



**Flexibility** 







# Ghisamestieri

the green way of light lightecture: laFoglia | data sheet: 2018.07

## laFoglia medium glassed

Product code: LFG M



520 mm

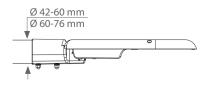
105 mm



Scale: 1:10

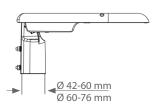
### Fixing type





Adjustable with 5° step 420°





Adjustable with 5° step 410°



#### **Timeless**

Regenerable luminaire: replaceable LEDs and drivers



#### 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

Insulation class









#### **Geometry and mechanical features**

Size | Weight: L 520 mm · W 340 mm · H 78 mm | 5 Kg C x S: Lateral: 0,03 m<sup>2</sup> |Plan: 0,14 m<sup>2</sup>

#### **General features**

Disconnector included: Cable clamp included | cables section Ø 8.5mm÷Ø14mm Power source: 220-240V | 50/60Hz | tolerance +/-10% | other voltages on request

525mA | 700mA | 1.000mA Current supply: Power Factor | THD: ≥0.95 | <10 % (At full load)

Expected life (Ta25°): > 100.000 h | L90B10 | module current LED 700mA

Overcharge protection: Impulse whitstand CM/DM 10kV / 6kV

SPD device (optional): With failsafe green LED indicator (\*) and thermal disconnector.

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

CLASSE 1 | 10kV / 10kA CLASSE 2 | 10kV / 10 kA

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

(Details on page 4) 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

· Aluminum reflector, 99.9% oxidised and polished purity

Screen: Ultraclear tempered glass | Th. 4mm

Gaskets:

Cable gland: Polyamide PA66 | PG16 | Ø 14mm MAX

System device: AISI 304 stainless steel Screws and bolts: AISI 304 stainless steel Color: Light grey Ghisamestieri®

### **LED** specification

Model: **WNICHIA** NVSL219D340/360

LED data 4000K - 700mA: 340 lm/LED | 180 lm/W |  $85^{\circ}$ C [Tj] |  $\leq$  3 step macadam

Color temperature: 3.000K | 4.000 K | 5.700 K | CRI ≥ 70

Thanks to the gold electrodes, the LEDs are absolutely "Flip Chip" Technology: free from corrosion in sulfides saturated environment.

A requirement that keeps lumens and CRI unchanged over time.

Number of modules: From 1 to 2 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**









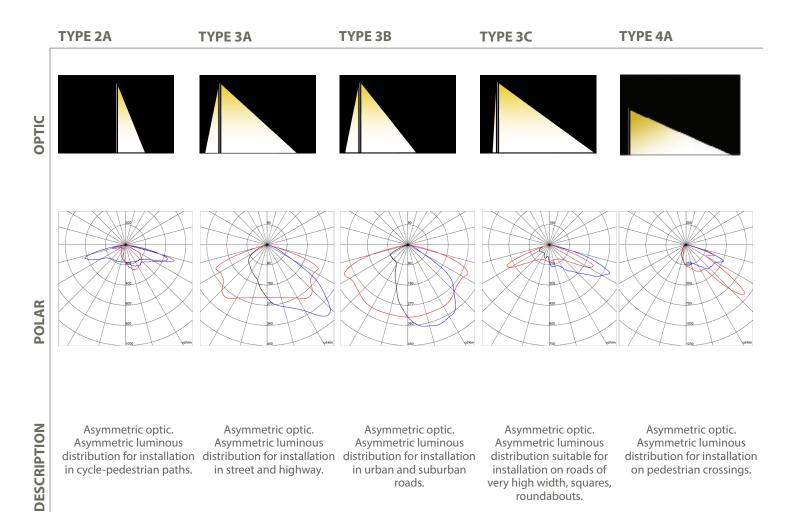




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## **Available optical system**

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



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### **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]
	525	2.220	12	185
S1Y	700	2.610	15	174
-	1.000	3.542	22	161
	525	3.145	17	185
\$1J -	700	4.002	23	174
	1.000	5.313	33	161
S1V -	525	4.255	23	185
	700	5.394	31	174
	1.000	7.084	44	161
S2J	525	6.475	35	185
	700	8.004	46	174
	1.000	10.626	66	161
	525	8.510	46	185
S2V -	700	10.788	62	174
	1.000	14.168	88	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]
	525	1.862	13	143
S1Y	700	2.310	17	136
	1.000	3.005	25	120
	525	2.725	19	143
S1J	700	3.535	26	136
	1.000	4.677	39	120
S1V -	525	3.721	26	143
	700	4.771	35	136
	1.000	6.246	52	120
S2J	525	5.581	39	143
	700	7.088	52	136
	1.000	9.255	77	120
S2V	525	7.452	52	143
	700	9.390	69	136
	1.000	11.779	99	120

OPTIC CONVERSION FACTOR LUMINOUS FLUX			TK CONVERSION FACTOR LUMINOUS FLUX		CRI CONVERSION FACTOR LUMINOUS FLUX		
Optic type	Flux multiplier	Tk [K]	Flux multiplier	CRI (color render index)	Flux multiplier		
2A	0,94	3.000	0,94	70	1,00		
3B	1,00	4.000	1,00	80	0,90		
3C	0,90	5.700	1,01				
4A	1,06						

The values in this data sheet have a tolerance of  $\pm$  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

Additional functions



the green way of light

lightecture | data sheet: 2018.07

04 | 05

### **Dimming profiles and additional functions**

#### **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 fxture, 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 louminous 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.

#### **CLO - Costant 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 higter 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 addiction 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 quaranteed even in the variable-power situations.

#### NM - Nema socket

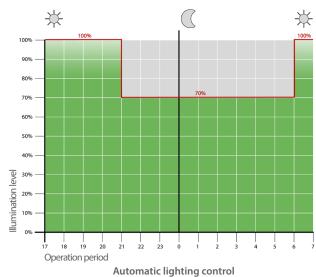
The Nema socket system allows the wireless remote control of the lighting fixture. It Can be installed without any access to the internal components. The system can be added also after installation of lighting fixture.. The IP66 socket is equipped with a cap in the event of non-use of the system. Inside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

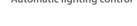
#### RRF - Lighting control from flow regulators

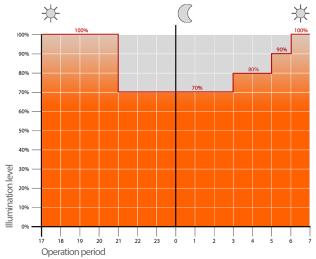
Identified for refitting LED solution. The LED luminaire follows the voltage regulation given by the flow regulator, and varying the input current to the LED. In this way they can be used for reducing consumption of existing protocols. In order that system is implemented in refitting. The regulator needs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

#### **NTC - Temperature sensor**

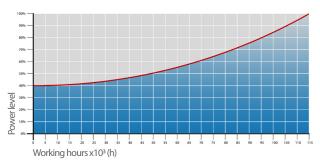
It is a temperature sensor that regulates the input current to LEDs. In case of critical temperature levels on the junction (Tj), the current supply is decreased in order to preserve the integrity of LEDs.



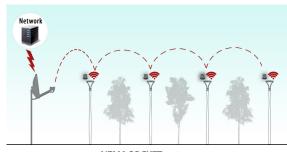




Customized profile automatic dimming



Luminous flux decay compensation



NEMA SOCKET system



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lightecture | data sheet: 2018.07

**05** | 05

### **Protection cycles**

#### 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.

#### 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.

## 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 exceed 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.



#### Ghisamestieri the green way of light s.r.l

Legal headquarters: Strada Provinciale Specchia - Alessano, 68 • 73040 (LE)

Administrative and operational headquarters: Via Grande n°226 • 47032 Bertinoro (FC)

T +39 0543 462611 F +39 0543 449111

info@ghisamestieri.it www.ghisamestieri.it