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**SPLT-0.9K-LM20-400AH-16KWDG-2X400LTL-DNS-BC-TLR**

# 20' Portable Solar LED Light Tower - (3) 300W Panels, (10) LiFePO4 Batteries, (2) 400W LED Lights w/ DNS, 120V BC, 16 kW Backup Diesel Gen - Manual Crank Mast/Trailer Mount

**Product ID: 325456**

**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.**

**Made in the USA**

**The Larson Electronics #SKU# Portable Solar LED Light Tower provides a safe and effective way for operators to quickly deploy two LED lights to elevations up to 20 feet. Secured on a trailer, this solar-powered system has a telescoping tower that folds over for easy transportation, a rotating boom that allows for 360° rotation, a removable mast head, two 400-watt LED lights delivering 108,000 lumens and three solar panels. The unit is equipped with a 400aH battery bank and electrical enclosure.**

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

The #SKU# offers a reliable method to power equipment with solar panels in remote locations and outdoor sites. This system features a 20' telescoping mast, two LED lights with day/night sensor, three 300-watt solar panels, 400aH battery bank, 40-amp charge controller, 16 kW backup diesel generator, 120V battery charger and one electrical enclosure. All system components are secured to a heavy-duty trailer for seamless transportation.

**Operation:**

- (2) 400W LED lights with day/night sensor - tamper resistant
- (3) 300W solar panels
- (10) 40aH lithium-iron phosphate batteries
- 40A charge controller
- Backup diesel generator
- 120V battery charger
- (1) electrical enclosure
- All system components secured to a trailer

**LED Lights:** This system features two 400-watt LED lights for illumination. Each LED light produces 54,000 lumens of high intensity light during use. High output LEDs are arranged in rows and paired with PMMA high purity optics to produce a well focused 24° wide spot beam that is ideal for providing far reaching concentrated illumination while still covering a substantial amount of area. We also offer optional optics with 10° spot, 38° narrow flood, 60° flood, and 90° wide flood beam spreads. The spot beams are tightly focused and are designed for high elevation mounting to achieve distance, making spot versions ideal for high mast and spots lighting. The flood beams are designed to provide more light over a larger area nearer the fixture, making flood versions ideal for use as dedicated work and area lights.

**Lamp Control:** The LED lamps feature three settings for versatile operation, which is facilitated by a 3-way switch (automatic, timed interval and manual). Automatic operation is facilitated by a day/night (dusk to dawn) sensor, only turning the fixtures on when ambient light levels reach below 5 lux. Timed interval operation allows operators to set a timed schedule for the lamps. Manual operation includes standard on/off switch for manual override.

**LED Benefits:** Unlike gas burning and arc type lamps that have glass bulbs, LEDs have no filaments or fragile housings to break during operation and/or transportation. 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 is applied, providing instant illumination with no warm up or cool down time before re-striking. Because there is no warm up period, this light can be cycled on and off with no reduction in lamp life.

LED lights run at significantly cooler temperatures than traditional metal halide and high pressure sodium lights and contain no harmful gases, vapors, or mercury, making them both safer and more energy efficient. No extra energy is wasted in cooling enclosed work areas due to external heat emissions from bulb type lights, and the operator risks associated with traditional lighting methods, such as accidental burns and exposure to hazardous substances contained in the glass bulbs, are eliminated. In addition, LEDs are also safer for the environment as they are 100% recyclable, which eliminates the need for costly special disposal services required with traditional gas burning and arc type lamps.

**Heat Management:** Heat is the single largest factor in premature LED failure and color shifting. These LED units feature individual heat sinks per bank of six LEDs to control heat buildup rather than utilizing a single housing to dissipate heat. This allows for more thorough cooling of the LEDs for extended operating periods. This allows the LEDs to be driven at up to 90% capacity without overheating or visible loss of light output. The end result is more light with less heat and longer LED life with an average 70% lumen maintenance after 80,000 hours.

**Durability:** As well as unparalleled heat control, the GAU-LTL-400W-LED series of LED lights from Larson Electronics also offer IP67 rated construction that is designed to withstand extremes of environmental and operating conditions. These units can withstand rapid temperature changes of -40° Celsius to +80° Celsius, are waterproof, and resist ingress of dust, dirt and humidity. The housings are formed from die cast aluminum and the optics are high transmission PMMA with 98% light transmittance. The Cree LEDs help these units achieve resistance to vibrations and are rated at 70% lumen maintenance after 80,000 hours of use. We recommend these LED lights for use in applications where a lot of vibration, dust, dirt, dampness and abusive working conditions are encountered.

**PA System:** This unit does not have a PA system. We can add a one-way or two-way system upon request and with additional costs.

**Router/Wireless 4G Hotspot:** The solar LED light tower does not have a router or support wireless connections. We can add these capabilities at an additional cost.

**GPS Tracking:** This system does not feature GPS tracking (we can add GPS tracking at an additional cost).

**LED Strobe:** The #SKU# does not have an LED strobe light. We can add an LED strobe light (available in different colors) at an additional cost.

**Mast:** This telescoping five stage steel mast from Larson Electronics is designed to allow operators to quickly and safely deploy LED lights in locations where it must be elevated to heights up to 20' for effective coverage. This mast can be extended to 20' for maximum area coverage, and collapsed to 12' for applications where a smaller footprint is required. The tower is constructed of square steel tubing. The mast is extended to its full height using a manual crank winch with 3/16" galvanized steel cable.

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 two LED lights. 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 resistance and aesthetics.

The LM family of telescoping towers feature a proprietary mast guidance system, which provide increased stability during high winds. When lowered, the mast can withstand winds up to 125 mph. Custom builds can be provided for higher wind speed resistance when fully raised.

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**Solar Panel Assembly:** This 12V system is comprised of three 300-watt solar panels, generating a total maximum output of 0.9 KW. The panels are secured to the trailer. During deployment, two solar panels slide outwards forming a 3-panel system.

**Batteries:** This unit contains ten, 40aH lithium-iron phosphate batteries. The 400aH battery bank is 100% usable.

**Solar Charge Controller:** The solar-powered system has a 40-amp charger controller.

**Battery Charger:** The system features one 120V battery charger for charging the batteries from outlets. For systems with a battery charger, the component is plugged into the backup generator by default. The battery charger can be unplugged for charging with local power sources.

**Inverter:** This unit does not have an inverter. We can add one at an additional cost.

**Backup Generator:** The diesel generator features key operated electric starting, a full twelve volt electrical system, automatic low oil pressure and high temperature safety shutoffs, dual fuel filters and easy access oil and radiator drain ports to facilitate maintenance. The 16,000 watt generator is a single bearing design and produces 120/240V power. The generator uses a four wire hookup system with an external ground allowing for setting up both electrical and mechanical safe grounding systems.

**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:** Live events, law enforcement, military, commercial, industrial facilities, remote locations and more.

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# Frequently Asked Questions (FAQ)

There are no Faqs