

Job No.: R50936

Calibration Date: 05/30/23

Model Number: QSP2300

Serial Number: 70359

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: 3.07E+12 quanta/cm<sup>2</sup>·sec per volt 5.10E-06 μEinsteins/cm<sup>2</sup>·sec per volt

Wet Calibration Factor: 5.42E+12 quanta/cm<sup>2</sup>·sec per volt 9.00E-06 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: 9.66E+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%	3.498	3.498	0%	100.00%	0.0	9.66E+15
0.3	50%	36.10%	3.058	3.056	0%	36.26%	-0.4	3.50E+15
0.5	32%	27.60%	2.947	2.939	0%	28.10%	-1.8	2.72E+15
1	10%	9.27%	2.472	2.465	0%	9.39%	-1.3	9.07E+14
2	1%	1.11%	1.556	1.543	1%	1.11%	0.0	1.07E+14
3	0.10%	0.05%	0.364	0.226	38%	0.04%	28.8	4.03E+12
RG780	0.00%	0.00%	0.003	0.003	0%	0.00%	-100.0	2.34E+10

Dark Before: 0.003 Volts  
Light - No Filter Hldr.: 3.498 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.