

WCDE-4-20KW-4X500LTL-LED-LBC-M1

20' Telescoping Balloon LED Tower w/ 20kW Generator - (2) 12' Portable LED Quadpods, Spare Tire

Product ID: 280149

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-4-20KW-4X500LTL-LED-LBC-M1 Mobile Light Tower

Genset Specs:

Engine Type: Diesel Engine, JP8 Fuel-compatible

Engine Speed: -

No. of Cylinders: -

Rated Power: 20 kW

Rated Standby Output: 22 kW

Generator: -

Voltage: 120/240V 60Hz 3-phase

Battery 12V @ 60Ah

Fuel Cell Capacity: 25 Gallons

Fuel Delivery: Electric

Noise Level: -

Enclosure Color: Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A

Light Mast Specs:

Mast Type: Manual Crank-Up

Boom Height: Up to 20'

Materials: Aluminum

Operation: Dual Winch System

Winch: 1,500 lbs - Self-Braking

Features

20' Light Tower

20kW Diesel Genset

19+ Hours of Continuous Illumination

External Grounding

Low Oil, High Engine Temp Auto Shut-Off

Outriggers w/ Integrated Leveling Jacks

Steel Trailer w/ Industrial Grade Paint Finish

208,000 Total Lumen Output

130 Lumens Per Watt Efficiency

Ratings

NRTL Listed UL 508A Control System

NRTL Listed UL 1640 Power Distribution System

Complies with MIL-STD-209K Tie Down Standards

Complies with MIL-STD-1366 Air Transport

Finish Complies with FED-STD595 & MIL-STD-1473A

Finish Complies with MIL-STD-1223

Registration Markings Comply with IAW NAVFAC-P-300

Made in USA

Manufactured in Texas

Stages: Three

Mast Rotation: 180° at Full Extension

Buy American Compliant

Wind Rating: 50 mph Wind Rating

Mast Color: Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083)
per MIL-STD-1473A

LED Balloon Light Specs:

Lamp Type: LED Balloon Light

Total Watts: 2,000W

Total Lumens: 208,000 lms

Luminous Efficiency: 130 lm/w

LED Color Temperature: -

LED Life Expectancy: 80,000 hours

Optics Efficiency: -

Warm Up Time: 0

Coverage: 6 to 7 Acres

Performance: >10 foot candle (fc) intensity coverage for minimum of 70% on the perimeter of a 50' diameter circle with brightest light centered on main work area (no less than 18' average light height). >200,000 lumens (+/-5%) LEDs total, 360 degree balloon.

Materials: -

Mounting: Tower

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

Wiring: Weather and Rain Resistant

LED Quadpod Specs:

Lamp Type: LED

Quadpod Qty: (2)

LED Lamp Qty: (2) per Quadpod

Dimensions: 12' Quadpod Height

Watts: 1,000W

Lumens: 120,000 lms

Luminous Efficiency: -

LED Color Temperature: -

LED Life Expectancy: 50,000 hours

Optics Efficiency: -

Warm Up Time: 0

Color: Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A

Mount: Adjustable Quadpod

Leg Weights: Sandbags Included

Wiring: 20' Cord

Storage: Original Trailer

Wind Rating: 50 mph Wind Rating

Trailer Specs:

Materials: 14ga Sheet Steel Enclosure, 12ga Formed Steel Chassis

Hitch: Adjustable 3-inch Lunette (20" to 28" from the ground)

Paint and Finish: Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A

Axle: (1) 2,200 lbs

Suspension: 2,000 lbs Double Eye Leaf Springs

Leveling Jacks: (4) Outriggers w/ Integrated Manual Leveling/Stabilizing Jacks

Fork Pockets: Incorporated w/ Frame (2.5" x 6" Minimum)

Tongue Jack Type: Tongue Jack w/ Pad Foot

Crane Lifting: Integrated Center Lifting Eye

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

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

Tires: 155R13 - Pneumatic Rubber Tires, All Terrain

Spare Tire: Included w/ Spare Tire OEM Installed Mounting Bracket

Special Orders - Special Requirements

Contact us for special requirements

Toll Free: 1-800-369-6671

Intl: 1-903-270-1187

Dimensions: 137" x 93.3" x 53.9"

Weight: -

Fax: 1-903-498-3364

E-mail: sales@larsonelectronics.com

Made in Texas

The WCDE-4-20KW-4X500LTL-LED-LBC-M1 Telescoping Balloon LED Tower w/ 20kW Generator from Larson Electronics is a towable lighting package for outdoor and remote sites. Capable of reaching heights up to 20 feet, this unit will illuminate 6-7 acres using a 2,000-watt LED balloon light. Two portable quadpods with LED lights and a spare tire with mounting bracket are included with the system. A controller is available for monitoring the real-time status of the trailer-mounted unit.

The WCDE-4-20KW-4X500LTL-LED-LBC-M1 mobile light tower is a powerful lighting solution with industrial applications. This unit is supported by a diesel generator, which supplies the current to a 2,000-watt balloon light producing 208,000 lumens of light. Equipped with two adjustable quadpod LED light towers, the light mast can provide 19+ hours of continuous illumination at extended heights up to 20 feet. This mobile floodlight package is ideal for emergency services, large scale event illumination, construction, mining, industrial operations and more.

Performance: The lighting system enables equipment to perform and operate two, 10-hour shifts of continuous operation within a 24-hour cycle. This system is designed to operate in environments ranging from 0 to 125 degrees Fahrenheit and in inclement weather conditions to sustained winds of up to 30 mph and gusts up to 40 mph. The connections from the main lighting system to the auxiliary lights are weather and rain resistant. Setup time is less than 10 minutes, which includes any warm up time for the lights.

Balloon Light: The lighting system on this unit consists of a powerful 2,000-watt LED balloon light. Capable of instant illumination (no warm up time), the unit produces a wide flood light pattern capable of illuminating 6 acres with 208,000 lumens of output. The wiring connections of the light are weather and rain resistant. The light fixture and accessories can be stored within the system cowling (enclosure) during transportation and storage.

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.

Portable Quadpods: Two adjustable LED quadpods are included with the system. Each quadpod stands 12 feet and features two 500-watt LED lights (total of four LED lamps, when both quadpods are in use). Each LED light generates 60,000 lumens of output, which reaches 240,000 lumens when all LED lamps are on. Capable of being powered off by the original generator, operators may access a 20-foot cord on each quadpod for power. The LED quadpods can be stored in the original trailer for transportation. The color of the quadpods is Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A. Sandbags for leg weights are included to improve stability during deployment.

Telescoping Boom: The telescoping boom consists of four sections extending up to 20 feet through the use of a dual, self-braking winch and allows for rotating the light 180 degrees. The three-stage telescoping boom is constructed of aluminum to resist rusting and corrosion and is capable of withstanding 50 mph winds when extended to its full height and the stabilizing outriggers are deployed. The stabilizing outriggers are a four-point design with one located under the trailer tongue, two on the sides and one on the back of the unit. The two side outriggers

are adjustable and include 2,000 lbs swivel jacks for leveling and stabilizing the tower. The color of the mast is Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A.

Diesel Generator: With engine speeds of 1,800 rpm, the unit is capable of generating 22 kW on standby and 20 kW during prime use. The system has a diesel engine and is compatible with JP8 fuel. As a low-rpm generator, it operates quieter than 3,600 rpm "throw-away" models. Because 3,600 rpm generators have higher speeds, the units wear out faster and require less copper during operation. The color of the genset enclosure is Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A.

The WCDE-4-20KW-4X500LTL-LED-LBC-M1 is designed to support 120/240V 60Hz. It features three-phase 120/240V at 48.11 amps, as well as five power outputs and an ATS plug. This unit will automatically shut down in the event of an abnormal condition related to water temperature, engine oil pressure, low coolant, low DEF, overspeed and overcrank. An emergency stop switch allows operators to manually shut down the system.

Controls: A system controller provides operators with a wide viewing panel and robust monitoring of the brushless generator. The device displays frequency, battery voltage, runtime and more. A protective feature notifies operators about low oil pressure, high water temperature, over/under voltage and over/under speed. The controller can be used in manual or auto start mode. Configurable timers and alarms provide flexibility and real-time monitoring of the system.

Trailer: All of the operating components are housed within a protective compartment constructed of 14 gauge steel with Mil-spec Lusterless Forest Green (RAL 110 30 10, Federal Standard 34083) per MIL-STD-1473A finish. Side wing doors provide access to the interior while latches provide secure closing when the unit is in use. The entire unit is mounted onto a two-wheel trailer with a 2,200 lbs leaf spring axle. This system can be loaded and unloaded onto trucks via an integrated center lifting eye or fork pockets (2.5" x 6" minimum) incorporated into the frame. An adjustable 3" Lunette (20" to 28" from the ground) and two standard safety chains allow for easy hookup and towing. This unit includes a spare tire with a OEM installed spare tire mounting bracket. All tires are pneumatic rubber and for all terrain use.

Military Modifications: This system is equipped with transportation lift provisions (such that no spreader bar is required), tie-down provisions (for air, sea, and highway), and a transportation data plate that is in accordance with MIL-STD-209K. All components are capable of air transport by C-130, C-17, and C-5 Aircraft. The system can be driven on and off the listed airframes with no preparation. (reference MIL-STD-1366). There are installed Navy data plate and paint Identification USN Registration markings IAW NAVFAC-P-300 Publication. UID data plates are available on machine, engine and attachments. The system is equipped with a worldwide deployable diesel engine capable of operating long term on Jet Propellant 8 (JP-8), and high sulfur diesel fuels, without damaging the engine or degrading performance. The system paint/finish is Lusterless OD Green 34064 Poly Urethane finish NON-CARC with corrosion resistant coat per FED-STD595.

Corrosion Control: Painting of the equipment shall be performed in accordance with the requirements specified in MIL-STD-1223. This includes all applicable process controls, quality assurance checkpoints and final workmanship requirements. Base materials should be free of cracks, burrs, sharp edges, and weld splatter that may affect Corrosion performance and coating adhesion.

Applications: This portable LED tower is suitable for use in remote locations, such as temporary camps, construction sites, military bases and areas without reliable access to the grid. It can be utilized to power a wide range of heavy duty tools and equipment, including laptops, portable machines and mobile devices. The unit's robust recharging options offer flexibility in environments where access to reliable power sources are severely limited.

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.

System Specifications

POWER AND ELECTRICAL:

- **Engine:** Diesel engine, JP8 fuel-compatible
- **Lighting:** Light Emitting Diode (LED) flood style lighting / LED balloon style lighting with collapsible internal skeleton.
- **Lighting Work Performance:** > 10 foot candle (fc) intensity coverage for minimum of 70% on the perimeter of a 50' diameter circle with brightest light centered on main work area (no less than 18' average light height). >200,000 lumens (+/-5%) LEDs total, 360 degree balloon.
- **Mast:** 20' Masts equipped with flood style lights capable of = 180° rotation when at full extension

PERFORMANCE:

- Equipment designed to allow equipment to perform and operate two ten-hour shifts of continuous operation within a 24-hour cycle.
- System designed to function in operating temperatures ranging from 0 to 125 degrees Fahrenheit.
- System provides continuing operation in inclement weather conditions to sustained winds of up to 30 mph and gusts up to 40 mph. Connections from main lighting system to auxiliary lights are weather and rain resistant.
- Setup Time: < 10 mins to include any required warm up time for lights.

WHEELS/MOBILITY AND ACCESSORIES:

- Pneumatic Rubber Tires, All Terrain
- Spare tire included with an OEM installed mounting bracket.
- Adjustable 3 inch Lunette (20" to 28" from the ground)
- Integrated Center Lifting Eye
- Tongue Jack with Pad Foot
- Integrated leveling/stabilizing jacks
- Fork Skid Pockets incorporated into frame (2.5-inch X 6-inch minimum)

ATTACHMENTS:

- All light fixture and accessories are stored within system cowling (enclosure) to provide protection from the elements during transportation and storage.
- OEM provided equipment capable of meeting any local AHJ grounding requirements, grounding leads = 10'.
- Each system includes Two auxiliary light towers powered by the main light plant that produce no less than 60% of the main light plant output.
- Auxiliary light towers include 20' leads from main light plant.
- Auxiliary light tower stands have an operating height of no less than 12 feet and appropriate "Sandbag" weights provided for each.
- OEM integrated tie downs for securing light tower during shipment.

MILITARY MODIFICATIONS:

- Lift and Tie-down Provisions; refer to MIL-STD-209K Transportation Modifications. Equipped with a transportation lift provisions (such that no spreader bar is required), tie-down provisions (for air, sea, and highway), and a transportation data plate that is in accordance with MIL-STD-209K.
- Capable of air transport by C-130, C-17, and C-5 Aircraft. Must be able to drive on and off the listed airframes with no preparation. Reference MIL-STD-1366.
- Paint and Finish: Lusterless OD Green 34064 Poly Urethane finish NON-CARC with corrosion resistant coat per FED-STD595
- Installed Navy data plate and paint Identification USN Registration markings IAW NAVFAC-P-300 Publication. UID data plates on machine, engine and attachments.
- System shall be equipped with a worldwide deployable diesel engine capable of operating, long term, on Jet Propellant 8 (JP-8), and high sulfur diesel fuels, without damaging the engine or degrading performance.

CORROSION CONTROL:

- Painting of the equipment shall be performed in accordance with the requirements specified in MIL-STD-1223. This includes all applicable process controls, quality assurance checkpoints and final workmanship requirements. Base materials should be free of cracks, burrs, sharp edges, and weld splatter that may affect Corrosion performance and coating adhesion.

TECH MANUALS:

- Operator and Maintenance instructions manuals and original equipment manufacturer parts listings are provided in the following formats: PDF reader capable on a CD and traditional paper copies.
- Operator`s manuals contain procedures for the safe operation of all system and sub-system components along with associated safety cautions and warnings applicable to equipment operation.
- Service Maintenance Manual(s) contain original equipment manufacturer`s preventive maintenance schedules, procedures, and safety precautions applicable to each maintenance task.
- Instructions and procedures for inspecting, testing calibration, service, repair and overhaul of all equipment systems and subsystems (e.g. trailer, brakes, engine, electrical system, etc.)
- Parts Manual(s) include comprehensive illustrated parts breakdown. It shall contain a pictorial representation (i.e. exploded view) of all system and sub-system components, indented to the item level, identified by individual item numbers, and shall list complete item names, original equipment manufacturer part numbers, quantity per end item, and the quantity per assembly.
- All printed and computer materials are written in English. Supplemental Manuals for all work tool attachments are be included as applicable.
- Three (3) sets of Tech Manuals (PDF reader capable on a CD), and one (1) set (PDF reader capable with editing capabilities on a CD) are delivered within 120 days of order. Delivered to purchasing agent.
- One (1) set of Tech Manuals (CD and paper copy format) is delivered with each piece of equipment.

Frequently Asked Questions (FAQ)







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Product ID: 280149

Harmonized System (HS) Code: 9405.41.84.10

Export Control Classification Number (ECCN): EAR99

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