

# CERTIFICATE of CALIBRATION for LI-COR SENSOR

Spherical Quantum Sensor  
Model Number: LI-193

Serial Number: SPQA3291

Calibration Date: May 01, 2019  
Manufacture Date: December 05, 2002

## Calibration Constants:

Output (in-air): 6.8 microamps per 1000  $\mu\text{mol s}^{-1} \text{m}^{-2}$   
Output (in-water): 4.2 microamps per 1000  $\mu\text{mol s}^{-1} \text{m}^{-2}$

## For use with LI-COR handheld meters and loggers:

Multiplier (in-air): -146.96  $\mu\text{mol s}^{-1} \text{m}^{-2}$  per microamp  
Multiplier (in-water): -238.07  $\mu\text{mol s}^{-1} \text{m}^{-2}$  per microamp

## For use with LI-COR 2291 (1210 ohm) Millivolt Adapter:

Multiplier (in-air): -121.45  $\mu\text{mol s}^{-1} \text{m}^{-2}$  per millivolt  
Multiplier (in-water): -196.75  $\mu\text{mol s}^{-1} \text{m}^{-2}$  per millivolt

**IMPORTANT:** Read the appropriate instruction manual ([www.licor.com/USM](http://www.licor.com/USM)) before using this sensor.

**IMPORTANT:** It is recommended that sensors be recalibrated every two years after field deployment.

Calibration Technician: Aaron Deschane

Calibration standard used: Working standard lamp 811E.

Calibration traceable to the National Institute of Standards and Technologies (NIST) through NIST-calibration lamp number F-226.  
(NBS Test No. 534/237689-86)



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