

**Calibration Date:** 02/28/24  
**Model Number:** QSP2300  
**Serial Number:** 70497  
**Operator:** TPC  
**Standard Lamp:** V-045(7/21/16)  
**Operating Voltage Range:** 6 to 15 VDC (+)

**Job No.:** R50513

**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: 3.48E+12 quanta/cm<sup>2</sup>·sec per volt      5.78E-06 μEinsteins/cm<sup>2</sup>·sec per volt  
 Wet Calibration Factor: 6.15E+12 quanta/cm<sup>2</sup>·sec per volt      1.02E-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: 9.22E+15 quanta/cm<sup>2</sup>·sec      0.01531 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%	3.423	3.423	0%	100.00%	0.0	9.22E+15
0.3	50%	36.10%	2.981	2.981	0%	36.15%	-0.1	3.33E+15
0.5	32%	27.60%	2.869	2.864	0%	27.90%	-1.1	2.57E+15
1	10%	9.27%	2.402	2.390	0%	9.49%	-2.4	8.75E+14
2	1%	1.11%	1.492	1.468	2%	1.13%	-2.2	1.05E+14
3	0.10%	0.05%	0.414	0.151	64%	0.06%	-11.0	5.55E+12
RG780	0.00%	0.00%	0.002	0.002	-1%	0.00%	-100.0	1.85E+10

Dark Before: 0.002 Volts  
 Light - No Filter Hldr.: 3.423 Volts  
 Dark After - NFH: 0.002 Volts  
 Average Dark: 0.0023 Volts

**Notes:**

1. Annual calibration is recommended.

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