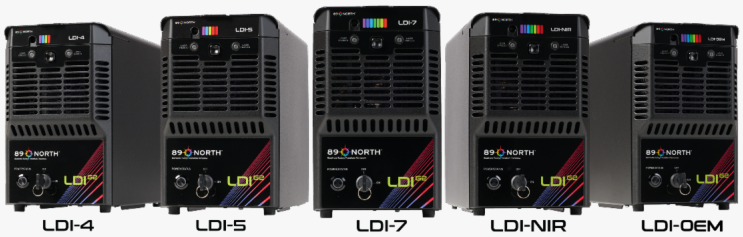
89 North Launches Next-Generation LDI-G2 Laser Diode Illuminator Series for Advanced Microscopy

All new line-up features Higher Power Density, 99.8% Stability, and Refined Intensity Control.



89 North LDI-G2 Product Line-up

WILLISTON, VT, UNITED STATES, November 14, 2025 / EINPresswire.com/ -- 89 North, an award-winning optical engineering and manufacturing firm based in Vermont, has announced the launch of its LDI-G2 Series, the next generation of its trusted Laser Diode Illuminator family. Designed for researchers pushing the limits of fluorescence and live-cell imaging, the LDI-G2 delivers the intensity, consistency, and precision needed for today's most demanding microscopy applications.

> With LDI-G2, we're giving researchers brighter illumination, greater stability, and finer control—tools that make demanding imaging experiments more precise and reliable."
> *Julie Martin, Vice President, 89 North*

Building on the proven performance of 89 North's original LDI platform, the G2 Series introduces breakthrough improvements in power delivery, illumination stability, and intensity control—giving researchers unprecedented control over how light interacts with their samples.

Key features include:

Higher Power Density for Faster, Brighter Imaging
A new single 400µm fiber output concentrates optical power into a smaller area, achieving significantly higher power density and more uniform illumination. The result: faster acquisition speeds, brighter signals, and greater excitation efficiency—without the need for additional homogenization optics. Researchers can now shorten exposure times while maintaining excellent signal-to-background ratios, accelerating imaging for high-content screening, super-resolution microscopy (STORM, PALM, DNA-PAINT), and deep-tissue imaging.

Rock-Solid Stability for Quantitative Confidence

With an upgraded active feedback control system, the LDI-G2 delivers 99.8% illumination stability, ensuring that observed signal changes reflect real biology—not fluctuations in the light source. This level of stability aligns with QUAREP-LiMi WG1 quality standards and makes quantitative imaging and long time-lapse studies more reliable across applications such as calcium imaging, FRAP, FRET, and high-content screening.

Finer Intensity Control for Greater Experimental Precision
LDI-G2 introduces laser power control in 0.1% increments, ten times finer than the industry's typical 1% step size. Researchers can now finely adjust excitation levels for even the most light-sensitive samples, minimizing photobleaching and phototoxicity while maintaining reproducibility in long-term experiments. Whether imaging live embryos, performing optogenetics, or running overnight imaging studies, LDI-G2 allows scientists to achieve perfectly tuned illumination.

The LDI-G2 Series is available in 4-, 5-, 7-line, and NIR configurations. Technical specifications and downloadable data sheet are available at: www.89north.com/LDI-G2.

About 89 North:
89 North, a wholly owned subsidiary of Chroma Technology, is an award-winning optical engineering design and manufacturing firm located in the Burlington, Vermont area. The company specializes in advanced illumination and imaging systems for life-science, biomedical, and industrial research. 89 North's expertise in laser and imaging system design is recognized by scientists and engineers worldwide.

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