**Calibration Date:** 06/15/09 **Job No.:** R10297
**Model Number:** QCP2300-HP
**Serial Number:** 70136
**Operator:** TPC .
**Standard Lamp:** GS-1019(8/28/08)
**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:**
**Irradiance = Calibration factor * (10^Light Signal Voltage - 10^Dark Voltage)**

**Dry Calibration Factor: 3.03E+12 quanta/cm²·sec per volt 5.03E-06 µEinsteins/cm²·sec per volt**
**Wet Calibration Factor: 3.19E+12 quanta/cm²·sec per volt 5.30E-06 µEinsteins/cm²·sec per volt**

**Sensor Test Data and Results**[2)]

Sensor Supply Current (Dark): 3.6 mA
Supply Voltage: 6 Volts
Lamp Integrated PAR Irradiance: 9.09E+15 quanta/cm$^2$·sec 0.01509 µEinsteins/cm²sec
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$^2$·sec) |
|---|---|---|---|---|---|---|---|---|
| No Filter | 100% | 100.00% | 3.477 | 3.477 | 0% | 100.00% | 0.0 | 9.09E+15 |
| 0.3 | 50% | 36.10% | 3.040 | 3.035 | 0% | 36.54% | -1.2 | 3.32E+15 |
| 0.5 | 32% | 27.60% | 2.928 | 2.918 | 0% | 28.21% | -2.2 | 2.56E+15 |
| 1 | 10% | 9.27% | 2.461 | 2.444 | 1% | 9.61% | -3.5 | 8.73E+14 |
| 2 | 1% | 1.11% | 1.548 | 1.522 | 2% | 1.14% | -3.0 | 1.04E+14 |
| 3 | 0.10% | 0.05% | 0.386 | 0.205 | 47% | 0.05% | 12.3 | 4.34E+12 |
| RG780 | 0.00% | 0.00% | 0.003 | 0.003 | 0% | 0.00% | -100.0 | 1.89E+10 |

Dark Before: 0.003 Volts
Light - No Filter Hldr.: 3.477 Volts
Dark After - NFH: 0.003 Volts
Average Dark 0.0027 Volts

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