

HIGHLIGHT SPWSPL

Off-Grid Vertical Solar Lighting for Area & Pedestrian Environments

POWERFUL BENEFITS: WHY BEAT THE GRID FOR AREA & PEDESTRIAN LIGHTING?



SAVES MONEY FROM DAY ONE

Eliminates trenching, wiring, and grid connection costs from day one. No utility bills, no infrastructure delays, and no ongoing electricity expenses.



RELIABLE NIGHTTIME OPERATION

Fully off-grid solar lighting with intelligent MPPT energy management and optimized battery utilization.



NO SCHEDULED MAINTENANCE REQUIRED FOR 10+ YEARS

Advanced battery technology and smart system design enable long-term, maintenance-free operation. Designed for reliable performance in demanding environments.



VERTICAL SOLAR INNOVATION

The 360° vertical solar wrap maximizes energy capture while maintaining a clean, architectural design. No exposed panels, no wire theft risk, and minimal visual impact.

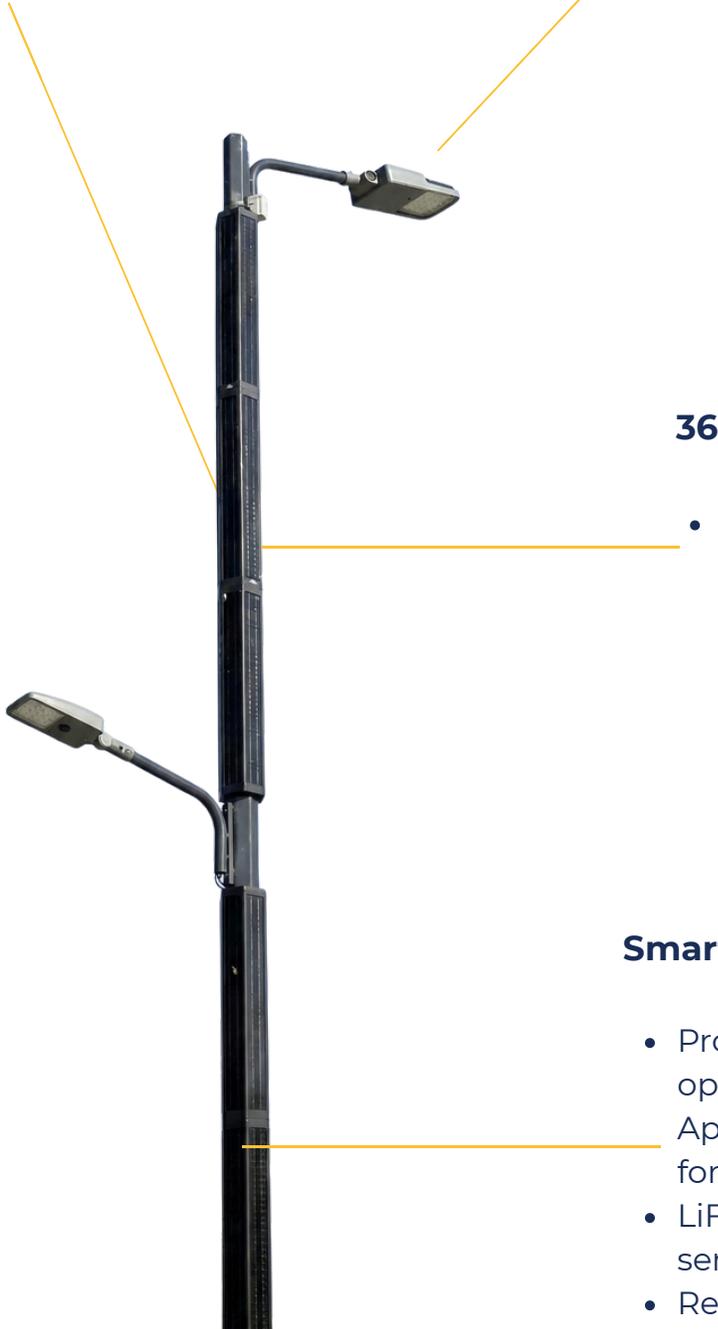
ADVANCED VERTICAL TECHNOLOGY

Rugged Mounting Poles

- Wind-Load Certified to meet local codes and site conditions.
- Flexible installation : direct burial or anchor base.

High-Performance Luminaires

- Dark-Sky Compliant to minimize light pollution.



360° Vertical Solar Wrap

- Hydrophobic self-cleaning coating reduces dust and dirt buildup.

SmartLight Power Center

- Proprietary **MPPT Control** Architecture optimized for vertical solar systems. Application-specific MPPT logic optimized for fully solar-powered, off-grid systems.
- LiFePO₄ battery chemistry with long service life.
- Reliable operation in demanding environmental conditions
- No scheduled maintenance required for 10+ years

Warranty & Reliability

SolarPath solar lighting systems are engineered for fully autonomous, off - grid operation and long term reliability in demanding environments.

All system components are selected and tested to ensure reliability, durability, and consistent performance over time.

Component	Warranty Coverage
Solar Modules	Performance warranty up to 10 years
Battery System (LiFePO4)	Expected service life up to 10 years
LED Luminaire, MPPT Controller & Smart Electronics	Manufacturer warranty
Pole & Structural Components	Designed to meet local wind-load requirements

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

Applications & Use Cases

This solar lighting system is designed for pedestrian-scale and area lighting applications where reliability, aesthetics, and fully off-grid operation are required.

It is ideal for environments where trenching, grid connection, or ongoing electrical maintenance is impractical or cost-prohibitive.

All applications are designed for autonomous, off-grid operation without trenching or utility power.

Parks & Public Open Spaces - Ideal for parks, green spaces, and recreational areas where aesthetics, low maintenance, and autonomous operation are critical.

Pedestrian Pathways & walkways - Provides consistent and uniform illumination for sidewalks, trails, and walking paths, enhancing safety and visibility without the need for trenching or grid connection.

Off-grid Locations - Designed for autonomous solar operation in areas without utility power or where trenching is impractical.

Residential communities (HOA / BTR developments) - Supports community lighting needs within residential developments, including internal pathways, shared outdoor spaces, and neighborhood amenities.

Campuses, plazas, and shared outdoor spaces - Designed for campuses and plazas requiring reliable area lighting that integrates seamlessly into landscaped environments and pedestrian zones.

Recreational areas and gathering zones - Enhances visibility and safety in gathering areas such as courtyards, seating zones, and outdoor activity spaces, while maintaining a clean, unobtrusive design.

Lighting levels, pole height, and system configuration are customized based on project requirements and site conditions

This product is intended for area and pedestrian-scale illumination and is not designed for high-speed roadways, traffic intersections, or high-mast roadway lighting.

Technical Overview



System-level specifications for reference. Final configuration may vary by project.

Solar Configuration - Vertical monocrystalline solar panels wrapped and integrated into the pole structure.

Total Solar Power - Up to 1200W (depending on module configuration)

Battery Type - LiFePO₄ (Lithium Iron Phosphate).

Battery Capacity & Autonomy - Up to 90Ah standard configurations, scalable based on project requirements.

IP Rating – IP67

LED Luminaire - High-efficiency LED luminaire, up to 100W.

Luminous Efficiency - LED A: up to 140 lm/W, LED B: up to 130 lm/W

CCT Options - 3000K / 4000K / 6000K / Amber.

CRI - – ≥81

Distribution Types - Type III (additional distributions available upon request).

Charge Controller - MPPT (Maximum Power Point Tracking), optimized for solar-only systems.

Control Modes - Manual ON/OFF / Automatic Dusk-to-Dawn / Time-based programmable profiles (remote controlled).

Operating Temperature Range - Designed for reliable operation in outdoor environmental conditions. Typical operating range: 5°F to +113°F

Mounting / Installation Options - Compatible with existing or new poles. Pole-mounted vertical solar modules and integrated battery solutions.

System Lifetime - Solar modules designed for over 20 years of operational life.

Standards & Compliance - Designed to meet applicable UL and IEC safety and performance standards.

Lighting levels, pole height, battery capacity, and system configuration are customized to meet project-specific requirements.

Product Overview



How to Specify & Order

This solar lighting product is a fully configurable, project-specific solution designed for off-grid lighting applications.

System configuration is defined based on site conditions, lighting requirements, and operational needs.

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

CONFIGURABLE PARAMETERS

Physical & Power

- Mounting configuration and installation method
- Solar capacity and system layout
- Battery type and capacity
- Finish, color, and environmental specifications

Lighting & Control

- LED luminaire type and optical distribution
- Lighting levels suitable for pedestrian and area lightings
- Control modes and operating logic

HOW TO SPECIFY & ORDER

1. Define site and application requirements
2. Establish lighting and operating profile
3. Configure system components
4. Approve final configuration and assign part number

Each approved configuration is assigned a unique SolarPath configuration code (part number) used for manufacturing and ordering.

LIGHTING DESIGN & PHOTOMETRIC SUPPORT

Photometric layouts and lighting calculations are available upon request to support planning, compliance, and optimal performance.

IMPORTANT NOTES

- System performance depends on site conditions and solar availability
- Specifications shown are representative and may vary by configuration
- All configurations are reviewed and approved prior to manufacturing



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