

Calibration Date: 06/02/20

Job No.: R-50029

Model Number: QSP2300

Serial Number: 70497

Operator: TPC

Standard Lamp: V-040(1/3/2019)

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: 3.41E+12 quanta/cm<sup>2</sup>·sec per volt      5.67E-06 μEinsteins/cm<sup>2</sup>·sec per volt

Wet Calibration Factor: 6.03E+12 quanta/cm<sup>2</sup>·sec per volt      1.00E-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: 9.40E+15 quanta/cm<sup>2</sup>·sec      0.01561 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%	3.440	3.440	0%	100.00%	0.0	9.40E+15
0.3	50%	36.10%	3.002	2.998	0%	36.45%	-1.0	3.43E+15
0.5	32%	27.60%	2.889	2.881	0%	28.09%	-1.8	2.64E+15
1	10%	9.27%	2.424	2.407	1%	9.61%	-3.5	9.03E+14
2	1%	1.11%	1.509	1.485	2%	1.14%	-2.3	1.07E+14
3	0.10%	0.05%	0.336	0.168	50%	0.04%	26.5	3.99E+12
RG780	0.00%	0.00%	0.002	0.002	-1%	0.00%	-100.0	1.89E+10

Dark Before: 0.002 Volts

Light - No Filter Hldr.: 3.440 Volts

Dark After - NFH: 0.002 Volts

Average Dark 0.0024 Volts

Notes:

1. Annual calibration is recommended.

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