

Calibration Report: Quantum Sensor

S/N: Q113474

Lilly Grear
NASA Langley/CRAVE Intern
Hampton, Virginia

Summary

Calibration date: 2021 Jan 13

Next Calibration date: As needed

A collection, analysis, and calibration of data from a Quantum Sensor, S/N: Q113474 has been completed. Li-Cor Inc., the manufacturer of the instrument, performed the calibration. The data was collected by Li-Cor on 2021 January 13.

Model: LI-190/R

Serial Number: Q113474

The calibration constant and assigned multiplier values show the calibration variables of the sensor. The certificate of calibration displays how the calibration was performed, including traceability to national standards.

The Quantum Sensor is calibrated against a standardized lamp. The following pages provide more detail into the calibration process and results.

Application: The Li-Cor sensor is read by a Campbell Scientific data logger that collects raw voltage data. Any correction is applied during processing of raw data.

CERTIFICATE of CALIBRATION

for LI-COR SENSOR

Quantum Sensor
Model Number: LI-190/R

Serial Number: **Q113474**

Calibration Date: **January 13, 2021**
Manufacture Date: **December 18, 2020**

Calibration Constant:

Output: **6.84** microamps per 1000 $\mu\text{mol s}^{-1} \text{m}^{-2}$

For use with LI-COR handheld meters and loggers:

Multiplier: **-146.23** $\mu\text{mol s}^{-1} \text{m}^{-2}$ per microamp

If this is an LI-190R-BL (3-wire bare leads):

Multiplier: **146.23** $\mu\text{mol s}^{-1} \text{m}^{-2}$ per microamp

For use with LI-COR 2290 (604 ohm) Millivolt Adapter:

Multiplier: **-242.1** $\mu\text{mol s}^{-1} \text{m}^{-2}$ per millivolt

If this is an SL or SMV sensor:

Multiplier: **-200.0** $\mu\text{mol s}^{-1} \text{m}^{-2}$ per millivolt

IMPORTANT: Read the appropriate instruction manual (www.licor.com/Quantum-manual) before using this sensor.

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

Calibration Technician: John Brooks

Calibration standard used: Working standard lamp 1244C.
Calibration traceable to the National Institute of Standards and Technologies (NIST) through NIST-calibration lamp number F-226.
(NBS Test No. 534/237689-86)



LI-COR Biosciences, Global Headquarters • 4647 Superior Street • Lincoln, NE 68504 USA
Phone: +1-402-467-3576 • Fax: +1-402-467-2819 • Toll-free: 800-447-3576 (USA & Canada)
envsales@licor.com • envsupport@licor.com • www.licor.com
Manual: www.licor.com/Quantum-manual