Cutoff
Optical Flexibility
Low Glare
A++
Photobiological safety Exemp group

Ghisamestieri
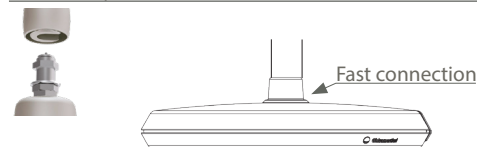## the green way of light

Vesta A large glassed
Product code: VST L A

112 mm
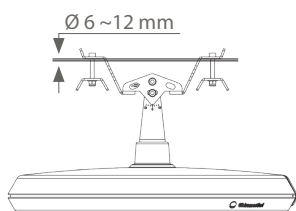
270 mm

547 mm
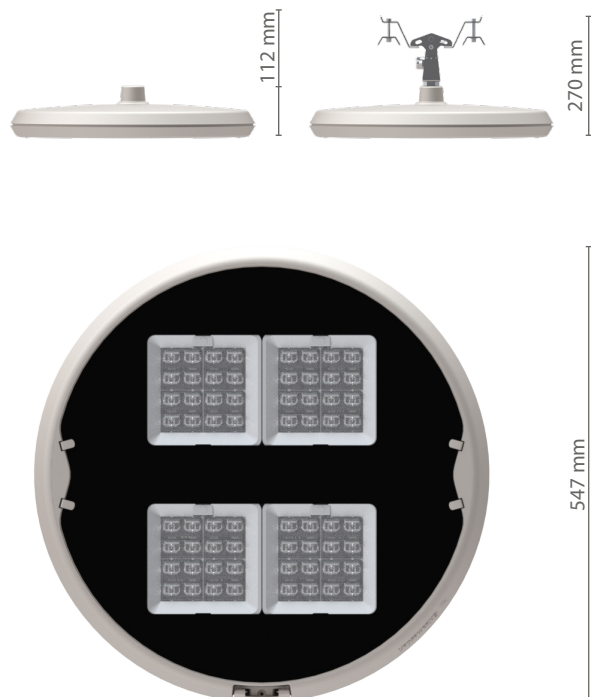
Scale: 1:12

Fixing type

Suspended
Standard: fast connection
On request: Ø ¾" Gas

Fast connection

Wire system

Ø 6 ~12 mm

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
CE EK	▣ ⏚	IP66 IK08

Geometry and mechanical features

Size | Weight:	Ø 547 mm · H 112 mm | 10 Kg
C x S: suspnded:	Lateral: 0,04 m² |Plan: 0,20 m²
wire system:	Lateral: 0,05 m² |Plan: 0,20 m²

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
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 whitstand CM/DM 10kV / 6kV
SPD device (optional):	With falsafe 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: (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 • Aluminum reflector, 99.9% oxidised and polished purity
Screen	Ultraclear tempered glass | Sp. 4mm
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:	NICHIA 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
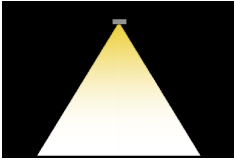(Details on page 2)
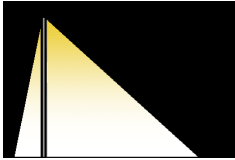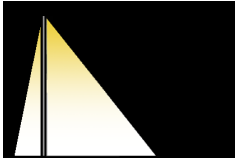
· Type 1A · · Type 2A · · Type 3A · · Type 3B · · Type 3C ·

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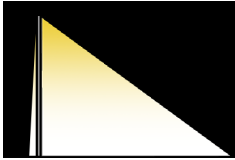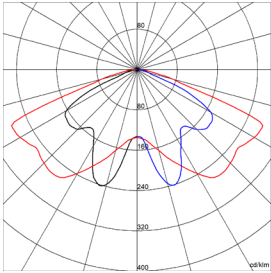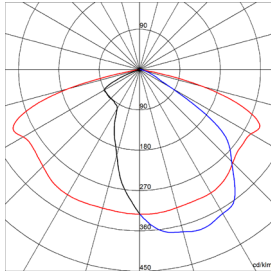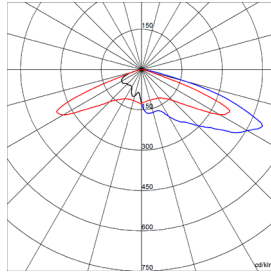
Available optical system

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

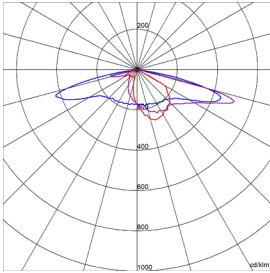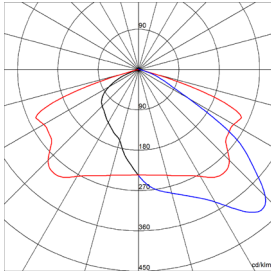|	TYPE 1A	TYPE 2A	TYPE 3A	TYPE 3B	TYPE 3C
OPTIC					
POLAR					
DESCRIPTION	Symmetric optic. Symmetric luminous distribution for suspended installation in the centre of the road.	Asymmetric optic. Asymmetric luminous distribution for installation in cycle-pedestrian paths.	Asymmetric optic. Asymmetric luminous distribution for installation in street and highway.	Asymmetric optic. Asymmetric luminous distribution for installation in urban and suburban roads.	Asymmetric optic. Asymmetric luminous distribution suitable for installation on roads of very high width, squares, roundabouts.

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]
S3J	525	9.620	52	185
	700	12.006	69	174
	1.000	15.939	99	161
S3P	525	10.730	58	185
	700	13.398	77	174
	1.000	17.710	110	161
S3T	525	11.840	64	185
	700	14.790	85	174
	1.000	19.481	121	161
S3V	525	12.765	69	185
	700	16.008	92	174
	1.000	21.252	132	161
S4P	525	14.985	81	185
	700	18.792	108	174
	1.000	24.794	154	161
S4V	525	17.020	92	185
	700	21.402	123	174
	1.000	28.336	176	161

Data extrapolated from the Manufacturer documentations.

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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.

DEVICE MEASURED DATA [4000K- OPTIC 3A]

LED code	I [mA]	Luminous flux [lm]	Power [W]	Efficiency [lm/W]
S3J	525	8.455	59	143
	700	10.831	79	137
	1.000	14.159	113	125
S3P	525	9.451	66	143
	700	11.936	87	137
	1.000	15.550	124	125
S3T	525	10.282	72	143
	700	12.841	94	137
	1.000	16.846	135	125
S3V	525	11.099	78	142
	700	13.852	102	136
	1.000	18.257	147	124
S4P	525	12.744	90	142
	700	15.999	118	136
	1.000	21.156	171	124
S4V	525	14.525	102	142
	700	18.374	135	136
	1.000	24.239	195	124

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
1A	1,05	3.000	0,94	70	1,00
2A	0,94	4.000	1,00	80	0,90
3B	1,00	5.700	1,01		
3C	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.

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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 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.

Additional functions

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.

ON REQUEST

Dimming profiles

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 addiotion 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.
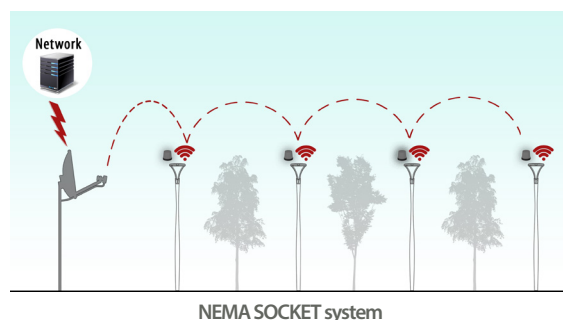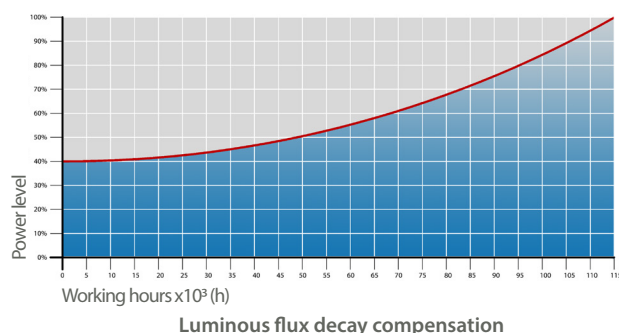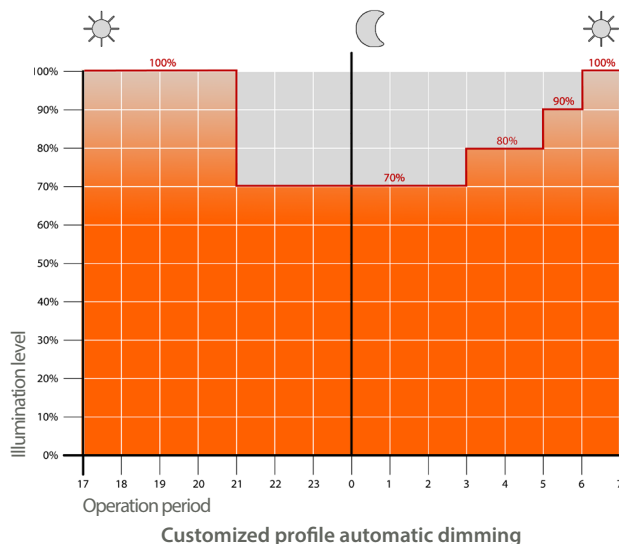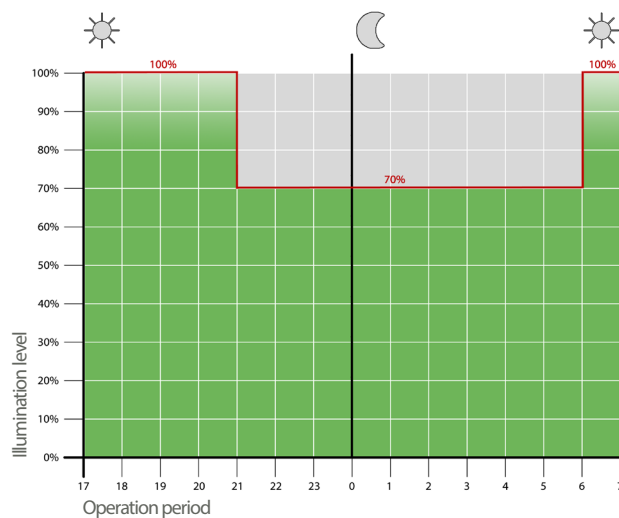
RRF - Lighting control from flow regulators

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.

Additional functions

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.

Automatic lighting control

Customized profile automatic dimming

Luminous flux decay compensation

NEMA SOCKET system

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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.

GALVANIZED STEEL

CAST IRON

DIE-CAST ALUMINIUM

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.

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