

**Calibration Date:** 01/30/18  
**Model Number:** QSP2300  
**Serial Number:** 70360  
**Operator:** TPC  
**Standard Lamp:** V-041(7/21/16)  
**Operating Voltage Range:** 6 to 15 VDC (+)

**Job No.:** R13170

Note: The QSP2300 output is a voltage that is proportional to the log of the incident irradiance.

To calculate irradiance, use this formula:

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

Dry Calibration Factor: 4.22E+12 quanta/cm<sup>2</sup>·sec per volt      7.01E-06 μEinsteins/cm<sup>2</sup>·sec per volt  
 Wet Calibration Factor: 7.46E+12 quanta/cm<sup>2</sup>·sec per volt      1.24E-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: 9.73E+15 quanta/cm<sup>2</sup>·sec      0.01615 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%	3.363	3.363	0%	100.00%	0.0	9.73E+15
0.3	50%	36.10%	2.922	2.920	0%	36.23%	-0.4	3.52E+15
0.5	32%	27.60%	2.807	2.804	0%	27.79%	-0.7	2.70E+15
1	10%	9.27%	2.332	2.330	0%	9.28%	-0.1	9.03E+14
2	1%	1.11%	1.414	1.408	0%	1.08%	2.5	1.05E+14
3	0.10%	0.05%	0.246	0.090	63%	0.03%	63.0	3.22E+12
RG780	0.00%	0.00%	0.003	0.003	-7%	0.00%	-100.0	2.93E+10

Dark Before: 0.003 Volts  
 Light - No Filter Hldr.: 3.363 Volts  
 Dark After - NFH: 0.003 Volts  
 Average Dark 0.0032 Volts

Notes:

1. Annual calibration is recommended.

2) This section is for internal use and for more advanced analysis.