



## **3 or 6 Sensor Quantum Light Bar**

### **PRODUCT MANUAL**

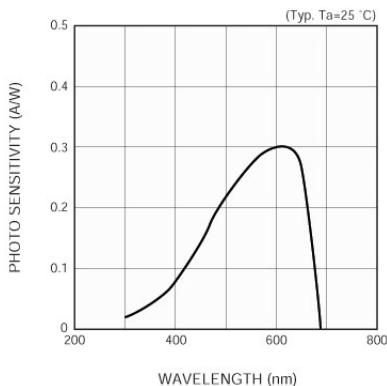
Item # 3668I3, 3668I6



***Spectrum***<sup>®</sup>  
***Technologies, Inc.***

Thank you for purchasing a PAR Light Sensor Bar to use with your WatchDog Weather Station or Data Logger, or your FieldScout Light Sensor Reader. The sensor averages the readings of all the sensors on the bar to measure the radiation between 400 and 700 nanometers, the most influential wavelengths for optimum plant growth.

This manual will aid you in placement and mounting of the sensor. Read it thoroughly to insure proper and effective use.



## USE WITH A FIELD SCOUT LIGHT SENSOR READER

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Just plug the sensor into the reader, and SET the reader to "PAR SUN" or "PAR ELEC". For more details, see the Field Scout Sensor Reader Manual.

## USE WITH A WATCHDOG STATION OR LOGGER

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The PAR Light Sensor Bar includes a 5ft 9in (1.75m) data cable; which is plugged into an available external port on a WatchDog weather station or data logger. Once the sensor is in a representative "micro-climate", insert the data cable plug into the WatchDog external channel to log PAR Light data.

Use **SpecWare** software to program the WatchDog to log PAR Light on the desired port. Refer to the **SpecWare Instruction Manual** for detailed launch and/or readout instructions. PAR Light Hours and Daily Light Integral can be calculated in SpecWare Software under “Reports”.

The sensor can be placed above or within plant canopies, as well as in growth rooms and greenhouses. Attach the mounting bracket to the sensor bar using the enclosed “zip ties”. Install the sensor so that it is level. Once the sensor is mounted, use the adjustment screws to level the sensor so that the bubble is centered on the level indicator. Mount the sensor on a 1” to 1¼” mast or pipe using the u-bolt provided.

Position the sensor in an appropriate area that monitors the plant conditions. Make sure the PAR sensors are not being shadowed or blocked by another external sensor.

Contact your

cooperative extension agricultural agent for further suggestions on field placement.



## SPECIFICATIONS

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<b>Range</b>	0-2500 $\mu\text{mol}/\text{m}^2\text{s}$ , $\pm 5\%$
<b>Excitation Voltage</b>	3.0-5.0 VDC
<b>Sensor Output</b>	0-2.5V
	Linear: $\mu\text{mol}/\text{m}^2\text{s} = V * 1000$
<b>Cosine Correction</b>	$\pm 3\%$ at $45^\circ$ $\pm 7\%$ at $80^\circ$
<b>Length</b>	Bar: 19 in (48 cm) Handle: 4" (10 cm)
<b>Width</b>	0.75 in (1.9 cm)
<b>Thickness</b>	0.50 in (1.3 cm)

# WARRANTY

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This product is warranted to be free from defects in material or workmanship for one year from the date of purchase. During the warranty period Spectrum will, at its option, either repair or replace products that prove to be defective. This warranty does not cover damage due to improper installation or use, lightning, negligence, accident, or unauthorized modifications, or to incidental or consequential damages beyond the Spectrum product. Before returning a failed unit, you must obtain a Returned Materials Authorization (RMA) from Spectrum. Spectrum is not responsible for any package that is returned without a valid RMA number or for the loss of the package by any shipping company.

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