

METEOR
SOLAR LED LIGHTING



Solar LED Bollard

It is the right time to think about renewable energy alternatives

Meteor has been at the forefront of bringing architectural-grade solar LED lighting to the specifying community. Starting with solar LED in-grade fixtures, Meteor has expanded its product line to bollards. Meteor solar LED bollards more than match conventional architectural grade lights for quality and performance. With the added benefits of LED and no wiring design, Meteor bollards offer functionality, environmental benefits, utility savings, and installation convenience.

SP-010



SP-7





Harnessing solar energy

Engineered to perform like conventional bollards, Meteor solar bollards feature high-performing LEDs and highly efficient circuits to increase system efficiency.

Featuring compact sturdy design, Meteor bollards are constructed from heavy-weight material to withstand harsh environments. Meteor solar bollards excel in offering savings in the following 4 categories: installation, energy, utility, and maintenance.

SOLAR PANEL

Type	Crystalline panel
Efficiency	12%~15%
Lifetime	Minimum 20 yrs

LED

Brand CREE/Nichia	
Lifetime	100000 hrs
Intensity (mcd)	3000~7000 mcd
Luminance (lux)	30~300 lux
Power consumption	0.036~0.06 W

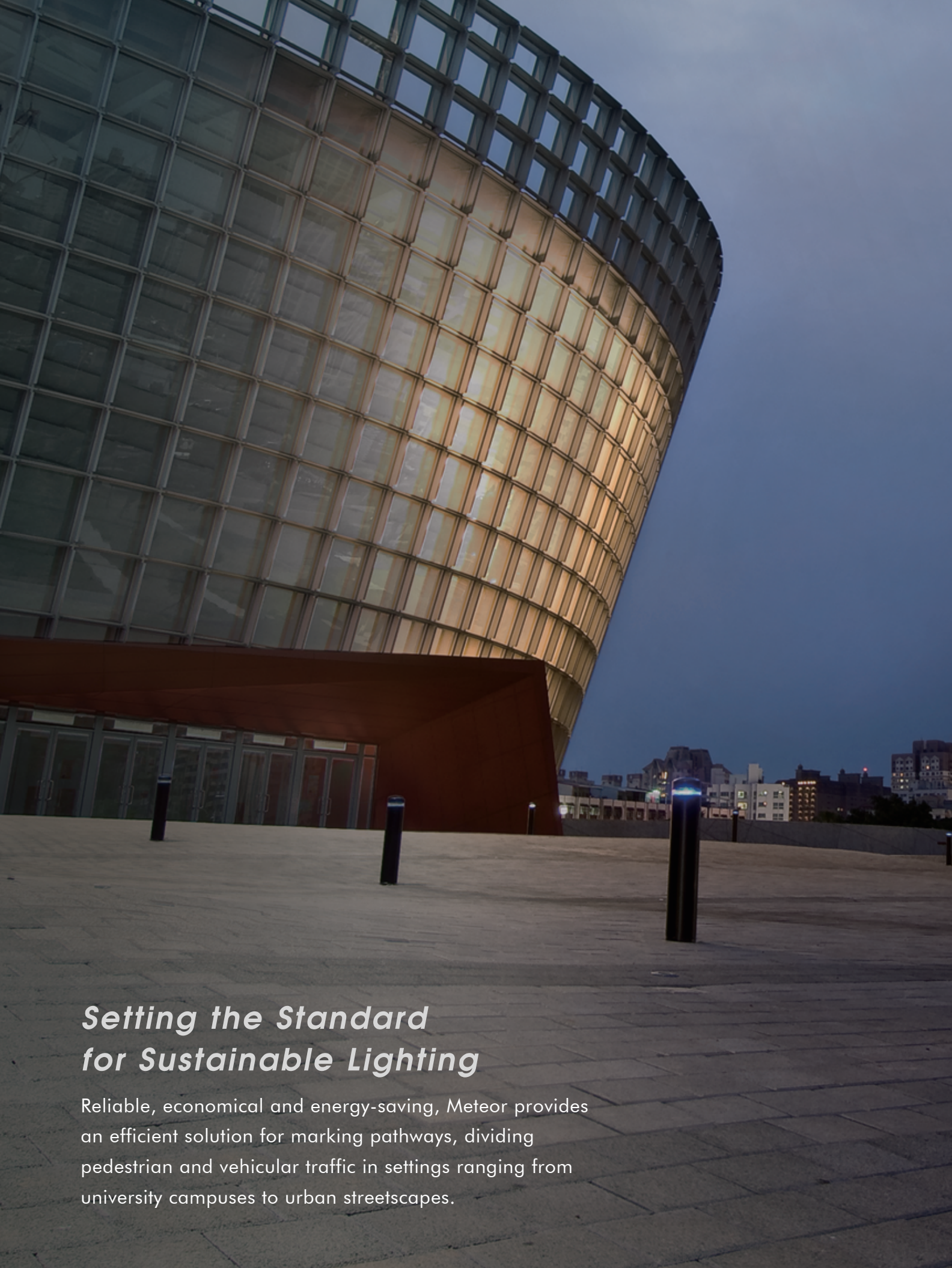
ENVIRONMENT

Storage Temperature	-40°F to 176°F
Operation Temperature ...	-13°F to 131°F

Uses and Applications

- Marking pathways
- Dividing pedestrian and vehicular traffic
- Providing security
- Accentuating landscapes
- University campuses
- Public spaces
- Public parks
- Entrance and pedestrian areas
- Airports
- Museums





Setting the Standard for Sustainable Lighting

Reliable, economical and energy-saving, Meteor provides an efficient solution for marking pathways, dividing pedestrian and vehicular traffic in settings ranging from university campuses to urban streetscapes.



Way Finding Bollard SP-010

- *360° visibility for 1000ft*
 - *Narrow beam output*
 - *Architectural versatility*
-

Seen from far away, the SP-010 functions as a guide for delineating outdoor space. Sculptural simplicity makes the unit ideal for installation in any space.





Optical Design

Bollard features 360 visibility from 1000ft range. Secondary optical design on LED lens ensures light is emitted in a narrow beam.

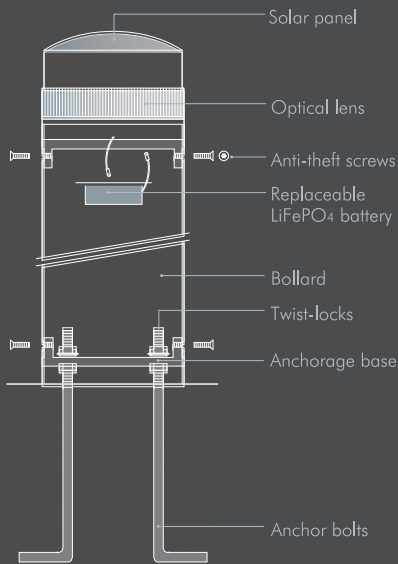
Hybrid technology

Meteor uses the latest in hybrid technology, the lithium iron phosphate battery (LiFePO4) which guarantees longer product life span. The battery has an average 5 year lifespan and can be easily replaced. This technology is safe, making it impossible for the device to explode or catch fire due to overcharging.



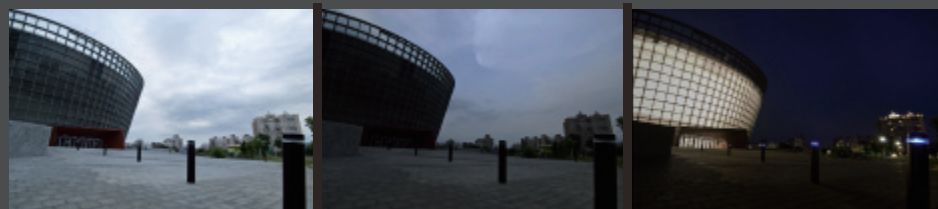
Lens Material

The face lens is made of tempered glass which helps in the efficient absorption of solar power. In addition, the lens material does not yellow or become brittle, as is commonly seen in traditional plastic lenses.



SP-010 & SP-012

Size	SP-010: ϕ 5.9" x 33.7" SP-012: ϕ 5.9" x 14.5"
Housing	Extruded aluminum with fluoropolymer coating
Finish	Black, dark bronze, platinum silver
Lens	Optimized and internal fluted glass
Available LED colors	White (6300K), Warm White (4200K), Blue
Lumen	12 lumen
Light visibility distance	1000 ft. (varies according to weather conditions)
Power Storage	LifePO4 battery 3.2V 1.5Ah
Mounting	Surface mount, embedded
Moisture Protection	IP66
Warranty	3 years
Switch	Auto photo sensor
Operation	Lighting period exceeds 12 hours with minimum 4 hours charge. Extra charge will be stored in battery. It can last at least 6 rainy days on stored standby power.



• Day To Night Effect



Award winning bollard

1st Solar Bollard Selected by
IES Progress Committee

The 1st Intelligent Solar Illuminating Bollard

- ***Full Cut-off Design***
- ***Motion Sensing***
- ***Functional Illumination***





Smart Solar Illuminating bollard SP-7 & SP-7s

Intelligent / Efficient/ No Wiring

The revolutionary SP-7 bollard provides superior symmetrical illumination of horizontal surfaces in 180° distributions. Precise lighting control enables seamless lighting between transitional zones.



Optical Design

The SP-7 is visibly brighter than other solar LEDs on the market. Foot-candle is greater than 1 inch in each lighting pattern. Step-dimming capability also enables brightness levels to auto-adjust achieving energy savings up to 65%. With no light above 90 degrees, the eco-friendly light does not contribute to lighting pollution and minimizes our carbon footprint.

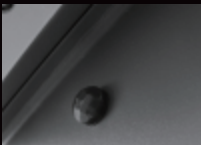
MCU- Microcontroller Unit

The SP-7 is the first solar illuminating bollard with no wiring to incorporate MCU for multiple sensor control. The MCU manages key functions ranging from power monitoring, time control, brightness calibration, to system protection. The MCU ensures integrated smart metering capabilities ensuring extended lifespan of light.

Industrial Power Storage

The bollard uses Sanyo industrial battery pack as its main power source due to high performance and environmental benefits. With an extremely low discharge rate, the battery pack can hold its charge up to 5 years. In our system, the battery pack is rechargeable 2000 times compared with regular batteries that can only charge up to 500 times.

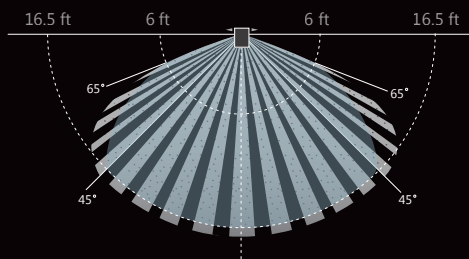




Motion Sensor

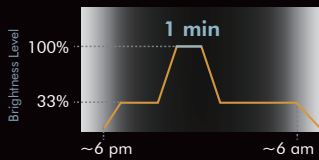
The first of its kind, the high-performance solar bollard incorporates a motion sensor with 16.5 ft detection radius. Motion activated brightening contributes to energy savings and longer operational period.

Detection type:



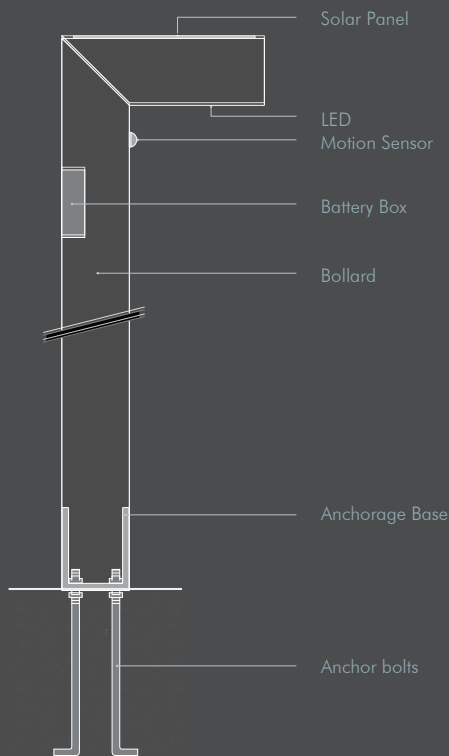
Operational :

When motion sensor is triggered, the brightness level increases to 100% brightness for 1 minute.



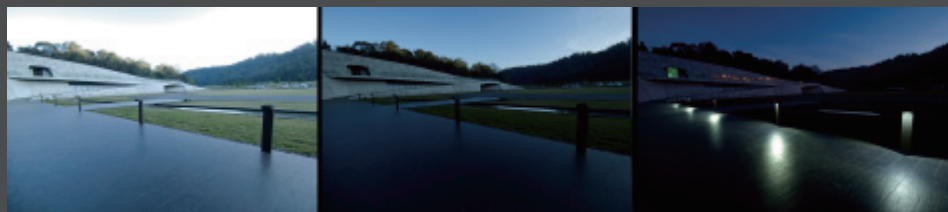
When darkness falls, the photosensor signals the light to turn on at 33% brightness.

With a 16.5 ft detection radius, the unit's step-dimming capability enables brightness level to auto-adjust achieving energy savings up to 65%.



SP-7 & SP-7s

Size	SP-7 : 38.6" x 7.1" x 6.3" SP-7s: 24.8" x 7.1" x 4.7"
Housing	Extruded aluminum
Finish	Black, bronze, platinum silver with fluoropolymer FEVE coating
Anchorage	Embedded (AK-E), surface mounted (AK-S)
Protection Class	IP65
Average Sunlight Exposure	2~3 Hours (sunny) to 5~8 hours (overcast or rainy) to Maintain Function
Average Operation Time	Minimum 12 hours (extra stored power will carry over to next day)
Solar Deprivation Limit	5 days
Available colors	White (5700K), Warm White (3000K)
Switch	Auto photo sensor
On / Off Level	1.5 / 3 footcandle
Storage Temperature	-40° F to 176° F
Operation Temperature	-13 °F to 131°F
Distribution	90° / 50°x120°



• Day To Night Effect

About us



Meteor - a name you can trust

Meteor is one of a few great names to sponsor the U.S. Department of Energy Solar Decathlon 2009 and 2012.

National Renewable Energy Lab approved Meteor products prior to installation at the National Mall. Meteor has been the only lighting company to sponsor this event.



Official 2009 and 2011 Solar Decathlon Sponsors:

The American Institute of Architects, Applied Materials, BP, Honeywell, National Association of Home Builders, Pepco, Dell, Dow Corning, Lowe's, Schneider Electric, U.S. Green Building Council, Perkins & Wills, Meteor Solar LED Lighting.

The Solar Decathlon joins 20 college and university teams in a competition to design, build and operate the most attractive and energy-efficient solar-powered house. In Solar Decathlon 2009, Meteor installed 105 pcs SH-170 (35 red, 35 blue, 35 white) on the main thoroughfare of the National Mall. In Solar Decathlon 2011, Meteor premiered 80+ way-finding bollards on the thoroughfare of the solar village at the National Mall, West Potomac Park, in Washington DC.

Award Winning Lights



1st Solar Bollard Selected by IES Progress

Meteor Lighting is proud to announce SP-7 as the first solar bollard ever selected by the IES Progress Committee. Entries are included in the report only if they are considered to be a significant advancement in the art or science of lighting.



2011 Product Innovation Award

Meteor is a proud winner of architectural SSL's first annual 'PIA' silver award in the Wallpacks / Bollards Category for the SP-030 solar illuminating bollard. Judges applauded the modular nature of the light making the unit ideal for retrofit projects.



2009 and 2011 Innovative Green Design Award

Meteor is a proud 2-time winner of New York House magazine's 'igda' competition in the Lighting Category. Meteor Lighting received the award for its ground / paver lights and SP-030 solar illuminating bollard in 2009 and 2011.



2012 SH-180 Installation at Race Street Pier Voted Most Energy Efficient Use of SSL

To ensure that the spectacular view under the Ben Franklin Bridge is enjoyed both during the day and night, more than 200 Meteor SH-180 Solar LED Paver Lights were embedded into the paving for added ambience while ensuring safety and security for the community. Incorporated for their convenience, the solar LED lights do not require wiring and are completely solar powered, thereby providing the most sustainable solution with zero energy usage.



2011 IES Progress Report Selection

Meteor's High Ceiling 112W LED Platform has been recognized as a significant advancement to the art and science of lighting. The 2011 IES Progress Report highlights "significant developments and improvements in the lighting industry" annually.



Wildlife Lighting Certification

In 2011, Meteor's amber and red ground and paver lights were selected by the Florida Fish and Wildlife Conservation Committee as safe for installation in the vicinity of turtle nesting beaches due to its low wavelengths with minimal affect on sea turtles

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*Color of picture could be different, compare to real color of products.

We reserve the right to make changes in design and technology.