

Biospherical Instruments Inc.

CALIBRATION CERTIFICATE

Calibration Date 10/02/15
Model Number QSP2155 Firmware Version v 1.2
Serial Number 50209
Operator TPC
Standard Lamp V-033(3/3/15)
Sensor Operating Voltage Range: 6 to 15 VDC (+)
Output Polarity: Positive

Sensor Output Voltage:

Sensor Illuminated 175.3 mV
Sensor Dark 9.8 mV
Sensor Net Response 165.4 mV
RG780 9.9 mV

Corrected Lamp Output:

Output In Air (same condition as calibration):

1.56E-02 uE/cm²sec

Output Corrected for Immersion in Water: Using Immersion Coefficient of:

2.75E-02 uE/cm²sec

0.5664 (Collector Type: SC-3)

Calibration Scale Factor:

(To calculate irradiance, divide the net voltage reading in Volts by this value.)

Dry: 1.061E+01 Volts/(uE/cm²sec)

Wet: 6.008E+00 Volts/(uE/cm²sec)

Dry: 1.061E-03 Volts/(uE/m²sec)

Wet: 6.008E-04 Volts/(uE/cm²sec)

Notes:

1. Annual calibration is recommended.
2. Calibration is performed using a Standard of Spectral Irradiance traceable to the National Institute of Standards and Technology (NIST).
3. To approximate the sensor's saturating irradiance, multiply the calibration factor by the sensor power supply voltage, minus one volt.
4. The collector should be cleaned frequently with alcohol.

Note on the QSP-2155

Biospherical Instruments' custom QSP-2155 is electronically functionally equivalent to the QSP-2150. The QSP-2155 has no back housing per OEM specifications. The cable drawing on page 17 contains the correct wiring pin-out, although the connector listed is not part of this custom sensor. All other specifications listed in the QCP/QSP-2150 manual apply to the custom QSP-2155, including the section on the suggested maintenance of the spherical collector and the communications protocol.

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