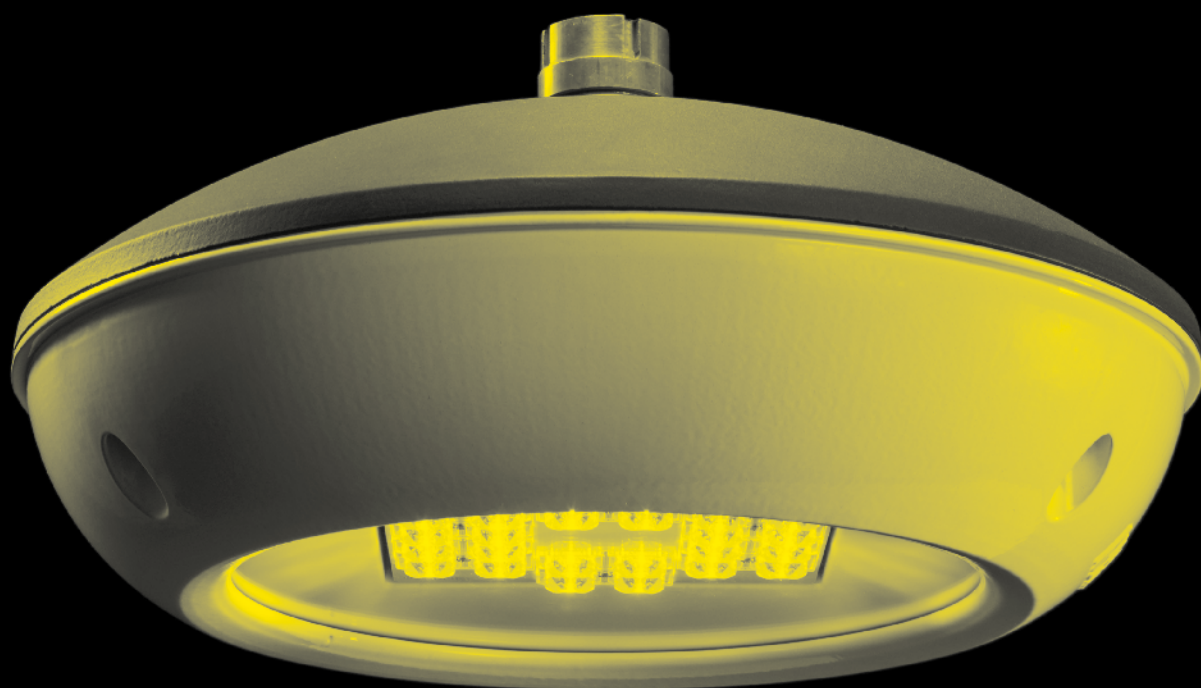


NERI

LIGHT 103





Designed to be versatile, Light 103 can be used to illuminate streets and pedestrian paths.

Available in suspended or catenary form, equipped with 5 different optics, it meets a wide range of technical requirements, ensuring consistency in urban lighting, both in historic and contemporary contexts.

DECORATIVE



COMFORT



PERFORMANCE



LIGHT 103

Scale 1:10
Dimensions in mm/in

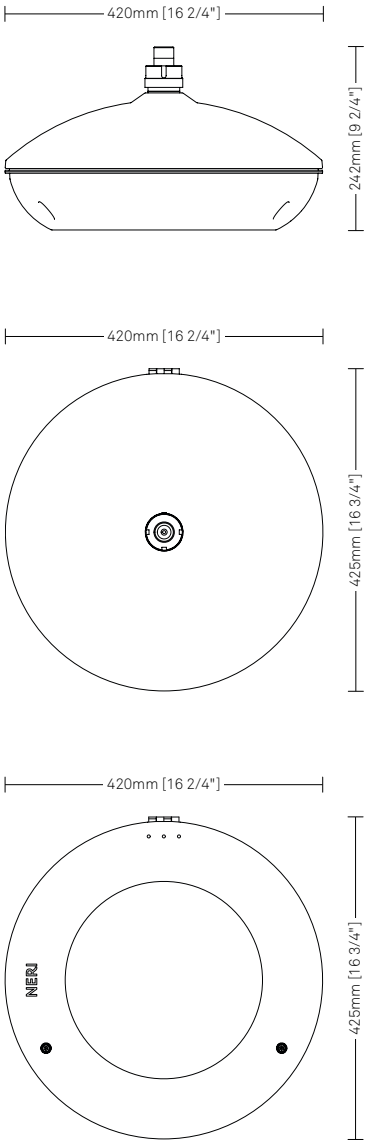
Light 103 is a LED lighting fixture designed to accommodate multilayer technology. Designed for installations in historic and contemporary contexts to ensure flexibility of use, it is characterised by its high performance and excellent dissipation of heat.

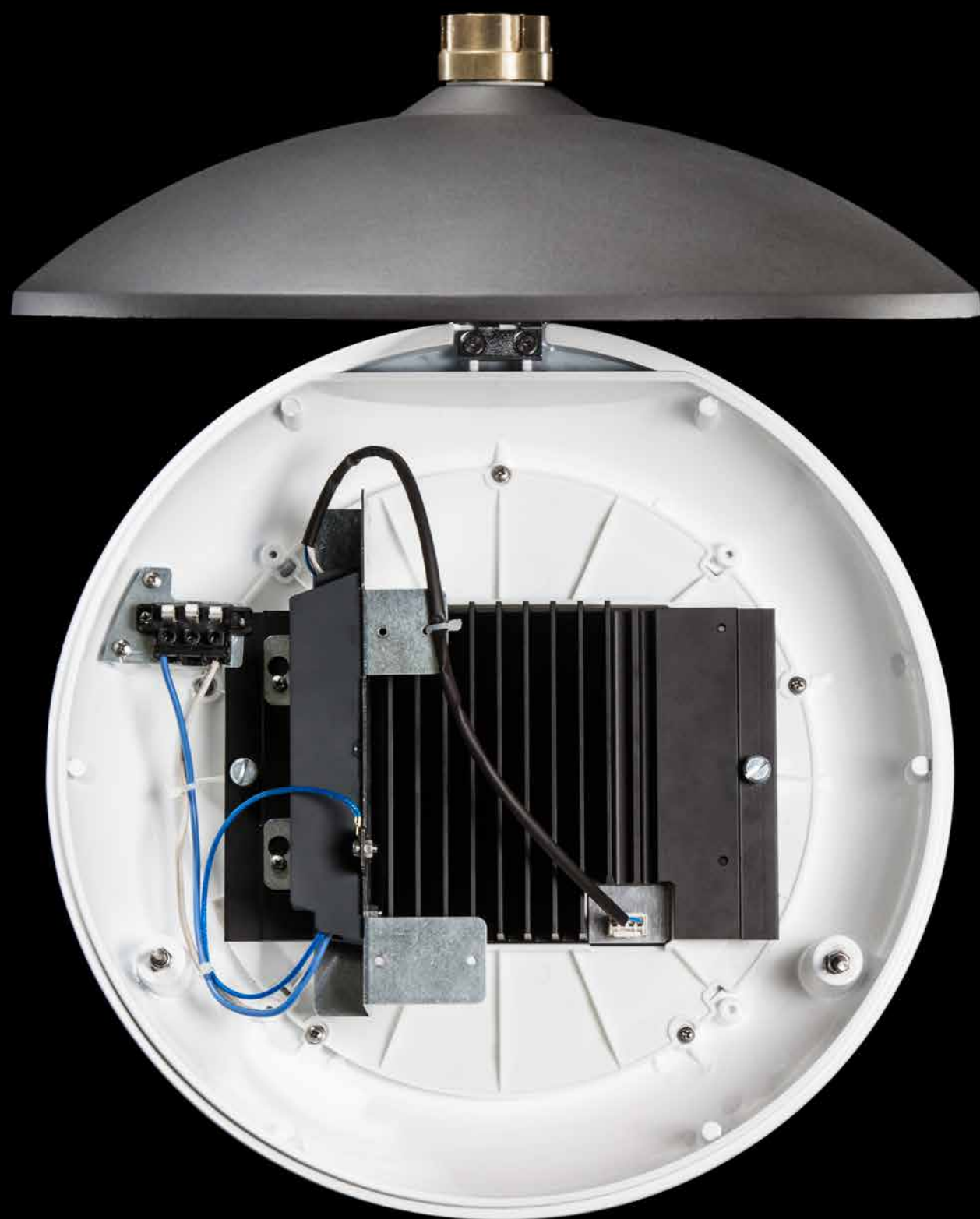
Materials

The body is made from die-cast aluminium while the screen is made from extra-clear flat transparent glass, with an impact resistance rating of IK09.

Coating

The upper part is painted in the standard Neri Grey colour, while the lower part is white RAL 9016.





Versions

Suspended, catenary.

Applications

Roads, parks, pedestrian and cycling paths, residential areas, shopping centres and offices.

Performance

Latest generation LED technology combined with multilayer lenses, high energy savings and heat dissipation.

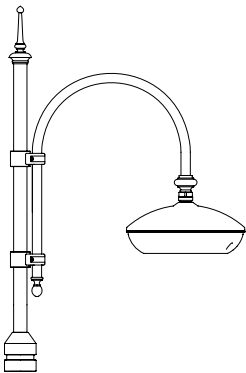
Maintenance

Ease of installation and parts replacement.

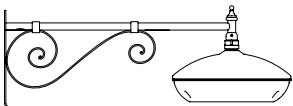
VERSIONS

Light 103 is designed to adapt to the different scenarios typical of cities and to guarantee consistency throughout, thanks to the different versions and related accessories available: suspended and catenary (with male G3/4).

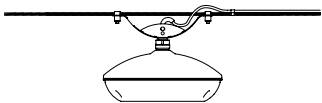
Suspended on pole



Suspended on wall bracket



Catenary





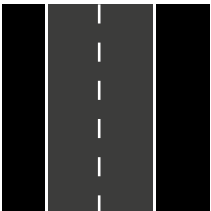
Catenary fitting

Its small size ensures less exposure to wind and less oscillation, making catenary installations extremely secure and perfect for all areas where it would be difficult to use lamp posts.

APPLICATIONS

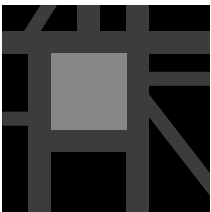
Roads

High efficiency and reduced glare are guaranteed for different road optics.



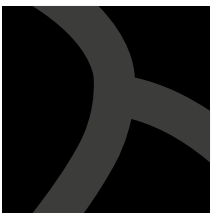
Parks

Uniform lighting with high colour rendering makes public spaces pleasant and safe to enjoy.



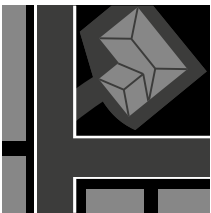
Pedestrian and cycling paths

Light is concentrated on the path, so that disturbances and visual pollution of green areas are prevented. Effective illumination is guaranteed in harmony with the surroundings.



Residential areas, retail, offices

The combination of functionality and aesthetics allows the product to integrate easily in architectural contexts, both outdoors and indoors.





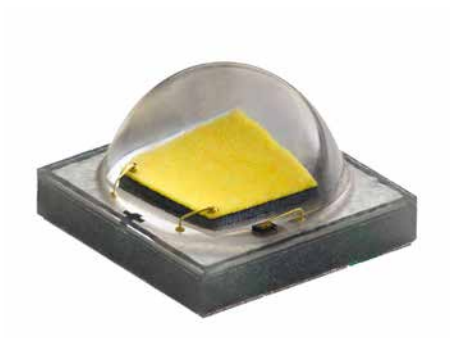
LED Light 103 with multilayer lenses

Glare is reduced thanks to the wide emission surface; latest generation LED Cree XP-G2 and PMMA multilayer lenses provide high and constant performance over time, even in the event of source failure.

MULTILAYER TECHNOLOGY

Light 103 is equipped with highly efficient LED Cree XP-G2 positioned on a ceramic base to provide high thermal conductivity and electrical insulation for a longer service life.

The optical system is composed of overlapping PMMA lenses with high performance and constant light transmission; the multilayer technology optimises the quality of light, even when the performance of the system changes.



LED Cree XP-G2



PERFORMANCE:
ENERGY SAVINGS

Proper management
of electronic luminous flux
means benefits in terms
of energy saving and life
cycle of the product.

Thanks to electronic ballasts equipped
with smart systems the lighting
management guarantees high energy
savings. The driver chosen can be
equipped with the features below:

NCL (Neri Constant Lumen)
Keeping flows consistent

The driver allows the initial flow to be kept
consistent throughout the product life cycle
by calibrating the current supply of the
LEDs and ensuring the same luminous
flux over time.

NVL (Neri Variable Lighting)
Stand-alone setting

The driver is equipped with a stand-alone
control that automatically adjusts the
light flow to one or more levels during the
operational period, which is automatically
set according to the seasons.

DALI, 1-10V
Remote lighting management system

With the two-way digital DALI protocol
lighting levels can be adjusted, while
consumption and system diagnostics can
be monitored. Via the analogue signal
1-10V, the illumination levels regulation
is enabled. Inside the products
on the cabling board, space has been
made to accommodate an electronic
unit for remote management functions.

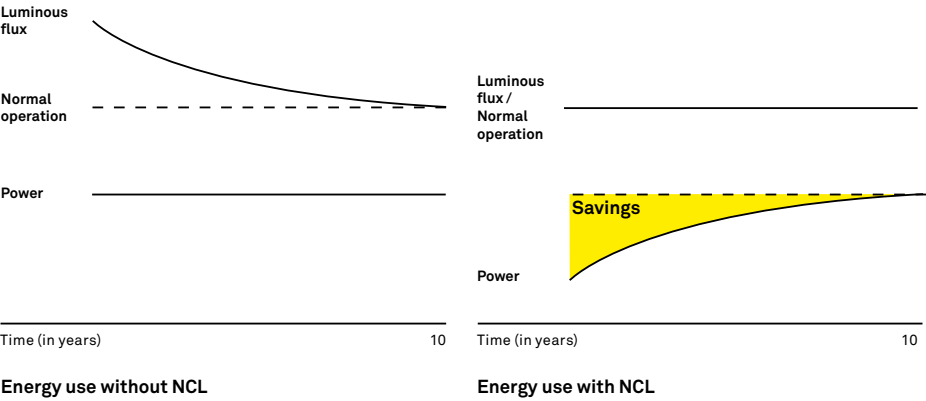
AmpDim
Flux regulator

Product dimming in electrical systems
already equipped with flux regulator,
where the feed voltage is linearly
modulated. The percentages of flux
reduction are specified in relation
to the existing logic.



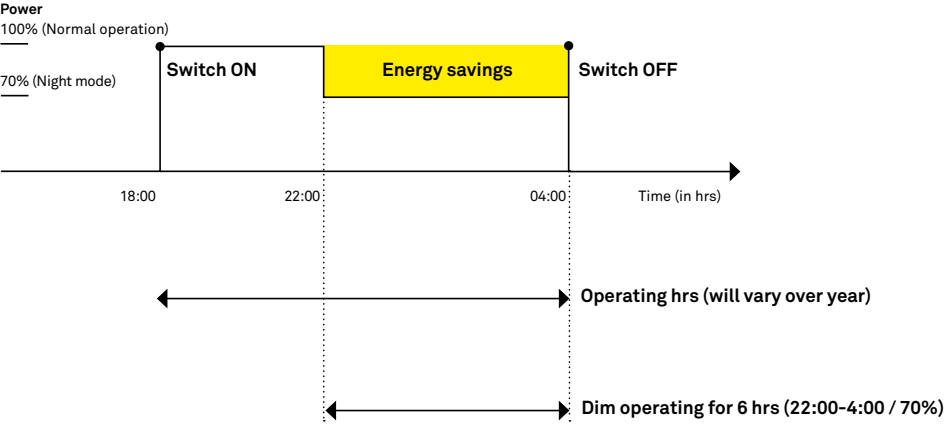
Philips Xitanium
Constant Current

NCL – KEEPING FLOWS CONSISTENT



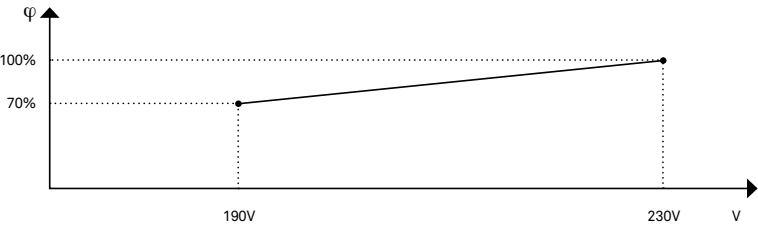
The light output of the
system is kept consistent
throughout the life of
the product by acting
on the current supplied
and compensating for
the decay of the source.

NVL – STAND-ALONE SETTING



Dimming preset cycle:
from switching on to 20:00,
100% of the luminous
flow is guaranteed; from
22:00 until shut-down the
guaranteed flux is 70%.

AMPDIM – FLUX REGULATOR



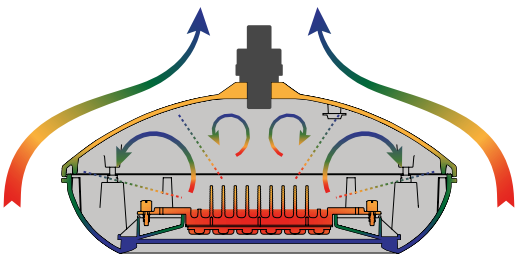
Example of AmpDim setting:
with a voltage feed of 230V,
the product is at 100% of
its flux; the flux regulator
reduces the voltage feed
to 190V, thus reaching 70%
of its flux.

PERFORMANCE:
HEAT DISSIPATION

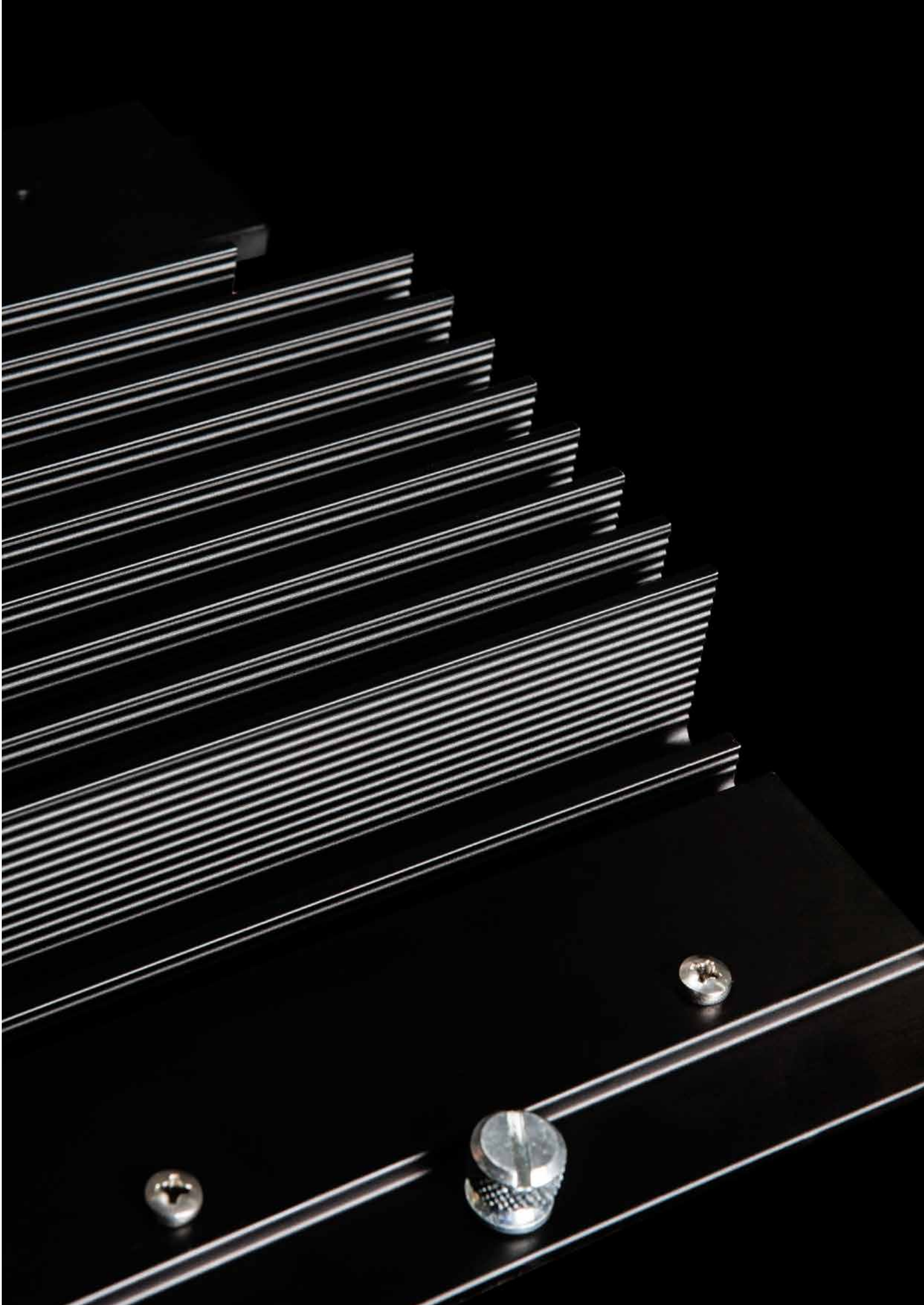
Thermal management is critical to the proper functioning and long life of LED sources. Light 103 is equipped with a heat dissipation system capable of keeping the junction temperature low, thus extending the life of the light source.

Dissipation of heat takes place via an internal aluminium heatsink, allowing the exchange of heat with the top cover; the internal fin structure of the heatsink allows for natural air circulation, which prevents an accumulation of localised heat and enables better heat exchange between the air and inner walls of the body.

Due to this dissipation of heat, the system is able to keep the LED junction temperature below the limits that guarantee the expected useful life. The luminaire can be used at temperatures up to 50°C.



- conduction
- air circulation
- radiation



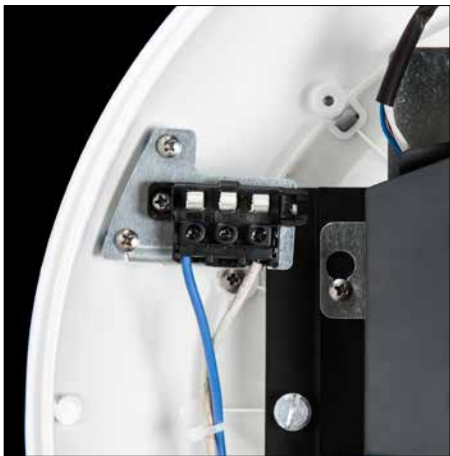
MAINTENANCE

Luminaire opening



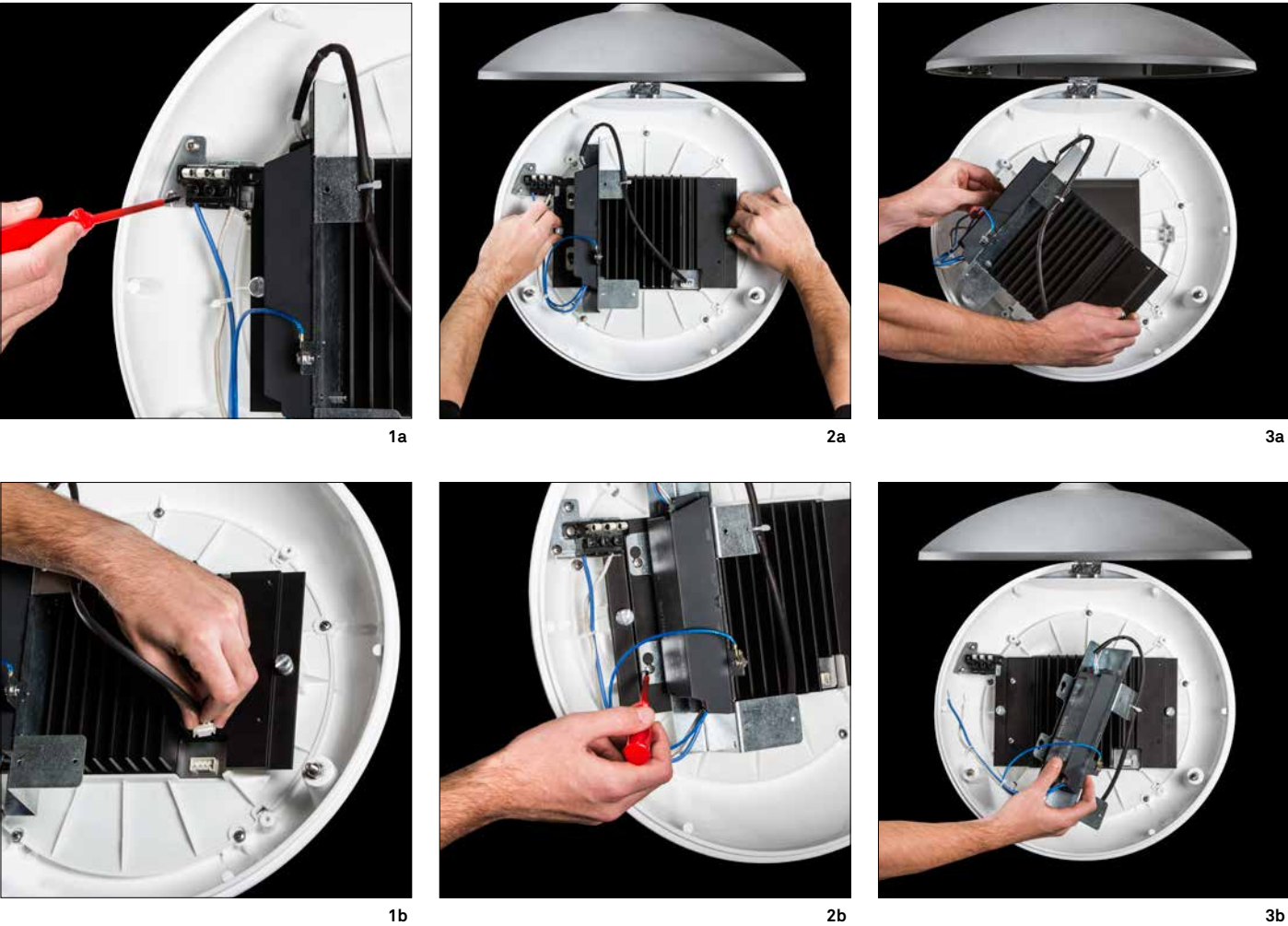
During the maintenance operations no screw or component separates from the luminaire structure. Routine maintenance, other than cleaning the outside of the structure and the screen from dust and smog, is not required.

To access the auxiliary and optical assembly, simply unscrew the two screws of the frame and turn it.



Automatic disconnecter disconnects electricity from the electrical component.

Removing gear tray



The wiring plate is fully replaceable: simply disconnect the power cables from the disconnecting switch, unscrew the quick-closing pins and remove the module (images 1a-2a-3a).

It is also possible to disconnect the power supply by unplugging the connector from the PCB and power cables (images 1a-1b), then loosen the screws and remove the wiring plate (images 2b-3b).

TECHNICAL FEATURES

Versions

- Suspended (with male G3/4)
- Catenary (with male G3/4)

Materials

- Die-cast and extruded aluminum
- Extra-clear transparent flat glass
- Stainless steel fasteners
- Silicone gasket

Finishes

- Top in Neri Grey
- Bottom in white RAL 9016

Structure - Main components

- Opening aluminium lower ring with screen to access wiring and optical compartment
- Silicone gasket between top and bottom parts
- Screen is flat glass with impact resistance IK09 (EN 62262)
- Plastic reflector to recover flux and reduce glare
- 2x2 refractive modular lenses in PMMA
- Appropriate space for any auxiliary for remote control devices (Smart City Ready)

Electrical auxiliaries

- Programmable electronic power supply with functions: NCL, NVL, DALI, 1-10V, AmpDim
- Automatic disconnecter when opening
- Terminals wires max. section of 2.5mm²
- Surge protection for differential/common mode up to 6kV/8kV



Power supply

- Estimated life (L85 – Ta 25°C): > 100,000h



TECHNICAL FEATURES:
LED MODULE

MAIN TECHNICAL DATA

  IP66

SUPPLY VOLTAGE
220-240V, 50/60Hz frequency

SURGE PROTECTION
6kV/8kV

POWER SUPPLY
Programmable electronic

POWER FACTOR CORRECTION
PFC > Cos φ 0.9

ELECTRICAL INSULATION
Class II

ENCLOSURE PROTECTION
Water and dust IP66
Mechanical impact IK09

PLANNING INFORMATION
For information related to the combinations between flux size options, power and colour temperature, please see the website.

–

Neri SpA reserves the right to modify its products and documentation without obligation to give prior warning.

SCREEN SHAPE

EXTRA-CLEAR TRANSPARENT FLAT GLASS – Full Cutoff

OPTIC SYSTEM

TYPE I – SYMMETRIC ROAD (NLG 19)

TYPE II – ASYMMETRIC ROAD OR CYCLE PATH (NLG 20)

TYPE III – ASYMMETRIC ROAD (NLG 21)

TYPE V – ROTOSYMMETRICAL (NLG 18)

PEDESTRIAN CROSSINGS (NLG 23)

COLOUR TEMPERATURE

3,000K

4,000K

FLUX SIZES OPTIONS 3,000K

2,500lm	23W	110lm/W
3,500lm	33W	108lm/W
4,500lm	39W	114lm/W
6,000lm	55W	108lm/W

FLUX SIZES OPTIONS 4,000K

2,500lm	21W	122lm/W
3,500lm	29W	120lm/W
4,500lm	35W	128lm/W
6,000lm	49W	123lm/W

DRIVER FUNCTIONS

1-10V + NCL

DALI + NCL

NVL + NCL

AmpDim + NCL

ELECTRICAL DEVICES

AUTOMATIC DISCONNECTOR

Planning

TYPE I – SYMMETRIC ROAD (NLG 19)

CLASS	H 7.5m, W 6m		H 8m, W 7m	
	Spacing	Flux	Spacing	Flux
C4	22m	3,500lm	26m	4,500lm
M3	24m	4,500lm	27m	6,000lm

TYPE II – ASYMMETRIC ROAD OR CYCLE PATH (NLG 20)

CLASS	H 8m, W 6m		H 7m, W 7m	
	Spacing	Flux	Spacing	Flux
M3	27m	6,000lm	27m	6,000lm
M4	26m	4,500lm	-	-
C3	27m	6,000lm	-	-
C4	-	-	31m	4,500lm
P2	31m	4,500lm	25m	3,500lm
P3	-	-	24m	2,500lm

TYPE III – ASYMMETRIC ROAD (NLG 21)

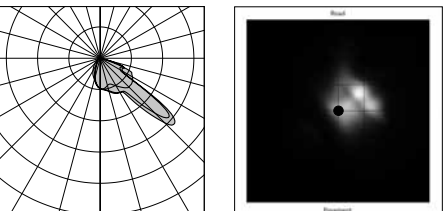
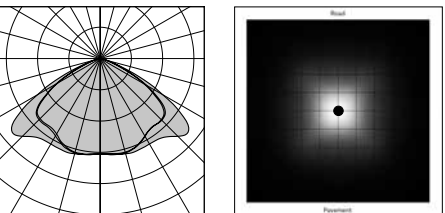
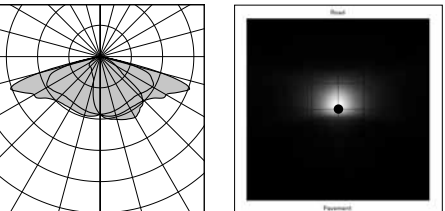
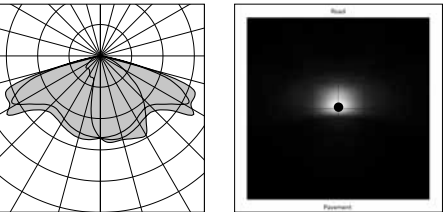
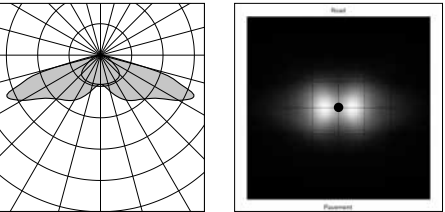
CLASS	H 7m, W 8m		H 7m, W 9m	
	Spacing	Flux	Spacing	Flux
C3	-	-	25m	6,000lm
C4	23m	3,500lm	-	-
M3	25m	6,000lm	-	-
M4	24m	4,500lm	-	-
P2	-	-	28m	4,500lm

TYPE V – ROTOSYMMETRICAL (NLG 18)

CLASS	H 6,5m		H 7m		H 5m	
	Spacing	Flux	Spacing	Flux	Spacing	Flux
P2	23x23	6,000lm	-	-	17x17	3,500lm
P3	-	-	23x23	4,500lm	17x17	2,500lm

PEDESTRIAN CROSSINGS (NLG 23)
Calculations to establish the required vertical lighting levels are necessary to position the light.

Photometric light distribution





HIGHLIGHTS

Main features

- Light 103 is a 'Performance' category device
- Designed for suspended and catenary entry
- Especially suitable for roads with mixed traffic, urban contexts and residential areas
- Designed in full compliance with the lighting standards, with minimal energy consumption, using LEDs and high performance optical solutions
- Designed to reduce glare, without compromising the lighting effectiveness

Flux sizes

- The main factor in lighting design is system flux and photometry
- Neri presents products with their flux sizes, to ensure these values remain constant over time

The flux-size approach permits:

- Same light regardless of the number of LEDs
- Use of the best technolog on the market (easy upgrade)

Multilayer

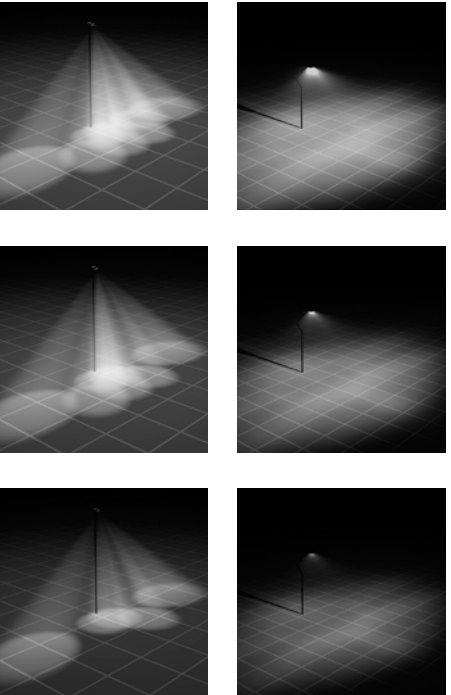
Light 103 adopts a technology with multilayer lenses:

- Each LED is associated with a lens
- All lenses are equal and cover the entire area to be illuminated; in case of failure of a single source, there is no loss in the uniformity of illumination on the ground

Light emitting area

The glaring effect, typical of the individual point sources, is drastically reduced due to some technical devices:

- White colour PCB
- Perimeter reflector
- Large light emitting area



On the left, from top to bottom, diagrammatic views of LEDs without multilayer lenses. On the right, from top to bottom, LEDs with multilayer lenses.

VERSIONS AND CODES

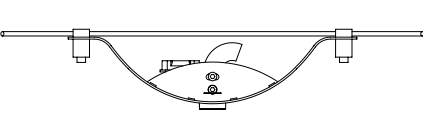
In order to configure the Light 103 luminaire, type of optic, luminous flux related to colour temperature and driver functions need to be chosen.

Their related codes have then to be added in sequence, one after another, following the order of the tables below, starting from type of mounting (eg: **SN103L**), optic (eg: **18**), luminous flux (eg: **1C0**) and driver (eg: **02**). The code of the chosen configuration will be: **SN103L181C002**.

Light 103

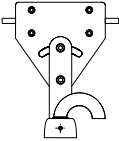
CODE	Mounting	CODE	Optic	CODE	CCT	Flux	CODE	Driver functions
SN103L	G3/4	18	Type V	1C0	3,000K	2,500lm	02	1-10V + NCL
		19	Type I	1C1	3,000K	3,500lm	04	AmpDim + NCL
		20	Type II	1C2	3,000K	4,500lm	06	DALI + NCL
		21	Type III	1C3	3,000K	6,000lm	14	NVL + NCL
		23	NLG 23	3C0	4,000K	2,500lm		
				3C1	4,000K	3,500lm		
				3C2	4,000K	4,500lm		
				3C3	4,000K	6,000lm		

Suspended connection for installation to steel rope



CODE
4006.330.003

Suspended connection luminaires for installation to steel rope, with tilting system



CODE
9525.135.004

Suspended connection luminaires for installation to steel rope, with tilting system



CODE
9525.135

Suspended connection luminaires for installation to steel rope



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