

**Inbrit**<sup>®</sup>

一站式LED户外照明制造商

ONE-STOP LED OUTDOOR LIGHTING MANUFACTURER

江苏开元电气设备有限公司

Jiangsu Inbrit Outdoor Solar Lighting Co., Ltd.

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**Inbrit**<sup>®</sup>



## 夜航者/OWL

All in One Solar Street light





## PRODUCT OVERVIEW 产品概述

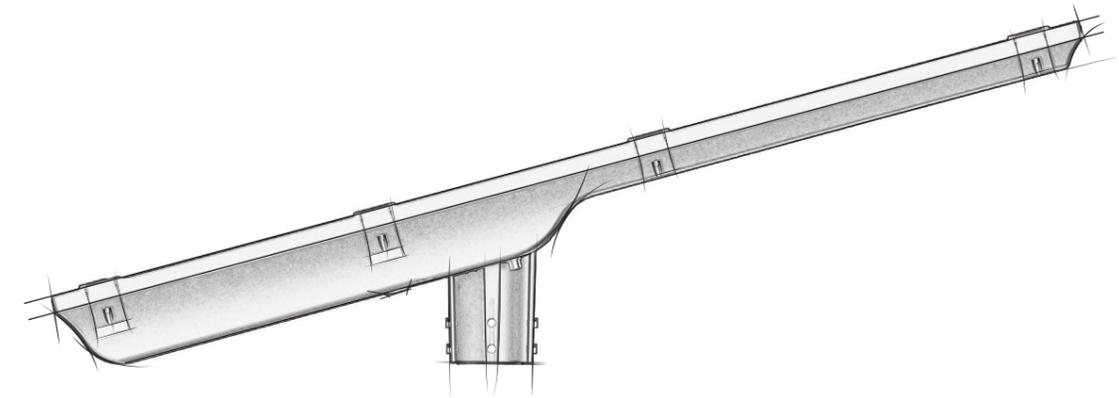
### THE BENEFITS/特点

The luminaires are energy-efficient and equipped with aluminium optics to ensure high visual comfort without glare. 灯具节能，并配备铝制光学元件，以确保无眩光的高视觉舒适度。

- The OWL lighting fixtures are derived from aesthetics and classical outdoor design. This traditional design now adopts the most advanced LED lighting technology.  
夜航者照明灯具源自美学和经典的户外设计。这种传统设计现在采用了最先进的LED照明技术。
- OWL lighting fixtures are designed for easy installation and integration with modular lighting.  
夜航者照明灯具的设计便于安装和与模块化照明集成。
- The lamp body adopts die-casting aluminum technology, which is corrosion-resistant.  
灯体采用压铸铝技术，耐腐蚀。
- Adopting efficient SMD5050 lamp beads and high-quality constant current drive, reliable performance and long lifespan.  
采用高效SMD5050灯珠和高品质恒流驱动，性能可靠，寿命长。
- Exquisite structural waterproof design, with a protection level of up to IP66.  
精致的结构防水设计，防护等级高达IP66。

### APPLICATION/应用

- Main urban roads and streets.  
主要城市道路和街道
- Side and residential roads and streets City centers and historical areas.  
辅路和住宅区街道市中心和历史区
- Cycle and pedestrian paths Parking areas.  
自行车道和人行道停车区
- Squares, parks and playgrounds.  
广场、公园和游乐场。



The simple lines outline a streamlined appearance, blending overall simplicity, fashion, and environment

### Integrated photovoltaic street light

Modular combination, avant-garde, sustainability, and future performance: This is the innovative concept of lighting fixtures.

In fact, the team of designers and R&D personnel collaborated to create a high-performance product that perfectly combines practical technology with optical art, and perfectly showcases optical art.

模块化组合、前卫、可持续性和未来性能：这是照明设备的创新概念。

事实上，设计师团队和研发人员合作创造了一种高性能产品，将实用技术与光学艺术完美结合，完美展示了光学艺术。





30W-40W

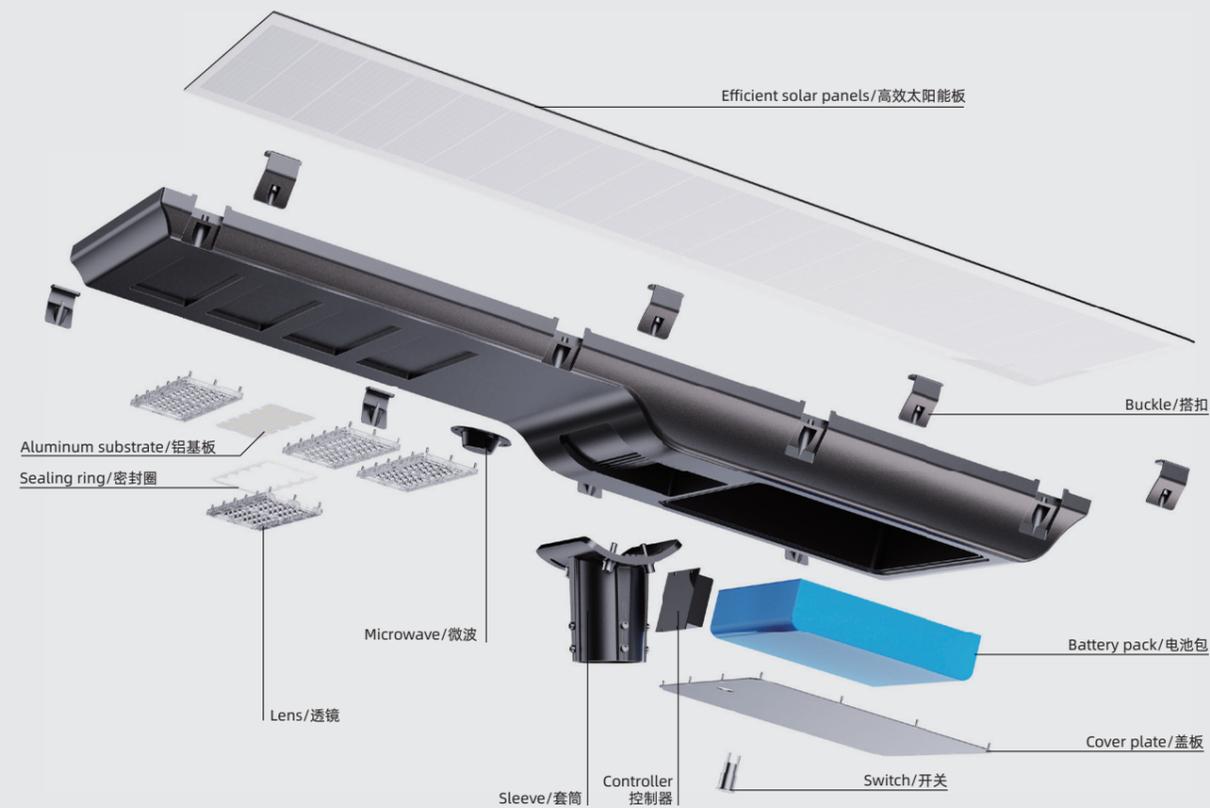
40W-60W

60W-80W

80W-100W

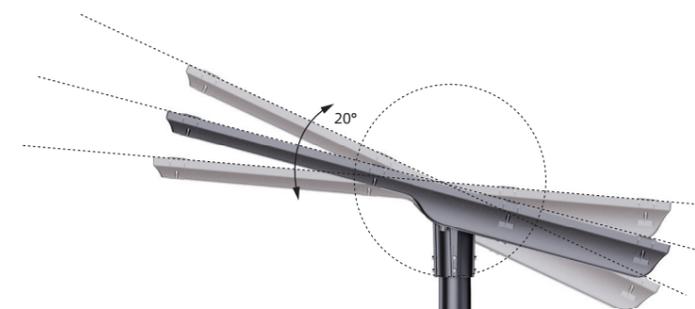
## Structural display/结构展示

The integrated solar street lamp series light source adopts modular design, corrosion-resistant aluminum alloy shell, and high-efficiency monocrystalline solar panels. The integrated street lamp adopts IP66 and IK09 shells, which increase its strength. It is carefully designed, durable, and can be controlled in rain, snow, or storms.  
 一体化太阳能路灯系列光源采用模块化设计，耐腐蚀铝合金外壳，高效单晶太阳能电池板。一体化路灯采用IP66和IK09外壳，增加了强度。它经过精心设计，经久耐用，可以在雨雪或风暴中控制。



## Adjustable angle design/角度可调设计

Adopting an innovative angle adjustable design, it has excellent installation convenience. This design can accurately and flexibly adjust the angle according to different environmental conditions, easily handle places with special requirements for light projection direction, perfectly adapt to various installation environments, and demonstrate its high versatility and adaptability.  
 采用创新的角度可调设计，安装方便。这种设计可以根据不同的环境条件准确灵活地调整角度，轻松处理对光投射方向有特殊要求的地方，完美适应各种安装环境，展现出其高度的通用性和适应性。

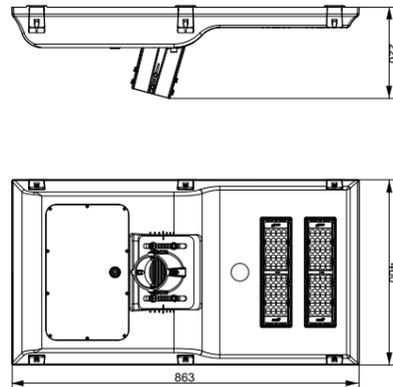


## PRODUCT PARAMETERS/产品参数



### PRODUCT BENEFITS/产品优势

Solar panels convert solar energy into electricity and store it, eliminating the need to consume traditional city electricity, greatly reducing energy costs and environmental pollution. Easy installation, no need to lay complex cable lines, reducing construction difficulty and cost.  
太阳能电池板将太阳能转化为电能并储存起来，消除了消耗传统城市电力的需要，大大降低了能源成本和环境污染。安装方便，无需铺设复杂的电缆线路，降低了施工难度和成本。



### PRODUCT PARAMETERS/产品参数

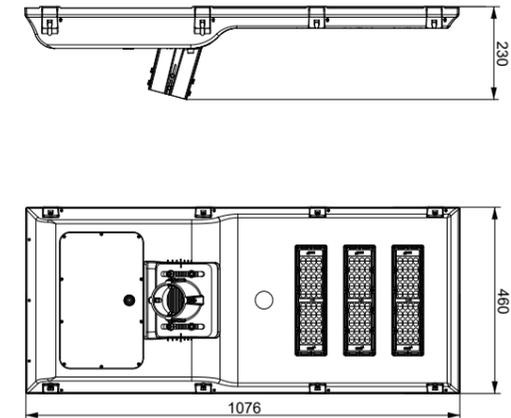
Product Number/产品编号	OWL-A
Power/功率	30W-40W
Solar panel power/太阳能电池板功率	80W
Battery capacity/电池容量	12.8V/24AH
Control system/控制系统	MPPT IOT,AC/DC Hybrid solution,PwM optional
Average lumens/平均流明	160LM/W
Chip brand//芯片品牌	LUMILEDS/CREE
Charging working environment/充电工作环境	0°C~+45°C;10%~90%RH
Discharge working environment/放电工作环境	-20°C~+45°C;10%~90%RH
Working time/工作时间	3-5 Rainy days, 11.5 hours per night
Battery lifespan/电池寿命	>2000 times cycle
CCT/色温	3000-6500k
CRI	>70
Optical lens/光学透镜	PC lens for Type- I / II / III/ IV /V
Working Temperature/工作温度	-35°C to + 50°C
Lifetime/寿命	>50000H
IP class/防水等级	IP66
IK class/防护等级	IK09
Body Material/主体材质	ADC12

## PRODUCT PARAMETERS/产品参数



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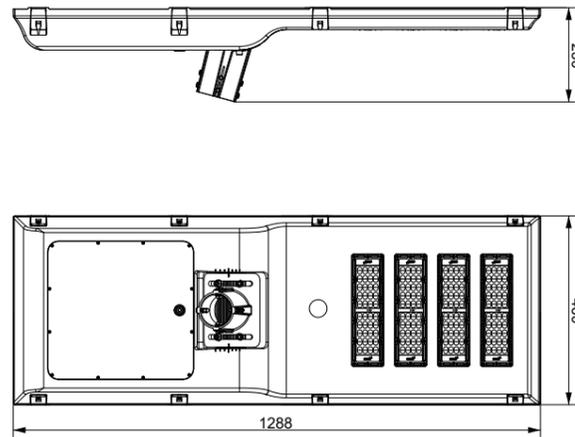
Product Number/产品编号	OWL-B
Power/功率	40W-60W
Solar panel power/太阳能电池板功率	100W
Battery capacity/电池容量	12.8V/36AH
Control system/控制系统	MPPT IOT,AC/DC Hybrid solution,PwM optional
Average lumens/平均流明	160LM/W
Chip brand//芯片品牌	LUMILEDS/CREE
Charging working environment/充电工作环境	0°C~+45°C;10%~90%RH
Discharge working environment/放电工作环境	-20°C~+45°C;10%~90%RH
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IK class/防护等级	IK09
Body Material/主体材质	ADC12

## PRODUCT PARAMETERS/产品参数



### PRODUCT BENEFITS/产品优势

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### PRODUCT PARAMETERS/产品参数

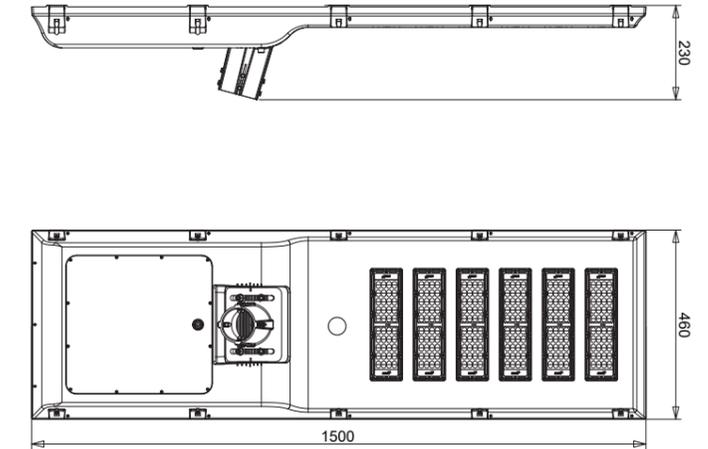
Product Number/产品编号	OWL-C
Power/功率	60W-80W
Solar panel power/太阳能电池板功率	120W
Battery capacity/电池容量	12.8V/42AH
Control system/控制系统	MPPT IOT,AC/DC Hybrid solution,PwM optional
Average lumens/平均流明	160LM/W
Chip brand//芯片品牌	LUMILEDS/CREE
Charging working environment/充电工作环境	0°C~+45°C;10%~90%RH
Discharge working environment/放电工作环境	-20°C~+45°C;10%~90%RH
Working time/工作时间	3-5 Rainy days, 11.5 hours per night
Battery lifespan/电池寿命	>2000 times cycle
CCT/色温	3000-6500k
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Working Temperature/工作温度	-35°C to + 50°C
Lifetime/寿命	>50000H
IP class/防水等级	IP66
IK class/防护等级	IK09
Body Material/主体材质	ADC12

## PRODUCT PARAMETERS/产品参数



### PRODUCT BENEFITS/产品优势

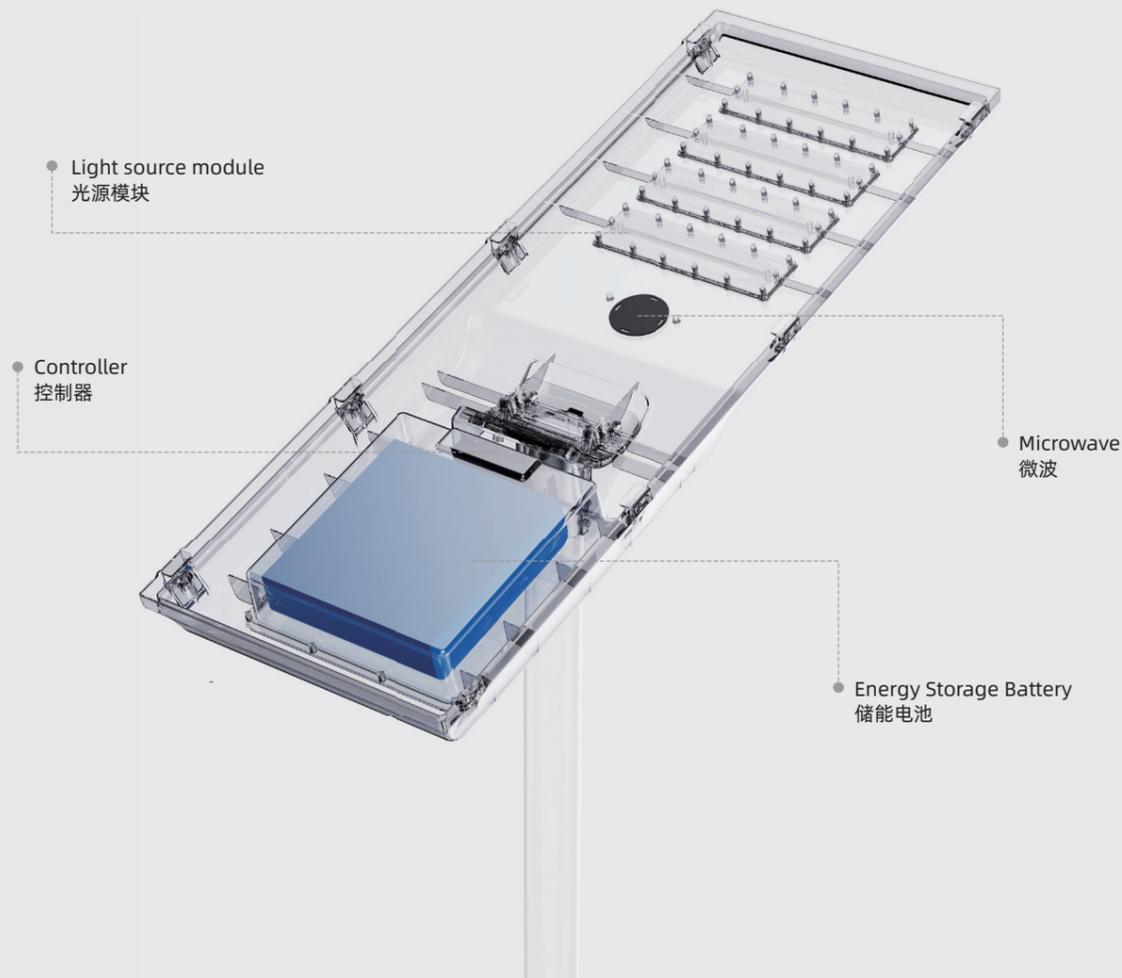
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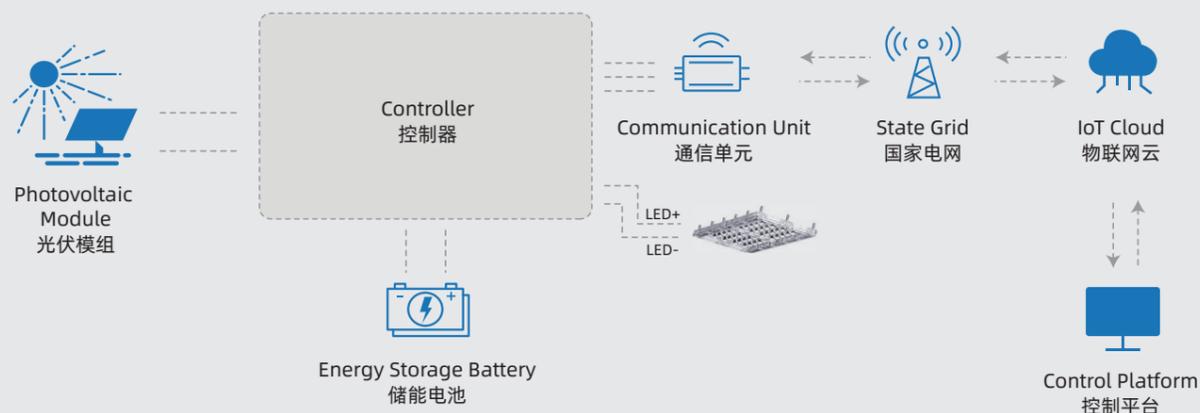
### PRODUCT PARAMETERS/产品参数

Product Number/产品编号	OWL-D
Power/功率	80W-100W
Solar panel power/太阳能电池板功率	140W
Battery capacity/电池容量	12.8V/60AH
Control system/控制系统	MPPT IOT,AC/DC Hybrid solution,PwM optional
Average lumens/平均流明	160LM/W
Chip brand//芯片品牌	LUMILEDS/CREE
Charging working environment/充电工作环境	0°C~+45°C;10%~90%RH
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Working Temperature/工作温度	-35°C to + 50°C
Lifetime/寿命	>50000H
IP class/防水等级	IP66
IK class/防护等级	IK09
Body Material/主体材质	ADC12

## product structure/产品结构



## System Architecture/系统架构

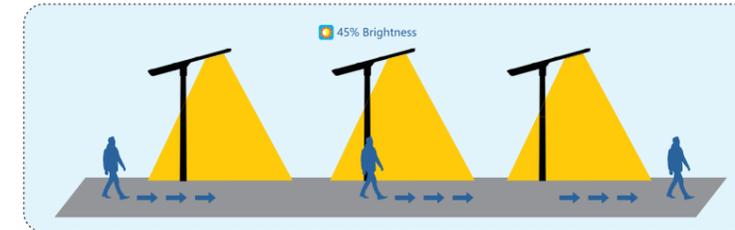


## Light Controlled Induction

1 >>

### Constant Mode/恒定模式

Light will automatically turn on at dusk and keep constant 45% brightness in a setpower in the period. 黄昏时，灯会自动打开，并在此期间以设定的功率保持45%的恒定亮度。



2 >>

### Dusk to Dawn Mode/黄昏到黎明模式

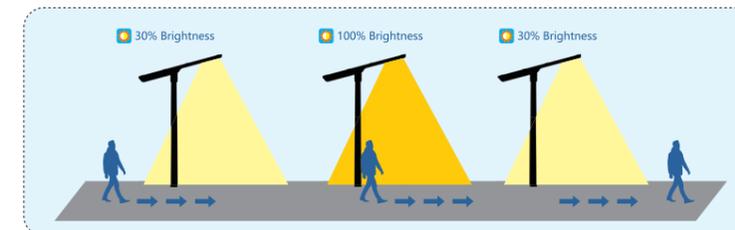
Automatically turns on at dusk and remains at up to 100% brightness for 4 hours then it automatically turns to 30% brightness until dawn. 黄昏时自动打开，并在4小时内保持高达100%的亮度，然后自动变为30%的亮度，直到黎明。



3 >>

### Motion Sensor Mode/运动传感器模式

Automatically operates at 30% brightness. When motion is detected, light increases to 100% until no motion is detected for 30 seconds, then returns to 30% brightness. 在30%亮度下自动运行。当检测到运动时，光会增加到100%，直到30秒内没有检测到运动，然后恢复到30%的亮度。



## Platform Management

- Remote control and detection from any location worldwide. 从全球任何位置进行远程控制和检测。
- Intelligent monitoring and control to optimize battery life and performance. 智能监控，优化电池寿命和性能。
- Remote scheduled inspection and automatic failure alarm. 远程定时检查和自动故障报警。
- GPS device positioning, real-time viewing of device distribution and operation. GPS设备定位，实时查看设备分布和运行情况。
- Customized software platform, including page layout customizable with customer logos. 定制软件平台，包括可定制客户徽标的页面布局。

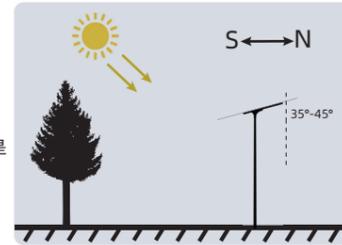


## Installation Instructions/安装说明

### 1. Preparation before installation/安装前的准备

Confirm that there are no tall trees, buildings, eaves, or other obstructions at the installation site to ensure that the solar panels can provide full day lighting. Check if the lamp post is secure and has an upper diameter of 76mm, compatible with the adjustable sleeve of this product.

确认安装现场没有高大的树木、建筑物、屋檐或其他障碍物，以确保太阳能电池板能够提供全天照明。检查灯柱是否牢固，上直径是否为76mm，是否与本产品的可调节套筒兼容。



### 2. Orientation and angle of solar panels/太阳能电池板的方向和角度

Orientation: The solar panels in the northern hemisphere are facing due south; The solar panels in the southern hemisphere are facing due north.  
Angle adjustment (adjust angle based on latitude): Set the tilt angle of the solar panel according to the local latitude. The recommended tilt angle is as follows: latitude 0° -15°: solar panel tilt angle is 10° -15°; Latitude 16° -30°: The inclination angle of the solar panel is 20° -30°. Latitude 31° -45°: The inclination angle of the solar panel is 35° -45°; Latitude 46° and above: The inclination angle of the solar panel is 50° -60°. Attention: Our sleeve supports 0-90° stepless adjustment. Please adjust it to the optimal angle according to the actual environment.方向：北半球的太阳能电池板朝向正南；南半球的太阳能电池板朝向正北。角度调整（根据纬度调整角度）：根据当地纬度设置太阳能电池板的倾斜角度。建议倾斜角度如下：纬度0°-15°：太阳能电池板倾斜角度为10°-15°；纬度16°-30°：太阳能电池板的倾斜角度为20°-30°。纬度31°-45°：太阳能电池板的倾斜角度为35°-45°；纬度46°及以上：太阳能电池板的倾斜角度为50°-60°。注意：我们的套筒支持0-90°无级调节。请根据实际环境将其调整到最佳角度。

### 3. Installation steps/安装步骤

Fixed lamp post: Ensure that the lamp post is vertical and firm. The installation site should be well ventilated and have good lighting, avoiding the surrounding environment blocking the light.

Adjust the sleeve: Secure the street lamp to the lamp post and lock the sleeve with bolts.

Adjust the orientation and tilt angle of the solar panel according to the above suggestions.

Connecting components: If the lighting fixture is shipped separately, please connect each component according to the instructions. Check if the installation is secure and ensure that the LED lamp head, solar panel, and battery pack are properly fixed.

Function debugging: After the initial installation, the lamp needs to be placed in sunlight for 6-8 hours to charge. Observe whether the lighting fixtures are lit up normally at night, and check whether the brightness sensor and time control function are working properly.

固定灯柱：确保灯柱垂直牢固。安装现场应通风良好，照明良好，避免周围环境遮挡光线。调整套筒：将路灯固定在灯柱上，并用螺栓锁紧套筒。

根据上述建议调整太阳能电池板的方向和倾斜角度。连接组件：如果照明设备是单独装运的，请根据说明连接每个组件。检查安装是否牢固，并确保LED灯头、太阳能电池板和电池组正确固定。功能调试：初次安装后，灯具需要在阳光下放置6-8小时进行充电。观察照明灯具在夜间是否正常点亮，并检查亮度传感器和时间控制功能是否正常工作。

