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SPLT-1.06K-LM20-8XWP50-2XPTZ.23X-2TB-AT-BC-W4G

1.06 kW Solar Light Tower - 20' Mast, 7.5' Trailer - (8) LED Lamps, (2) Cameras, (4) Batteries - 4G

Product ID: 223931

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



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-LM20-8XWP50-2XPTZ.23X-2TB-AT-BC-W4G Trailer Mounted 3-Stage Light Tower

Light Mast Specs
Tower Length: 12` to 20`
Mast Head Length: 44"
Materials: Steel
Finish: Powder Coated - Gloss Blue
Operation: (1) 1,000lbs Hand Winch
Cable: 3/16" Galvanized Aircraft Cable

Solar Specs
Panes: (4) 265 Watt panels
Method of Deployment: Slider
System Voltage: 24 Volts
Battery Bank: (4) 12V 250aH batteries
Battery Capacity: 1,000aH Total / 500aH Usable

LED Lamp Specs
Lamp Qty: (8)
Lamp Type: CREE LED
Total Watts: 400W (50W per lamp)
Total Lumens: 40,000 lms (5,000 per lamp)
Luminous Efficacy: 100 lm/w
LED Life Expectancy: 50,000+ hours
Color Temp: 6500K
Color Rendering Index: >75

Quick Summary

12` to 20` Light Mast
Steel Construction
Power Coated Finish
Removable Mast Head
(4) 1,000lb 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

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: (2)
Unit Type: Security Camera
Dimensions: 14.38" H x 7.12" D
Total Weight: 18 lbs
Total Watts: 51 (Max)
Voltage: 24V AC (PoE - 802.3at)
Image Sensor: CMOS
Connectors: 1.0Vp-p, 75 Ohm, BNC
Effective Pixels: 2.1 MP, 1920 x 1080 Resolution
Min. Illumination: 0.02 Lux @ F1.6 AGC On, 0 Lux w/ IR
Electronic Shutter: 1 ~ 1/10,000s
Lens: 4.7-94mm Varifocal Lens
Angle of View: 58.3° (Wide) ~ 3.2° (Tele)
Optical Zoom: 20x
Day/Night: ICR
IR Distance: 492` (850 nm)
Video Framerate: 1080p @ 30fps
Video Offload: MP4
Video Output: (1) BNC
Language: English

Ambient Temperature Range: -22°F to 149°F
Housing Materials: Aluminum
Lens Material: Polycarbonate
Mounting: Tower w/ Adjustable Mounting Bracket

Color: Beige/Black

NVR Specs
Device Type: Network Video Recorder
Dimensions: 15” W × 11.4” D × 1.8” H
Weight: 6.6 lbs
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 VAC
Housing Material: Aluminum
Operating Temp: 14°F ~ 131°F

Color: Black

Monitor Specs
Unit Type: LED Monitor
Screen Size: 24"
Camera Qty: (2)
Resolution: 1080p
Speakers: Integrated

Router/Antenna Specs
Router Type: 4G/LTE Rugged Router

Modem: 600 Mbps Minimum
Built-in Security: Yes
Monitoring: Uptime w/ Real-time Alerts
4G Plan/Service: Customer Provided
External Antenna Frequency: 690~960 MHz, 1710~2170 MHz, 2500~2700 MHz
External Antenna Gain: 5dB
External Antenna Height: 12`

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 Crack Leveling Jacks

Wheels: (2) 15" 5x4.5 Steel Rims

Tires: ST205/75/D15 H188

Weight: +-600 lbs

Shipping: Common Freight

Shipping Dimensions: 8`-L x 8`-W x 12`-H

Shipping Weight: +-600 lbs

Options: Length- Mounting-Fixtures/ Call Us for Special Requirements

Special Orders - Special Requirements

Contact us for special requirements

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The Larson Electronics SPLT-1.06K-LM20-8XWP50-2XPTZ.23X-2TB-AT-BC-W4G solar-powered LED light tower provides a safe and effective way for operators to quickly deploy 400 watts of intense LED illumination and dual security cameras 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 eight LED light fixtures and two IP security cameras when not in use. The unit features four 265 watt solar panels and a 1,000 aH capacity battery bank. 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, dual security cameras w/ NVR and 24" monitor, 4G wireless router w/ an external antenna 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.

The SPLT-1.06K-LM20-8XWP50-2XPTZ.23X-2TB-AT-BC-W4G is supported by four 250aH 12V 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.

Light Mast: This telescoping three stage steel light mast from Larson Electronics is designed to allow operators to quickly and safely deploy the eight LED light heads and two security cameras 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 eight 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.

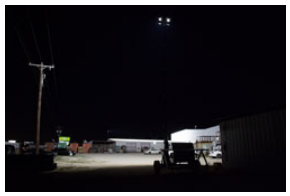
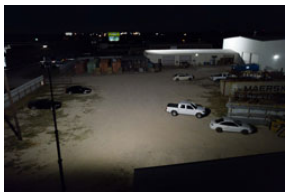
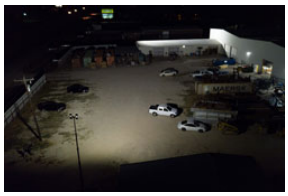
Images Below Show Light Tower Lowered and Raised to 30ft.






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

IP Security Cameras: This solar-powered system is equipped with two, cutting-edge security cameras. The units provide crisp 1080p full-HD high resolution images. A 4.7-94mm varifocal lens automatically adjusts focus, providing operators with precise 20x optical zoom levels. Integrated long-range IR LEDs, with a wavelength measurement of 850 nm, enable the day/night cameras to see distances up to 492` under nighttime conditions. The cameras offload videos in MP4 format and features H.264 and MJPEG video compression.

The IP security cameras are designed to perform in outdoor locations and rainy conditions. These IP66-rated units resist the negative effects of non-corrosive liquids. De-fogging features enable the cameras to operate in rainy and foggy conditions. The devices are capable of operating in temperatures between -22°F and 149°F.

The cameras are secured to the top of the mast for elevated positioning. The mounting brackets allow 360° rotation for precision aiming. The security cameras are designed to operate on 24V AC or PoE (IEEE802.3at). Link-up with the devices is achieved via a customer-provided cable. The cable video/power drop cable can be routed either through the mounting surface or through a cable guide on the edge of the mounting base.

Our explosion proof cameras with Power over Ethernet (PoE) features enable data transfers and power to be passed through a single Ethernet cable that is usually a Cat 3/Cat 5 cable or better. There are several types of PoE, which come with their own respective standard and maximum power to port capabilities. The IEEE 802.3af PoE standard, with a voltage range of 44.0 - 57.0V, offers 15.4W of DC power for each port. The IEEE 802.3at PoE standard, with a voltage range of 50.0 – 57.0V, provides up to 30W of DC power per port, which is ideal for surveillance cameras, antennas and network access points. The IEEE 802.3bt PoE standard, with a voltage range of 50.0 – 57.0V, provides 60W of DC power for each port. In order to utilize PoE properly, the components, such as the receiving unit and sending device, must be PoE compliant.

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.

When using the NVR, operators may access a 1080p monitor that is virtually borderless, for side-by-side screen setups that flow together almost seamlessly. The monitor can be tilted forward and backward allowing operators to adjust to their preferred viewing

angle. This LED monitor has power saving features to minimize energy consumption and has wall mount capabilities.
This video recorder accepts USB mouse and keyboard inputs. The unit is fully capable of being controlled via mouse input only and offers an on screen keyboard for password inputs, eliminating the need for a keyboard if not desired. USB mouse ships standard with the video recorder. USB keyboard sold separately.
Inputs: (1) RCA, 4 Sensor Inputs
Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (front), (1) USB 3.0 (rear)
Router/Wireless 4G Hotspot: Connectivity features are facilitated by a 4G/LTE rugged router. Equipped with built-in security, the unit offers 600 Mbps internet speeds (minimum). The internal router can be utilized to monitor uptime and for real-time alerts. Customers must provide their own 4G service/plan for the router, as the system does not come with an internet plan. An external antenna is available for signal boosting and extending hotspot coverage. The antenna measures 12` and offers compatibility with the following frequencies: 690~960 MHz, 1710~2170 MHz and 2500~2700 MHz.
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)

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Product ID: 223931

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Links (Click on the below items to view):

- **Catalog Page - Product Series**
- **Lighting Study (Layout) Example 1**
- **HigResPic1**
- **Video1**
- **Video2**
- **ISO 9001 Certification**
- **Business Certificate**
- **Shipping Time Map**