

Job No.: R11171

Calibration Date: 12/19/11

Model Number: QSP2300

Serial Number: 70307

Operator: TPC

Standard Lamp: F484(10/19/11)

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:

Irradiance = Calibration factor \* (10^Light Signal Voltage - 10^Dark Voltage)

Dry Calibration Factor: 3.26E+12 quanta/cm^2-sec per volt 5.42E-06 μEinsteins/cm^2-sec per volt

Wet Calibration Factor: 5.76E+12 quanta/cm^2-sec per volt 9.56E-06 μEinsteins/cm^2-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: 1.04E+16 quanta/cm^2-sec 0.01728 μEinsteins/cm^2sec

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%	3.504	3.504	0%	100.00%	0.0	1.04E+16
0.3	50%	36.10%	3.055	3.062	0%	35.54%	1.6	3.70E+15
0.5	32%	27.60%	2.943	2.945	0%	27.46%	0.5	2.86E+15
1	10%	9.27%	2.477	2.471	0%	9.37%	-1.0	9.75E+14
2	1%	1.11%	1.566	1.549	1%	1.12%	-1.1	1.17E+14
3	0.10%	0.05%	0.424	0.232	45%	0.05%	4.3	5.40E+12
RG780	0.00%	0.00%	0.009	0.009	1%	0.00%	-100.0	6.68E+10

Dark Before: 0.009 Volts  
 Light - No Filter Hldr.: 3.504 Volts  
 Dark After - NFH: 0.009 Volts  
 Average Dark 0.0088 Volts

Notes:

- 1. Annual calibration is recommended.
- 2) This section is for internal use and for more advanced analysis.