06/01/16 Calibration Date:

R12594

Job No.:

QSP2300 70295 Model Number: Serial Number:

TPC Operator:

Standard Lamp: V-035(3/4/15)

VDC (+) 15 2 Operating Voltage Range: 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)

uEinsteins/cm²·sec per volt uEinsteins/cm²·sec per volt 5.99E-06 1.06E-05 quanta/cm2-sec per volt quanta/cm²-sec per volt 3.60E+12 Wet Calibration Factor: 6.36E+12 Dry Calibration Factor:

Sensor Test Data and Results<sup>2)</sup>

**Test Irrad.** uEinsteins/cm²sec 0.01713 quanta/cm2-sec Volts Ε 1.03E+16 Lamp Integrated PAR Irradiance: Sensor Supply Current (Dark): Supply Voltage: Immersion Coefficient:

| (milanta/    | (damina)    | cm <sup>2</sup> ·sec) | 1.03E+16  | 3.77E+15 | 2.88E+15 | 9.71E+14    | 1.14E+14 | 5.18E+12 | 8.20E+11 |  |
|--------------|-------------|-----------------------|-----------|----------|----------|-------------|----------|----------|----------|--|
| Transmission | ransmission | Error (%)             | 0.0       | -1.1     | -1.0     | -1.5        | 6.0      | 6.8      | -100.0   |  |
| Management   | Measured    | Frans.                | 100.00%   | 36.50%   | 27.87%   | 9.41%       | 1.10%    | 0.05%    | 0.01%    |  |
| //olfogo 0/  | vollage %   | Error                 | %0        | %0       | %0       | %0          | 1%       | 25%      | %26      |  |
| Potococ.     | Expedien    | Voltage               | 3.457     | 3.014    | 2.898    | 2.424       | 1.502    | 0.184    | 0.003    |  |
| 2000         | Certison    | Voltage               | 3,457     | 3.020    | 2.903    | 2.432       | 1.512    | 0.387    | 0.089    |  |
| potostilo    | Callplated  | Trans.                | 100.00%   | 36.10%   | 27.60%   | 9.27%       | 1.11%    | 0.05%    | 0.00%    |  |
| 040000       | Expected    | Transmission          | 100%      | 20%      | 32%      | 10%         | 1%       | 0.10%    | %00.0    |  |
| Nominal      |             | Filter OD             | No Filter | 0.3      | 0.5      | <del></del> | 2        | က        | RG780    |  |

Volts Volts Volts Volts 0.002 0.003 3 457 Light - No Filter Hldr.: Dark Before: Dark After - NFH: Average Dark

Notes:

1. Annual calibration is recommended.

2) This section is for internal use and for more advanced analysis.