



## Alaunus — Portable Solar Light towers (PSLT)

Superb working light visibility for any environment



### Key Features

30' collapsible tower

600-1200 Watt Solar Array

240-300 Watt LED System

21,000 to 40,000 Lumens

MPPT Charge Controller

900-1500 AH AGM Battery Bank

2000 watt AC Inverter

100 Amp Rapid Charge connection

Designed as a low voltage LED Light Tower, the **Portable Solar Light Tower** introduces a difference in night-time lighting. Green, efficient, and noiseless lighting can be placed nearly anywhere and is self maintaining.

Alaunus trailers offer three models to fit different budgets and needs. All are rugged systems designed to withstand heavy rain and wind, occupy a smaller area than most vehicles, and can be placed by hand if necessary.

The trailers operate with no noise, unlike diesel generators. No need for refueling, oil changes, air filters, or scheduled maintenance. The battery bank is charged by the sun creating no pollution and means there are no mechanical parts that wear out.

The LED lights are efficient and allow long operating hours. Compared with metal-halide lights used by generator systems, LEDs have a longer life-time and produce less heat, meaning less energy wasted. Depending on lighting needs, the lights come in varying coverage areas: tighter SPOT lights for more precise lighting, or broader FLOOD lights for a wider effect.

Alaunus has an extending/rotating tower. The "T" top allows for varying lights to be installed. The tower rotates 355° allowing the trailer to stay in place while being able to direct the lights where they are needed.

The trailers house a "wing" design for the solar panels. This design yields a smaller stowing and traveling footprint, but a larger deployed surface area than static horizontal panels. Extendable feet ensure a solid base for placement on irregular surfaces.

In the event of multiple days of low sunlight and high usage, an onboard charger can be plugged into any 110 VAC power source via an extension cord to recharge the system. The charger also acts as an inverter to produce clean 110 VAC for low-power equipment.



### Trailer

Height	76" (Mast Down) / 32' (Mast Up)
Width	60"
Length	157" (Mast Down) / 111" (Mast UP)
Weight	2000 Lbs.
Wind resistance deployed	75 MPH

### Solar Panel (Per Panel)

Rated Power	160 Watts	Temp Coefficient Isc	(0.10 +/- 0.01)%/ °C
Voc	22.41 Volts	Temp Coefficient Voc	-(0.38 +/- 0.01)%/ °C
Vop	17.9 Volts	Temp Coefficient Power VOC	-0.47%/ °C
Isc	9.87 Amps	Temperature Range	-40°C to +80°C
Iop	8.89 Amps	Frame	Heavy Aluminum
Output Tolerance	+/- 3%	Nominal Battery Voltage	12 Volts
Dimensions	26.3" x 57.3" x 1.38"	Weight	28.7 Lbs.

### Power

Batteries	6v-300/380AH AGM (900, 1200, 1500 AH total)
Nominal Voltage	12 VDC
Operating time in overcast conditions	100, 125, 140 Hours

### Power Inverter / Charger

2000 Watts continuous power output  
 4.5 kW surge rating (5 secs.)  
 110 VAC / 60 Hz True Sine Wave AC Output  
 Provides up to 18 Amps  
 Thermal protection / Overload shutdown

### LED Lighting

Voltage: 9-48 VDC	Lamp Type: Seoul Z-power LEDs
Power Draw: 240, 270, 300 Watts	Preprogrammed LED Drivers
Lumens: 21600, 24300, 39000	Solid State Thermal Management
Ambient Op Temp -40C to 85C	Lighting Configuration: 10° Spot or 35° Flood
Mounting: Trunnion	Optics Efficiency: 88%
LED Light Color: 6000K	Materials: Machined Aluminum Housing, Polycarbonate Lens
LED Life Expectancy: 50,000 hours	Housing Colors: Black, White, Tan, Olive

**Note: When listed values are separated by commas they refer to the 900, 1200, and 1500 models, respectively)**



## Alaunus Portable Solar Light Towers

The Alaunus Series trailer is designed around the same base system, but allows for different configurations depending on the power needed. The trailers are designated by the battery bank installed: 900, 1200, and 1500. Each trailer is equipped with a larger bank of batteries and solar panels than the last to provide sufficient power for brighter lights.

Model:	<b>Alaunus 900</b>	<b>Alaunus 1200</b>	<b>Alaunus 1500</b>
Batteries:	6 x 6V @ 300AH (900AH @ 12VDC)	8 x 6V @ 300AH (1200AH @ 12VDC)	8 x 6V @ 380AH (1520AH @ 12VDC)
PV Array:	4 x 160W (640W)	6 x 160W (960W)	8 x 160W (1280W)
Lights:	2 x 120W (240W) 21,600 Lumens	3 x 90W (270W) 24,300 Lumens	2 x 150W (300W) 39,000 Lumens





## Alaunis - PSLT cost comparison

### Diesel Light Tower vs. Solar Light Tower

**Solar Light Towers will save 34% over the cost of operating Diesel Light towers the first year. Over five years the savings is over 75%.**

Current Cost of Diesel Fuel per Gallon	\$3.00
Hours of Operation per Night	10
Days of Operation per Week	5
Number of Months in Use	12
Diesel Fueling costs (includes fuel cost plus re-fueling labor)	\$ 11,691.00
Oil change every 200hrs (assumes \$40 parts/labor)	\$ 519.60
Air filter change every 300hrs (assumes \$40 parts/labor)	\$ 346.40
4 ea. - Light Bulb Changes every 3,000hrs (assumes \$400 parts/labor)	\$ 207.84
Winterize (coolant & fuel additives) 1x/yr. assumes \$100 parts/labor)	\$ 100.00
Cost of Diesel Light Tower	\$ 9,500.00
Operating Cost of Diesel Light Tower per Year	\$ 12,864.84
Net Cost of Diesel Light Tower	\$ 22,364.84
Cost of Solar Light Tower	\$ 21,000.00
Operating Cost of Solar Light Tower per Year	\$ -
Federal Tax Credit (30% of Purchase Price)	\$ (6,300.00)
~Cost of Alaunus Solar Light Tower	\$ 14,700.00
Total Cost for Diesel Light Tower (Year 1)	\$ 22,364.84
Total Cost of Alaunus Solar Light Tower (Year 1)	\$ 14,700.00
Net Savings with Solar Light Tower (Year 1)	\$ 7,664.84
Savings first year	<b>34.27%</b>
Total Cost for Diesel Light Tower (5 years)	\$ 111,824.20
Total Cost of Solar Light Tower w/ battery replacement (5 years)	\$ 24,400.00
Net Savings with Alaunus Solar Light Tower (5 Years)	\$ 87,424.20
Percentage Savings over Five (5) Year Period	<b>78.18%</b>

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