# **K-LITE**



## INFRASTRUCTURE LIGHTING 60 - 300W in one Waco family





## WACO PRO Elegance . Functionally

Designed for Urban Environment, Waco Pro range offers optimised photometrical performance with a minimum total cost of ownership. It offers towns and cities the ideal tool to improve lighting levels, generate energy saving and reduce their ecological footprint.

Waco Pro comes in four sizes and offers flexible combinations of LED modules, a choice of currents and dimming options to further maximise energy savings and provide the most cost-effective solution.

## K-LITE





ID : 4328 Luminaire Power : 60W



## WACO PRO MIDI

ID : 4306 Luminaire Power : 120W



## WACO PRO MAXI

ID : 4307 Luminaire Power : 180W



## WACO PRO MEGA

ID : 4308 Luminaire Power : 240W









Waco Pro encompasses design, visual comfort, performance, energy savings in a single street lighting system. Waco Pro comes in four different sizes, together with an adjustable inclination joint that guarantees maximum flexibility.

### Product Description

- Housing and front frame made of die-cast aluminium (ADC12) featuring high strength and anti corrosion.
- · Separate optical & driver compartment for tool less maintenance.
- Clear toughened glass diffuser.
- High light transmittance optical lens for various applications.
- Suitable for mounting on to 60 mm dia pipe at lateral (side entry) and vertical (top mount) with adjustable angle -15° to +15°.
- Cable entries for through-wiring of mains supply cable.
- Integral constant current power supply
- CRI (Ra) : ≥70 (>80 On Request)
- Prewired with LED driver and suitable for operating on 240V, 50Hz single phase ac supply.
- Ordering guide : KL-4328-CCT (Colour Temperature)
- Available CCT : 2700K, 3000K, 4000K, 5700K

8	Œ		IP66	IK09	>60,000 h L70 B10	SDCM ≤ 5	
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### Product Benefits

- High luminous efficiency at reduced wattage.
- Functionally versatile, stable with sound engineering.
- Corrosion resistant and maintenance free.
- Quick installation and low assembly costs.
- Sustainable LED technology offers durability and optimal light output with low power consumption.

#### Controls

- Dimmable options : Dali / 1-10V / PWM (On Request)
- Smart control management system (On Request)

## Area of Application

Roads and highways, Parking lots and large areas, Roundabouts, Pedestrian and bicycle paths, Pedestrian crossing.

#### Available Finish

Pure polyester powder coated RAL 9004 Signal black RAL 9007 Grey aluminium RAL 7016 Anthracite grey Graphite grey

\* (On Request) depends upon the availability and validation of drivers and other accessories



## K-LITE

## Waco Pro







Bracket with a tilting system from -15° to +15°

Product Code	KL-4328	KL-4306	KL-4307	KL-4308		
Input Wattage	60W	120W	180W	240W		
Wattage Range	40W - 60W	80W - 120W	150W - 200W	200W - 300W		
Installation Pipe Diameter		Ø60	mm			
Color Temperature		2700K / 3000K / 4000K / 5700K				
Input Voltage		AC90	~305V			
Frequency Range		50/60Hz				
Power Factor	PF>0.97					
Surge Protection	6KV (Additional Surge Protection on Request)					
Color rendering index	Ra≥70 (>80 On Request)					
Operating Temperature	-15°C~+50°C					
LED Lifetime	>60000hrs					
Protectin Grade	IP66					
Protection level	IK09					
Installation Height	3-6m	6-8m	8-10m	10-14m		
Dimension (L x B x H)	555 x 210 x 143	645 x 257 x 147	790 x 305 x 147	890 x 361 x 163		

Note :  $\bullet$  Luminous flux / Power consumption may vary by ±10%.

• Luminaire efficiency upto 150lm/W.

#### Luminaire Use

According to the Lamp Post Height



-555



## **Technical Specifications**

Technical Specifi	ICATIONS			
General ID System Wattage Driver Integral	: 4328 : 60W LED : Constant Current	Light Source CRI (Ra) LED Colour Temperature	: ≥70 (>80 On Request) : 2700K / 3000K / 4000K / 5700K	
Operating Voltage Operating Temperature	: 90-305Vac : -15°C~+50°C	Driver		
Physical Body Diffuser Mounting Finish	: Die-cast aluminium (ADC12) : Clear toughened glass : Suitable for mounting Horizontal & Vertical on 60 mm OD pipe : Powder coated RAL 9004 Signal black RAL 9007 Grey aluminium RAL 7016 Anthracite grey Graphite grey	Power Supply Input Voltage Frequency Power Factor THD Surge Protection Efficiency Dimmable options Control	: Integral : 230-240Vac : 50-60 Hz : >0.97 : <10% : 6KV (Additional Surge Protection : >85% : Dali / 1-10V / PWM (On Request : Smart control management system (On Request)	
		Optical Performance		
		Colour Temperature Luminous flux Optical Distribution	: 5700K : 9186 lm : Type II (On Request - Type III, Ty	rpe IV)
		Light distribution & IES files	s - Please refer Online	
	6 IK09 ≥60,000 h L70 B10 ≤ 5	Note : • Luminous flux / Po • Luminaire efficient	ower consumption may vary by ±10 cy upto 150lm/W.	)%.

#### Photometric Data



645



## Technical Specifications

	loations			
General	1000	Light Source		14
ID System Wattage Driver Integral	: 4306 : 120W LED : Constant Current	CRI (Ra) LED Colour Temperature	: ≥70 (>80 On Request) : 2700K / 3000K / 4000K / 5700K	25
Operating Voltage Operating Temperature	: 90-305Vac : -15°C~+50°C	Driver		
Physical Body Diffuser Mounting Finish	: Die-cast aluminium (ADC12) : Clear toughened glass	Power Supply Input Voltage Frequency Power Factor THD Surge Protection Efficiency Dimmable options Control	: Integral : 230-240Vac : 50-60 Hz : >0.97 : <10% : 6KV (Additional Surge Protection : >85% : Dali / 1-10V / PWM (On Request) : Smart control management system (On Request)	
		Optical Performance		
		Colour Temperature Luminous flux Optical Distribution	: 5700K : 18589 lm : Type II (On Request - Type III, Ty	pe IV)
		Light distribution & IES files	s - Please refer Online	
<b>8</b> (€ = 1P6	6 IK09 ≥60,000 h L70 B10 ≤ 5	Note : • Luminous flux / Po • Luminaire efficien	ower consumption may vary by ±10 cy upto 150lm/W.	1%.

#### Photometric Data



-790-



## Technical Specifications

		Light distribution & IES file	s - Please refer Online		
		Optical Distribution	: Type II (On Request - Type II	I, Type IV)	
	Graphite grey	Optical Performance			
1 111211	RAL 9004 Signal black RAL 9007 Grey aluminium RAL 7016 Anthracite grey	Control	: Smart control management system (On Request)	JC31/	
Finish	Horizontal & Vertical on 60 mm OD pipe : Powder coated	Surge Protection Efficiency Dimmable options	: 6KV (Additional Surge Protect : >85% : Dali / 1-10V / PWM (On Requ		
Body Diffuser Mounting	: Die-cast aluminium (ADC12) : Clear toughened glass : Suitable for mounting	Frequency Power Factor THD	: 50-60 Hz : >0.97 : <10%		
Physical		Power Supply Input Voltage	: Integral : 230-240Vac		
Operating Voltage Operating Temperature	: 90-305Vac : -15°C~+50°C	Driver	- lute and l	$\Box$	305
General ID System Wattage Driver Integral	: 4307 : 180W LED : Constant Current	Light Source CRI (Ra) LED Colour Temperature	: ≥70 (>80 On Request) : 2700K / 3000K / 4000K / 5700K	HB C	147 ⊥



Note : • Luminous flux / Power consumption may vary by ±109 • Luminaire efficiency upto 150lm/W.

890



## Technical Specifications

General		Light Source			163
ID System Wattage Driver Integral	: 4308 : 240W LED : Constant Current	CRI (Ra) LED Colour Temperature	: ≥70 (>80 On Request) : 2700K / 3000K / 4000K / 5700K	THE STREET	
Operating Voltage Operating Temperature	: 90-305Vac : -15°C~+50°C	Driver		$\Box \bigcirc$	361
Physical Body Diffuser Mounting Finish	: Die-cast aluminium (ADC12) : Clear toughened glass : Suitable for mounting Horizontal & Vertical on 60 mm OD pipe : Powder coated RAL 9004 Signal black RAL 9007 Grey aluminium RAL 7016 Anthracite grey Graphite grey	Power Supply Input Voltage Frequency Power Factor THD Surge Protection Efficiency Dimmable options Control	: Integral : 230-240Vac : 50-60 Hz : >0.97 : <10% : 6KV (Additional Surge Protecti : >85% : Dali / 1-10V / PWM (On Request)		
		Optical Performance			
		Optical Distribution Light distribution & IES file	: Type II (On Request - Type III, 1 s - Please refer Online	Type IV)	
		Note : • Luminous flux / P	ower consumption may vary by ±	10%.	



Note : • Luminous flux / Power consumption may vary by ±10<sup>4</sup> • Luminaire efficiency upto 150lm/W.

### EFFICIENT AND SUSTAINABLE

The Waco Pro range offers optimised photometrical performance with a minimum total cost of ownership. It offers towns and cities the ideal tool to improve lighting levels, generate energy saving and reduce their ecological footprint.

Waco Pro comes in four sizes and offers flexible combinations of LED modules, a choice of currents and dimming options to further maximise energy savings and provide the most cost-effective solution.

A rear bracket version of the Waco Pro luminaire is available so that streets, side streets and large pavements can be lit using the same luminaire design.

#### ADVANTAGES

- Sustainable and recyclable materials. Die-cast aluminium (ADC12).
- Modular LED engines for a precise light distribution.
- · Mounting piece inclination adjustment system on-site.
- · Seperate IP66 optical compartment sealed by clear toughened glass.
- Seperate IP66 driver compartment.
- Tool-Less Maintenance.
- 60 300W in one Waco family.
- Side & Pole Top Mounting.

### MAXIMUM ENERGY SAVINGS

It is equipped with LEDs and various dimming and remote management options for a dramatic reduction in energy consumption.

## PERFORMANCE AND FLEXIBILITY

The Waco Pro luminaires are equipped with photometric engines composed of modular quantities of LEDs so that they can offer a wide range of lumen packages. They can also be equipped with a variety of drivers and dimming options.

The Waco Pro luminaires can be adjusted on-site for optimal photometric performance. This flexibility ensures that the light distributions are specifically adapted to the real needs of the area to be lit.

## CONTROL OPTIONS

The follow dimming Options are possible for the Waco Pro street light luminaires

Dali / 1-10V / PWM

As an option, this luminaires can be equipped with a standard NEMA socket, enabling an easy access to the digital era of lighting with advanced lighting features that plan, monitor and control outdoor lighting networks.

#### INSTALLATION AND MAINTENANCE

The complete range is available with four different size adapted for post-top and side-entry mounting ( $\emptyset$ 60mm). The inclination angle can be adjusted on-site for both post-top (-15 to +15°) and side-entry (-15 to -15°) mounting in 5° steps.







## WACO PRO

## **Technical Features**

### Fixing

- Suitable for post top or side mounting on Ø60mm OD pipe.
- Scale available on housing for mounting bracket and adjustable by (5° step).
- Adjustable angle -15° to +15°.

### Materials

- Die-cast aluminium (ADC12)
- Clear Tempered glass
- Stainless steel fastners

### Finish

 Pure polyester powder coated RAL 9004 Signal black RAL 9007 Grey aluminium RAL 7016 Anthracite grey Graphite grey

### Structure

- Die-cast aluminium housing, with a IP66 protection rating.
- Transparent extra-clear flat glass, 4mm thick
- Silicone gasket between frame and cover
- IK09 mechanical resistance

## Electrical auxiliaries

- Can be supplied with programmable electroinic power supply for smart controls
- Automatic power cutoff switch when top cover is opened
- Wiring plate with space for any auxiliary remote control devices (Smart City Ready) and additional surge protection devices (SPD)

## Power Supply

- Protected against short circuit, over-temperature and over-voltages upto 6KV (Additional Surge Protection on Request)
- Nema socket available on request

### Light Distribution





**TYPE II - ASYMMETRIC ROAD** 





TYPE III - ASYMMETRIC ROAD WITH SIDEWALK



TYPE IV - ASYMMETRIC ROAD

Complete versatility of use thanks to street geometries that meet the requirements necessary for all applications presented.

## K-LITE



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