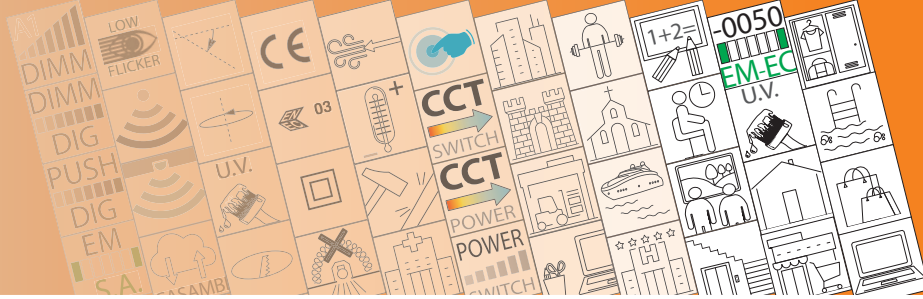
Certifications



ENEC is a European mark that demonstrates that an electrical product is compliant with applicable European safety standards and was manufactured by a company that applies a Quality System according to ISO 9000. The ENEC mark is recognized as being equivalent to the individual national marks of the countries that adhere to the agreement and provides a guarantee of product quality.

ENEC European Certificate of Conformity: PENDING APPROVAL.

The ENEC PLUS mark certifies that the LED luminaires are compliant and reliable in terms of safety and declared performance.

Please note that the purpose of the EC labelling is to indicate a product's compliance with all applicable standards and to guarantee the right of this product to be marketed directly in all member states of the European Community. The standards to be complied with by lighting fixtures are as follows:
- 2014/30/EU "electromagnetic compatibility"
- 2014/35/EU "low voltage electrical materials"
The group is not liable for any changes made by third parties to its products. For more detailed information, please contact our lighting design support centre.

Quality management system compliant with the requirements of UNI EN ISO 9001.

Environmental management system compliant with the requirements of UNI EN ISO 14001.

Occupational health and safety management system in compliance with UNI EN ISO 45001.

Energy Management System in compliance with UNI EN ISO 45001.

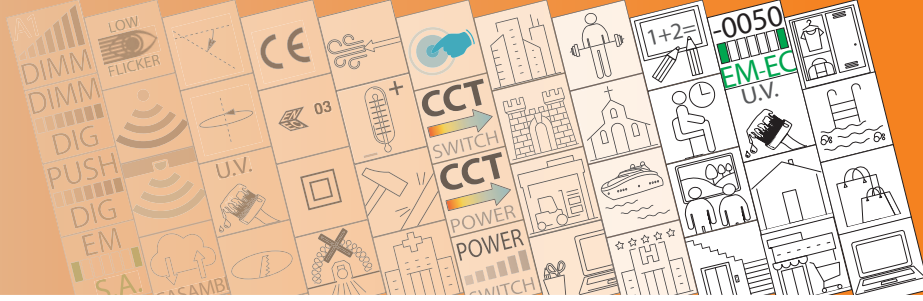
I.M.Q. approval for wired fixture. All fixtures comply with CEI Italian safety standards corresponding to EN60598 European standards.

Registered Design
DM/100271

The International Bureau of the World Intellectual Property Organization (WIPO) hereby certifies that the particulars given below correspond to the recording made in the International Register of Industrial Designs, at the date of the international registration, under the Hague Agreement Concerning the International Registration of Industrial Designs.

The Zhaga-D4i mark certifies the fixture's compliance with Zhaga Book 18 version 2 specifications for outdoor luminaires and DiiA's D4i specifications for intra-luminaire DALI interface.
This joint certification covers all critical features including mechanical adaptation, digital communication, data reporting and power requirements within a single luminaire, ensuring "plug & play" interoperability of luminaires (drivers) and peripherals, such as connectivity nodes.

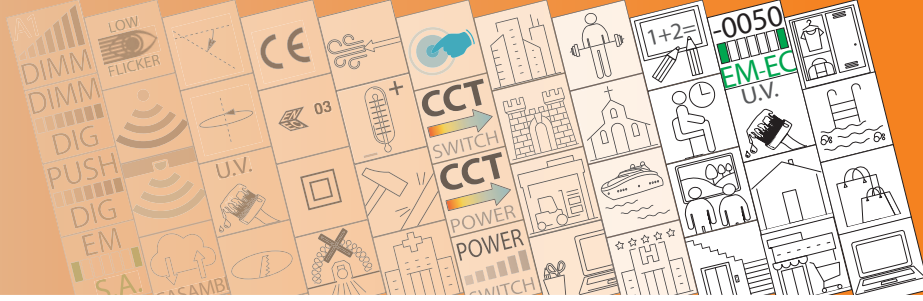
Sub-codes



In the DISANO/FOSNOVA catalogue, there are some items, generally the more recent ones, that have two numbers (a subcode) at the end of the classical 6-digit code. These subcodes indicate the product type of wiring. Therefore, it is very important when making an order to write the complete DISANO/FOSNOVA code, including the subcode, which carries the following meaning:

-00 = basic article
-03 = article designed to fit LED TUBLES
-07 = article supplied with EMergency unit (1h)
-09 = article supplied with electronic+EMergency gear (1h)
-12 = article supplied with DIMM 1-10V wiring
-14 = article supplied with double insulation class
-15= article supplied with separate ON/OFF switch
-19 = article supplied with integrated presence and light sensor
-22 = narrow beam version (FS)
-23 = article supplied with integrated wireless technology
-24 = article supplied with integrated DISMART 2.0 light controller
-25 = article supplied with integrated ActiveAhead system
-30 = article with Virtual Midnight
-31 = article supplied with 3-hour emergency unit
-38 = special version article featuring high chemical resistance for environments with high chlorine content (with *conformal coating* treatment).
-39 = article with 3000K LED
-40 = article supplied with Nema Socket
-42 = Techno System fixtures equipped with a special upper cover for the direct mounting to the ceiling
-44 = article with 1750K LED
-54 = article supplied with ON/OFF switch
-56 = fixture powered at 350mA
-60 = article with CRI 80 LED
-65 = article with UV-A LED
-68 = article with 4000K LED
-69 = article with UV-C LED
-73 = article with AMBER LED
-78 = CAM
-88 = article complete with body for recessed mounting in plasterboard false ceilings
-89 = article supplied with HCL-WIRELESS system
-92 = article with on/off switch and electric socket
-94 = article supplied with DIMM 1-10V + emergency unit (EM) (1h)
-95 = article supplied with DIMM DALI + emergency unit (EM) (1h)
-0016 = non-polluting luminous article, the products are manufactured in compliance with regional Italian laws
-0024 = article supplied with TW-BASIC system
-0034 = article with 5700K-CRI 90 LED
-0035 = article with 5700K-CRI 70 LED
-0041 = article with DALI digital dimmable electronic control gear
-0045 = article with PUSH DALI digital dimmable electronic control gear
-0050 = article with emergency wiring with centralized power supply
-0054 = article supplied with Zhaga Socket

Sub-codes



-0059 = Techno System fixtures are designed to directly replace Rapid System FL ceiling lamps. The special mounting clip will make relamping quick and easy
-0061 = article supplied with integrated DIMM DALI presence and light sensor
-0066 = article supplied with integrated self-diagnostic
-0072 = special version for continuous line applications
-0078 = article supplied with PLC remote control system
-0083 = article with 6500K LED
-0092 = article with built-in multi-sensor
-0093 = version with IP68 protection with gel watertight system at the bottom of the fixture
-0928 = article supplied with 3000K LED + 1-hour EMergency unit
-1213 = article supplied with 4000K LED + DIMmable unit
-1219 = article supplied with integrated DIMM 1/10V presence and light sensor
-1228 = article supplied with 3000K LED + DIMmable unit
-1241 = article supplied with DIMMable DIGital DALI unit
-1245 = article supplied with DIMMable DIGital PUSH DALI unit
-1928 = article supplied with 3000K LED + presence and light sensor
-1957 = article supplied with presence and light sensor + 3-hour emergency unit
-2118 = silver
-3113 = article supplied with 4000K LED + 3-hour emergency unit
-3128 = article supplied with 3000K LED + 3-hour emergency unit
-3941 = article supplied with 3000K LED + DIMMable DIGital DALI unit
-3945 = article supplied with 3000K LED + PUSH DALI unit
-3957 = article supplied with 3000K LED + 3-hour EMergency unit
-6809 = article supplied with 4000K LED + 1-hour EMergency unit
-6841 = article supplied with 4000K LED + DIMMable DIGital DALI unit

Versions with special LEDs for the **FOOD** industry (*Red Meat, Marbled Meat, Fish, Bread & Pastries e Produce*)

-00000034 = BREAD/CHEESE
-00000036 = MEAT
-00000035 = FRUIT/VEGETABLE
-00000037 = FISH
-00000040 = CHEESE

PRODUCT CODE STRUCTURE

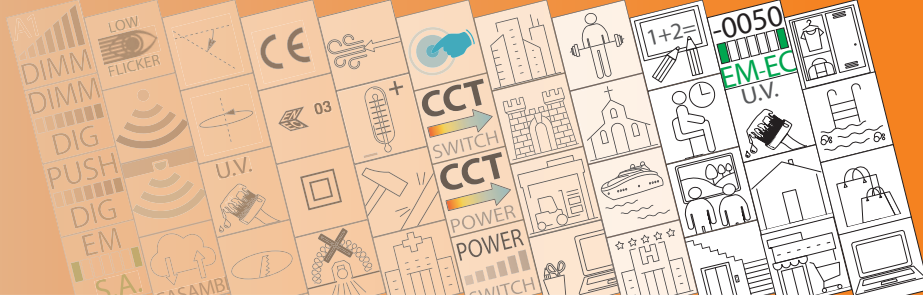
The product code of some families consists of alphanumeric characters that indicate the product's technical features and is structured as follows:

standard code	equipment	current (I out)	optics type
424660	-00	0280	RW

The type of optics is identified as follows:

RW: rotosymmetric wide beam optic
RM: rotosymmetric medium beam optic
SW: square wide beam optic
CA: cycle-pedestrian asymmetric optic
CS: cycle-pedestrian symmetric optic
AM: asymmetric medium beam optic
AW: asymmetric wide beam optic

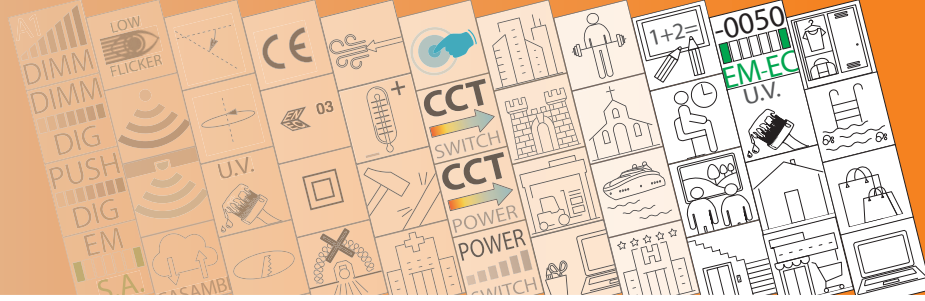
Pictographs



S	The unit is supplied with lampholder only.
CLD S+L	The unit is supplied without power supply + LED.
CLD	Electronic power supply with 230/240V - 50/60Hz + LED.
CLD D	Electronic dimmable power supply with 230/240V - 50/60Hz (1/10V) + LED.
CLD D-D (DALI)	Electronic digital dimmable power supply with 230/240V - 50/60Hz (DALI) + LED.
CLD D-DIG	Electronic digital dimmable power supply with 230/240V - 50/60Hz (DALI) + LED.
CLD D-D (PUSH)	Electronic digital dimmable power supply with 230/240V - 50/60Hz (PUSH DALI) + LED.
CLD E	Electronic power supply with 230/240V - 50/60Hz+ emergency kit + LED.
CLD D-E	Electronic dimmable power supply with 230/240V - 50/60Hz (1/10V) + emergency lighting + LED.
CLD EC	The unit is supplied with emergency wiring with centralized power supply.
CLD PROG	The unit is supplied with ADVANCED PROG wiring.
CLD DW (HCL)	Electronic digital dimmable wireless power supply - HCL.

DIMM	Fixtures wired with dimming electronic power supply.
DIMM 1-10V	Fixtures wired with 1-10V dimming electronic power supply.
DIMM DIG	Fixtures wired with DALI digital dimmable electronic power supply.
PUSH DIG	Fixtures wired with PUSH DALI digital dimmable electronic power supply.
EM S.A.	Fixtures with permanent emergency circuit (illumination + emergency).
EM S.E.	Fixtures with non-permanent emergency circuit (only emergency).
-95 ED	Fixtures with emergency module based on the DALI protocol.
-0050 EM-EC	Permanently mounted fixture, operating in AC/DC mode, with centralized emergency device, not incorporated into the fixture.
-0066 AD	Fixtures with integrated self-diagnostic.
EM TEST	With button for MANUAL TESTING.
32 A	Maximum track lead 32A load.
16 A	Maximum track lead 16A load.

Pictographs



Fixture equipped with a DIP SWITCH driver for THE SETTING OF THE OUTPUT CURRENT.

Fixtures equipped with standard POWER switch: with this integrated switch you can select the fixture's total wattage.

Fixtures equipped with standard CCT switch: with this integrated switch you can select the desired light colour.

Fixtures equipped with standard CCT/ POWER switch: with this integrated switch you can select the desired light colour and the fixture's total wattage.

Fixtures are equipped with a device to reduce flux in 4 steps based on the calculation of the VIRTUAL MIDNIGHT.

PROG (CLD PROG): luminaires developed to grant great flexibility of use thanks to the possibility to vary luminous flux intensity by changing the LED drive current.

Possibility of lighting point management with Casambi technology, an advanced automation lighting control system based on the bluetooth low energy (BLE).

Fixture available in the RGBW - DMX/ RDM version (see chapter Lighting management systems - DMX solution for LED RGBW).

Fixture available in the RGB FULL-COLOR (see chapter Lighting management systems - DMX solution for LED RGBW).

Protected against impact energy.

PROTECTION RATING AGAINST MECHANICAL IMPACT		
classification according to standard: **EN 50102 o NF C 20-015**		
Impact force	NF C 20-010	Third figure in our catalogue
IK	**J**	**IP**
00	0	0
01	0,15	-
02	0,20	1
03	0,35	-
04	0,50	3
05	0,70	-
06	1	-
07	2	5
08	5	-
-	6	7
09	10	-
10	20	9

IP...

International Protection:
the IP prefix followed by two figures indicates the level of resistance of the fixture to penetration by solids and liquids. Protection rating (published in EN60529) parts.

IP20 Protection against solid bodies Ø >12 mm only.

IP23 Protection against solid bodies Ø >12 mm and rain.

IP40 Protection against solid bodies Ø > 1 mm only.

IP43 Protection against solid bodies Ø > 1 mm and rain.

IP44 Protection against solid bodies Ø > 1 mm and water sprays.

IP54 Protection against dust and water sprays.

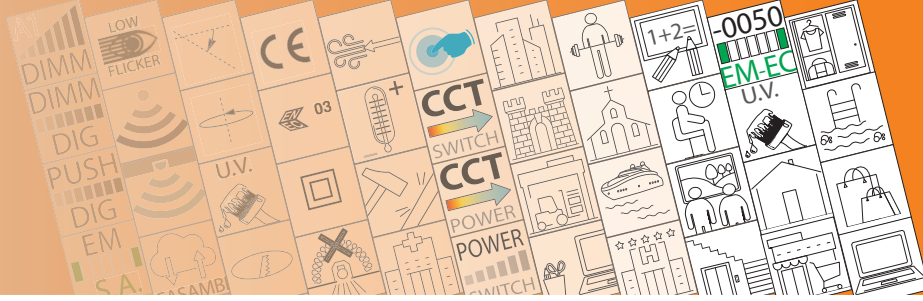
IP55 Protection against dust and water jets.

IP65 Protection against dust and water sprays.

IP66 Dust and water tight.

IP67 Dust and waterwave tight.

Pictographs



V..

V0: the test piece extinguishes within 5 sec. without dropping.
V2: the test piece extinguishes within 25 sec. (dropping allowed)

L80
B20
50.000h

Life expectancy of the LED.

Class II fixture (double insulation). No grounding needed.

Fixtures with protection fuse.

Fixture surface area exposed to the wind.

Minimum and maximum operating temperature. Ask for specific product temperature to our technical offices.

ICE version ideal for environments that reach low temperatures.

HT version ideal for environments that reach high temperatures.

Size of hole for recessed installation.

0°
180°

Fixture equipped with 0-90° protractor scale for aiming. Security dowels or rack with screw.

Ceiling light fixture fitted with LED and baffle film protection.

The fixture must not, under any circumstances, be covered with insulating material.

DARK
65°< 500
LIGHT

Radial dark light optic unit 65° manufactured according to European EN 12464 Regulations. Suitable for uses in places fitted with video terminals.

The lighting fittings can be trodden on and also bear vehicle loads.

Produced with vandal resistant materials.

Material supplied with vandal resistant system.

Aiming on horizontal axis at 0°.

Aiming on vertical axis at 0°.

The fixture can be mast-top installed. Tilt angle as indicated.

The fixture can be mast-arm installed. Tilt angle as indicated.

Ø

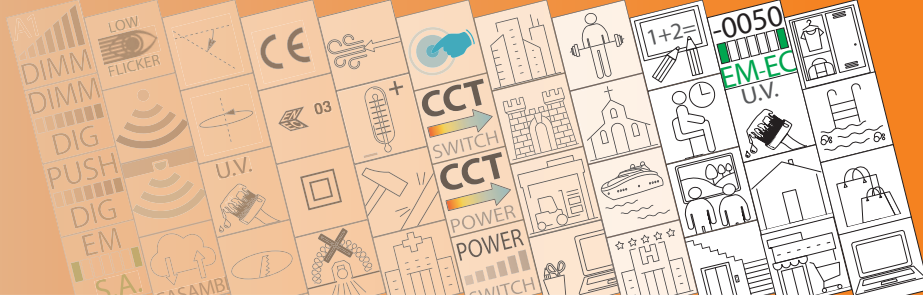
Mast top connection diameter.

Fixtures to be installed to the wall or ceiling only with a base.

Fixtures to be installed on track to the wall, ceiling or suspension.

Fixtures to be installed to the wall, ceiling or suspension.

Pictographs



These products are compliant with all applicable tests (third-party certification) pursuant to standard **ANSI C136.31: Street Lighting – Luminaire Vibration**.
- Test level: 3.0G Level 2 for bridge/overpass applications.

Products compliant with ball impact resistance test standard DIN 18032-3: 2018.

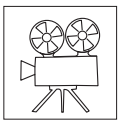
UV-stabilised coating, anti-yellowing. Fixture built with stabilised materials.

Protective coating recommended for marine environments within 5 km of the sea.

On request: ideal version for spaces with a high concentration of particular volatile chemicals around the luminaires (see chemical compatibility table).
https://www.disano.it/en/led-general-chemical-compatibility-list/

Built with materials that are highly resistant to acid and toxic gas corrosion.

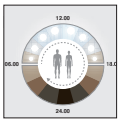
Electronic safety device to protect the LED module and the related ballast compliant with EN 61547.
It works in two modes:
- differential mode: surge between power cables and between the phase and neutral.
- common mode: surge between power, L/N and ground cables or between the fixture's body if it is of class II and installed on a metal pole.



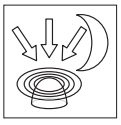
Fixture ideal for HD TV broadcasts.

Fixture available in the ATEX version.

Fixture available in the HORTICULTURE version.



Fixture available in the Tunable White and HCL version.



Installation of photocell switch device as an optional feature.

Possibility of centralized lighting point control or via external presence/lighting sensors.

Built-in RADAR SENSOR (sub-code -19 at an extra price): is an automatic sensor that immediately sense the presence of people's movements and anyone walking past.

Product with a very low flicker; uniform light for greater eye protection.

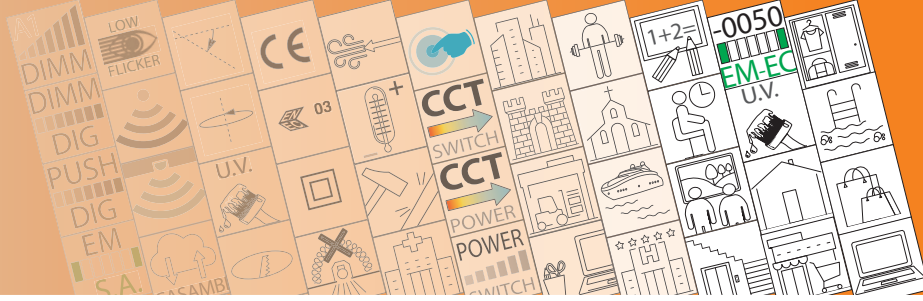
Photobiological Safety determined by the amount of radiations emitted by all the sources with a wave length ranging between 200 nm and 3000 nm. Excessive radiation exposure can be harmful for human health. The EN62471 standard classifies light sources into risk groups.

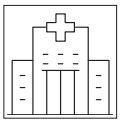
Risk Group 0 (RG0): luminaires are exempt from photobiological risks in compliance with standard EN 62471.

Risk Group 0 (RG0 Ethr): luminaires are exempt from photobiological risks in compliance with standard EN 62471.

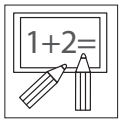
Risk Group 1 (low risk group): luminaires do not pose any risks due to normal behavioural limitations of a person when exposed to a light source.

Application tips





HEALTHCARE ENVIRONMENTS: nursing rooms, operating rooms, clinics, first aids, wards, aseptic rooms UNI EN 12464.



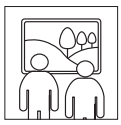
SCHOOLS: classrooms, lecture rooms, laboratories, meeting rooms.
UNI EN 12464.

OFFICES: single office, meeting rooms, telephone exchange rooms, offices with VDU terminals.
UNI EN 12464.

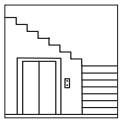
OFFICES WITH VDU TERMINALS: drafting and designing rooms, meeting rooms, banks, offices with VDU terminals. UNI EN 12464.

OFFICES WITH VDU TERMINALS: time spent in front of the screen continually - UNI EN 12464.

OPEN SPACES: offices, large areas, public areas, waiting rooms.
UNI EN 12464.



ART AND CULTURE: cinemas, theatres, museums, galleries, churches, libraries, auditoriums, monuments.
UNI EN 12464

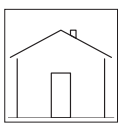


COMMON AREAS: corridors, stairs, llifts.
UNI EN 12464.

COMMERCIAL CENTRES: shops, show rooms, shop windows, supermarkets, airports.
UNI EN 12464.

LARGE-SCALE DISTRIBUTION: shopping centres, supermarkets, hypermarkets.

MALLS: general shops, goods displays, shop windows, supermarkets, airports, shop facades. UNI EN 12464.



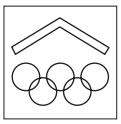
GENERAL ROOMS: home, hotels, sleeping rooms, bars, restaurants, canteens.
UNI EN 12464

FOOD INDUSTRY: UNI EN 12464.

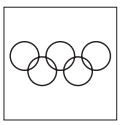
WORKSHOPS: mechanical workshops, bodyshops, garages.
UNI EN 12464.

STORES: goods sheds, warehouses, depots, production areas, hangars. UNI EN 12464.

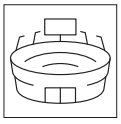
INDUSTRIES: stores, goods sheds, warehouses, depots, production areas.
UNI EN 12464.



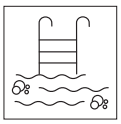
INDOOR SPORTS FACILITIES: ice-skating facilities, sport facilities, athletics grounds, swimming pools, gymnasiums, volleyball courts, basketball courts.



OUTDOOR SPORT FACILITIES: Football grounds, athletics grounds, horse racing grounds, golf courses, bowling fields, tennis, volleyball courts, basketball courts, etc. UNI 9316.



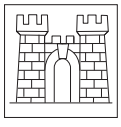
PROFESSIONAL SPORT FACILITIES: Football grounds, athletics grounds, horse racing grounds, golf courses, bowling fields, tennis, volleyball courts, basketball courts, etc. UNI 9316.



SWIMMING POOLS

AMENITY LIGHTING: gardens, tree-lined alleys, green areas, parks, promenades.

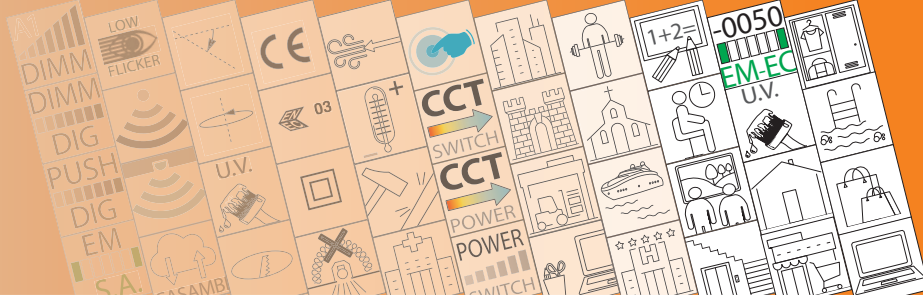
RESIDENTIAL AREAS: private areas, residences; external walls, pedestrian paths, service stations. UNI 10439



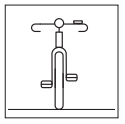
CLASSIC LIGHTING: Ideal for application in city centers.

RELIGIOUS PLACES

Application tips



FACADES



BICYCLE PATHWAYS: also for pedestrian areas.

PEDESTRIAN ROUTES: near crossroads, pedestrian crossings, and traffic light intersections.

STREETS: secondary roads, shop-lined streets, low-traffic streets, industrial areas.
UNI 10819 - UNI 10439.

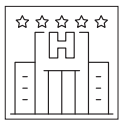
PARKING LOTS: private, public, in commercial areas.

PEDESTRIAN AREAS: parks, walkways.

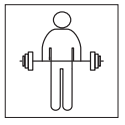
PORTS: large areas, common areas, loading and unloading areas.

AIRPORTS: large areas, common areas, loading and unloading areas.

TUNNELS: highway, railway, underground and subway, tunnels.



HOTEL



SPORT HALLS, GYMNASIUMS

BOATS, YACHT and **BOAT BUSINESS**

PHONE

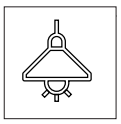
NO SMOKING

WC

WATERPROOF FIXTURES Fixture enclosures are in polycarbonate and keep their IP65/66 waterproof rating if installed, used and maintained in compliance with technical specifications (particularly operating voltage and temperature), as well as with the supplied instructions and applicable standards. Exposure to direct sunlight may heat up the fixture to 45°C compromising the degree of protection. It is advisable to use fixtures properly without altering mechanical properties and protection rating (IP65/IP66); **do not install on surfaces subject to strong vibrations, outdoors on hanging cables, or on walls under metallic grates, or on poles, and in any case, never expose the fixture to direct sunlight**. Otherwise, use watertight fixtures in steel.

UV lighting for sanitization:

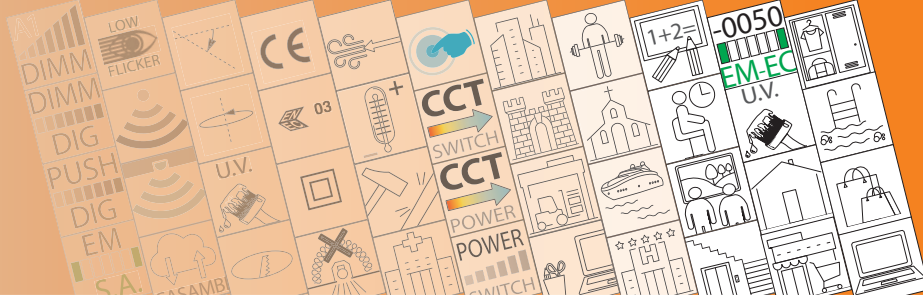
The presence of people is allowed.



Versions also including general lighting.

The presence of people is not allowed.

Versions with UV lighting only.



Narrow beam.

Medium beam.

Wide beam.

Extra-wide beam.

Asymmetric beam.

Both direct and indirect light.

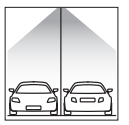
Rotosymmetric/wide beam.

Asymmetric beam.

Residential amenities/asymmetric beam.

Bi-asymmetric beam.

Residential amenities/large areas beam.

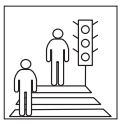


Centre road beam.

Residential amenities/ cycleways beam.

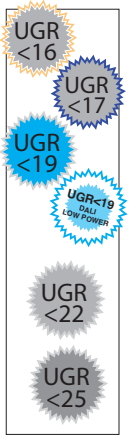
Cycleways beam.

Cycle-pedestrian beam.



Pedestrian crossing beam.

CRI: indicates how truthfully the artificial light source is able to reproduce the colours of objects. It varies from a range of **0 to 100**, where **0 represents the minimum** and 1**00 is the maximum**.



UGR<16-17: very demanding applications (technical drawings).
UGR<19: offices and schools (reading, business meetings, computer work).
UGR<19 - DIMM DALI (LOW POWER): ideal in environments that require controlled light distribution and maximum visual comfort (UGR<19).
UGR<22: industrial applications, craftsmen.
UGR<25: transit areas.

1750K (subcode -44): lamps with warm light are ideal for particularly dangerous areas (pedestrian crossings, entries, roundabouts, etc.) and to minimize the lighting's impact on the environment and on the fauna of green urban areas.
2200K (subcode -73): lamps with warm amber light eliminate the risks of an excessive exposure to harmful blue LED light and allows a "softer" impact on inhabited zones, especially in historic centres.
3000K (subcode -39) - 4000K as standard: lamps with 3000K-4000K white light, instead, is the best choice for lighting up urban areas, streets, residential centres and generally all areas where this type of light guarantees greater safety and visual comfort.