

Calibration Date: 06/01/16  
Model Number: QSP2300  
Serial Number: 70547  
Operator: TPC  
Standard Lamp: V-035(3/4/15)  
Operating Voltage Range: 6 to 15 VDC (+)

Job No.: R12601

Note: The QSP2300 output is a voltage that is proportional to the log of the incident irradiance.  
To calculate irradiance, use this formula:

$$\text{Irradiance} = \text{Calibration factor} * (10^{\wedge}\text{Light Signal Voltage} - 10^{\wedge}\text{Dark Voltage})$$

Dry Calibration Factor: 3.01E+12 quanta/cm²·sec per volt 4.99E-06 μEinsteins/cm²·sec per volt  
Wet Calibration Factor: 5.31E+12 quanta/cm²·sec per volt 8.82E-06 μEinsteins/cm²·sec per volt

Sensor Test Data and Results<sup>2)</sup>

Sensor Supply Current (Dark):				3.4	mA			
Supply Voltage:				6	Volts			
Lamp Integrated PAR Irradiance:				1.03E+16	quanta/cm²·sec			
Immersion Coefficient:				0.566	μEinsteins/cm²sec			
Nominal Filter OD No Filter 0.3 0.5 1 2 3 RG780	Expected Transmission	Calibrated Trans.	Sensor Voltage	Expected Voltage	Voltage % Error	Measured Trans.	Transmission Error (%)	Test Irrad. (quanta/cm²·sec)
	100%	100.00%	3.536	3.536	0%	100.00%	0.0	1.03E+16
	50%	36.10%	3.098	3.093	0%	36.47%	-1.0	3.76E+15
	32%	27.60%	2.988	2.977	0%	28.30%	-2.5	2.92E+15
	10%	9.27%	2.523	2.503	1%	9.68%	-4.2	9.99E+14
	1%	1.11%	1.613	1.581	2%	1.17%	-4.8	1.20E+14
	0.10%	0.05%	0.489	0.263	46%	0.06%	-11.5	6.26E+12
0.00%		0.00%	0.006	0.006	-2%	0.00%	-100.0	4.04E+10

Dark Before: 0.006 Volts  
Light - No Filter Hldr.: 3.536 Volts  
Dark After - NFH: 0.006 Volts  
Average Dark 0.0059 Volts

Notes:

1. Annual calibration is recommended.
- 2) This section is for internal use and for more advanced analysis.