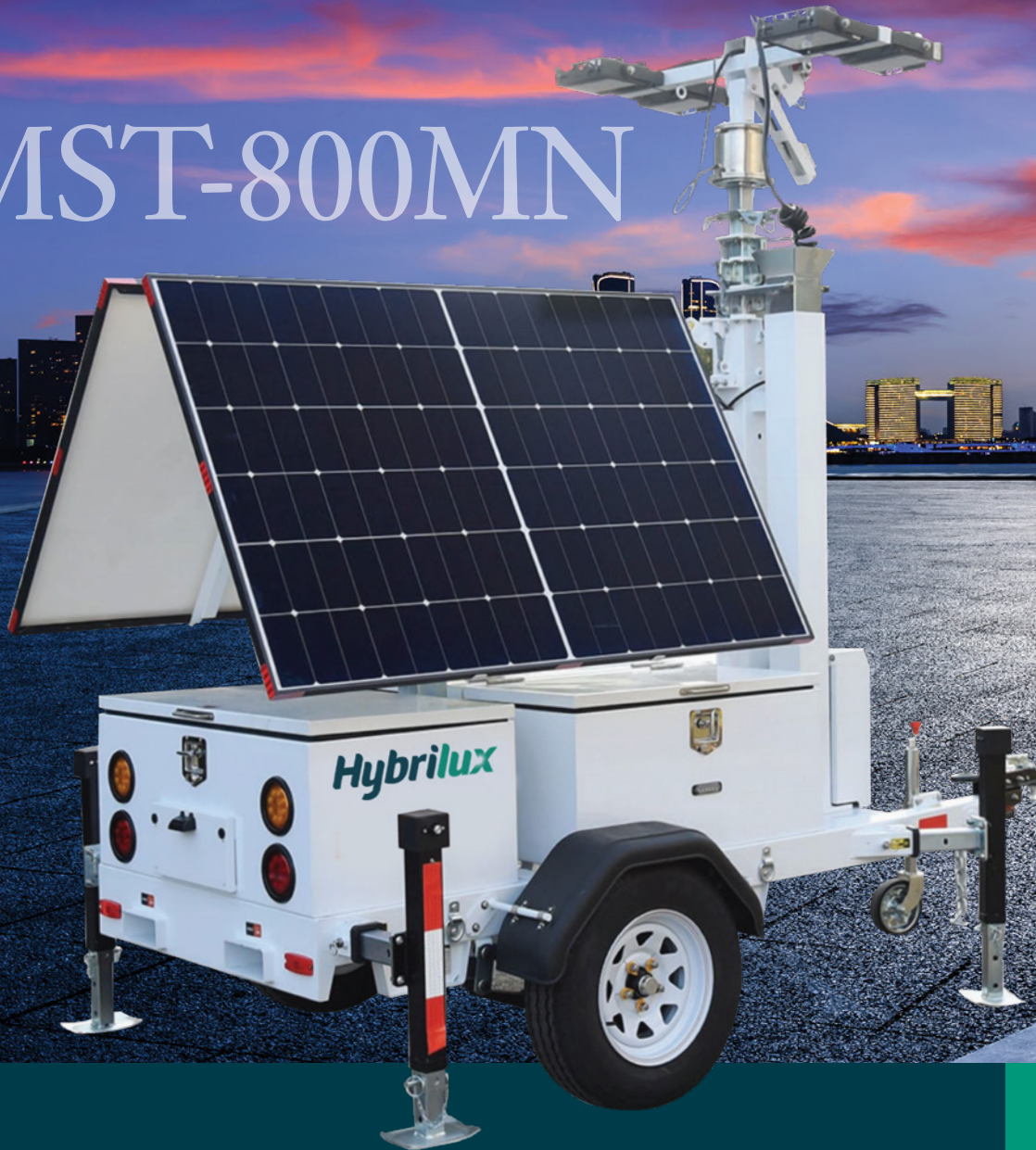


Hybrilux

Magnus Solar Light Tower

MST-800MN



Our
Solar Light Towers
can be fully
customized with
your company's
color and logo.

The Magnus WW-800M Solar Light Tower (shown here) provides bright, energy-efficient lighting solution. Powered by free renewable energy from the sun, in conjunction with heavy-duty LED light fixtures, it can be used in moderate to heavy lighting applications where a diesel, gas, or electric generator-powered light tower is needed.

POWERED BY FREE RENEWABLE ENERGY FROM THE SUN



Zero
Emission



200lm/w
up to 80,000lm



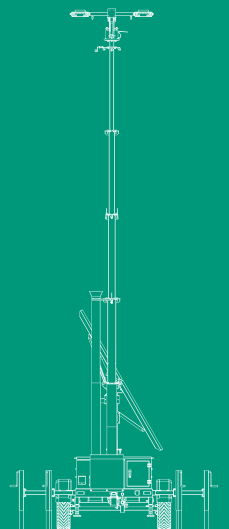
Dimmable



Easy
Installation



Adjustable
Solar Array



Hybrilux[®] Magnus MST-800MN Solar Light Tower

The Magnus Solar Light Tower comes with a compact trailer, fixed-brightness LED lights, and 21-foot masts.

- Four heavy-duty LED fixtures allow brightness adjustment from 25% to 100%. Each light can be aimed individually without tools and remains securely positioned. Choose between 100W and 200W settings, delivering up to 160,000 lumens.
 - To extend battery life, the control panel offers multiple options, including automatic dusk-to-dawn operation and selectable run times from 1 to 12 hours. The advanced MPPT controller increases charging efficiency by up to 30%, utilizing every available amp.
 - The 'Electric Mast Operating Safety System' enhances safety while minimizing operational demands.
 - With its electric rotating solar panel, the system ensures superior power efficiency for dependable performance and extended runtime.
 - Easy-to-read meters provide local access to monitor all power performance details.
-



Hybrilux Magnus MST-800MN Solar Light Tower

Features

- Zero emissions, no fuel usage, and no electricity bills.
- 200 lumens per watt, delivering up to 80,000 lumens.
- Dusk-to-dawn functionality via photocell.
- Minimal maintenance with no engine, alternator, or fuel required.
- Automatic and manual modes, including power-saving options.
- Adjustable-tilt solar array for optimal sun exposure.
- Rechargeable with standard 120V charging option.
- Dimmable LED lights that can be individually directed.
- Electric mast with an integrated safety system.
- Maintenance-free sealed batteries.



Applications

Construction Sites:

Our innovative, silent, zero-emission, off-grid portable solar light tower is transforming the construction industry. It efficiently lights up your workspace while enhancing security—all without the need for fuel.

Disaster Relief:

In disaster situations, the ability to rapidly provide emergency lighting is crucial for saving lives and reducing damage.

Night Traffic Emergencies:

These high-intensity, vehicle-mounted telescoping light towers deliver the essential illumination for safely conducting nighttime rescue, disaster relief, and investigative operations.

Mining:

Light towers are an indispensable asset in mining, serving as crucial equipment for ensuring continuous operations.

Film & Television Industry:

The Portable & Mobile Solar Light Tower provides zero-emission, quiet lighting, ideal for film and television production sets.

Outdoor Events:

Light towers make it easier than ever to stage events by offering reliable security and illumination.

Utility Companies:

Solar Light Towers offer utility companies a fuel-free solution for a wide range of operational needs.

Hybrilux Magnus MST-800MN Solar Light Tower

Control Panel Features

- Programmable Solar Light Towers
- Exceptional Programmability
- Automatic and Manual operation modes
- Simple on/off controls

On-board Control Panel for power system

Our Magnus Solar Tower offers a number of choices for power system monitoring and management.



START

Simple ON/OFF



PANEL ANGLE

Panel Angle

Adjustments of the solar panel angle via the "panel angle" switch.



MAST

Mast

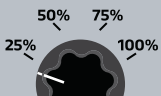
This is an Electric Mast Operating Safety System. The height of the mast can be adjusted by pushing the "MAST" button.



POWER MONITOR

Power Monitor

Easy-to-read meters give local access to view all the power performance information.



DIMMING

Dimmable from 25% to 100%

Lights are dimmable with different brightness at 25%, 50%, 75% and 100%



TIMER

Timer Control Module

The control is equipped with automatic ON/OFF from dusk to dawn and stable run times from 1 to 12 hours.



OFF

Select Lights to Control

Synchronize control two lights. The left switch controls the left two lights, and the right one controls the right two lights.



ROTATION

Tilt

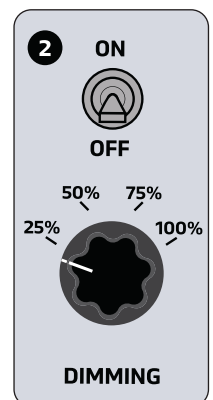
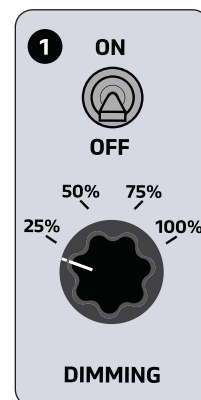
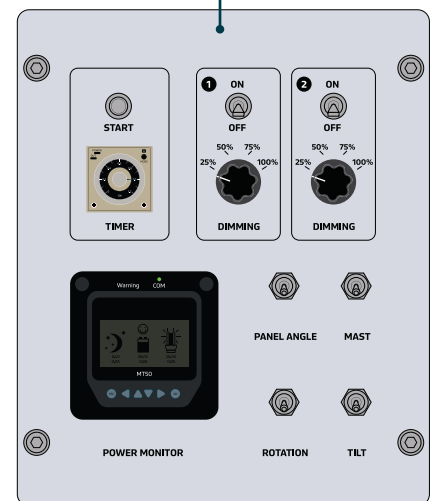
The LED lights can be tilted at 90 degrees.



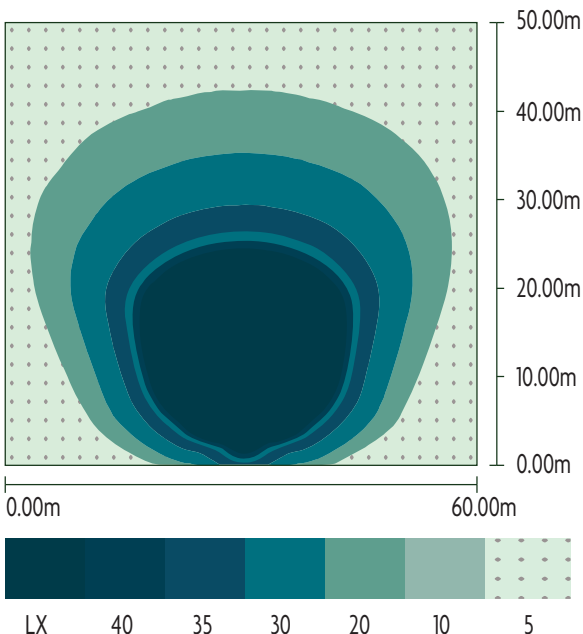
TILT

Rotation

The LED lights can be adjusted at 360 degrees.

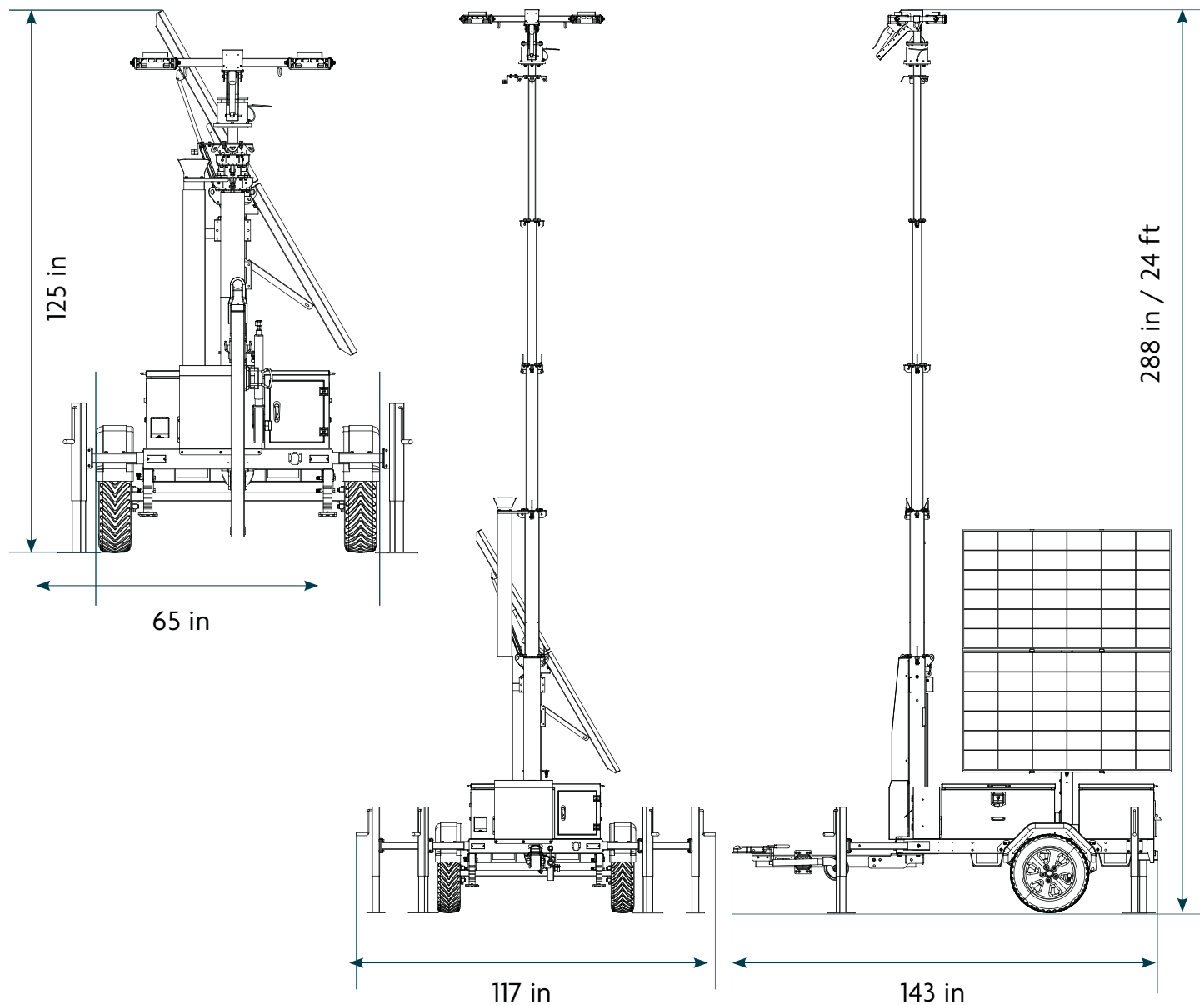


The Magnus MST-800MN Solar Light Tower provides bright, energy-efficient lighting solution powered by free renewable energy from the sun. It can be used in moderate to heavy lighting applications where a diesel, gas, or electric generator-powered light tower is needed.

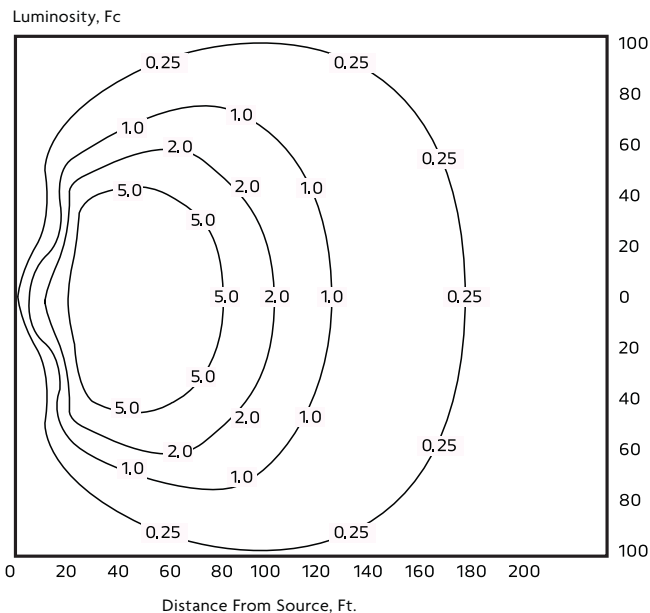
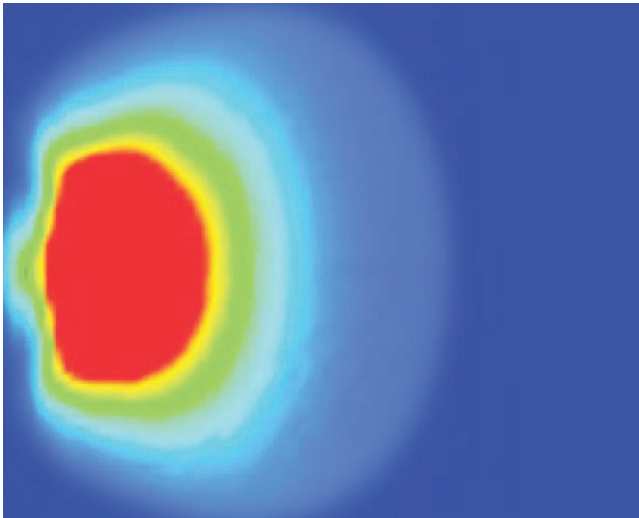


SPECIFICATIONS	
Coverage Area	35,000 ft ²
Light	4 X 100W adjustable LED light fixtures
Luminous Flux	20,000 lumens per fixture, 80,000 total lumens
Battery Capacity	4 X 200Ah, DC12V, 9600Wh
Brightness (25%)	76 hours
Brightness (50%)	38 hours
Brightness (75%)	25 hours
Brightness (100%)	19.2 hours
Batteries:	GEL (Charging Temp. -20°C/-4°F to 50°C/122°F)
Winch	Electric Lifting
Charging Time:	9 hours by Solar, 5 hours by AC
AC Charger	2.5kW / 2.5kVA, AC120V, external plug
Deployed Footprint	143 X 65in (362 X 165cm), L X W
Weight Approx.	1984lb (900kg)
Solar Panel	
Type	Mono Crystal Silicon
Quantity	2
Wattage	2 X 435W, Rotate and tilt
Mast	
Height	24 feet (7.3m) fully extended; lights operate at any height
Sections	5
Trailer	
Tire	2 X 14" rim
Tow Hitch	2" ball
Axle	Single Suspension
Outrigger	4 X Manual Galvanized
Warranty	1 Year

Dimensions:

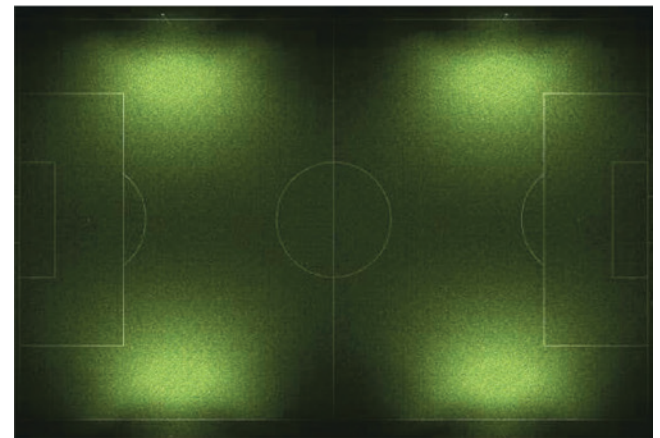
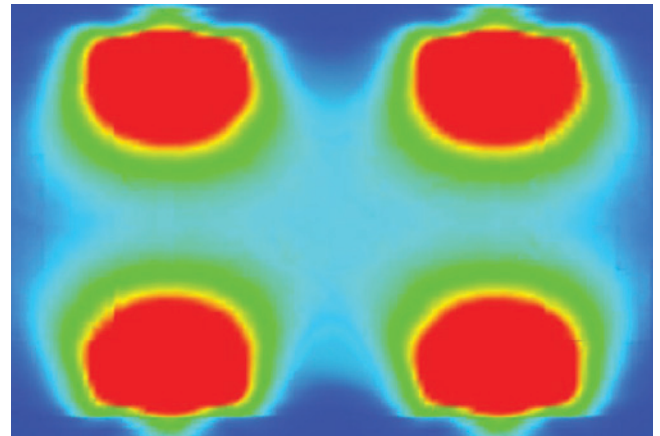


Light	Single tower Isolines
Light Height	24 ft.
Lighting Area	200 X 200 ft.
Total acreage	0.92
Illuminance	1.78 fc Average across area at 100%



Light	4 towers on a soccer field
Light Height	24 ft.
Lighting Area	380 X 260 ft.
Total acreage	2.27
Illuminance	3.08 fc Average across area at 100%

Average Illuminance, Fc



Typical recommended light levels based on Illuminating Engineering Society (IES) documents except where noted:

General Construction:	10 fc.
Self-Parking:	1 fc.
Active Industrial Yards:	5 fc.

Haul Roads:	0.5 to 1 fc.
Flagger:	5 fc. (per MUTCD)
Quarries & Pit Mines:	5 fc.

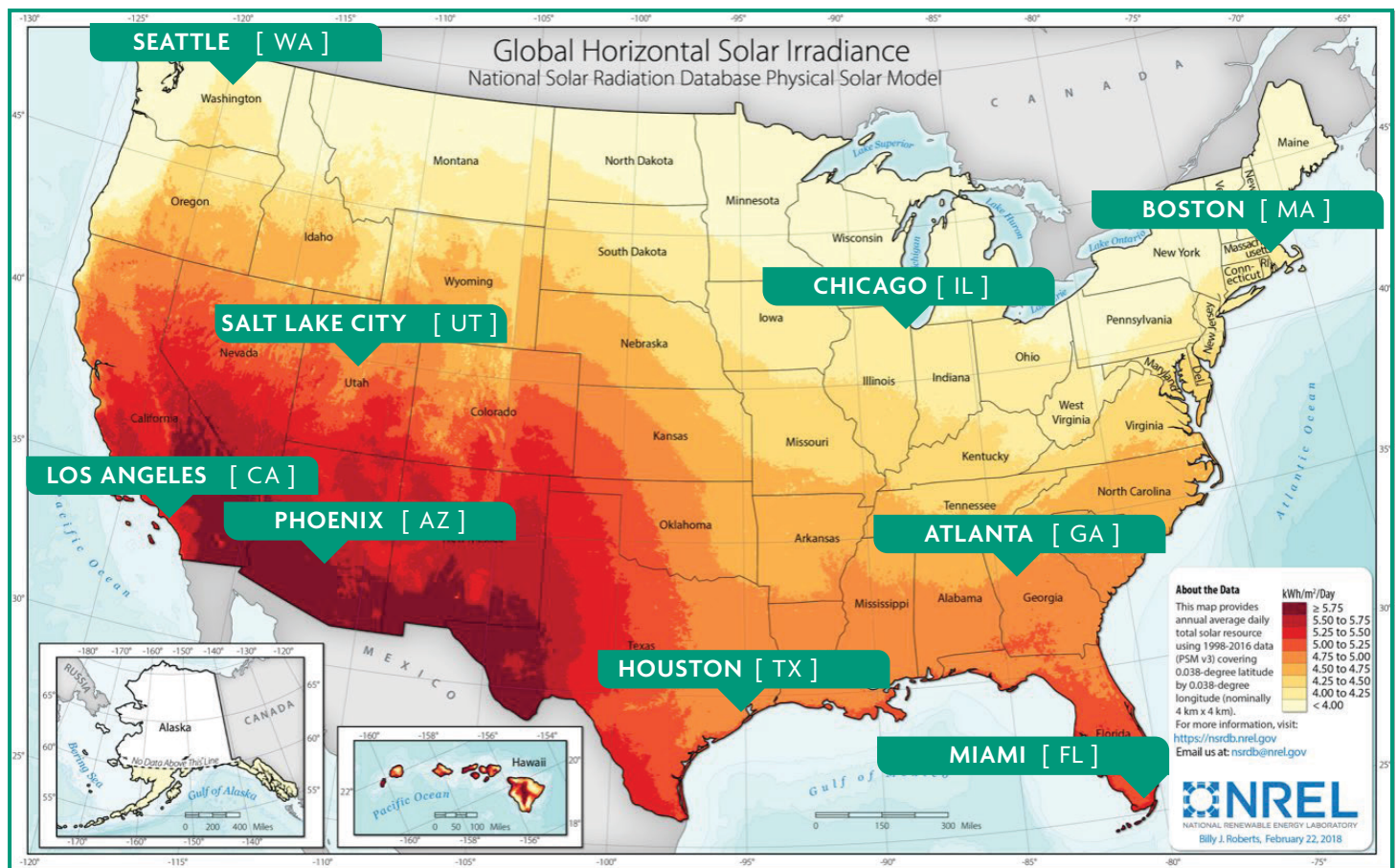


SOLAR YIELD VS DEMAND

The Magnus Solar Light Tower features exceptional charging efficiency for consistent performance and extended runtime. Powered by batteries, its automated solar charging system ensures the batteries stay charged. The advanced MPPT controller boosts charging capacity by 30%, making the most of every available amp for peak efficiency. When solar energy production exceeds the light's energy needs, autonomous operation is possible. However, when energy demand surpasses solar output, external charging is necessary.

In this solar light tower performance chart, the Hybrilux team selected nine major cities in the U.S. to show how environmental temperature and seasonal variation impact the charging performance.

The charts shown are representative of dusk-to-dawn operation, 7 days a week.



1000W/m²/day—US Photovoltaic Average Per Day

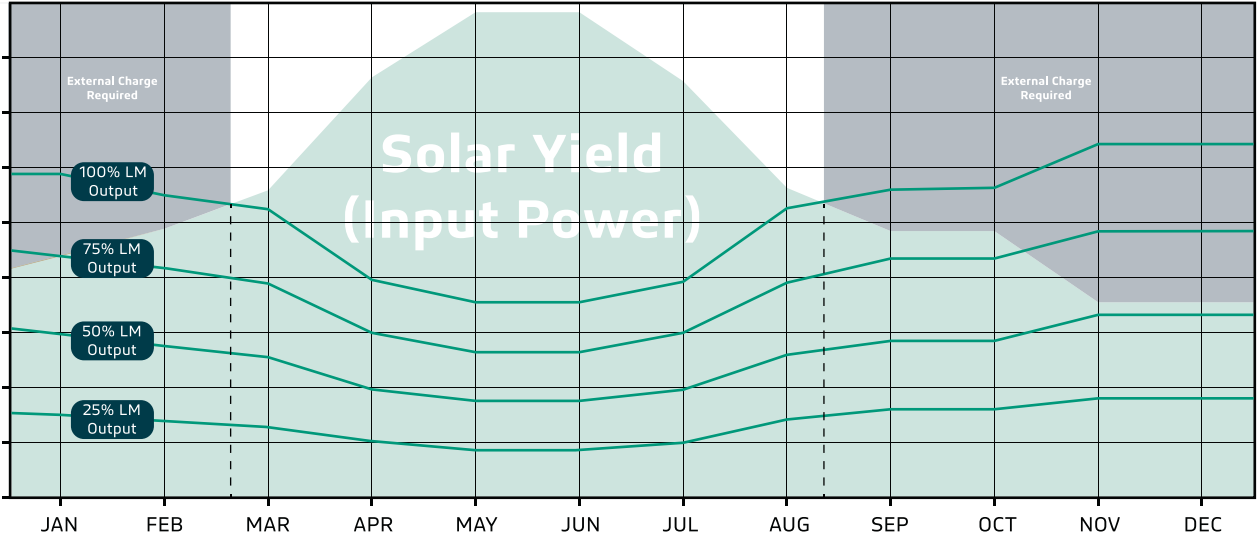
NOTE: This infographic displays solar insolation values for the capital city in each US State. The actual value for your project will vary depending on location. Sun hours are calculated assuming a south-facing panel at 45 degree tilt and winter sun hours.

Annual average solar resource data is shown for a tilt-latitude collector. The data for Hawaii and the 48 contiguous states is a 10km, satellite model dataset (SUNY/NREL, 2018). The data for Alaska is a 40km dataset produced by the Climatological Solar Radiation Model (NREL, 2018).

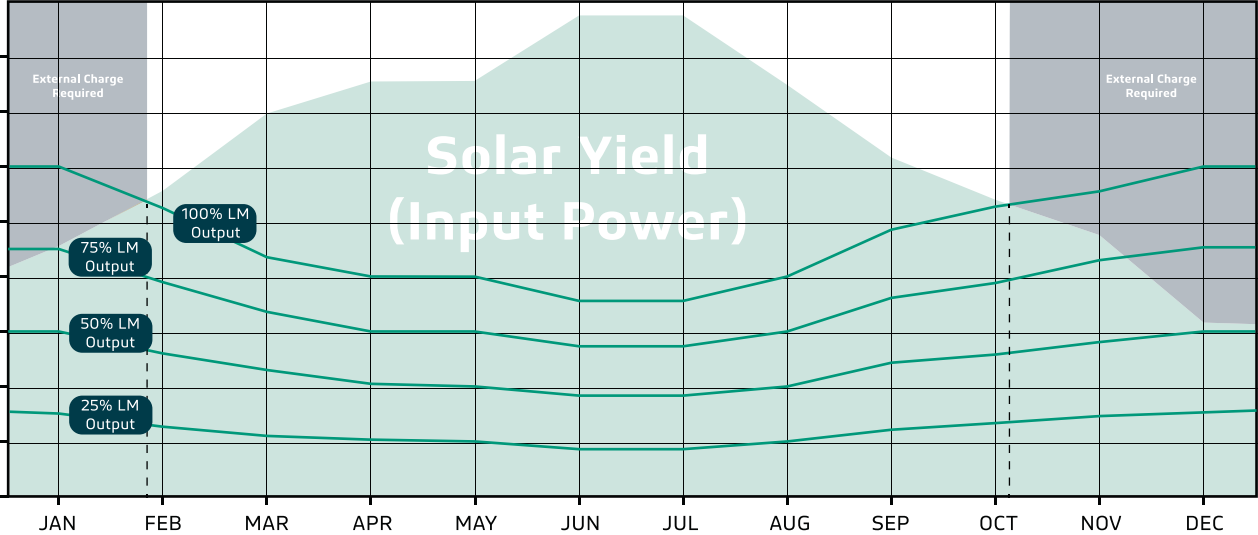
Hybrilux

| SOLAR YIELD VS DEMAND

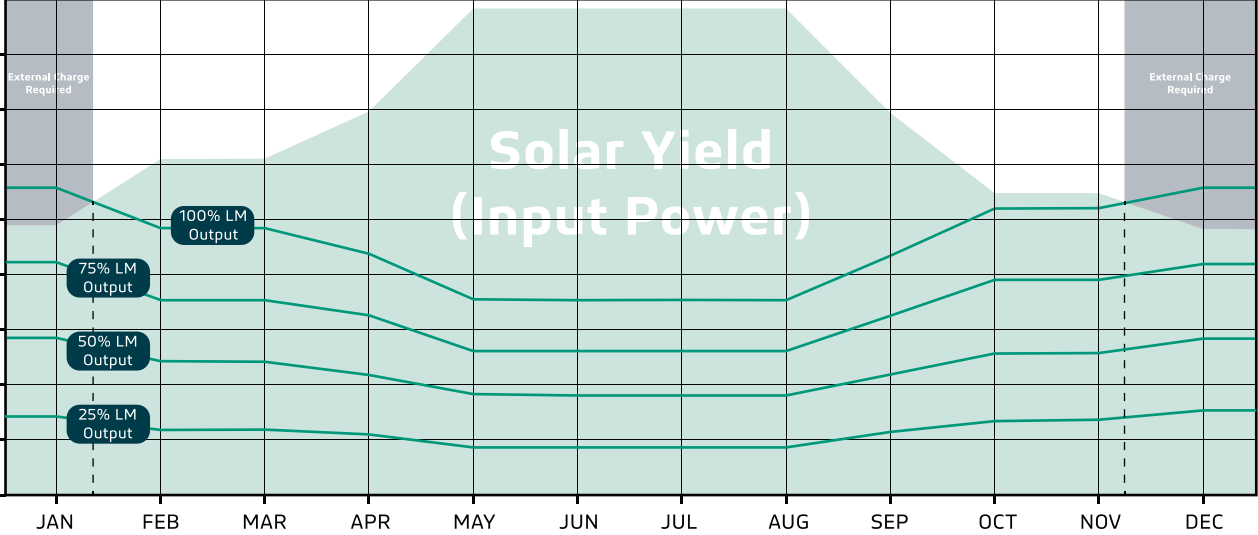
SEATTLE
[WA]



SALT LAKE
[UT]



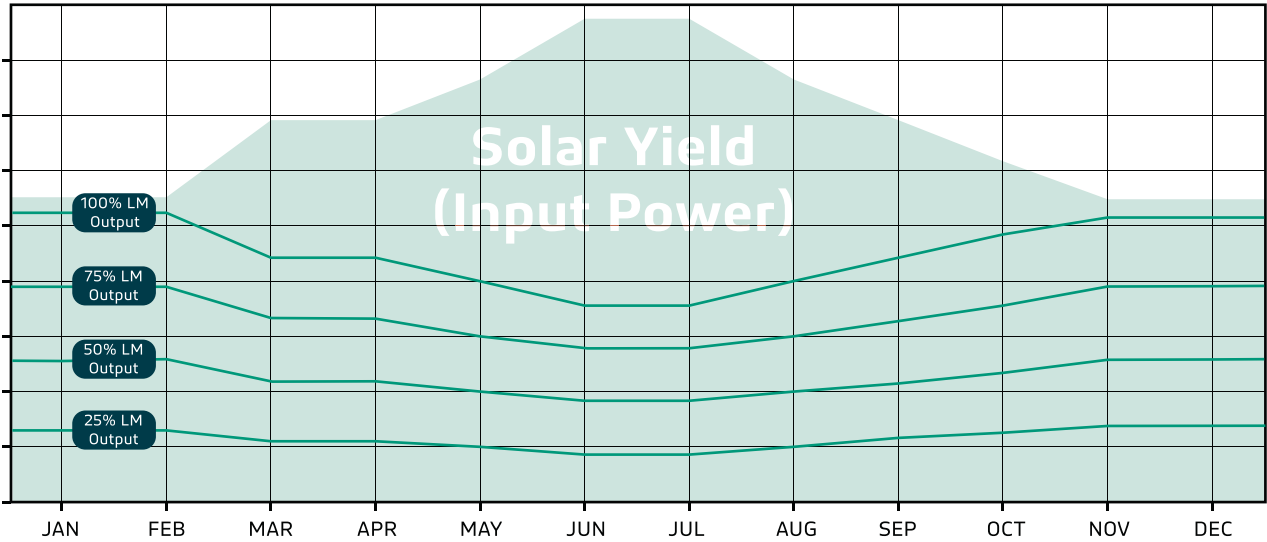
LOS
ANGELES
[CA]



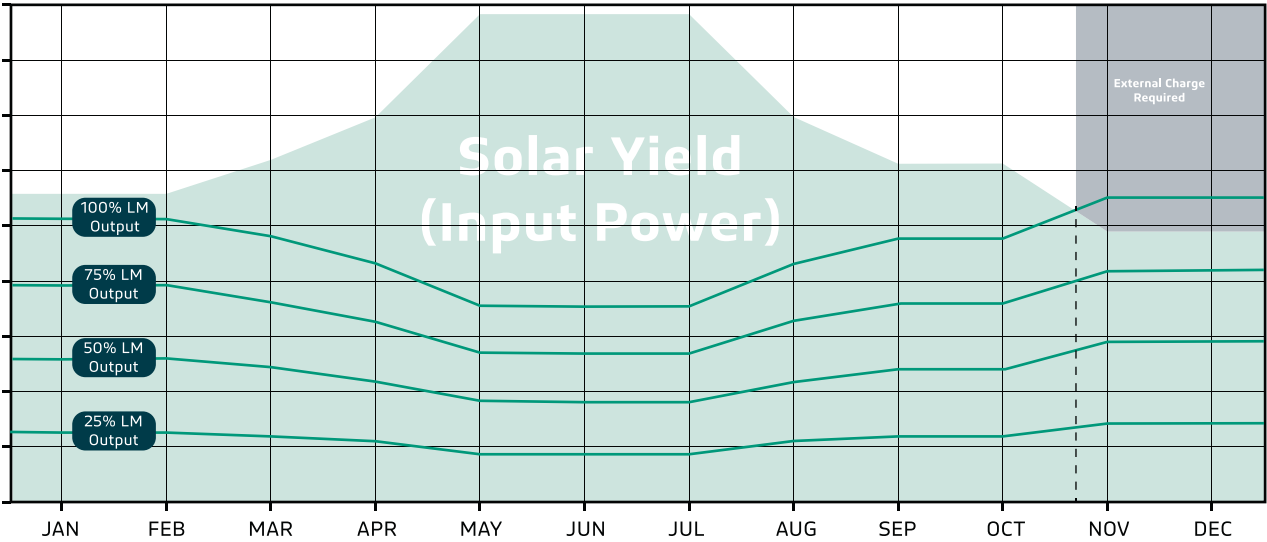
Charging performance chart sunlight data comes from <https://www.gaisma.com> based on each city in the U.S.. The data shows 2024 yearly daytime of each city.

Hybrilux | SOLAR YIELD VS DEMAND

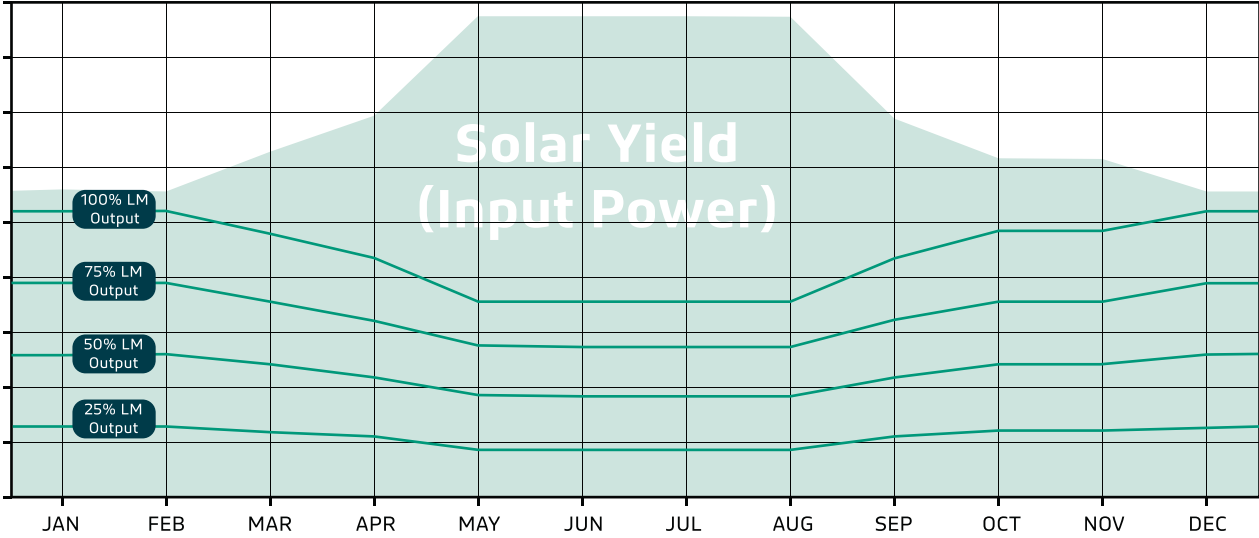
PHOENIX
[AZ]



HOUSTON
[TX]



MIAMI
[FL]

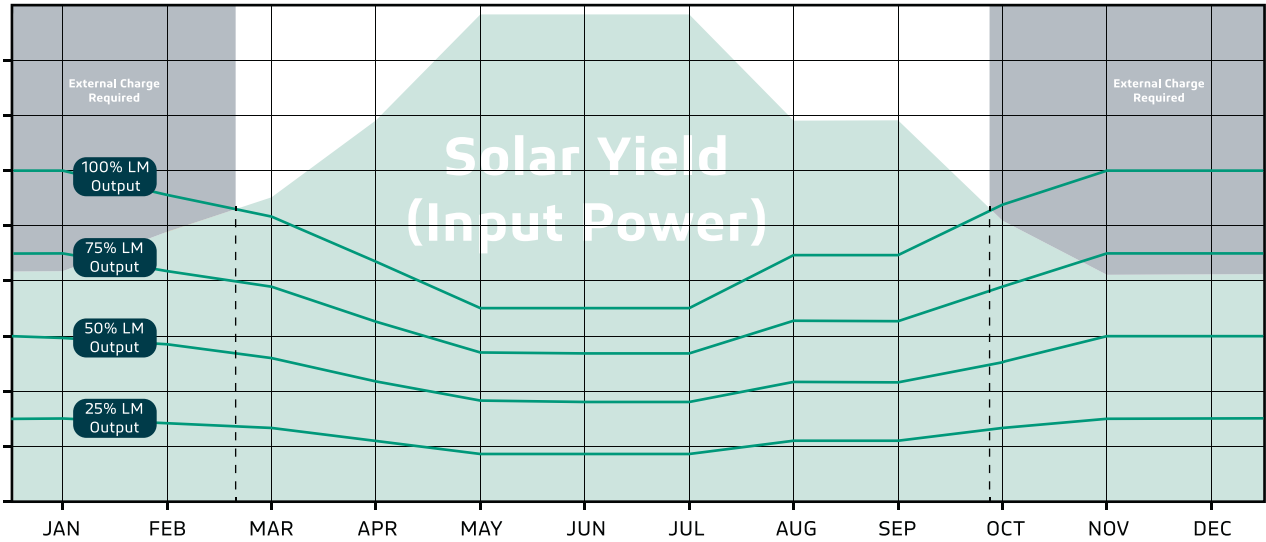


Charging performance is highly dependent on many factors. Data is for informational purposes only. Data is based on a model and is not a guarantee. The data shown is for 2024 only. 2024 yearly electricity of each city.

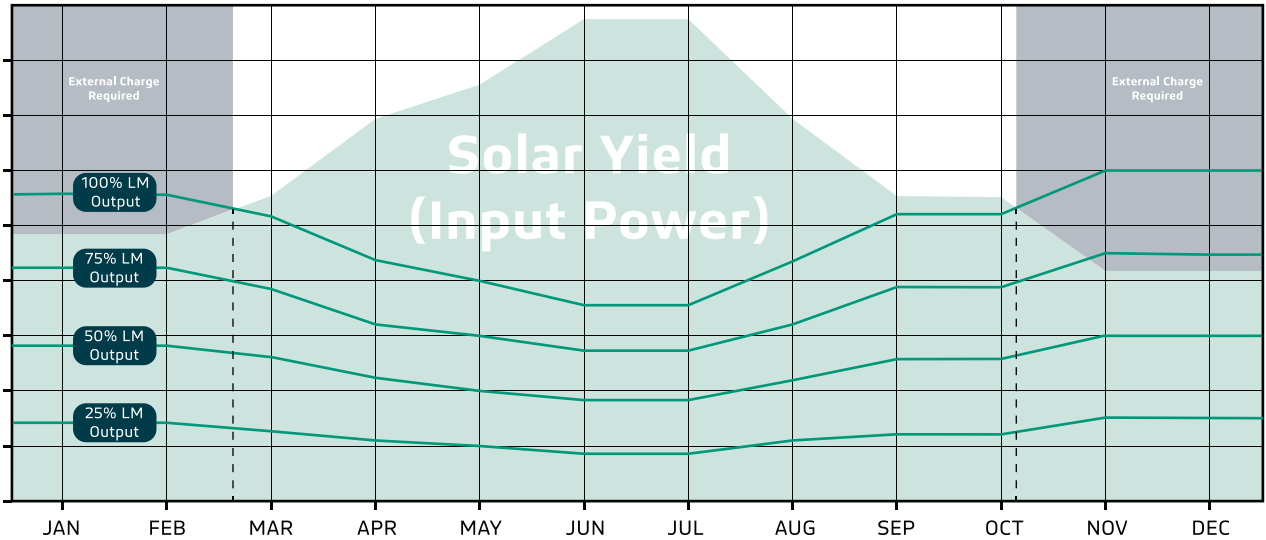
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| SOLAR YIELD VS DEMAND

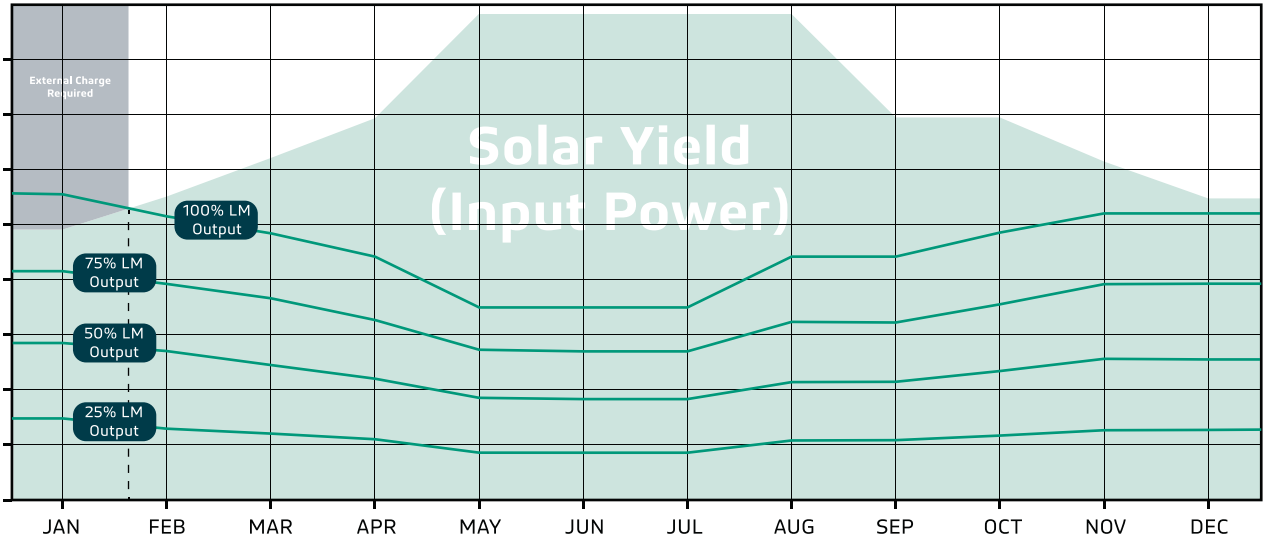
BOSTON
[MA]



CHICAGO
[IL]



ATLANTA
[GA]



Charging performance chart sunlight data comes from <https://www.gaisma.com> based on each city in the U.S.. The data shows 2024 yearly daytime of each city.

Hybrilux



MST-400N
30,000 Lumens



MST-1200L
90,000 Lumens

Hybrilux

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