

**Calibration Date:** 02/16/10  
**Model Number:** QCP2300-HP  
**Serial Number:** 70135  
**Operator:** TPC  
**Standard Lamp:** GS-1024(8/28/08)  
**Operating Voltage Range:** 6 to 15 VDC (+)

**Job No.:** R10508

**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:** 3.34E+12 quanta/cm<sup>2</sup>-sec per volt      5.55E-06 μEinsteins/cm<sup>2</sup>-sec per volt  
**Wet Calibration Factor:** 3.52E+12 quanta/cm<sup>2</sup>-sec per volt      5.85E-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: 9.27E+15 quanta/cm<sup>2</sup>-sec      0.01540 μEinsteins/cm<sup>2</sup>sec  
 Immersion Coefficient: 0.95

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%	3.443	3.443	0%	100.00%	0.0	9.27E+15
0.3	50%	36.10%	3.004	3.001	0%	36.33%	-0.6	3.37E+15
0.5	32%	27.60%	2.892	2.884	0%	28.06%	-1.6	2.60E+15
1	10%	9.27%	2.425	2.410	1%	9.56%	-3.0	8.86E+14
2	1%	1.11%	1.515	1.488	2%	1.14%	-3.0	1.06E+14
3	0.10%	0.05%	0.383	0.171	55%	0.05%	5.3	4.73E+12
RG780	0.00%	0.00%	0.004	0.004	2%	0.00%	-100.0	3.25E+10

Dark Before: 0.004 Volts  
 Light - No Filter Hldr.: 3.443 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.