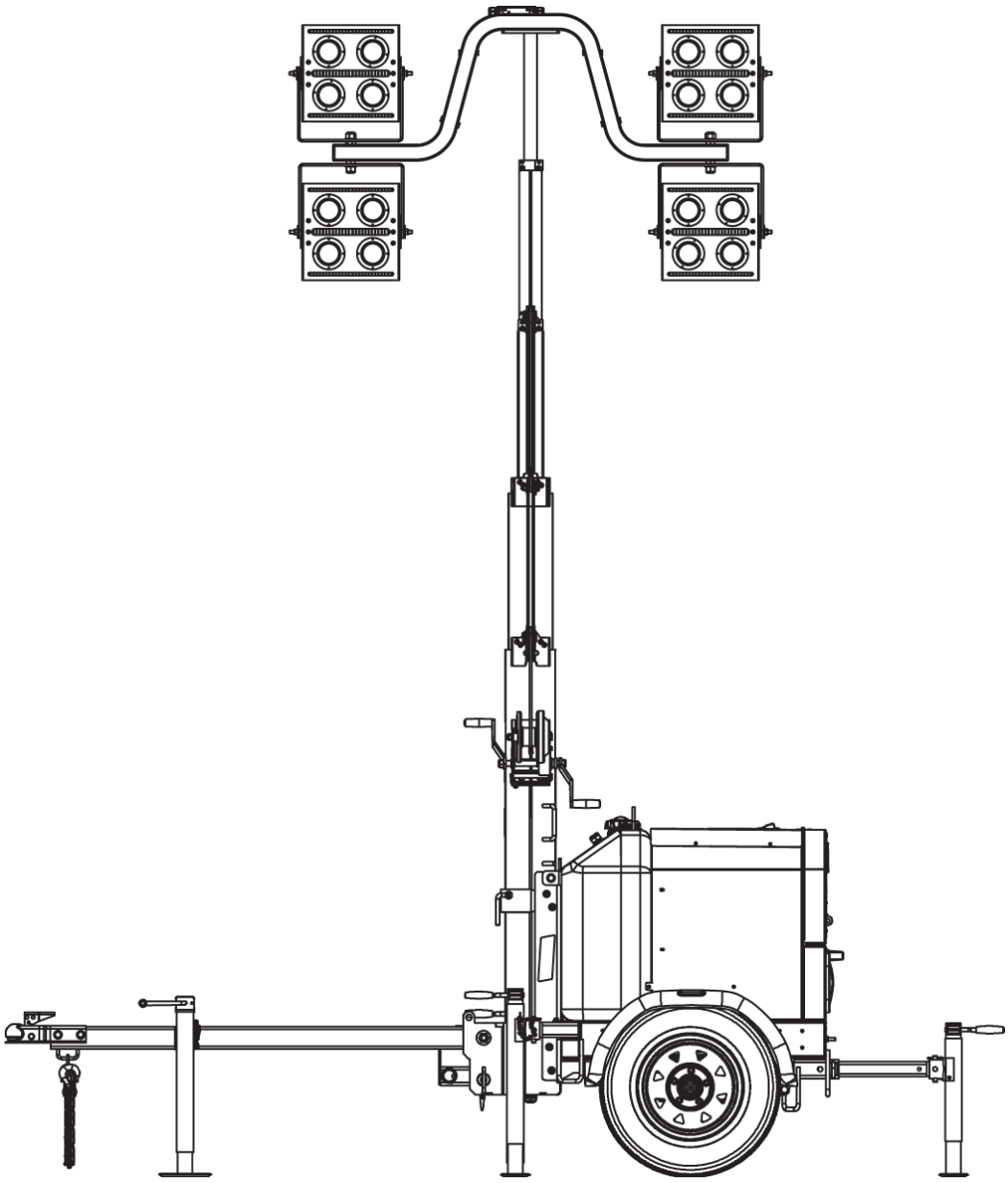
COMPACT DIESEL LIGHT TOWERS

MODEL WLTT
PRODUCT SPECIFICATIONS | FEBRUARY 2026



CONTENTS

1. SYSTEM

1.1. Description

Wanco® Compact Light Towers provide wide-area lighting on a compact, portable trailer. Four ultra-bright light fixtures at the top of a telescoping mast can be aimed individually. The mast rotates nearly 360 degrees and the lights operate at any height. A winch and cables raise and lower the mast smoothly and easily.

Switches on the control panel turn lights on and off. A power receptacle ("convenience outlet") with its own switch is included for powering external equipment.

Power is provided by a diesel engine. Energy-efficient operation and a large fuel tank ensure long run times.

A weather-resistant enclosure houses the power system, controls, and electronics. A hinged door panel provides easy access. A latch keeps the door closed and accepts a user-supplied padlock.

1.2. Models

1.2.1.	Base model	WLTT compact diesel light tower with a choice of lights and power systems
1.2.2.	Light choices	Four LED fixtures Four metal halide fixtures Two LED balloon lights
1.2.3.	Power system choices	2-cylinder engine with 4kW 60Hz generator 3-cylinder engine with 6kW 60Hz generator 3-cylinder engine with 6kW 50Hz generator 3-cylinder engine with 8kW 60Hz generator

2. FEATURES

2.1. Transport and storage

- Compact design takes up less space when shipped or stored
- Fold-up tow bar reduces footprint when stored
- Up to 18 units fit on a single 53-foot flatbed trailer
- Two units can be tandem towed where allowed (towing regulations vary by region)

2.2. Setup

- Compact design is easy to maneuver and deploy
- Low tongue weight makes it easy to move the trailer by hand with just one person
- Three outriggers and four leveling jacks provide stability when deployed
- Lights can be safely adjusted from the ground, with no need to climb on equipment
- Lights are aimed independently and hold their position without tools
- Single winch raises and lowers the tower smoothly and easily
- Tower rotates nearly 360 degrees, reducing the need to frequently move the trailer
- Tower is the tallest available on a compact light tower
- Lights operate at any height

2.3. Operation

- LED lights are the brightest available on a compact light tower
- All-steel, weather-resistant equipment cabinet protects controls, engine, and other components from the elements
- Hinged door panel with latch provides access to controls, engine, and electronics
- Lockable door latch protects components from unauthorized access
- Switches on control panel for lights and main power
- Control panel features engine hour meter and LED status indicators
- Convenience outlet with dedicated circuit breaker powers auxiliary equipment
- Main power circuit breaker provides added protection and instant-off to prevent engine damage
- Optional auto-start/stop system provides dusk-to-dawn or programmable schedule operation

2.4. Power system

- Rugged industrial diesel engine paired with a premium four-pole generator
- Large fuel tank extends run time between refueling
- Fuel tank is the largest available on a compact light tower
- Glow-plug preheat system improves cold-weather starting
- Optional cold-weather package ensures starting in severe cold
- Automatic engine-shutdown system protects engine from damage due to low oil pressure and high coolant temperature

2.5. Maintenance

- Master power disconnect switch for safe servicing
- Removable top panel and door, and fold-down rear panel, provide unimpeded access to engine, generator, and electrical components
- All-welded structural steel frame ensures durability and long life
- Durable galvanized and powder-coated finishes resist the elements
- Standard trailer tires
- Bolt-on fenders can be replaced if damaged

2.6. Application

Common applications include:

- Roadwork
- Construction
- Special events
- Security
- Emergency response

3. LIGHTS

3.1. Selection options Select one of the following lights at time of order:

350-watt LED
350-watt diffused flood LED
480-watt LED
Metal halide
Balloon lights

Specifications for each type of light provided below

3.2. LED fixtures

3.2.1.	Description	Four high-efficiency LED light fixtures
3.2.2.	Standards	IP67 CE certified EU RoHS compliant
3.2.3.	Luminous flux	
	350W	56,778 lumens per fixture 227,112 lumens total
	350W diffused flood	47,415 lumens per fixture 189,660 lumens total
	480W	74,529 lumens per fixture 298,116 lumens total
3.2.4.	Light color	5000K
3.2.5.	Photometrics	Total coverage at 0.5 foot-candles or greater with lights at 24 feet and four fixtures tilted 15° down from vertical:
	350W	18,768 sq ft (1744 m^2) 0.4309 acre
	350W diffused flood	25,465 sq ft (2365 m^2) 0.5847 acre
	480W	25,128 sq ft (2335 m^2) 0.5769 acre
3.2.6.	Isolines	See Exhibit A for isoline charts
3.2.7.	LED lifetime	50,000 hours

3.2.8.	Power draw	
	350W	350 watts per fixture 1400 watts total
	350W diffused flood	350 watts per fixture 1400 watts total
	480W	480 watts per fixture 1920 watts total
3.2.9.	Input voltage	240 Vac nominal
3.2.10.	Input current	
	350W	3.68 A max. @240V
	350W diffused flood	3.5 A max. @240V
	480W	5.04 A max. @240V
3.2.11.	Temperature limits	
	Operating	–14 to 104°F (–10 to 40°C)
	Storage	–4 to 140°F (–20 to 60°C)
3.2.12.	Housing	
	350W	Heavy-duty housing with glass lenses and integral heat sink
	350W diffused flood	Heavy-duty housing with frosted polycarbonate lenses and integral heat sink
	480W	Heavy-duty housing with glass lenses and integral heat sink
3.2.13.	Fixture size	
	350W	12.8 x 13.9 x 6.5 in (325 x 354 x 164 mm), W x H x D
	350W diffused flood	15.2 x 16.0 x 6.5 in (386 x 405 x 166 mm), W x H x D
	480W	12.8 x 20.6 x 6.2 in (325 x 523 x 158 mm), W x H x D
3.2.14.	Fixture weight	
	350W	19.8 lb (9.0 kg)
	350W diffused flood	22.5 lb (10.2 kg)
	480W	27.8 lb (12.6 kg)
3.2.15.	Mounting brackets	Each light fixture is installed on a swivel bracket that allows the light to be rotated and tilted without tools; tensioning holds lights in place

3.3. Metal halide lights

3.3.1.	Description	Four high-efficiency metal halide lamps in highly reflective elliptical light fixtures
3.3.2.	Lamp	1000-watt HID metal halide lamp, mogul base
3.3.3.	Luminous flux	86,850 lumens per lamp, initial intensity 347,400 lumens total, initial intensity
3.3.4.	Photometrics	Total coverage at 0.5 foot-candles or greater with lights at 24 feet and four fixtures tilted 15° down from vertical: 33,575 sq ft (3120 m²) 0.7707 acre
3.3.5.	Isolines	See Exhibit A for isoline charts
3.3.6.	Power draw	1000 W per fixture 4000 W total
3.3.7.	Input voltage	120 Vac
3.3.8.	Input current	33.33 A
3.3.9.	Fixture	Aluminum housing with reflective interior, lamp retention clip, and protective glass cover with gasket
3.3.10.	Mounting brackets	Each light fixture is installed on a swivel bracket that allows the light to be rotated and tilted without tools; tensioning holds lights in place

3.4. Balloon lights

3.4.1.	Description	Two LED balloon lights, removable from tower for transport and storage Each balloon has a dedicated internal fan; balloon automatically inflates when power to light is on, and deflates when power is off
3.4.2.	Luminous flux	65,000 lumens per balloon 130,000 lumens total
3.4.3.	Light color	5000K
3.4.4.	Light beam angle	360 degrees
3.4.5.	Photometrics	Total coverage at 0.5 foot-candles or greater with two fully inflated balloons and lights at 24 feet: 13,955 sq ft (1295 m²) 0.3203 acre
3.4.6.	Isolines	See Exhibit A for isoline charts

3.4.7.	Power draw	650 W per fixture 1300 W total
3.4.8.	Input voltage	120 Vac
3.4.9.	Input current	5.5 A
3.4.10.	Temperature limits	
	Operating	–22 to 104°F (–30 to 40°C)
	Storage	–40 to 140°F (–40 to 60°C)
3.4.11.	Fan power	53 W @60 Hz 61 W @50 Hz
3.4.12.	Balloon material	Nylon 66
3.4.13.	Balloon size	39.4 x 31.5 in (100 x 80 cm), W x H, inflated balloon on mounting bracket
3.4.14.	Weight	22 lb (10 kg)
3.4.15.	Mounting brackets	Each balloon has a mounting bracket at the base that fits over a welded post on the tower crossbar, secured with a tension-lock
3.4.16.	Protective cover	Each balloon has an integrated nylon cover For transport and storage the cover encases the collapsed balloon and is secured with a string tie at the base During use, the cover easily stows in a zippered pouch at the top of the balloon

4. OUTPUT POWER

4.1.	**Selection options**	Select one of the following power systems at time of order: 4kW 60Hz 6kW 60Hz 6kW 50Hz 8kW 60Hz Specifications for each power system provided below

4.2. 60Hz models

4.2.1.	Power	
	4kW models	4.0 kW
	6kW models	6.0 kW
	8kW models	7.5 kW

4.2.2.	Voltage	120/240 Vac
4.2.3.	Frequency	60 Hz
4.2.4.	Current	50 A @ 115V 25 A @ 230V
4.2.5.	Voltage regulation	±6% no load to full load
4.2.6.	Power outlet	
	4kW models	One 120 Vac 20 A GFCI duplex receptacle
	6kW models	Select one of the following power receptacles (“convenience outlets”) at time of order: One 120 Vac 20 A GFCI duplex receptacle One 240 Vac 30 A twist-lock receptacle
	8kW models	Two power receptacles (“convenience outlets”) are included: One 120 Vac 20 A GFCI duplex receptacle One 240 Vac 30 A twist-lock receptacle

4.3. 50Hz model

4.3.1.	Power	6 kW
4.3.2.	Voltage	115/230 Vac
4.3.3.	Current	50 A @ 115V 25 A @ 230V
4.3.4.	Frequency	50 Hz
4.3.5.	Voltage regulation	±6% no load to full load
4.3.6.	Power outlet selection options	Select one of the following power receptacles (“convenience outlets”) at time of order: Schuko connector Weipu connector

5. CONTROL SYSTEM

See “Options and Optional Equipment” for auto-start/stop controller option

5.1.	**Function**	Allows the operator to start and stop the engine, and switch power on and off

5.2. Control box

5.2.1.	Location	Inside equipment cabinet, accessed at rear of trailer
5.2.2.	Enclosure	Sheet steel construction, powder-coated for durability

5.2.3.	Serviceability	Hinged control panel with single fastener provides access to interior of control box Entire control box is removable for servicing Capacitors for metal halide lights in a discrete enclosure for easy access
5.3.	**Control panel**	
5.3.1.	Power switches	
	Main power	One double-pole circuit breaker toggles power on and off to all circuits
	Lights	Switches toggle power to lights on and off:
	LED fixtures	Two switches, one for each pair of light fixtures
	Metal halide	Four switches, one for each light fixture
	Balloon lights	Two switches, one for each light fixture
	Power outlet	One circuit breaker toggles power to receptacles (“convenience outlet”) on and off
5.3.2.	LED indicators	
	Engine status conditions	Three LED indicators for: High-temperature shutdown Low oil pressure shutdown Engine preheat (glow-plug), 30-second duration
	Custom	One LED (red) can be assigned a customer-specified purpose when specified at time of order
5.3.3.	Key switch	Key switch turns engine on and off; key tied to control panel with plastic lanyard
5.3.4.	Hour meter	Displays cumulative engine operating hours for routine maintenance
5.4.	**Power outlet**	Located on right side of control box
5.5.	**Power disconnect**	Master power switch disconnects battery and generator, for use during servicing

6. TRAILER

6.1.	**Frame**	
6.1.1.	Construction	All welded structural steel
6.1.2.	Tie-downs	Three tie-down loops and four forklift guides for securing trailer during transport and theft prevention during operation
6.1.3.	Hoist ring	One lifting ring allows for hoisting
6.1.4.	Finish	Fully galvanized for corrosion protection and longevity

6.2.	**Fenders**	Round, full wheel coverage, bolted to trailer frame
6.3.	**Axle assembly**	Tubular, 2000 lb (907 kg) capacity, 5 on 4.5" B.C. idler hub See “Options and Optional Equipment” for axle options
6.4.	**Springs**	Double-eye leaf springs, 1200 lb (544.3 kg) capacity for each spring
6.5.	**Tires**	ST175/80R13 radial tires, load rating C
6.6.	**Drawbar**	
6.6.1.	Construction	Hinged on bracket bolted to tower swivel base. Folds up for shipping and storage when needed. Secures up and down with a single locking pin.
6.6.2.	Material	3" (7.62 cm) square steel tubing, 3/16" (0.476 cm) wall
6.6.3.	Tow hitch	Standard 2-inch ball coupler tow-hitch, SAE Class 2, 3500-lb (1588kg) capacity. Bolts to drawbar, removable and replaceable. See “Options and Optional Equipment” for tow-hitch options.
6.6.4.	Tow chains	Two high-test proof coil chain assemblies with clevis slip hooks for towing Chains are attached with quick connectors to welded loops on drawbar
6.7.	**Leveling jacks**	Four removable swivel jacks, each with 2000 lb (907 kg) capacity, steel footpad; two jacks mounting to outriggers at front of trailer, one jack on outrigger at rear of trailer, and one jack on drawbar
6.8.	**Outriggers**	Three telescoping outriggers (jack extensions) expand trailer footprint and add stability when deployed. Two outriggers located at front corners of trailer and one at rear center.
6.9.	**Wind resistance**	In the deployed position, the maximum sustainable wind speed before overturning, when supported by the standard jack stands with outriggers extended, is 75 mph (120 km/h) Under the same conditions, the wind gust rating is 97 mph (156 km/h)
6.10.	**Taillights**	Two oval, sealed, combination stop, turn and taillights in back panel of equipment cabinet; each light held in place and sealed externally with snap-in rubber grommet See “Options and Optional Equipment” for LED taillights
6.11.	**License plate**	License plate holder with light is mounted on rear panel of equipment cabinet
6.12.	**Wiring**	
6.12.1.	Trailer plug	A sealed, molded, 4-square connector plugs into harness under trailer
6.12.2.	Tow-vehicle plug	Two-piece assembly with 4-flat molded connector on harness plugs into tow vehicle Meets SAE J1239 See “Options and Optional Equipment” for tow-vehicle plug options

6.12.3.	Protection	All trailer wiring encased in protective sheathing, attached with P-clamps riveted to trailer frame; no exposed wires
6.13.	**Tower assembly**	
6.13.1.	Function	Lights are raised and lowered on a telescoping vertical tower
6.13.2.	Tower construction	Five sections, four square steel tubing and one round section, each with a successively smaller circumference, telescope inside the adjacent sections below. Each section is supported by a single cable that loops to the next larger tower section. Guide blocks keep the sections tight, eliminating the need for greasing the tower and preventing dirt from building up on the inner tower sections.
6.13.3.	Swivel base	A steel weldment is bolted to the trailer frame. The bottom tower section rotates on a thrust bearing and washers inside the swivel base, reducing rotating friction.
6.13.4.	Lights crossbar	Crossbar supports four light fixtures on swivel brackets during operation and transport
6.13.5.	Finish	All tower sections are treated for corrosion resistance
6.13.6.	Wiring	Durable coiled cord electrical cable for lights is attached to tower, extends with raised tower and returns fully to coil when tower is telescoped down
6.13.7.	Winch assembly	
	Function	Hand-operated winch and cables raise and lower tower See “Options and Optional Equipment” for power winch and hydraulic lift options
	Capacity	1500 lb (680 kg)
	Brake	Safety friction-brake prevents tower from falling if operator loses grip on winch handle
	Cable	1/4" (6.35 mm) diameter galvanized aircraft cable
6.13.8.	Rotation	Tower assembly rotates by hand, pivoting nearly 360 degrees; tower includes two handles for gripping while rotating
6.13.9.	Rotation lock	Tensioning handle locks tower rotation
6.14.	**Equipment cabinet**	
6.14.1.	Construction	Bolted all-steel construction Material: 14ga formed sheet steel; zinc-plated for rust prevention, plated prior to forming
6.14.2.	Door panel	Rear door provides access to interior Door is hinged at top; door-holder catch keeps door open, preventing injury Slam-latch keeps door closed and can accept user-supplied padlock
6.14.3.	Radiator panel	Dedicated hinged panel provides easy access to radiator cap for refilling coolant

6.14.4.	Finish	Cabinet panels are coated with oven-baked, safety orange, powder-coat finish to ensure durability and corrosion protection prior to assembly. Parts are run through a five-stage, high-pressure phosphate wash prior to application of the finish coat. See "Options and Optional Equipment" for color options.
6.14.5.	Serviceability	Top panel and door can be removed from the cabinet, and the back panel can be folded down, providing unimpeded access to engine, generator, and electrical components

7. POWER SYSTEM

7.1.	**Selection options**	Select one of the following power systems at time of order: 4kW 60Hz 6kW 60Hz 6kW 50Hz 8kW 60Hz Specifications for each power system provided below

7.2. 4kW 60Hz system

7.2.1.	Engine type	Tier 4 Final diesel, 2-cylinder, 4-cycle, liquid cooled	
7.2.2.	Engine speed	1800 rpm	
7.2.3.	Engine model selection options	Select one of the following engines at time of order: Mitsubishi L2E Kubota Z482 Specifications for each engine provided below	
	Mitsubishi L2E	Model	MVL2E
		Max. power output	9.0 hp (6.7 kW)
		Displacement	38.75 in^3 (635 cm^3)
	Kubota Z482	Model	Z482-E4BG
		Max. power output	5.6 hp (4.2 kW)
		Displacement	29.20 in^3 (479 cm^3)
7.2.4.	Generator		
	Model	Mecc Alte LT3N-75/4	
	Type	Brushless	
	Insulation	Class H	

7.3. 6kW 60Hz system

7.3.1.	Engine type	Tier 4 Final diesel, 3-cylinder, 4-cycle, liquid cooled	
7.3.2.	Engine speed	1800 rpm	
7.3.3.	Engine model selection options	Select one of the following engines at time of order: Mitsubishi L3E Kubota D1005 Kubota D1105	
		Specifications for each engine provided below	
	Mitsubishi L3E	Model	L3E
		Max. power output	12.2 hp (9.1 kW)
		Displacement	58.09 in^3 (952 cm^3)
	Kubota D1005	Model	D1005-E4-BG
		Max. power output	13.1 hp (9.8 kW)
		Displacement	61.08 in^3 (1001 cm^3)
	Kubota D1105	Model	D1105-E4-BG
		Max. power output	15.4 hp (11.5 kW)
		Displacement	68.53 in^3 (1123 cm^3)
7.3.4.	Generator	Model	Mecc Alte LT3N-100/4
		Type	Brushless
		Insulation	Class H

7.4. 6kW 50Hz system

7.4.1.	Engine		
	Type	Tier 4 Final diesel, 3-cylinder, 4-cycle, liquid cooled	
	Speed	1500 rpm	
	Model	Kubota D1105-E4-BG	
	Max. power output	12.75 hp (9.5 kW)	
	Displacement	68.53 in^3 (1123 cm^3)	

7.4.2.	Generator	
	Model	Mecc Alte LT3N-130/4
	Type	Brushless
	Insulation	Class H
7.5.	**8kW 60Hz system**	
7.5.1.	Engine	
	Type	Tier 4 Final diesel, 3-cylinder, 4-cycle, liquid cooled
	Speed	1800 rpm
	Model	D1105-E4-BG
	Max. power output	15.4 hp (11.5 kW)
	Displacement	68.53 in^3 (1123 cm^3)
7.5.2.	Generator	
	Model	Mecc Alte LT3N-130/4
	Type	Brushless
	Insulation	Class H
7.6.	**Start battery**	Maintenance-free AGM 12 Vdc, 575 CCA
7.7.	**Sound level**	68 dB @ 23 ft (7m) at max. load
7.8.	**Fuel tank capacity**	60 gal (227 L)
7.9.	**Fuel consumption**	
7.9.1.	350-watt LED lights	
	Mitsubishi 2LE	0.19 gal/hr (0.719 L/h)
	Other engines	0.25 gal/hr (0.946 L/h)
7.9.2.	480-watt LED lights	0.31 gal/hr (1.17 L/h)
7.9.3.	Metal halide lights	0.49 gal/hr (1.86 L/h)
7.9.4.	Balloon lights	0.25 gal/hr (0.946 L/h)

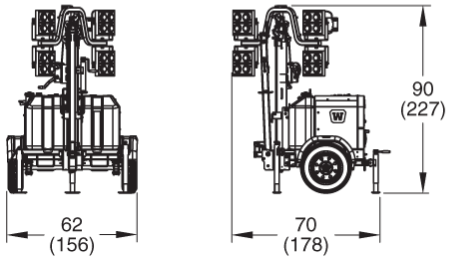
7.10. Run time

7.10.1.	350-watt LED lights	
	Mitsubishi 2LE	Approx. 311 hours
	Other engines	Approx. 240 hours
7.10.2.	480-watt LED lights	Approx. 190 hours
7.10.3.	Metal halide lights	Approx. 120 hours
7.10.4.	Balloon lights	Approx. 240 hours

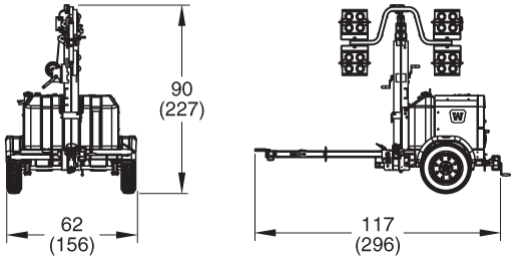
8. DIMENSIONS & WEIGHT

8.1. Dimensions *inches (cm)*

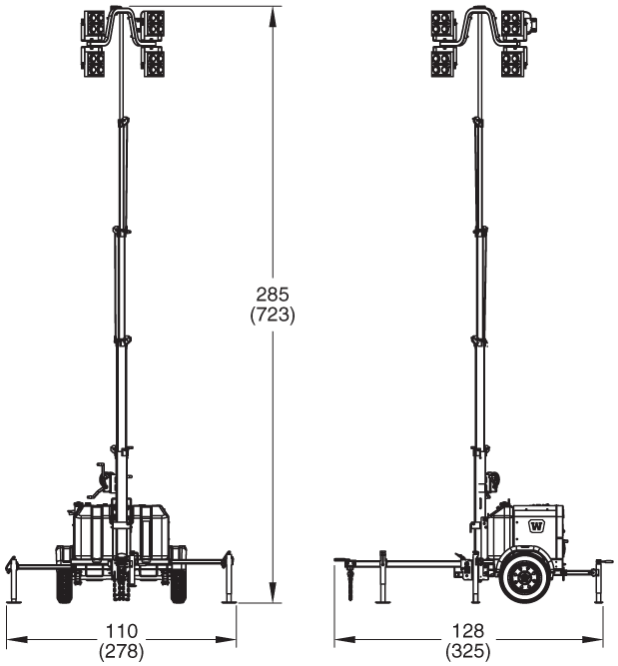
Storage Position



Travel Position



Deployed



8.2. Operating weight Approx. 1965 lb (891kg)

8.3. Shipping weight Approx. 1580 lb (717kg)

8.4. Tongue weight 80 lb (36 kg)

9. OPTIONS AND OPTIONAL EQUIPMENT

9.1. Transport options

9.1.1.	Axle	
	Description	Replace standard axle with heavy-duty axle
	Options	Heavy axle, tubular, 3500 lb (1587.6kg) capacity, 5 on 4.5" B.C. idler hub
		Torsion axle, tubular, 2800 lb (1270kg) capacity, 5 on 4.5" B.C. idler hub
9.1.2.	Tow hitch	
	Description	Replace standard tow hitch with optional hitch
	Options	Combo-hitch with 2-inch ball and standard lunette ring for pintle hook, 2½" ID x 1" cross-section
		Standard lunette ring for pintle hook, 2½" ID x 1" cross-section
		Heavy-duty lunette ring for pintle hook, 3" ID x 1⅝" cross-section
9.1.3.	Tow-vehicle plug	Many types of plugs available, prewired at the factory; contact factory for details
9.1.4.	LED taillights	Replace standard taillights with sealed LED taillights

9.2. Functional options

9.2.1.	Power winch	Power-operated winch replaces manual winch for raising and lowering tower. Includes manual winch handle for use in the event of system power failure.
		Adds toggle switch to control panel for up/down operation.
9.2.2.	Hydraulic tower	Tower with integrated hydraulic lift replaces standard tower and swivel base. Mechanism at top of tower rotates nearly 360 degrees; tower does not rotate.
		Adds toggle switch to control panel for up/down operation.
9.2.3.	Auto-start/stop controller	Electronic controller allows for dusk-to-dawn light tower operation, user-programmed schedule operation, or manual operation. Replaces status LEDs and hour meter on control panel.
	Model	Deep Sea Electronics DSEL401 MKII
	Features	Large backlit icon LCD screen
		Automatic and manual control of lights and output power
		Power system status monitoring and displayed alarms
		Generator/load power monitoring (kW, kV A, kV Ar, pf)
		Generator/load current monitoring and protection
		When paired with optional electronic fuel sensor, automatically shuts down engine before fuel line runs dry

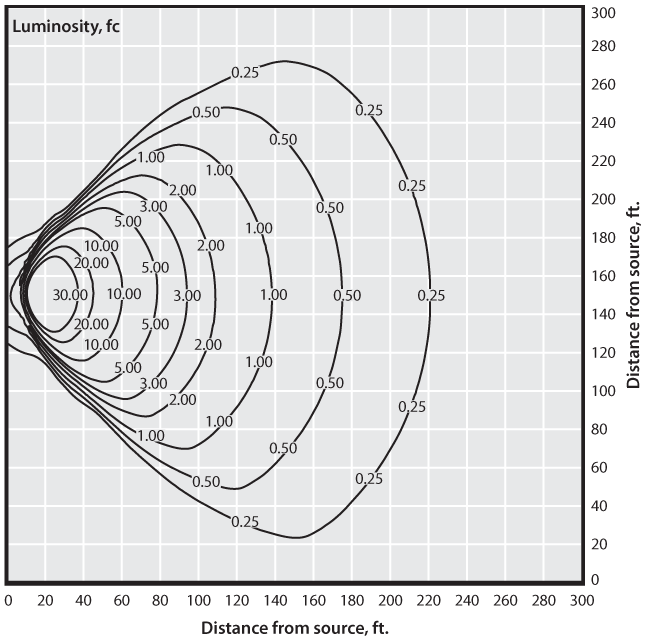
9.3. Power system options

9.3.1.	Utility power	Add the option to run the lights on shore power by plugging the light tower into a common wall outlet, providing silent operation Includes a standard 120 Vac plug for a user-supplied extension cord
9.3.2.	Battery power	Hybrid power system uses rechargeable lithium-ion batteries to power the lights and a diesel genset to charge the battery Specifications for this option are provided in a separate document
9.3.3.	Electronic fuel sensor	Electronic fuel sensor provides fuel level to auto-start/stop controller, enabling it to automatically shut down the engine before fuel runs dry; the fuel level can be viewed on the controller display screen Requires upgrade to auto-start/stop controller
9.3.4.	Cold weather package	Extends power system low operating temperature to –20°F (–29°C) Includes oil pan heater, block heater, and battery blanket for improved starting in cold climates
9.3.5.	Emergency shutdown	Large emergency-stop button on exterior of equipment bay for quick, manual engine shutdown
9.3.6.	Air shutoff kit	Air-intake shutoff valve for manual engine shutdown, useful in environments where combustible gas may be present
9.3.7.	Locking fuel cap	Locking cap for fuel tank replaces standard cap

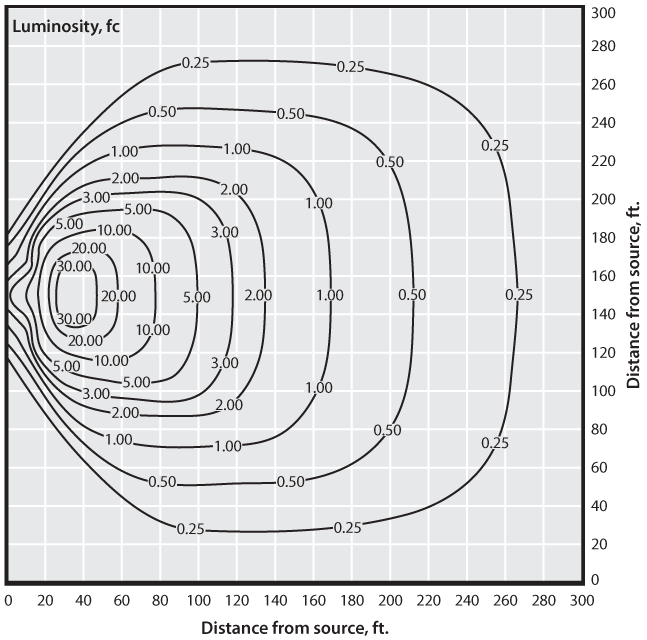
EXHIBIT A: ISOLINE CHARTS

Four light fixtures on a single 24-foot tower, lights tilted 15° down from vertical

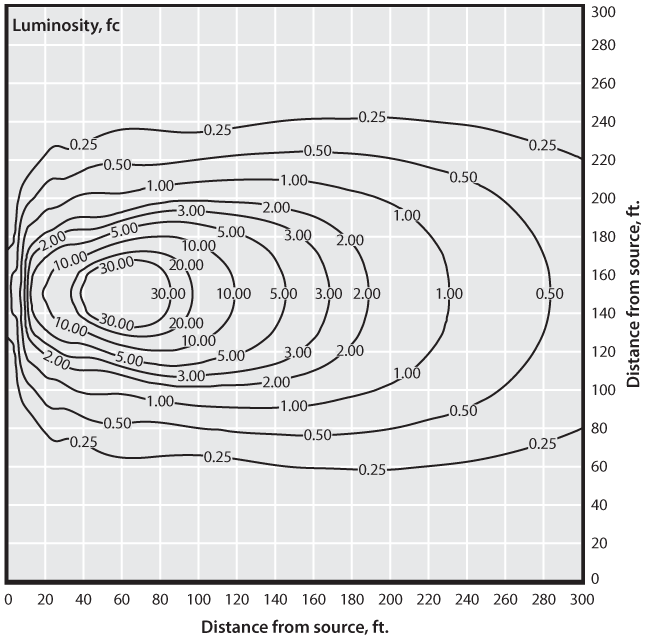
350 watt LED fixtures



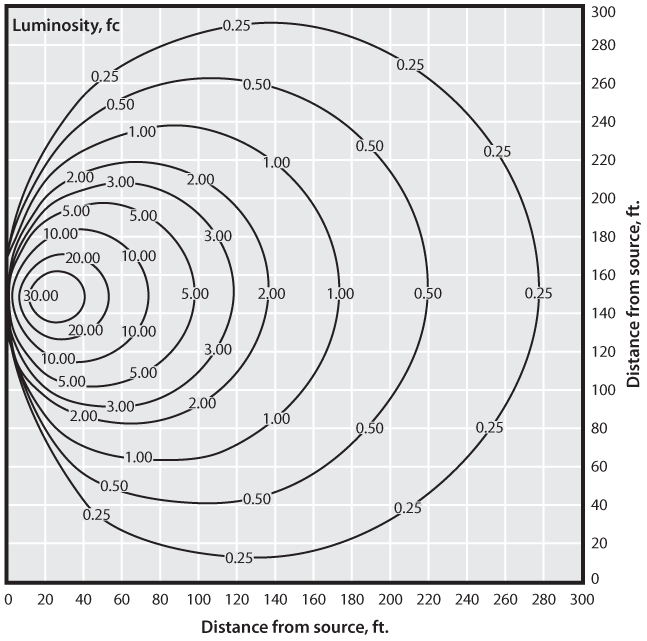
350 watt diffused LED flood



480 watt LED fixtures



1000 watt metal halide fixtures



Two balloon lights on a single 24-foot tower, 360-dgree coverage

650 watt LED balloon lights