



# KASSIO

Bollard Range





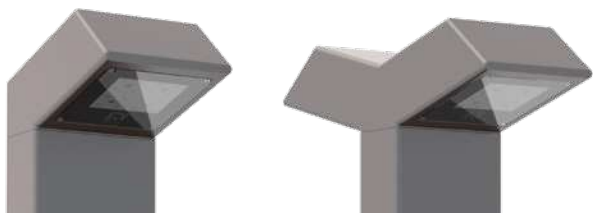


**KASSIO** *Bollard Range*



The Kassi bollard suits urban and architectural projects like parks, squares and pathways. The asymmetrical profile give a new design and modern style to any project. Kassio is available in 3 heights and 1 or 2 fixtures.





## KASSIO *Bollard Range*

# Highlights



### Technical characteristics

- Simple and resistant form
- Available in 3 sizes 35, 47 and 59 inches  
Custom heights available upon request.
- Sealed Head



### Lighting performance

- One of the best LEDs on the market
- Efficient and soothing lighting, ideal to indicate pedestrian and cycling paths
- Asymmetric or circular lighting possibilities save to the LED system and lens modularity
- Very low light pollution: ULOR\* 1.6%.  
*\*ULOR = Upward Light Output Ratio*
- LED life cycle: up to 100 000 hours
- Maximum LED efficiency thanks to good thermal management
- Optional lighting management systems: automatic adjustment with up to 5 levels depending on the time of day, presence detection, constant flux, graduation via voltage variation, command 1-10V or DALI



### Installation & maintenance

- Easy installation.
- Access to the class II box (not include) from the access hatch on the rear of the bollard
- 3ft pre-wired up to the box



### Appearance

- Ragni's conception and design
- Simple and versatile design, integrable in urban or landscaped areas
- Screen printed protection
- Available in two-colored version
- Creation of coordinated projects by associating with Kassio luminaire



### Environmental and social responsibility

- No light directed towards the sky
- Eco-friendly conception
- Limits any nuisance for roadside properties and the environment.
- Low CO<sub>2</sub> emissions thanks to the choice of materials, the high-performance optical system and a reduced amount of packaging.
- Adapted to PRM (People of Reduce Mobility).

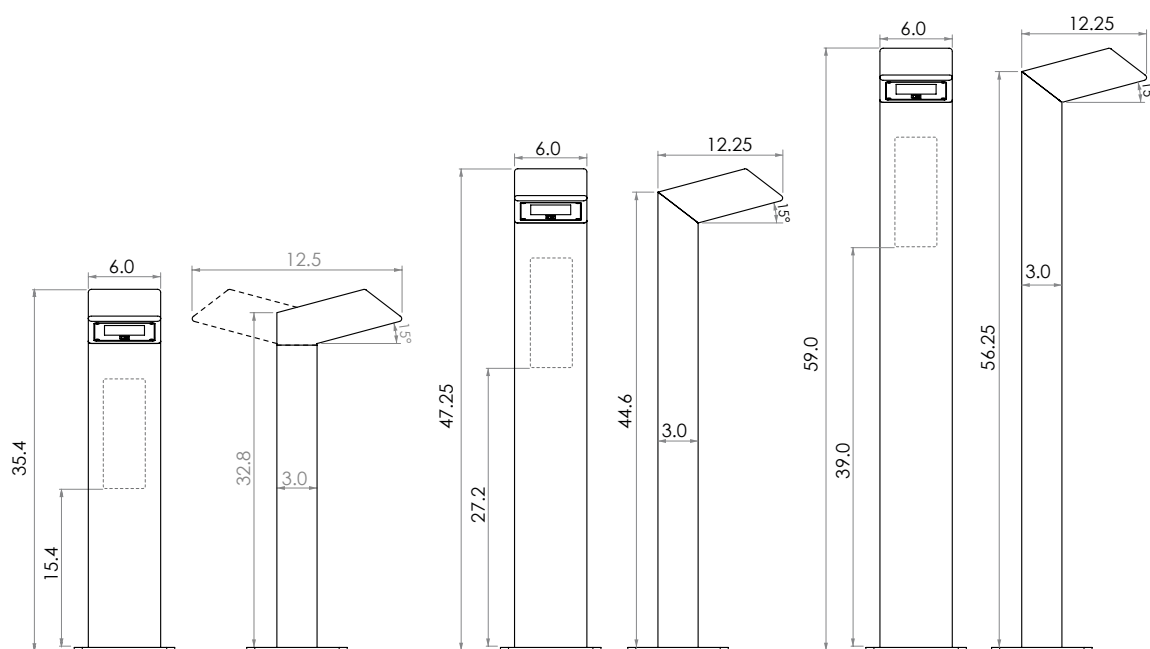




## Technical Characteristics

	Kassio 900	Kassio 1200	Kassio 1500
Height (in)	35.5	47.25	59.0
Weight (lbs)	44	55	66
Protection index	IP 66		
Shock resistance	IK 10		
Materials			
Body	Gavanized steel		
Head	Cast aluminum		
Protection	ME RESIST		

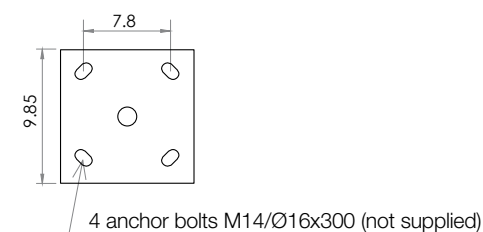
## Dimensions (in)



Door (back of the bollard):  
5.1 x 11.0 in.

In the case of a sealing block  
installation, recommended  
dimensions:  
om30 x om30 x om40

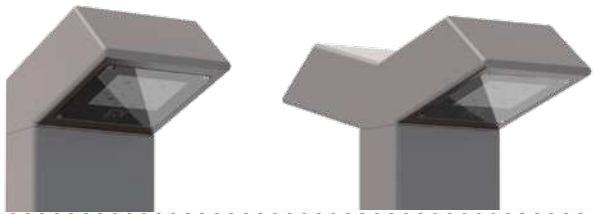
Base plate



Kassio S

Kassio M

Kassio L



**KASSIO** *Bollard Range*

# Technical Characteristics

## Electrical Characteristics

- Power current up to 700mA
- Electrical class: I and II
- Incorporated driver.
- Optional surge protector or over/under voltage protection.
- Optional lighting management systems: automatic adjustment with up to 5 levels depending on the time of day, presence detection, constant flux, graduation via voltage variation, command 1-10V or DALI.

## Voltage range (V)

Module 8 LED .....	21-24 V
Module 16 LED .....	42-48 V







# Lighting Performance

## LED module

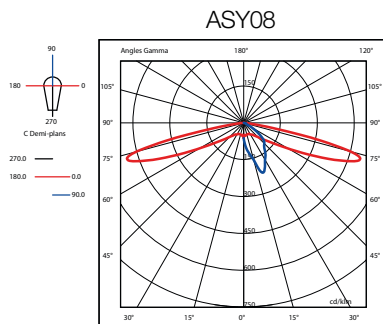
We have selected our LEDs from the best on the market for their quality and efficiency.

- LED manufacturer: CREE
- Assigned LED's life cycle: 100 000 hours.
- Lumen maintenance, ex : L85 100 000 hrs @ 350mA, 85% of the luminous flow at 100 000 hrs @ 350mA.
- Color temperature: 3000K or 4000K (other color temperatures on request)
- CRI above 70

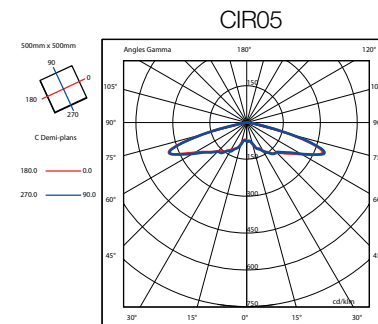


## Photometric distributions

### Asymmetrical



### Circular distribution



## Powers and luminous intensities

LUMINAIRE OUTPUT DATA (Tj @ 85°C)

3000 K	350 mA			500 mA			700 mA		
	P <sub>t</sub> (W)	Φ (lm)	(lm/W)	P <sub>t</sub> (W)	Φ (lm)	(lm/W)	P <sub>t</sub> (W)	Φ (lm)	(lm/W)
Number of LED									
8	10.5	1010	96	14.5	1440	99	20	1900	95
16	19	2020	106	26.5	2885	109			

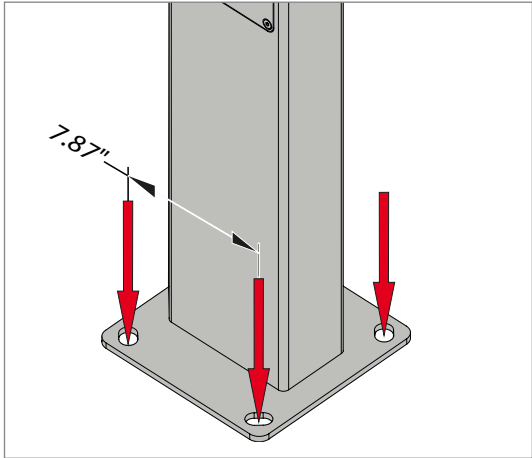
4000 K	350 mA			500 mA			700 mA		
	P <sub>t</sub> (W)	Φ (lm)	(lm/W)	P <sub>t</sub> (W)	Φ (lm)	(lm/W)	P <sub>t</sub> (W)	Φ (lm)	(lm/W)
Number of LED									
8	10.5	1150	110	14.5	1560	108	20	2050	103
16	19	2300	121	26.5	3120	118			

P<sub>t</sub> (W) = Total power consumption including driver consumption  
 Nominal flux (lm)  
 Luminous efficiency (lm/W)

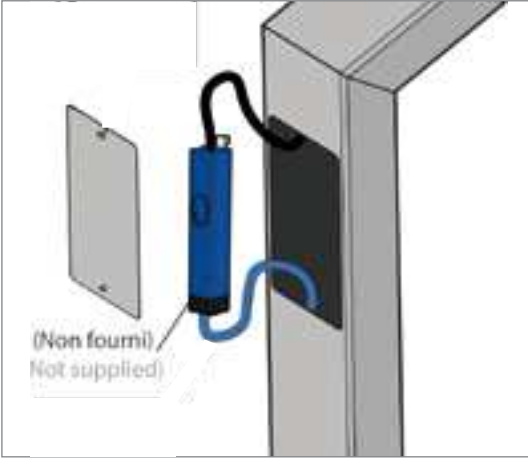


# Installation & maintenance

## Installation



Fastening: 4 embedding rods Ø16 / M14x300mm



Door opening via 2 screws BTR for electric housing access.

## Luminaire maintenance



Glass cleaning.

## Ordering Information

Fixture	Heads	# LED	Size	CCT	Drive Current	Distribution	Line Voltage	Head Color	Pole Color
KAS									
	1F	8	S - (35.4")	3 - (3000K)	35 - (350 mA)	T1	1- (120-277V)	BLK - (Black)	BLK - (Black)
	2F	16	M - (47.2")	4 - (4000K)	50 - (500 mA)	T2	3- (347-480V)	BRZ - (Bronze)	BRZ - (Bronze)
			L - (59.1")		70 - (700 mA)	T3		SLV - (Silver)	SLV - (Silver)
			C - (Custom)		Custom	T4		WHT - (White)	WHT - (White)
						T5		RAL #	RAL #



# KASSIO



## Appearance

With its chisel tip, the design of the Kassio bollard is effective, clean and original. Both an element of street furniture and a lighting device, it will dress modern places as well as more classic or remote areas. With its 3 different heights and choice to paint it with one or two colors of your choice, it will fit any decor.

- **Standard colors:** White, Silver, Bronze and Black.  
All RAL colors available upon request.

### Color and finish examples:

