FME Lighting | ILLUMINATING INDUSTRIAL APPLICATIONS

Project:	
Type:	
Catalog #:	

SPECIFICATIONS

Outdoor solar lighting system uses solar cells which convert sunlight into electricity. Electricity is stored in the battery for use at night. JQL Solar LED Street Light features all in one design function, low profile design with PIR/microwave motion sensor and smart controller all built in with bifacial solar panel. JQL Series Solar Lights are easy to install and virtually maintenance free.

- Economical, easy to install, all in one integrated with bifacial solar panel on top and bottom for faster charging time.
- Philips LumiLEDs luxeon 5050 chip creates a first class light source 180 lumen per watt, with the aluminum lamp base and sealed lens with its excellent heat dissipation.
- The sealed lenses are made of strong UV protected PC and are aging and shock resistant.
- The light automatically switches on at dusk and switches off at dawn. 50% permanent lighting, when motion is detected power turns to 100%.
- Deep cycle battery, charge and discharge over 2000 times, continuously works 2-3 rainy days in intelligent mode.
- MPPT controller automatically track the maximum power point according to the weather variation, charging rate 30%.
- 180 Lumen per watt and IP65 & IK08 rated
- 3 Years warranty on all components
- Optional Accessory : Intelligent App Control, IOT Management system, Camera, Bird Spikes

SOLAR STREET LIGHT
UP TO 180LM/W

- SUPPORT 12HOURS UNDER 2-3 RAINY DAYS
- POWER: 60W/80W/100W

Bifacial Solar Panel Efficiency Increased 30%

Rotatable LED Module Easy Installaton

Angle of Light Source: -60° / +60°

60W 45.4" / 80W 60.3" / 100W 71.3"

8.9"   4.3"   1.9"   30°

ORDERING INFORMATION

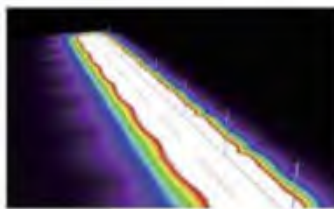| Model	Power		Solar Panel		Lumens	CCT		Charge Time (Hrs)	IP Rating	Installation Height (Ft)
JQL	6	60W	10WP	100Wp	10800lm	5K	5000K	6	IP65	26-29
	8	80W	13WP	130Wp	14400lm					32-36
	10	100W	16WP	160Wp	18000lm					39-42

FME Lighting

PRODUCT DESCRIPTION

Outdoor solar lighting systems use solar cells which convert sunlight into electricity. The electricity is stored in batteries for use at night. The JQL Series solar light is easy to install and virtually maintenance free.
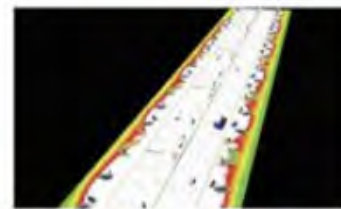
• JQL features all-in-one design function, low profile design, photocell sensor, timing, dimming, intelligent power saving, morning light, and microwave sensor available.
• Bifacial Solar Power design - suitable for remote regions and no-electric supply zones.
• Deep cycle battery, charge and discharge over 2000 times.

PHOTOMETRIC DESIGN

Planning and analyzing of street lights can be done by using lighting design software, which allows lighting simulations.
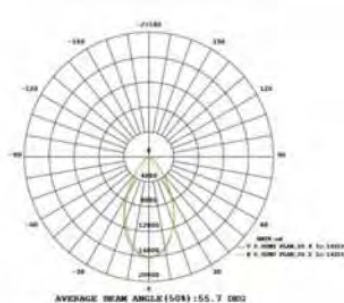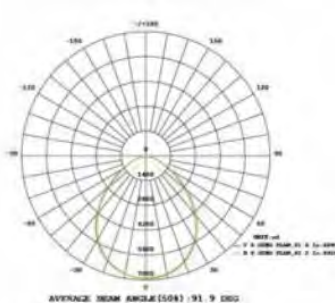
Example of an urban branch road

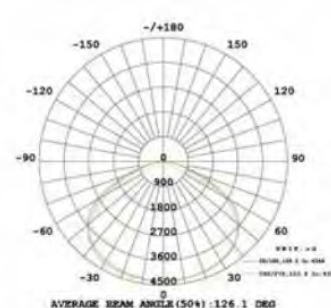Example of a main road/parking lot

PHOTOMETRY

60D	90D	120D

AVERAGE BEAM ANGLE (50%) :55.7 DEG

AVERAGE BEAM ANGLE (50%) :91.9 DEG

AVERAGE BEAM ANGLE (50%) :126.1 DEG

FEATURES

• Die-cast aluminum housing, anti-corrosion coating
• Easy battery replacement design, can be renewed every 7 years
• Ultra-high light efficiency, 10W equivalent to 20W of others
• Bilateral solar panels, overall conversion efficiency is increased by 30%
• Rotate-able LED module
• Accurate optical road lighting designs, adapt to various conditions with no waste of light

OPTIONS / ACCESSORIES

• 4KV Surge Protection
• Intelligent APP Control
• IOT Management
• AC&DC Complementary USB Power
• Alarm
• Security Camera

TECHNICAL SPECIFICATIONS

Wattage	60W		80W		100W	
LED Chips	3030	5050	3030	5050	3030	5050
Lumen Output	9000lm	10800lm	12000lm	14400lm	15000lm	18000lm
Solar Panel	18V100W		36V130W		36V160W	
Efficacy	150lm/w	180lm/w	150lm/w	180lm/w	150lm/w	180lm/w
Optional Beam Angle	60°/90°/120°					
CCT	3000K~6500K					
Input Voltage	12-24V DC					
LED Driver	Meanwell OR Others					
IP & IK	IP65 & IK08					
Photovoltaic panel	Double crystal photovoltaic panel					
Power of PV Module	100Wp		130Wp		160Wp	
Li-on Battery	538WH		768WH		922WH	
	538WH 12.8V42AH		768WH 25.6V30AH		922WH 25.6V 36AH	
Charing Time	6hrs		6hrs		6hrs	
Run Time(@full power)	8hrs		8hrs		8hrs	
Installation Height	8-9M(26-29ft)		10-11M(32-36ft)		12-13M(39-42ft)	
Operating Temperature	-20℃ to 50℃ (-4℉ to 122℉)					
Charing Temperature	-0℃ to 65℃ (32℉ to 149℉)					
Control system	MPPT intelligent controller					
Maximum Autonomy	Operate under 2-3 rainy days					
Motion Sensor Mode	30%-100% 28hrs 20%-80% 40hrs		30%-100% 28hrs 20%-80% 40hrs		30%-100% 28hrs 20%-80% 40hrs	
Constant Mode	100% 8hrs 70% 12hrs 40% 20hrs		100% 8hrs 70% 12hrs 40% 20hrs		100% 8hrs 70% 12hrs 40% 20hrs	
Control Options	Photocell sensor, timing, dimming, intelligent power saving, morning light, microwave sensor available					

DIMENSIONS

45.4" 8.9" 4.3" 1.9" 30° **60W** 20.6"

60.3" 8.9" 4.3" 1.9" 30° **80W** 20.6"
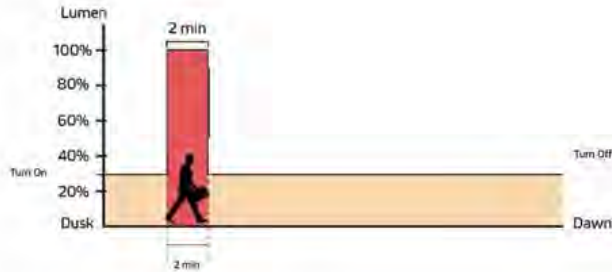

71.3" 8.9" 4.3" 1.9" 30° **100W** 20.6"
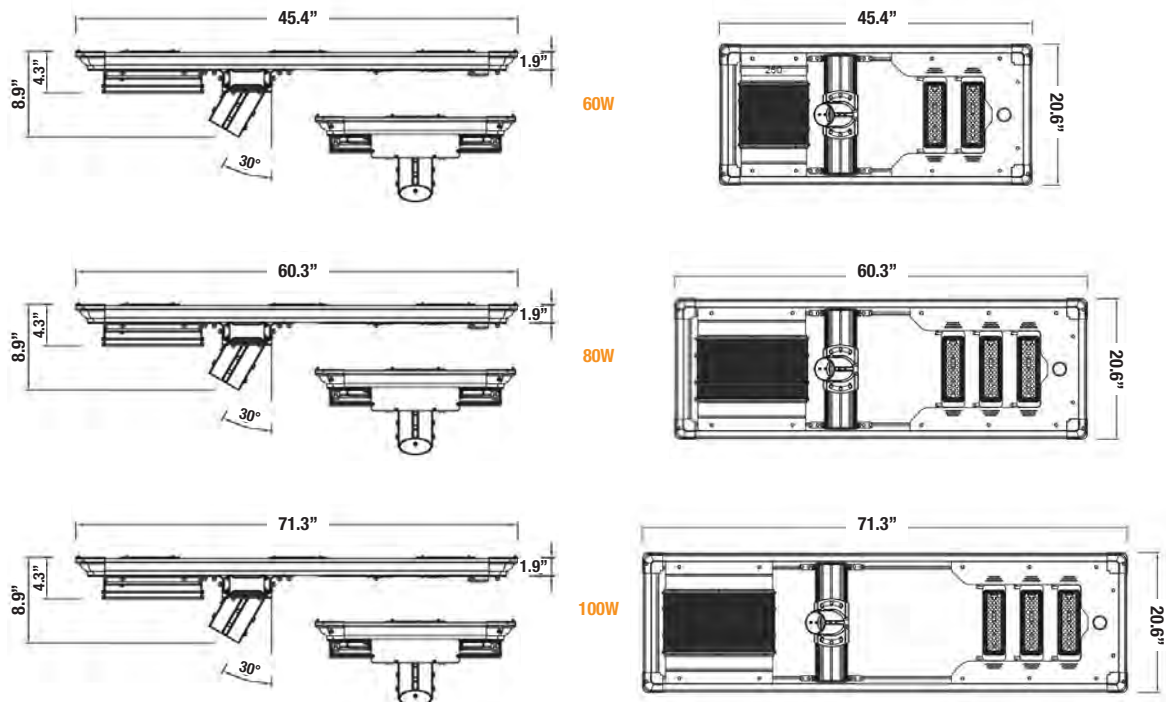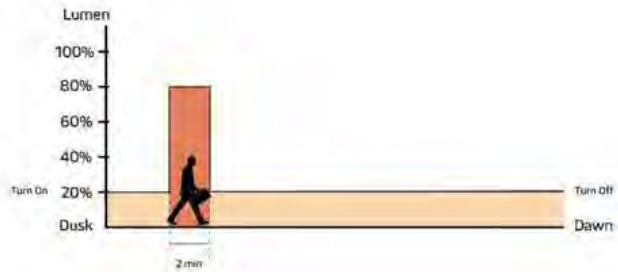
AUTONOMY CONTROL GUIDE

30%~100% MOTION SENSOR MODE

Constant 30% brightness (turns on at dusk, turns off at dawn); 100% brightness turns on for 2 minutes when motion is detected.
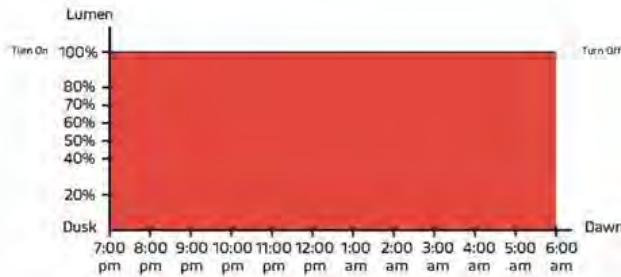

20%~80% MOTION SENSOR MODE

Constant 20% brightness (turns on at dusk, turns off at dawn); 80% brightness turns on for 2 minutes when motion is detected.
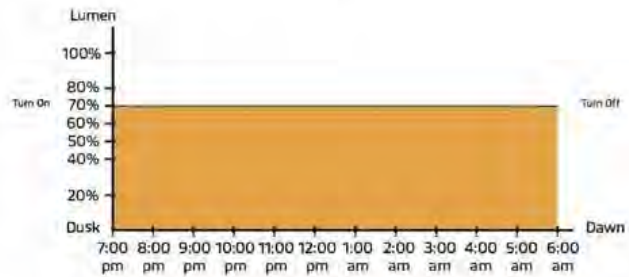

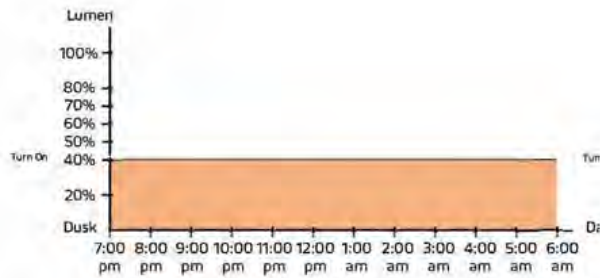### 100% CONSTANT MODE

100% brightness from dusk to dawn.

70% CONSTANT MODE
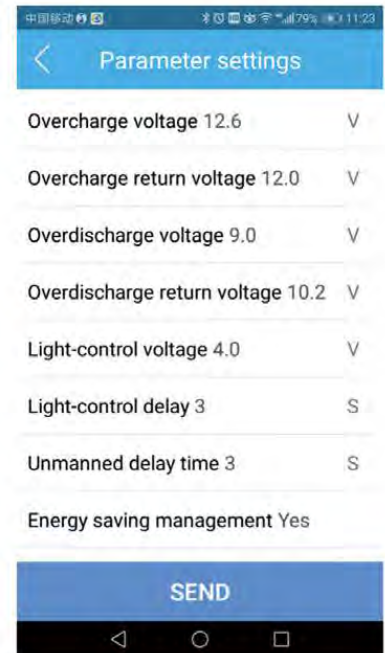
70% brightness from dusk to dawn.

40% CONSTANT MODE

40% brightness from dusk to dawn.

MOBILE BLUETOOTH APP

Solar BT — USER LOGIN / Admin login

Solar BT

- Work mode
- Display switch
- Running Information
- Search Bluetooth

Parameter settings

|	
Overcharge voltage 12.6	V
Overcharge return voltage 12.0	V
Overdischarge voltage 9.0	V
Overdischarge return voltage 10.2	V
Light-control voltage 4.0	V
Light-control delay 3	S
Unmanned delay time 3	S
Energy saving management Yes	

SEND

· Multiple lighting modes can be programmed remotely by Mobile Bluetooth APP Solar Street light with inbuilt Bluetooth for health monitoring with APP

SMART LIGHTING CONTROL SYSTEM
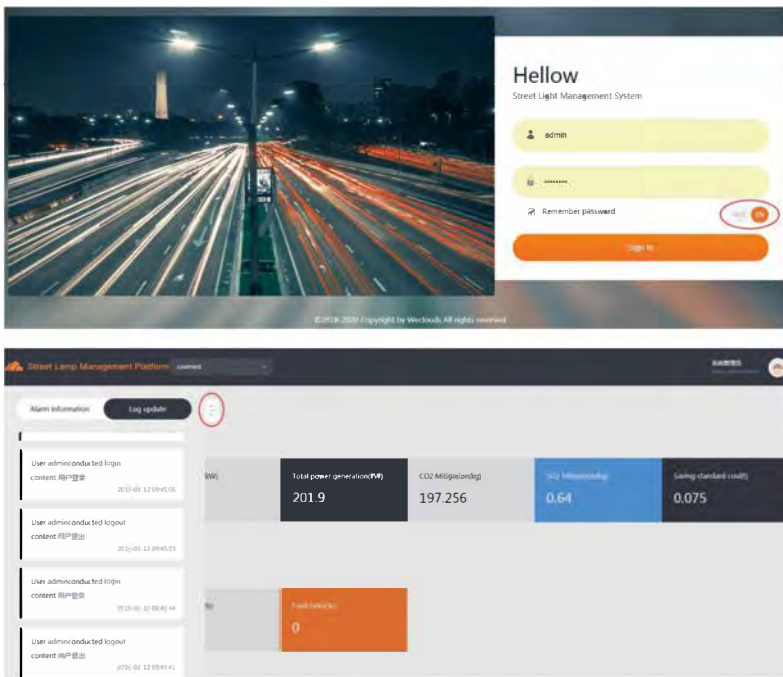
DATA & PROJECT MANAGEMENT
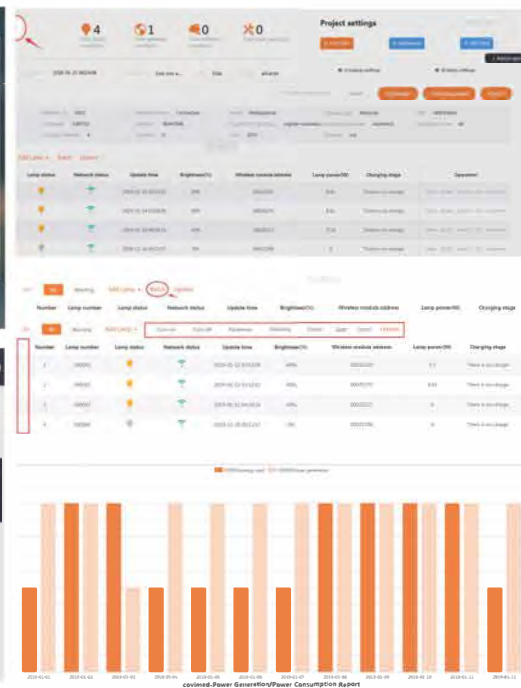
· The system can pre-set one or more lighting modes according to different time of day and traffic flow, automatically turn on or off any lamp, and adjust the switching time and illumination according to environmental requirements to achieve the purpose of energy saving and consumption reduction.

IOT MANAGMENT, INTELLIGENT LIGHTING

We perfectly combine traditional solar street lighting architecture+Internet of things + wireless communication technology perfectly, achieve monitoring and management of remote background data, real-time understand the normal working status of each component of solar energy (street lights, photovoltaic panels, batteries, controllers), allow you to know the end customer's product usage that is thousands of miles away without leaving home, or to manage the opening and closing of street lights and the adjustment of bright spot power in a timely manner.

Remote monitoring real time monitoring

JQL series with wireless communication function, Through the intelligent managenent system of solar street lamp and wireless module, have remote monitoring and real-time monitoring.

Automatic fault alarm

Real time monitoring of solar panel voltage, current, power, battery charging and discharging current, voltage, load working state, controller working state data and fault automatic alarm.

Remote control

Support remote switch on and off dimmer and battery, load parameter modification.

Fault tracking and precise positioning

Multi peak PWM technology, suitable for partial shading or partial damage of photovoltaic cells, and the tracking efficiency is more than 99%.

Map location

Using GIS maps, with geographic display capabilities.

The Internet of Things solar street light management system is mainly composed of a street light component+a centralized controller+a single light controller+a smart cloud platform. The centralized controller and the single light controller aggregate the data collected by the single light via the GPRS/NB-IOT wireless communication network. The centralized controller uploads data to the system cloud platform through GPRS data flow, providing data dependence for mobile phone and computer terminal access.
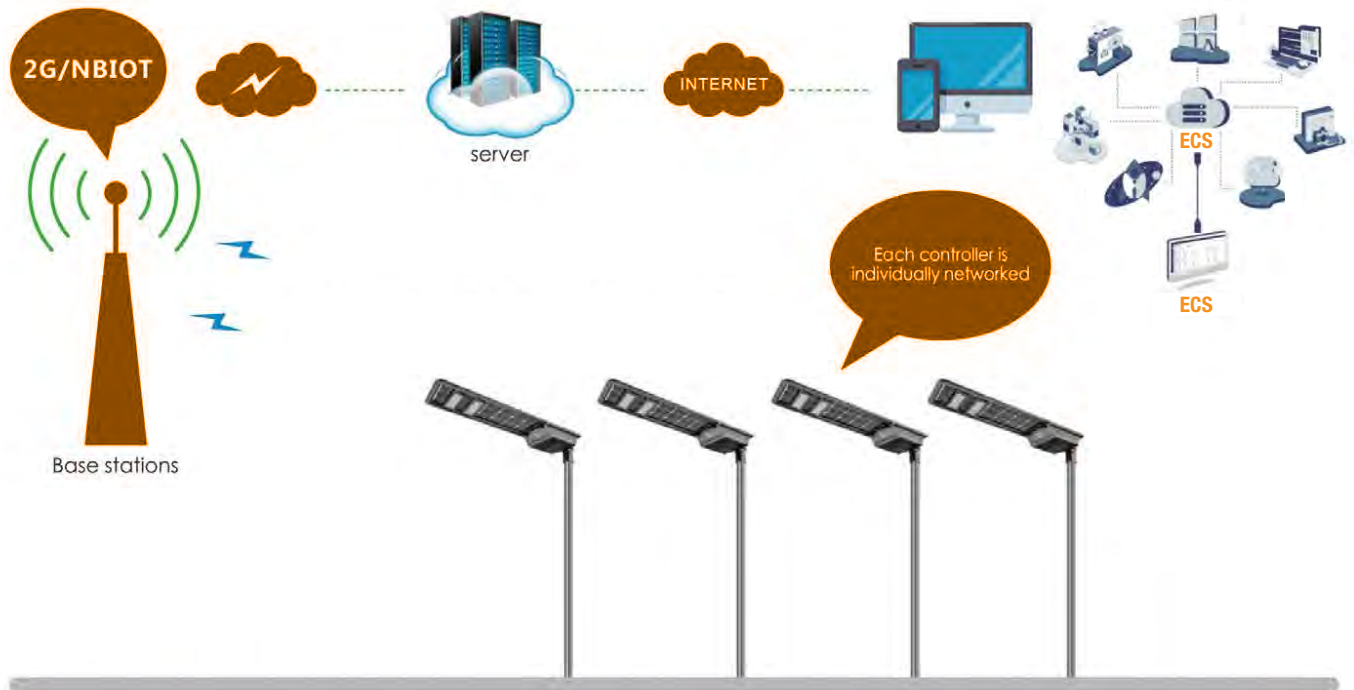
Solar led street light controller type	PWM+IOT controller	Instruction
Light decay detecting	√	Automatic light decay detection and adjusement
Charging in rainy days	√	PWM charge 3 rainy days is equivalent to a sunny day
Battery management	√	Battery lifespan management
Remote monitoring	√	Remotely monitor the status of each street light in real time
Optimize configuration	√	Through data analysis, complete the optimal configuration of solar panels and batteries in different regions
Fault alarm	√	Automatically detect system failures and alert to mobile phones or computers
Intelligent analysis	√	Automatically collect the detailed data for per light at per night, and statistical report analysis
Artificial intelligence	√	Big data collection and analysis through the system platform, complete the intelligent operation of street light and achieve stable lighting throughout the year