

# Solar Powered LED Bollard

SWPLB

Architectural Off-Grid Solar Bollard

# SYSTEM BENEFITS

## SWPLB



### OFF-GRID ARCHITECTURAL LIGHTING

Autonomous solar bollard designed for pathways, parks, gardens, and residential landscapes.

Eliminates trenching and grid connection.

Compact form factor for low-height architectural applications (up to 6.5FT).



### EXTENDED ENERGY CAPACITY

Integrated lithium (LiFePO) battery system - up to 40Ah.

Up to 80W solar wrap capacity.

Designed for consistent performance in varying solar conditions.



### HIGH-EFFICIENCY LED PERFORMANCE

Up to 20W LED output  
Up to 3,000 lumens  
3000K – 6000K options

Programmable dusk-to-dawn operation

Adaptive dimming based on solar input



### VERTICAL CIGS SOLAR WRAP TECHNOLOGY

CIGS amorphous flexible solar panel wrap integrated onto the pole.

Curved vertical design improves wind resistance and self-cleaning performance.

IP65 rated for outdoor durability.

# ADVANCED VERTICAL TECHNOLOGY

## Rugged Architectural Bollard Structure

- Designed for long-term outdoor installation
- Integrated CIGS amorphous flexible solar wrap
- Up to 80W total solar capacity
- Pole height up to 6.5FT
- Stainless steel or aluminum construction

## Integrated LED Lighting

- LED power – up to 20W
- Up to 3,000 lumens
- Available in 3000K to 6000K
- IP65 rated
- Designed for architectural pathway and landscape illumination

## 360° Vertical Solar Wrap

- CIGS amorphous flexible solar panel wrap integrated onto the pole
- Curved vertical design improves wind resistance
- Self-cleaning surface design
- Optimized solar exposure

## Smart Power Control

- MPPT (Maximum Power Point Tracking) solar charge controller
- Lithium (LiFePO) battery system - up to 40Ah
- Programmable dusk-to-dawn operation
- Adaptive dimming based on solar input
- Low-maintenance autonomous operation



# Warranty & Reliability

The SWPLB system is engineered for reliable long-term outdoor operation in architectural and landscape environments.

All major system components are selected and tested to ensure durability, performance consistency, and compliance with applicable standards.

<b>Component</b>	<b>Warranty Coverage</b>
Solar Modules	5-year workmanship warranty. 10/25-year limited power output warranty in accordance with manufacturer specifications.
Battery System (LiFePO)	Warranty subject to battery manufacturer specifications. Service life dependent on operating conditions and charge cycles.
LED Luminaire, MPPT Controller & Smart Electronics	Manufacturer warranty - coverage period subject to component specifications.
Pole & Structural Components	Stainless steel or aluminum construction designed for outdoor durability. Project-specific engineering documentation available upon request.

Warranty terms may vary based on system configuration and project conditions. Full warranty details available upon request.

# Applications & Use Cases - SWPLB

**Pathways & Walkways** - Ideal for pedestrian pathways in residential and commercial landscapes.

**Bike Paths** - Enhances visibility for dedicated cycling routes.

**Public Parks & Gardens** - Provides low-height architectural illumination for landscaped environments.

**Residential Communities** - Suitable for private roads, entry paths, and courtyard areas.

**Resorts & Hospitality Areas** - Architectural integration with programmable dusk-to-dawn lighting.

**Landscaping Projects** - Compact form factor (up to 6.5FT) for decorative and functional outdoor lighting.

*This product is intended for area lighting applications and is not designed for high-mast or highway applications unless specified.*

# Technical Overview - SWPLB

- **Solar module type** - CIGS amorphous flexible solar wrap integrated onto the pole
- **Total solar power** - 50W or 80W (depending on configuration)
- **Solar charge controller** - MPPT (Maximum Power Point Tracking) controller
- **Battery type** - Lithium (LiFePO) battery system
- **Battery capacity options** - 20Ah / 30Ah / 40Ah
- **LED power options** - 10W / 15W / 20W
- **Maximum luminous output** - Up to 3,000 lm
- **CCT options** - 3000K to 6000K
- **Distribution type** - Area and pathway illumination optic
- **Operation profile** - Programmable dusk-to-dawn with adaptive dimming
- **Optional features** - Motion sensor
- **IP rating** - IP65
- **Pole height options** - 4.9FT or 6.5FT
- **Operating temperature** - -4°F to 140°F

*Final system configuration may vary based on site conditions and project requirements.*

# HOW TO SPECIFY & ORDER

The SWPLB solar bollard system is configurable based on site conditions, solar availability, required light output, and operating profile.

- **DEFINE SITE CONDITIONS AND INSTALLATION ENVIRONMENT**

Evaluate solar exposure, pathway type, mounting location, and required pole height (4.9FT or 6.5FT).

- **SELECT LED OUTPUT AND CCT**

Choose LED power (10W / 15W / 20W) and color temperature (3000K to 6000K).

- **CONFIGURE SOLAR AND BATTERY CAPACITY**

Select solar capacity (50W or 80W) and battery capacity (20Ah / 30Ah / 40Ah) based on required runtime profile.

- **SELECT OPTIONAL FEATURES**

Motion sensor and programmable operating profile as required.

- **CONFIRM FINAL CONFIGURATION AND ASSIGN MODEL CODE**

Each approved configuration is assigned a unique SolarPath model code for production and ordering reference.

## LIGHTING DESIGN & PHOTOMETRIC SUPPORT

Photometric data and layout support available upon request to assist with spacing, light levels, and configuration selection.

## IMPORTANT NOTES

- System performance depends on solar exposure and operating profile.
- Specifications shown are representative and may vary by configuration.
- Final configuration subject to engineering review prior to manufacturing.

# ORDERING GUIDE

Each approved configuration is assigned a unique SolarPath configuration code used for manufacturing and ordering.

**Example: SWPLB-50W-10W-30K-20AH-4.9FT-BLK-AB-00**

Model	Solar Panel	Led Power	LED Color Temp	Battery Capacity	Pole Height	Body Color	Installation option	Options
SWPLB	50W 80W	10W 15W 20W	30K 40K 60K	20Ah 30Ah 40Ah	4.9 FT 6.5FT	BLK- Black  *Other colors available upon request	AB- Anchor bolts	00- Motion Sensor  01- Without motion sensor

*All system configurations are subject to site conditions, solar availability, and final engineering approval prior to manufacturing.*



# Contact Us

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