



# Biospherical Instruments Inc.

**Calibration Date:** 04/02/25  
**Model Number:** QSP2350  
**Serial Number:** 70297  
**Operator:** FG  
**Standard Lamp:** V-037 (1/3/19)  
**Operating Voltage Range:** 6 to 15VDC

**Job No.:** R-50765

**Note:** The QSP2350 output is a voltage that is proportional to the log of the incident irradiance.

To calculate irradiance, use this formula:

$$\text{Irradiance} = \text{Calibration factor} * (10^{\wedge}\text{Light Signal Voltage} - 10^{\wedge}\text{Dark Voltage})$$

**Dry Calibration Factor:**  $\frac{3.19\text{E}+12 \text{ quanta/cm}^2\cdot\text{sec per volt}}{5.30\text{E}-06 \text{ } \mu\text{Einsteins/cm}^2\cdot\text{sec per volt}}$

**Wet Calibration Factor:**  $\frac{5.64\text{E}+12 \text{ quanta/cm}^2\cdot\text{sec per volt}}{9.36\text{E}-06 \text{ } \mu\text{Einsteins/cm}^2\cdot\text{sec per volt}}$

$\frac{5.30\text{E}-06 \text{ } \mu\text{Einsteins/cm}^2\cdot\text{sec per volt}}{9.36\text{E}-06 \text{ } \mu\text{Einsteins/cm}^2\cdot\text{sec per volt}}$

## Sensor Test Data and Results

**Sensor Supply Current (Dark):** 3.3 mA  
**Sensor Supply Voltage:** 6 Volts

**Sensor Calibration Signal Voltage:** 3.465 Volts  
**Sensor Dark Voltage:** 0.0046 Volts

**Lamp Integrated PAR Irradiance:**  $\frac{9.31\text{E}+15 \text{ quanta/cm}^2\cdot\text{sec}}{0.5664}$  0.01546  $\mu\text{Einsteins/cm}^2\cdot\text{sec}$

**Note:**

Annual calibration is recommended.