

Technical Features

Niteko LED Street Lighting

Fixture Guida^S

G9H-NA2-GR (55W)





LED Street Lighting Fixture, NITEKO brand, GUIDA^S model, suitable for mounting on arm or head-pole (the fixture includes an adjustable arm and the possibility of inclination from +15° to -15° in 5° steps), with a (actual) maximum power consumption equal to **55W** and power supply of **220/240V a.c. – 50/60Hz**.

Fixture equipped with **power LED Quadrichip Lumileds Luxeon MX**, supplied with constant current up to **520mA**, with a standard color temperature equal to **4.000K (N)**.

Light source efficiency is of no less than **160lm/W**. Its service life, under optimal operating conditions, is of no less than **100.000 hours** (L90B10 – LED@700mA – Tj=85°C) and it features a color rendering index **CRI>70**.

Output luminous Flux of lighting fixture with Tj=85°C equal to **7.011lm** in the standard version with CCT 4.000K.

High efficiency LED equipped with secondary high accuracy collimators in PMMA for the concentration of the luminous beam.

Minimum overall efficiency of the optical unit is of no less than **80%**.

High efficiency electronic converters integrated in power compartment of the lighting fixture, characterized by power factor (PF) greater than **0,98** and MTBF equal to **430.000** hours, thermal protection, short-circuit protection and standard overvoltage protection up to **8kV** in common mode, **6kV** in differential mode, **10kV** for single-pulse and **5kA** for 20 pulses. *Possibility to equip lighting fixtures with additional protection via **SPD device (optional)** with standard overvoltage protection up to **10kV** in common mode, **10kV** in differential mode and **10kV** for single-pulse.*

Fixture equipped with the protection system against electrical overstresses, owned by NITEKO, called **Advanced EOS Protection System**, which allows having a **failure rate among the lowest in the sector** and guaranteeing high reliability and durability over time.

Non-metallic materials and components present in the product, from a chemical point of view, are fully compatible with LED. They do not release VOC (volatile organic compounds) that can influence performance, stability and color temperature during operation: thus the fixture result in being **“VOC FREE”**.

All components are free of mercury, lead and other toxic substances and are fully recyclable.



The fixtures of the GUIDA series are certified according to the norms:

EN 60598-2-3: 2003 / A1:2011	EN 61000-4-6:2009
EN 60598-1:2008 / A11:2009	EN 61000-4-8:1993 / A1:2001
EN 61000-3-2:2006/A1:2009/A2:2009	EN 61000-4-11:2004
EN 61000-3-3:2008	EN 61547:2009
EN 61000-4-2:2009	EN 62031:2008 / A1:2013
EN 61000-4-3:2006 / A1:2008 / IS1:2009	EN 62493:2010
EN 61000-4-4:2004	EN 55015:2006 / A1:2007 / A2:2009
EN 61000-4-5:2006	EN 62471:2008

Class II fixture with protection of optical unit and power compartment equal to **IP66**, impact resistance degree equal to **IK10**, with operating temperatures equal to a maximum +40°C and a minimum -20°C, size equal to **618x294x143mm** in the version **GUIDA^S** that consists of:

- die-cast aluminium body, smooth without fins, openable without the use of tools thanks to a pivot screw closure, with incorporated heat-sink equipped with cooling fins sized so as to ensure a long life and maximum efficiency of the diodes, subjected to sandblast process, cataphoresis and polyester powder coating color **RAL 9007**, resistant to corrosion, abrasion, flaking and saline fogs, with full 10-year warranty on all metal parts;
- a silicone rubber gasket fitting on the geometry of the component ensures the tightness of the power compartment;
- adjustable integrated system for arm mounting (180°) or head – pole (90°) with a possible inclination of -15° / +15° in 5° steps;
- it can be fitted to the head pole or to the arm, with the diameter between 48 and 60 mm;
- SCREEN: 4mm transparent tempered glass
- the optical part is separated from driver part by a physical hermetic partition. The electronic compartment opens from above.

Possibility to equip lighting fixtures with optional devices, upon request, suitable for **Remote Control** with interface components integrated in the lighting body, available in the following versions:

- Luminous flux self-regulation through pre-programming (PRG);
- Cable regulation (DIM/DALI);
- NEMA socket connector;
- Voltage variation Regulation (PLV);
- Power line carrier Regulation (LPL);
- Radio waves Regulation (ZB);



The **Automatic Regulation (PRG)** is managed by a luminous flux self-regulator, incorporated in the lighting body and included in the power compartment, suitable for the control and reduction of the lighting fixture's luminous flux from 10% to 100% in its maximum value, without using dedicated cables. The device is equipped with a fully programmable micro-controller, capable of managing the power compartment, with LED sources of any wattage. The operation is based on the possibility of defining, through user-defined programming, from 1 to 5 brightness levels based on time set through a configuration software. The system calculates the "Midnight point" considering the period of time in which the device is powered and, over this, enables the reduced speed periods, considering the settings selected through software.

The system has the following automatic features:

- Power on;
- Power off;
- Testing of proper functioning;
- Luminous flux regulation.

The **Cable regulation (DIM/DALI)** happens through reserved cables:

The DIM module provides the candlepower regulation through 1-10V analog signal.

Using the interface module DALI is possible a light smart regulation considering the specific requirements of the space. DALI is a digital communication protocol of the adjustable electronic converters. This new standard interface represents a distributive intelligence system. This means that the light emission values of different illuminating engineering settings and the light sources collection are stored inside the electronic converters. The control system has the feature of recalling the specific setting and the electronic converter that identifies its light emission level and responds in relation to it. It is also possible to recall every single electronic converters. In order to guarantee the interchangeability between the different DALI components realized by different producers, the DALI interface has been included in the E appendix of the IEC 929 law as a non-proprietary standard compliant to the modern lighting control requirements.



Lighting fixtures can be equipped with **7-poles NEMA socket connector** with the following technical characteristics:

MECHANICAL

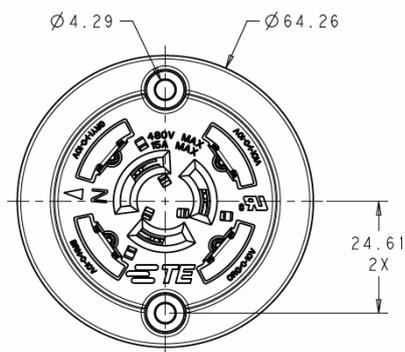
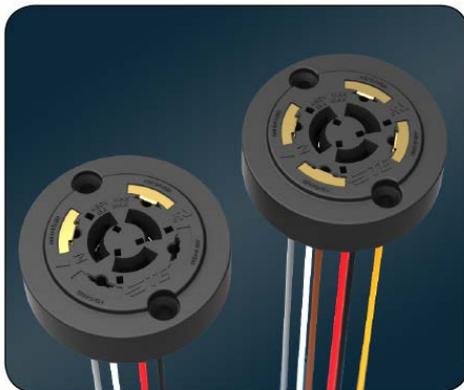
- Conforms to dimensional requirements of ANSI C136.41-2013
- Offer a 5 and 7 position version
 - 5 position: 3 power contacts + 2 dimming/signal contacts
 - 7 position: 3 power contacts + 4 dimming/signal contacts
- Power contacts terminated to 14AWG stranded wire per UL1015 or UL3321
- Signal Contacts terminated to 18AWG stranded wire per UL1015 or UL3321

ELECTRICAL

	<u>Power contacts</u>	<u>Dimming contacts</u>
• Current rating:	15 A max	0.10 A max
• Voltage rating:	480 VAC/DC	10 VAC/DC
• cUR recognized to UL 773		

MATERIALS

- Power contacts: Copper Alloy, tin over nickel plating
- Dimming contacts: Copper Alloy, gold over nickel plating
- Housing: Glass filled PBT, UL 94V-0 flammability rated



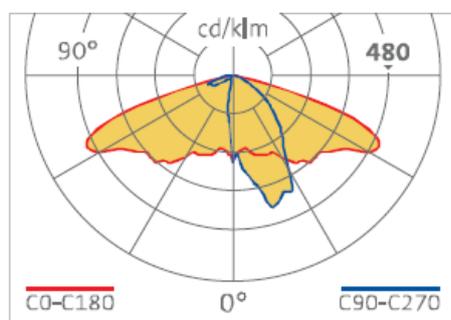


Technical Features	
Brand	Niteko
Series	Guida
Model	G9H-NA2-GR (55W)
Description	Led Street Lighting Fixture
Mounting	Pole and arm mounting
Maximum effective power	55W
Power Supply	220/240 V a.c. – 50/60 Hz Electronic power supply integrated into lighting fixture with $\eta > 95\%$ efficiency
Power Supply LED modules	Constant power supply $I_f = 520\text{mA}$
Power Factor	PF > 0,98 (Active PFC)
Insulation Class	Class II
Light source	LED Quadrichip Lumileds Luxeon MX
Optic	LED modules equipped with high precision secondary collimators for light beam concentration.
Laser security Class	1M
Output luminous Flux	7.011lm ("N" Version : CCT = 4.000K (Neutral white) @ $T_j = 85^\circ\text{C}$)
Light Source Efficiency	$\eta > 160 \text{ lm/W}$
Color Temperature	"N" Version: CCT = 4.000K (Neutral White)
Color Rendering Index	Ra > 70
Service Life	L90B10 > 100.000 h
IR & UV radiations	Absent
Inorganic Toxic Elements	Absent
Turning on / restart	<ul style="list-style-type: none">• $t_A < 1\text{sec.}$• $t_R < 1\text{sec.}$
Material	<ul style="list-style-type: none">• FIXTURE: die-cast aluminium body with wide cooling fins• SCREEN: flat tempered glass, minimum thickness 4 mm
Color	RAL 9007 (sandblast process, cataphoresis and polyester powder coating)
Protection Degree	Optic Unit: IP66 / Power Compartment: IP66 Impact resistance degree: IK10
Fixture size and weight	618x294x143mm / 6,5 kg max (GUIDA S)
Box size and weight	630 x 310 x 180 mm / 7,0 kg (GUIDA S) (cardboard box)



PHOTOMETRIC CURVE

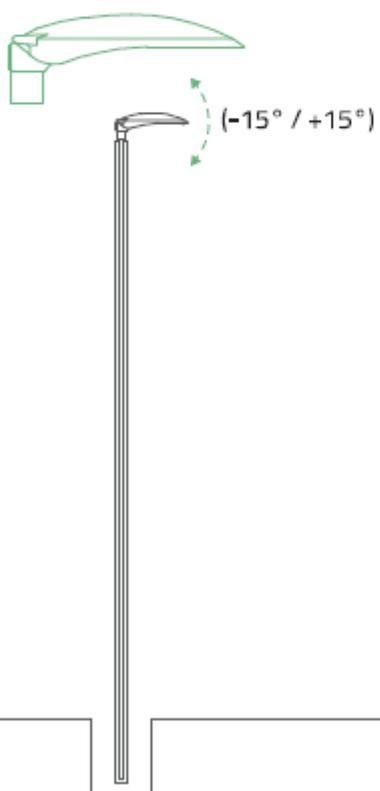
[A2] - Asymmetric 150°x40°



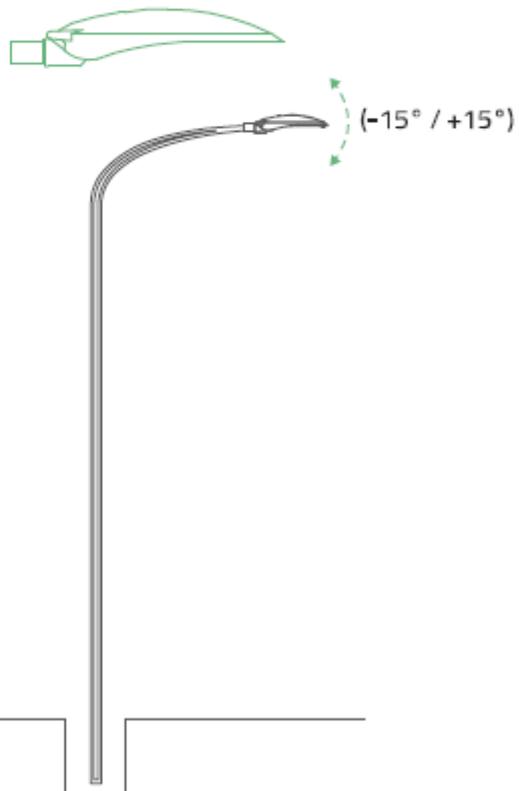
> Mounting options

Integrated adjustable system for arm or head-pole mounting.

• On Head-pole

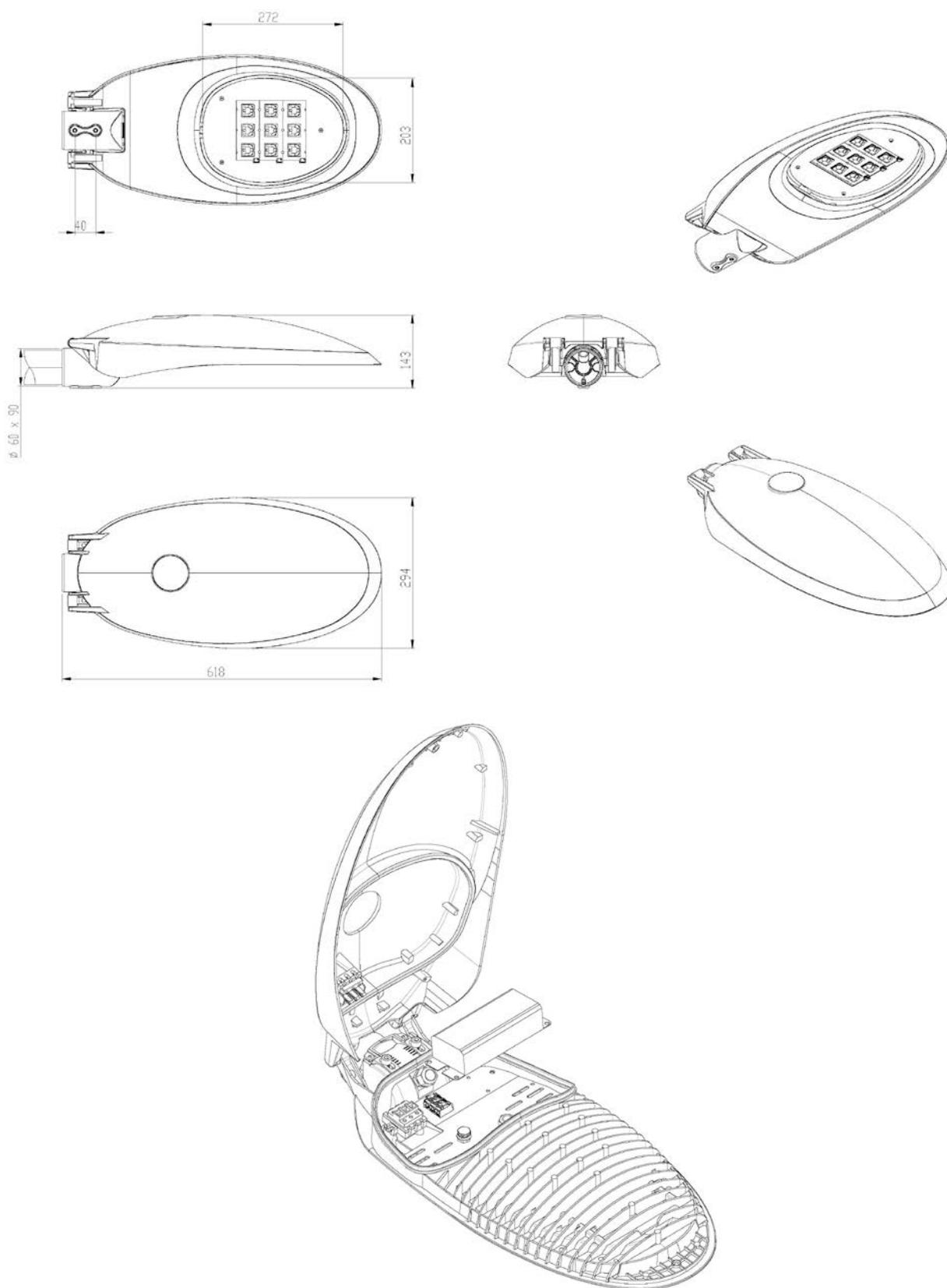


• On Arm





Technical drawings



Pictures

RAL 7024

RAL 9007

