wire, with anticorrosive protection, and white PMMA opal diffuser for high light distribution (80%);

Source type / Tc: high-power LED 5000K;

Options: equipped with emergency lighting with an 1h, 3h autonomy;

**CRI:** ≥80;

Total flux [lm]: 1800; 2400.

#### 230V / 50Hz / -5°C / +35°C / IP 44 apparent / IP 20 built-in / IK08

⊕ **C€** RoHS

Equivalent	Fluo. compact 1x18W / 2x18W	LED module	LED benefits
Active power	20 / 38	17 / 28	Up to 20% savings
Lifespan	10 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PSFL 07 LED 1360 LM**

 $\textbf{Application field:} \ general \ indoor \ lighting;$ 

**Description:** white PC diffuser. PMMA opal diffuser;

**Source type / Tc:** high-power LED 4000K; **Options:** 2700K - 3700K; 5000K - 8300K;

**CRI:** ≥80;

Total flux [lm]: 1360.

#### $230V / 50Hz / -5^{\circ}C / +35^{\circ}C / IP 44 / IP 20 built-in / IK02$

Equivalent	Fluo. compact 1x18W / 2x18W	LED module	LED benefits
Active power	20 / 38	18.1	Up to 10% savings
Lifespan	10 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **PSFL 08 LED 1360 LM**

Application field: general indoor lighting in public buildings;

**Description:** body (reflector), white PC frame. Attachment elements: elastic attachment springs made of OL wire, with anti-corrosive protection, and white PMMA opal diffuser for high light distribution (80%);

Source type / Tc: high-power LED 4000K; **Options:** 2700K - 3700K; 5000K - 8300K;

**CRI:** ≥80; Total flux [lm]: 1360.

#### 230V / 50Hz / -5°C / +35°C / IP 44 / IP 20 built-in / IK02

⊕ C€ RoHS

Equivalent	Fluo. compact 1x18W / 2x18W	LED module	LED benefits
Active power	20 / 38	18.1	Up to 10% savings
Lifespan	10 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### WALL LUMINAIRE CALYPSO

Application field: general and ornamental indoor lighting, outdoor lighting – residential for humid areas and / or with noncombustible dust (IP54);

**Description:** body of the wall luminaire made of white polycarbonate with a high thermal resistance. Transparent satin diffuser made of polycarbonate (PCTS) or white opal (PCOP);

Source type / Tc: high-power LED 4000K; **Options:** 3000K; 6500K;

**CRI:** ≥85;

Total flux [lm]: 920; 2700.

#### 230V / 50Hz / -25°C / +35°C / IP 54 / IK10(PC) / IK06 (glass diffuser) ⊕ **C€** RoHS

Equivalent	Fluo.compact 1x18W / 2x18W	LED 21LED / 2x21LED	LED benefits
Active power	20 / 38	9,2 / 24,3	Up to 30% savings
Lifespan	10 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### ATH 01 LED

Application field: hotels, art galleries, shop windows, restaurants, apartments etc.;

**Description:** body made of cast aluminum, painted white. Elastic attachment elements.

**Source:** lamps with LED socket G U 10; maximum length: 55 mm; 5,5W max; 220V - 240V;

Diameter: ø50 mm; **CRI:** ≥80;

Total flux [lm]: Source function.

#### 230V / 50Hz / -5°C / +35°C / IP 20

⊕ **C€** RoHS

Equivalent	Incandescence 60W	Halogen 35W	LED source	LED benefits
Active power	60	35	5,5	Up to 90% savings
Lifespan	1 000	2 000	50 000	Up to 50 times more
Maintenance cost	Significant	Significant	Insignificant	Reduced to 0



#### NANO 01 LED

Application field: hotels, art galleries, shop windows, restaurants, apartments etc.;

Description: aluminum housing with 2 modules, which can be adjusted individually by 90°;

Source type / Tc: high-power LED;

**CRI:** ≥80;

Total flux [lm]: 200;

Options: angle of the LED compartment LED 3° / 6° with plug; LEDs can be white or various colors.







#### MINIPROJECTOR UFO / UFO 02

Application field: hotels, restaurants, apartments, alleys and facades (indoor / outdoor);

Description: aluminum body. PC transparent diffuser / opal (RGB) - UFO 02. Protection fitting;

Source type / Tc: diode ø5 LED white or various colors - UFO. High-power LED, white or various colors (RGB) - UFO 02 12V - transformer for 6-12 products (separate order) - UFO 02;

Mounting: built-in in the wall / floor, faux ceiling; CRI: ≥80; Total flux [Im]: 340;

Options UFO 02: managety matic (white / other colors) or dynamic RGB: with a composed.

**Options UFO 02:** monochromatic (white / other colors) or dynamic RGB; with a composed lens / 3 individual lenses; **Light distribution on request**: a composed lens -12°, 19°, 34°, 58° 3 individual lenses -16°, 24°, 41°, 84°, 18°x48°, 48°x18°.

#### 230V / 50Hz / 12V÷24V / -20°C / +35°C / IP 67 / IK09

	<b>(ii)</b>	Œ	RoHS
_			

Equivalent	Incandescence Halogen 40W 35W		LED 9/3	LED benefits
Active power	40	35	3 / 3,5	Up to 90% savings
Lifespan	pan 1000 2		50 000	Up to 50 times more
Maintenance cost	Significant		Insignificant	Reduced to 0



#### **DUAL 01 20 LED**

Application field: hotels, offices, restaurants, apartments etc.;

Mounting: on the wall or ceiling;

**Description:** white PC body. Diffuser made of PC opal;

**Source type / Tc:** high-power LED 6500K; **Options:** 2700K - 3700K; 3700K - 5700K;

**CRI:** ≥70;

Total flux [lm]: 1938.

#### 230V / 50Hz / -5°C / +35°C / IP 40 / IK02

□ **(€** RoHS

Equivalent	Fluo. compact 26W	LED 20	LED benefits
Active power	29	20,5	Up to 30% savings
Lifespan	10 000	50 000	5 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **CIF MARTE LED**

Application field: offices, hotels, malls (indoor / outdoor) etc.;

**Description:** white PC housing and reflector. Diffuser made of PC transparent/opal.

Diffuser with prismatic surfaces on the inside; Source type / Tc: LED module;

Total flux [lm]: 659; 1317;

Options with 1 or 2 LED modules.

#### 230V / 50Hz / -20°C / +35°C / IP 65 / IK02

□ **(€** RoHS

Equivalent	Fluo. compact 1x8W / 2x8W	LED LED module	LED benefits
Active power	9 / 18	7,2 / 12,6	Up to 30% savings
Lifespan	10 000	50 000	Up to 5 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### **CIF 02 TEMPORA LED**

Application field: offices, hotels, malls etc.;

**Description:** white PC housing and reflector. Diffuser made of PC transparent/opal.

Diffuser with prismatic surfaces on the inside; Source type / Tc: LED module;

**CRI:** ≥85;

Total flux [lm]: 659; 1317;

Options with 1 or 2 LED modules.

#### 230V / 50Hz / -20°C / +35°C / IP 41 / IK02

□ **CE** RoHS

Equivalent	Fluo. tubular 1x8W / 2x8W	LED LED module	LED benefits
Active power	9 / 18	7,2 / 12,6	Up to 30% savings
Lifespan	10 000	50 000	Up to 5 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### FIRADS-15 3RX4BX30 LED

Application area: ingress-protected to a level of IP 66 this product is designed for highly demanding environments. This compact luminaire is ideal industrial warehouses, meat processing facilities, gymnasiums; **Description:** housing made of stainless steel sheet resistant to chemical agents. Optical unit comprised of high performance reflector with opal diffuser, for optimal, uniform light distribution;

Source Type/Tc: LED module; 4000K; Options: 3000K, 5700K;

**CRI:** ≥80:

Total flux [lm]: 10366;

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK02

⊕ **C€** RoHS

Equivalent	T8	LED	LED benefits
Active power	2 X 58	71,2	Up to 40% savings
Lifespan	6 000	50 000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0



#### FIRADS-16 1RX5BX42 LED

**Application area:** ingress-protected to a level of IP 66 this product is designed for highly demanding environments. This compact luminaire is ideal industrial warehouses, meat processing facilities, gymnasiums;

Description: housing made of stainless steel sheet resistant to chemical agents. Optical unit comprised of high performance reflector with opal diffuser, for optimal, uniform light distribution; Source Type/Tc: LED module; 4000k; Options: 3000K, 5700K;

**CRI:** ≥80;

Total flux [lm] 10366.

#### 230V / 50Hz / -5°C / +35°C / IP 20 / IK02

⊕ **C€** RoHS

Equivalent	T8 18 W	T8 36 W	T8 2x36 W	LED 1Rx2B	LED 1Rx4B	LED 2Rx4B	LED benefits
Active power	18	36	72	14,9	29,4	56,8	Up to 20% savings
Lifespan	6 000	6 000	6 000	50 000	50 000	50 000	Up to 8 times more
Maintenance cost	Semnif.	Semnif.	Semnif.	Inexist.	Inexist.	Inexist.	Reduced to 0



#### LINETA-04 1RX5B-33 LED LINETA NOVA

Application field: general indoor lighting, public buildings, industrial spaces, shops, warehouse spaces; Description: the lighting trunking system with pre-wired trays with 5 or 7 wires of 2.5mm² or 1.5mm² is equipped with mechanical and electrical coupling elements that allow an easy and fast connection of more luminaires in a continuous line. The trunking profile is from zincked pre-painted sheet. Optical unit is symmetric or double asymmetric with lenses for an optimal light distribution; Mounting: visible or suspended;

 $\textbf{Source type/Tc:} \ \mathsf{LED} \ \mathsf{module}; \ 4000\mathsf{K}; \ \textbf{Optional:} \ 3000\mathsf{K}; \ \textbf{CRI:} \ge 85;$ 

Total flux: 8412; 5762; 3958.

#### 230V / 50Hz / -5°C ÷ + 35°C°/ IP 40

⊕ C€ RoHS

Equivalent	T8	LED	LED benefits
Active power	2x58	69	Up to 40% savings
Lifespan	6.000	50.000	Up to 8 times more
Maintenance cost	Significant	Insignificant	Reduced to 0

### Case Study

### Warehouse Lighting

#### **OPPORTUNITY**

A large warehouse facility in the North of the Netherlands initiated a project to reduce electricity costs and assess an efficient lighting solution. The objective was to reduce energy consumption costs, optimize light output, and extend the fixture's lifespan, and to thereby reduce maintenance and replacement costs.

The warehouse was equipped with a conventional lighting system comprised of 200 fluorescent tube fixtures (2 x 58W tubes per fixture) which were operating 12 h/day, 3120 h/year. The electricity price was  $0.15 \in /kWh$ .



#### **INITIAL SITUATION:**

 $400 \times 58W T8$  fluorescent tubes with a 70W power consumption in 200 fixtures

Energy price per year per tube: €32,76 (218,40 kWh) Total energy consumption costs/per year: €13.104, (87.360,00 kWh)

Maintenance & replacement costs/per year: €3000

#### **SOLUTION**

Elba assessed the current situation and proposed an optimal solution. The old, conventional lighting system was to be replaced by a lighting system built with a high performance product - FIPAD 05 LED. This leading product can offer a high degree of protection, IP 65, combined with excellent efficiency (92lm/W) thus being a complete solution for the ware house business.

#### **NEW SITUATION:**

Acquisition costs: €23.000 200 x 54W FIPAD 05, IP65 LED Fixtures Price per year per fixture: €12,64 (84,24 kWh) Total consumption: €5.054,40 (33.696,00 kWh)

#### **BENEFITS**

After installing the new products, the energy costs were reduced dramatically with over 61%, while also cutting maintenance costs to almost  $0 \in \text{/year}$ , thus reducing the carbon footprint and improving the overall efficiency of the business.

#### **RETURN ON INVESTMENT:**

The client paid for the new fixtures 23.000 €, which will pay off after two and a half years, while the average lifespan of the luminaire exceeds 5 years of functioning.

- Savings per year: €8049,60, (53.664,00 kWh)
- Acquisition costs: €23.000
- Maintenance & replacement costs old situation: €3000

23000 - 3000 = 20000 20000 / 8050 = 2,5

Payback period: 2 years, 5 months

Your company can also benefit from energy costs reduction by embracing Elba's LED Lighting Technology.

#### Tehnical Table

Street Lighting											Work Tempe	3		
Product Name	Size(Lxlxh)(mm)	LED	Watt	Kelvin	Lumen	Lumen/ Watt	Lifespan	IP	IK	Dimmable	Negative	Positive	Weight (grams)	Warranty (years)
Matrix 01 LED NG	573x243x73	10	51	6000K	5729	112	50.000 H	IP65	IK08	OP	-30	35	6400	3
Matrix 01 LED NG	573x243x73	15	76	6000K	8593	113	50.000 H	IP65	IK08	OP	-30	35	6400	3
Matrix 01 LED NG	573x243x73	20	81	6000K	9615	119	50.000 H	IP65	IK08	OP	-30	35	6400	3
Matrix 02 LED NG	783x348x75	30	150	6000K	16741	111	50.000 H	IP65	IK08	OP	-30	35	12000	3
Matrix 02 LED NG	783x348x75	40	204	6000K	22467	110	50.000 H	IP65	IK08	OP	-30	35	12500	3
Matrix 02 20 LED mK	783x348x76	20	237	6500K	23587	100	50.000 H	IP65	IK08	OP	-30	35	12500	3
MATRIX-S 02 90 LED HP	561x329x320	90	210	6500K	22130	105	50.000 H	IP65	IK08	OP	-30	35	13000	3
MATRIX-S 01 60 LED	437x234x279	60	73	6500K	6320	86	50.000 H	IP65	IK08	OP	-30	35	8000	3
MATRIX-S 02 120 LED	561x329x320	120	142	6500K	12476	87	50.000 H	IP65	IK08	OP	-30	35	13000	3
DELFIN 01 10 LED NG	650x200x155	10	23	6000K	2962	128	50.000 H	IP65	IK07/IK10	OP	-20	35	2500	3
DELFIN 03 20 LED NG	817x311x287	20	80	6000K	8994	112	50.000 H	IP66	IK10	OP	-30	35	6600	3
DELFIN 03 10 LED NG	817x311x287	10	51	6000K	5533	108	50.000 H	IP66	IK10	OP	-30	35	5800	3
DELFIN 03 15 LED NG	817x311x287	15	75	6000K	8068	107	50.000 H	IP66	IK10	OP	-30	35	6600	3
DELFIN 01 4 LED LUX M	650x200x158	4	34	5700K	4328	127	50.000 H	IP65	IK07/IK10	OP	-20	35	2500	3
DELFIN 03 5 LED LUX M	817x311x287	5	43	5700K	5513	128	50.000 H	IP66	IK10	OP	-20	35	6600	3

Pedestrian Lighting	edestrian Lighting														
Product Name	Size (Lxlxh) (mm)	LED	Watt	Kelvin	Lumen	Lumen/ Watt	Lifespan	IP	IK	Dimmable	Negative	Positive	Weight (grams)	Warranty (years)	
AVIS 02 3 LED	H650xØ650Ø300	3	9	6500K	900	100	50.000 H	IP66	IK06/IK10	OP	-20	35	10500	3	
AVIS 02 30 M LED (HE)	H650 Ø300	30	69.5	6500K	6455	92	50.000 H	IP66	IK08/IK10	OP	-20	35	5400	3	
VEGA AA 106 LED	162X285X116	6	9	5700K-6350K	684	76	50.000 H	IP55	IK03	OP	-20	35	2200	3	
VEGA AA 107 LED	285X163X116	6	9	5700K-6350K	684	76	50.000 H	IP55	IK03	OP	-20	35	2320	3	
VEGA AA 108 LED	163X285X125	6	9	5700K-6350K	684	76	50.000 H	IP55	IK03	OP	-20	35	2370	3	
DELFIN 01 6 LED 12V NG	650x200x158	6	13	6000K	1825	140	50.000 H	IP65	IK07	OP	-20	35	2500	3	
DELFIN 03 30 LED HP 24V	817x311x287	30	32	5000K-8300K	4258	133	50.000 H	IP65	IK10	OP	-30	35	5500	3	

Architectural Lighting											Worl Tempe			
Product Name	Size (Lxlxh) (mm)	LED	Watt	Kelvin	Lumen	Lumen/Watt	Lifespan	IP	IK	Dimmable	Negative	Positive	Weight (grams)	Warranty (years)
WALL WASHER 02 LED	95X62X72	2	2.7	6500K	228	84	50.000 H	IP65	IK07	OP	-15	35	400	3
WALL WASHER 02 LED	170X62X72	6	8.1	6500K	684	84	50.000 H	IP65	IK07	OP	-15	35	600	3
WALL WASHER 02 LED	320X62X72	12	17	6500K	1368	80	50.000 H	IP65	IK07	OP	-15	35	900	3
WALL WASHER 02 LED	560X62X72	24	30	6500K	2736	91	50.000 H	IP65	IK07	OP	-15	35	1600	3
WALL WASHER 02 LED	825X62X72	36	51	6500K	4104	80	50.000 H	IP65	IK07	OP	-15	35	2500	3
WALL WASHER 02 LED	1100X62X72	48	70	6500K	5472	78	50.000 H	IP65	IK07	OP	-15	35	3000	3
LUXOR 02 18 LED HP	357X351X127	18	20.7	6500K	1983	95	50.000 H	IP66	IK06	OP	-25	40	4500	3
LUXOR 02 24 LED HP	357X351X127	24	51.3	6500K	5229	101	50.000 H	IP66	IK06	OP	-30	35	6900	3
IMPACT 01 LED	H346xØ308.5	21	25.8	Green	1722	66	30.000 H	IP67	IK08	OP	-20	35	6500	3
IMPACT 02 LED	H254xØ218	9	11	N/A	Dinamic RGB	N/A	30.000 H	IP67	IK10	OP	-20	35	3600	3
IMPACT 03 LED 12-24Vcc	H154Ø90	3	3.5	6500K	340	97	50.000 H	IP67	IK10	NU	-20	35	650- 700	3
IMPACT 03 LED 230Vac	H154Ø90	3	3.5	6500K	340	97	50.000 H	IP67	IK10	NU	-20	35	800	3
PCH 0112 LED HE	184x127x208	12	27	6500K	2800	103	50.000 H	IP44	IK07 (Glass) / IK10(PC)	OP	-25	35	1400	3
RONDO 01 LED	H170xØ163 (Ø163x166.5x170x70)	9	9	6500K	1026/ Dinamic	114	50.000 H	IP66	IK06	OP	-20	35	2000	3
RONDO 03 LED	268X100X370	21	23.9	6500K	1915	80	50.000 H	IP65	IK07	OP	-25	35	4300	3
DELFI LED	Ø163x166.5x170x70	9	10	6500K / Dinamic RGB	Dinamic RGB	N/A	50.000 H	IP68/ Driver IP66	IK06	OP	-20	35	2000	3
DELFI LED	Ø163x166.5x170x70	9	11.8	6500K	1026	86	50.000 H	IP68/ Driver IP66	IK06	OP	-20	35	2000	3
MINIPROJECTOR 02 3 LED 12V-24Vcc	Ø90x68	3	3.5	6500	340	97	50.000 H	IP68	IK09	NU	-25	40	560	3

Industrial Lighting												Work Tempe	-		
Product Name	Size(Lxlxh)(mm)	LED W	/att	Kelvin	Lumen	Lumen	/Watt Lif	espan	IP	IK	Dimmable	Negative	Positive	Weight (grams)	Warranty (years)
PREMIUM LUX 12/20 LED IP65	500X330X150	12/20 104	1/168	5700	10357/17431	99,6/1	03,8 50	H 000.	IP65	IK08	ОР	-40	40	6400/7000	3
FIRAD 11 2Rx5Bx14 LED	1476×162×110	140 7	1.2	4000	6585	92	50	.000 H	IP41	IK06	OP	-5	35	5500	3
BOLO EI 04 4 LED	Ø173×204×186	4	10	3500	1005	100	50	.000 H	IP54	IK08	OP	-15	35	910	3
BOLO EI 04 6 LED	Ø173×204×186	6	7.2	6500	767	106	5 50	.000 H	IP54	IK08	OP	-30	35	450	3
PO 01 LED	238x130x115	6	6	6500K	620	103	3 50	H 000.	IP54	IK08	OP	-5	35	750	3
LB LED	Ø173x186(300)	4	15	Red	>10 cd	N/A	50	H 000.	IP66	IK08	OP	-40	40	2200	3
Safety Lighting									Workir mpera	-					
Product Name	Size (Lxlxh) (mm)	LED	١	Vatt Kelvin	Lifespan	IP	Dimmable	Negat	ive l	Positive	Weight (grams)	Warranty (years)	Auto	nomy	lanual Test Button
CISA MARTE M LED	355x119x82	LED Mod	ule	2 6500K	50.000 H	IP65	OP	0		35	1500-1800	3	1.51	H-3H	YES
CISA 02 M LED TEMPORA	350x160x61	LED Mod	ule	2 6500K	50.000 H	IP41	OP	0		35	750	3	1.51	H-3H	YES
CISA 04 LED	361x223x25	LED Mod	ule	2 6500K	50.000 H	IP40	OP	0		35	1000-1100	3	1.51	H-3H	YES
Interior Lighting													Vorking mperature		
Product Name	Size (Lxlxh)(mm)	LED	Watt	Kelvin	Lumen	Lumen/ Watt	Lifespan	IP		IK	Dimmab	le Negati	ve Positiv	ve Weight	
FIDA ELECTRA LED	595x595x76	56	29.4	4000K	2634	90	50.000 H	IP2	0	IK06	OP	-5	35	6000	3
FIDA ELECTRA LED	595x595x76	84	42.9	4000K	3951	92	50.000 H	IP2	0	IK06	OP	-5	35	6300	3
FIDA ELECTRA LED	595x595x76	112	56.3	4000K	5264	93	50.000 H	IP2	0	IK06	OP	-5	35	6500	3
FIDI ELECTRA LED	595x595x75	56	29.4	4000K	2634	90	50.000 H	IP2	0	IK06	OP	-5	35	6000	3
FIDI ELECTRA LED	595x595x75	84	42.9	4000K	3951	92	50.000 H	IP2	0	IK06	OP	-5	35	6300	3
FIDI ELECTRA LED	595x595x75	112	56.3	4000K	5264	93	50.000 H	IP2	0	IK06	OP	-5	35	6500	3
LINDA 14 LED	663x160x70	28	14.9	4000K	1317	88	50.000 H	IP2	0	IK06	OP	-5	35	1500	3
LINDA 14 LED	663x160x70	56	29.4	4000K	2634	89	50.000 H	IP2		IK06	OP	-5	35	3300	3
LINDA 14 LED	1222x160x70	56	29.4	4000K	2634	89	50.000 H	IP2		IK06	OP	-5	35	3000	3
LINDA 14 LED	1222x160x70	112	55.3	4000K	5268	95	50.000 H	IP2		IK06	OP	-5	35	3300	3
FIPAD 05 2Rx14 LED	669X116X99	56	28.6	4000K	2634	92	50.000 H	IP6		IK03	OP	-5	35	1200	3
FIPAD 05 2Rx14 LED	1277X116X99	112	56.8	4000K	5268	92	50.000 H	IP6		IK03	OP	-5	35	2000	3
FIPAD 05 2Rx14 LED	1577X116X99	140	71.2	4000K	6585	92	50.000 H	IP6		IK03	OP	-5	35	2400	3
FIA 11 1Rx14 LED	623X51X85	28	14.4	4000K	1317	91	50.000 H	IP4		IK02	OP	-5	35	800	3
FIA 11 1Rx14 LED	1227X51X85	56	28.7	4000K	2634	91	50.000 H	IP4		IK02	OP	-5	35	1350	3
FIA 11 1Rx14 LED	1528X51X85	70	36.8	4000K	3293	89	50.000 H	IP4		IK02	OP	-5	35	1750	3
ANDA LED	656X48,8X92	28	12.6	4000K	1317	104	50.000 H	IP4		N/A	OP	-5	35	1000	3
PSFL 07 LED 1360	260x225x155 Ø200	1	18.1	4000K	1360	75	50.000 H			IK06/IK0		-5	35	1300	3
PSFL 08 LED 1360	265X235X155 Ø205	1	18.1	4000K	1360	75	50.000 H			IK06/IK0		-5	35	2500	3
PSFL 07 LED 1800 LM	260x225x155 Ø200	1	17	5000K	1800	105	50.000 H			IK06/IK0		-5	35	1400	3
PSFL 07 LED 2400 LM	260x225x155 Ø200	1	28	5000K	1800-2400	86-106	50.000 H			IK06/IK0		-5	35	1450-255	
PSFL 08 LED 2400 LM	265X235X155 Ø205	1	17-28	5000K	1800-2400	86-106	50.000 H			IK06/IK0		-5	35	1450-255	
CALYPSO-02 D335 63 LED PCTS	Ø335X100	63	24.3	4000K	2341	96	50.000 H	IP5		IK10	OP	-25	35	2700	3
ATH 01 LED	106X106X83	LED Lamp	5.5	N/A	N/A	N/A	50.000 H	IP2	0	IK10/IK0	)8 OP	-5	35	270	3
NANO 01 LED	102X53X57	2	2.6	4000K-6500K	200	76	50.000 H	IP2		N/A	NU	-5	35	500	3
MINIPROIECTOR UFO/ UFO2	H92XØ90	9	3	6500K	N/A	N/A	50.000 H	IP6		IK09	OP	-20	35	560	3
MINIPROIECTOR UFO/ UFO2	H92XØ90	12	4	6500K	N/A	N/A	50.000 H	IP6	8	IK09	OP	-20	35	560	3
DUAL 01 20 LED	325x325x94	20	20.5	6500K	1938	94	50.000 H	IP4	0	IK02	OP	-5	35	1800	3
CIF MARTE LED	355x119x82	14	7.2	6500K	659	91	50.000 H	IP6		IK02	OP	-20	35	800	3
CIF MARTE LED	355x119x82	28	12.6	6500K	1317	104	50.000 H	IP6		IK02	OP	-20	35	900	3
CIF 02 TEMPORA LED	350x160x61	14	7.2	6500K	659	91	50.000 H	IP4:		IK02		-5	35	1000	3
CIF 02 TEMPORA LED	350x160x61	28	12.6	6500K	1317	104	50.000 H	IP4:		IK02	OP OP	-5 -5	35	1000	3
FIRADS-15 3RX4BX30 LED	1551x430x151	Led modules		4000K	13500	112	50.000 H	IP4.		IKU2		-5 -5	35	17000	3
FIRADS-16 1RX5BX42 LED	1540x130x95	Led modules		4500K	4500	112	50.000 H	IPS		IKU8	OP OP	-25	60	6000	3
FIRADS-16 1RX5BX42 LED	1540x130x95	Led modules		4500K	6400	118	50.000 H	IP6		IK08	OP N/A	-25	60	6000	3
LINETA-04 1Rx5B-33 LED	1535x74x73	165	29.42	4000K	3958	135	50.000 H	IP4	U	N/A	N/A	-5	35	4800	3
LINETA-04 1Rx5B-33 LED	1535x74x73	165	49	4000K	5762	118	50.000 H	IP4	^	N/A	N/A	-5	35	4800	3



### Leader in light technology

Continuous alignment and reinventing for the development of technical solutions suitable to each project

ELBA dedicates its experience and innovation force to creating value and to satisfy the needs of all clients. Our strategy is oriented towards research, towards creating and implementing one of the most advanced technologies in the lighting field. The result of our efforts is seen in products of the best quality and services of high professionalism.

The LED lighting technology is the starting point for the development of our new products. We work every day tirelessly to support more and more customer in their adopting the LED lighting, the lighting of the future. The benefits of this technology are perfectly in accordance with ELBA's objectives to promote and develop durable, sustainable products, ones that are modernly and attractively designed.





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