

## Nottingham KS

Product code: NOT KS



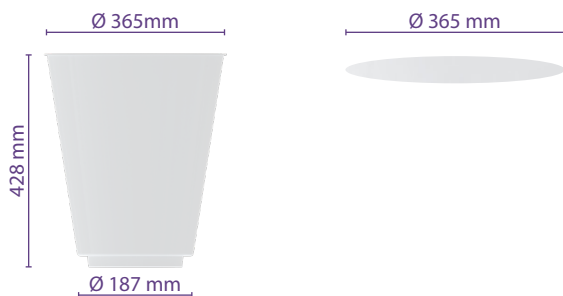
Scale: 1:15

### On request

Diffusers - polycarbonate with UV protection

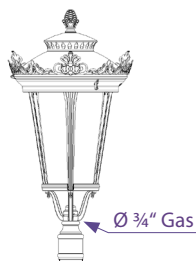
Glass thickness 4mm

Conica



### Fixing type

 Pole-top



Timeless

Regenerable luminaire:  
replaceable LEDs and drivers  
without tools.

### 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:

Ø 480 mm · H 900 mm | 7,43 Kg

C x S:

Lateral: 0,14 m<sup>2</sup> | Plan: 0,18 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

Overcharge protection:

Impulse withstand 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

Gaskets:

Silicon

Cable gland:

Polyamide PA66 | PG16 | Ø 14mm MAX

System device:

inox steel AISI 304L

screws and bolts:

inox steel AISI 304L

Color:

Dark grey (ferromicaceo) Ghisamestieri®

### LED specification

Model:

 NVSL219D340/360

LED data 4000K - 700mA:

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

Color temperature:

2.200 K | 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 system

(Details on page 2)



• Type 2A •



• Type 3A •




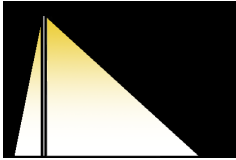
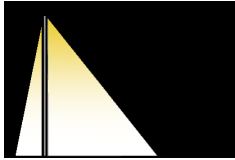
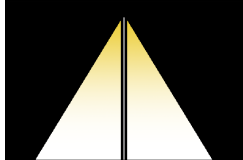
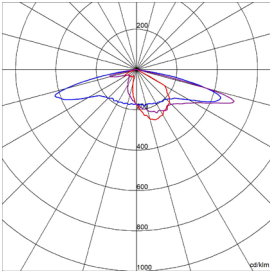
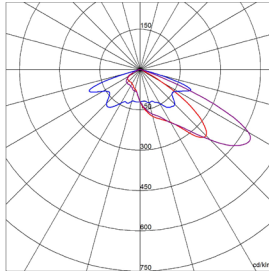
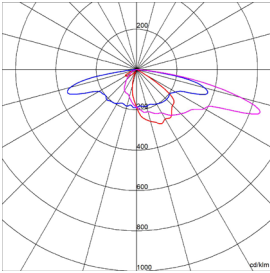
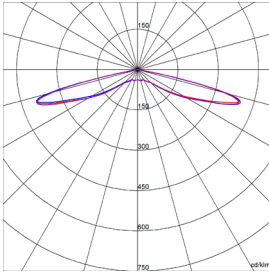
• Type 3B •



• Type 5A •

## Available optical systems

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

|             | TYPE 2A   | TYPE 3A   | TYPE 3B  | TYPE 5A  |
|-------------|---|---|--|--|
| OPTICS      |                        |                    |                             |    |
| POLAR       |                       |                   |                            |   |
| DESCRIPTION | Asymmetric optic.<br>Asymmetric luminous<br>distribution for installation<br>in cycle-pedestrian paths. | Asymmetric optic.<br>Asymmetric luminous<br>distribution for installation<br>in street and highway. | Asymmetric optic.<br>Asymmetric luminous<br>distribution for installation<br>in urban and suburban<br>roads. | Rotational symmetric<br>optics.<br>Luminous distribution<br>with rotational symmetry<br>suitable for installation in<br>large areas, squares, parks<br>and parking lots. |

## 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] |
|----------|--------|--------------------|-----------|-------------------|
| A1Y      | 525    | 2.220              | 12        | 185               |
|          | 700    | 2.610              | 15        | 174               |
|          | 1.000  | 3.542              | 22        | 161               |
| A1J      | 525    | 3.145              | 17        | 185               |
|          | 700    | 4.002              | 23        | 174               |
|          | 1.000  | 5.313              | 33        | 161               |
| A2Y      | 525    | 4.255              | 23        | 185               |
|          | 700    | 5.394              | 31        | 174               |
|          | 1.000  | 7.084              | 44        | 161               |
| A2J      | 525    | 6.475              | 35        | 185               |
|          | 700    | 8.004              | 46        | 174               |
|          | 1.000  | 10.626             | 66        | 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] |
|----------|--------|--------------------|-----------|-------------------|
| A1Y      | 525    | 1.816              | 13        | 140               |
|          | 700    | 2.294              | 17        | 133               |
|          | 1.000  | 2.887              | 25        | 117               |
| A1J      | 525    | 2.728              | 19        | 141               |
|          | 700    | 3.436              | 26        | 133               |
|          | 1.000  | 4.546              | 39        | 117               |
| A2Y      | 525    | 3.616              | 26        | 140               |
|          | 700    | 4.637              | 35        | 132               |
|          | 1.000  | 6.028              | 52        | 116               |
| A2J      | 525    | 5.425              | 39        | 140               |
|          | 700    | 6.841              | 52        | 132               |
|          | 1.000  | 8.960              | 77        | 116               |

#### OPTIC CONVERSION FACTOR LUMINOUS FLUX

| Optic type | Flux multiplier |
|------------|-----------------|
| 2A         | 0,94            |
| 3B         | 1,00            |
| 5A         | 1,00            |

#### Tk CONVERSION FACTOR LUMINOUS FLUX

| Tk [K] | Flux multiplier |
|--------|-----------------|
| 2.200  | 0,79            |
| 3.000  | 0,94            |
| 4.000  | 1,00            |
| 5.700  | 1,01            |

#### CRI CONVERSION FACTOR LUMINOUS FLUX

| CRI<br>(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.

### 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.

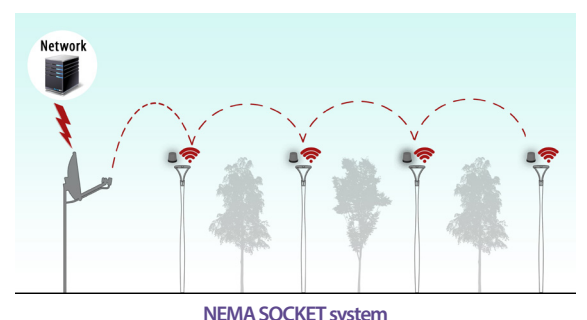
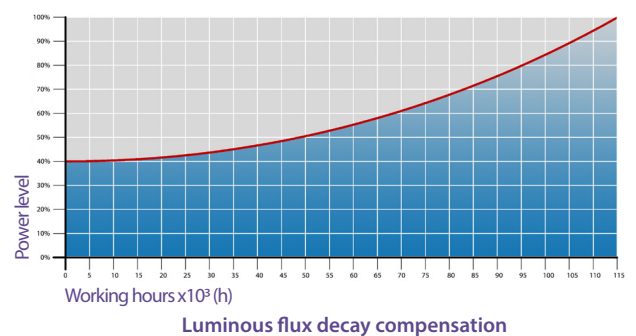
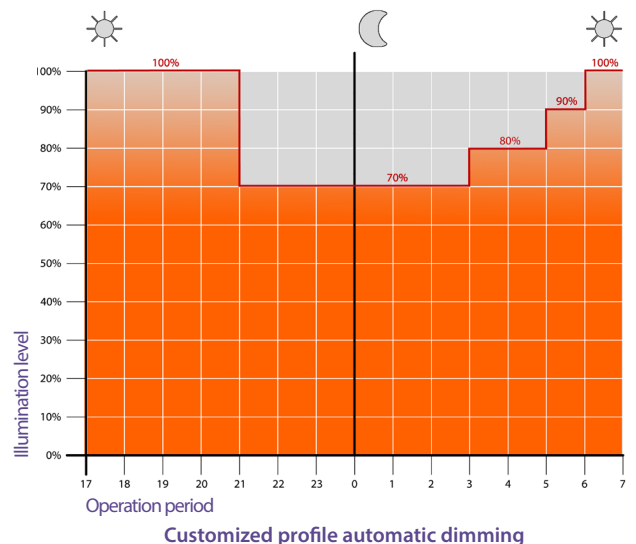
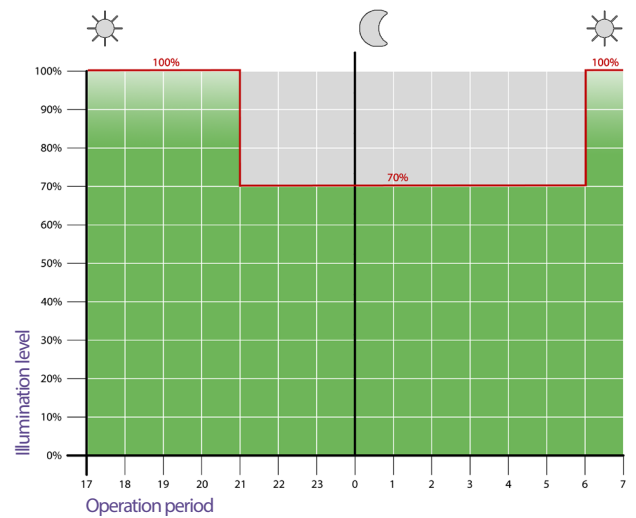
### NTC - Temperature sensor

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.

Dimming profiles

Additional functions

ON REQUEST



## 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 exce-  
ed 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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