Field Performance
The LI-7700 Open Path CH₄ Analyzer

Field instruments require a durability that bench-top instruments often lack.

Designed to make high quality measurements in extreme environments, the LI-7700 analyzer is ideal for demanding field deployments.

- High performance even in demanding conditions.
- Used globally in a variety of ecosystems.
- Low power consumption.
- Comparison publications have confirmed its performance.

Examples:

Performance

The figure below shows methane, carbon dioxide, and latent heat fluxes measured with the eddy covariance technique over the Florida Everglades, using an LI-7500 Open Path CO₂/H₂O Analyzer and an LI-7700 Open Path CH₄ Analyzer. The data show a net negative flux of CO₂, but positive CH₄ and LE fluxes for the measurement period, indicating that this ecosystem was a sink of carbon dioxide and a source of methane and water vapor.

Additional publications showing LI-7700 analyzer performance:
Field Performance: The LI-7700 Open Path CH₄ Analyzer

What other researchers are saying about the LI-7700 analyzer:

“...We are happy with the LI 7700 compared to closed path tunable diode laser systems... It gives us a sensor to deploy where scientific questions are interesting, rather than where there are power lines...”
- Dr. Dennis Baldocchi, University of California, Berkeley

“I’m impressed with [the LI 7700’s] robustness and ease of use,”
- Joe Verfaillie, Technician for Dr. Dennis Baldocchi

“...Allows you to measure methane flux at the landscape scale, which can be really important in the arctic, where you can have very high variation in fluxes over just a meter.”
- Cove Sturtevant, San Diego State University, USA

“A tremendous step forward in being able to characterize methane flux in any kind of ecosystem on an instantaneous basis...”
- Jessica Schedlbauer, previous post-doctoral scientist under Dr. Steve Oberbauer at Florida International University, currently assistant professor at West Chester University in Pennsylvania.

For more information about the LI-7700 analyzer including a full list of specifications, visit: www.licor.com/7700

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Field data illustrate that the LI-7700 analyzer has the frequency response required to sample the range of eddy frequencies that contribute to methane flux.

Normalized cross-spectra, nCwx /\omega'x'

Non-dimensional frequency, f = nz / U