



LED COMPANY  Solid State Lighting Specialist

eleva
series

 2016 catalogue



NITEKO

LED COMPANY ●● Solid State Lighting Specialist



eleva
series

●●● 2016 catalogue

PRODUCTS

FLOODLIGHTS

VEGA



PAG. 18

URANO



PAG. 24

MULTIPL0



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URANO^{RGB}



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HIGH BAYS

HALLEY



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STREET LIGHTS

GUIDA^S



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GUIDA^M



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FUTURA



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URBAN FURNITURES

ZENITH



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VICTORIA



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RELAMPING KIT

URBAN KIT



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RESOURCES

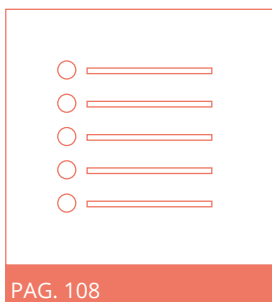
TECHNICAL RESOURCES

COMPANY PROFILE



TECHNICAL RESOURCES

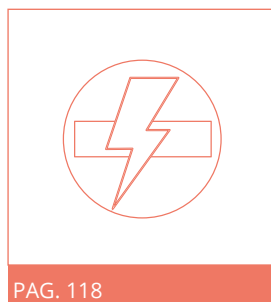
LEGEND



LIGHT CLOUD



EOS



CHEMICAL COMPATIBILITY



LEGAL RESOURCES

SALES TERMS AND CONDITIONS



WARRANTY



The pictures of the products and of their installations are merely indicative. The company reserves the right to modify the characteristics of its own products at any time without any obligation of prior notice, in order to constantly improve their quality and performances.

APPLICATIONS

STREET



URANO
GUIDA S / M
FUTURA

TUNNELS



URANO
MULTIPL0

URBAN



URANO
GUIDA S / M
FUTURA
ZENITH
VICTORIA
URBAN KIT

INDUSTRIAL



VEGA
URANO
MULTIPL0
HALLEY
URBAN KIT

COMMERCIAL



VEGA
URANO
MULTIPL0
HALLEY

SPORTS



URANO
MULTIPL0
HALLEY

LARGE AREAS



URANO
MULTIPL0

ARCHITECTURAL



VEGA
URANO
MULTIPL0
HALLEY

PHOTOVOLTAIC



URANO
GUIDA S / M



Niteko

ENJOY THE LIGHT

NITEKO

Niteko Srl is an Italian Company founded in 2011 and settled in Montemesola (TA), Italy.

The Company designs and produces LED Fixtures for street, industrial and large areas lighting, identified with "Eleva" brand and commercializes high efficiency products for indoor solutions with "Indoor" brand.

To this day Niteko has achieved great rewards. In 2014 Niteko has been listed by "Corriere della Sera" among the 21 Italian Startup of 1 million euro. In 2015 the company joined the top 100 "STARTUPITALIA" and won the "Castrum Mineruae" award, reserved to the Apulian company that has developed new processes in research and technological modernisation and that has positioned itself in the market with innovative products.

After few years from its birth, the company is already recognized in the market as a Smart and young Society.

The founders are among world's excellence, displaying the first prototypes of LED street lighting during an international conference IEEE, held in Hammamet, Tunisia back in 2007.

Here's the title of their work: "LED based public Lighting system reliability for a reduced impact on environment and energy consumption".



OUR VISION

Led Lighting represents the biggest revolution since the large scale introduction of incandescent light bulb, as a technological as well as a cultural revolution, changing life habits regarding energy saving and use of light.

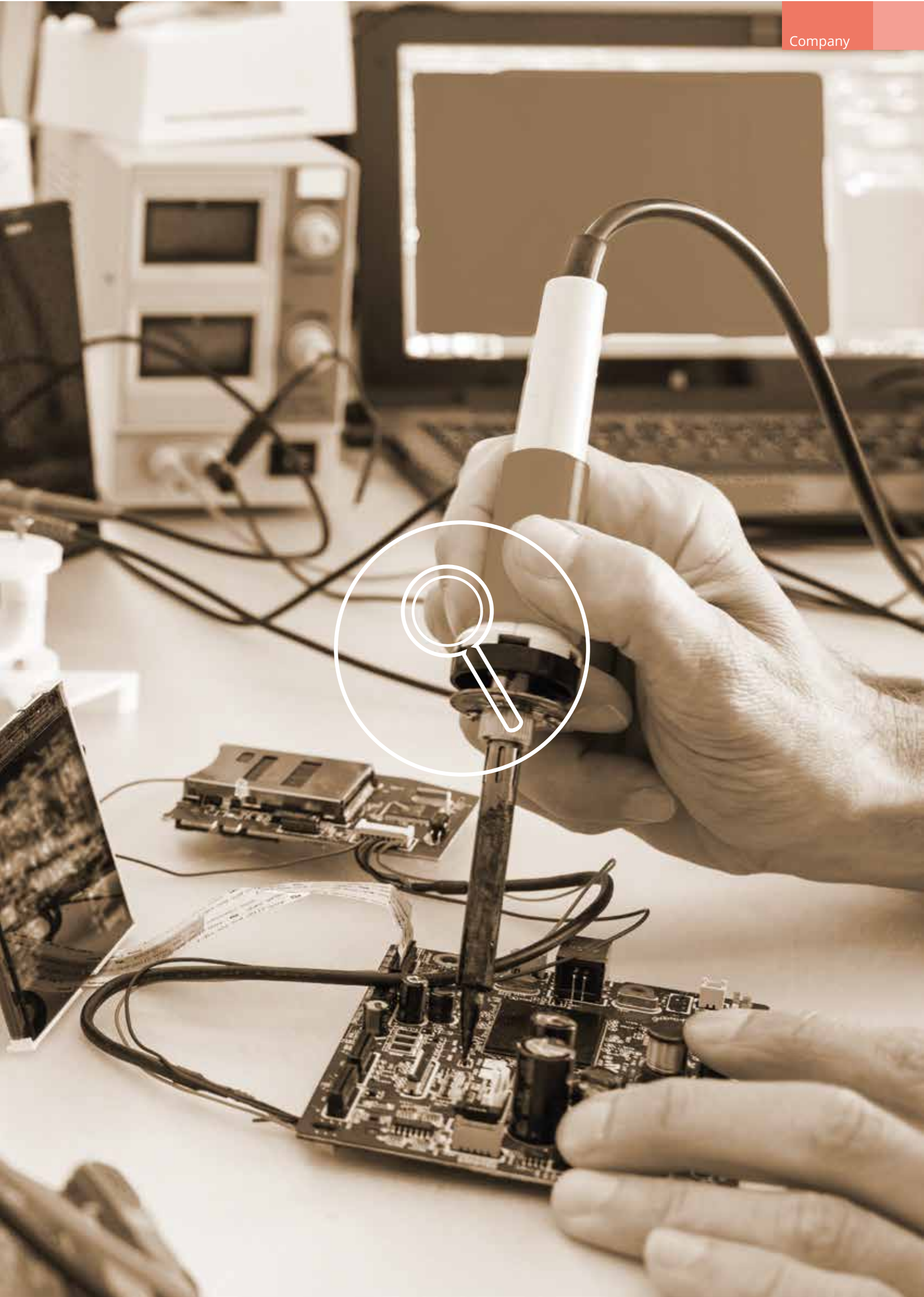
Niteko makes sure that these concepts become the guide line of its products line.

OUR MISSION

Promote LED lighting spread, to reduce global pollution and enhance lamps as a relevant social functions vehicle, usable by citizens in case of emergency services and data transfer.

We give value to our products, we combine ethics and business, we invest in the growth of our human capital, we have close to our heart our land growth and respect for the environment.





R & D DIVISION

Inside the Lab, Designers work continuously on Research and Experimentation of new Technologically advanced and Quality Controlled products, with innovative (Patent No. 0000095890 on our Street Lamp Design) and Compliant with regulations regarding the field of Light Pollutions.

A Dynamic Organization, consisting of a High Qualified and Trained team, provides constant monitoring of Products Quality and works on Experimentation of New Technologies.

Customized lighting design

A careful lighting design allows the lighting system to maximize its contribution on illuminating the selected space with the best performance.

The achievement of this goal is possible thanks to Niteko LIGHTING DIVISION, composed of a team of experts which starting from the evaluation of the objects to light up and the places where they are located, and undertaking regulatory, economic, energy, environmental and aesthetic analysis is able to establish the right kind, number and location of lighting fixtures to install in order to get the desired effect.

Thanks to the usage of Illuminating Engineering Software, the staff is able to create Charts, Curves and Installation Diagrams providing help in the Exact Evaluation of Lighting Fixtures Intallation points and in the measurement of the lighting Levels required by the customer and in compliance with regulations (3D visual representations, Isolux lines or misaligned colours representations)

A black and white photograph of two men in a factory setting. They are focused on their work, which involves handling numerous metal components, likely pistons or similar parts, arranged in rows on a workbench. The man in the foreground is wearing a dark polo shirt and has a beard. The man behind him is wearing glasses and a teal polo shirt. The background shows industrial equipment and a bright, slightly blurred environment.

OUR CERTIFICATIONS
Represent Niteko constant commitment to guarantee high quality standards, respecting social and eco-friendly values.

OUR CERTIFICATIONS

» Company Certifications

Since 2012 Niteko has obtained (and still maintain) the ISO9001:2008 Certification (Quality Management System), through Rina S.p.a. Authority.

Rina subscribes to the International Agreement IQNet, that represents the biggest international network of Certifying Authorities.

In 2015, Niteko has obtained ISO14001:2004 Certification (Environment Management System) through Dasa- Register Spa Authority.

» Guida

Guida Street Light owns CE trademark, obtained through Nemko S.p.a., a Certifying Authority represented in more than 20 places and 12 Countries.

The brand guarantees Guida conformity to safety Regulations (60598-2-3), Electromagnetic Compatibility and Photo-biological Safety.

» Associations

Every year about 120 millions of low consumption energy lamps are launched into the Italian market.



Ecolamp is a non-profit Consortium, involved in the collection and treatment of worn-out low consumption light sources, that have some toxic components but recyclable up to 95%.

» Urano

Urano Floodlight is certified TUV SUD, a Certifying Authority in more than 60 Countries and with 800 branches around the world.

The brand guarantees Urano conformity to Safety Regulations and EMC, in particular:

- EN 60598-2-3:2003+A1:2011,
- EN 60598-1:2008+A11:2009,
- EN 62493:2010.

» Futura

Futura Street Light owns CE trademark, obtained through Intertek S.r.l., Qualilab srl and TUV Italia s.r.l. Certifying Authorities.

The brand guarantees Futura conformity to Safety Regulations (60598-2-3), Electromagnetic Compatibility and Photo-biological Safety.



AIDI, Italian Lighting Association, established in 1958, ever since has been conducting scientific, technical and cultural training to spread the awareness of problem connected to the lighting field.

Since 2015 AIDI is an active member of CIE (Commission International de l'Eclairage), the highest International Body related to Lighting.



INTERNATIONAL MARKET

Niteko has been a big player in the realization of several international projects with foreign partners in: **Austria, France, Spain, Czech republic, Slovakia, Romania, Sweden, Chile, Algeria, Mexico, Brazil, Saudi Arabia and Qatar.**

Since 2013, the company promoted the international process expanding its market horizons and obtaining the **PCP (Product Conformity Program)** certification (known before as SASO), which guarantees that the products are compliant to local requirements of Saudi Arabia.

Niteko achieved the GOST R certification for Russian market on all LED devices and has lately started a certification process in Czech Republic and Slovakia.

All products under the brand Habita are certified according to the RoHS regulation.



RoHS

» Exhibitions and events

Niteko has always been particularly careful in anticipating the needs of a fast changing market, such as that of LED lighting, with more and more performant LED lighting fixtures in terms of energy efficiency and environmental impact.

Since the beginning, Niteko has always taken part to exhibitions and events like Light+Building in Frankfurt, Smart Energy in Verona, as well as official partner of EXPO2015.





LED Products for street,
industrial and large areas lighting



ELEVA CATALOGUE

2014

NITEKO BRANDS

Eleva. A matter of style!

Eleva is the big brand representing Niteko LED Fixtures.



Eleva means greatness, elevation and excellence and increase the value of industrial space or street where the Fixture is placed.

Innovative Design and care for the details are the key words of Italian Brand.
Our lamps are all made in Italy.

MADE IN ITALY also means reliability and versatility of a company able to supply not just products but also high value services.

Niteko.
Made in Italy reliability!



PRODUCTS

eleva



vega

High functionality
in a compact size





Street



Tunnels



Commercial



Industrial



Urban



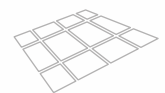
Sports



Large areas



Architectural



Photovoltaic



Compact and functional
LED floodlight


Innovative design




LED technology



Compact size

Main features



Advantages

Fixture composition:

Die cast aluminium single body with heat sink built in. Extralight tempered glass screen.

Optical unit:

Symmetrical or asymmetrical optics with high precision collimators for light beam concentration.

Life Span (L70B20): >80.000 h.

Mounting:

Integrated adjustable bracket for ceiling, wall or pole mounting.

Maximum functionality:

Independent electrical compartment to ensure easy and fast installation and maintenance.

Excellent efficiency:

Very high efficiency multichip LED combined with high-performance secondary optic in order to meet all lighting needs.

The external heat dissipator ensures LED long life.

Compact size:

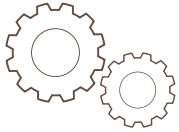
Compact high-performance floodlight.





Focus:

adjustable bracket through cogged wheel to ensure a safe mounting. Graduates notch for a precise inclination



Technical features

STANDARD COLOR



Charcoal RAL 7024

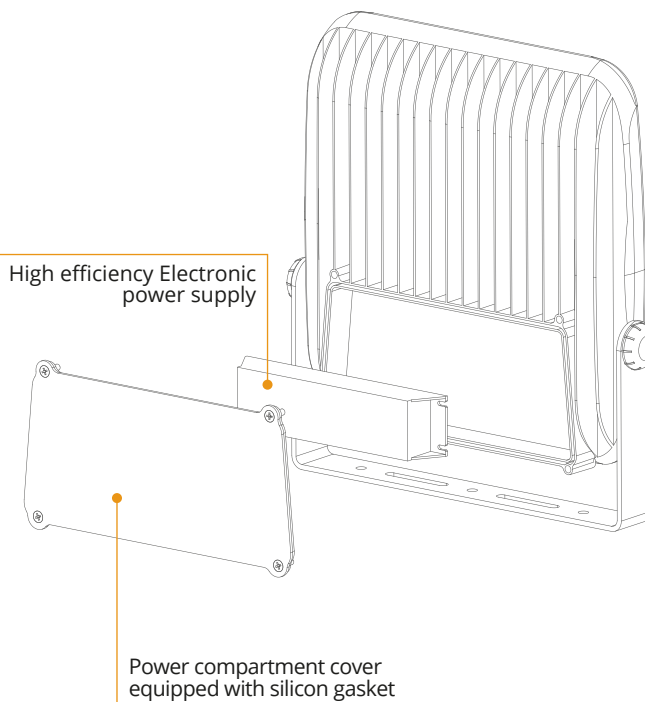
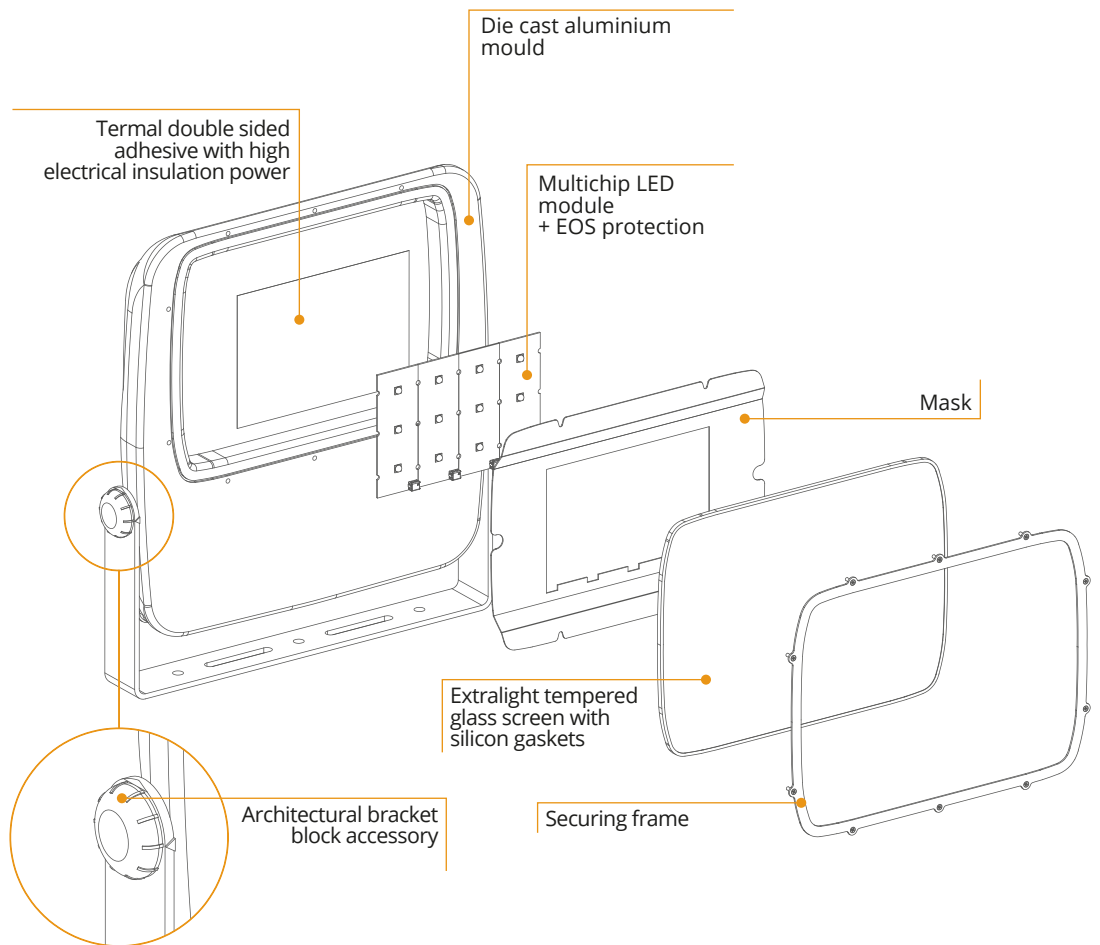
DETAILS

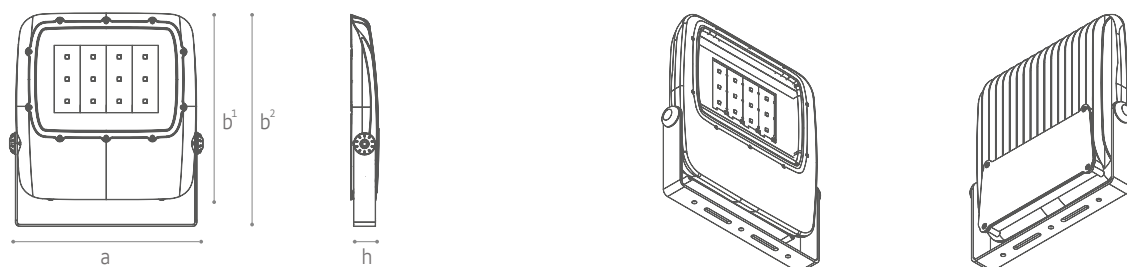
- Aluminium die cast body
- Flat tempered glass 4 mm
- CCT Standard: N (4000K ± 300K)
- CCT optional: W (3000K ± 300K)
- CCT optional: C (5000K ± 300K)
- Power factor: > 0.97
- CRI (Ra) Standard: 70...79
- CRI (Ra) Standard: 80...89
- Luminous source efficiency:
η > 130lm/W @ 900mA
- Lifetime: 80.000 ore
- Optional dimmable driver
- Multichip LED Lumileds



APPLICATIONS

- Shopping malls
- Industrial buildings
- Parking
- Indoor sport facilities
- Outdoor sport facilities
- Architeturali e museali





• SIZE



a = 417 mm
b¹ = 402 mm
b² = 460 mm
h = 61 mm

• WEIGHT



w = 7,0 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
VEGA3X-N[°°]	33	4.000	3	4.000	900
VEGA3X-C[°°]	33	4.000	3	5.000	900
VEGA3X-W[°°]	33	3.330	3	3.000	900
VEGA6X-N[°°]	65	8.000	6	4.000	900
VEGA6X-C[°°]	65	8.000	6	5.000	900
VEGA6X-W[°°]	65	6.660	6	3.000	900
VEGA9X-N[°°]	97	12.000	9	4.000	900
VEGA9X-C[°°]	97	12.000	9	5.000	900
VEGA9X-W[°°]	97	9.990	9	3.000	900
VEGA12X-N[°°]	123	15.240	12	4.000	850
VEGA12X-C[°°]	123	15.240	12	5.000	850
VEGA12X-W[°°]	123	12.720	12	3.000	850
ITEM CODE COMPOSITION					
[°°] = 00 - A1 - A2 - A3 - A4					

FEATURES

• Standard



• Optional

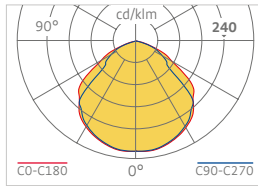


Photometric features

• SYMMETRIC WIDE BEAM



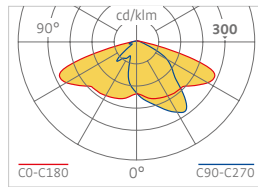
[00] - Symmetric 105°



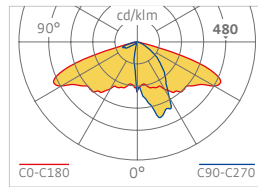
• ASYMMETRIC



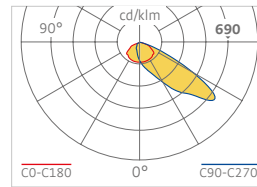
[A1] - Asymmetric 138°x50°



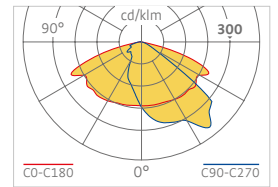
[A2] - Asymmetric 140°x40°



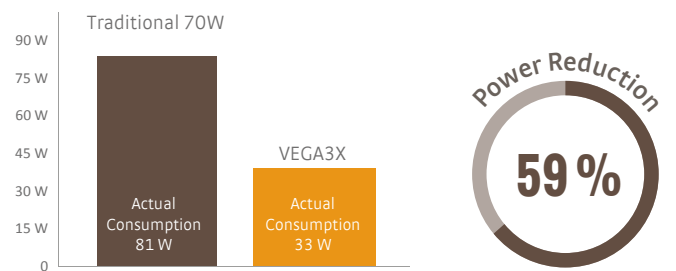
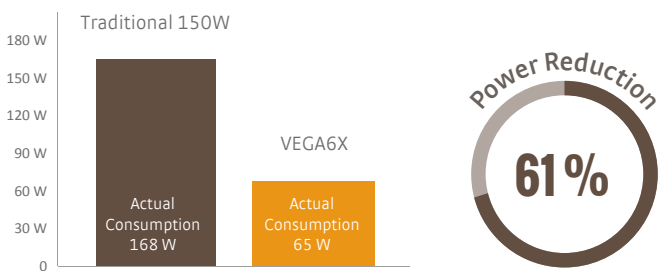
[A3] - Asymmetric 132°x60°



[A4] - Asymmetric 137°x70°



Energy saving





urano

The right support for you





Street



Tunnels



Commercial



Industrial



Urban



Sports



Large areas



Architectural



Photovoltaic

Universal LED floodlight
with high performances

Innovative design




LED technology



Made in Italy Quality



 Main features

Fixture composition:

Extruded Aluminum body with wide cooling Fins.
ABS Side Caps. Tempered glass screen (4 mm)

Optical unit:

LED Modules equipped with high precision secondary collimators for light beam concentration.

Life Span (L70B20): >80.000 h.

Mounting: Fixing bracket for floodlight adjustment to +/-90° and 5° increases available on side frameworks, made on techno polymer to avoid the phenomenon of galvanic corrosion in coupling between the two metals.

 Advantages

TÜV SÜD Certification:

Universally recognized as the most brand of reliability of Products compliant with international regulatory standards on safety, quality, environment and the use of toxic and dangerous chemical substances.

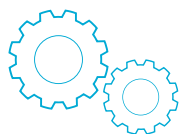
Universal application:

This Floodlight is universal and suitable to several lighting needs and requests, everywhere, thanks to the reliable and resistant structure, the several available optics and mounting possibilities (wall mounting, Cable Tray Mounting for Tunnel, head-pole Mounting, extended Cable Mounting, Hanging Mounting, recessed Mounting).

GORE® Protective Vents allow:



- ◆ the protection against water and dirt thanks to the Gore membrane, which makes against the inlet of liquids and dusts;
- ◆ Fast adjustment of the pressure inside the fixture;
- ◆ Elimination of condensation.



Technical features

STANDARD COLOR



BODY: Anodized grey
CAPS: Grey RAL 7035

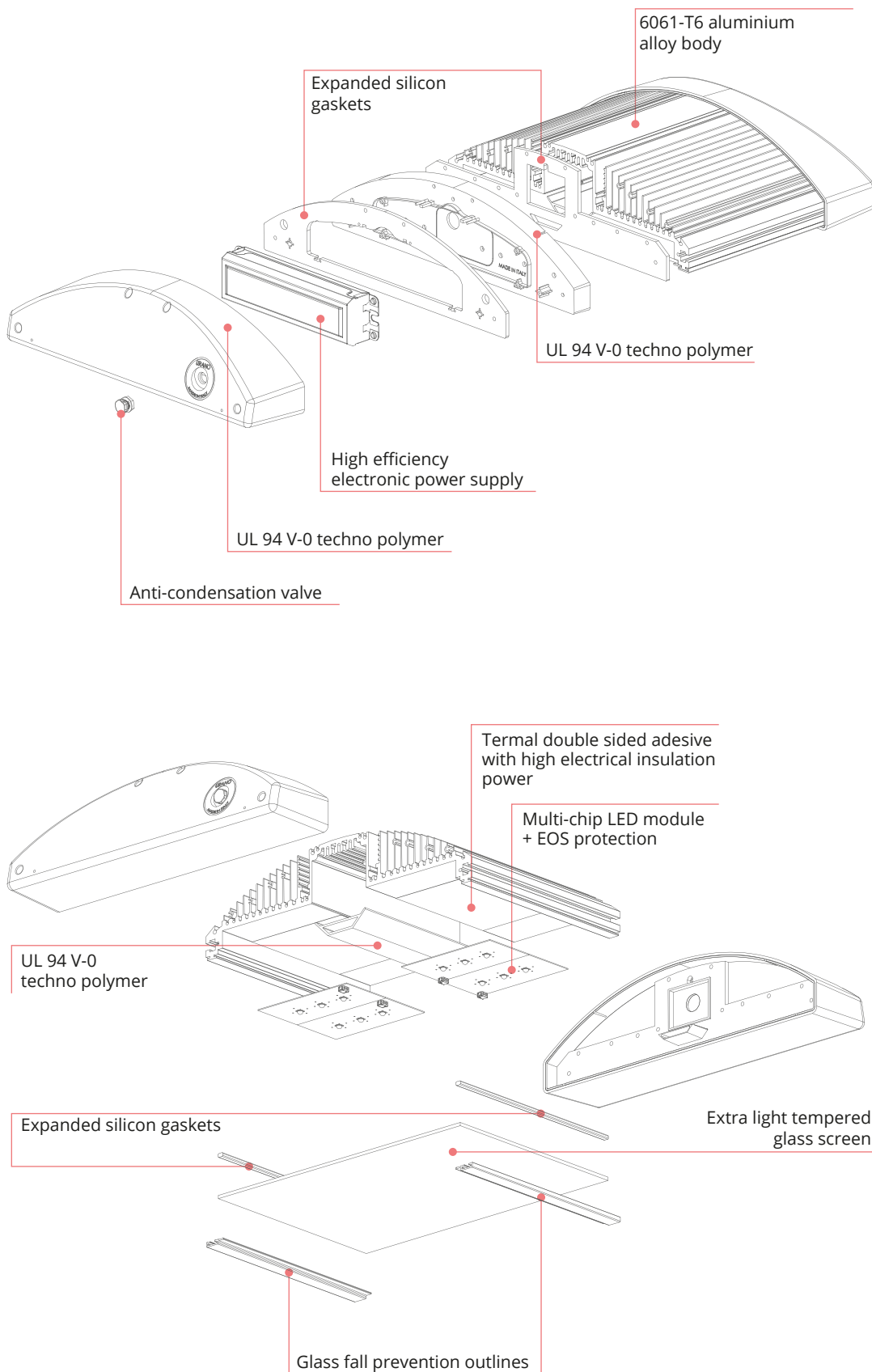
DETAILS

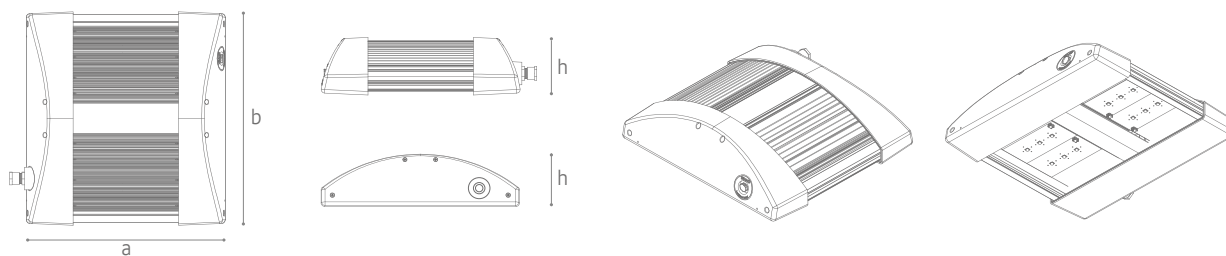
- Extruded aluminium body
- Lateral caps in ABS
- Tempered glass screen (4 mm)
- Optional colour:
 - Smokey grey satin body
 - Caps grey RAL 7023
- Optional colour:
 - Black satin body
 - Caps grey RAL 7024
- CCT Standard: N(4000K ± 300K)
CCT optional: W(3000K ± 300K)
CCT optional: C(5000K ± 300K)
- Power factor : > 0.97
- CRI Standard: 70...79
CRI optional: 80...89
- Luminous source efficiency
 $\eta > 135 \text{lm/W @ 700mA}$
- Lifetime: 80.000 hrs
- Optional dimmable Driver
- LED quadrichip Lumileds



APPLICATIONS

- Large areas and infrastructure
- Road and pedestrian tunnels
- Urban and suburban roads
- Civic and private parks
- Parking areas
- Outdoor sport facilities
- Indoor sport facilities
- Commercial areas
- Industrial areas and warehouses
- Architectural and museum





• SIZE



a = 390 mm
b = 416 mm
h = 112 mm

• WEIGHT





w = 8,0 Kg

Code	P [W]	F [lm]	No. LED	TCC [K]	I _F [mA]
U16H-N[°]-GR	34	4.320	4	4.000	700
U16H-C[°]-GR	34	4.320	4	5.000	700
U16H-W[°]-GR	34	3.600	4	3.000	700
U24H-N[°]-GR	50	6.480	6	4.000	700
U24H-C[°]-GR	50	6.480	6	5.000	700
U24H-W[°]-GR	50	5.400	6	3.000	700
U32H-N[°]-GR	67	8.640	8	4.000	700
U32H-C[°]-GR	67	8.640	8	5.000	700
U32H-W[°]-GR	67	7.200	8	3.000	700
U48H-N[°]-GR	100	12.960	12	4.000	700
U48H-C[°]-GR	100	12.960	12	5.000	700
U48H-W[°]-GR	100	10.800	12	3.000	700
U64H-N[°]-GR	134	17.280	16	4.000	700
U64H-C[°]-GR	134	17.280	16	5.000	700
U64H-W[°]-GR	134	14.400	16	3.000	700

ITEM CODE COMPOSITION

[°] = 00 - 80 - 56 - 30 - 16 - A1 - A2 - A3 - A4 - R1 - E1 - E2 - E3

 Available for solar applications (12V d.c. or 24V d.c.)

 Available with builtin emergency kit (optional)



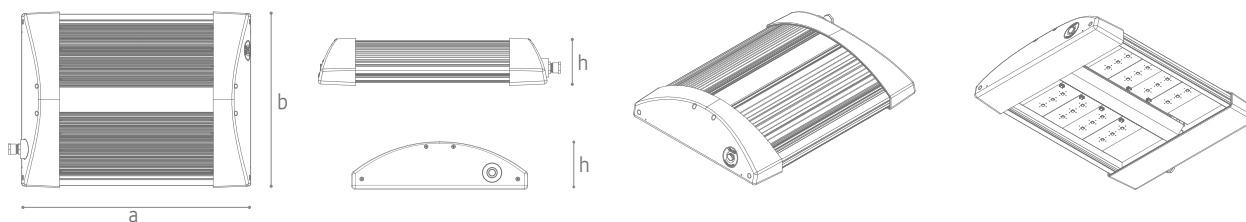
FEATURES

• Standard



• Optional





• SIZE



a = 540 mm
b = 416 mm
h = 112 mm

• WEIGHT



w = 15,0 Kg

Code	P [W]	F [lm]	No. LED	TCC [K]	I _F [mA]
U80H-N[°°]-GR	167	21.600	20	4.000	700
U80H-C[°°]-GR	167	21.600	20	5.000	700
U80H-W[°°]-GR	167	18.000	20	3.000	700
U96H-N[°°]-GR	200	25.920	24	4.000	700
U96H-C[°°]-GR	200	25.920	24	5.000	700
U96H-W[°°]-GR	200	21.600	24	3.000	700
U104H-N[°°]-GR	217	28.080	26	4.000	700
U104H-C[°°]-GR	217	28.080	26	5.000	700
U104H-W[°°]-GR	217	23.400	26	3.000	700

ITEM CODE COMPOSITION

[°°] = 00 - 80 - 56 - 30 - 16 - A1 - A2 - A3 - A4 - R1 - E1 - E2 - E3



Available with builtin emergency kit (optional)



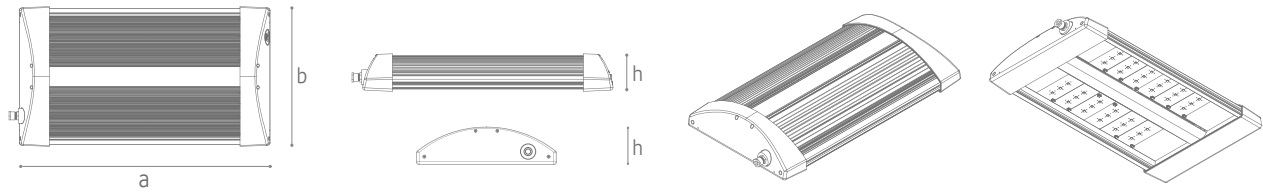
FEATURES

• Standard




• Optional






• SIZE


 a = 740 mm
 b = 416 mm
 h = 112 mm


• WEIGHT


 w = 17,0 Kg

Code	P [W]	F [lm]	No. LED	TCC [K]	I _F [mA]
U120H-N[°°]-GR	250	32.400	30	4.000	700
U120H-C[°°]-GR	250	32.400	30	5.000	700
U120H-W[°°]-GR	250	27.000	30	3.000	700
U144H-N[°°]-GR	300	38.880	36	4.000	700
U144H-C[°°]-GR	300	38.880	36	5.000	700
U144H-W[°°]-GR	300	32.400	36	3.000	700





































ITEM CODE COMPOSITION

[°°] = 00 - 80 - 56 - 30 - 16 - A1 - A2 - A3 - A4 - R1 - E1 - E2 - E3


 Available with builtin emergency kit



FEATURES

• Standard	                    
• Optional	              



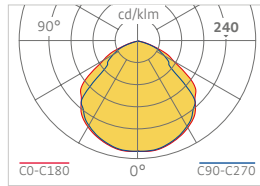


Photometric features

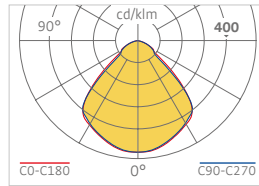
• SYMMETRIC WIDE BEAM



[00] - Symmetric 105°



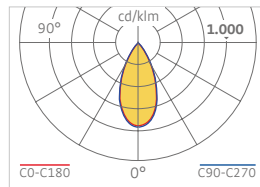
[80] - Symmetric 90°



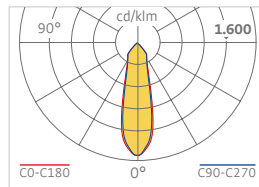
• SYMMETRIC NARROW BEAM



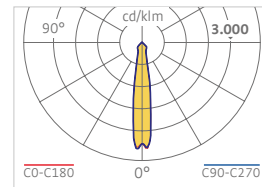
[56] - Symmetric 56°



[30] - Symmetric 30°



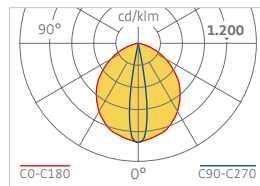
[16] - Symmetric 16°



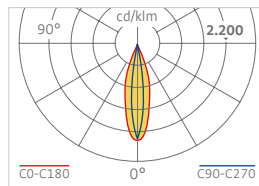
• ELLIPTIC



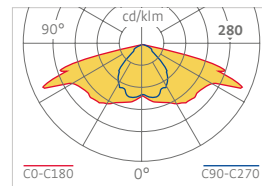
[E1] - Elliptic 100°x23°



[E2] - Elliptic 37°x21°



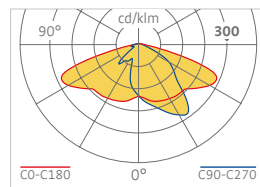
[E3] - Elliptic 152°x46°



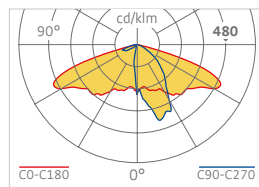
• ASYMMETRIC



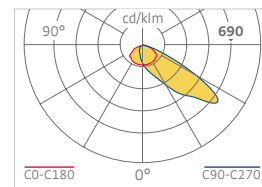
[A1] - Asymmetric 138°x50°



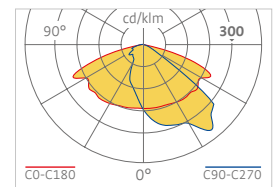
[A2] - Asymmetric 140°x40°



[A3] - Asymmetric 132°x60°



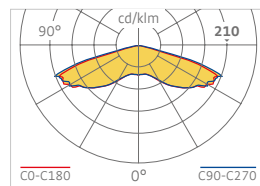
[A4] - Asymmetric 137°x70°



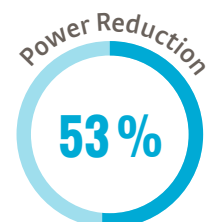
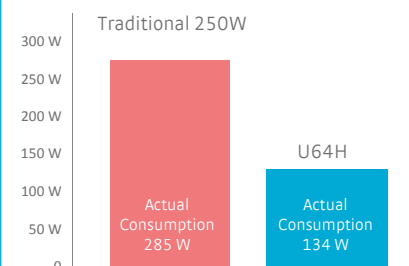
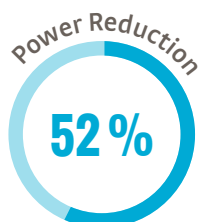
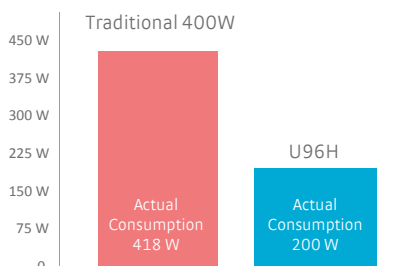
• ROTOSYMMETRIC



[R1] - Rotosymmetric 138°x50°



Energy saving



Mounting accessories

Equipped with architectural bracket **KM-U-AR**. Other accessories can be supplied on request.

KM-U-AR

Architectural (standard)



KM-U-TP1

Adjustable head-pole



KM-U-TP2

Arm



KM-U-TPS

Suspension



KM-U-PLF1

Celling



KM-U-INC

Recessed



KM-U-SPS

Suspension



KM-U-GAL

Cable tray



KM-U-BAS

Single artistic arm



KM-U-FRC

Artistic fork



Available colors



Black / Charcoal



Smokey / Charcoal



Grey / Grey

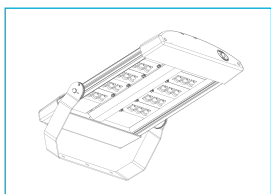




Recommended accessories

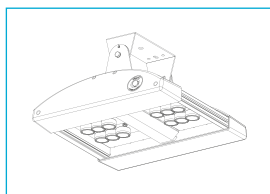
KM-U-AR

Architectural (standard)



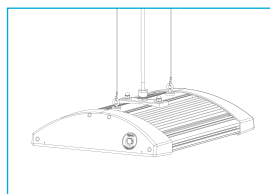
KM-U-PLF1

Celling



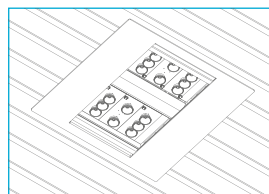
KM-U-SPS

Suspension



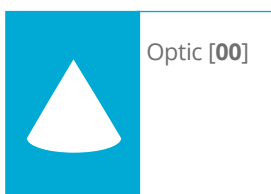
KM-U-INC

Recessed

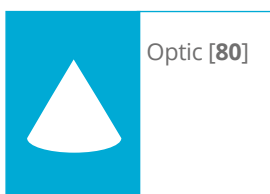


Recommended photometric options

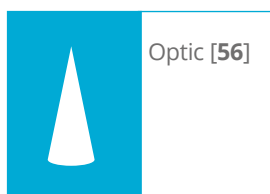
For heights up to 6,5 m

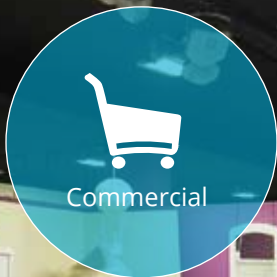


For heights from 7 to 12 m



For heights over 12,5 m

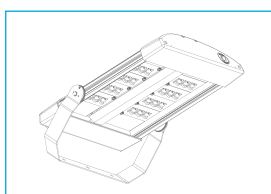




Recommended accessories

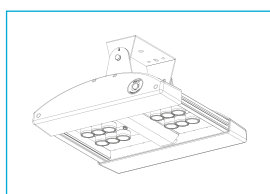
KM-U-AR

Architectural (standard)



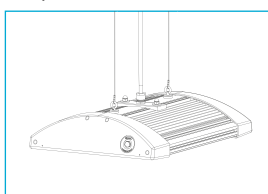
KM-U-PLF1

Celling



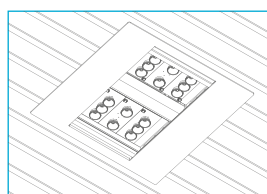
KM-U-SPS

Suspension



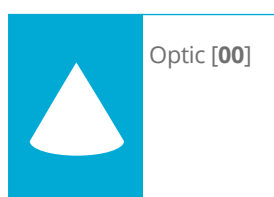
KM-U-INC

Recessed

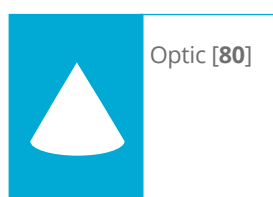


Recommended photometric options

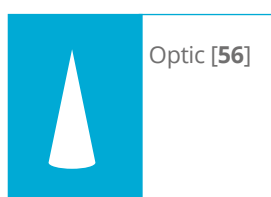
For heights up to 6,5 m



For heights from 7 to 12 m



For heights over 12,5 m

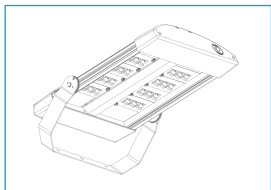




Recommended accessories

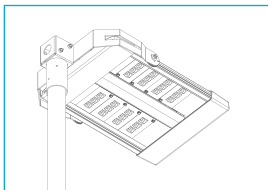
KM-U-AR

Architectural (standard)



KM-U-TP1

Adjustable head-pole

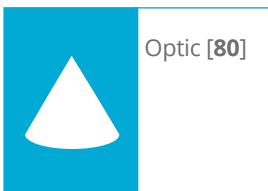


Recommended photometric options

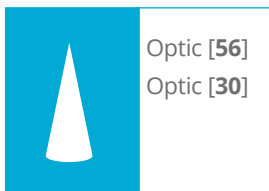
For lighting towers

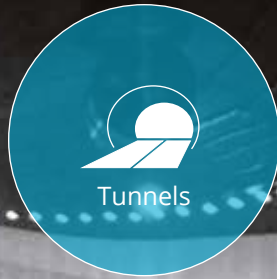


For heights from 7 to 12 m



For heights over 12,5 m

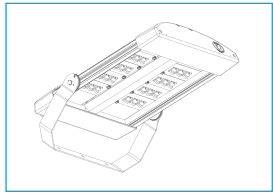




Recommended accessories

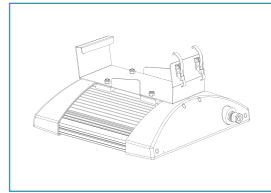
KM-U-AR

Architectural (standard)



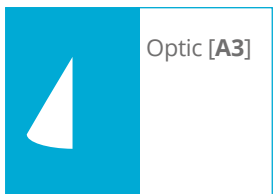
KM-U-GAL

Cable tray

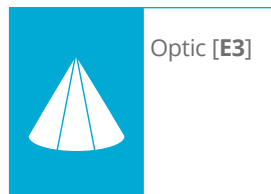


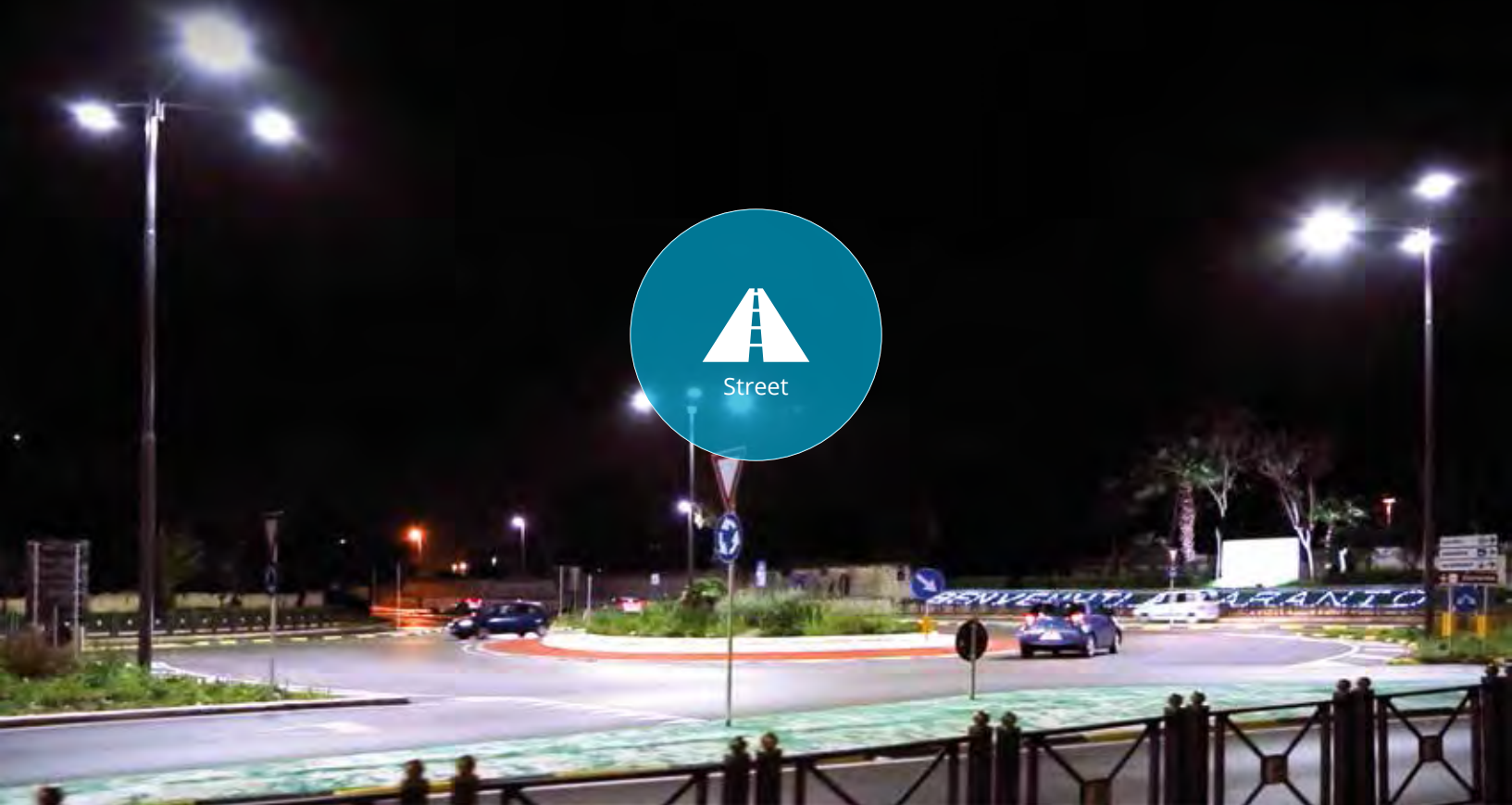
Recommended photometric options

Reinforcement lighting



Permanent lighting

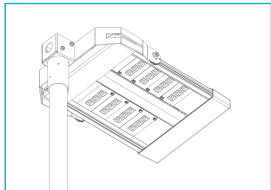




Recommended accessories

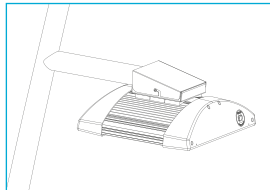
KM-U-TP1

Adjustable head-pole



KM-U-TP2

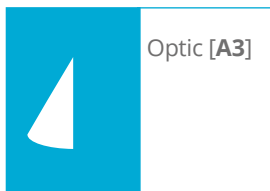
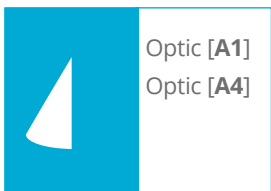
Arm

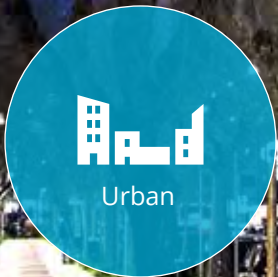


Recommended photometric options

Urban and suburban roads

Parking areas, traffic circle

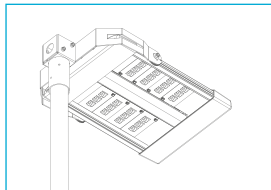




Recommended accessories

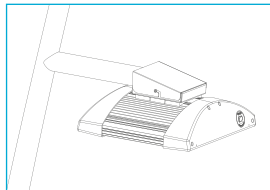
KM-U-TP1

Adjustable head-pole



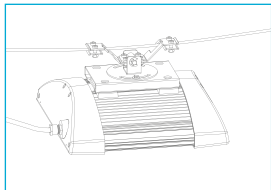
KM-U-TP2

Arm



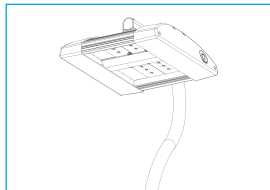
KM-U-TES

Suspension



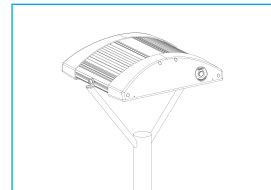
KM-U-BAS

Single artistic arm



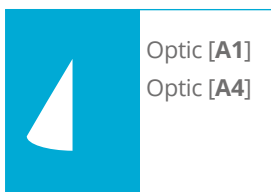
KM-U-FRC

Artistic fork

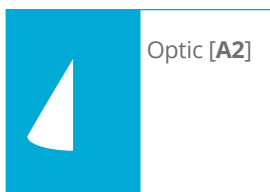


Recommended photometric options

Urban roads



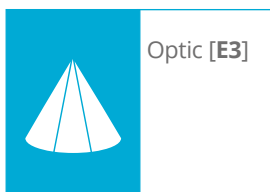
Cycling lanes



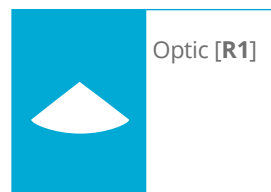
Parking areas, traffic circle

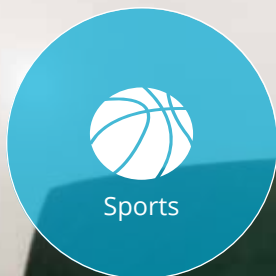


Urban roads (suspension)



Squares, parks and gardens

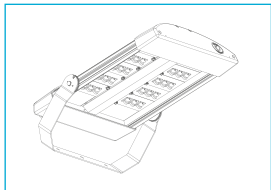




Recommended accessories

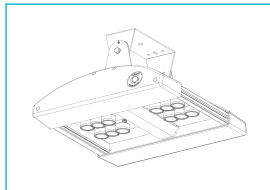
KM-U-AR

Architectural (standard)



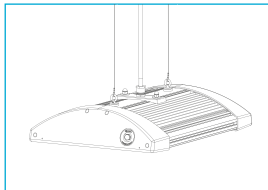
KM-U-PLF1

Celling



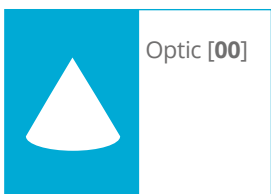
KM-U-SPS

Suspension

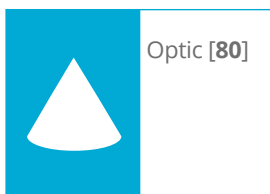


Recommended photometric options

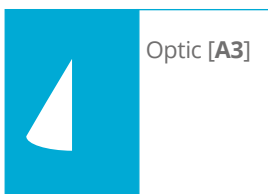
For heights up to 6,5 m



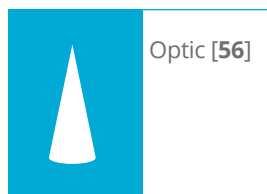
For heights from 7 to 12 m



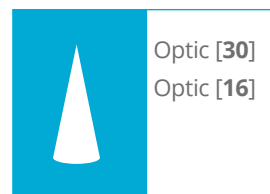
Up to 20 m (outdoor)



Up to 20 m



Over 20,5 m (outdoor)

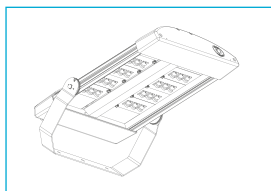




Recommended accessories

KM-U-AR

Architectural (standard)



Recommended photometric options

Spot lighting



Optic [56]
Optic [30]
Optic [16]

Advertisement board



Optic [E1]
Optic [E2]



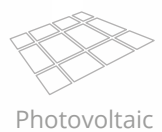
multiplo

Increase possibilities
go beyond limits

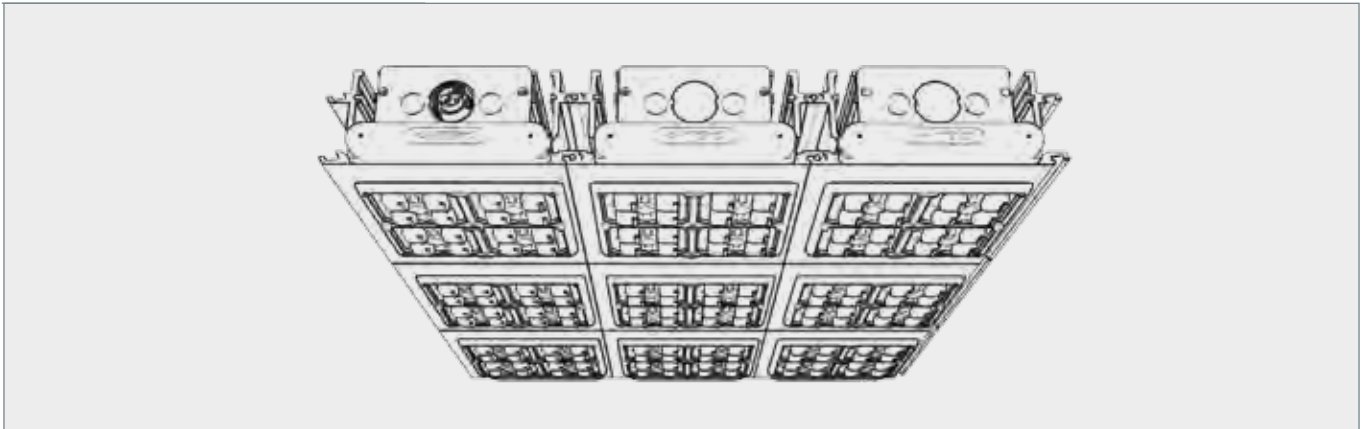




Made in Italy

YEARS WARRANTY
5



Bidirectional modular
LED floodlight with excellent performance



 Main features

Fixture composition:

Extruded aluminium body. ABS side caps. PVC Bowl containing power supply. PMMA optics screen.

Bidirectional modularity:

Thanks to modularity the floodlight is adaptable to different application needs, always ensuring high performance. Modules can be connected to each other both along the length and along lateral side, composing modules of 1x1, 1x2, 1x3, 2x2, 2x3 e 3x3 size.

Optical unit:

LED modules equipped with high precision secondary collimators provided with appropriate seals to ensure the tightness of the optical compartment (IP66). The absence of the glass ensures high optical performance (+ 7%).

Independent basic module:

Each module has its own power supply and is electrically and thermally insulated.

Electrical compatibility:

Possibility of connection to emergency power supply DCE-DIM (optional).

Mounting:

Standard mounting with adjustable bracket for floodlight adjustment up to +90° and 10° increases available controllable on side supports. Ceiling, suspension and cable tray mounting available through specific accessories supplied on request.

 Advantages

Bidirectional modularity:

Thanks to modularity the floodlight is adaptable to different application needs, always ensuring high performance.

Reliability and safety:

Maintenance and assistance of a non-functioning module are carried out safely and without compromising the efficiency of the other operating lighting modules. Power supply bowl are thermally and electrically insulated.

Power:

Each module reaches up to 134W and a nominal flow of 17,280 lm.

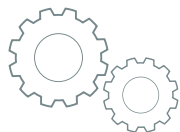
In 3x3 formula the floodlight reaches 1206 Watt and 155.520 of nominal luminous flux.

Saving:

+ 42% money saving compared to floodlights with traditional technology for the same applications.

Efficiency:

+ 10% performance than the other fixtures of Eleva brand thanks to the absence of glass.



Technical features

STANDARD COLOR



BODY: Anodized grey
CAPS: Grey RAL 7035

DETAILS

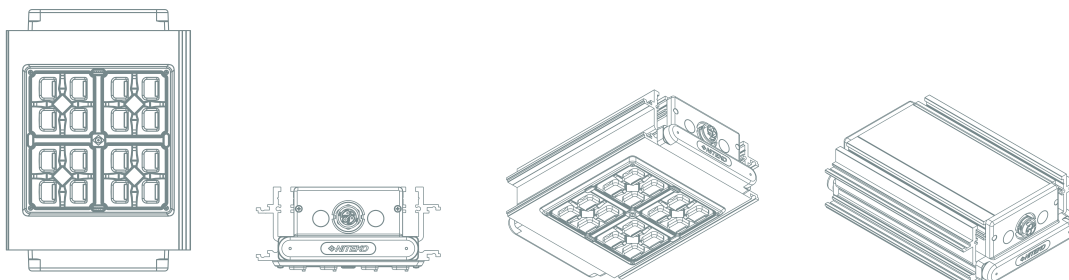
- Extruded aluminium body
- Lateral caps in ABS
- Tempered glass screen (4 mm)
- Optional colour:
 - Smokey grey satin body
 - Caps grey RAL 7023
- Optional colour:
 - Black satin body
 - Caps grey RAL 7024
- CCT Standard: N(4000K ± 300K)
CCT optional: W(3000K ± 300K)
CCT optional: C(5000K ± 300K)
- Power factor: > 0.97
- CRI Standard: 70...79
CRI optional: 80...89
- Luminous source efficiency
 $\eta > 135 \text{ lm/W @ 700mA}$
- Lifetime: 80.000 hrs
- Optional dimmable Driver
- LED quadrichip Lumileds



APPLICATIONS

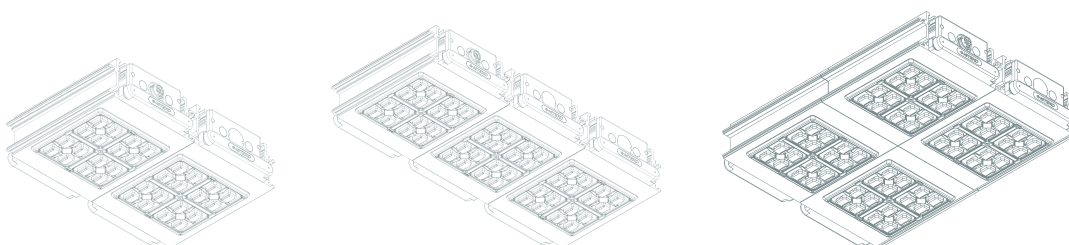
- Large areas and infrastructure
- Road and pedestrian tunnels
- Urban and suburban roads
- Civic and private parks
- Parking areas
- Outdoor sport facilities
- Indoor sport facilities
- Commercial areas
- Industrial areas and warehouses
- Architectural and museum

Base Unit



1x1 134 W

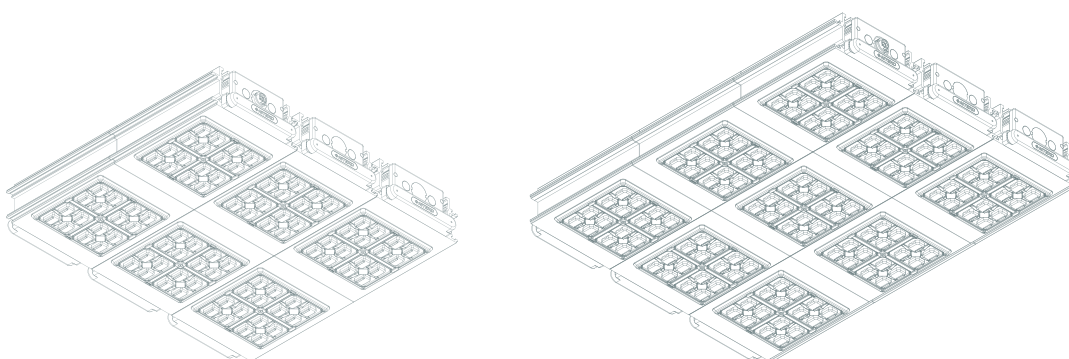
Multiple



1x2 268 W

1x3 402 W

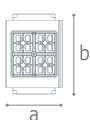
2x2 536 W



2x3 804 W

3x3 1206 W

• VERSION: 1X1



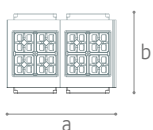
Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-1X1-N[°°]-GR	134	17.280	1x16	4.000	700
MP16H-1X1-C[°°]-GR	134	17.280	1x16	5.000	700
MP16H-1X1-W[°°]-GR	134	14.400	1x16	3.000	700

a = 237 mm
 b = 336 mm
 h = 108 mm

w = 5,4 Kg

W. exp. = 0,028 m²

• VERSION: 1X2



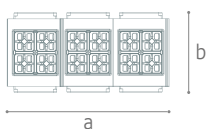
Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-1X2-N[°°]-GR	268	34.560	2x16	4.000	700
MP16H-1X2-C[°°]-GR	268	34.560	2x16	5.000	700
MP16H-1X2-W[°°]-GR	268	28.800	2x16	3.000	700

a = 457 mm
 b = 336 mm
 h = 108 mm

w = 10,8 Kg

W. exp. = 0,028 m²

• VERSION: 1X3



Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-1X3-N[°°]-GR	402	51.840	3x16	4.000	700
MP16H-1X3-C[°°]-GR	402	51.840	3x16	5.000	700
MP16H-1X3-W[°°]-GR	402	43.200	3x16	3.000	700

a = 677 mm
 b = 336 mm
 h = 108 mm

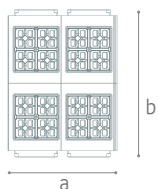
w = 16,2 Kg

W. exp. = 0,028 m²

FEATURES

• Standard	
• Optional	

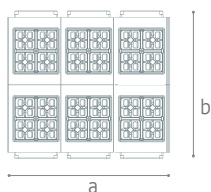
• VERSION: 2X2



Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-2X2-N[°°]-GR	536	69.120	4x16	4.000	700
MP16H-2X2-C[°°]-GR	536	69.120	4x16	5.000	700
MP16H-2X2-W[°°]-GR	536	57.600	4x16	3.000	700

	a = 457 mm b = 619 mm h = 108 mm		w = 21,6 Kg		W. exp. = 0,054 m ²
--	--	--	-------------	--	--------------------------------

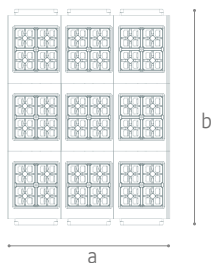
• VERSION: 2X3



Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-2X3-N[°°]-GR	804	103.680	6x16	4.000	700
MP16H-2X3-C[°°]-GR	804	103.680	6x16	5.000	700
MP16H-2X3-W[°°]-GR	804	86.400	6x16	3.000	700

	a = 677 mm b = 619 mm h = 108 mm		w = 32,4 Kg		W. exp. = 0,054 m ²
--	--	--	-------------	--	--------------------------------

• VERSION: 3X3



Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
MP16H-3X3-N[°°]-GR	1206	155.520	9x16	4.000	700
MP16H-3X3-C[°°]-GR	1206	155.520	9x16	5.000	700
MP16H-3X3-W[°°]-GR	1206	129.600	9x16	3.000	700

	a = 677 mm b = 902 mm h = 108 mm		w = 48,6 Kg		W. exp. = 0,080 m ²
--	--	--	-------------	--	--------------------------------

ITEM CODE COMPOSITION

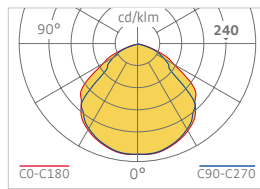
[°°] = 00 - 50 - 25 - A1

Photometric features

• SYMMETRIC WIDE BEAM



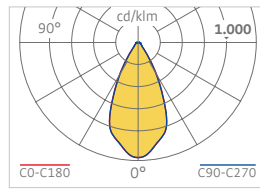
[00] - Symmetric 105°



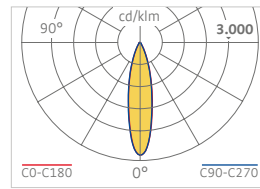
• SYMMETRIC NARROW BEAM



[50] - Symmetric 50°



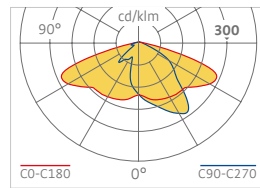
[25] - Symmetric 25°



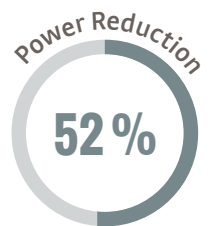
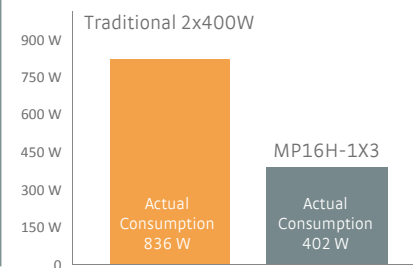
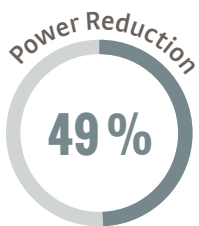
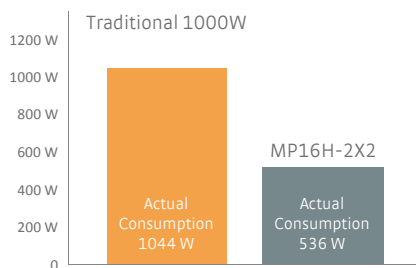
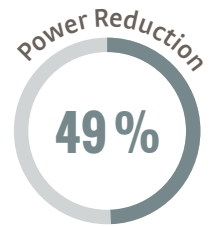
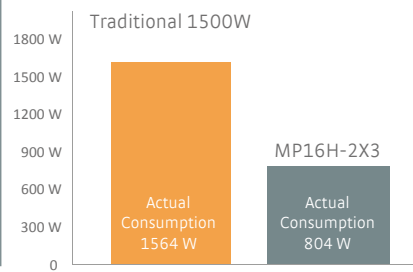
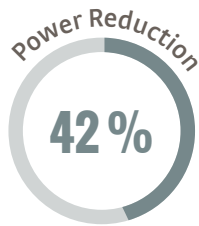
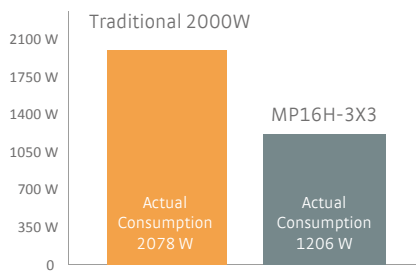
• ASYMMETRIC

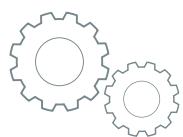


[A1] - Asymmetric 138°x50°



Energy saving



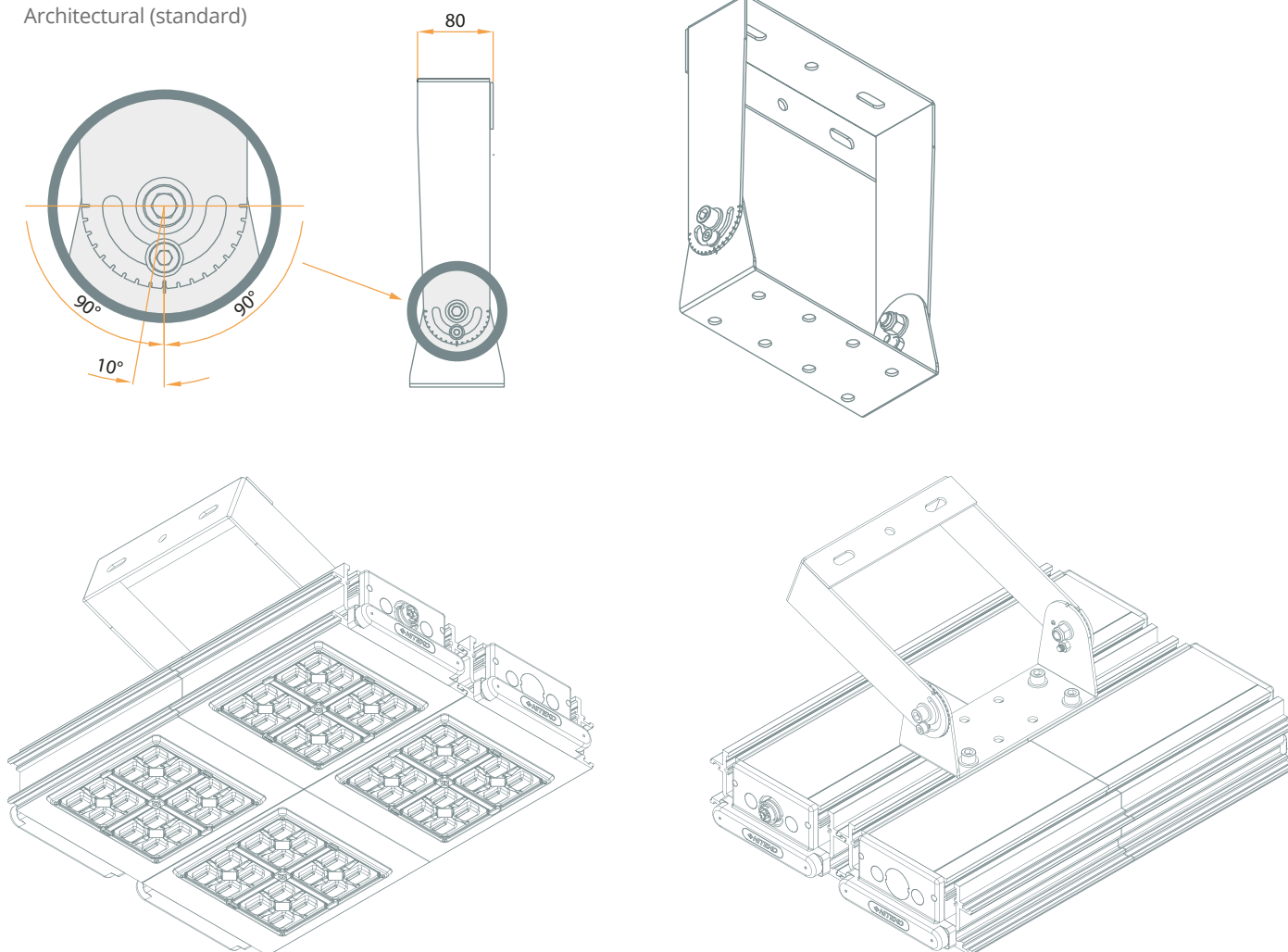


Mounting accessories

Equipped with architectural bracket **KM-MP-AR**. Other accessories can be supplied on request.

KM-MP-AR

Architectural (standard)



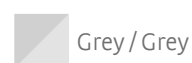
Available colors



Black / Charcoal



Smokey / Charcoal



Grey / Grey



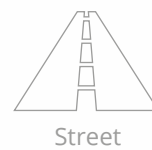
halley

Quality and performance
to your industrial space





VOC FREE



Street



Tunnels



Commercial



Industrial



Urban



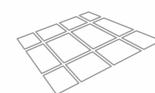
Sports



Large areas



Architectural



Photovoltaic



The most advanced LED technology
under a traditional cover

Rapid connection



LED technology



Made in Italy Quality



Main features

Fixture composition:

Grey Color techno polymer with inner screen on 2 mm SMMA.

Reflector:

Anodized aluminium. It performs the function of optical unit.

Life Span (L70B20): >80.000 h.

Mounting:

Equipped with hanging hook. Possibility of recessed mounting through a special Kit.



Advantages

Long Life Span:

The extruded aluminium dissipator, with wide cooling Fins guarantees long Life Span to Diodes. 10 Years Guarantee on all metal components.

Maximum Efficiency and Resistance:

The distribution of the LEDs on the extruded side and the Active cooling system guarantee protection from overheating and the maximum efficiency of the fixture.

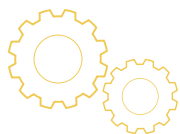
IP68 axial fans:

They guarantee total protection, inside particularly dirty locations, against dust and water (in case of product cleaning with strong water jets)



Focus:

The electrical connection can be effected without the need to open the unit, thanks to the external connector.



Technical features

STANDARD COLOR



BODY: Anthracite Grey RAL7024
REFLECTOR: Anodized grey

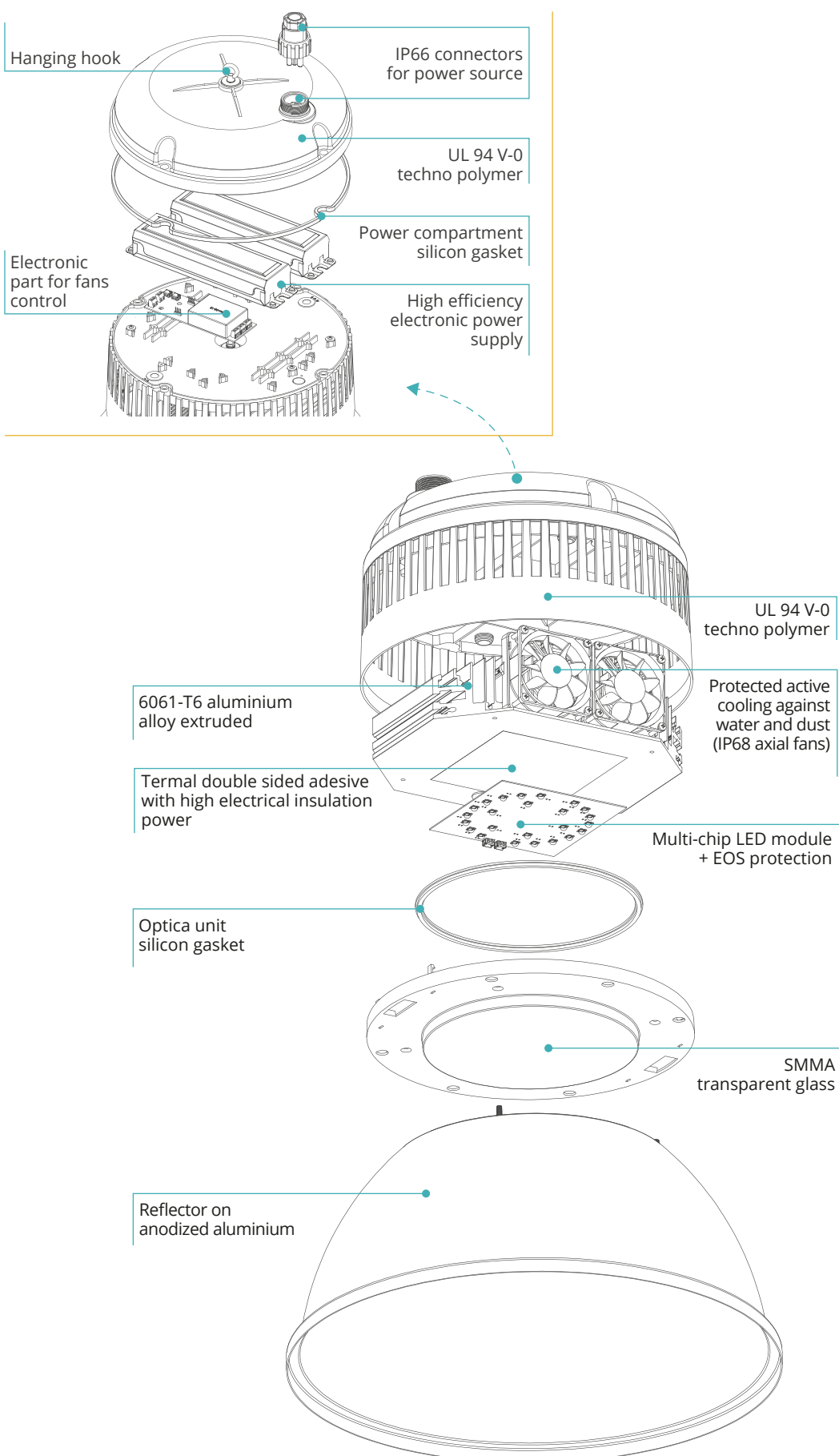
DETAILS

- Technopolymer body
- Anodized reflector
- SMMA transparent or frosted (optional) screen
- Tempered glass optional
- Switch on-off time < 1 s
- CCT Standard: N (4000K ± 300K)
CCT optional: W (3000K ± 300K)
CCT optional: C (5000K ± 300K)
- Power factor: > 0.95
- CRI Standard: 70...79
CRI optional: 80...89
- Luminous source efficiency
 $\eta > 130 \text{ lm/W @ 850 mA}$
- Lifetime: 80.000 hrs
- Optional dimmable Driver
- LED quadrichip Lumileds

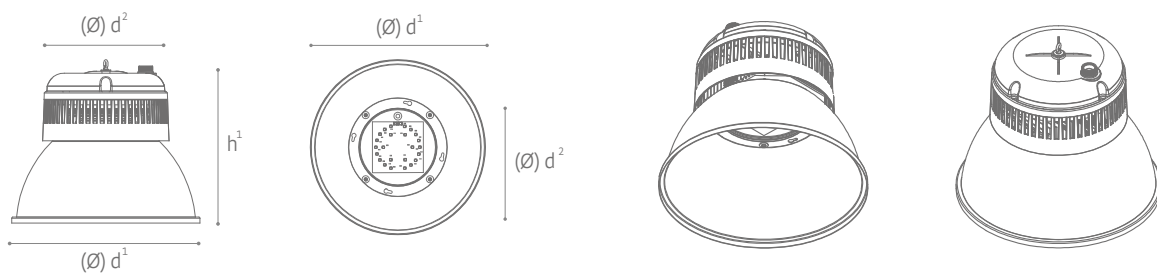


APPLICATIONS

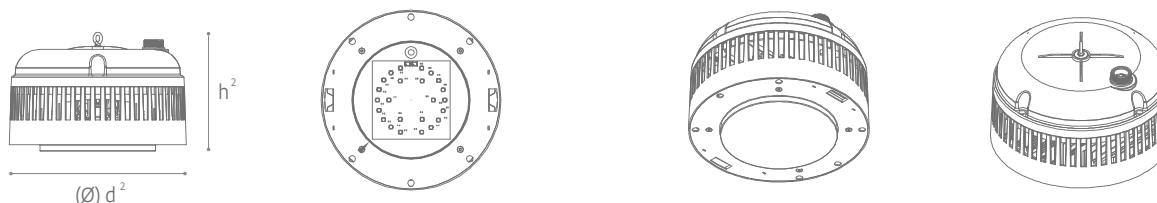
- Industrial areas and warehouses
- Commercial areas
- Indoor sport facilities



Halley 90



Halley 00



• SIZE



d¹ = 482 mm
d² = 323 mm
h¹ = 418 mm
h² = 218 mm

• WEIGHT



- HALLEY-6H: w = 8,0 Kg
- HALLEY-10H: w = 8,0 Kg
- HALLEY-16H: w = 8,5 Kg
- HALLEY-22H: w = 10,0 Kg
- HALLEY-24H: w = 11,0 Kg
- HALLEY-24X: w = 11,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
HALLEY-6H-N[°°]-GR	50	6.480	6	4.000	700
HALLEY-6H-C[°°]-GR	50	6.480	6	5.000	700
HALLEY-6H-W[°°]-GR	50	5.400	6	3.000	700
HALLEY-10H-N[°°]-GR	84	10.800	10	4.000	700
HALLEY-10H-C[°°]-GR	84	10.800	10	5.000	700
HALLEY-10H-W[°°]-GR	84	9.000	10	3.000	700
HALLEY-16H-N[°°]-GR	134	17.280	16	4.000	700
HALLEY-16H-C[°°]-GR	134	17.280	16	5.000	700
HALLEY-16H-W[°°]-GR	134	14.400	16	3.000	700
HALLEY-22H-N[°°]-GR	184	23.760	22	4.000	700
HALLEY-22H-C[°°]-GR	184	23.760	22	5.000	700
HALLEY-22H-W[°°]-GR	184	19.800	22	3.000	700
HALLEY-24H-N[°°]-GR	200	25.960	24	4.000	700
HALLEY-24H-C[°°]-GR	200	25.960	24	5.000	700
HALLEY-24H-W[°°]-GR	200	21.600	24	3.000	700
HALLEY-24X-N[°°]-GR	245	30.480	24	4.000	850
HALLEY-24X-C[°°]-GR	245	30.480	24	5.000	850
HALLEY-24X-W[°°]-GR	245	25.440	24	3.000	850

ITEM CODE COMPOSITION

[°°] = 90 - 00

FEATURES

• Standard




• Optional




Photometric features

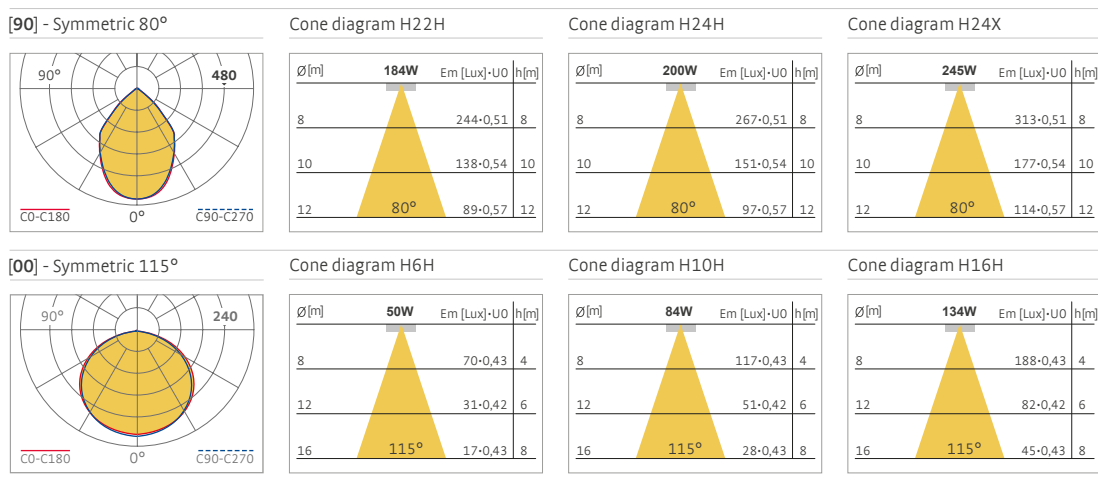
• SYMMETRIC



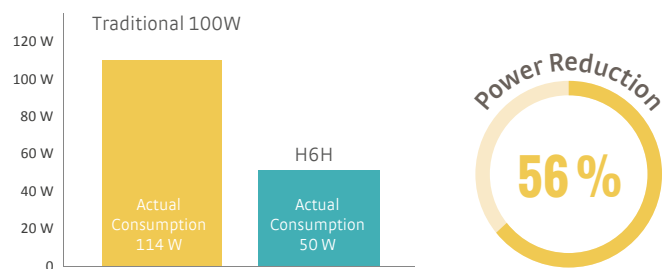
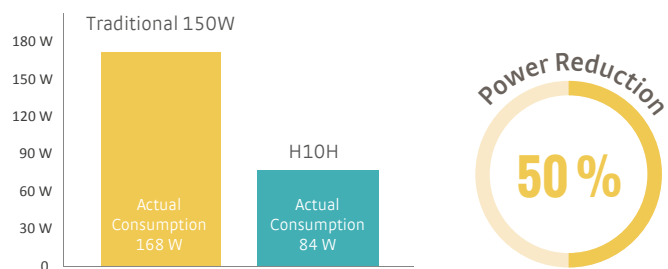
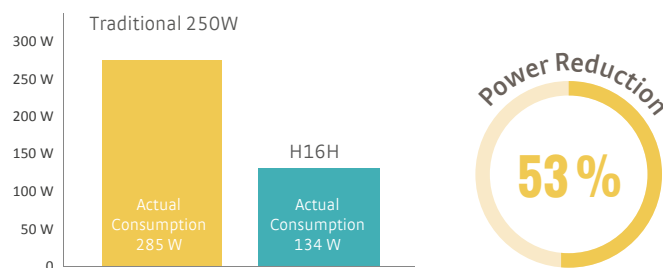
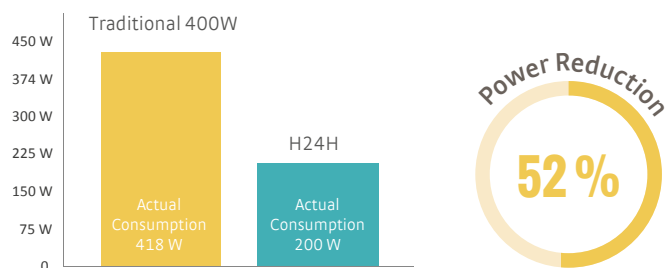
Halley 90

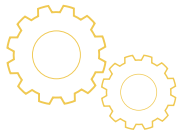


Halley 00



Energy saving

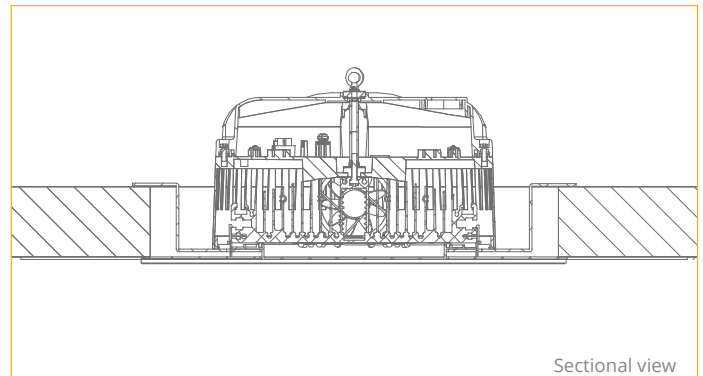
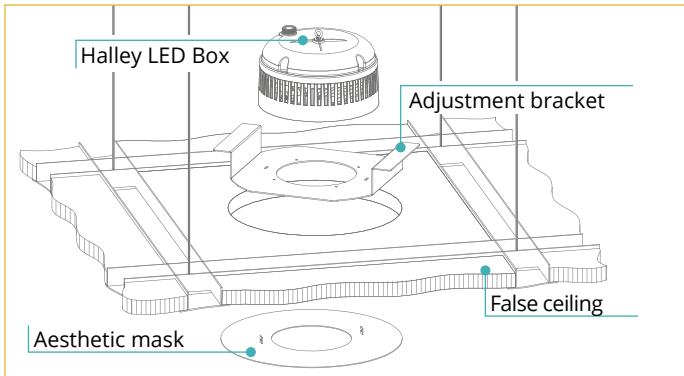




Mounting accessories

This mounting kit is particularly suitable in case of false ceiling.
(Example: airport, service station, industrial structures)

>> KM-H-INC / Recessed mounting



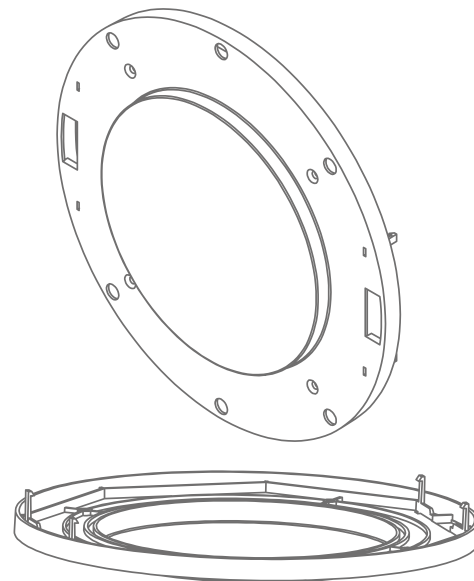
Kit and Optional

>> KH-EM Emergency Kit

>> KH-D/S SMMA frosted diffuser



Built in Emergency kit available (optional):
4 LED @ 100 mA - 5W - 800 lm
Operating time: 1h

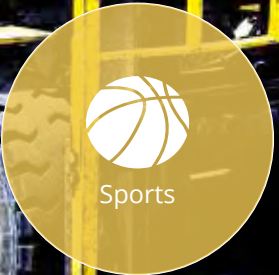




Industrial



Commercial



Sports



guida^s

Look at the street
with a different view





VOC FREE



Street



Tunnels



Commercial



Industrial



Urban



Sports



Large areas



Architectural



Photovoltaic

LED fixture for street
and urban lighting

Innovative Design



LED technology



Made in Italy Quality



Main features

Fixture composition: Die cast aluminium single body. Integrated die cast aluminium heat sink.

Optical unit: Asymmetrical street lens with high precision collimators for light beam concentration.

Life span (L70B20): >80.000 h.

Mounting: Integrated adjustable system on Arm or on Head - Pole mounting.

Focus: Fixture available in two colors, Anthracite Grey RAL 7024 and Grey RAL 9006.



Advantages

Protection and safety:

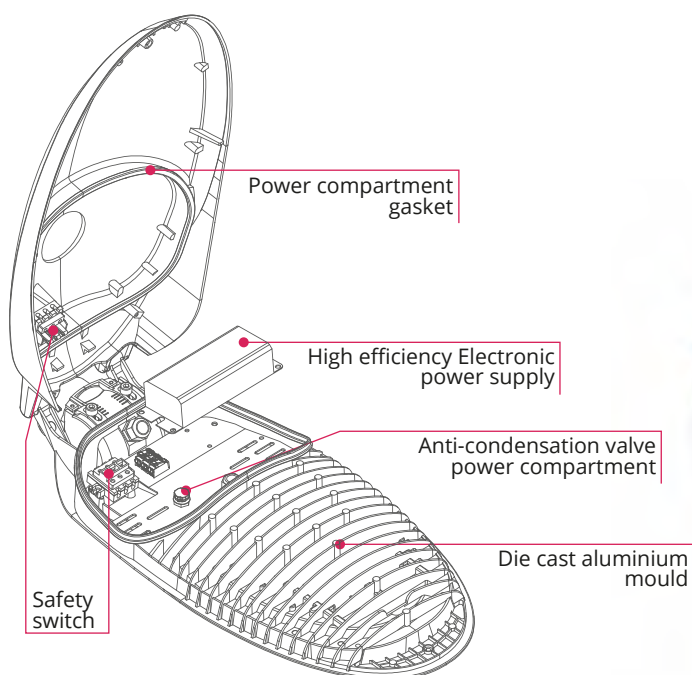
The power unit is thermally isolated from dissipation section thanks to the IP66 tight compartment with suitable gasket and condensation valve. Electrical safety switch, operating even during opening phase of the Fixture.

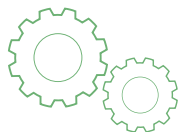
Flexibility and efficiency:

Compact LED Fixture, attractive design and excellent price / performance ratio, thanks to the use of high efficiency multichip LEDs in combination with performing secondary optics, satisfy lighting and power needs on street lighting.

Fast management and comfort:

Thanks to the Remote Control or the stand alone regulator of luminous flux it is possible to check the status and monitor consumption.





Technical features

STANDARD COLOR



Charcoal RAL 7024

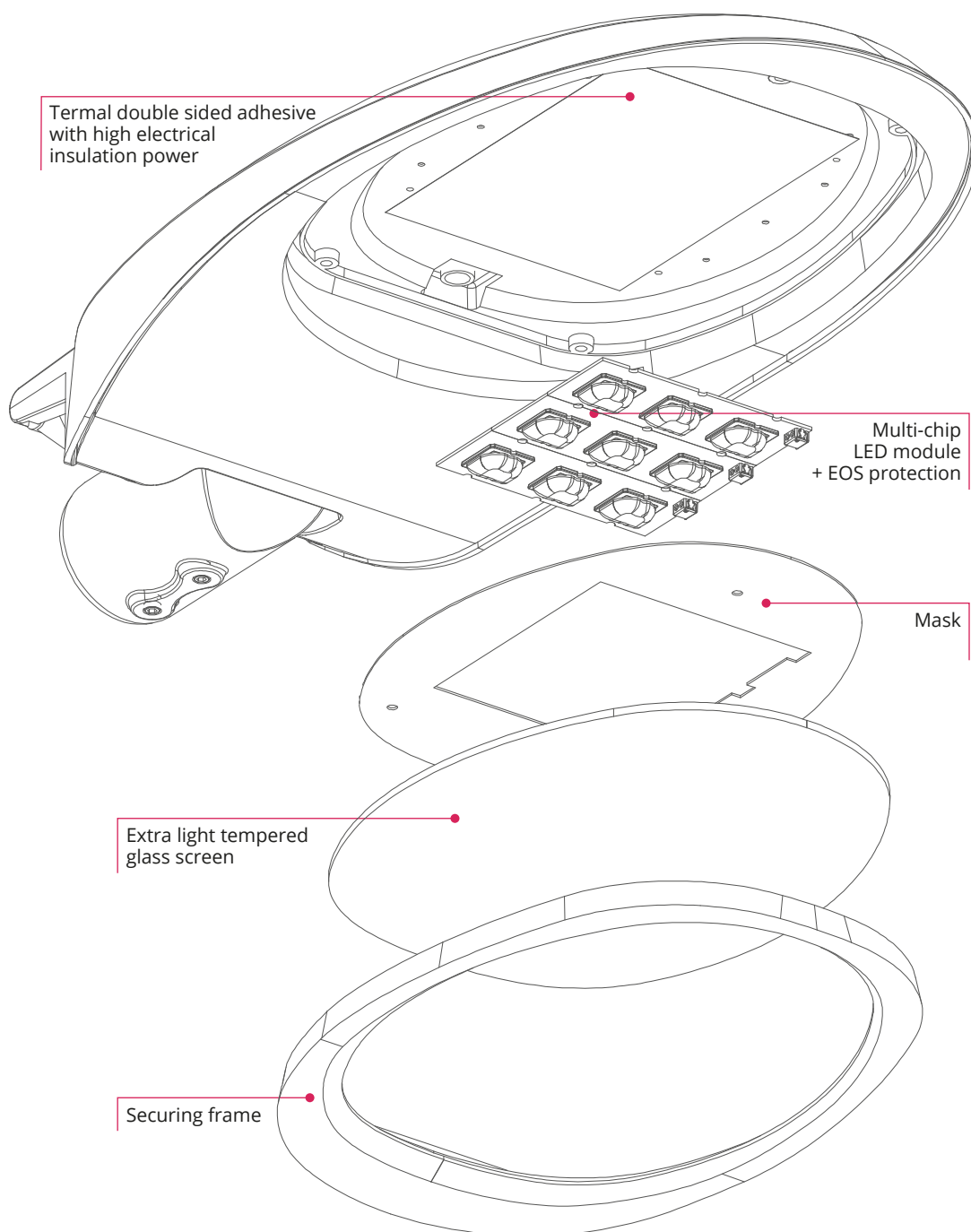
DETAILS

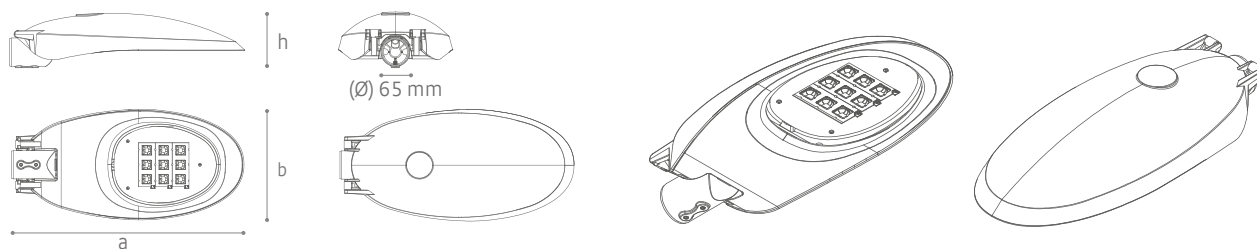
- Aluminium die cast body
- Color available:
Grey RAL 9006
- Flat tempered glass 4 mm
- Asymmetric street Photometry
- Fixture inclination: -15°...+15°
- Optical unit IP66
- Electric compartment IP66
- CCT Standard: N(4000k+-300k)
CCT Optional: W (3000k+-300k)
CCT Optional: C (5000K+-300k)
- Power factor: >0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency
 $\eta > 135 \text{ lm/W@700 mA}$
- Lifetime: 80.000 hrs
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Suburban roads
- Urban roads
- Traffic circle
- Traffic junctions
- Private roads
- Squares
- Cycling lanes
- Parking areas
- Pedestrian areas





• SIZE



a = 618 mm
b = 294 mm
h = 143 mm
Ø = 65 mm

• WEIGHT



w = 6,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
G3H-N[°°]-AN	25	3.240	3	4.000	700
G3H-C[°°]-AN	25	3.240	3	5.000	700
G3H-W[°°]-AN	25	2.700	3	3.000	700
G4H-N[°°]-AN	34	4.320	4	4.000	700
G4H-C[°°]-AN	34	4.320	4	5.000	700
G4H-W[°°]-AN	34	3.600	4	3.000	700
G5H-N[°°]-AN	42	5.400	5	4.000	700
G5H-C[°°]-AN	42	5.400	5	5.000	700
G5H-W[°°]-AN	42	4.500	5	3.000	700
G6H-N[°°]-AN	50	6.480	6	4.000	700
G6H-C[°°]-AN	50	6.480	6	5.000	700
G6H-W[°°]-AN	50	5.400	6	3.000	700
G7H-N[°°]-AN	59	7.560	7	4.000	700
G7H-C[°°]-AN	59	7.560	7	5.000	700
G7H-W[°°]-AN	59	6.300	7	3.000	700
G8H-N[°°]-AN	67	8.640	8	4.000	700
G8H-C[°°]-AN	67	8.640	8	5.000	700
G8H-W[°°]-AN	67	7.200	8	3.000	700
G9H-N[°°]-AN	75	9.720	9	4.000	700
G9H-C[°°]-AN	75	9.720	9	5.000	700
G9H-W[°°]-AN	75	8.100	9	3.000	700
GS10H-N[°°]-AN	84	10.800	10	4.000	700
GS10H-C[°°]-AN	84	10.800	10	5.000	700
GS10H-W[°°]-AN	84	9.000	10	3.000	700
GS11H-N[°°]-AN	92	11.880	11	4.000	700
GS11H-C[°°]-AN	92	11.880	11	5.000	700
GS11H-W[°°]-AN	92	9.900	11	3.000	700

ITEM CODE COMPOSITION

[°°] = A1 - A2 - A3 - A4



Available for solar applications (12V d.c. or 24V d.c.)

FEATURES

• Standard



• Optional

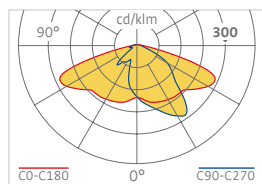


Photometric Features

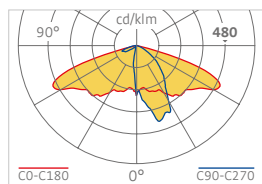
• ASYMMETRIC



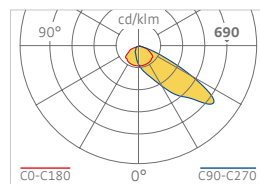
[A1] - Asymmetric 138°×50°



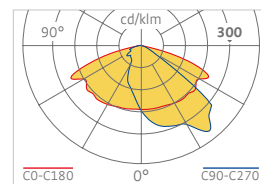
[A2] - Asymmetric 140°×40°



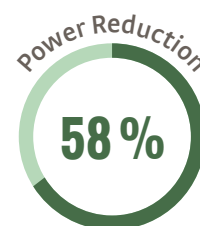
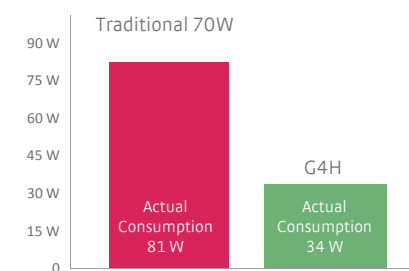
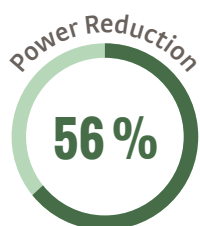
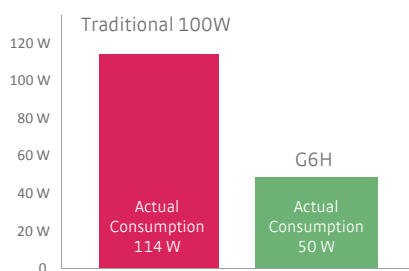
[A3] - Asymmetric 132°×60°



[A4] - Asymmetric 137°×70°



Energy saving



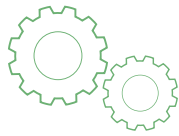
Available colors

Grey



Charcoal



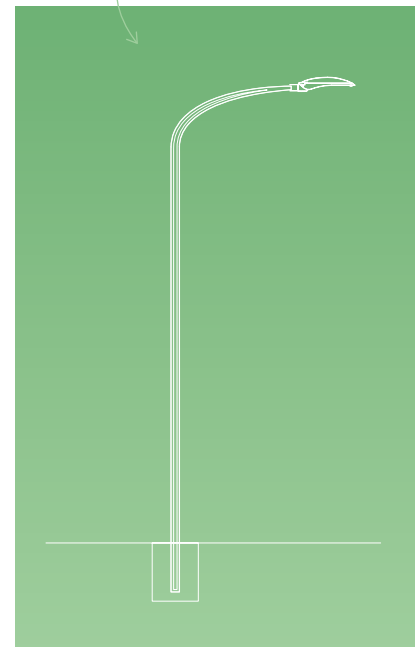
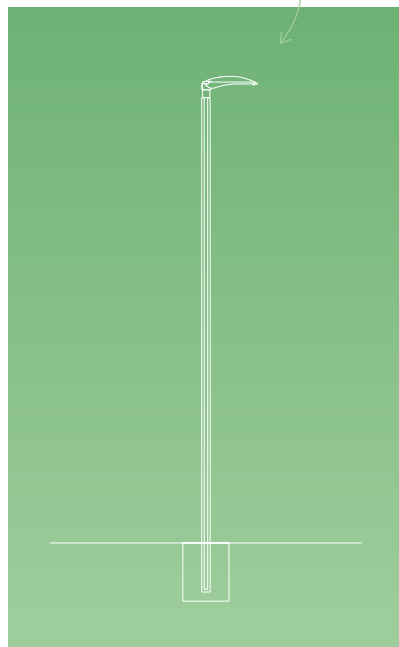
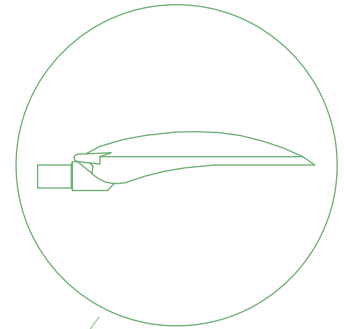
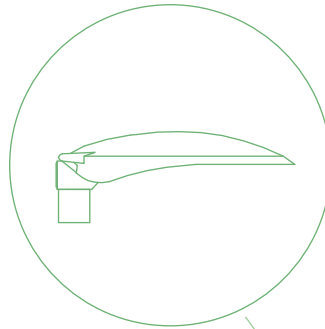


Mounting options

Integrated adjustable system (+15° / -15°)
for head - pole mounting

» On head - pole

» On pole with bracket

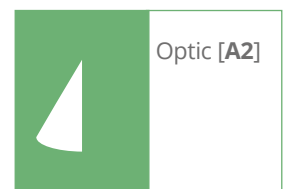
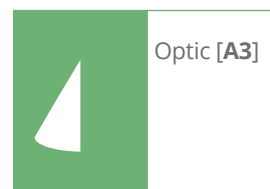
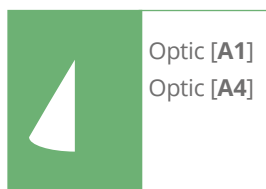


Recommended photometric options

Urban and suburban roads

Parking areas and traffic circles

Cycling pedestrian lanes







guida^M

The leading light on your road





Street



Tunnels



Commercial



Industrial



Urban



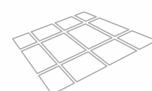
Sports



Large areas



Architectural



Photovoltaic

LED fixture for street
and urban lighting

Innovative Design



LED technology



Made in Italy Quality



Main features

Fixture composition: Die cast aluminium single body
Integrated die cast aluminium heat sink.
Extra light tempered glass screen.

Optical unit: Asymmetrical street lens with high precision collimators for light beam concentration.

Life span (L70B20): >80.000 h.

Montaggio: Integrated adjustable system on Arm or on Head - Pole mounting.

Focus: Body available in two colors, Anthracite Grey RAL 7024 (standard) and Grey RAL 9006 (optional).



Advantages

Protection and safety:

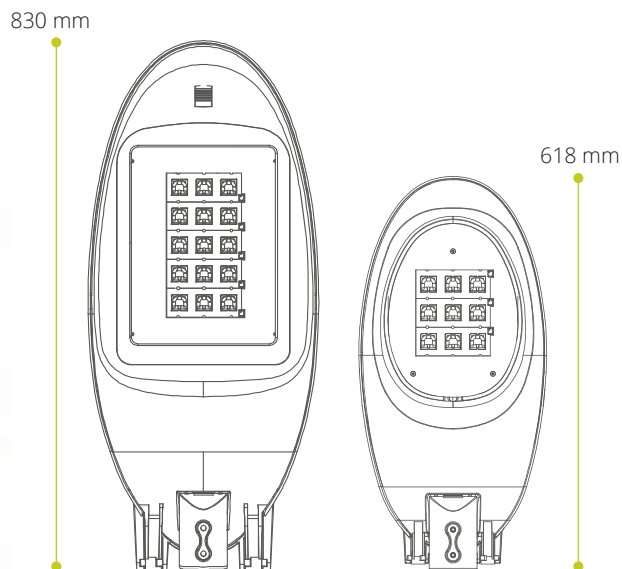
The power unit is thermally isolated from dissipation section thanks to the IP66 tight compartment with adequate gasket and condensation valve. Electrical safety switch, operating even during opening phase of the Fixture.

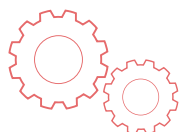
Excellent efficiency:

Use of high efficiency multichip LEDs in combination with performing secondary optics in order to satisfy all lighting needs.

Fast management and comfort:

Thanks to the Remote Control or the stand alone regulator of luminous flux it is possible to check the status and monitor consumption.





Technical features

STANDARD COLOR



Charcoal RAL 7024

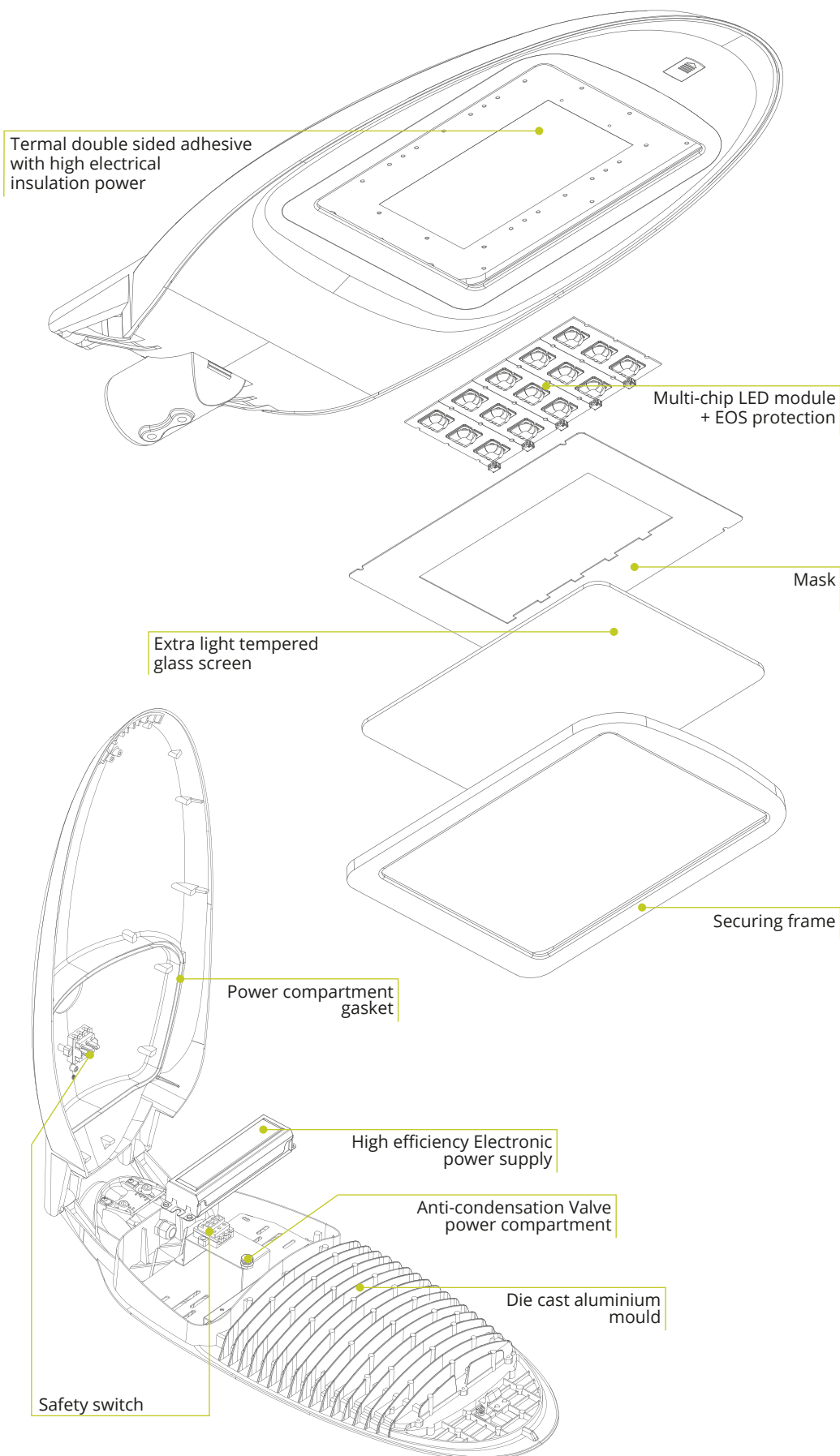
DETAILS

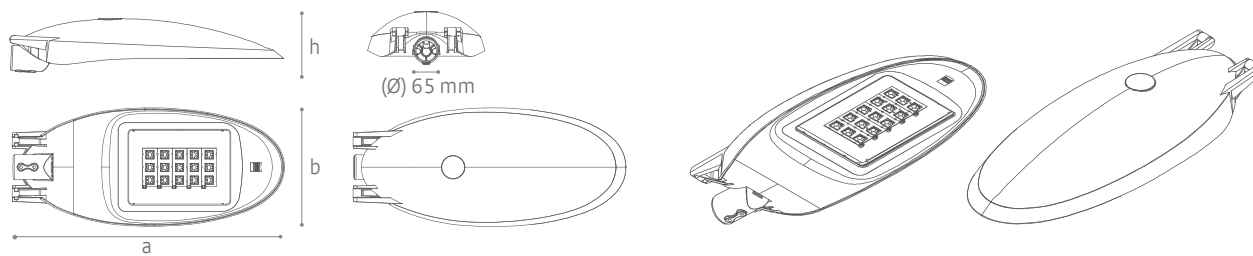
- Aluminium die cast body
- Flat tempered glass 4 mm
- Asymetric street Photometry
- Fixture inclination: -15°...+15°
- Optical unit IP66
- Electric compartment IP66
- CCT Standard:N(4000k+-300k)
CCT Optional:W (3000k+-300k)
CCT Optional:C (5000K+-300k)
- Power factor: > 0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency
 $\eta > 135 \text{lm/W @ 700mA}$
- Lifetime: 80.000 hrs
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Highways
- Suburban Roads
- Urban roads
- Traffic circle
- Traffic junctions
- Private roads
- Squares
- Parking areas





• SIZE



a = 830 mm
b = 360 mm
h = 175 mm
Ø = 65 mm

• WEIGHT



w = 11,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
G12H-N[°°]-AN	100	12.960	12	4.000	700
G12H-C[°°]-AN	100	12.960	12	5.000	700
G12H-W[°°]-AN	100	10.800	12	3.000	700
G13H-N[°°]-AN	109	14.040	13	4.000	700
G13H-C[°°]-AN	109	14.040	13	5.000	700
G13H-W[°°]-AN	109	11.700	13	3.000	700
G14H-N[°°]-AN	117	15.120	14	4.000	700
G14H-C[°°]-AN	117	15.120	14	5.000	700
G14H-W[°°]-AN	117	12.600	14	3.000	700
G15H-N[°°]-AN	125	16.200	15	4.000	700
G15H-C[°°]-AN	125	16.200	15	5.000	700
G15H-W[°°]-AN	125	13.500	15	3.000	700
G16H-N[°°]-AN	134	17.280	16	4.000	700
G16H-C[°°]-AN	134	17.280	16	5.000	700
G16H-W[°°]-AN	134	14.400	16	3.000	700
G17H-N[°°]-AN	142	18.360	17	4.000	700
G17H-C[°°]-AN	142	18.360	17	5.000	700
G17H-W[°°]-AN	142	15.300	17	3.000	700
G18H-N[°°]-AN	150	19.440	18	4.000	700
G18H-C[°°]-AN	150	19.440	18	5.000	700
G18H-W[°°]-AN	150	16.200	18	3.000	700

ITEM CODE COMPOSITION

[°°] = A1 - A2 - A4

FEATURES

• Standard



• Optional

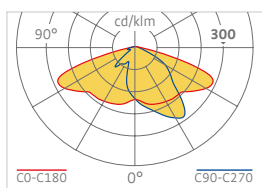


Photometric Features

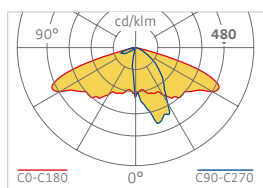
• ASYMMETRIC



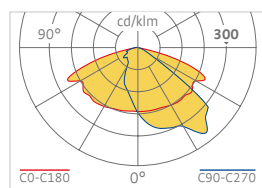
[A1] - Asymmetric 138°x50°



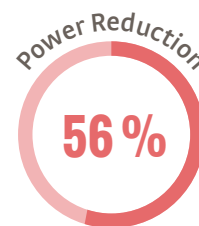
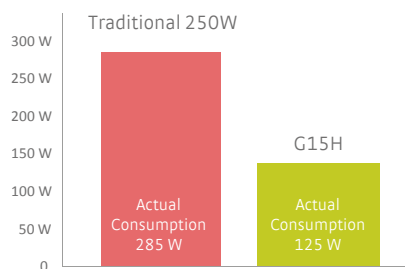
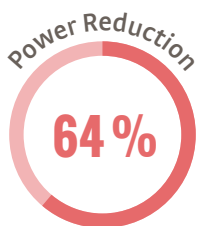
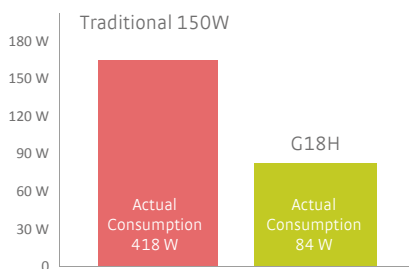
[A2] - Asymmetric 140°x40°



[A4] - Asymmetric 137°x70°



Energy saving

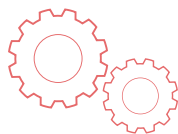
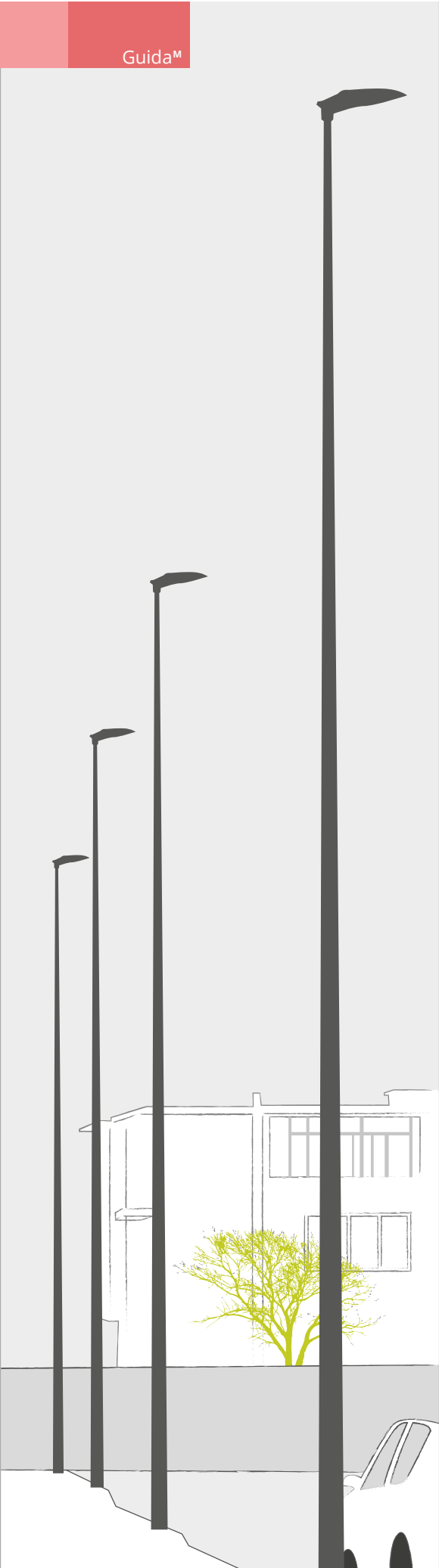


Available colors

Grey

Charcoal



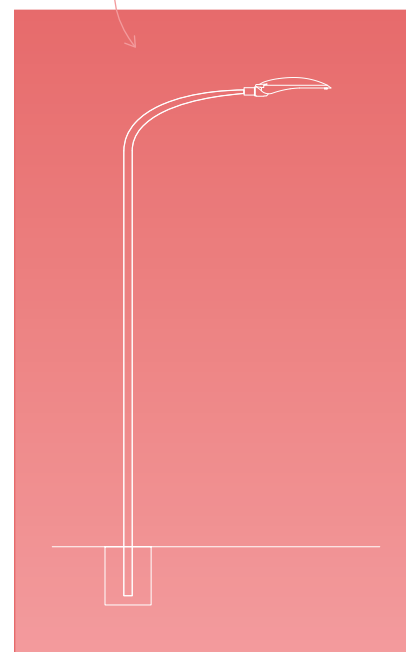
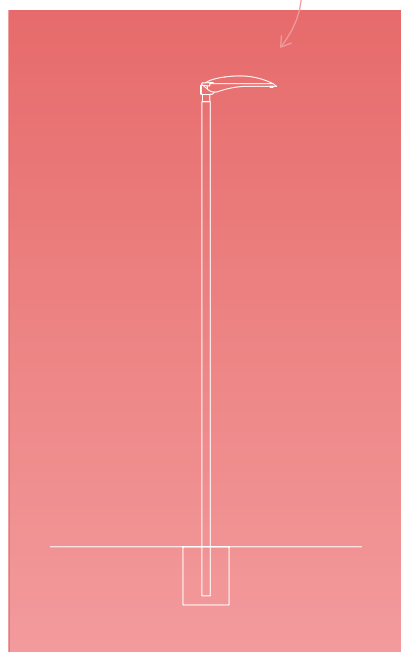
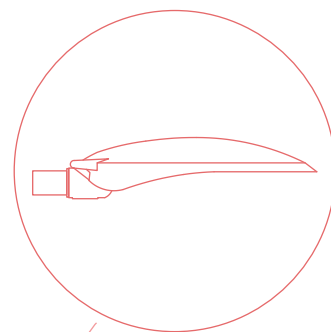
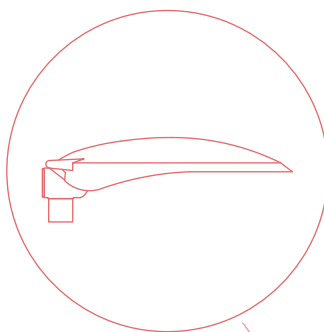


Mounting options

Integrated adjustable system (+15° / -15°)
for head- pole mounting

» On head - pole

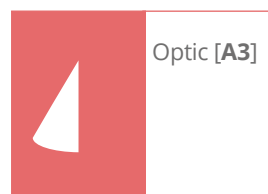
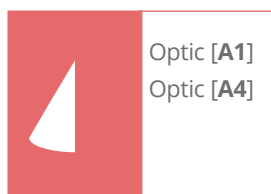
» On pole with bracket



Recommended photometric options

Urban and suburban roads

Parking areas and traffic circles







futura

The new look of the street





Street



Tunnels



Commercial



Industrial



Urban



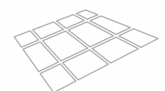
Sports



Large areas



Architectural



Photovoltaic

LED fixture for street
and urban lighting

Innovative design



LED technology



Made in Italy Quality



Main features

Fixture composition:

Die cast Aluminium single Body with wide cooling fins. Securing frame and ABS disconnecter door.

Optical unit:

Asymmetrical street lens full cut off with the high precision collimators for light beam concentration.

Life Span (L70B20): >80.000 h.

Mounting: On arm or head pole with fixed or adjustable accessory.

Focus: Built in compliance with the regulations against light pollution.



Advantages

Long Life Span:

The Die cast aluminium body, with wide cooling Fins guarantees long Life Span to LED Diodes. 10 years Guarantee on all metal components.

Maximum Efficiency and Resistance:

Power Compartment, optical and mechanical components are thermally insulated in order to increase Lamp efficiency and estimated Life span.

Coating is resistant to corrosion, abrasion, flaking and Saline Fog, features that allow strength against all negative weather conditions.

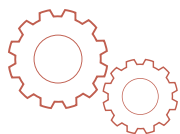
No maintenance:

The quality of each component used and the efficiency of self-cleaning system bring maintenance costs down.



Fast and Comfortable Management

Thanks to the remote control or the luminous flux Self-regulator is possible to check the status and monitor consumption.



Technical features

STANDARD COLOR



Charcoal RAL 7024

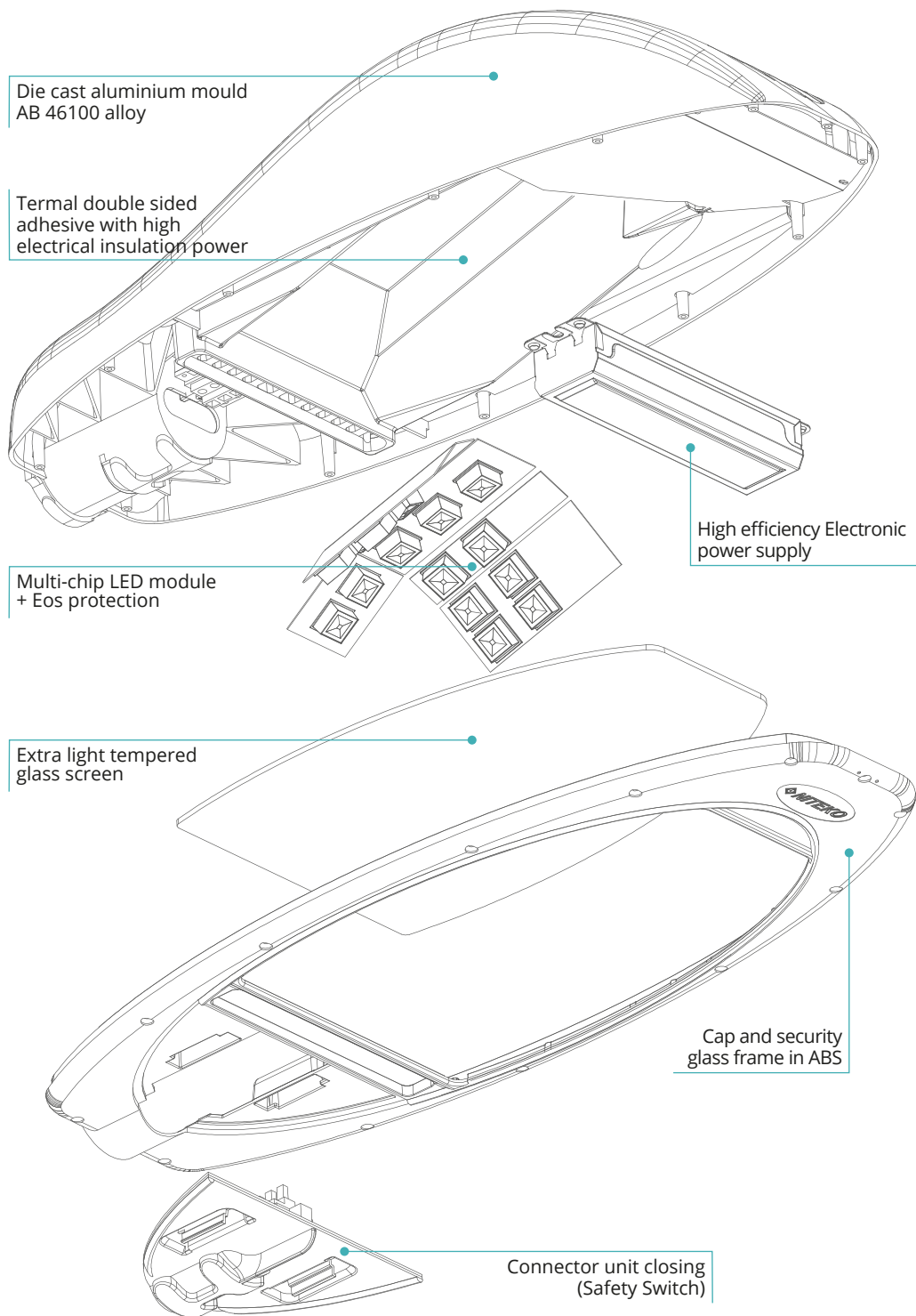
DETAILS

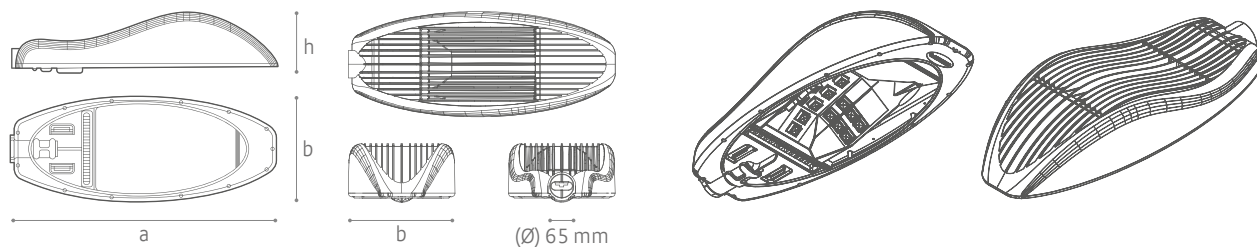
- Aluminium die cast body
- Other colors available on request
- ABS Securing glass frame
- ABS Sectioning flip
- Tempered glass 4 mm
- Optical unit IP66
- Control Gear compartment IP43
- Road Asymmetric photometry
- CCT Standard: N (4000K ± 300K)
CCT optional: W (3000K ± 300K)
CCT optional: C (5000K ± 300K)
- Power factor: >0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency $\eta > 125 \text{lm/W @ } 1000 \text{mA}$
- Lifetime: 80.000 h
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Highways
- Suburban Roads
- Urban roads
- Traffic circles
- Traffic junctions
- Private Roads
- Squares
- Parking areas





• SIZE



a = 730 mm
b = 157 mm
h = 288 mm
Ø = 65 mm

• WEIGHT



w = 10,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
F36H-N01-AN	75	9.720	9	4.000	700
F36H-C01-AN	75	9.720	9	5.000	700
F36H-W01-AN	75	8.100	9	3.000	700
F43H-N01-AN	92	11.430	9	4.000	850
F43H-C01-AN	92	11.430	9	5.000	850
F43H-W01-AN	92	9.540	9	3.000	850
F52H-N01-AN	109	13.050	9	4.000	1.000
F52H-C01-AN	109	13.050	9	5.000	1.000
F52H-W01-AN	109	10.890	9	3.000	1.000
F60H-N01-AN	121	15.980	17	4.000	600
F60H-C01-AN	121	15.980	17	5.000	600
F60H-W01-AN	121	13.260	17	3.000	600
F68H-N01-AN	142	18.360	17	4.000	700
F68H-C01-AN	142	18.360	17	5.000	700
F68H-W01-AN	142	15.300	17	3.000	700

FEATURES

• Standard



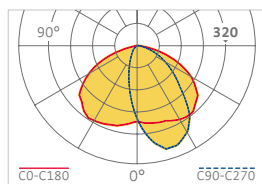
• Optional



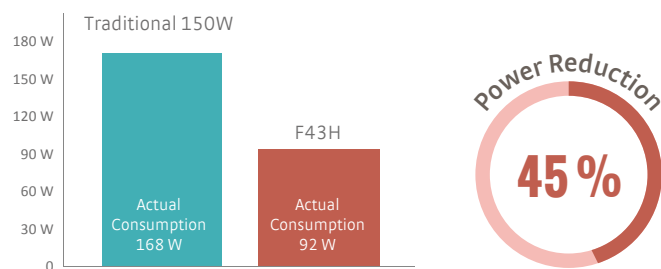
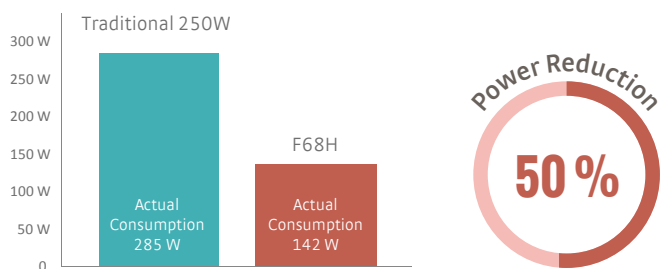
Photometric features

• ASYMMETRIC

[01] - Asymmetric 120° x 40°



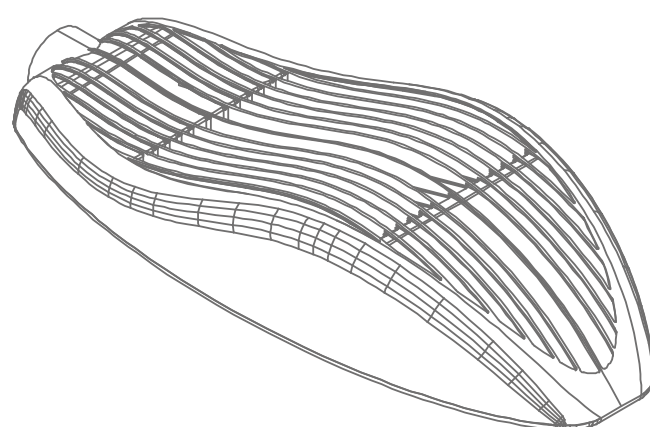
Energy saving



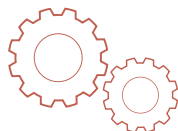
Available colors



Charcoal



Customized on request



Mounting options

Standard mounting on arm



On pole with bracket



On wall bracket



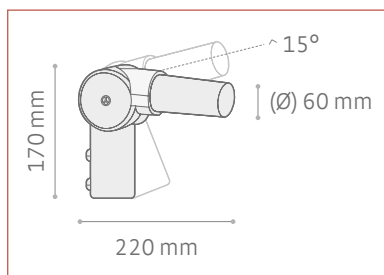
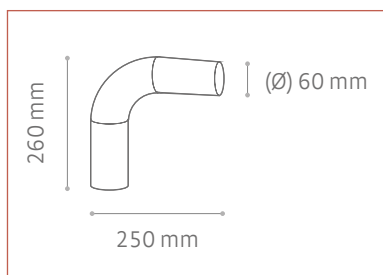
Optional head pole mounting



KM-F-TP / Fixed head pole



KM-F-OR / Adjustable head pole







zenith

The technology of the future
and the Charm of the Past





VOC FREE



Street



Tunnels



Commercial



Industrial



Urban



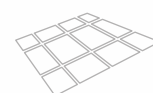
Sports



Large areas



Architectural



Photovoltaic

LED fixture
for urban lighting



Main features

Fixture composition: Die cast aluminium single body suitable for anchoring on pole or hanging.

Optical unit: Asymmetric and roto symmetric optics.

Life Span (L70B20): >80.000 h.

Remote control (optional): luminous flux Self-regulator on demand - status check and consumption control.

Mounting: Head-pole (standard), or hanging (through special accessories supplied on demand).

Focus: With the choice of Zenith is possible to receive a report on the calculation of the time needed to compensate the investment (PAY BACK).



Advantages

LED technology innovation for street traditional furniture:

Zenith is a technologically advanced lamp that allow to enjoy LED benefits preserving the look of traditional urban centers, avenues and historical/old town centers.

Ecofriendly and care of citizens:

LED doesn't contain toxic or harmful materials like Gas and mercury vapors as for traditional lamps.

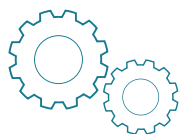
Zenith is an Ecofriendly product since it is produced using recyclable materials and its components are fractionable, disposable and recyclable.

Benefits for the Public administration

The usage of LED lamps technology allows to save up to 60% of electric power. The life span of Zenith is more than 5 times higher compared to the best discharge lamps (80.000hrs vs 15.000hrs if compared in terms of luminous flux decay).

With more than 15 years of continuous working, 12hrs a day, Zenith doesn't need any ordinary maintenance cost during this period of time.





Technical features

STANDARD COLOR



Antiqued black RAL 9011

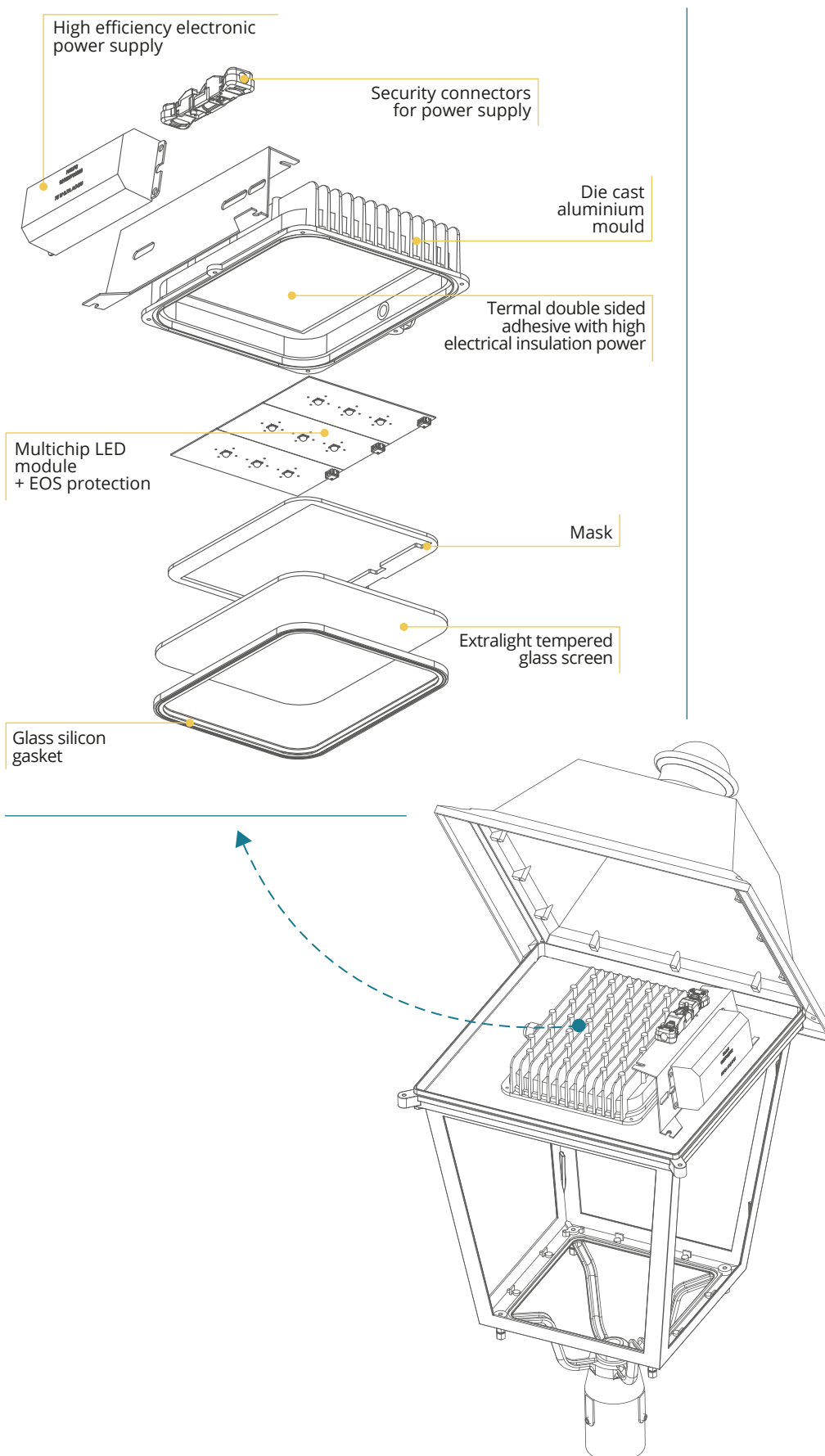
DETAILS

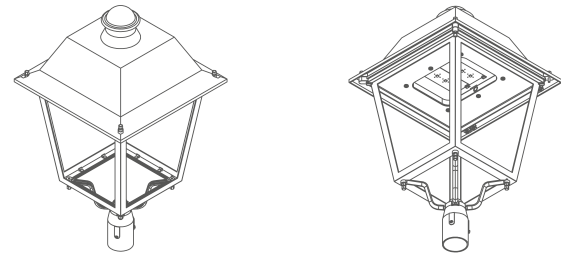
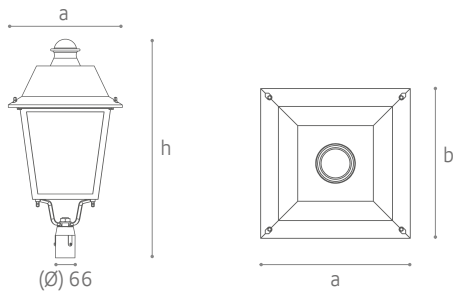
- Aluminium die cast body
- asymmetric and rotosymmetric optics
- CCT Standard: N (4000K ± 300K)
CCT optional: W (3000K ± 300K)
CCT optional: C (5000K ± 300K)
- Power factor: > 0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency
 $\eta > 135 \text{ lm/W @ 700mA}$
- Lifetime: 80.000 h
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Street furniture
- Old town center
- Square
- Avenues
- Pathways
- Parks
- Gardens
- Pedestrian areas





• SIZE



a = 425 mm
b = 425 mm
h = 760 mm
Ø = 66 mm

• WEIGHT



w = 10,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
Z3H-N[°]	25	3.240	3	4.000	700
Z3H-C[°]	25	3.240	3	5.000	700
Z3H-W[°]	25	2.700	3	3.000	700
Z4H-N[°]	34	4.320	4	4.000	700
Z4H-C[°]	34	4.320	4	5.000	700
Z4H-W[°]	34	3.600	4	3.000	700
Z6H-N[°]	50	6.480	6	4.000	700
Z6H-C[°]	50	6.480	6	5.000	700
Z6H-W[°]	50	5.400	6	3.000	700
Z8H-N[°]	67	8.640	8	4.000	700
Z8H-C[°]	67	8.640	8	5.000	700
Z8H-W[°]	67	7.200	8	3.000	700
Z9H-N[°]	75	9.720	9	4.000	700
Z9H-C[°]	75	9.720	9	5.000	700
Z9H-W[°]	75	8.100	9	3.000	700

ITEM CODE COMPOSITION

[°] = A1 - R1

FEATURES

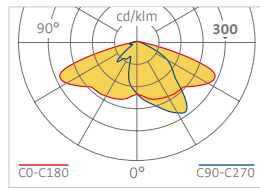
• Standard																
• Optional																

Photometric features

• ASYMMETRIC



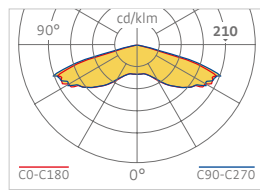
[A1] - Asymmetric 138°x50°



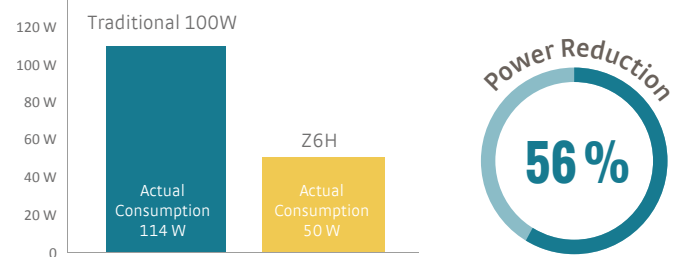
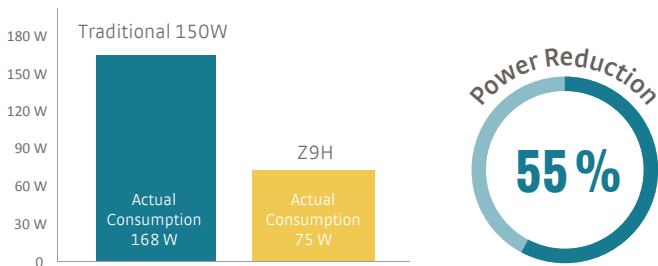
• ROTOSIMMETRYC



[R1] - Rotosimmetryc 138°x50°



Energy saving



Available colors

Antiqued black

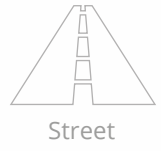




victoria

Light up the History





Street



Tunnels



Commercial



Industrial



Urban



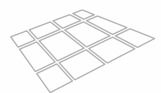
Sports



Large areas



Architectural



Photovoltaic

LED fixture
for urban lighting



Main features

Fixture composition: Die cast aluminium single body.

Optical unit: Asymmetric and rotosymmetric optical.

Life Span (L70B20): >80.000 h.

Remote control (optional): luminous flux Self regulator on demand - status check and consumption control.

Mounting: Head-pole (standard), or hanging (through special accessories supplied on demand).

Focus: With the choice of Victoria is possible to receive a report on the calculation of the time needed to compensate the investment (PAY BACK).



Advantages

LED technology innovation in street furniture:

Victoria is a technologically advanced lamp that allow to use LED benefits preserving urban centers, avenues and historical/old town centers classic charm.

Benefits for the Public administration:

The usage of LED lamps technology allows to save up to 60% of electric power. The life span of Victoria is more than 5 times higher compared to the best discharge lamps (80.000hrs vs 15.000hrs if compared in terms of luminous flux decay).

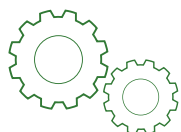
During this period Victoria doesn't need any ordinary maintenance cost .

ECOFRIENDLY AND CARE OF CITIZENS

LED doesn't contain toxic or harmful materials like Gas and mercury vapors as for traditional lamps.

Victoria is an Ecofriendly product since it is produced using recyclable materials and its components are fractionable, disposable and recyclable.





Technical features

STANDARD COLOR



Antiqued black RAL 9011

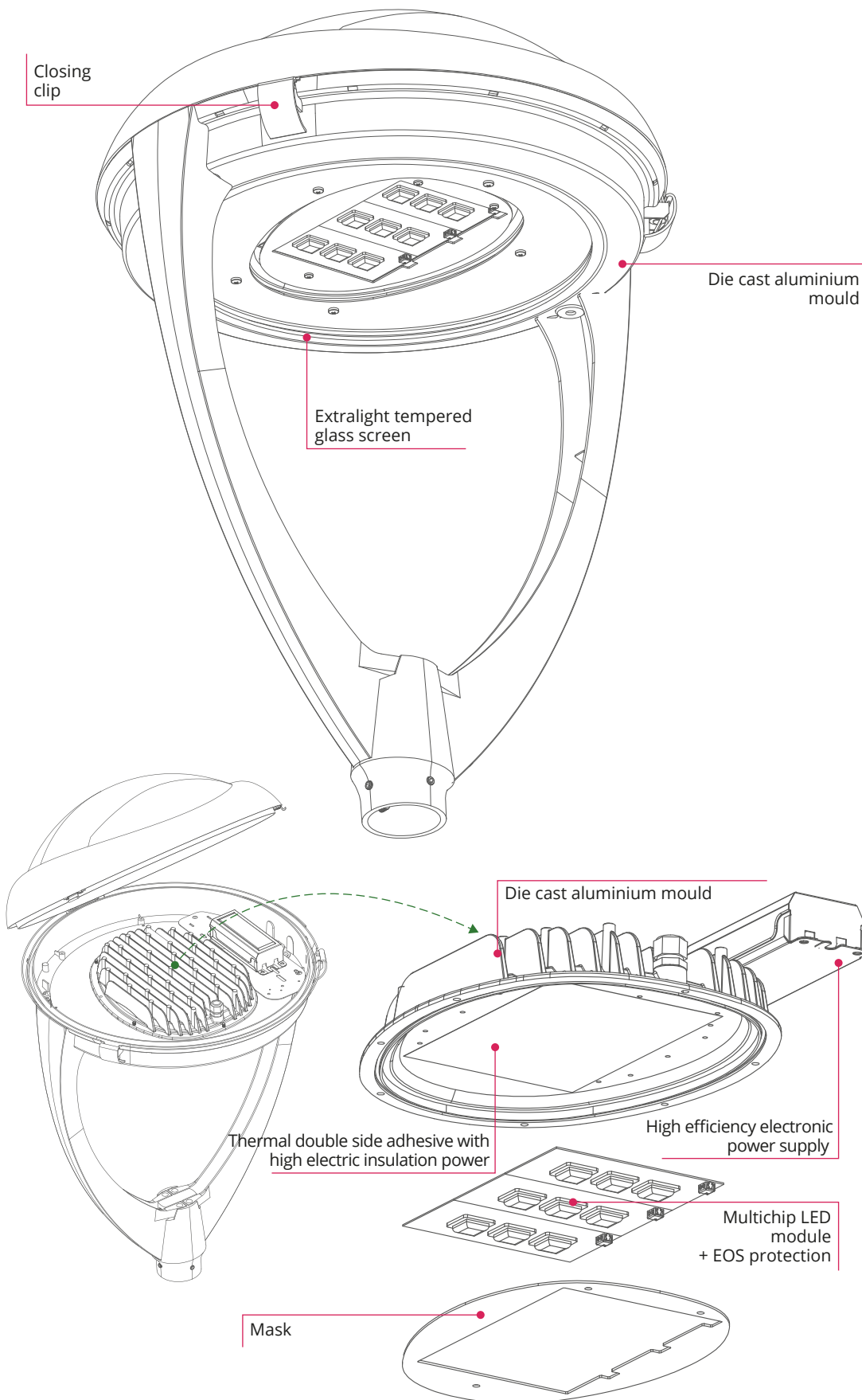
DETAILS

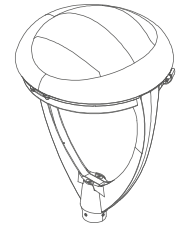
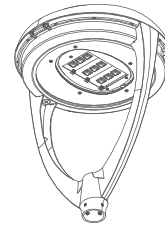
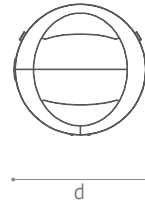
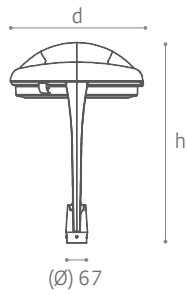
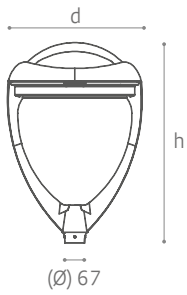
- Aluminium die cast body
- Asymmetric and rotosymmetric optics
- CCT Standard: N (4000K ± 300K)
CCT optional: W (3000K ± 300K)
CCT optional: C (5000K ± 300K)
- Power factor: > 0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency
 $\eta > 135 \text{lm/W @ 700mA}$
- Lifetime: 80.000 h
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Street furniture
- Old town center
- Squares
- Avenues
- Pathways
- Parks
- Gardens
- Pedestrian areas





• SIZE

d = 530 mm
h = 800 mm
Ø = 67 mm

• WEIGHT

w = 13,0 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
V3H-N[°]	25	3.240	3	4.000	700
V3H-C[°]	25	3.240	3	5.000	700
V3H-W[°]	25	2.700	3	3.000	700
V4H-N[°]	34	4.320	4	4.000	700
V4H-C[°]	34	4.320	4	5.000	700
V4H-W[°]	34	3.600	4	3.000	700
V6H-N[°]	50	6.480	6	4.000	700
V6H-C[°]	50	6.480	6	5.000	700
V6H-W[°]	50	5.400	6	3.000	700
V8H-N[°]	67	8.640	8	4.000	700
V8H-C[°]	67	8.640	8	5.000	700
V8H-W[°]	67	7.200	8	3.000	700
V9H-N[°]	75	9.720	9	4.000	700
V9H-C[°]	75	9.720	9	5.000	700
V9H-W[°]	75	8.100	9	3.000	700

ITEM CODE COMPOSITION

[°] = A1 - R1

FEATURES

• Standard

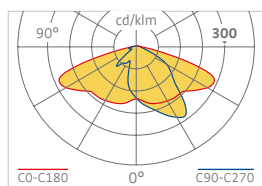
• Optional

Photometry features

• ASYMMETRIC



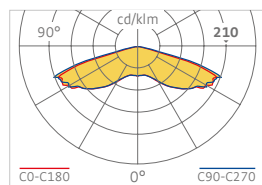
[A1] - Asymmetric 138°x50°



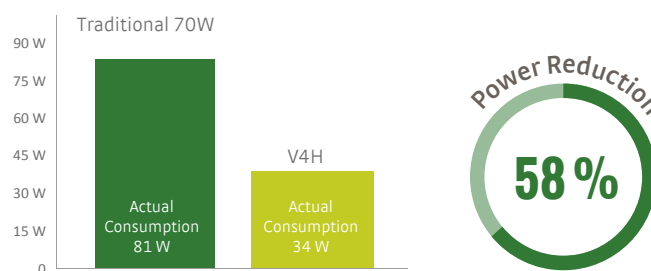
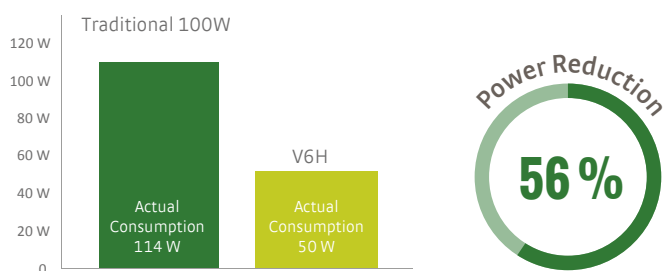
• ROTOSIMMETRYC



[R1] - Rotosimmetryc 138°x50°



Energy saving



Available colors

Antiqued black

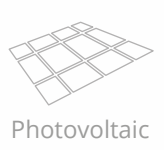
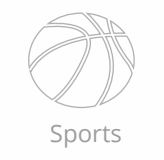
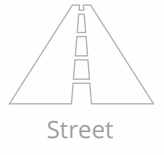




urban kit

Technology meets tradition





Relamping LED Kit



Main features

Optical unit: asymmetric and rotosymmetric optics

Life Span (L70B20): >80.000 h.

Remote Control (Optional): luminous flux Self-regulator on demand- status check and consumption control.

Focus: Urban Kit is suitable to any kind of urban fixture, not only to the Lanterns with historical and cultural value, but also to the new generation of lighting Fixtures using traditional lighting Technology.



Advantages

Modernization of existing products:

An illuminating kit using LED technology fits perfectly inside the existing fixture, allowing to maintain the historical and cultural value of the Lantern and at the same time to take advantage of a modern technology and its benefits on energy saving. Urban Kit can be used also to transform traditional recessed fixtures (for example for platform roofs lighting)

Easy to install:

Urban Kit mounting doesn't require structural changes of the fixture and is carried out without difficulty in short time.



Remote Control option available

Thanks to wireless or power line carrier technology, consumption and the right operation of the device (Status check) are monitored.

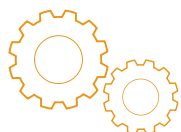
Double saving:

1 Immediate:

thanks to the purchase of the technology, without the need of the external structure.

2 Over time:

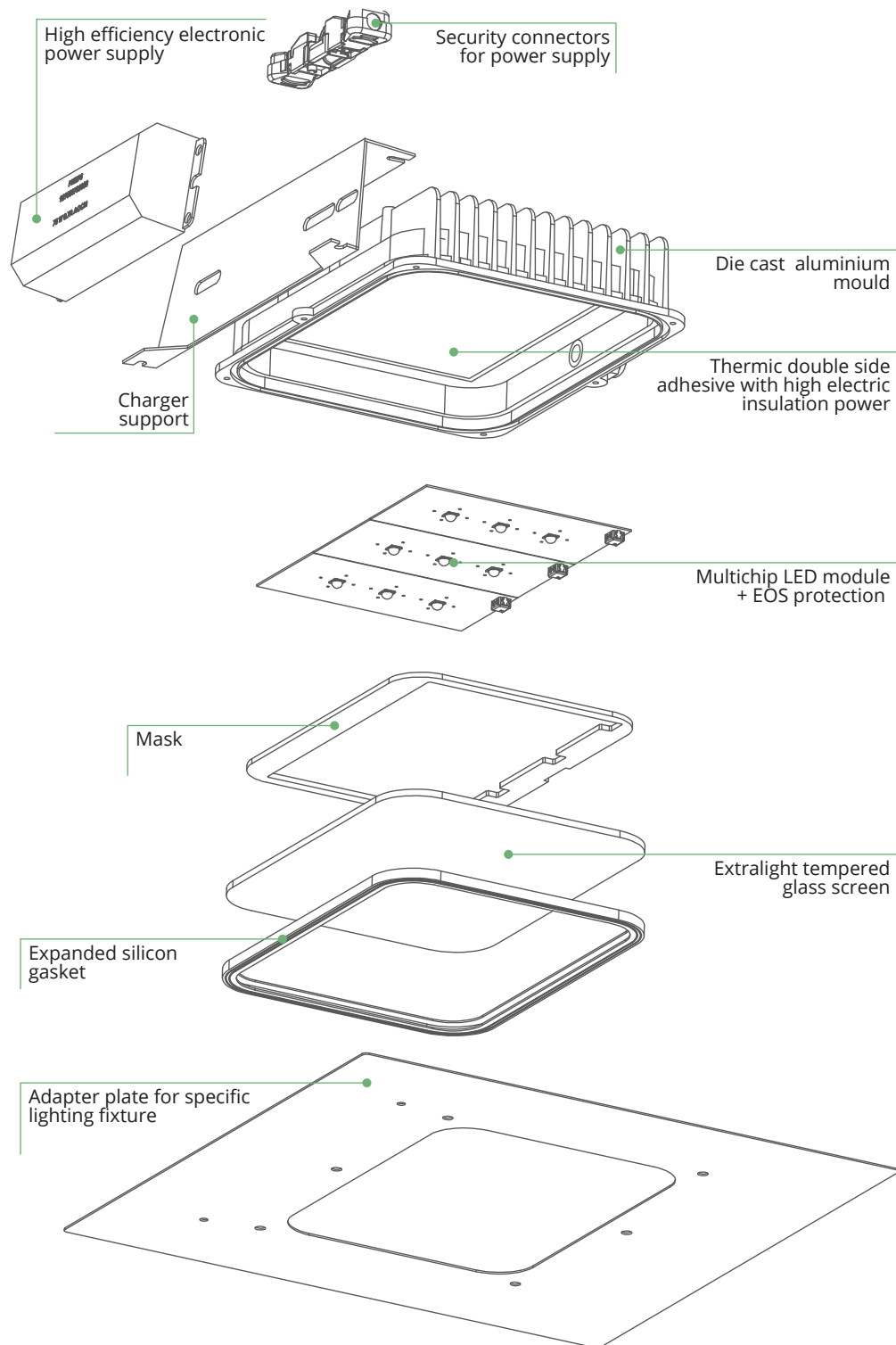
through consumption and maintenance costs saving.



Technical features

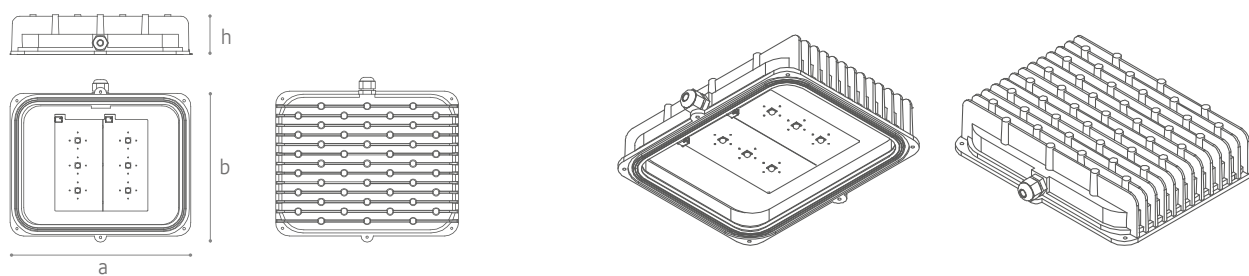
DETAILS

- Die cast aluminium body
- Asymmetric and rotosymmetric optics
- CCT Standard: N (4000K±300K)
CCT optional: W (3000K±300K)
CCT optional: C (5000K±300K)
- Power factor: > 0.97
- CRI (Ra) Standard: 70...79
- Luminous source efficiency
 $\eta > 135 \text{lm/W @ 700mA}$
- Lifetime: 80.000 h.
- Optional dimmable Driver
- Multichip LED Lumileds



APPLICATIONS

- Street furniture
- Old town center
- Squares and pedestrian areas
- Avenues, paths, parks, gardens



• SIZE

a = 239 mm
 b = 205 mm
 h = 53 mm

• WEIGHT

w = 2,5 Kg

Code	P [W]	F [lm]	No. LED	CCT [K]	I _F [mA]
K3H-N[°°]	25	3.240	3	4.000	700
K3H-C[°°]	25	3.240	3	5.000	700
K3H-W[°°]	25	2.700	3	3.000	700
K4H-N[°°]	34	4.320	4	4.000	700
K4H-C[°°]	34	4.320	4	5.000	700
K4H-W[°°]	34	3.600	4	3.000	700
K5H-N[°°]	42	5.400	5	4.000	700
K5H-C[°°]	42	5.400	5	5.000	700
K5H-W[°°]	42	4.500	5	3.000	700
K6H-N[°°]	50	6.480	6	4.000	700
K6H-C[°°]	50	6.480	6	5.000	700
K6H-W[°°]	50	5.400	6	3.000	700
K8H-N[°°]	67	8.640	8	4.000	700
K8H-C[°°]	67	8.640	8	5.000	700
K8H-W[°°]	67	7.200	8	3.000	700
K9H-N[°°]	75	9.720	9	4.000	700
K9H-C[°°]	75	9.720	9	5.000	700
K9H-W[°°]	75	8.100	9	3.000	700

ITEM CODE COMPOSITION

[°°] = A1 - R1 - 00 - 80

FEATURES

• Standard

• Optional

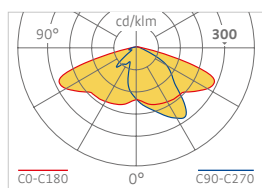
Photometric features

Artistic lighting fixtures

• ASYMMETRIC



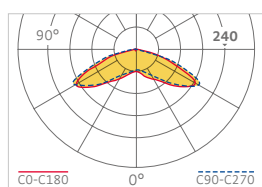
[A1] - Asymmetric 138°x50°



• ROTOSIMMETRYC



[R1] - Rotosimmetryc 154°

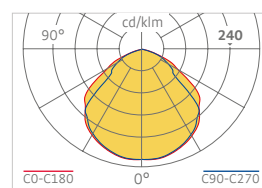


Recessed lighting fixtures

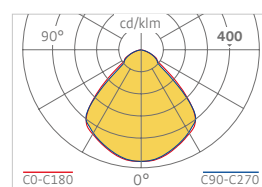
• SYMMETRIC



[00] - Symmetric 105°



[80] - Symmetric 90°



Applications

Artistic lighting fixtures retrofit



Recessed lighting fixture retrofit







R G B

urano

Led light at the service of art



Made in Italy

YEARS WARRANTY
5



Street



Tunnels



Commercial



Industrial



Urban



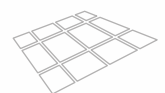
Sports



Large areas



Architectural



Photovoltaic



Architectural and artistic
LED floodlight

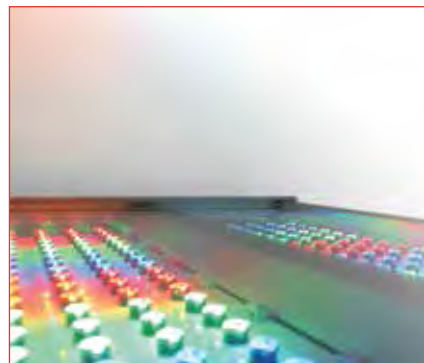
Innovative design



LED technology



Made in Italy Quality



Main features

Fixture composition: extruded aluminum single body with wide cooling fins.

ABS side caps. Tempered glass screen (4 mm)

Optical unit: LED modules equipped with high precision secondary collimators for light beam concentration.

Life Span (L70B20): >80.000 h.

Mounting: Fixing bracket for floodlight adjustment to +/-90° and 5° increases available on side frameworks, made on techno polymer to avoid the phenomenon of galvanic corrosion in coupling between the two metals.



Advantages

Control and regulation: through **DMX512** transmission protocol is possible to set and control, thanks to a director console, the followings functions:

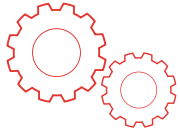
- ◇ light intensity
- ◇ light beam color
- ◇ color sequence
- ◇ beam intermittence

RDM Protocol: it is provided the setting from pc of dmx address through rdm protocol, that allows bi-directional control of the devices on the dmx wiring.



Focus

Related to different plant design and installation need, several kind of connectors are available.(XLR-3, XLR-5, RJ45).



Technical features

STANDARD COLOR



BODY: Anodized grey
CAPS: Grey RAL 7035

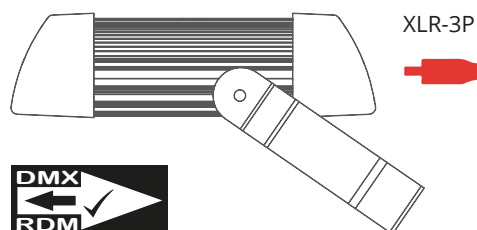
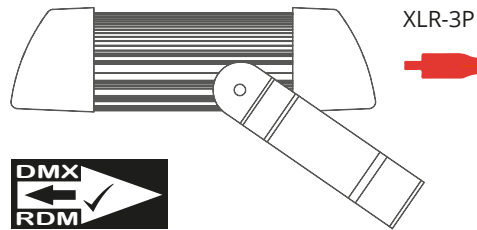
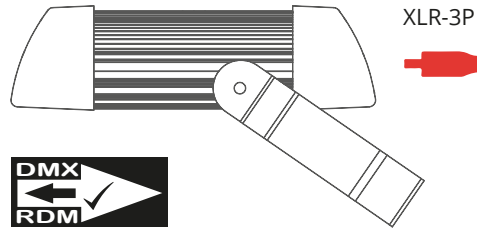
DETAILS

- Extruded aluminium body
- Lateral caps in ABS
- Tempered glass screen (4 mm)
- Optional colour:
 - Smokey grey satin body
 - Caps grey RAL 7023
- Optional colour:
 - Black satin body
 - Caps grey RAL 7024
- Adjustable bracket
- Power factor: > 0.90
- Lifetime: 80.000 h
- Wavelength:
 - **RED:** 620 ÷ 630 nm
 - **GREEN:** 520 ÷ 535 nm
 - **BLU:** 450 ÷ 465 nm
- LED monochip RGB Color CREE



APPLICATIONS

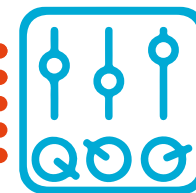
- Museum and architectural
- Illuminazione artistica e scenografica



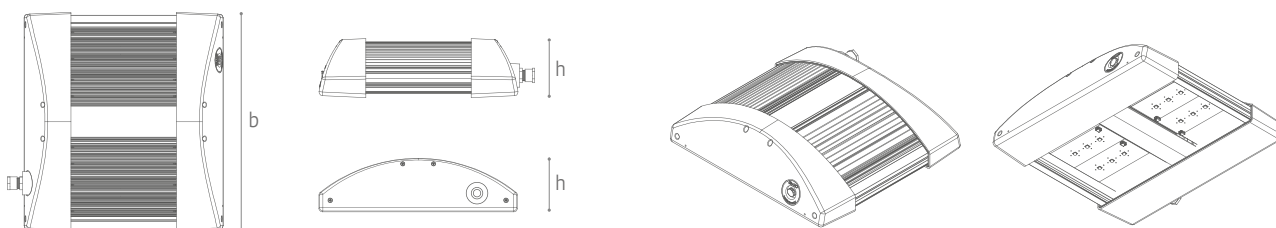
Architecture

Example of DMX address setting through RDM protocol

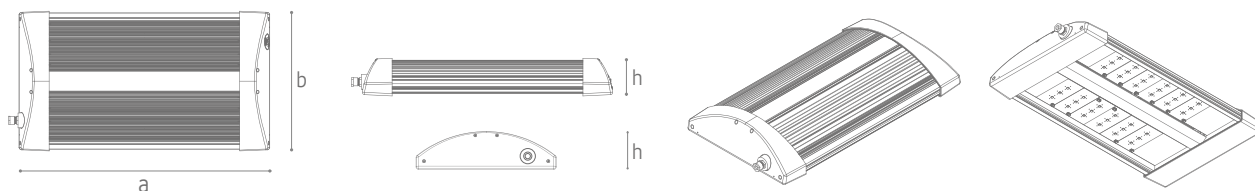
CONTROL UNIT
USB-DMX512



Urano S



Urano L



• SIZE



- U72H: a = 390 mm
b = 416 mm
h = 112 mm
- U144H: a = 740 mm
b = 416 mm
h = 112 mm

• WEIGHT



- U72H: w = 8,0 Kg
- U144H: w = 17,0 Kg

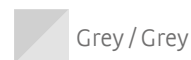
Code	P [W]	F [lm]	No. LED	COLOR	I _F [mA]
U72H-RGB[°°]-GR	165	7.540	72	R-G-B	up to 700 mA
U144H-RGB[°°]-GR	303	14.300	144	R-G-B	up to 700 mA

ITEM CODE COMPOSITION

[°°] = 70 - 50 - 25 - 15



Available colors



FEATURES

• Standard



• Optional

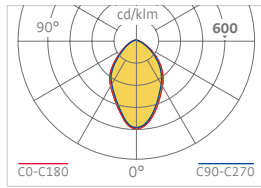


Photometric features

• SYMMETRIC WIDE BEAM



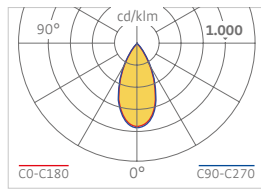
[70] - Symmetric 70°



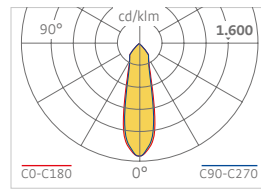
• SYMMETRIC NARROW BEAM



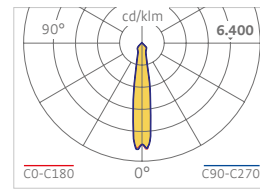
[50] - Symmetric 50°



[25] - Symmetric 25°



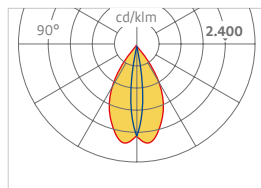
[15] - Symmetric 15°



• ELLIPTIC



[E1] - Elliptic 45°x25°





Symbols guidelines

Applications



Street



Photovoltaic



Sports



Tunnels



Industrial



Architectural



Urban



Large areas



Commercial

Light source icons



LED

LED source



LED RGB

RGB LED source

Technical parameters



Flux

Fixture luminous flux
(T_j=85°C)

Power

Power consumption
(T_j=85°C)

General symbols



CE

CE Certificate



RoHS

RoHS Certificate



ENEC

ENEC Certificate



TUV

TUV Certificate



GHOST-R

GHOST-R Certificate



KSA-PCP

KSA-PCP Certificate



UV Emission

Absent



Indoor

Suitable only for indoor installation



Outdoor

Suitable only for outdoor installation



In/Outdoor

Suitable for both indoor and outdoor installation



Class I

Class I fixture (connected to electrical earth)



Class II

Class II fixture (double insulation)



Class III

Class III fixture



AC Voltage

Voltage of the fixture



DC Voltage

Voltage of the fixture



SPD

Surge Protection Device (10KV)



Flammability

Suitable for installation on flammable surfaces



Anti-corrosion

Coating that affords the fixture protection against chemicals



Eco-friendly

Recyclable fixture



Temperature

Maximum and minimum operating temperature



Exposure

Wind exposure



Max Weight

Maximum weight of the fixture



Wide beam

The fixture has a wide light beam emission



Spot beam

The fixture has a narrow light beam emission



Asym. beam

The fixture has an asymmetric light beam emission



Rotosimmetryc

The fixture has an rotosimmetryc light beam emission



Elliptic

The fixture has an elliptic light beam emission



Cut-off

Fixture with a limited upward dispersion of the luminous flux



Personal Computer

Suitable for installation in offices where the main activity is on computers



Lifetime

Life Span (L70B20)



IK code

Protection against mechanical impacts



IP code

Degree of protection provided against intrusion, dust, accidental contact, and water by mechanical casings



IP code

Degree of protection provided against intrusion, dust, accidental contact, and water by electrical enclosures.



CRI

Chromatic Rendering Index (Ra)



CCT

Correlated Colour Temperature
[W (3000K ± 300K) - N (4000K ± 500K) - C (5000K ± 500K)]

DMX

DMX512 (Digital Multiplex) standard (for URANO RGB)



Programmable LED driver

Autonomous dimming via integrated DynaDimmer



1-10V analog dimm.

1-10V dimmable led driver



DALI

DALI protocol led driver



PLV

Mains amplitude dimming (AmpDim)



Remote control

Power-line communication (PLC)t



Wireless remote control

ZigBee radio controlled device



Emergency Kit

Emergency kit complete with 1h battery pack

TELECONTROL AND FLOW ADJUSTMENT

series
Light Cloud

How to reduce
consumption
and save money
in a smart way

IMPROVING LIGHT EFFICIENCY

*LED and remote control:
the future of lighting*



The transition from conventional lamps to LEDs is definitely the most important element of discontinuity that has ever affected the lighting market. The world economy crisis and the constant pursuit of lighting solutions less energy intensive, have given a boost to this trend, which is also supported by financial incentives and legislative initiatives in many countries around the world.

ACCORDING TO THE INTERNATIONAL ENERGY AGENCY 19% OF THE WORLD ENERGY CONSUMPTION IS DUE TO LIGHTING.

Governments have taken steps in two directions: banning less virtuous technologies and introducing rules to encourage energy efficiency. This is turning out to be a very strong incentive for LED light sources spread, since they can assure the double advantage of long life and low power consumption. However, only the combination with an effective remote control system can really allow the

replacement of traditional lighting with LED to realize its maximum energy saving potential.

Not by chance, the document published in December 2013 by the Ministry of Environment concerning the **Minimum Environmental Criteria for the purchase of public lighting lamps and equipment** (which integrates the Italian Action Plan for Energy Efficiency), declares:

“ Provided that a lighting system must give users the required security and lighting comfort levels, the contracting authority must take into account the need to:

- reduce energy consumption;
- reduce light pollution;
- increase the average components' life and therefore reduce ordinary and extraordinary maintenance;
- entrust the design, installation and operation of systems and components to qualified professionals;
- improve management efficiency using wherever possible an automated remote control system.

According to an ENEA research the **replacement of traditional bulbs with LEDs allow to halve the electrical energy consumption** in industrial field. Savings may rise even up to 70%, based on the plants' conditions.

An **additional energy saving** - usually between 20% and 30% - **could be allowed by a remote control system** able to automate the luminous flux modulation of each luminaire (or group of luminaires) based on rules and schedules.

LED+remote control 70% ≈ 90%

ENERGY SAVING POTENTIAL

In the implementation of a lighting system – especially if it is designed for large public or commercial areas – it becomes increasingly important to address, besides the technical aspects, also environmental and economic issues.

The public lighting infrastructure - if remotely managed within efficient networks - can play a significant role to achieve the ambitions of

IPMAX HAS DEVELOPED ALLIOT LIGHT, THE SOLUTION TO REMOTELY MANAGE AND CONTROL LARGE LIGHTING NETWORKS.

cities to become *'smart cities'*, as it could become the backbone for a wide range of services.

The most successful experiences in increasing lighting efficiency have shown that the quickest, long-lasting and significant results are brought by the combination of two main factors: the **substitution of traditional lighting fixtu-**

res with LEDs and the concurrent activation of a remote control system, in order to enable a more intelligent lighting use.

IPMAX has developed **AllioT Light**, the solution that allows to achieve significant energy savings through an advanced lighting management. The solution makes it easy to remotely control even the widest lighting systems, including commercial, industrial and public networks.

AllioT Light also **turns the traditional light pole into an intelligent and connected element**, ready to host hotspots for Wi-Fi coverage, video surveillance cameras, equipment for air quality monitoring and many other possible devices.

Based on an **open and flexible architecture**, **AllioT Light** is able both to adapt easily to any luminaire and to rapidly integrate elements aimed to detect context data (temperature, light, occupation, images ...), leveraging them to define increasingly sophisticated condition-based automation.

ALLIOTLIGHT SOLUTION

AllioT Light allows an **integrated management of pure operational functions with analysis and planning tools** (reporting, alerts scheduling, proactive prevention, etc.), turning every luminaire into an intelligent terminals.

Interaction with the lighting fixture is enabled by a dedicated, highly flexible and customizable control module, which drives performances optimization and energy efficiency control.

AllioT Light gives practical substance to the energy saving potential in environments where lighting needs have a considerable impact, as towns, shopping centers, airports, parking lots, warehouses, production plants ... In fact, differently from other solutions, **AllioT Light leverages wireless “mesh” networking** - the technology specially developed for urban and industrial areas - to build up a fully connected network able to nimbly interconnect an unlimited number of luminaires and link them to internet through dedicated gateways.



REMOTE CONTROL

AllioT remote control allows to efficiently and timely manage the luminaires from a distance, obtaining a further energy cost saving (over that provided by LED technology) and of lower maintenance costs. Any lighting fixture can be equipped with **AllioT** remote control system, without the need for cable connection, thanks to the use of the most advanced wireless technologies.

AVAILABLE FUNCTIONALITIES:

1. Remote control and dimming of the total luminous flux emitted by the fixture from 0 to 100%, according to preset times, for both single luminaire and groups of luminaires.
2. Instant energy consumption calculation.
3. Operating status (working / failure) detection and related alarms activation.
4. Comprehensive historical reporting.
5. Luminaires' groups management with different configuration for each group.
6. Luminaires position displayed both on map and in a circuit.
7. Real time inventory of fixtures in the network.
8. Alarms customization.
9. Simple web-based and app-based management (tablet and smartphone)

A **wireless mesh** network is based on a structure in which each node relays data for the network.

All mesh nodes cooperate in the distribution of data in the network.

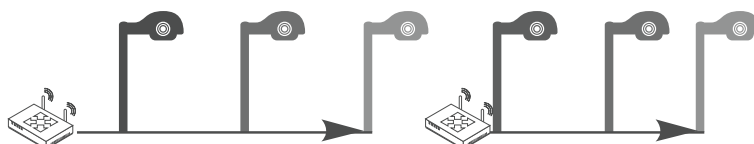
Mesh networks are extremely reliable as each node is connected to many other nodes and if a node fails the neighboring nodes simply seek other paths to transmit the signal.

A **wireless mesh** network is easy to configure and expand since there is no need to lay km of cables to obtain a large network. Furthermore, once set up, it is able to autonomously manage and balance its load avoiding the clogging of certain nodes. A dedicated software, managed in a cloud architecture, provides real-time and easy access to the lighting fixture control and to the configuration, analysis and reporting tools. A plugin-based structure facilitates the creation of countless user profiles with different privileges and features. The interface is simple and straightforward, designed to ensure both operational resources and managers a quick and contextual access to the needed functionalities.

AllIoT Light platform is available in **full mobility** and through any device.

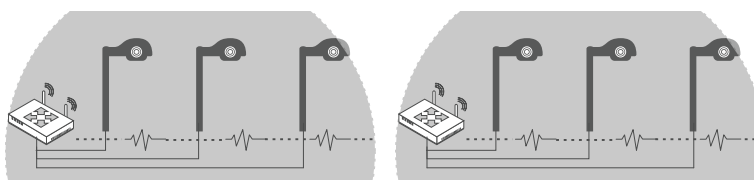


MESH TECHNOLOGY - EXPENSIVE AND ± EFFICIENT



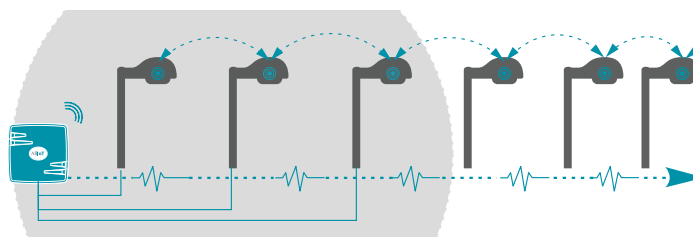
POWERLINE COMMUNICATION

- Higher implementation time due to the cable laying process
- Higher latency
- Higher maintenance cost



PMP WIRELESS CONNECTION

- Number of lamps connected to a single gateway limited by its scope
- Higher number of gateway to install and maintain



WIRELESS MESH CONNECTION

- Automatic load balancing
- Easy to configure and expand
- Lower maintenance costs

ALLIOT LIGHT ARCHITECTURE

Flexible architecture and high integrability make **Alliot** system the ideal support for "smart" solutions implementation, in any situation and environment, achieving both energy efficiency and quality control, safety, process improvement, transparency of information.

Combining the best of LED technology with a wide range of control features, **Alliot Light** allows to **achieve up to 85% energy savings** and to dramatically reduce a new plant return on investment (ROI).

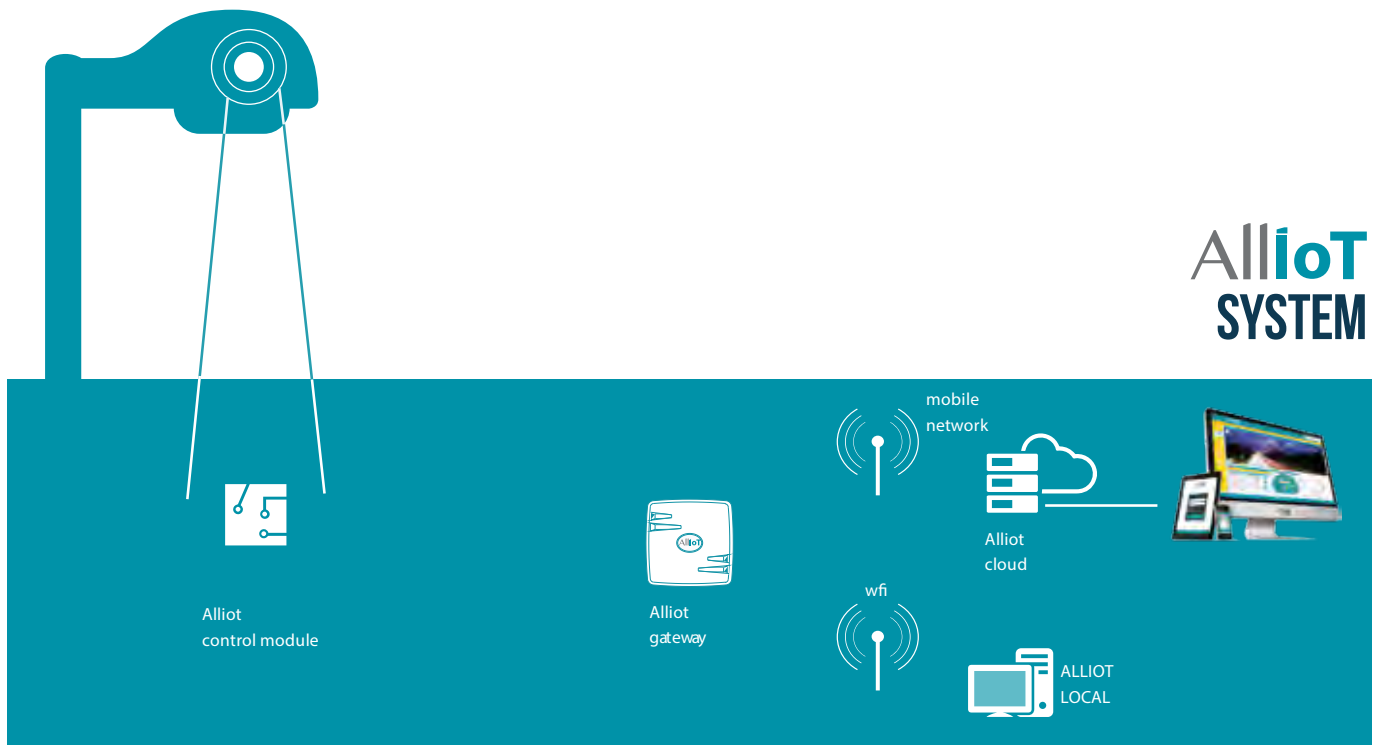
The advanced **Alliot Light** approach to lighting fixtures connection converts any luminaires system in a virtually unlimited communication network on the territory, turning each street-light into an intelligent terminal, able to support a wide range of services.



The mix of IP and IT skills and the wide range of technology partners enables **Alliot** team to complete the solution with a value-added consultancy.

This insures clients the adequate support in customizing and tuning the solution, as well as at the best design of all aspects that affect the solution efficiency (e.g. connectivity and communication protocols, pre-existing hardware and software selection and integration, future developments planning).

Alliot SYSTEM



SENSORS CONNECTIVITY SOFTWARE

Lighting based app and cloud managed services are enabled by integration of sensors and connectivity components in LED lights.

Lights are installed virtually everywhere, have electrical power and access to spaces. This turns them in a dense network of potential service nodes: the *'internet of lights'*.

SENSE



THE CONTROL MODULE

- enables interaction with any lighting fixture;
- allows performances optimization and energy efficiency;
- leverages wireless «mesh» connection for a rapid installation, better reliability and simplified maintenance.

CONNECT



THE GATEWAY

- easily connect to internet any sensors' system;
- ensures consistent and secure data flow between sensors and the cloud;
- offers different radio interfaces for every specific need.

CONTROL



THE CLOUD PLATFORM

- allows real time monitoring of any number of lighting fixtures;
- supports functional and consumption trends analysis, proactive maintenance and security management;
- leverages all cloud potential for better performances and lower costs.

ALLIOTLIGHT ALLOWS TO:



REMOTELY SET AND CHANGE

configuration of each luminaire or each luminaires group with homogeneous behavior



DEFINE AUTOMATIC REGULATION PROFILES

based on pre-set and configurable scenarios (e.g. winter, summer, public demonstration, local festivities)



IMPLEMENT AN INTELLIGENT LIGHT MANAGEMENT

according to the specific needs and characteristics of the environment to be illuminated



CONSUMPTION TREND MONITORING

in order to meet regulatory requirements and increase energy efficiency



MANAGE EFFICIENCY AND SAFETY

proactively , through configurable rules and alarms



COLLECT DATA VIA WEB

making them available for any kind of analysis and processing

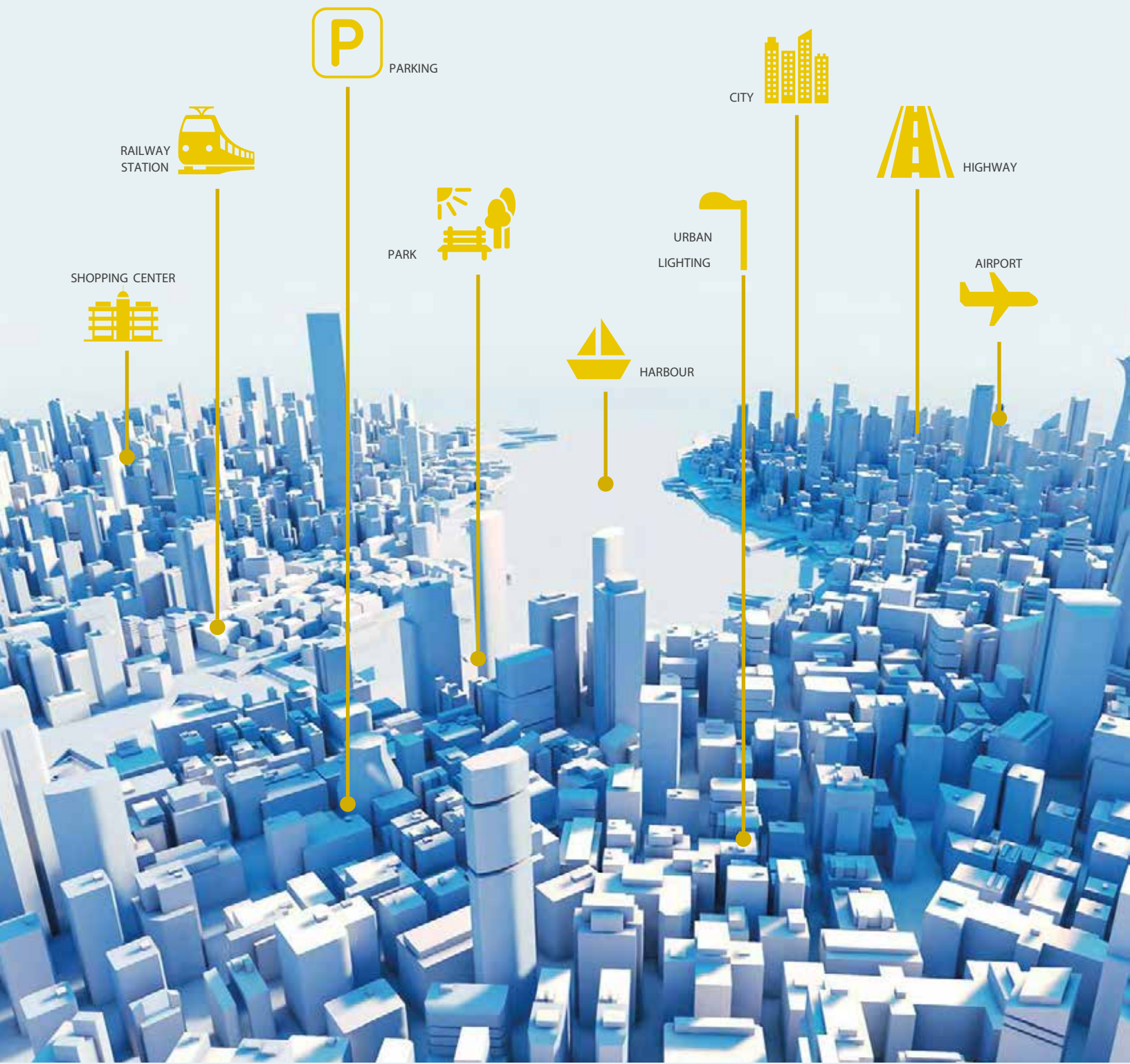


ENABLE AND MANAGE USERS

with different profiles and different access privileges to the various features and functions

INTELLIGENCE AND CONTROL ANYTIME, ANYWHERE

AllIoT Light flexibility and scalability, together with the consolidated know-how of our team, allow us to ensure compatibility and reliability in any application environment and infrastructural context.





EOS

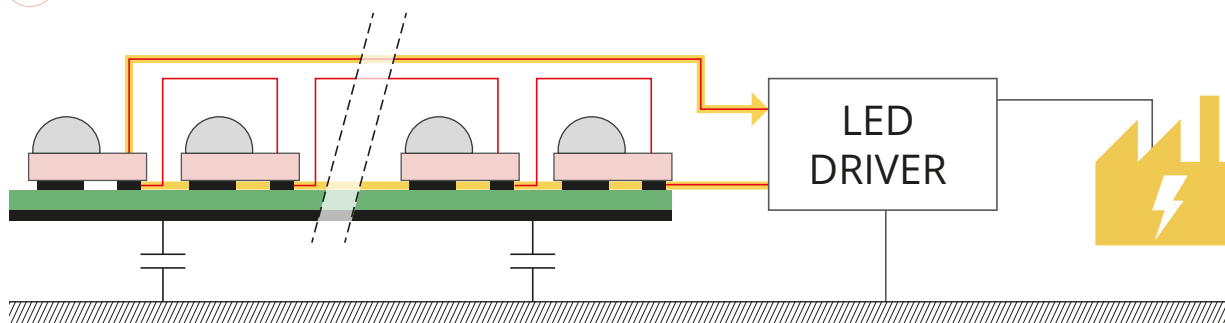
The LED is a very sensitive device with respect to certain external factors.

In particular, the electrical overstress (the so-called **EOS**) are caused by electric transient events, with overvoltage phenomena characterized by values higher than the maximum accepted ones by the connection in series of LED modules.

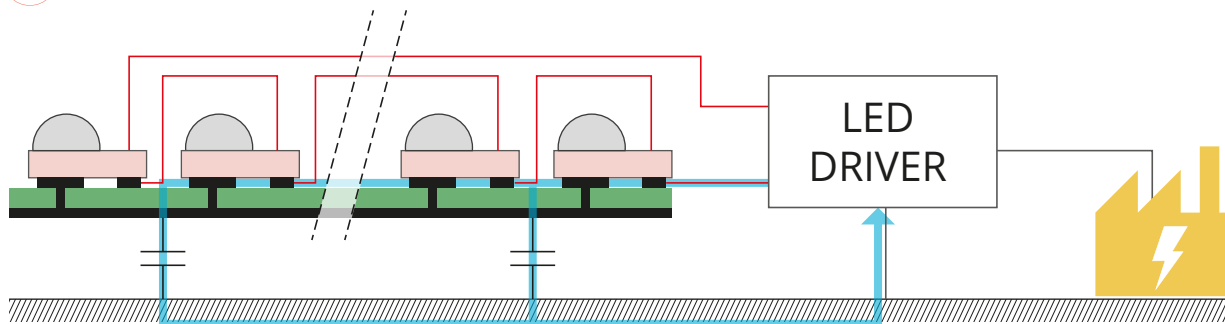
The currents can pass through the LED series in two ways: in a differential mode and in a common mode.

If the differential mode currents, which are highly destructive, are eliminated by modern and more efficient power supplies, the common mode currents are the most sneaky, because being dependent from the topology of the PCB and from the used materials.

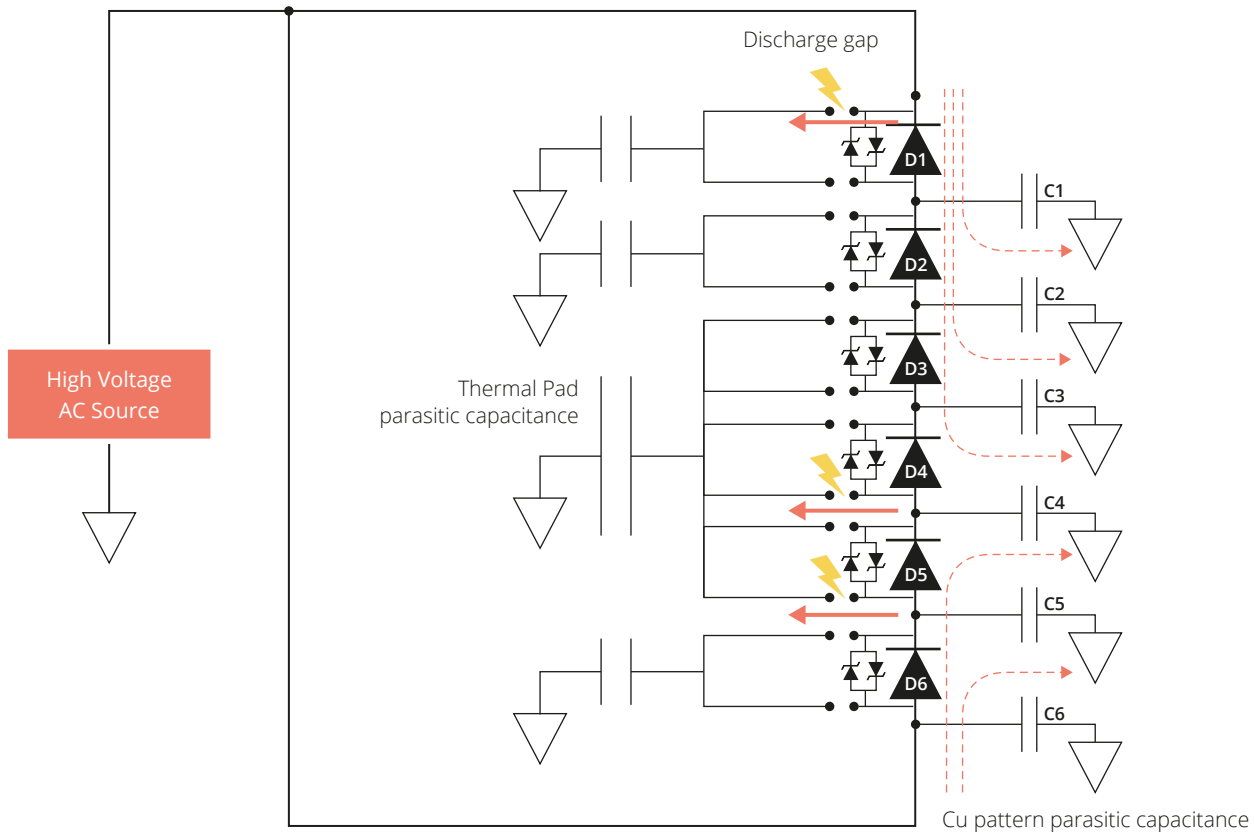
◇ Differential Mode Current



◇ Common Mode Current



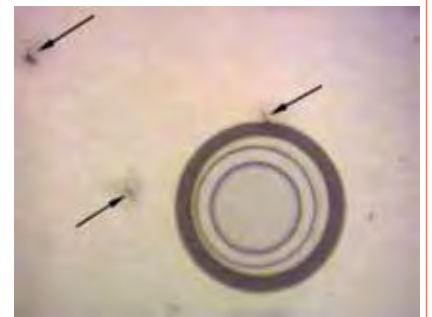
The PCB of LEDs, the insulating pad and the housing create some parasitic capacities that generate a circuit between the LEDs and the metallic parts, traversed by currents which are able to break some of the LEDs in the string.



The LEDs affected by these parasitic currents often appear in excellent conditions, perfectly clean and free from burns or yellowing of the primary lens, but they are electrically equivalent to a short circuit.



Without the need to physically dig into the causes that lead to phenomena of EOS, it is useful to know that they are caused by the fact that the LEDs are operated for a few moments (in the order of microseconds) into voltage and current conditions higher than the maximum permitted values, as indicated by the manufacturer, with the creation of structural micro fractures.



The conditions in which certain overvoltage and overcurrent occur, arise from the power supply or from the metal frame of the lamp on which the LEDs are positioned. Specifically, the EOS episodes generated by the network are ascribable to the power supply, which was not able to filter the electrical spike due to the lightning phenomenon, events that are highly random.



In this sense, Niteko devices, according to the regulation EN 61547, can be equipped with 10 kV protection, through the adoption of detailed technical expedients during the wiring of optical section and the use of adequate power supply.



The engineers at Niteko have designed a solution that, by preventing the creation of parasitic capacities, lowers the failures caused by EOS, so that the products can Niteko be defined as "**EOS free**".



VOC FREE

Chemical Compatibility

Many studies and lighting field articles have highlighted the existence of chemical incompatibility arising from agents and materials used in the assembly phase of the lamps with LED technology.

In particular, it was found and confirmed that at high operating temperatures some materials and products in the device components (such as sealing, gaskets, etc.) release some volatile organic compounds (**VOC**), which may penetrate by osmosis in the silicone LED lens (whose permeability increases at high temperatures) and they stay trapped in its internal part.

This phenomenon, graphically shown in figures 1, 2 and 3, usually causes the formation of a thin dark layer on the chip, which drastically influence performance, stability and LED color temperature. This process leads to the gradual shutdown of LEDs involved in the phenomenon, within a short time period.

Fig. 1 LED intact, total isometric view and section view.

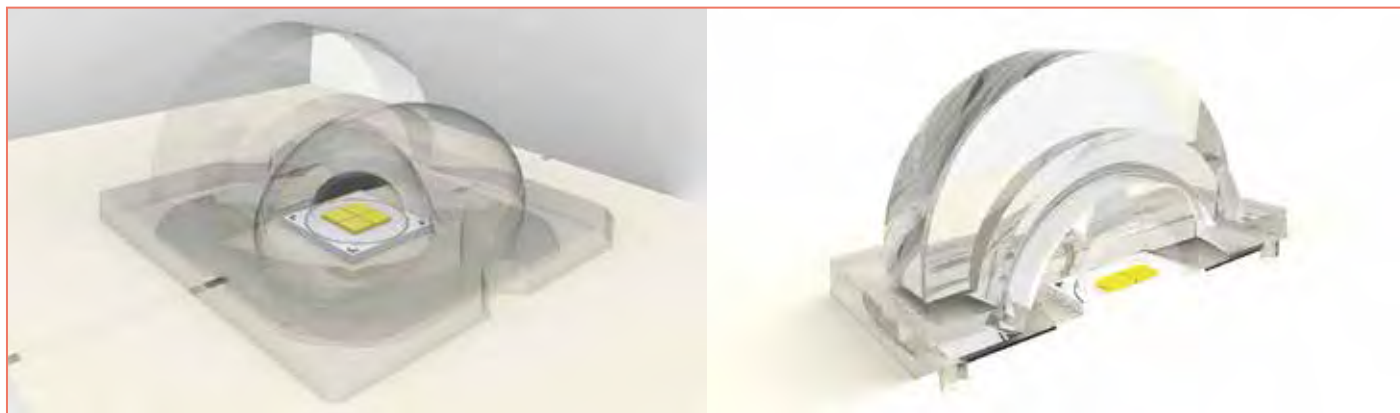


Fig. 2 VOC proliferation phenomenon near LED.

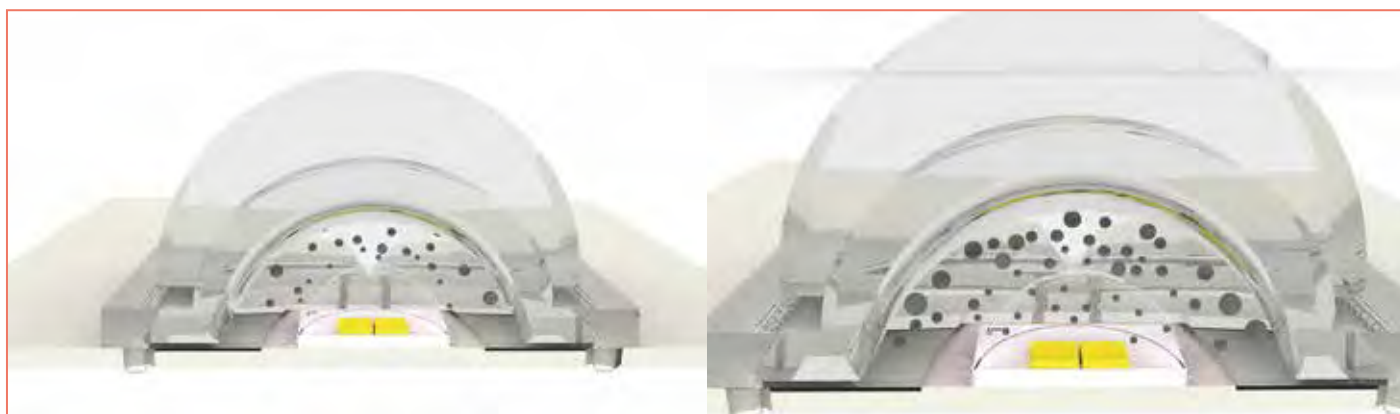
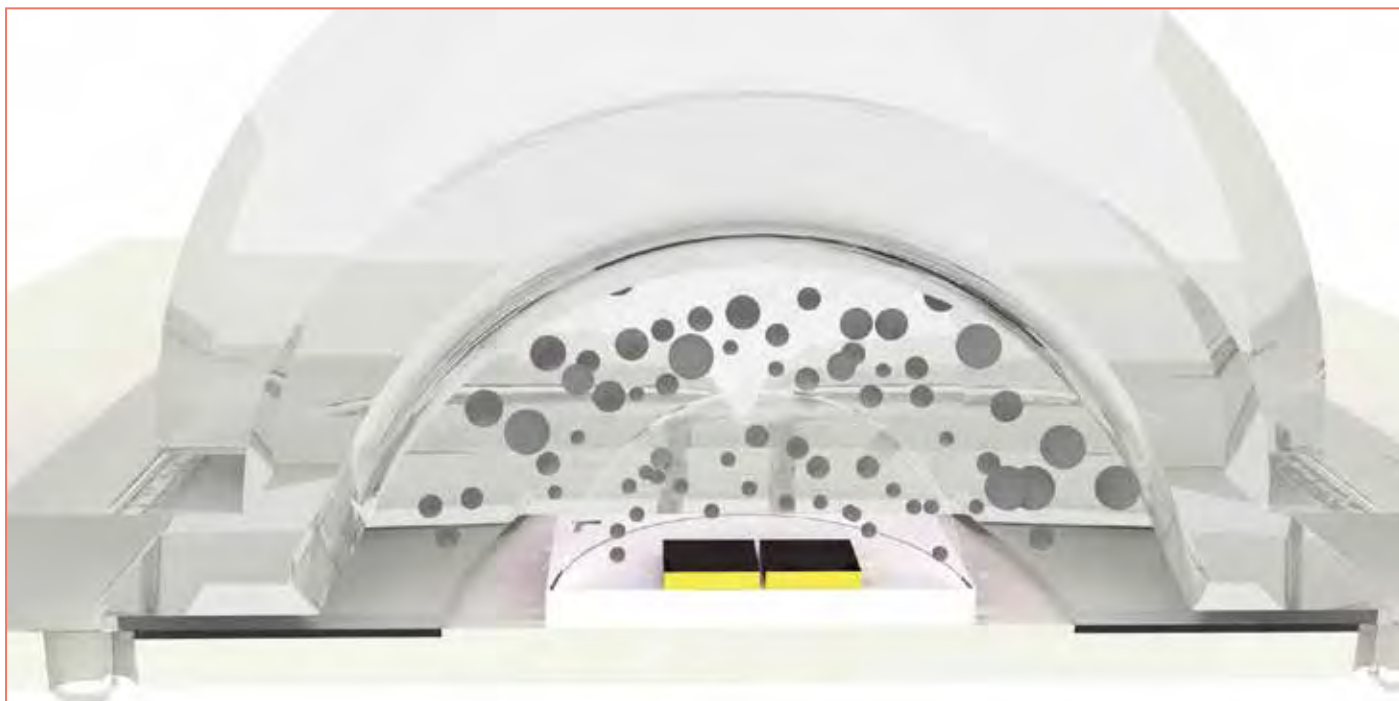


Fig. 3 VOC penetrated in the primary lens, combining with the die.



To avoid such phenomena, different tests have been carried out in the NITEKO laboratory, as well as chemical tests, with a minimum duration of 1000 hours, with the aim of testing all the materials of which the lamps are made.

Fig. 4

Exploded view of the lamp URANO. All non-metallic parts were tested to make sure the full chemical compatibility with the mounted LEDs.



VOC FREE

The tests were performed at the limit temperatures of the components, in order to stress them at the most: in this way Niteko has verified the chemical compatibility of the same. After about 3 months of continuous testing, Niteko is sure to offer to its customers products which are 100% VOC FREE.



General sales terms and conditions

The hereby price list and the related catalog associated to products, cancel and replace all previous versions.

These general sales conditions of Niteko srl will apply to and form an integral part of all quotations and offers, all orders acceptances, acknowledgments and confirmations from the purchaser, as well as being applied to any agreements related to sales performed by Niteko srl and the purchase of goods and services by the customer, except those cases where Niteko has explicitly agreed otherwise.

All terms and conditions in the documents issued by customer, either before or after the issue of any document by Niteko srl, that refers to the General Conditions, are expressly rejected and not accepted and will not be anyhow binding for Niteko. Niteko offers are valid only for the period of time set by the offer itself or otherwise, whenever it is not specified, up to 30 days from the date of the offer.

PRICES:

Prices mentioned in every offer, order confirmation or Agreement will be expressed in Euros, with delivery EX-WORKS (in accordance with the latest INCOTERMS version), at the headquarters Niteko or in other site indicated by Niteko, unless otherwise agreed in writing between the Customer and Niteko; prices do not include taxes, fees or similar taxes, that could be applicable nowadays or in the future. Unless otherwise agreed in writing between Niteko and the Customer, prices will be considered those applicable on the invoice date, according to the price list in force in that period.

NON-STANDARD ITEMS:

The items marked as "UPON REQUEST" are not normally available in the warehouse; delivery dates and prices, whereas it is not specified, will be agreed from time to time depending on the quantity, the production availability and retrieval time of materials.

PAYMENTS:

a - Niteko will invoice the Customer on the basis of the price of the products, the delivery of the products in accordance with INCOTERMS applicable.

The payment will then be due after the Customer's acceptance of the order confirmation and in any case not later than 5 days after the issue of the same, except otherwise agreed in writing by the Customer and Niteko.

All payments will be made to the address or bank IBAN as indicated by Niteko.

If deliveries are distributed over time, invoices will be issued separately and payments will be made when due.

b - Niteko reserves the right to submit to Niteko Credits office the approval of deliveries of products. If, at any time, the Customer's financial condition does not justify either the production or the delivery of Products according to the payment terms here above, Niteko may demand full or partial payment in advance or ask for the application of other terms, as prior condition for the delivery and will suspend, retire or cancel any commitment, delivery or other performance on behalf of Niteko.

c - In the event of Customer's non-fulfillment in the payment of compensation or non-fulfillment of other rights, and in the case of any other breach, Niteko will have the right to refuse to provide other services and/or deliveries of Products until payments has been made and Niteko has the right to suspend, delay or cancel any commitment, delivery or other performance.

DELIVERY AND QUANTITIES:

The products will be delivered EX-WORKS (latest INCOTERMS version), unless otherwise agreed in writing. Delivery dates communicated or accepted by Niteko are purely approximate and Niteko will not respond, nor will it be responsible for a non-performance of its obligations towards the Client, for deliveries that will take place previously or subsequently to the communicated date, whether it is reasonable. Niteko undertakes to respect the communicated or accepted delivery date, provided that the Customer will provide all the information related to the order and the delivery with a reasonable advance notice.

The acceptance by signature and stamp of the order confirmation document must be received by Niteko no later than five days from the date when the same has been sent to the Customer, in case of miss-communication by the Customer, the order confirmation will be considered as automatically accepted.

The photometric data, performance and the lighting design information may be subject to modification and improvements. The selection of color temperatures of the LEDs foresees a tolerance as provided by the lighting field.

Complaints will not be accepted after 8 days from the receipt of the products.

LIMITATIONS OF LIABILITY:

Niteko will not be liable for any loss of profit, failure to savings, loss of reputation, loss of goodwill, direct, indirect, consequential or special damages, which it may arise from or in connected to the contract or the sale or use of products or services offered by Niteko, whether they might be contractual or non-contractual or arising from any other source, even though Niteko has been advised or is aware of the possibility of such damages.

CONTROLS ON EXPORTS AND IMPORTS:

The Customer is aware that some of Niteko transactions are subject to the regulations of imports and exports, including European, US and international standards on this subject ("Export Regulations"), which prohibits the export directly or indirectly certain products or technology to certain countries. Every and each obligations of Niteko related to the export, re-export and transfer of products, and eventually any activity of technical assistance, training, investment, financial assistance and brokerage will be subject to the compliance with the Export Regulations, which will regulate license and delivery of products and technology abroad from time to time, through competent people in different jurisdictions for the application of the Export Regulations.

If the delivery of products, services and / or documentation is subject to license upon request of public authorities or nevertheless subject to any restriction or prohibition, Niteko may legitimately suspend its obligations and the Customer or end-user 's rights until the grant of the license or the termination of the restrictions / bans. Niteko may also have the right to terminate the order without any liability towards the Customer or the end user.

The Customer guarantees that he will respect all the export, re-export and transfer limits, that may result from the Export Regulation, or as indicated in the export license (if applicable) for each product supplied to the Customer. The Customer will be responsible to impose any restrictions to third parties to which products, services and / or documentation might be transferred or re-exported.

The Customer will understand any action which might be reasonably necessary to ensure that there are no Customers or end users who might violate the Export Regulations. The Customer shall indemnify Niteko for any direct and indirect damages, losses and expenses (including legal fees) or other liability arising from claims due to the breach of this Clause by the Customers or its clients.

BRAND USE:

Pictures, drawings and images contained in the website, in the products catalog and the price list have a purpose purely illustrative and demonstration of the products and their applications and installations. The use of the brand, the logos, product names and any image of products, accessories and installations by third parties, for advertising or promotional purposes must be authorized by Niteko.

MAJOR FORCE:

Niteko will not be liable for any failures or delays in the performance if they arise from disruption of the production process of products, or if they arise from a Force Majeure cause. The Force Majeure means and includes all the circumstances and events that are outside the control of Niteko, foreseeable or unforeseeable. Due to the above, Niteko can not reasonably be required to perform its obligations, including force majeure and/or default of Niteko suppliers causes.

WARRANTY:

Please refer to the Warranty Certificate document available at the following link: www.niteko.com

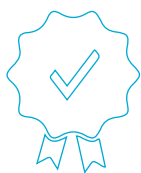
APPLICABLE LAW AND COMPETENT COURT:

All offers, orders confirmations and Agreements are governed in accordance with the Italian Law.

All disputes, without exception, will be subject to the exclusive competence of the Court of Taranto, Italy. The International Convention that regulates the International Sale of Goods will not apply to any offer, order confirmation or Agreement. The company reserves the right to modify the characteristics of the items and their prices whenever they think it is necessary, without any prior notice obligation, according to the manufacturing requirements for the improvement and enhancement of products.

The photometric data, the performances and the lighting design information may be subject to modification and improvements. The selection of color temperatures of the LEDs (CCT) foresees a tolerance as provided by the lighting field, according to the current legislation.

Pursuant to and by effect of art. 1336 and art. 1341 of the Italian Civil Code, the Customer declares to be aware and accept specifically all that is reported in the clauses here above.



5-YEARS WARRANTY

1 - NITEKO S.r.l. (hereinafter called "Niteko") guarantees that the products of the brand "NITEKO" (hereinafter called "Products") are free from manufacturing and/or materials defects, in case of proper use compliant to the destination, for a period of five years from the date of invoice, starting from 01/01/2012.

2 - The hereby Warranty (hereinafter called "warranty") is issued by Niteko towards your company (hereinafter called "Customer") for the standard products available in its catalog.

3 - The Warranty will be activated only if the Customer proceeds to the on-line registration of the information related to the installation location of the product and the details of the invoice and order, using the website [www.niteko.com], within 60 days from the invoice date.

In lack of the activation, the Warranty included in Niteko catalogs will remain valid.

4 - The Warranty will apply only if:

- a. The Products are used in compliance with the relevant specifications of the product use (technical specifications);
- b. The installation and/or mounting of the product are performed in accordance with the instructions attached to the product, and if the installation and/or mounting is done by qualified technical personnel;
- c. Temperatures and voltages limits are not exceeded and the Product is not exposed to mechanical loads non compliant to the destination of the product itself;
- d. The maintenance of the product is carried out according to the instructions attached to the product and it performed by specialized technicians and no modification or repairs are made to the Products without prior written authorization or non-compliant with the testing instructions by Niteko;
- e. The Customer has previously carried out all the emergency procedures as specified in the operating handbook attached to the Product;
- f. The Product with a defect is stored by the Customer as it was found (including light sources, electronic equipment, and all the eventual electronic or mechanical accessories) for all the time necessary to allow Niteko to perform the necessary controls on complained defects/faults;
- g. For the power supply components and Products with LEDs, the warranty covers during the 5 years up to a maximum usage of 22.000 hours (equals to 12 hours of daily operation); within the hereby limits the warranty is valid for defects higher than the nominal defect rate of 0.5% / 1000 hours of use, unless otherwise stated in the technical specifications of the product, components and its use.
The color change of the LED modules is not included in the manufacturer's warranty. In a new LED module, the luminous flux and the services are subject to a tolerance of $\pm 5\%$. All the relevant technical data are defined in the product and applications specifications (Data sheets, catalogs, etc.). Considering the technical progress and the modification in the luminous flux and the light color of the products, which is caused by their use, subsequent deliveries of LED light modules may have different characteristics from those of the original products.
- h. The Customer shows to Niteko the sale contract or the corresponding issued invoice or documentation, released after the on-line registration;
- i. The defect, duly specified and tested in its nature and size, is denounced in writing by the Customer to Niteko within sixty (60) days from the acknowledge, or otherwise the right of the Customer will decay;
- j. The Customer has duly paid for the Product in accordance with the payment terms agreed in the sales contract;
- k. The supplied Products are installed in Europe.

5 - The warranty does not apply with reference to:

- a. The Product defects due to unexpected and unpredictable events, the so-called unforeseeable and/or force majeure cases (including electric shocks, lightning), which exclude the traceability of such defects to the Product manufacturing process;
- b. the defects are caused by surges of amplitude or duration higher than:
 - 1000 V between conductor and conductor (L and N);
 - 2000 V between conductor and earth (L and PE, N and PE);
 - according to IEC 61000-4-5: 2005-11.

6 - In the event that the Product should reveal defects covered by the hereby declaration of Warranty, and provided that the conditions referred to in paragraphs 4 and 5 here above are fulfilled, Niteko will be free to proceed, at its own reserve, to repair and/or replacement of the product with a similar or equivalent product, compatibly to the technological progress existed from the original product release.

7 - The warranty does not cover:

- a. all incidental costs arising after the repair of the defect (e.g. as those for the assembly and the disassembly, transport of faulty Product and the repaired and new Product, disposal, allowances and travel expenses, lifting devices, scaffolding); all the mentioned costs will be at customer's charge;
- b. the parts subject to wearing out, such as batteries and mechanical parts; as well as software defects, bugs or viruses.
- c. the products, with the brand of different companies, that Niteko only sells.

For the above mentioned systems, the 5-years warranty will be granted after an evaluation of the lighting project and its plant by Niteko.

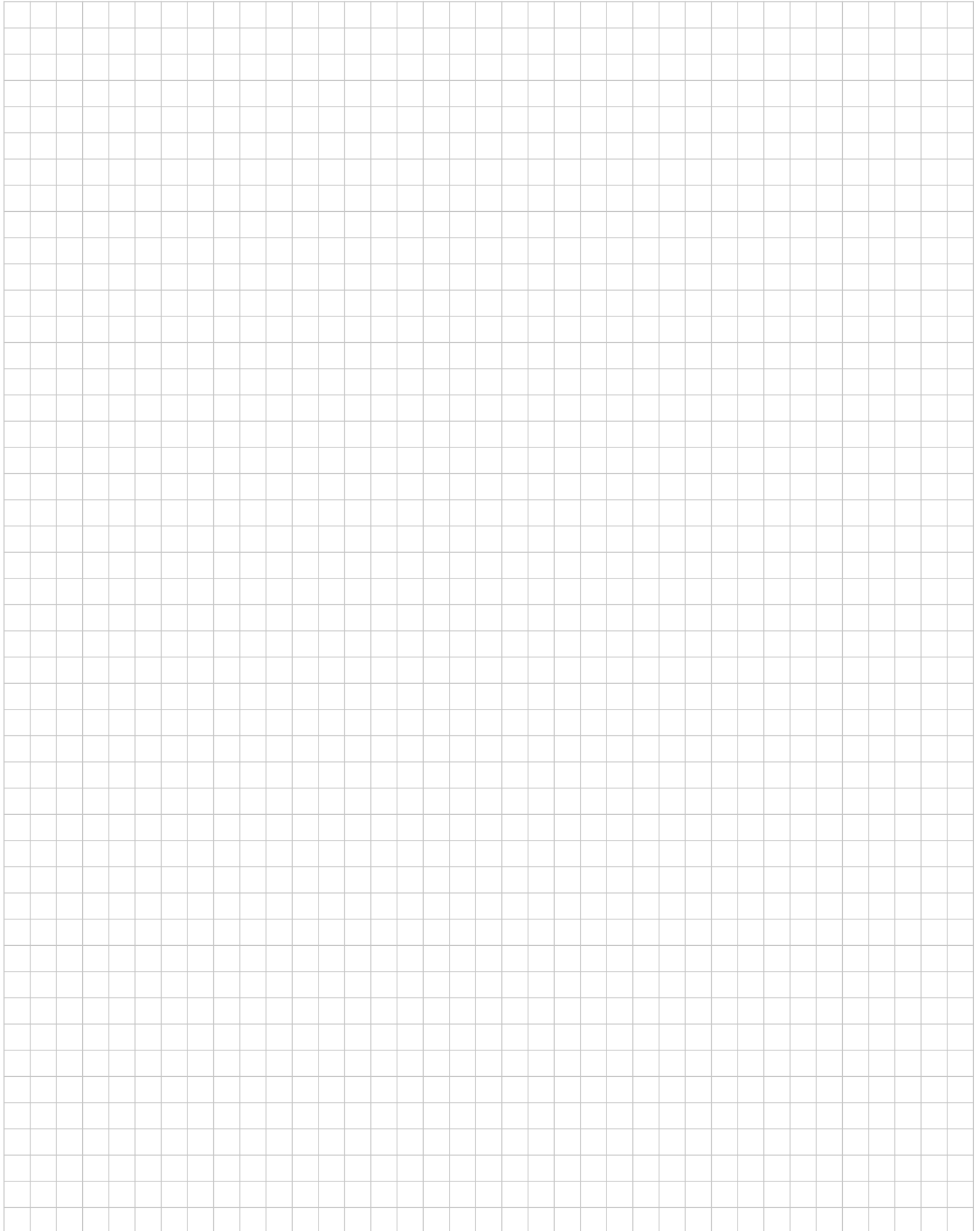
8 - The Outdoor products are realized by Niteko using innovative production processes, that ensure a high quality standard of products, in terms of resistance to corrosion, abrasion, flaking and color stability. The above mentioned products are covered by the hereby warranty, provided that any eventual defects affect their structural/mechanical safety and they are ascribable to defects in the manufacturing process of the Product.

9 - The hereby warranty does not apply to light management systems (Light Management System).

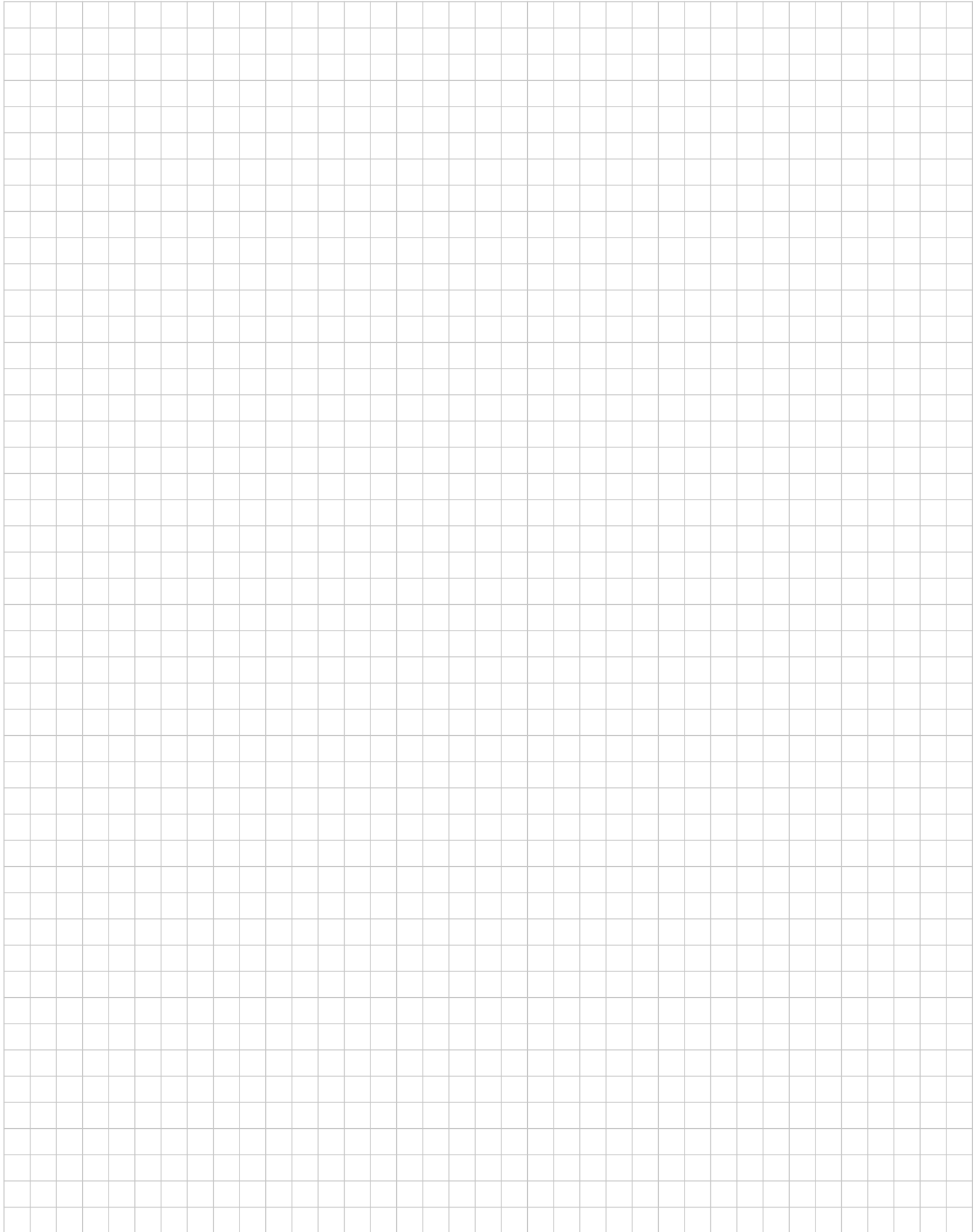
10 - If properly activated, the hereby Warranty is the sole and exclusive warranty provided by Niteko to the Customer regarding the product, and expressly derogated for any other right whether express and/or implied, acknowledged by the Law to the Customer, who renounces to said right in the broadest manner allowed by the Law as well as any other warranties provided by Niteko.

11 - The Customer shall claim no further rights from Niteko in relation to the defective Product. In particular, the Customer may not claim from Niteko any expenses incurred in storing the defective/faulty Product nor any other costs and/or compensation. Moreover the Customer shall not request and/or claim any payment extensions, price reductions or the termination of the supply contract.

NOTE

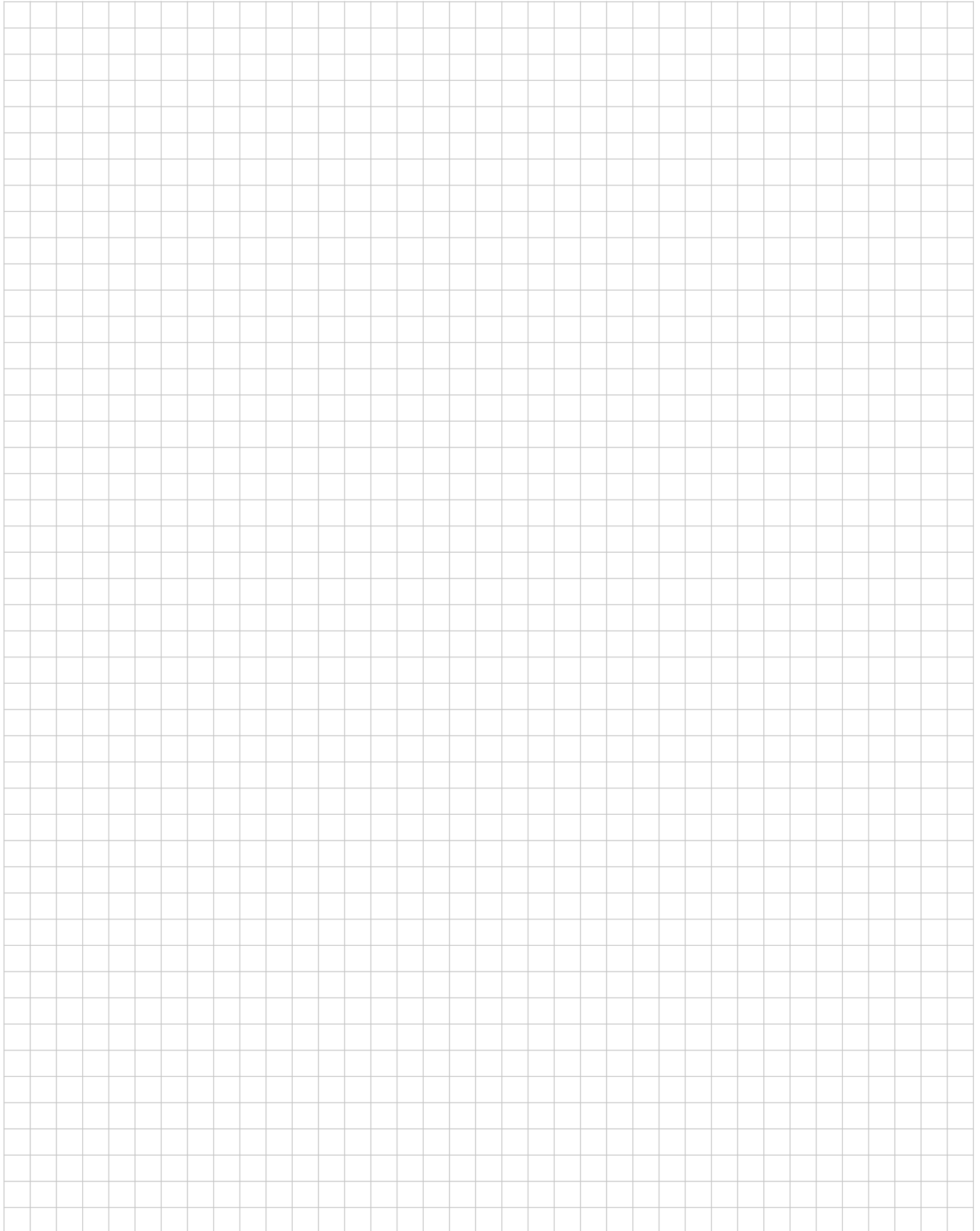


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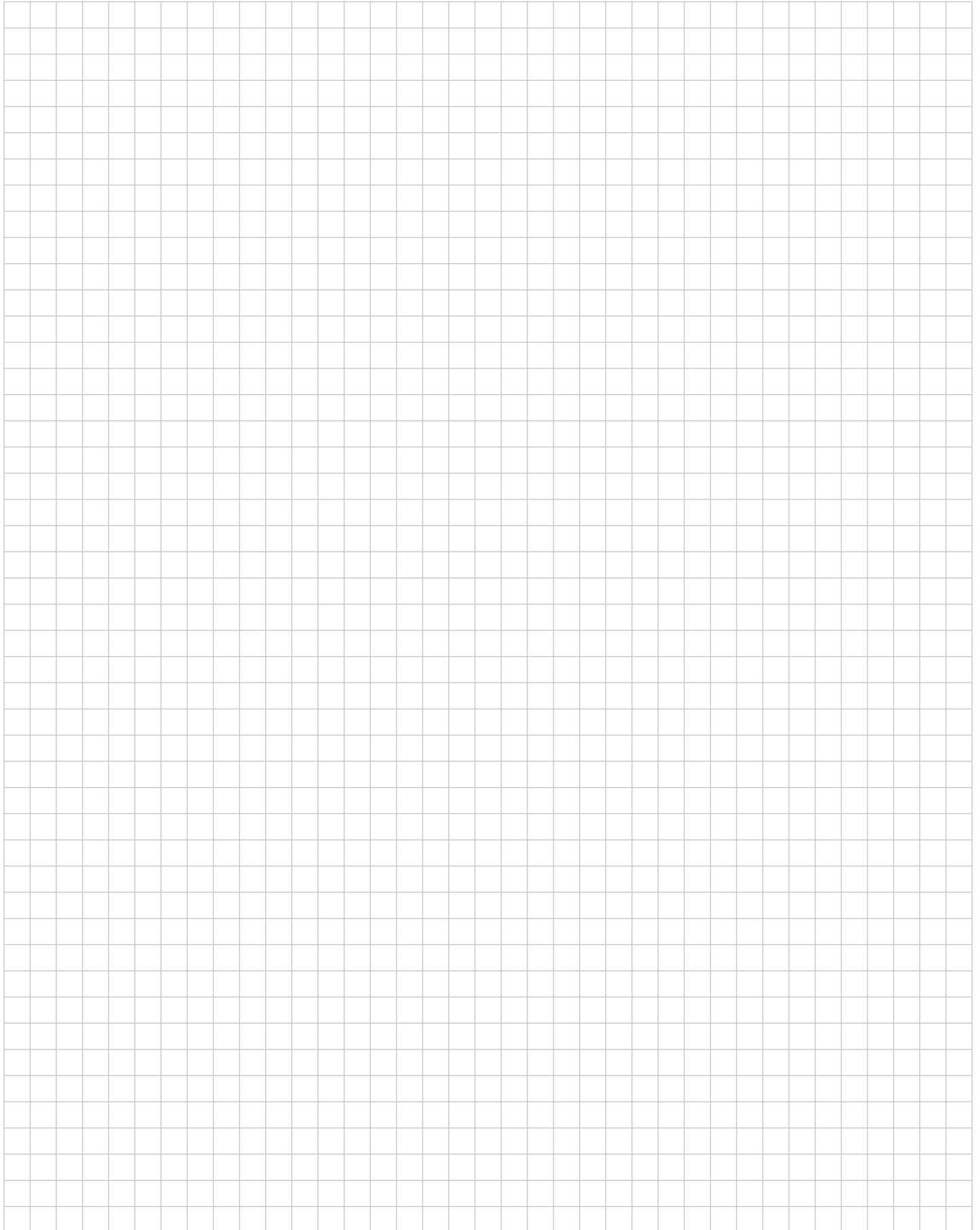


A large grid of graph paper for notes, consisting of 20 columns and 40 rows of small squares.

NOTE



NOTE





ENJOY THE LIGHT

NITEKO S.r.l.

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