

6000W Generator - Water Cooled Diesel Engine - 25' Telescoping Tower - (4) 160W LED Fixtures

Part #: [WCDE-4-4X150LTL-LED](#)



Made in the USA

The WCDE-4-4X150LTL-LED mobile light tower from Larson Electronics is a towable, self-contained LED light plant powered by a water cooled diesel engine turning a single bearing 4 pole generator which produces 6,000 watts at 120/240V @ 60Hz. The four 160 watt LED lamps included with this unit produce a combined total of 86,400 lumens, which can illuminate a 3-4 acre area. This 640 watt LED lighting package is a direct replacement for metal halide light plants. This trailer mounted light tower and generator set comes equipped with a 30 gallon fuel tank that will run continuously without refueling for up to 120 consecutive hours.

The WCDE-4-4X150LTL-LED mobile light tower is a self-contained towable light tower package that produces enough light to illuminate an area up to 4 acres in size. This unit contains a water cooled diesel engine powering a 6,000 watt generator, which supplies the current to four 160 watt LED lamps producing 21,600 lumens each for a combined total of 86,400 lumens of light. This unit can run uninterrupted for 120 hours straight without refueling and includes a telescoping light mast which can elevate the four LED lamps to a height of 25 feet. This mobile floodlight package is ideal for emergency services, large scale event illumination, construction, mining, industrial operations and anywhere an extended operation capable mobile lighting solution is needed.

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The WCDE-4-4X150LTL-LED mobile light tower incorporates a long list of impressive features. The diesel engine is a water cooled Kubota that operates at 1800 rpm. This engine 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. A 30 gallon fuel tank allows the engine to operate for 120+ hours continuously without refueling. The 6,000 watt generator is a single bearing design and produces 120/240 volt current at 60 Hz. The generator uses a four wire hookup system with an external ground allowing for setting up both electrical and mechanical safe grounding systems.

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Lights: The lighting system on this unit is comprised of four 160 watt LED lamps producing 21,600 lumens of light each attached to the end of the telescoping light boom. These floodlights produce a wide flood light pattern capable of illuminating 4 acres with a combined total of 86,400 lumens of light. 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 connected to the power source via a water tight male pin connector that attaches to a receptacle located on the end of the telescoping boom.

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. In addition, should an LED failure occur, these LED flood lights are field serviceable. Each bank of six LEDs can be replaced with the fixture installed. This allows for the tower to stay in operation until repairs can take place, and eliminates the need to remove and disassemble the entire fixture for repairs.

Durability: As well as unparalleled heat control, the GAU-LTL 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 use these LED lights for applications where a lot of vibration, dust, dirt, dampness and abusive working conditions are encountered.

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.



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Controls: The operations system for this unit is a centrally located control panel within the light tower enclosure. Four circuit breaker protected switches allow individual control of the lights while an individual hour meter tracks unit operating time. Also included is an alternator warning light, fuel primer system, preheating switch, 120 volt GFCI duplex receptacle for auxiliary power takeoff and a 240V twist lock power receptacle.

Telescoping Boom: The telescoping boom consists of three sections extending up to 25 feet through the use of two manual self braking winches and allows for rotating the lights 360 degrees. One winch is mounted to the trailer tongue and acts to raise the tower into a vertical position while the other is mounted to the boom and is used to extend the tower to the desired height. The telescoping boom is constructed of galvanized steel to resist rusting and corrosion and is capable of withstanding 51 mph winds when extended to its full height and the stabilizing outriggers are deployed. The stabilizing outriggers are a three point design with one located under the trailer tongue and two on the rear sides of

the unit. The two rear outriggers are adjustable and include 1,000 lbs. swivel jacks for leveling and stabilizing the tower.

Housing: All of the operating components are housed within a protective compartment constructed of recyclable LMDPE (linear medium density polyethylene) plastic. This material is extremely corrosion resistant and retains its original appearance even after years of use. The enclosure is high impact crack resistant and retains resale value for longer than metal counterparts while also minimizing environmental impact. The highly durable plastic material is fully UV stabilized, contains long term antioxidants and is resistant to both high and low temperatures. The plastic enclosure of the WCDE-4-4X150LTL-LED is significantly lighter than comparable metal enclosures while offering a more attractive appearance. A vertical lift door provides access to the interior while latches provide secure closing while the unit is in use. The entire unit can be loaded and unloaded onto trucks via forklift sleeves mounted to the outer section of the light mast. The entire unit is mounted onto a two wheel trailer with a 2,000 lbs. leaf spring axle. A standard two inch ball coupling, three inch pintle hitch and two standard safety chains allow for easy hookup and towing.

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.

Specifications / Additional Information

WCDE-4-4X150LTL-LED Mobile LED Light Plant

Genset Specs:

Engine: Kubota D1105-BG-ET01

Engine Type: Vertical, liquid-cooled, 4-cycle diesel engine

Engine Speed: 1800 RPM

No. of Cylinders: 3

Generator: Marathon Pancake 6KW 4-Pole Brushless

Voltage: 120/240V Single Phase

Auxiliary Power Supplies): 120V Duplex Receptacle, 240V Twist Lock

Battery 12V

Fuel Cell Capacity: 30 Gallons

Fuel Delivery: Electric

Noise Level: Db level 63 @ 23 ft.

Light Mast Specs:

Mast Type: Manual Crank-Up

Boom Height: Up to 25`

Materials: Galvanized Steel

Operation: Manual Hand Crank Winch

Winch: (2) 1500lb, Self-Braking

Stages: Three

LED Light Specs:

Protection

6KW Kubota Brushless Genset

30 Gallon Fuel Cell

Up to 120+ Hour Continuous Operation

External Grounding

Low Oil, High Engine Temp Auto Shut-Off

Hour Meter - Alternator Warning

High Output LED Lamps

Extreme Area Coverage

Direct Replacement for (4) 1000W MH Light Plants

640W LED compared to Higher Wattage MH

86,400 Total Lumen Output

Independently Adjustable Light Heads

Individual Light Switch Circuit Breakers

Dial-in Adjustability per light head

98% Transmission High Purity PMMA Optics

Multiple LED Banks for Heat Dispersion

150 Lumens Per Watt Efficiency

70% Lumen Retention after 80,000 Hours

IP67 Waterproof LED Fixtures

Steel Trailer w/ Industrial Grade Paint Finish

Three Point Outrigger System

Withstands 65Mph Winds at Full Extension

Lamp Type: Cree® LED

Total Watts: 640 (160W per lamp)

Total Lumens: 86,400 (21,600 per lamp)

Luminous Efficiency: 135 Lm/W

LED Color Temperature: Cool White - 5500-6500K

LED Life Expectancy: 80,000 hours

Optics Efficiency: 98% - PMMA High Transmittance Optics

Led Drive %: 90%

Power Factor: >97%

Mounting: Stainless Steel Trunnion Mount U-Bracket

Materials: Die Cast Aluminum Housing, Acrylic Optics

Housing Color: Natural Aluminum

Ambient Temperature Range: -40°C to +80°C

Waterproof Rating: IP67

Coverage: 3 to 4 Acres

Trailer Specs

Materials: Plastic Enclosure, 12ga Formed Steel Chassis

Hitch: 2" Ball Coupler and 3" Pintle Hitch

Finish: Industrial Grade Paint

Axle: (1) 2,000 lbs.

Suspension: 2,000 lbs. Double Eye Leaf Springs

Outriggers: (4) Adjustable Outriggers w/ 2,500 lbs. Manual Leveling Jacks

Lighting: DOT Approved tail, side, brake, and directional lights

Wheels: (2) 13" 5x4.5 Steel Rims

Tires: ST175/80/D13

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Special Orders- Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

Intl: 1-903-498-3363

E-mail: sales@larsonelectronics.com

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- [Hi-Res Image 2](#)