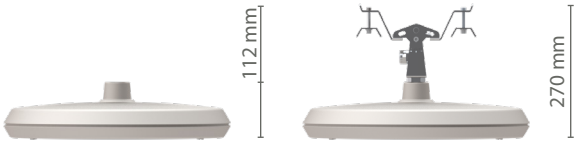
Cutoff | Optical Flexibility | Low Glare | A++ | Photobiological safety Exemp group

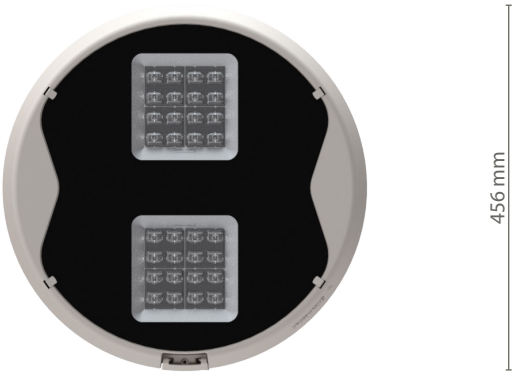
Vesta A small glassed

Product code: VST S A

Timeless
Regenerable luminaire: replaceable LEDs and drivers without tools.

Compact
Sealed fixture: quick installation, fast connector.

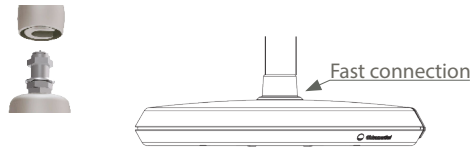




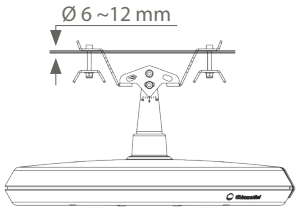
Scale: 1:10

Fixing type

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



Wire system



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, EAC		IP 66, IK 08

Geometry and mechanical features

Size | Weight:	Ø 456 mm · H 112 mm | 6 Kg
C x S: suspnded:	Lateral: 0,03 m^2 |Plan: 0,10 m^2
wire system:	Lateral: 0,04 m^2 |Plan: 0,10 m^2

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
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

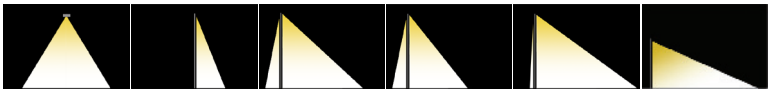
Lighting fixture:	Die cast aluminium | EN1706
Optical system:	• Nano-optics in PMMA
	• Aluminum reflector, 99.9% oxidised and polished purity
Screen:	Ultraclear tempered glass | Th. 4mm
Gaskets:	Silicon
Cable gland:	Polyamide PA66 | PG16 | Ø 14mm MAX
System device:	AISI 304 stainless steel
Screws and bolts:	AISI 304 stainless steel
Color:	Light grey Ghisamestieri®

LED specification

Model:	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 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

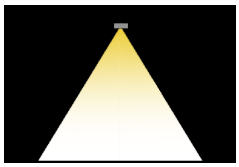
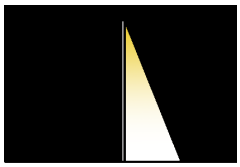
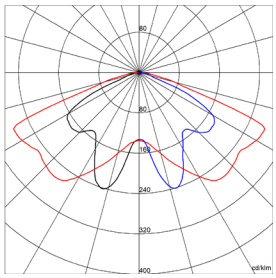
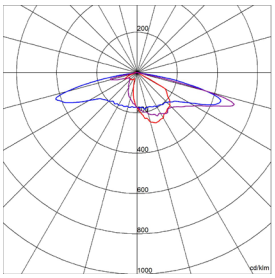
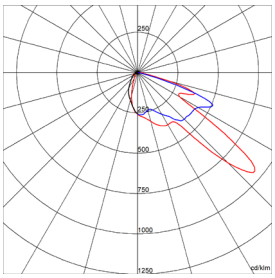
(Details on page 2)

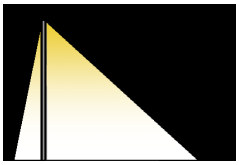
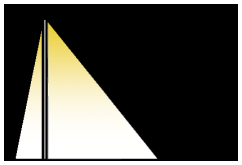
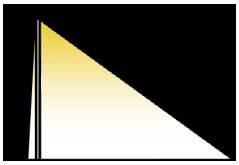
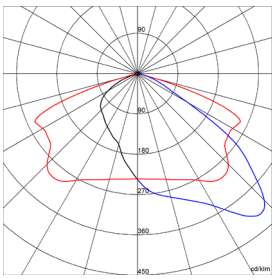
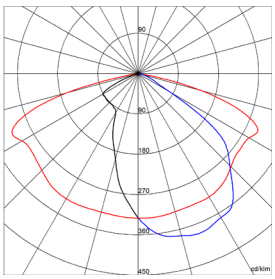
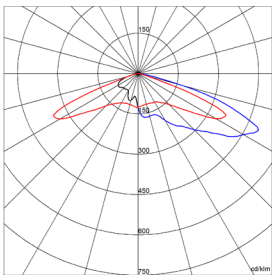


• Type 1A • | • Type 2A • | • Type 3A • | • Type 3B • | • Type 3C • | • Type 4A •

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 4A
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 on pedestrian crossings.

	TYPE 3A	TYPE 3B	TYPE 3C
OPTIC			
POLAR			
DESCRIPTION	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]
S1Y	525	2.220	12	185
	700	2.610	15	175
	1.000	3.542	22	161
S1J	525	3.145	17	185
	700	4.002	23	175
	1.000	5.313	33	161
S1V	525	4.255	23	185
	700	5.394	31	175
	1.000	7.084	44	161
S2J	525	6.475	35	185
	700	8.004	46	175
	1.000	10.626	66	161
S2V	525	8.510	46	185
	700	10.788	62	175
	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]
S1Y	525	1.862	13	143
	700	2.310	17	136
	1.000	3.005	25	120
S1J	525	2.725	19	143
	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

Optic type	Flux multiplier
1A	1,05
2A	0,94
3B	1,00
3C	0,90
4A	1,06

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 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.

Additional functions

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

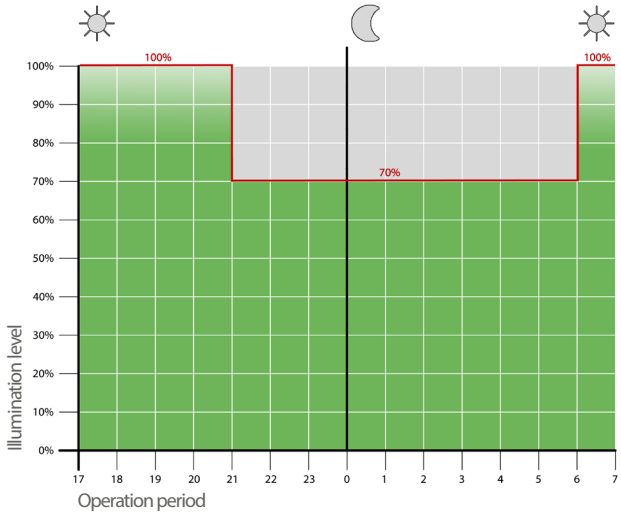
The Nema socket system allows the wireless remote control of the lighting fixture. It Can be installed without any access to the internal components. The system can be added also after installation of lighting fixture.. The IP66 socket is equipped with a cap in the event of non-use of the system. Inside 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

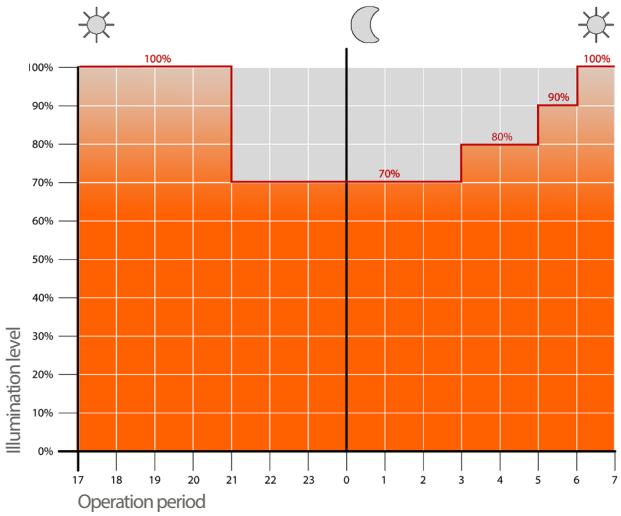
Identified for refitting LED solution. The LED luminaire follows the voltage regulation given by the flow regulator, and varying the input current to the LED. In this way they can be used for reducing consumption of existing protocols. In order that system is implemented in refitting. The regulator needs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

NTC - Temperature sensor

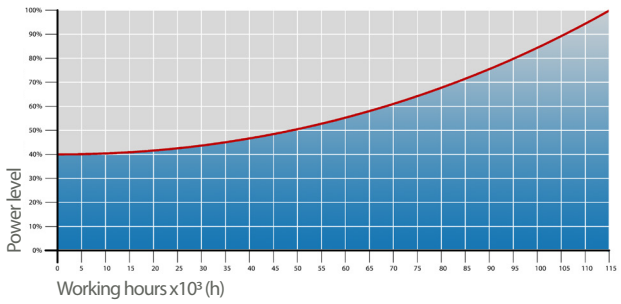
It is a temperature sensor that regulates the input current to LEDs. In case of critical temperature levels on the junction (Tj), the current supply is decreased in order to preserve the integrity of LEDs.



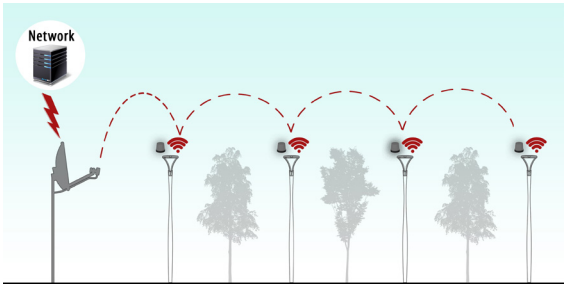
Automatic lighting control



Customized profile automatic dimming



Luminous flux decay compensation



NEMA SOCKET system

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 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

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