Biospherical Instruments Inc.

CALIBRATION CERTIFICATE

 Calibration Date
 07/03/13

 Model Number
 QSP200PD

 Serial Number
 4401

 Operator
 TPC

 Standard Lamp
 V-032 (3/7/12)

Probe Output Current:

 Probe Illuminated
 96.63
 nA

 Probe Dark
 -0.01
 nA

 Probe Net Response
 96.64
 nA

 RG780 Filter
 0.35
 nA

Corrected Lamp Output:

Output In Air (same condition as calibration):

9.264E+15 quanta/cm²sec

Output Corrected for Immersion in Water:

1.636E+16 quanta/cm²sec

Calibration Scale Factor:

(To calculate irradiance multiply these numbers by the net current reading in nanoAmpen

Dry: 9.587E+13 (quanta/cm²sec)/nA Wet: 1.693E+14 (quanta/cm²sec)/nA

Notes:

- 1. Annual calibration is recommended.
- Calibration is performed using a Standard of Spectral Irradiance traceable to the National Institute of Standards and Technology (NIST).
- 3. The collector should be cleaned frequently with alcohol.
- 4. Calibration was performed with customer cable, when available.