

# Biospherical Instruments Inc.

## CALIBRATION CERTIFICATE

Calibration Date 09/24/24  
Model Number QSP2155 Firmware Version v 1.2  
Serial Number 50430  
Operator FDG  
Standard Lamp V-046(7/24/19)  
Sensor Operating Voltage Range: 6 to 15 VDC (+)  
Output Polarity: Positive

### Sensor Output Voltage:

Sensor Illuminated	<u>151.1</u>	mV
Sensor Dark	<u>10.4</u>	mV
Sensor Net Response	<u>140.7</u>	mV
RG780	<u>10.7</u>	mV

### Corrected Lamp Output:

Output In Air (same condition as calibration):

1.564E-02 uE/cm<sup>2</sup>sec

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

2.762E-02 uE/cm<sup>2</sup>sec 0.5664 (Collector Type: SC-3)

### Calibration Scale Factor:

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

Dry:	8.997E+00 Volts/(uE/cm <sup>2</sup> sec)
Wet:	5.096E+00 Volts/(uE/cm <sup>2</sup> sec)
Dry:	8.997E-04 Volts/(uE/m <sup>2</sup> sec)
Wet:	5.096E-04 Volts/(uE/m <sup>2</sup> sec)

### 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.