

Calibration Date: 02/28/24  
Model Number: QSP2300  
Serial Number: 70360  
Operator: TPC  
Standard Lamp: V-045(7/21/16)

Job No.: R50514

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:

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

Dry Calibration Factor: 4.31E+12 quanta/cm<sup>2</sup>·sec per volt 7.15E-06 μEinsteins/cm<sup>2</sup>·sec per volt  
Wet Calibration Factor: 7.60E+12 quanta/cm<sup>2</sup>·sec per volt 1.26E-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: 9.22E+15 quanta/cm<sup>2</sup>·sec 0.01531 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%	3.331	3.331	0%	100.00%	0.0	9.22E+15
0.3	50%	36.10%	2.889	2.888	0%	36.10%	0.0	3.33E+15
0.5	32%	27.60%	2.777	2.772	0%	27.89%	-1.0	2.57E+15
1	10%	9.27%	2.301	2.298	0%	9.29%	-0.2	8.57E+14
2	1%	1.11%	1.384	1.376	1%	1.08%	2.6	9.98E+13
3	0.10%	0.05%	0.204	0.058	71%	0.03%	93.2	2.58E+12
RG780	0.00%	0.00%	0.003	0.003	-2%	0.00%	-100.0	3.18E+10

Dark Before: 0.003 Volts  
Light - No Filter Hldr.: 3.331 Volts  
Dark After - NFH: 0.003 Volts  
Average Dark 0.0033 Volts

Notes:

1. Annual calibration is recommended.

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