

With unique aesthetic inspired by the design of indoor ceiling lights, Chara collection complements historical and contemporary looking surroundings. Four different standard distributions can fulfill most requirements, while the softly lit transparent cylinder adds character to any lighting scheme.



CHARA COLLECTION

Design: Studio ATA,
Clem François Fiorentini,
Alfredo Farnè

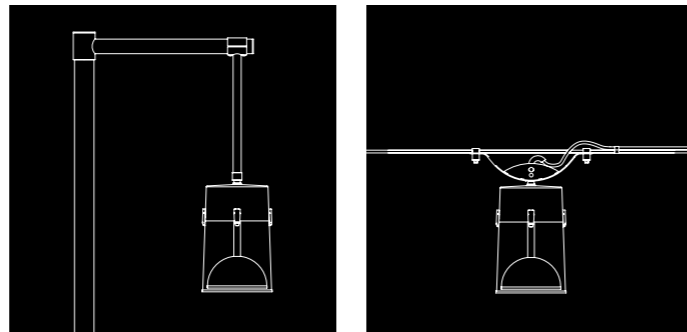
Chara is a suspended luminaire and can be installed – due to its mounting method – on brackets, cable, pendant or chain to light streets, squares, parks, but also verandas and entrance halls.

Materials

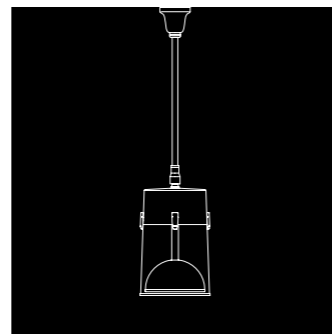
The poles part of the collection are made of steel, with components made of cast iron, while the luminaire is made of cast aluminum with a PMMA cylinder and prismatic flat glass.

Finishes

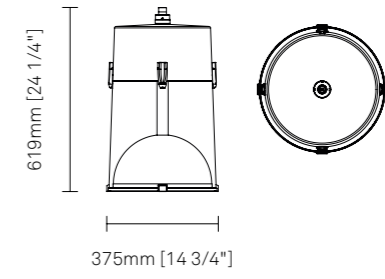
The standard colour is the so-called Neri Grey that is obtained from a chromatic combination, which has been developed after a long aesthetic research. Posts are painted using a water-based and highly eco-friendly process.



Mounting methods:
top left on bracket, top
right on cable, bottom
right on pendant.



CHARA COLLECTION



- Mounting: suspended
- Materials: cast aluminum, PMMA and glass
- Finishes: Neri Grey
- Opening system for PMMA screen without tools
- Electrical components on a removable plate



Chara.01
Chara.02

Chara.01
with midway-bracket

Chara.03

Chara.03
with midway-bracket



Luminaire main features

- Tool-less opening system
- LED optics: multilayer lenses
- CCT: 3,000K and 4,000K
- Reflector for directional control and efficiency and prismatic glass to reduce glare
- Surge protection: up to 10kV/10kV
- Estimated life: 100,000h, L90B10

APPLICATIONS

Roads

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

Squares and parks

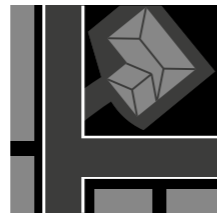
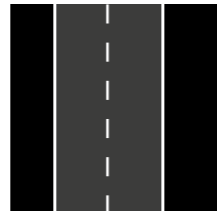
Uniform light with high colour rendering makes public spaces pleasant and safe to enjoy.

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, either outdoors or indoors.



LIGHT SOURCE

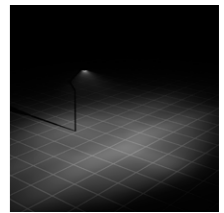
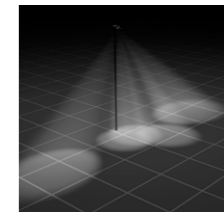
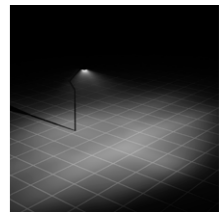
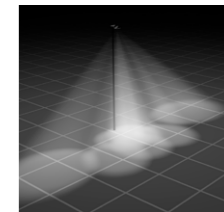
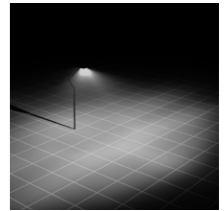
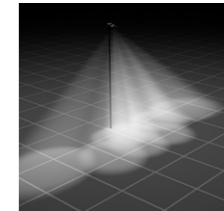
The optical system is composed of overlapping PMMA lenses with high performance and constant light transmission.

Chara is equipped with highly efficient latest generation of CREE XPL LEDs positioned on a ceramic base to provide high thermal conductivity and electrical insulation for a longer service life.

The wide emission surface and the perimeter reflector increase the emission efficiency maintaining reduced glare values.

Customized distributions of light can be obtained thanks to the flexibility in composing the lenses.

Reduced glare thanks to the wide emission surface. Latest generation CREE XPL LEDs and PMMA multilayer lenses provide high and constant performance over time, even in case of failure of a single source.



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.

**PERFORMANCE:
ENERGY SAVING**

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

Thanks to electronic ballasts equipped with intelligent systems, the Chara lighting systems guarantee high energy savings. The driver chosen for Chara can be equipped with the features listed below:

NCL (Neri Constant Lumen)

Keeping output consistent

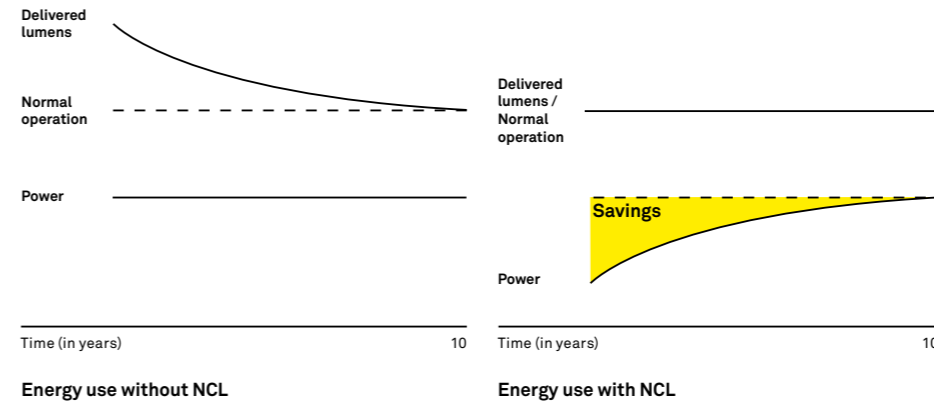
The driver allows the initial flow to be kept consistent throughout the product life cycle by calibrating the current supply of the LEDs and ensuring the same luminous output over time.

NVL (Neri Variable Lighting)

Stand-alone setting

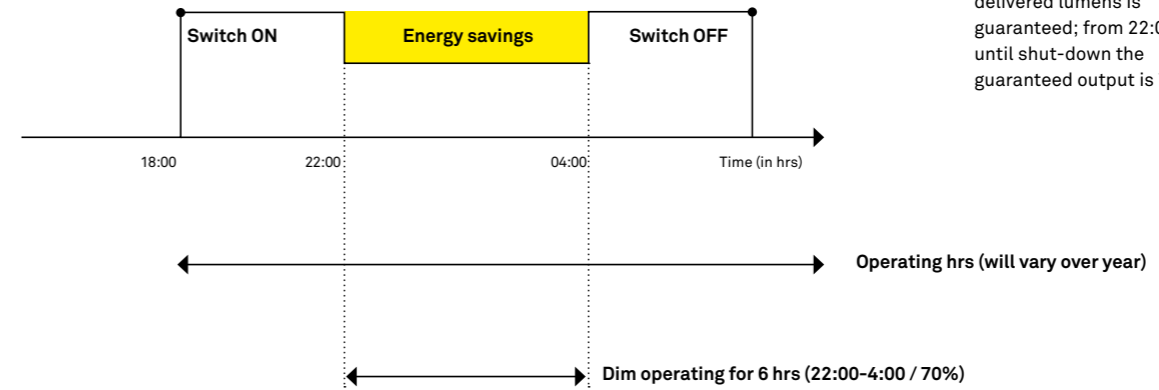
The driver is equipped with a stand-alone control that automatically adjusts the light flow to one or more levels during the operational period, which is automatically set according to the seasons.

NCL - KEEPING OUTPUT 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 the switching on to 22:00 the 100% of delivered lumens is guaranteed; from 22:00 until shut-down the guaranteed output is 70%.



TECHNICAL FEATURES

Fixing

- Suspended with G3/4" male threaded attachment

Materials

- Die-cast, sheet and extruded aluminum, with machined brass fittings
- PMMA cylinder
- Prismatic flat glass
- Stainless-steel fasteners
- Internal reflector made of Poly-carbonate

Finishes

- Standard colour Neri Grey

Main components

- Upper cylindrical frame in die-cast aluminum with quick brass connection and G3/4" threaded tube for mounting to the support, complete with internal cable gland
- Gasket in silicone between the upper and bottom frames
- Cylindrical screen in polymethyl methacrylate (PMMA) with glass bottom
- Internal tilting frame made of anodized aluminum sheet that can be opened by clips to access the auxiliary compartment, made up of a wiring plate, a hemisphere with reflector inside and a connecting pipe.

Electrical auxiliaries

- Programmable electronic power supply with auto diagnostic function
- Terminals wires max. section of 2.5mm²
- Power supply cable intake through Ø 14mm tube
- Cable grommet
- Standard surge protection for differential/common mode 6kV/10kV and 10kV/10kV in presence of additional protections (on demand).

Power supply

- Estimated life (EN 62722-2-1, LM80 data): 100,000h L90B10 (T_q= 25°C)

TECHNICAL FEATURES: LED MODULE

MAIN TECHNICAL DATA

CE 

SUPPLY VOLTAGE
120V-277V, 50/60Hz frequency

SURGE PROTECTION
Standard surge protection for differential/common mode 6kV/10kV and 10kV/10kV in presence of additional protections (on demand).

POWER SUPPLY
Programmable Electronic

POWER FACTOR CORRECTION
PFC > cos φ 0.9

ELECTRICAL INSULATION
Class II

ENCLOSURE PROTECTION
Water and dust IP65
Mechanical impacts IK08

PLANNING INFORMATION
For information related to the combinations between output size options, power and colour temperature see the web site -

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

SCREEN SHAPE

PRISMATIC FLAT GLASS

OPTIC SYSTEM

TYPE I – NLG 28

TYPE III – NLG 25

TYPE IV – NLG 24

TYPE V – NLG 18

IES CLASS

Cutoff

Semi Cutoff

Cutoff

Cutoff

COLOUR TEMPERATURE

3,000K

4,000K

DELIVERED LUMENS

3,000K	3,500lm	27W	130lm/W
3,000K	4,500lm	35W	129lm/W
3,000K	6,000lm	47W	128lm/W
3,000K	7,500lm	60W	125lm/W
4,000K	3,500lm	26W	135lm/W
4,000K	4,500lm	33W	136lm/W
4,000K	6,000lm	45W	133lm/W
4,000K	7,500lm	58W	129lm/W

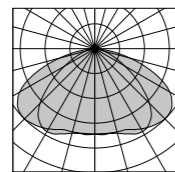
DRIVER FUNCTIONS

NCL

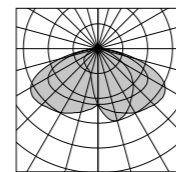
1-10V

NVL

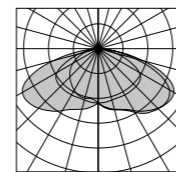
TYPE I – NLG 28



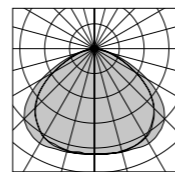
TYPE III – NLG 25



TYPE IV – NLG 24



TYPE V – NLG 18





HIGHLIGHTS

Main features

- Chara is both a 'Decorative' and 'Comfort' category luminaire
- 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

Output sizes

- The main factors in lighting design are system output and photometry
- Neri presents products with their output sizes and photometries, to ensure values and geometries remain constant over time

This approach allows:

- Same output regardless of solution chosen
- Adoption of best technology on the market

Multilayer

Chara 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:

- Prismatic flat glass
- White color PCB
- Perimeter reflector
- Large light emitting area

VERSIONS AND CODES

In order to configure the luminaire, type of optic, delivered lumens 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 (**SU020L**), optic (eg: **18**), delivered lumens (eg: **1C1**) and driver (eg: **02**). The code of the chosen configuration will be: **SU020L 18 1C1 02**.

Chara – Decorative and comfort

CODE	Mounting	CODE	Optic	CODE	CCT	Output	CODE	Driver functions
SU020L	G3/4	28	Type I	1C1	3,000K	3,500lm	02	1-10V + NCL
		25	Type III	1C2	3,000K	4,500lm	71	NCL + manual dimming
		24	Type IV	1C3	3,000K	6,000lm	14	NVL + NCL
		18	Type V	1C4	3,000K	7,500lm		
				3C1	4,000K	3,500lm		
				3C2	4,000K	4,500lm		
				3C3	4,000K	6,000lm		
				3C4	4,000K	7,500lm		



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