

The items shown are provided as part of a total integrated Philips Gardco Solar area lighting system only. Factory quotation and factory preparation of submittals are required. Submittals apply to the factory quotation number shown above only. Contact your Philips Gardco representative for further assistance.

# Solar Area Lighting System - LED

## DRIVER

**MPT-15-24** Maximum Power Tracking 12V through 24V

## DESCRIPTION

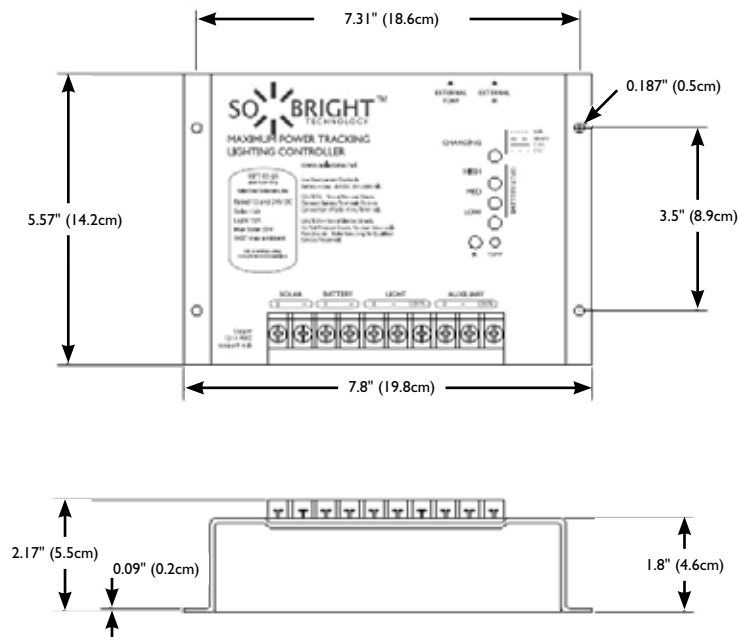
The Maximum Power Tracking (MPT) SO-Bright™ Lighting Controller is the electronic heart of SolarOne's® autonomous lighting systems. During the day the MPT delivers up to 30% more charging current than other standard controllers, using a temperature compensated 3-stage charging algorithm.

At night it provides advanced lighting functions allowing users to control timing, light levels and energy management options. Users may choose the NEW SunLogic function, which will dynamically select the optimal light level to ensure they are getting the most versatile performance from their lights possible.

Operation is fully automatic. The controller is normally programmed at the factory and arrives at the installation site, programmed and ready to go. Users interact with the MPT using an infrared remote control, so solar lighting systems can be setup, modified, and tested easily from the ground, without opening the battery enclosure or climbing a ladder.



## DIMENSIONS



## CONNECTIONS

Solar +	To Solar Panel +
Solar -	To Solar Panel
Bat +	To Battery +
Bat -	To Battery – Through Fused Cable
Light +	To LED Driver (MCD) 12V +
Light -	To LED Driver 12V -
Light Contr.	To LED driver Control
Aux Output 12V	To Aux Device 12V input
Aux Input +	To Aux Device Signal/switched
Aux Input -	To Aux Device Ground
External IR	For IR Remote Control Signal
External Temp	For remote temperature sensor

## IMPORTANT NOTES

1. Solar equipment is manufactured by SolarOne® Solutions, Inc. Equipment is available only as part of a total Philips Gardco Solar Area Lighting System. A Philips Gardco factory quotation for the system must be obtained prior to ordering.

2. Solar equipment warranty provided by SolarOne® Solutions, Inc.

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GS200-006/0211





# Solar Area Lighting System - LED

### MECHANICAL SPECIFICATIONS

Enclosure	Powder Coated Aluminum
Hardware	Stainless Steel
Terminals	Nickel Plated Brass

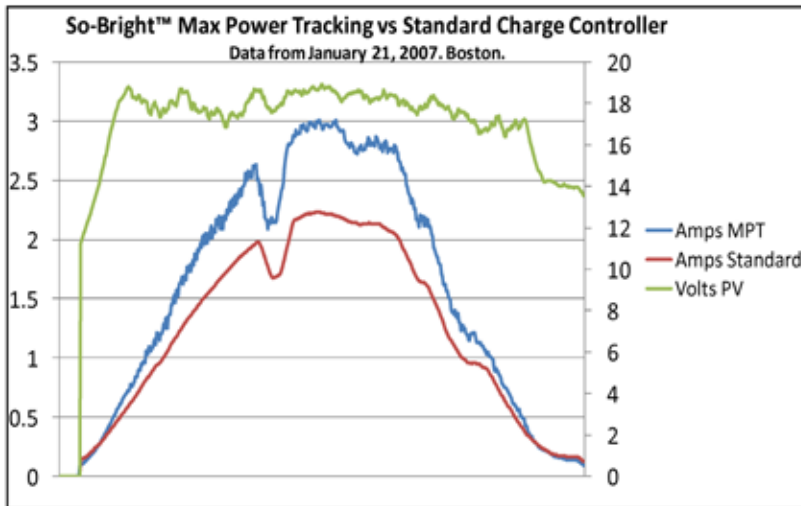
### ELECTRICAL SPECIFICATIONS

Battery Voltage	10 to 32VDC
Solar Voltage	55VDC Max
Battery Charging Current	15 amps Max
Max Solar Panel 12V	190 watts
Max Solar Panel 24V	380 watts
Light Current	15 amps Max
PWM Signal Out	5V PWM or DC
Aux Signal in	9 to 32VDC
Surge Protection	Yes, built in
Polarity Protection	Yes, built in
Overcurrent protection	Yes, automatic, built-in
Required Fusing	Fuse battery connection at 20 amp
Indicator Lights	Charging and Vbat (3 levels)

### SYSTEM TECHNOLOGY

SO-Bright™ is SolarOne® Solutions' advanced lighting and control technology for autonomous solar lighting systems. It features the highest efficiency constant-current driver circuitry, and a sophisticated Max Power Tracking (MPT) Lighting Controller. This gives the customer unparalleled control of when and how to use their solar powered lumens.

SO-Bright™ incorporates insights from years of experience with a wide range of autonomous solar powered systems across the globe.



### SYSTEM MANAGEMENT

SO-Bright™ Technology effectively manages the complex balance between key components in an autonomous solar powered LED system. LEDs are driven using a constant-current method which offers high efficiency and precise control of light levels.

SO-Bright™ Technology gives you the option to choose from 10 different pre-programmed lighting profiles pictured in the table to the left. Most systems can be programmed for all night illumination at peak level, depending on your power package. The SO-Bright™ remote control allows you to change the lighting profile on your system with the push of a button.

preset	TIME PM	TIME AM	Sunset	Midnight	Sunrise
1			Default profile, designed and loaded at factory for your installation.		
2			All night Full		
3			All night dim		
4	4 hrs	0 hrs	[Profile: 4 hrs Full, 0 hrs Dim]		
5	6 hrs	0 hrs	[Profile: 6 hrs Full, 0 hrs Dim]		
6	8 hrs	0 hrs	[Profile: 8 hrs Full, 0 hrs Dim]		
7	2 hrs	2 hrs	[Profile: 2 hrs Full, 2 hrs Dim]		
8	4 hrs	2 hrs	[Profile: 4 hrs Full, 2 hrs Dim]		
9	6 hrs	2 hrs	[Profile: 6 hrs Full, 2 hrs Dim]		
10	8 hrs	2 hrs	[Profile: 8 hrs Full, 2 hrs Dim]		



### KEY SYSTEM FEATURES

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- Max Power Tracking Charging for up to 30% more energy and up to 30% more energy collected in the winter
- Charges agm and gel batteries
- Day-night sensing using solar panel
- For 12 and 24V systems
- Standard Profiles offer illumination all night
- Adjustable PM Time and AM Time
- Adjustable Light Levels (peak and offpeak)
- Auxiliary input with adjustable timing
- Adjustable low voltage disconnect
- SunLogic feature for optimum output
- Runtime extension options keep the lights on
- Compensates for snowfall on solar panels
- Testing and error reporting features
- Remote temperature sensor available
- Drive Technology minimizes thermal rise in lamps
- 10 Preset field-programmable lighting profiles
- Hundreds of other program possibilities
- Precise digital control of light levels over optical link
- Programming and Testing with IR Remote Control
- Fully automatic operation
- Standard profiles offer illumination all night long
- Advanced Energy management algorithms, including 3 stage, temperature compensated algorithm