

Calibration Date: 10/19/12
Model Number: QCP2300-HP
Serial Number: 70136
Operator: TPC
Standard Lamp: V-030(3/7/12)

Job No.: R11431

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: 3.24E+12 quanta/cm²·sec per volt 5.37E-06 μEinsteins/cm²·sec per volt
Wet Calibration Factor: 3.48E+12 quanta/cm²·sec per volt 5.77E-06 μEinsteins/cm²·sec per volt

Sensor Test Data and Results²⁾

Sensor Supply Current (Dark): 3.6 mA
 Supply Voltage: 6 Volts
 Lamp Integrated PAR Irradiance: 9.83E+15 quanta/cm²·sec 0.01632 μEinsteins/cm²·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 ² ·sec) |
|-------------------|-----------------------|-------------------|----------------|------------------|-----------------|-----------------|------------------------|---|
| No Filter | 100% | 100.00% | 3.483 | 3.483 | 0% | 100.00% | 0.0 | 9.83E+15 |
| 0.3 | 50% | 36.10% | 3.045 | 3.040 | 0% | 36.45% | -1.0 | 3.58E+15 |
| 0.5 | 32% | 27.60% | 2.934 | 2.923 | 0% | 28.26% | -2.3 | 2.78E+15 |
| 1 | 10% | 9.27% | 2.462 | 2.450 | 1% | 9.51% | -2.5 | 9.34E+14 |
| 2 | 1% | 1.11% | 1.547 | 1.528 | 1% | 1.13% | -1.5 | 1.11E+14 |
| 3 | 0.10% | 0.05% | 0.383 | 0.210 | 45% | 0.05% | 15.1 | 4.58E+12 |
| RG780 | 0.00% | 0.00% | 0.003 | 0.003 | 0% | 0.00% | -100.0 | 2.03E+10 |

Dark Before: 0.003 Volts
 Light - No Filter Hldr.: 3.483 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.