

Calibration Date: 05/08/23

Job No.: R50957

Model Number: QSP2300

Serial Number: 70416

Operator: TPC

Standard Lamp: V-043(7/24/19)

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: 2.76E+12 quanta/cm<sup>2</sup>·sec per volt      4.58E-06 μEinsteins/cm<sup>2</sup>·sec per volt

Wet Calibration Factor: 4.87E+12 quanta/cm<sup>2</sup>·sec per volt      8.08E-06 μEinsteins/cm<sup>2</sup>·sec per volt

Sensor Test Data and Results<sup>2)</sup>

Sensor Supply Current (Dark): 3.4 mA

Supply Voltage: 6 Volts

Lamp Integrated PAR Irradiance: 9.66E+15 quanta/cm<sup>2</sup>·sec      0.01605 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%	3.545	3.545	0%	100.00%	0.0	9.66E+15
0.3	50%	36.10%	3.108	3.103	0%	36.52%	-1.1	3.53E+15
0.5	32%	27.60%	2.994	2.986	0%	28.10%	-1.8	2.72E+15
1	10%	9.27%	2.546	2.512	1%	9.99%	-7.2	9.65E+14
2	1%	1.11%	1.662	1.590	4%	1.28%	-13.3	1.24E+14
3	0.10%	0.05%	0.558	0.273	51%	0.07%	-27.6	7.20E+12
RG780	0.00%	0.00%	0.660	0.012	98%	0.10%	-100.0	9.84E+12

Dark Before: 0.012 Volts  
 Light - No Filter Hldr.: 3.545 Volts  
 Dark After - NFH: 0.012 Volts  
 Average Dark 0.0123 Volts

Notes:

1. Annual calibration is recommended.

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