**Calibration Date:** 02/26/15 **Job No.:** R12149
**Model Number:** QSP2300
**Serial Number:** 70368
**Operator:** TPC
**Standard Lamp:** V-033(3/7/12)
**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: 3.24E+12 quanta/cm²·sec per volt 5.38E-06 µEinsteins/cm²·sec per volt**
**Wet Calibration Factor: 5.72E+12 quanta/cm²·sec per volt 9.50E-06 µEinsteins/cm²·sec per volt**

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

Sensor Supply Current (Dark): 3.3 mA
Supply Voltage: 6 Volts
Lamp Integrated PAR Irradiance: 9.34E+15 quanta/cm$^2$·sec 0.01551 µEinsteins/cm²sec
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% | 3.460 | 3.460 | 0% | 100.00% | 0.0 | 9.34E+15 |
| 0.3 | 50% | 36.10% | 3.021 | 3.018 | 0% | 36.37% | -0.7 | 3.40E+15 |
| 0.5 | 32% | 27.60% | 2.906 | 2.901 | 0% | 27.90% | -1.1 | 2.61E+15 |
| 1 | 10% | 9.27% | 2.432 | 2.427 | 0% | 9.34% | -0.8 | 8.73E+14 |
| 2 | 1% | 1.11% | 1.508 | 1.505 | 0% | 1.08% | 2.6 | 1.01E+14 |
| 3 | 0.10% | 0.05% | 0.307 | 0.188 | 39% | 0.04% | 51.1 | 3.33E+12 |
| RG780 | 0.00% | 0.00% | 0.004 | 0.004 | 1% | 0.00% | -100.0 | 2.90E+10 |

Dark Before: 0.004 Volts
Light - No Filter Hldr.: 3.460 Volts
Dark After - NFH: 0.004 Volts
Average Dark 0.0038 Volts

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