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WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G

50' Pneumatic Megatower™ on 21' Trailer - (16) 500 Watt LED Lights, (4) Cameras, 2TB NVR, Router - 11KW Genset

Product ID: 281497

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.

WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G Trailer Mounted LED Megatower™

Genset Specs:
Genset: Kubota GL11000TM
Engine: Kubota D722 16.3 HP
Engine Type: Vertical, liquid-cooled, 4-cycle diesel engine
Engine Speed: 3600 RPM
No. of Cylinders: 3
Generator: 11KW 2-Pole Brushless
Voltage: 120/240V Single Phase
Battery 12V @ 36aH
Fuel Cell Capacity: 110 Gallons - External Tank w/ Anti-Splash Baffles
Fuel Delivery: Electric
Sound Level: 68 dB - Full load @ 23` away
Cold Weather Package: Yes -Factory Included

Light Mast Specs
Tower Length: 13.5` to 50`
Lamp Qty: (16)
Materials: Heat Treated 6063B/T5 Aluminum
Finish: Powder Coated
Operation: Pneumatic w/ Hydraulic Ram

Light Head Specs

Quick Summary

11KW Kubota Brushless Genset
110 Gallon External Fuel Cell
Cold Weather Package Factory Installed
Up to 43 Hour Continuous Operation
13.5` to 50` Light Mast
Pneumatic Aluminum Mast
Steel Construction Trailer
Electric Air Powered Mast Operation
1/3 HP Electric Air Compressor
High Output LED Lamps
Extreme Area Coverage
Direct Replacement for (16) 1000W MH Light Plants
8,000W LED compared to 16,000W MH
960,000 Total Lumen Output
Independently Adjustable Light Heads
Dial-in Adjustability per light head
98% Transmission High Purity PMMA Optics
Multiple LED Banks for Heat Dispersion
130 Lumens Per Watt Efficiency
70% Lumen Retention after 80,000 Hours
Switched Breaker System per Lamp Head
IP67 Waterproof LED Fixtures

Lamp Type: LED
Total Wattage: 8,000W (500W per lamp)
Total Lumens: 960,000 (60,000 per lamp)
Voltage: Universal - 100-277V AC
Lighting Configuration: Flood Beam Pattern

PTZ Camera Specs
Camera Type: PTZ
Camera Qty: (4)
Megapixels: 2MP
Storage: Lockable Weatherproof Box on Trailer Deck

Network Video Recorder Specs
Storage Capacity: 2 TB SATA Hard Drive
Channels: 4
Camera Resolution Support: Up to 8 MP
Installation Type: Plug and Play
Incoming/Outgoing Bit Rate: : 40 Mbps/80 Mbps
Frame Rate (fps): 60 fps per Channel
Recording Modes: Continuous, Schedule, Event, Motion Detection and VCA
Export Format: MP4
Video Outputs: (1) RCA, (1) VGA, (1) HDMI, (1) USB 2.0 (Front), (1) USB 3.0 (Rear)
PoE: = 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
Materials: Aluminum
Color: Beige/Black

Router Specs
Wireless Router Type: Pepwave MAX BR1 MK2 Router w/ CAT6 LTE Advanced Modem (Wireless Access Network and Cell Network)
WAN Interface: (1) GE, (1) Embedded LTE-A Modem
LAN Interface: (1) GE
Wi-Fi Interface: 802.11ac/a/b/g/n 2x2 MIMO Simultaneous Dual-Band, Wi-Fi WAN & AP
Router Throughput: 100Mbps
4G Bands: FDD LTE- B1, B2, B3, B4, B5, B7, B8, B12, B13, B20, B25, B26, B29, B30, B41
3G Bands: WCDMA/HSPA+/DC-HSPA+- B1, B2, B3, B4, B5, B8
Recommended Users: 1-60
GPS Tracking: -
SIM Slots: (2) Not Included
Cellular and GPS Antenna Connector: (2) SMA Antenna Connectors, (1) SMA GPS Antenna Connector, (2) Wi-Fi Connector
Power Input: DC Jack/Terminal Block: 10V – 30V DC
Power Consumption: 16W (Max)
Antenna: 6dbi (Not Included)
Capacity: 2TB

Trailer Specs
Materials: Steel
Trailer Dimensions: 21`-L x 6.5`-W trailer bed
Height (Mast Collapsed, Laid Down): 6` 4"-H
Height (Mast Collapsed, Elevated): 21` 3.2"-H
Height (Mast Extended): 58`-H
Footprint (Outriggers Retracted): 26`-4.1" L x 8`-1" W
Footprint (Outriggers Extended): 34`-8.5" x 12`-6.5"
Hitch: 3" Lunnett
Wiring: 7-Pin Flat
Axles: 7,000 lbs Axle w/ Electric Brakes
Suspension: Leaf Spring
Outriggers: (4) 6` x 6" x 6" I-Beams Retractable w/ (4) 10,000 lbs Manual Leveling Jacks
Wheels: (4) 16" 5x4.5" Steel Rims

All Equipment Mounted on a 21` x 6.5` Trailer
Steel Trailer w/ Industrial Grade Paint Finish
Towable Height Under 13` w/ Light Heads
4-Point Outrigger System
10,000 lb Leveling Jacks
Powered Boom Deployment
(4) Outdoor PTZ Cameras
4-channel, 2TB NVR
4G LTE Router
Powered Boom Deployment

Special Orders - Special Requirements

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Tires: (4) P235/80R16

Weight:

Shipping: Common Freight

Shipping Weight:

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

Contact us for special requirements

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Made in the USA

The Larson Electronics WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G Pneumatic Megatower™ on 21` Trailer is a self contained LED lighting package that offers high output illumination, comprehensive monitoring and fuel savings over traditional light plants. This trailer mounted fold over 7-stage pneumatic light plant provides a safe and effective way for operators to quickly deploy the sixteen 500 watt LED light heads to elevations up to fifty feet. This pneumatic light tower folds over for easy transportation, features a hydraulic ram upright assist, air powered pneumatic mast and high output LED fixtures. The LED light tower is powered by a 11 KW Kubota diesel generator with a 110 gallon fuel tank and includes four PTZ cameras, a 2TB NVR and 4G LTE router. The entire assembly is mounted onto a 21` by 8` tandem axle trailer, allowing operators to transport this fold over boom from location to location.

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

The WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G Megatower™ is a self contained, towable, high power light tower package. This unit contains a water cooled diesel engine powering a 11KW Kubota generator, which supplies the current to four outdoor cameras and sixteen 500 watt LED lights producing 60,000 lumens each, for a combined total of 960,000 lumens of light. This unit can run uninterrupted for up to 43 continuous hours without refueling and includes a pneumatic telescoping light mast which can elevate the sixteen high output LED lamps to a height of 58`. This mobile floodlight package is ideal for large scale event illumination, construction, mining, industrial operations, and anywhere a mobile full power lighting system capable of extended operation is needed.

This telescoping seven stage pneumatic light mast from Larson Electronics is designed to allow operators to quickly and safely deploy up to 8,000 watts of high intensity LED lighting and cameras in locations where illumination must be elevated to heights up to 58` for effective coverage. This light boom can be extended to 58` for maximum area coverage, and collapsed to 22` for applications where a footprint smaller is required. The tower is constructed of heat treated aluminum tubing with 2.69` foot of overlap per section. The mast is elevated using an included hydraulic ram, and extended to its full height using a trailer mounted air compressor.







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A 90" wide by 109.5" tall and 2" by 2" by 1/4" thick steel mast head is attached to the upper section of the mast which provides a strong and stable platform for the sixteen

500 watt LED light heads.

Lights: Included with this light tower is one of our wet area suitable GAU-LTL-500W-LED high output LED fixtures producing a combined total of approximately 60,000 lumens at 500 watts. The light head contains forty-eight CREE™ high output LEDs producing 1250 lumens each 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. Each floodlight is securely fastened to the light boom and each lamp includes a support bracket to help maintain lamp stability within its housing. The lamps are hard wired into a NEMA 3R panel located on the end of the telescoping boom.

Click here to see the lighting layout comparison of the metal halide verses LED Megatower light plants from Larson Electronics.

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.

Security Cameras: Four outdoor cameras provide operators with crisp high resolution images. These 2MP cameras offer PTZ functionality and can be removed from the tower as needed and during transit. A quick disconnect mounting system is included for easy installation and removal at the bottom side of the mast head. A lockable weatherproof box located on the trailer deck is available for storing the cameras when not in use or during transit.

This solar security assembly comes with a 2TB, 4-channel network video recorder. Installation 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), 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.

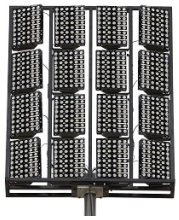
Router/Wireless 4G Hotspot: Operators can connect to wireless access points or cellular networks via a professional-grade router with two SIM card slots for load balancing or fail-over service (SIM cards not included). Customers can send the SIM card to Larson Electronics before shipping the order for configuration with the router at an additional charge.

The unit supports WAN, LAN and Wi-Fi interfaces with 100Mbps throughput capabilities. Recommended for 1-60 users, this device works with all major carriers (CDMA/GSM/LTE). The access point can be disabled for security purposes upon request. Customers must provide a 6dbi antenna for the system (not included).





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Durability: As well as unparalleled heat control, the GAU-LTL-600W-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 80,0000 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.
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.
Telescoping Boom: The pneumatic telescoping boom is constructed of heat treated aluminum with an powder coated finish and extends up 58` in height. This boom is raised from and lowered to the folded position by a single hydraulic ram, and extended or retracted by pneumatic system with equipped air compressor.
Wiring/Controls: The LED light heads are grouped into banks of four. Each bank in wired into the NEMA 3R breaker control box at the base of the mast. Operators control the light heads via an on/off switched breaker per bank of four light heads. The air compressor and battery charger are also powered from within this breaker box. Power is provided to the control box via an integrated 11KW genset. The mast elevation is controlled by a push button switch to operate the hydraulic ram, allowing operators to raise the mast to the upright position. The vertical deployment is operated by an up/down level, allowing operators to extend it to its full 58` height or retract it to the collapsed height.



Click Photo to Enlarge

Genset: The WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G Megatower™ includes a Kubota Lowboy II GL11000TM genset that houses a Kubota D722 diesel engine that powers the 11KW 120/240V brushless generator. This genset is liquid cooled and features a single phase generator with electric start ignition. The diesel generator runs at 3600 RPM and is equipped with an EPA/CARB Tier 4 emissions system. A 110 gallon fuel cell sits beside the genset and is equipped with an electric fuel delivery system. The fuel cell is constructed of single a heavy gauge steel single wall frame with internal anti-splash baffles. This genset features key operated electric starting, a twelve volt electrical system, liquid cooling, replaceable dry element air cleaner, and a full enclosure for safe operation and protection against the elements. This engine also features cold weather options to improve performance under cold weather conditions.

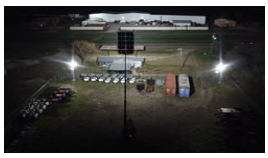


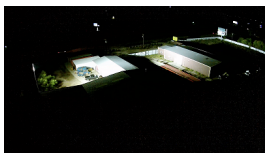


Click Images to enlarge.

The above images show a side by side comparison of the light output between our LED light plant and a traditional four lamp metal halide light plant. The left image shows the metal halide light plant raised to 30` and illuminating a 50,000 sq ft work area with four 1000 watt metal halide light fixtures. The right image shows the WCDE-20-HLM65-20X500LTL-LED-WSM light plant raised to 50`, illuminating the same 50,000 square foot work area with twenty 480 watt LED fixtures. Notice how the color and intensity of the work area is greatly improved when lit up by the LED fixtures.









Click Images to enlarge.

The left image above shows the light mast illuminating a 300,000+ square foot area. The yellow billboard in the image reaches 40 lux, while the fence at the tree line (480`+ away from the tower) reaches 35 lux. This image was taken from 50` behind the mast and at 100` above ground level. The image to the right shows the work space 75` in front of the mast, with the entire area work area reaching over 100 lux. The mast was extended to 35`.

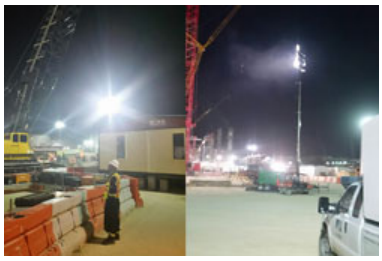
The left image above shows the same 300,000+ square foot area being illuminated. In the background you can see a vehicle with their headlights on, barely able to be seen in comparison to the WCDE-20-HLM65-20X500LTL-LED-WSM light plant. This image was taken at 80` to the right of the mast and 175` above ground level. The mast was extended to 35`. The image on the right is a Google Earth export of the physical area being illuminated, for scale purposes.

Trailer: The entire unit is mounted onto a four wheel, tandem axle trailer constructed of 8" box steel equipped with torsion axles. Each torsion axle is rated at 7,000 lbs and equipped with P235/80R16 tubeless tires and wheels. The rear axle is equipped with electric brakes. Tongue weight is rated at 650 lbs and an adjustable 3” lunnett eye for pintle hitches provides secure hookup to tow vehicles. A single 7,000 lbs rated tongue jack provides a stable connect-disconnect platform as well as additional stability during tower deployment. Standard heavy duty safety chains are included. This trailer also includes a front mounted storage area for stowing tools and accessories. The trailer is finished in industrial grade Dupont™ paint for protection against rust and corrosion and provides an attractive finish. Overall dimensions of the entire trailer and boom assembly in the stowed for travel configuration is 21` long by 8’ wide.

Six 7,000 lbs hand crank jacks are used for raising the trailer up off the ground, and four 7,000 lbs hand crank jacks mounted on extending outriggers are used for leveling and stabilizing the trailer assembly. Each of the four jacks are attached to a pivoting outrigger constructed of 6` by 6" by 6.3" steel I-beams. The jacks can be leveled by hand crank or attachment provided for power drills. These outriggers can be extended 6` out from the side of the trailer for added stability. This light plant can withstand 35 mph winds when fully extended. When lowered to 30`, the mast can withstand 50 mph winds. When lowered to 22`, the mast can withstand wind speeds up to 95 mph with gusts of 125 mph. Custom builds can be provided for higher wind speed resistance when fully raised.

Runtime: The sixteen 500 watt LED light heads have a considerably less amp draw

than the metal halide light heads on traditional light plants. This allows the WCDE-11-PLM50-16X500LTL-LED-4XPTZ-2TB-W4G to achieve up to 43 hours of continual use on a single tank of gas when only operating the light heads and air compressor. When running 24 hours a day and 7 days a week, this LED light plant will run for nearly 2 days straight without refueling. When the genset is running for 12 hours a day, this tower will provide on-site illumination for up to 4 days before needing more fuel. This self contained LED light plant provides operators with a worry free and energy efficient alternative to metal halide light plants.
We offer a choice of finishing, equipped light heads, and with or without gensets. These towers can be fitted with Larson Electronics line of high output light heads, or customize the mast head to meet the mounting requirements for your equipment. Optional diesel generators and fuel cells can be equipped from factory, or retrofitted after purchase.


Click Photos to Enlarge

Cold Weather Package: The LM-50-5S-TLR-16X500LTL-LED is designed to withstand extreme cold environments and harsh winters. The pneumatic system is equipped with a de-icing system to prevent the air compressor, air lines, and pneumatic mast from freezing from moisture building within the air system. This de-icing system uses an environmentally friendly (non-toxic) fluid. All air lines are equipped with cold weather rated hydraulic hoses rated for -65°C and fitted with metallic hardware. The air compress consists of an oil-less unit equipped with an aluminum air regulator, stainless steel ball valves, and stainless steel valve controls. The head of the air compressor is wrapped with heat trace to prevent the compressor from freezing over in subzero temperatures. All the pneumatic controls are housed within an insulated and weather tight enclosure. This pneumatic control box features 1/2" thick polystyrene foam insulation and heat trace.
The hydraulic system features -65°C cold weather rated rubber hydraulic hoses with metallic fittings and a cold weather rated high viscosity hydraulic fluid. The battery system that powers the hydraulic system features a cold weather rated sealed acid glass mat 12 volt battery wrapped in a heated battery blanket. A cold weather rated battery charger keeps the 12 volt battery charged. All battery components are enclosed within a NEMA 3R housing. All electrical components are wired using cold weather rated SOOW cable with rated to -50°C that features high flexibility, and extreme abrasion, acid, oil, and water resistance even in sub-zero climates.
The Kubota genset is retrofitted with a coolant heater to keep engine temperatures at optimum levels. The fuel system is equipped with an in-tank fuel heater to prevent gelling in arctic environments. The genset is equipped with 0W-40 synthetic oil. The genset`s electric battery is equipped with a battery blanket.
Suggested Applications: Temporary lighting, construction sites, and security camera deployment. We can equip this mast with 1000W HID-22-SL-REM or 1500W HID-22-15M-SL-REM Metal Halide lights or a wide variety of high powered LED lights with comparable power, including the LED10WSA-160, LED10WSA-320, LEDP5W-30, LEDP5W-60, and GAU-HB-160LED.
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)


LARSON
MEGA TOWER

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Product ID: 281497

Harmonized System (HS) Code: 9405.41.84.10
Export Control Classification Number (ECCN): EAR99

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- Photometric Flood Report
- Photometric Indoor Report
- Photometric Polar Graph
- SpecSheetSpanish
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- HigResPic1
- HigResPic2
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- HigResPic4
- HigResPic5
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