

Calibration Date: 04/07/21

Job No.: R50264

Model Number: QSP2300

Serial Number: 70296

Operator: TPC

Standard Lamp: V-042(11/12/20)

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: 2.79E+12 quanta/cm²·sec per volt 4.63E-06 μEinsteins/cm²·sec per volt

Wet Calibration Factor: 4.92E+12 quanta/cm²·sec per volt 8.17E-06 μEinsteins/cm²·sec per volt

Sensor Test Data and Results²⁾

Sensor Supply Current (Dark): 3.4 mA

Supply Voltage: 6 Volts

Lamp Integrated PAR Irradiance: 9.43E+15 quanta/cm²·sec 0.01566 μEinsteins/cm²·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 ² ·sec)
No Filter	100%	100.00%	3.530	3.530	0%	100.00%	0.0	9.43E+15
0.3	50%	36.10%	3.094	3.087	0%	36.64%	-1.5	3.46E+15
0.5	32%	27.60%	2.979	2.971	0%	28.09%	-1.7	2.65E+15
1	10%	9.27%	2.505	2.497	0%	9.43%	-1.7	8.89E+14
2	1%	1.11%	1.582	1.575	0%	1.10%	1.1	1.04E+14
3	0.10%	0.05%	0.406	0.257	37%	0.05%	17.7	4.31E+12
RG780	0.00%	0.00%	0.018	0.005	75%	0.00%	-100.0	1.18E+11

Dark Before: 0.005 Volts

Light - No Filter Hldr.: 3.530 Volts

Dark After - NFH: 0.005 Volts

Average Dark 0.0045 Volts

Notes:

1. Annual calibration is recommended.

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