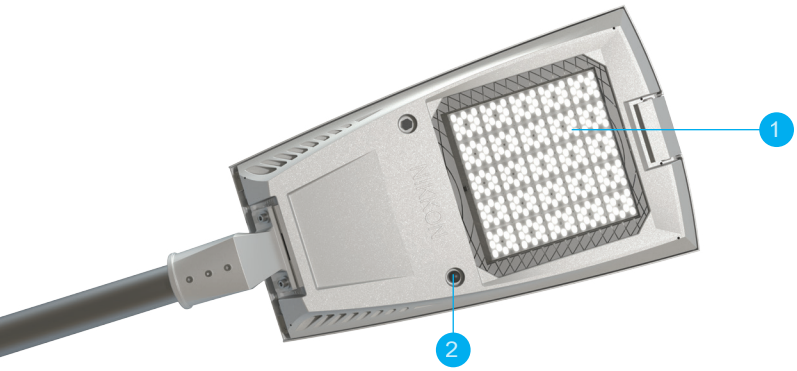
NIKKON®

GALAXY
LED STREET LIGHT

GALAXY
M1 & M2



1 Photometric
- Up to 26400 lm (M2)
- > 130 lm/W
- Type II & Type III Distribution

2 Control Features (Optional)
- Motion Sensor
- 1-10V Dimming
- iLCS (Smart System)
- Time Dimming Control

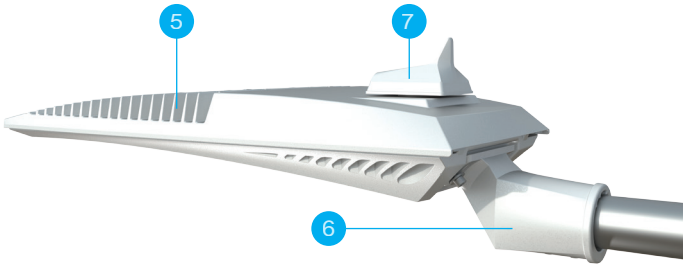
3 Heat Management
- Durable under Harsh Environment up to 55º Ambient Temperature

4 Mechanical Design
- Toolless Opening Feature
- Easy Removal Base Plate
- Safety Cut-Off Switch Easy for Maintenance
- Membrane Vent Plug
- Bubble Leveling Device

5 Housing
- High Pressure Die-Cast Aluminium
- Slim & Sleek Design
- IP66 Ingress Protection

6 Spigot
- 0º - 15º Configuration
- Post Top or Side Entry Mounting
- 48 - 60 mm Pole Size

7 Light Control Unit (LCU) - Optional
- 2.4 GHz Frequency
- IEEE 802.15.4
- Metering Embedded
- GPS Embedded
- Autonomous Redundancy
- UV-Stabilized Enclosure



THE NEW ERA OF STREET LIGHTING ARRIVED!

The world is continuously changing – & so is the cityscape. We are able to match these changes with the LED technologies adapted in Roadway Lighting. With the intelligent light control system, individual luminaires can be grouped for example, in streets & pedestrian overpasses. The system also permits the user to control & monitor the luminaires, individually or in groups – depending on the application. Whether roads, paths or industrial installations – street lighting needs to be reliable in all situations. Many years of experience in the development & design of products for outdoor lighting have prepared NIKKON for the supply of robust & reliable outdoor industrial lighting system & components to meet the diverse requirements of the roadway lighting.

NIKKON®

iLCS™
Intelligent Light Control System

GALAXY M1

GALAXY M2

LUMINAIRE TECHNICAL SPECIFICATIONS

- **System Power:** M1 - 30W
M1 - 60W
M1 - 90W

M2 - 120W
M2 - 140W
M2 - 160W
M2 - 180W
M2 - 200W
- **Fitting Material:** Non-corrosive
Die-Cast Aluminium
- **Fitting Color:** White Aluminium, Akzo Nobel
RAL9006
- **Optical Cover:** High Transparency Tempered Glass
- **Ingress Protection:** IP66
- **Impact Protection:** IK08
- **Voltage:** 220 ~ 240 Vac 50 / 60Hz
- **Electrical Safety Class:** Class I (Class II upon request)
- **Operating Temperature:** -30 ~ +55ºC
- **Surge Protections:** 10KV, 20KA
- **Installation:** M1 - 48 mm & 60 mm
M2 - 60 mm
- **Nett Weight:** M1 - 9 kg
M2 - 17 kg

LED MODULE SPECIFICATIONS

- **LEDs:** LUMILEDS 3030 2D
- **Color Temperature:** 3000K
4000K
5000K
- **L70:** 54,000 Hrs @ 25ºC
- **PCB Material:** Metal Core
- **Lens Type:** Type II
Type III

OPTIONAL

- **LED Driver** Constant Current - Output
1-10V Dimming
Time Dimming Control (Upon Request)
- **Control System** Intelligent Light Control System
with GPS

COMPLIANCE STANDARD

- **LED** LM 80
- **Driver** CE
EN55015
EN61000
EN61547
- **Luminaire** LM 79
EN60598-1
EN60598-2-3
EN62471
EN62493
EN61000-3
EN61547
EN 62722

APPLICATION

- **M1** Pathways
Car Parks
Foot Paths
Access Ways
Parks
Road Lightings
Residential Areas
Pedestrian Areas
- **M2** Pedestrian Areas
Residential Areas
Rural Roads
Urban Roads
Expressway Lightings

NIKKON®

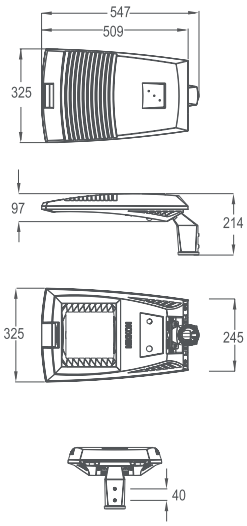
GALAXY
M1 & M2

ILCS™
Intelligent Light Control System

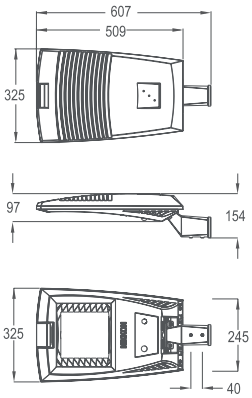
DIMENSION

GALAXY M1

Post Top

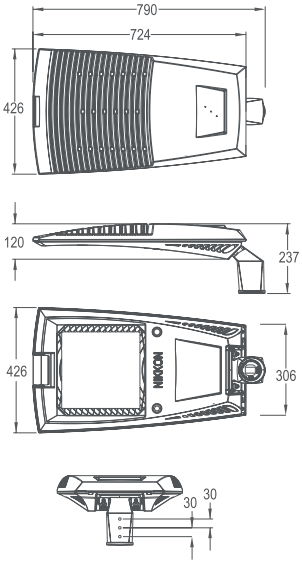


Side Entry

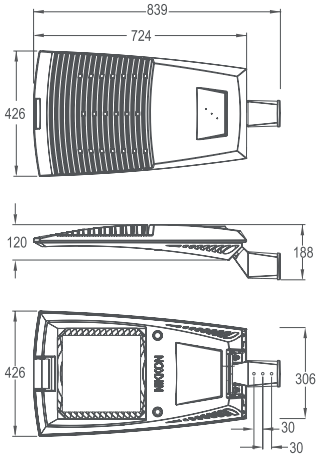


GALAXY M2

Post Top



Side Entry



TECHNICAL DATA

GALAXY M1

WATTAGE	NO. OF LEDS	TYPICAL LUMINOUS FLUX @ 700 mA	TYPICAL WATTAGE
30W	72	4185	31
60W	72	8370	62
90W	108	12420	92

* All result tested base on 5000K CCT LEDs.

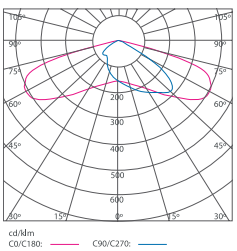
GALAXY M2

WATTAGE	NO. OF LEDS	TYPICAL LUMINOUS FLUX @ 700 mA	TYPICAL WATTAGE
120W	240	16430	117
140W	240	19180	142
160W	240	21540	165
180W	300	23410	182
200W	300	26400	201

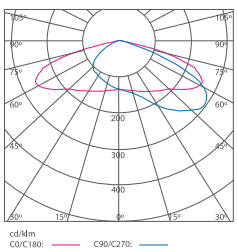
* All result tested base on 5000K CCT LEDs.

PHOTOMETRIC

TYPE II



TYPE III



NIKKON®

INTELLIGENT LIGHT CONTROL SYSTEM (iLCS)

Intelligent Light Control System

Our cities are rapidly transforming into artificial ecosystems of interconnected & interdependent intelligent digital organisms. Fast urbanization plays an integral role in economic & societal progress which represents the fundamentals of new technological condition confronting architects & product designers.

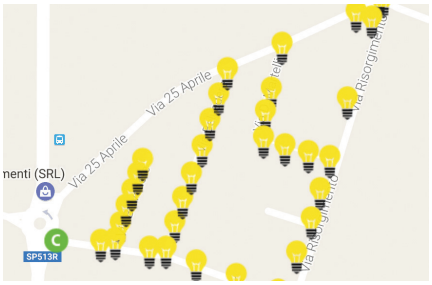
Traffic congestion, energy usage, public safety & establishing sustainable communities are the few key challenges faced by cities. As such, development & implementations of intelligent solutions are needed.Smart cities are measured by the integration of their infrastructure & the intelligent solutions which they tackle challenges.Constant attention to providing a better quality of life & vibrant economic climate is essential to engage & attract new residents, businesses & visitors.

Our Intelligent Light Control System (iLCS) introduces a modular approach, firstly with the energy saving generated by remote controls for street lightings.

This will create a new neural infrastructure network ready to obtain & collect the data necessary to activate intelligent solutions. The iLCS network architecture comprises of three different levels with the first level as the field level where each luminaire is installed with the Light Control Unit (LCU) embedded with a GPS receiver and an astronomic clock. This enables the node, when it is completely isolated (standalone) & the network is in maintenance mode, it will follow the profile that has been previously programmed.

They are all connected through a wireless mesh network & managed by the Data Control Unit (DCU) at the automation level. The DCU monitors, controls & manages all connected LCUs. It also functions as the gateway for the connected LCUs to the IT world.

Here involves the management level, Cloud Vision which is the network's platform for real time control of luminaires. It has an easy-to-use web interface to configure advanced features such as scheduling & demand responses.



GLOBAL UNIQUE ADVANTAGES

Wireless Mesh Network
- Auto mesh networking between LCUs
- Low latency communication with response <1 second, thousands of luminaires could be turned on in a few milliseconds
- Message priority (QOS), messages with high priority are delivered & goes through the network before others
- Same platform for street lighting-industrial-indoor

Plug and Play GPS Mapping
- LCUs embedded with GPS, automatic geolocation of light point
- Real time clock on LCU directly synchronized with GPS satellites
- Sunset & sunrise time is automatically calculated from the GPS coordinates directly in LCU
- Autonomous operation with weekly profile considering GPS coordinates & astronomical clock

Real Time Control, Metering and Alerts
- Real time control of each luminaire
- Dimming for exact consumption
- Real time measurements of consumption
- Real time alerts provide information on luminaire failure, tracking abnormal energy use
- Detailed working time counters

Installation Features
- Possibility to use a portable device to turn on/off/dim manually a certain area of nodes for diagnostics or installation purposes
- Factory default profile with autonomous weekly program
- External input sensors (3 ADC 0-30V dynamic range)
- Controlled auxiliary output (for advertisement displays)