

Calibration Date: 08/18/11

Model Number: QSP2300

Serial Number: 70379

Operator: TPC

Standard Lamp: GS-1024(7/22/11)

Operating Voltage Range: 6 to 15 VDC (+)

Job No.: L11036

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

Irradiance = Calibration factor \* (10^Light Signal Voltage - 10^Dark Voltage)

Dry Calibration Factor: 3.05E+12 quanta/cm²-sec per volt 5.06E-06 µEinsteins/cm²-sec per volt

Wet Calibration Factor: 5.13E+12 quanta/cm²-sec per volt 8.53E-06 µEinsteins/cm²-sec per volt

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

Sensor Supply Current (Dark): 3.5 mA  
Supply Voltage: 6 Volts

Lamp Integrated PAR Irradiance: 9.27E+15 quanta/cm²-sec 0.01540 µEinsteins/cm²-sec  
Immersion Coefficient: 0.594

Nominal Filter OD	Expected Transmission	Calibrated Trans.	Sensor Voltage	Expected Voltage	Voltage % Error	Measured Trans.	Transmission Error (%)	Test Irrad. (quanta/cm²-sec)
No Filter	100%	100.00%	3.483	3.483	0%	100.00%	0.0	9.27E+15
0.5	50%	36.10%	3.048	3.041	0%	36.71%	-1.7	3.40E+15
1	32%	27.60%	2.937	2.924	0%	28.42%	-2.9	2.63E+15
2	10%	9.27%	2.488	2.450	2%	10.08%	-8.0	9.34E+14
3	1%	1.11%	1.607	1.528	5%	1.30%	-14.4	1.20E+14
RG780	0.10%	0.05%	0.525	0.211	60%	0.08%	-30.3	7.17E+12
	0.00%	0.00%	0.079	0.008	90%	0.01%	-100.0	6.08E+11

Dark Before: 0.008 Volts  
 Light - No Filter Hldr.: 3.493 Volts  
 Dark After - NFH: 0.009 Volts  
 Average Dark: 0.0083 Volts

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