



# WOLTRON<sup>1</sup>

*For product specifications, materials and colours, please refer to the details inside*

# Woltron 01 Wide area

## Technical data

rev. 2024.03

### INSTALL

Floodlight towers for street and motorway lighting, large areas, ports and airports.

### ACCESSIBILITY



#### Openable

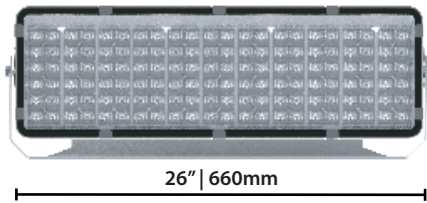
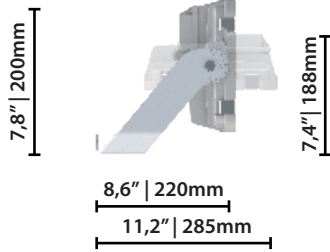
Openable fixture with basic tools  
Replaceable internal components  
using basic tools.

### OPTICAL TECHNOLOGY



#### Glassed

Refracting optical system consist of singlechip LED, PMMA lenses with 30 years of warranty against UV and yellowing by aging, aluminium reflector having a purity of 99,7% and extra clear tempered glass.



Scale: 1:10

#### Max. weight

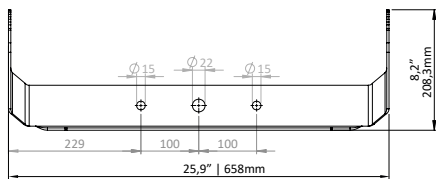
20,3lb (9,2 Kg) (bracket+ floodlights)

#### EPA (CXs)

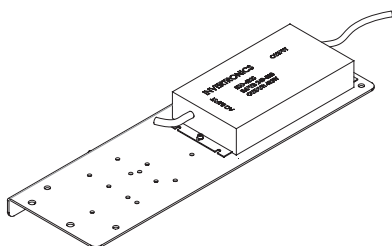
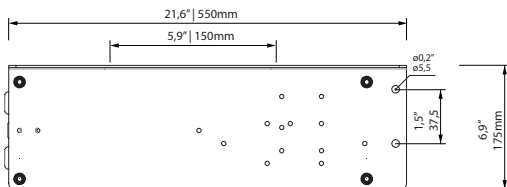
Front: 1,56ft<sup>2</sup> (0,18 m<sup>2</sup>)

Power supply (driver+driver plate): 11,7lb (5,3 Kg)

### FLOODLIGHTS FIXING



### DRIVER PLATE



### STANDARD

Compliance: UL Standard 1598-CSA C22,2no.250.0.

### CONFORMITY | PROTECTION

#### Conformity



#### Safety classes



### PLUS



#### Salt spray test

ISO 9227



#### Protection classes



#### Vibration test passed

IEC 60068-2-6



#### Photobiological safety



Classe 0 Exempt group IEC/TR62471

### LIGHTING FIXTURE FEATURES

#### General features

Power source:	90-305V   tolerance +/-10%   249-528V on request
Current supply:	350 mA   525 mA   700 mA   1050 mA
Max power:	480W
Power Factor   THD:	≥0.95   <10 % (At full load)
Expected life (Ta=77°F 25°C):	> 100.000 h   L90B10   @ LED 1050mA
Operational temperature (Ta):	T <sub>min</sub> = -40°F (-40°C) T <sub>max</sub> = 122°F (50°C)   LED @421W
Storage temperature:	-40°F/+176°F (-40°C/+80°C)
Overcharge protection:	Main surge immunity up to 10kV
Standard functions:	Current fixed  Virtual midnight  CLO
Standard equipment:	Dislocable up to 164ft (50m), supplied with fixing plate wall mounted in galvanized steel and wire

#### Materials

Lighting fixture:	Die cast aluminium   EN1706
Bracket:	Hot galvanized steel
Optical system:	Optics in PMMA
Frame:	Die cast aluminium   EN1706   3 adjustments
Screen:	Ultraclear tempered glass   Th. 0,15in (4mm)
Gaskets:	Removable silicon
Cable gland:	Polyamide PA66   PG16   Ø 0,55in (14mm) MAX
Screws and bolts:	AISI 304 stainless steel
Fixture color:	GMR light

### LED FEATURES

LED data 4.000 K - 700mA:	340 lm/LED   180 lm/W   77°F (25°C) [Tj]   ≤ 3 step MacAdam
Color temperature:	3.000K   4.000 K   5.700 K   CRI ≥ 70

### OPTIONAL

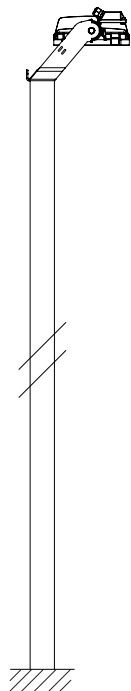
Electrical equipment:	- 380V driver - additional IP connectors
Mechanical equipment:	- Aiming device for precise pointing - Pole-top adapter Ø2,36"-3" (Ø60-76mm) - Protection grille - Light shield
Optional functions:	DALI   DMX

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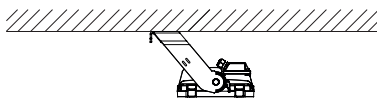
## Fixing

### FIXING TYPE

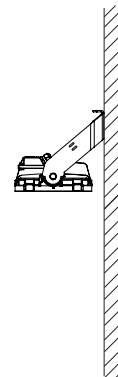
Pole-top fixing



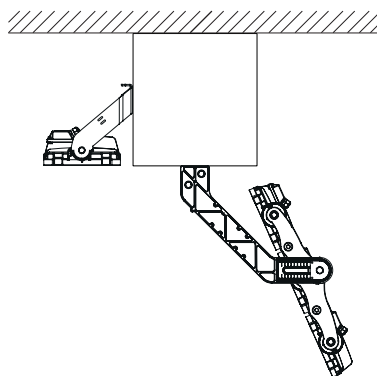
Surface mounting



Wall mounting

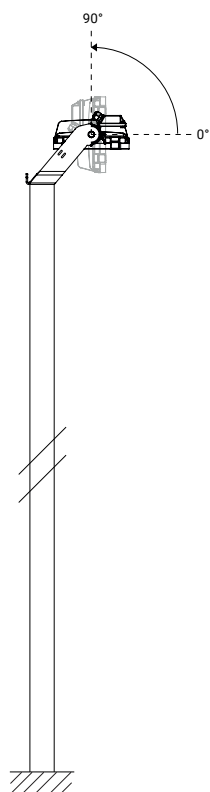


Multiple installation



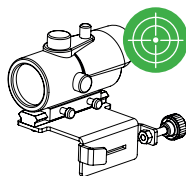
### ADJUSTMENT DIAGRAMS

Complete floodlights adjustment

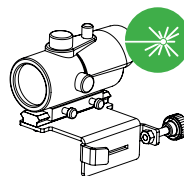


### MECHANICAL OPTIONAL

Easily installable aiming device for precise pointing of the light.

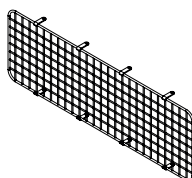


Optic

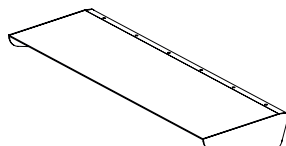


Laser

Protection grille to safeguard the floodlight's screen. It can be easily removed for cleaning.



Light shield: Vizor to minimise upward light.

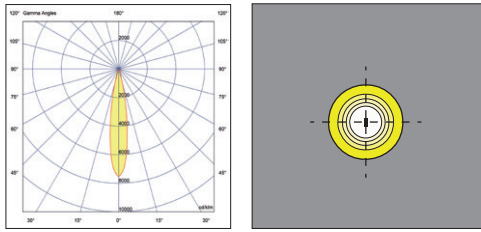


# Woltron 01 Wide area

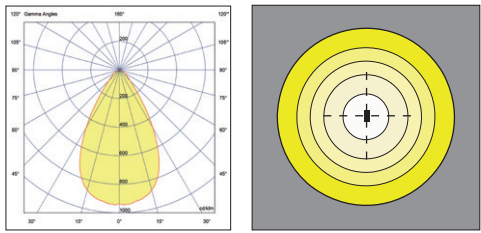
## Available optical system

### SYMMETRICAL DISTRIBUTION\\

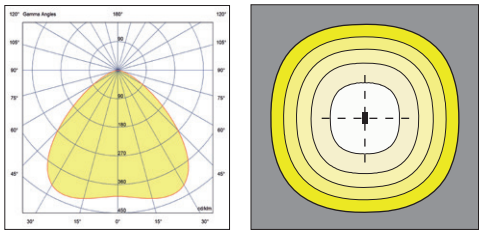
9A



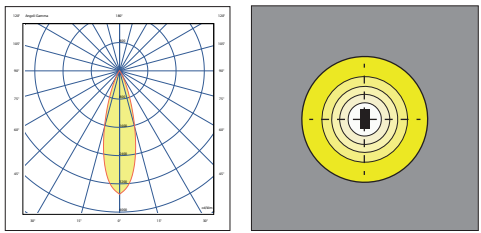
9B



9C

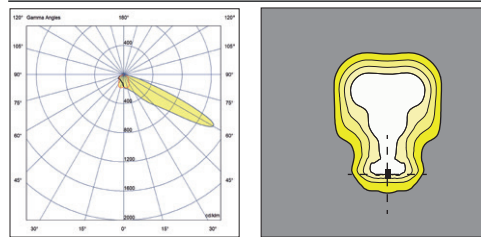


9E

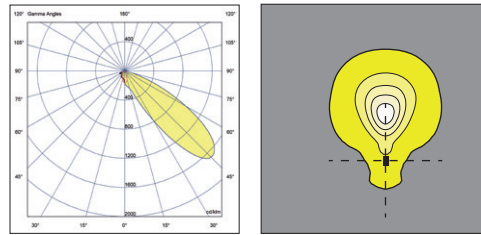


### FLOODLIGHT DISTRIBUTION\\

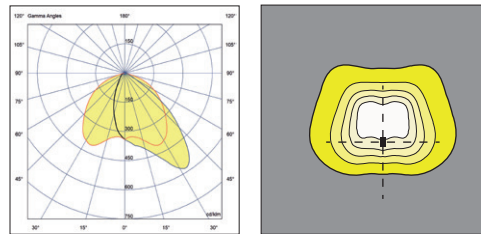
11A



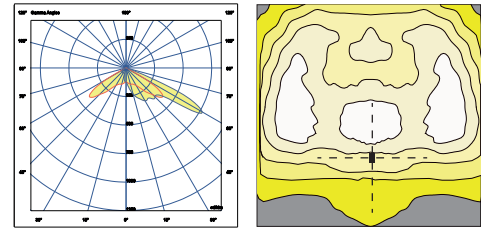
11B



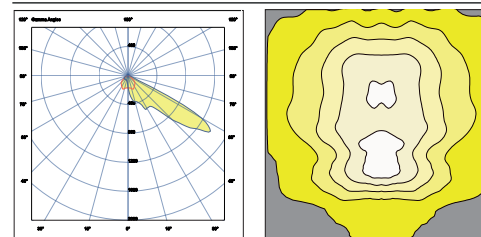
11C



11E



11F



# Functions

## Standard functionality

### Fixed current

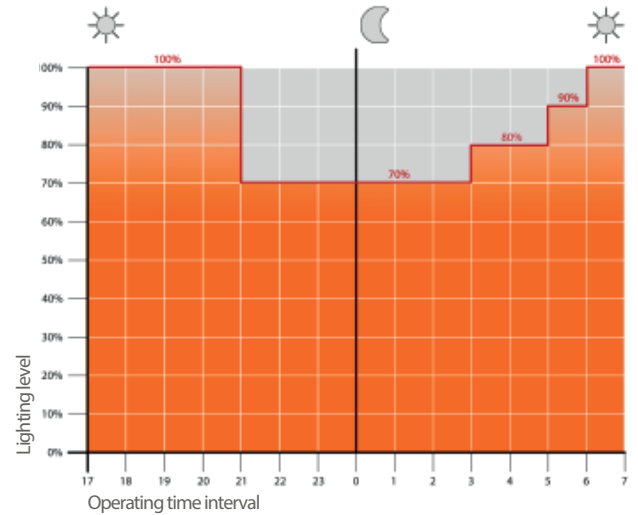
During production, the light fixture is pre-set with a fixed current amongst the standard settings that appear in the tables on page 3. Upon customer's request, it is also possible to set a specific current (custom setting).

### Virtual Midnight | Automatic dimming

The driver is programmed to automatically dim the light output according to the time. As required by regulations, the maximum output is set during initial hours and towards the end of the light fixture's operating time interval. During these hours there is statistically more traffic. The light output is then dimmed during the central hours of the operating time interval. This management is achievable through a self-learning process of the device, that establishes the centre point of the time interval. This moment is called "virtual midnight" and it is the point that the dimming profile refers to in order to know when to reduce the light output. We can manage up to 8hrs of programming that evolve around the virtual midnight and up to 5 steps of dimming. This way the light output will adjust automatically, adapting throughout the year to the duration of the nighttime, by referring to the pre-set parameters based on the centre point of the operating time interval.

### CLO Constant Lumen Output

LEDs over time are inevitably subject to performance depreciation. This light reduction may be compensated by gradually increasing the LED's current during its lifespan, this corresponds to a gradual increase of lumen output proportional to the amount that is naturally depreciated.



Example of 4-step adjustment with virtual midnight

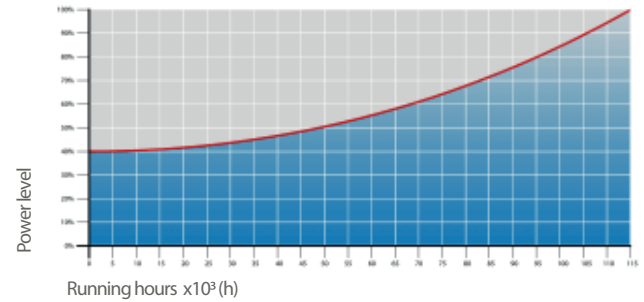
## On request functionality

### DALI SENSOR (D4i)

On request, the fixture can be equipped with a D4i certified power supply. This is the ideal solution for wireless sensors and/or controls. This system was developed to integrate various systems to address smart city requirements. Included is DALI2 protocol + auxiliary power (AUX) to supply power to devices and sensors. This system is usually required when using a Zhaga Lumawise socket.

### DMX

This lighting control protocol allows to manage the dimming using a master device.



CLO Light Flow Compensation



## Protection cycles

GMR ENLIGHTS works with cast iron, steel and aluminum. The materials are selected and processed to maximize performance and quality.

### 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 356°F (180°C);
- 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

Lighting fixtures, 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;
- Specific process for the preparation of surfaces before painting;
- Washing with water;
- Rinsing with demineralised water and subsequent drying;
- First powder layer application followed by kiln baking at 356°F (180°C);
- Final powder layer application using a High Durability product and final kiln roasting at 356°F (180°C).



#### Salt spray test

The top quality of such treatments is confirmed by salt spray tests performed in accordance with standard ISO 9227:2017 Neutral Salt Spray test (NSS).

The test was carried out for 8.000 hours at 95°F (35°C) and demonstrated through the report test released.



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