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SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6

1.06 kW Solar Light Tower - 20' Mast, 7.5' Trailer - (2) LED Lamps, (1) Dome Camera, (4) Batteries, Backup Genset, BC - (2) CAT6

Product ID: 311496

Please see last page for supporting documentation for this product (certificates, CAD files & drawings, IES files, wiring diagrams, etc).



Image: SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6

Larson Electronics LLC manufactures a wide variety of products, including custom built to spec designs. The pictures displayed for this unit are a general representation of form factor for the product line and may not accurately represent this exact configuration in every detail due to custom builds and changes between similar products in our standard catalog. The specifics for this configuration are listed in the specification table and supporting documentation (CAD files, Dimensional Drawing, Name Plate Diagram, Wiring Diagram, etc.). This means that specific details (receptacles, plugs, wires, connections, mounting brackets, external finishes, etc.) may not be accurately represented in images vs specifications. Please review specifications and do not order based solely on images.

SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6 Trailer Mounted 3-Stage Light Tower w/ Backup Genset

Light Mast Specs

Tower Length: 6.5' to 20'
Mast Head Length: 44"
Materials: Steel
Finish: Powder Coated - Gloss Blue
Operation: (1) 1,000 lb Hand Winch
Cable: 3/16" Galvanized Aircraft Cable

Solar Specs

Panes: (4) 265 Watt panels
Method of Deployment: Slider
System Voltage: 24 Volts
Solar Controller: 40A MPPT
Battery Bank: (4) 12V 250aH Batteries
Battery Capacity: 1,000aH Total / 500aH Usable at 12V
Battery Charger: 1.5 kW, 15A
CCTV Box Cable: (2) CAT6, (2) 2.5mm2 and (6) 1.5mm2 Power Cables
CCTV Box Power: 12/24/48V and 8-port POE Switch
CCTV Box Lights: (2) White and Blue Strobe Lights

Quick Summary

12' to 20' Light Mast
Steel Construction
Powder Coated Finish
Removable Mast Head
(4) 1,000 lb Outriggers
125 mph Wind Resistance
Manual or Optional Electric Operation
(4) 265 Watt Solar Panels w/ Sliders
Fully Solar, No Fuel Needed
Waterproof Lamps/Cameras
50,000+ Hour LED Life
Battery Charger
Auto Timer for Lights
Embedded Linux Operating System
4G/LTE Router
Extended Coverage via External Antenna
Customer-provided 4G Service
De-Fog Viewing (Rain and Fog)
492' IR Camera Distance

Full-HD, 20x Optical Zoom
Camera Motion Detection
Includes 1080p Monitor
Includes 1080p Monitor

LED Lamp Specs

Lamp Qty: (2)
Lamp Type: Cree LED
Total Watts: 100W (50W per lamp)
Total Lumens: 10,000 lms (5,000 per lamp)
Luminous Efficacy: 100 Lm/W
LED Life Expectancy: 50,000+ hours
Color Temp: 6500K
Color Rendering Index: >75
Beam Measurement: 150' x 60' (per Lamp)
Lighting Configuration: Flood Beam
Lamp Housing Material: Aluminum
Lamp Lens Material: Polycarbonate
Mounting: Tower w/ Adjustable Mounting Bracket

Camera Specs

Camera Qty: (1)
Unit Type: Security Camera
Dimensions: 6.04" x 5.42"
Camera Weight: 2.8 lb
Total Watts: 12W
Voltage: 12 V DC (PoE - 802.3af Class 3)
Image Sensor: Progressive Scan CMOS
Megapixels: 8.0 MP, 3840 × 2160 Resolution
Min. Illumination: 0.0 (B/W, IR On), 0.008 (Color)
Electronic Shutter: 1/3s ~ 1/100,000s
Lens: 2.8 mm - 12 mm Focal Length
Angle of View: 112° ~ 46° Field Of View
Optical Zoom: Fixed
Day/Night: True D/N w/ Mechanical Cut Filter
IR Distance: 120'
Video Framerate: 8MP @ 20 fps; (2560 × 1920, 2560 × 1440, 1920 × 1080, 1280 × 720) @ 30 fps
Video Offload: MP4
Video Output: (1) RJ-45
Language: English
Ambient Temperature Range: -22°F to 140°F
Housing Materials: Aluminum
Lens Material: Polycarbonate
Mounting: Tower
Color: White

NVR Specs

Device Type: Network Video Recorder
Dimensions: 15"-W × 11.4"-D × 1.8"-H
Weight: 6.6 lb
Storage Capacity: 2 TB SATA Hard Drive
Channels: 8
Camera Resolution Support: Up to 8MP
Installation Type: Plug and Play
Incoming Bit Rate: 40Mbps
Outgoing Bit Rate: 80Mbps
FPS: 60fps Per Channel
Compression Format: H.265, H.264, H.264 OVC
Recording Modes: Continuous, Schedule, Event, Motion Detection, VCA
Export Format: MP4

Video Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (Front), (1) USB 3.0 (Rear)
Two-way Audio Input: 1-ch, RCA
Power Over Ethernet: = 120W, Supported Standards- 802.3af and 802.3at
Alarm Input: 4x (Rear Panel), Camera Dependent
Alarm Output: 1x (Rear Panel), Camera Dependent
Protocols: IPv4, TCP/IP, UDP, HTTP, UPnP, RTSP/RTP/RTCP, SMTP, FTP, DHCP, NTP, DNS, ONVIF, HTTP Multipart
Power Requirements: 100 ~ 240 V AC
Housing Material: Aluminum
Operating Temp: 14°F ~ 131°F
Color: Black

Genset Specs
Dimensions: 17.5" x 18" x 23"
Shipping Weight: 92.4 lb
Engine: 7.0 Horsepower, Air Cooled OVH
Rated Power: 3,300W output, 4,000W peak
Fuel Capacity: 4 Gallons
Voltage: (2) 120 Volt, 20 Amp, 60 Hz (1) 120 Volt, 30 Amp, 60 Hz
Starting System: Recoil

Trailer Specs
Materials: Steel
Trailer Dimensions: 7.5'-L x 7'-W Trailer Bed - 10.75' Total Length
Hitch: 2" Ball Coupler
Wiring: 7-Pin Flat
Axle: 3,500lb
Suspension: 3,500 Lb 4-Leaf Double Eye Springs
Outriggers: (4) 1,000 Manual Leveling Jacks
Wheels: (2) 15" 5x4.5 Steel Rims
Tires: ST205/75/D15 H188
Weight: +-600 lb
Shipping: Common Freight
Shipping Dimensions: 8'-L x 8'-W x 12'-H
Shipping Weight: +-600 lb
Options: Length - Mounting - Fixtures / Call Us for Special Requirements
Cross: BL2P-G7MHS

Special Orders - Special Requirements
Contact us for special requirements
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The SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6 from Larson Electronics is a Solar-Powered LED Light Tower with 4kW Backup Genset that provides a safe and effective way for operators to quickly deploy LED illumination and a security camera with day/night functionality to elevations up to twenty feet. This solar light plant features a telescoping light tower that folds over for easy transportation, a rotating boom that allows for 360° rotation and a removable mast head for storing the two LED light fixtures and dome security camera when not in use. The unit features four 265 watt solar panels, a 1,000 aH capacity battery bank and a 4 kW backup genset. The entire assembly is mounted onto a 7.5' single axle trailer, allowing operators to transport this solar light tower from location to location.

PLEASE NOTE: ANY FREE SHIPPING OFFERS DO NOT APPLY TO LIGHT MASTS OR LIGHT TOWERS

Solar Powered Light Tower: This solar light tower includes four solar panels, solar charging system, battery bank, battery charger, LED outdoor lamps, dome security camera w/ NVR, strobe lights, CCTV box with POE switch and cables, 4 kW backup genset and manual crank up mast

mounted on trailer with outriggers. The 1.06 kW solar generator system replenishes amp hours of usable battery capacity per day, assuming 5.5 hours of peak charging sunlight. This system delivers 24 volts for lighting mounted atop the 20' telescoping light mast. For situations where solar charging isn't sufficient, a 4 kW backup genset is included for running the unit.

The SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6 is supported by four 250aH 12 V batteries, equating to 1,000aH battery capacity (500aH usable). A battery charger provides flexibility during deployment, which allows operators to supply power to the batteries using an external power source. This feature is useful for fast turnaround projects, sustaining extended periods of illumination, and remote sites that lack adequate exposure to sunlight.

Backup Genset: The SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6 is equipped with a GPG-4KW-1P-120.240 4 kW backup genset. The genset can provide power to the unit when sun conditions do not provide adequate intensity to charge the battery bank or when the battery bank is depleted. The GPG-4KW-1P-120.240 is a portable, gas powered generator with a 3,300 rated watt output and 4,000 watt surge peak. It has a durable 7.0 horsepower, air cooled OHV engine and an all steel 4-gallon fuel tank, providing operators with up to 8 hours of runtime at half load.

This heavy-duty generator has many features including a 4-gallon fuel tank, which provides 8 hours of reliable power at half load, and posses the ability to run electronic devices including lights and other essential appliances needed during power outages. This gas powered genset features low-oil shut off safeguards, which help to protect the engine from low-oil damage, while an integrated circuit breaker protects against system overload. This generator also features a spark arrester to prevent flammable debris from expelling from the generator by trapping and destroying them. This protects against potential fires that may occur during operation, allowing this unit to be used safely in outdoor areas and potentially hazardous applications such as disaster zones where remote power is needed. An automatic voltage regulator helps to produce cleaner power and keeps it EPA approved.

A heavy-duty steel frame with four-point fully isolated motor mounts house the engine for smooth transportation, and a quiet exhaust reduces engine noise for quiet operation. This generator features an accessible, full power panel that houses the power controls including an oil warning light, the circuit breaker, the start-switch, the volt meter and the power outlets, for easy operation.

Light Mast: This telescoping three stage steel light mast from Larson Electronics is designed to allow operators to quickly and safely deploy two LED light heads and one security camera in locations where this equipment must be elevated to heights up to 20' for effective coverage. This light boom can be extended to 20' above the trailer floor for maximum area coverage, and collapsed to 12' for applications where a smaller footprint is required. The tower is constructed of square steel tubing with a lower section 12 feet in length and 4 inches in diameter, a middle section 8 feet in length and 3.5 inches in diameter, and an upper section 6 feet and 3 inches in diameter. Each section has 2' of overlap. The mast is elevated using an included 1,000 lbs. hand winch with 3/16 inch cable and extended to its full height using a second 1,000 lbs. winch.

A 44" wide and 2" by 2" by 1/4" thick mounting plate is attached to the upper section of the mast which provides a strong and stable platform for the equipped LED light fixtures. When elevated to its full upright position, the mast can be rotated a full 360°. By loosening the T-Handle, operators can rotate the mast with easy in either direction. The mast can be positioned in one of four different positions, and locked back in place by re-tightening the T-handle. The mast itself spins freely with easy, and can typically be rotated with a single hand. The LM series of towers are powder coated

with glossy blue finish for corrosion resistances and aesthetics.

The LM family of telescoping towers feature a proprietary mast guidance system, which provide increased stability during high winds. Four 1,000 lbs hand crank leveling jacks are used for leveling. The jacks can be leveled by hand crank or attachment provided for power drills. These outriggers can be extended 2' out from the side of the trailer for added stability. When lowered to 12', the mast can withstand winds up to 125 mph. Custom builds can be provided for higher wind speed resistance when fully raised.



44" Mast Head for mounting lights and equipment

Click Image to Enlarge



Mast folds over for transportation and when not in use

Click Image to Enlarge

LED Light Fixtures: This solar light plant is equipped with two 50-watt LED lights. The light assemblies each consist of four 12.5 watt LEDs paired with high purity specular optics to produce a light output distance comparable to that of a 400 watt metal halide. The LED wall packs are designed to withstand demanding conditions and are waterproof, vapor proof and built to resist the damaging effects of an outdoor environment.

The lights are housed in a waterproof aluminum housing that is powder coated for added durability and resistance to corrosion. The housing incorporates integral cooling fins for efficient heat dissipation and increased LED longevity. The LED lamp assemblies are protected by a shatterproof polycarbonate lens, which is secured to the housing with a waterproof seal. A 1/2" waterproof connector provides a secure and sealed power connection point and rounds out this units` weather resistant construction.

LED Technology: Unlike gas burning and arc type lamps that have glass bulbs, LEDs have no filaments or fragile housings to break during operation. Instead of heating a small filament or using a combination of gases to produce light, light emitting diodes (LEDs) use semi-conductive materials that illuminate when electric current applied and emitting light. With LED lights, there is no warm up time or cool down time before re-striking and provide instant illumination when powered on, adding to the reliability of LED technology. By nature, LED light sources run significantly cooler than traditional lamps, reducing the chance of accidental burns and increased temperatures due to heat emissions. This solid state design of light emitting diodes provides a more reliable, stable, durable, and energy efficient light source over traditional lighting.

Lamp Control: Each lamp can be powered on individually, allowing operators to power one lamp or all eight lamps at a single time to fit the required illumination requirements. An equipped dusk-to-dawn day/night sensor allows for automated operation of the light configuration set within the control center. Operators may also set a time/duration for light activation using the built-in auto timer feature.

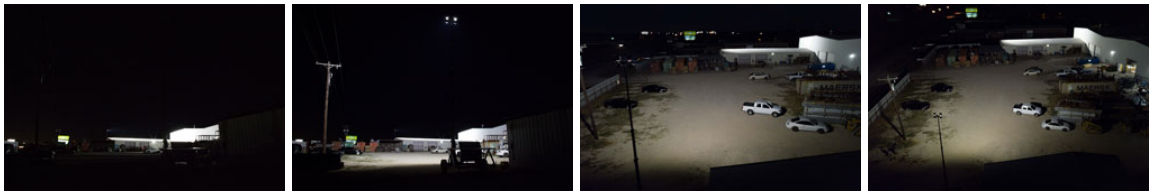
CCTV Box: The top of the light tower is equipped with a CCTV box with white and blue LED strobe

lights. This box also includes two CAT6 and power cables. An 8-port POE switch is accessible inside the CCTV box.

Images Below Show Light Tower Lowered and Raised to 30'



Click Images to Enlarge



Lamps Off (Ambient Light) **(4) 60 Watt LED Lamps Turned On Illuminating Wall 200ft. Away (20,000+sq. ft. area)**



Area from Above

Camera Features: The SPLT-1.06K-LM20-2XWP50-1DM-2TB-ISGG-BC-SL-CAT6 security camera provides operators with a 1/2 Progressive Scan CMOS that delivers 8.0 MP (3840 x 2160 pixels) resolution at 20 fps and (2560 × 1920, 2560 × 1440, 1920 × 1080, 1280 × 720) at 30 fps, providing operators with a higher level of detail. The 2.8 mm - 12 mm motorized varifocal lens on this camera offers a 112° - 46° field of view, and has 120 dB 3D Digital Noise Reduction (DNR) that helps capture better images in almost any situation. This combined with the camera's 0.008 (color) and 0.00 (black/white, IR On) low lux rating improves night-time performance. H.265+ video compression format offers superior image quality and bandwidth. It also fosters faster, more fluid remote viewing, along with the ability to view more channels remotely. This dome IP camera also features H.265+ compression, which enables users to store more information with less storage space. This camera also supports H.265, H.264, and H.264+.

The IP security camera is designed with a vandal resistant housing to perform in outdoor locations and rainy conditions. This IP67-rated unit resists the negative effects of non-corrosive liquids. De-fogging features enable the unit to operate in rainy and foggy conditions. This device is capable of operating in temperatures between -22°F and 140°F.

NVR: The solar tower contains an 8-channel NVR that can be used with the network cameras. Setup only takes minutes via plug-and-play, which automatically detects, displays and configures system components. With multiple recording modes (Schedule, Continuous, Motion Detection and Event) and 2TB of storage, users could capture hours of footage with ease. The remote configurable network recorder features a bit rate of 40Mbps incoming and 80Mbps outgoing at up to 60fps per channel. To maximize storage, the unit supports H.265, H.264, and H.264 OVC video compression.

The network recorder is compatible with two-way audio streaming (camera dependent) and includes 9 Ethernet ports (RJ-45 interface). During recording, the unit handles the following data: activity log, email notification, event log, event notification, video analytics and event search. This device offloads videos in MP4 format. Cameras hooked up to the NVR may use power directly via PoE (802.3af / 802.3at) during operation. The NVR runs on 100 - 240V AC of power and is suitable for use in temperatures between 14°F - 131°F.

Inputs: (1) RCA, 4 Sensor Inputs

Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (front), (1) USB 3.0 (rear)

Solar Panel Assembly: This unit is comprised of four 265-watt solar panels, generating a total maximum output of 1.06 kW. The panels are mounted securely on a sliding assembly. During deployment, the top solar panels slide out to form a four-panel array for maximum exposure to sunlight. The panels are wired to the solar charger control box which manages the charging system. When in use, the four solar panels are angled at 45° to capture the intensity of the sun for optimized light intake.

Component Control Center: All the electrical components are encapsulated in a NEMA 3R job box that is bolted to the trailer. Since most of these components are not rated for high heat, our component cooling system circulates air within the job box at 1400 CFM when the ambient temperature exceeds 90 degrees Fahrenheit. The job box that contains the component control system includes locks for security purposes.

Trailer Assembly: The entire assembly is mounted to a 7.5' by 7', single axle trailer via six 1/2" anchor bolts. The two wheel trailer is equipped with 3,500 lbs axle and leaf springs with 15" trailer tires. A standard 2" ball coupling, two standard safety chains, and 7-pin flat trailer plug allow for easy hookup and towing. The trailer tongue can be removed for long term deployment. A rugged and waterproof job box is included, safely secured to the trailer. Four outriggers mounted to the corners of the trailer allow operators to level the trailer, and provide stabilization during deployment. All trailer lighting complies with DOT/FMVSS regulations.

Applications: Remote work locations, construction sites, military bases, camping sites, outdoor events, security applications, emergency services, outdoor lighting, portable lighting, and more.

At Larson Electronics, we do more than meet your lighting needs. We also provide replacement, retrofit, and upgrade parts as well as industrial grade power accessories. Our craftsmen can custom build any lighting system and/or accessories to fit the unique demands of your operation. A commitment to honesty, quality, and dependability has made Larson Electronics a leader in the lighting and electronics business since 1973. Contact us today at 800-369-6671 or message sales@larsonelectronics.com for more information about our custom options tailored to meet your specific industry needs.

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Frequently Asked Questions (FAQ)

There are no Faqs

Export Control Classification Number (ECCN): EAR99

Links (Click on the below items to view):

- **Wiring Diagram**(https://www.larsonelectronics.com/images/product/WiringDiagram/311496.PDF)
- **HigResPic1**(https://www.larsonelectronics.com/images/product/HigResPic1/311496.JPG)
- **Video1**(https://www.youtube.com/watch?v=gNo20Egy3S4)
- **Video2**(https://www.youtube.com/watch?v=_GKKbLcbTJw)
- **Video3**(https://www.youtube.com/watch?v=sU6C9hac4CA)
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