

Calibration Date: 10/26/12

Job No.: R11463

Model Number: QSP2300

Serial Number: 70378

Operator: TPC

Standard Lamp: V-030(3/7/12)

Operating Voltage Range: 6 to 15 VDC (+)

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<sup>Δ</sup>Light Signal Voltage - 10<sup>Δ</sup>Dark Voltage)

Dry Calibration Factor: 7.51E+12 quanta/cm<sup>2</sup>-sec per volt 1.25E-05 μEinsteins/cm<sup>2</sup>-sec per volt

Wet Calibration Factor: 1.33E+13 quanta/cm<sup>2</sup>-sec per volt 2.20E-05 μEinsteins/cm<sup>2</sup>-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: 9.83E+15 quanta/cm<sup>2</sup>-sec 0.01632 μEinsteins/cm<sup>2</sup>sec  
Immersion Coefficient: 0.566

Nominal Filter OD	Expected Transmission	Calibrated Trans.	Sensor Voltage	Expected Voltage	Voltage % Error	Measured Trans.	Transmission Error (%)	Test Irrad. (quanta/cm <sup>2</sup> -sec)
No Filter	100%	100.00%	3.117	3.117	0%	100.00%	0.0	9.83E+15
0.3	50%	36.10%	2.681	2.675	0%	36.55%	-1.2	3.59E+15
0.5	32%	27.60%	2.568	2.558	0%	28.19%	-2.1	2.77E+15
1	10%	9.27%	2.115	2.084	1%	9.88%	-6.2	9.71E+14
2	1%	1.11%	1.231	1.162	6%	1.22%	-9.2	1.20E+14
3	0.10%	0.05%	0.154	-0.155	201%	0.03%	73.3	3.20E+12
RG780	0.00%	0.00%	0.126	0.010	92%	0.02%	-100.0	2.53E+12

Dark Before: 0.010 Volts  
Light - No Filter Hldr.: 3.117 Volts  
Dark After - NFH: 0.010 Volts  
Average Dark: 0.0097 Volts

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