

Calibration Date: 02/28/24
Model Number: QSP2300
Serial Number: 70296
Operator: TPC
Standard Lamp: V-045(7/21/16)
Operating Voltage Range: 6 to 15 VDC (+)

Job No.: R50518

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: 3.01E+12 quanta/cm²·sec per volt 4.99E-06 μEinsteins/cm²·sec per volt
 Wet Calibration Factor: 5.31E+12 quanta/cm²·sec per volt 8.81E-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: 9.22E+15 quanta/cm²·sec 0.01531 μEinsteins/cm²sec
 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%	3.487	3.487	0%	100.00%	0.0	9.22E+15
0.3	50%	36.10%	3.049	3.045	0%	36.45%	-1.0	3.36E+15
0.5	32%	27.60%	2.937	2.928	0%	28.14%	-1.9	2.59E+15
1	10%	9.27%	2.463	2.454	0%	9.43%	-1.7	8.70E+14
2	1%	1.11%	1.545	1.532	1%	1.11%	0.0	1.02E+14
3	0.10%	0.05%	0.365	0.215	41%	0.04%	25.3	3.96E+12
RG780	0.00%	0.00%	0.015	0.004	70%	0.00%	-100.0	1.06E+11

Dark Before: 0.004 Volts
 Light - No Filter Hldr.: 3.487 Volts
 Dark After - NFH: 0.004 Volts
 Average Dark: 0.0044 Volts

Notes:

1. Annual calibration is recommended.

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