

# laFoglia large glass-free

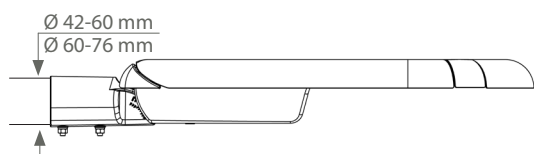
Product code: LFG L



Scale: 1:10

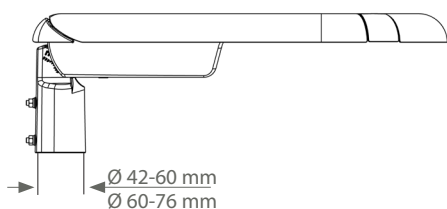
## Fixing type

Side



Adjustable with 5° step  +20°

Pole-top



Adjustable with 5° step  +10° -20°



**Timeless**

Regenerable luminaire: replaceable LEDs and drivers without tools.



**Compact**

Sealed fixture: quick installation, fast connector.

## Standard reference

EN 60598-1, EN 60598-2-3, EN 62471, EN 55015, EN 61547, EN 61000-3-2, EN 61000-3-3

Conformity



Insulation class



Protection class



## Geometry and mechanical features

Size | Weight:

L 670 mm · W 405 mm · H 100 mm | 8,7 Kg

C x S:

Lateral: 0,04 m<sup>2</sup> | Plan: 0,21 m<sup>2</sup>

## General features

Disconnecter included:

Cable clamp included | cables section Ø 8.5mm÷Ø14mm

Power source:

220-240V | 50/60Hz | tolerance +/-10% | other voltages on request

Current supply:

525mA | 700mA | 1.000mA

Power Factor | THD:

≥0.95 | <10 % (At full load)

Expected life (Ta25°):

> 100.000 h | L90B10 | module current LED 700mA  
> 100.000 h | L90 | TM21 | module current LED 700mA

Overcharge protection:

Impulse withstand CM/DM 10kV / 6kV

SPD device (optional):

With falsafe green LED indicator (\*) and thermal disconnecter.

(\*) LED green OFF and AC network cut-off.

CLASSE 1 | 10kV / 10kA

CLASSE 2 | 10kV / 10 kA

Light control system:

(Details on page 3)

STANDARD: current fixed | virtual midnight | 1-10V | CLO

ON REQUEST: DAC | DALI | PLM | FR | RRF | NTC

IPEA:

≥ A++ according to DM 27/09/2017 (C.A.M.)

## Materials and color

Lighting fixture:

Die cast aluminium | EN1706

Optical system:

Nano-optics in PMMA

Gaskets:

Silicon

Cable gland:

Polyamide PA66 | PG16 | Ø 14mm MAX

System device:

inox steel AISI 304L

Screws and bolts:

inox steel AISI 304L

Color:

Light grey Ghisamestieri® | EN ISO 1461

## LED specification

Model:

 NVSL219D340/360

LED data 4000K - 700mA:

340 lm/LED | 180 lm/W | 85°C [Tj] | ≤ 3 step macadam

Color temperature:

3.000K | 4.000 K | 5.700 K | CRI ≥ 70

"Flip Chip" Technology:

Thanks to the gold electrodes, the LEDs are absolutely free from corrosion in sulfides saturated environment. A requirement that keeps lumens and CRI unchanged over time.

Number of modules:

From 3 to 4

Operational temperature:

-40 / + 55 °C

Storage temperature:

-40 / + 80 °C

Photobiological safety:

in accordance with IEC/TR62778 risk free, class 0

Photometric classification:

Cut-Off

## Available optical systems

(Details on page 2)



• Type 2A •




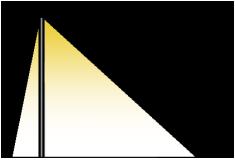
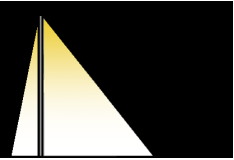
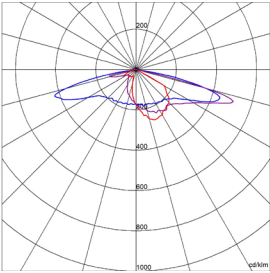
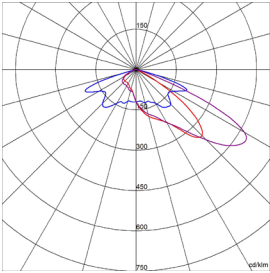
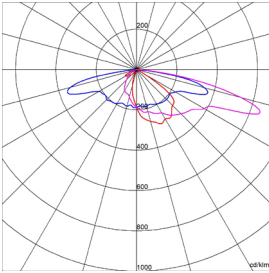
• Type 3A •



• Type 3B •

## Available optical system

All photometric data below were determined in accordance with UNI EN 13032-1 and IES LM 79-08.

	TYPE 2A	TYPE 3A	TYPE 3B
OPTIC			
POLAR			
DESCRIPTION	Asymmetric optic. Asymmetric luminous distribution for installation in cycle-pedestrian paths.	Asymmetric optic. Asymmetric luminous distribution for installation in street and highway.	Asymmetric optic. Asymmetric luminous distribution for installation in urban and suburban roads.

## Photometric data

The photometric data refers to GHISAMESTIERI products in the standard version, with 4000K color temperature, optical reference type 3A and ambient temperature of 25 ° C. In the case of lighting calculations with the driving current and / or different color temperature from the standard, using the conversion factors for the luminous flux reported in the tables.

### LED MODULES NOMINAL DATA 4000K [ta = 25°C; tj=85°C]

LED code	I [mA]	Luminous flux [lm]	Power [W]	Efficiency [lm/W]
A3L	525	7.400	40	185
	700	9.396	54	174
	1.000	12.397	77	161
A3U	525	8.510	46	185
	700	10.788	62	174
	1.000	14.168	88	161
A3J	525	9.620	52	185
	700	12.006	69	174
	1.000	15.939	99	161
A4L	525	10.730	58	185
	700	13.398	77	174
	1.000	17.710	110	161
A4J	525	12.765	69	185
	700	16.008	92	174
	1.000	21.252	132	161

Data extrapolated from the Manufacturer documentations.

### DEVICE MEASURED DATA [4000K- OPTIC 3A]

LED code	I [mA]	Luminous flux [lm]	Power [W]	Efficiency [lm/W]
A3L	525	7.029	45	156
	700	8.928	60	149
	1.000	11.808	86	137
A3U	525	8.116	52	156
	700	10.397	70	149
	1.000	13.592	99	137
A3J	525	9.131	59	155
	700	11.697	79	148
	1.000	15.292	113	135
A4L	525	10.207	66	155
	700	12.891	87	148
	1.000	16.794	124	135
A4J	525	11.987	78	154
	700	14.960	102	147
	1.000	19.718	147	134

#### OPTIC CONVERSION FACTOR LUMINOUS FLUX

Optic type	Flux multiplier
2A	0,94
3B	1,00

#### Tk CONVERSION FACTOR LUMINOUS FLUX

Tk [K]	Flux multiplier
3.000	0,94
4.000	1,00
5.700	1,01

#### CRI CONVERSION FACTOR LUMINOUS FLUX

CRI (color render index)	Flux multiplier
70	1,00
80	0,90

The values in this data sheet have a tolerance of +/- 5%.

GHISAMESTIERI reserves the right to modify the data contained in this data sheet without prior notice, in order to technologically upgrade their products.



## Dimming profiles and additional functions

### STANDARD

#### Dimming profiles

##### Constant current

The driving current of the lighting fixture is fixed. In this way energy consumption and the luminous flux remain constant.

##### Automatic lighting control - Virtual midnight

Automatic luminous flux control. According to a programmable profile, the driver automatically adjusts the light intensity depending on the time. The maximum flux will be concentrated during the first and last hours of power of the lighting fixture, decreasing the consumption during the central part of the night, statistically less busy. The reduction of consumption modalities adapts itself to changes of length of the night- time period during the year. The driver is programmed inside the company.

##### 1-10V - Flux control by analogic control

The adjustment of the lighting fixture allows to drive the luminous level by an analog signal. The minimum level corresponds to 1V and the maximum level to 10V. The device is designed for cable connection L-N-1 / 10V.

#### Additional functions

##### CLO - Constant lumens output

LEDs life time is subject to an ordinary performance deterioration. To maintain constant the luminous flux in exit, the decrease of the performances can be compensated through a progressive increase of the current in entrance to the LEDs. In this way, a higher factor of maintenance can be used in comparison to the ordinary one, guaranteeing an energetic saving that comports a reduction of the management's costs of the plant.

##### DAC - Customized profile automatic dimming

The adjustment of the luminous flux can be totally customized by the user. It is possible to set up till to 5 levels of hourly adjustment in 4 steps. The versatility of this system allows to rationalize consumption in function of specific application requirements.

##### DALI - Digital addressable lighting interface

DALI is the standard digital technology for the management of devices based on a digital signal, able to direct uniquely up to 64 modules on a same bus. The device is designed for cable connection N-L-DALI. In addition to a cable signal, a +/- cables is required.

##### PLM - Adjustment by remote control

Through remote control you can check each single device. Associating to this system a control unit LCU, you can vary a number of parameters, customizing the adjustment of the single lighting fixture. Thanks to remote control systems you can also monitor the energy consumption and possible malfunctions of the plant, and make corrections without operator on site.

##### FR - Full range

The luminaire is supplied with an extended voltage (120-280V). In this way, device operation is guaranteed even in the variable-power situations.

##### NM - Nema socket

The Nema socket system allows the wireless remote control of the lighting fixture. It can be installed without any access to the internal components. The system can be added also after installation of lighting fixture. The IP66 socket is equipped with a cap in the event of non-use of the system. Inside the module is integrated technology for flux control through various protocols such as DALI, 1-10V, or on-off photocell.

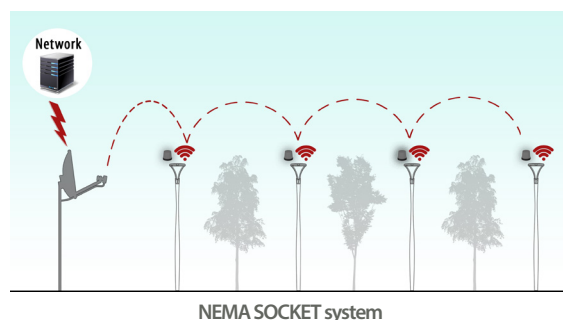
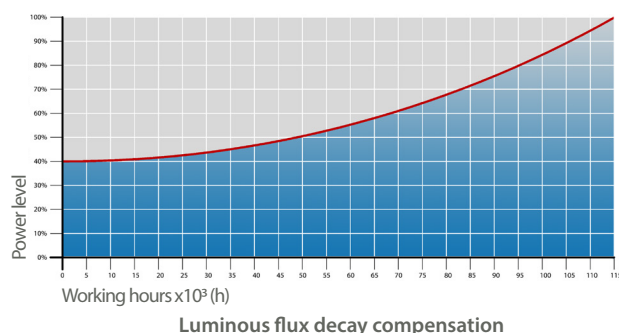
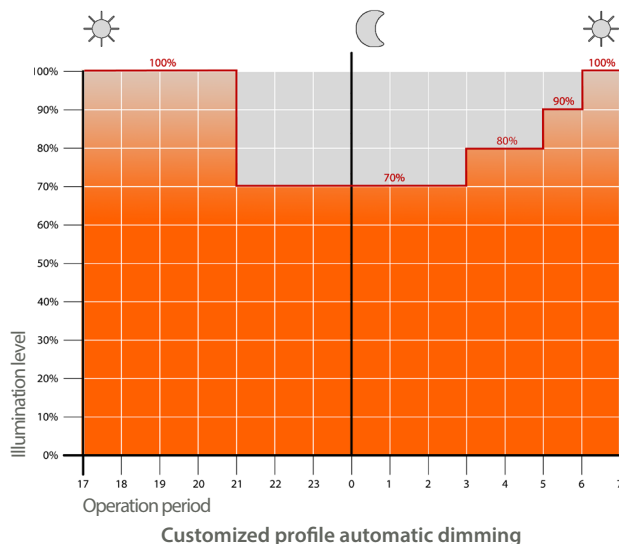
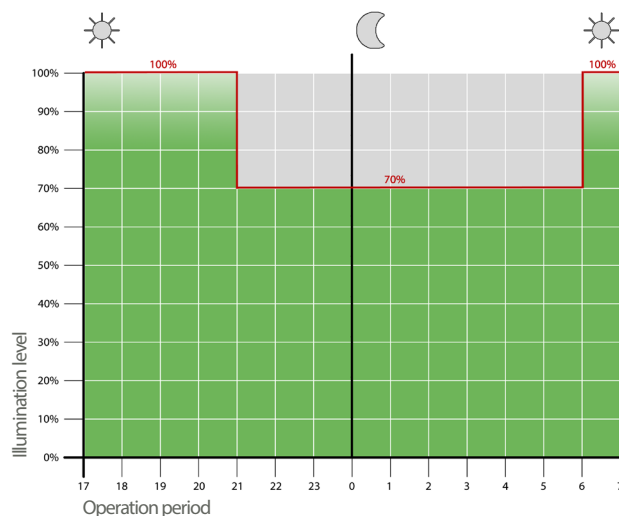
##### RRF - Lighting control from flow regulators

Identified for refitting LED solution. The LED luminaire follows the voltage regulation given by the flow regulator, and varying the input current to the LED. In this way they can be used for reducing consumption of existing protocols. In order that system is implemented in refitting. The regulator needs to be modulated in amplitude and not in phase cutting.

##### NTC - Temperature sensor

It is a temperature sensor that regulates the input current to LEDs. In case of critical temperature levels on the junction (Tj), the current supply is decreased in order to preserve the integrity of LEDs.

#### Additional functions



### ON REQUEST

#### Dimming profiles

## Protection cycles

### GALVANIZED STEEL

#### Protection of galvanized steel surfaces for poles

The protection of galvanized steel elements is achieved by following steps:

- Micro sandblasting
- First epoxy layer application followed by:  
Wilting > Drying > Cooling
- Acrylic glaze layer application followed by:  
Wilting > Drying > Cooling
- Packing at least after 24-hour-drying at room temperature.

#### Protection of galvanized steel surfaces for brackets and pastorals

The protection of the galvanized steel elements is achieved thanks to:

- Micro sandblasting
- Phosphoric pickling bath at a ph level ranging from 1.5 to 3
- Rinsing with demineralised water
- First powder layer application
- Kiln firing
- Application of a final powder layer
- Kiln roasting of the final powder layer at 180°
- Cooling.

### CAST IRON

#### Protection of cast iron surfaces for bases

The protection of cast iron elements is achieved by the following treatments:

- Surface micro shotblasting
- Mono-component dip galvanizing followed by:  
Wilting > Drying > Cooling
- Epoxy micaceous primer application followed by:  
Wilting > Drying > Cooling
- Acrylic enamel application followed by:  
Wilting > Drying > Cooling.
- Packing at least after 24-hour-drying at room temperature.

### DIE-CAST ALUMINIUM

#### Protection of die-cast aluminium surfaces for lighting fixtures, tops, collars, brackets and pastorals

Brackets, pastoral, and die-cast accessories undergo a cycle of powder painting which creates a barrier against the corrosion of metal parts. Moreover this barrier makes the finished product comply with design specifications in terms of surface roughness, color and reflectance. The cycle consists of the following steps:

- Micro sandblasting
- Hot pickling bath in a zinc-based phosphodegreasing solution
- Phospho-chromatation for surfeces clearing
- Washing with water
- Rinsing with demineralised water and subsequent drying
- First bowder layer application followed by kiln baking at 180°
- Final powder layer application using a High Durability product and final kiln roasting at 180°C.



Salt spray test | FLORIDA TEST

The top quality of such treatments is confirmed by the succesfull results of specific salt spray test ( all products exced widely 2.500 hours) and the strictest international tests, among which FLORIDA TEST.

The salt spray test is made in accordance with standard UNI EN ISO 9227.



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