

# Biospherical Instruments Inc.

## CALIBRATION CERTIFICATE

Calibration Date 04/10/24  
Model Number QCR2200  
Serial Number 20591  
Operator TPC  
Standard Lamp V-045(7/21/16)  
Sensor Operating Voltage Range: 5 to 18 VDC (+)  
Output Polarity: POSITIVE

### Sensor Conditions at Calibration (in air):

Calibration Voltage: 6 VDC (+)  
Sensor Current: 3.9 mA

### Sensor Output Voltage:

Sensor Illuminated 108.67 mV  
Sensor Dark 0.92 mV  
Sensor Net Response 107.75 mV  
RG780 Filter 0.95 mV

### Corrected Lamp Output:

Output In Air (same condition as calibration):  
9.220E+15 quanta/cm<sup>2</sup>sec 153.1023 uE/m<sup>2</sup>sec

### Calibration Scale Factor:

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

Dry: 1.169E-17 Volts/(quanta/cm<sup>2</sup>sec); 0.000704 V/(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.

Conversion Factor = 1420.9  
ratio multiplier = 1