Larson Electronics LLC
9419 E US HWY 175, Kemp, TX 75143
Phone: 800.369.6671

www.LarsonElectronics.com
Email: sales@LarsonElectronics.com
Fax: 903.498.3364

## SPLT-750W-LM20-8XWP50-ISGG-BC

# Solar Light Tower - 20' Mast, 7.5' Trailer - (4) Panels, (8) LED Lamps, (4) Batteries, Backup Genset

**Product ID: 306328**

**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-750W-LM20-8XWP50-ISGG-BC Trailer Mounted 3-Stage Light Tower w/ Backup Genset**

**Light Mast Specs**
**Tower Length: 12' 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**
**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
**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

**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**

**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
50,000+ Hour LED Life
Battery Charger
Auto Timer for Lights

Quiet Exhaust For Reduced Engine Noise
EPA Approved

**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

**Special Orders - Special Requirements**

Contact us for special requirements

**Toll Free:** 1-800-369-6671

**Intl:** 1-214-616-6180

**Fax:** 1-903-498-3364

**E-mail:** sales@larsonelectronics.com

**The SPLT-750W-LM20-8XWP50-ISGG-BC 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 400 watts of intense LED illumination 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 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, 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. Customers can mount their equipment on the system.

The system 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-750W-LM20-8XWP50-ISGG-BC 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 the eight LED light heads 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

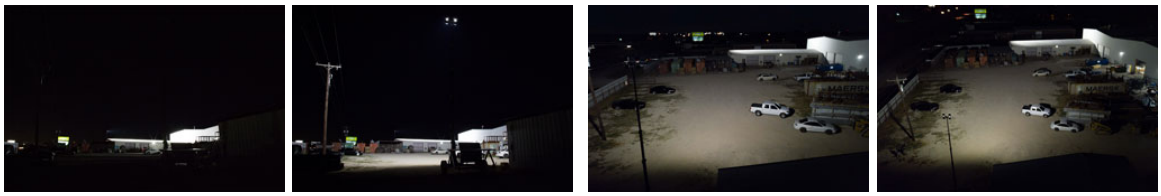
**LED Light Fixtures:** This solar light plant is equipped with eight 50-watt LED lights. The light assemblies each consist of four 12.5 watt LEDs paired with high purity specular optics to produce a light output distance comparable to that of a 400 watt metal halide. The LED wall packs are designed 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 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**

**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.

# Frequently Asked Questions (FAQ)