



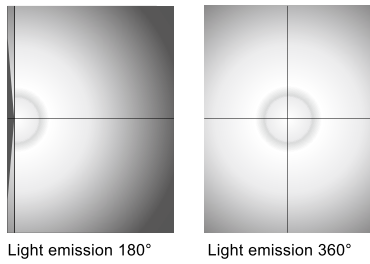
CS-233 Series



太阳能圆形草坪灯
Solar Circular Bollard Lighting



- 具有180°和360°两种配光
 - 铝压铸盖帽，铝合金拉伸灯体，可根据需要截取不同高度
 - 可选人体红外感应控制或者微波感应模式，节约能效
 - 灯具采用直接投射发光模式，具有很好的视觉舒适性
 - 采用通常用于电动客车的LiFePO₄电池
 - 防紫外线聚氨酯塑粉喷涂表面，耐腐蚀可以达1000小时以上
 - 高透明PC扩散罩，能有效防止发黄老化
 - 低电压设计，安全可靠
- With 180° or 360° light distribution
 - Aluminum die casting cover, extruded aluminum body, it can be cut different height.
 - Optional human infrared induction control or microwave induction mode, saving energy efficiency,
 - Indirect light luminaire for use with led, which has high visual comfortable.
 - With LiFePO₄ battery which usually apply for electric bus.
 - Surface anti-ultraviolet pure polyester powder painting.
 - High transparent PC diffuser, it can effectively prevent yellowing and aging.
 - Low voltage design, safe and Reliable.



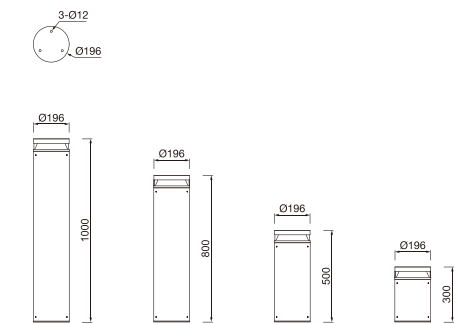
CS-233A CS-233B

CS-233 Series

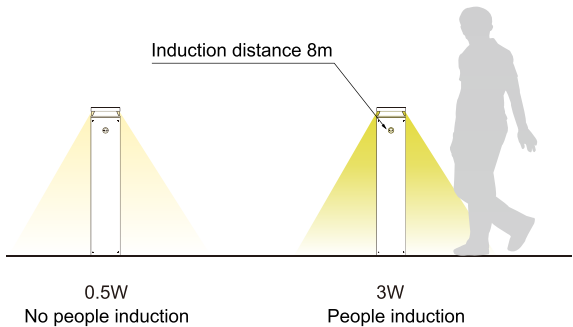
Solar Circular Bollard Lighting

Technical Data

Model 灯具型号	CS-233A/CS-233B-H30	CS-233A/CS-233B-H50	CS-233A/CS-233B-H80	CS-233A/CS-233B-H100
Solar Panel(Mono-crystalline) 太阳能电池板（单晶）	6V/4W	6V/4W	6V/4W	6V/4W
Battery(Built-in) 电池（内置）	19WH/3.2V 6AH LiFePO ₄ Battery	19WH/3.2V 6AH LiFePO ₄ Battery	19WH/3.2V 6AH LiFePO ₄ Battery	19WH/3.2V 6AH LiFePO ₄ Battery
Luminous Flux 光通量	500lm/400lm (Common 4W LED)	500lm/400lm (Common 4W LED)	500lm/400lm (Common 4W LED)	500lm/400lm (Common 4W LED)
LED Chips LED灯珠	2835*80/60pcs	2835*80/60pcs	2835*80/60pcs	2835*80/60pcs
Control Mode 控制方式	PIR/MW sensor	PIR/MW sensor	PIR/MW sensor	PIR/MW sensor
Color Temperature 色温	3000-4000k	3000-4000k	3000-4000k	3000-4000k
Light Height 整灯高度	0.3M	0.5M	0.8M	1M
Solar Panel Charging Time 太阳能电池充电时间	3-4 hours	3-4 hours	3-4 hours	3-4 hours
Working Time 工作时间	>3 days	>3 days	>3 days	>3 days
Storage Temperature 储存温度	0-45℃	0-45℃	0-45℃	0-45℃
Working Humidity 工作湿度	≤90RH%	≤90RH%	≤90RH%	≤90RH%
Waterproof Grade 防水等级	IP65	IP65	IP65	IP65



VIRTUAL MIDNIGHT

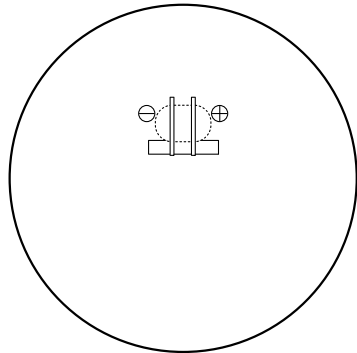
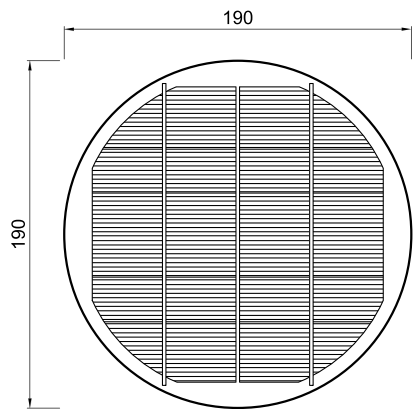


太阳能板参数 Solar panel parameters



名称 Name	单晶黑底玻璃组件 monocrystalline silicon black base glass assembly
最大峰值功率 Maximum Peak Power	3.8W(±3%)
开路电压 Open-circuit voltage	7.4V
最大工作电压 Maximum Power Voltage	6.0V
最大工作电流 Working current	640mA
短路电流 Short-circuit current	685mA
太阳能电池片效率 Solar cell efficiency	20-20.5%
电池片种类 Type of battery	单晶硅 monocrystalline silicon
尺寸 (mm) Dimension	Ø190*4.5
工作温度 Operating temp	-40℃~85℃
工作环境湿度 Working ambient humidity	20%~98%(RH)
寿命 Lifetime	25 years
质保 Warranty	5 years

太阳能板尺寸 Solar panel size



6V4W Monocrystalline silicon
black base glass assembly

安装说明 Installation instructions

1

2

Flip the switch

Turn on : Press and hold the switch for 3 seconds
Turn off : Touch the switch once

3

4

5

Not mains complementary
Skip step

6

Sensing distance: 8m
Induction Angle: 120°

7

Not mains complementary
Skip step

QS-02C04S人体感应LED太阳能草坪灯控制器 QS-02C04S Human Body Sensing LED Solar-Powered Lawn Light Controller

- 极低的休眠电流，方便长途运输和储存
- 人体（红外）感应功能
- 光控功能（天黑自动点亮LED，天亮自动关闭LED）
- 智能化电池管理，保证电池处于浅充放电状态，延长电池寿命



- Extremely low hibernation current facilitates convenient long-distance transportation and storage.
- The device is equipped with human body infrared sensing functionality.
- Additionally, it features light control functionality, which automatically illuminates the LED in dark conditions and turns it off at dawn.
- Intelligent battery management ensures the battery remains in a shallow charge and discharge state, thereby extending its lifespan.

功能描述:

- 使用长按按键3秒，灯具亮灯，系统激活处于正常工作状态，系统会自动根据环境识别天亮和天黑，进行亮灯还是不亮。
- 轻触按键一下进入休眠模式，此状态系统不工作。

Function description:

- Long press the button for 3 seconds, the lamp lights up, the system activation is in the normal working state, the system will automatically identify dawn and dark according to the environment, light or no light.
- Tap the key to enter the sleep mode, the system does not work in this state.

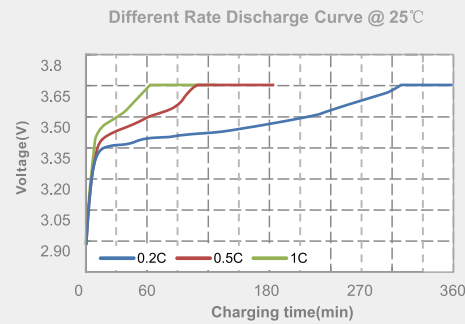
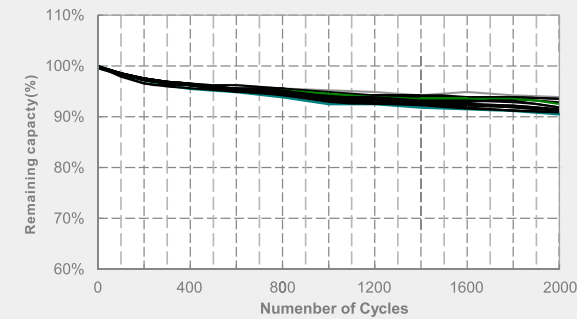
参数名称 Item	参数值 Parameter value
型号 Mode	QS-02C04S
电池类型 Battery Type	LiFePO4 Battery Pack
系统电压 System Voltage	3.2V
最大充电电流 Maximum charging current	1.5A
放电截止电压 Discharge cut-off voltage	2.5V
充电截止电压 Charging cut-off voltage	3.65V
PV最大输入电压 PV Maximum input voltage	6V
PV最大输出功率 PV Maximum output power	5W
驱动LED电流 (MAX) Drive LED Current (MAX)	1.2A
LED功率 (MAX) LED power (MAX)	4W
LED调光 LED dimming	No people induction 0.5W/People induction 4W
储存/工作温度 Storage/operating temperature	-30~60℃
充电转化效率 Charge conversion efficiency	> 90%
驱动最高效率 Maximum drive efficiency	> 95%
静态功耗 Static power consumption	< 0.1W

长寿命耐用电池 Durable & Long Lifetime Battery

- 磷酸铁锂电池
- 最安全的锂化学，高能量密度
- 内置自动保护，可防止过充电，电流过大和温度过高
- 高效&持久，可达 4000多个循环 DOD 80%
- > 2000 个循环@0.2C，充电/放电在100% DOD
- 宽温度范围:-20℃~70℃
- 安装后免维护



- Lithium Iron Phosphate (LiFePO4) Battery
- Safest lithium chemistry with high energy density
- Built-in automatic protection for over-charge, over djixharge, over
- Efficient&long-lasting up to 4000+cycles DOD 50%
- >2000 cycles @0.2C， Charge/Discharge at 100% DOD
- Wide temperature range:-20 ℃~60 ℃
- Maintenance free after installation



参数名称 Item	参数值 Parameter value
电池容量 Battery capacity	19WH/3.2V 6AH
电池类型 Battery Type	LiFePO4 Battery Pack
循环寿命 Lifetime in cycles	2000 cycles
单元类型 Cell Type	32700 3.2V/6000mAH
电池单元的数量 Quantity of battery cell	1P
充电模式 Charging mode	Constant Current Constant Voltage
充电电压 Charge voltage	3.65V
放电截止电压 Discharge Cut-off Voltage	≥2.0V
最大连续充电电流 Max. Continuous Charging Current	3.0A (0℃~65℃)
存储温度 Storage Temperature	-10℃~45℃
工作温度 operating temperature	-20℃~70℃