

**Calibration Date:** 11/28/12  
**Model Number:** QCP2300-HP  
**Serial Number:** 70135  
**Operator:** TPC  
**Standard Lamp:** V-031(3/7/12)

**Job No.:** R11487

**Operating Voltage Range:** 6 to 15 VDC (+)

**Note: The QCP2300-HP 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:** 3.43E+12 quanta/cm<sup>2</sup>·sec per volt      5.69E-06 μEinsteins/cm<sup>2</sup>·sec per volt  
**Wet Calibration Factor:** 3.68E+12 quanta/cm<sup>2</sup>·sec per volt      6.11E-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: 1.04E+16 quanta/cm<sup>2</sup>·sec      0.01733 μEinsteins/cm<sup>2</sup>·sec  
 Immersion Coefficient: 0.931

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%	3.484	3.484	0%	100.00%	0.0	1.04E+16
0.3	50%	36.10%	3.042	3.042	0%	36.08%	0.1	3.77E+15
0.5	32%	27.60%	2.931	2.925	0%	27.97%	-1.3	2.92E+15
1	10%	9.27%	2.462	2.451	0%	9.48%	-2.2	9.89E+14
2	1%	1.11%	1.543	1.529	1%	1.11%	-0.2	1.16E+14
3	0.10%	0.05%	0.364	0.212	42%	0.04%	24.9	4.49E+12
RG780	0.00%	0.00%	0.004	0.004	2%	0.00%	-100.0	3.33E+10

Dark Before: 0.004 Volts  
 Light - No Filter Hldr.: 3.484 Volts  
 Dark After - NFH: 0.004 Volts  
 Average Dark: 0.0041 Volts

**Notes:**

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