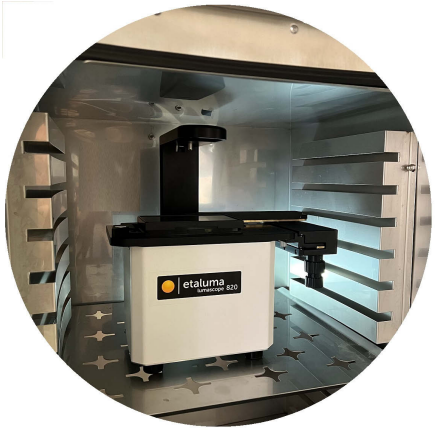
Live Cell Microscopy

LS820

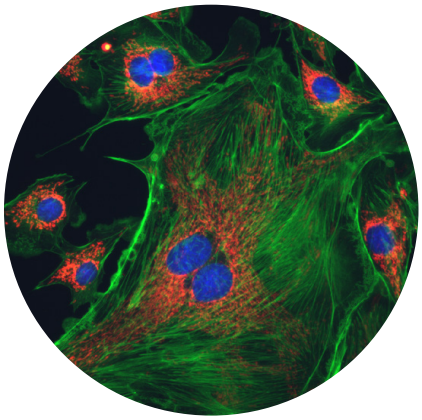
Microscope with Automated Focus

- High Resolution 3-Color Fluorescence
- Automated Focus and Z-Stacking
- Live Cell Imaging in Your Incubator

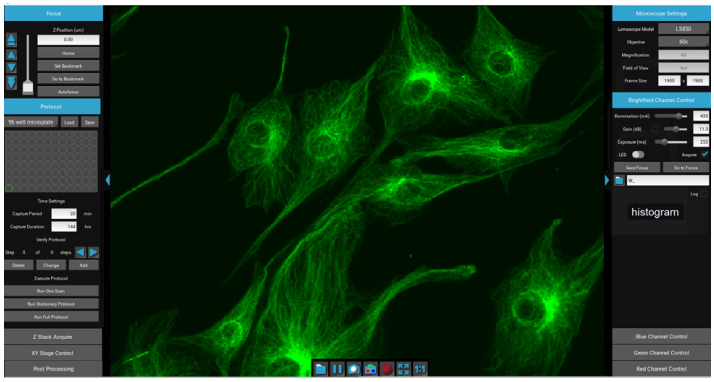
The LS820 offers walk-away automation for single FOV time-lapse with the highest quality wide field microscopy images for your research.



Live cell imaging is our specialty



Diffraction limited resolution



LumaviewPro application runs on Windows, Mac, and Linux

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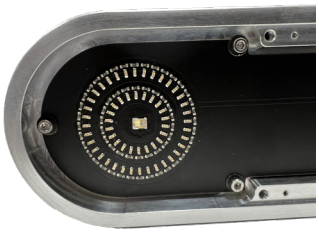
Lumascope model 820

The **Lumascope model 820** is a multi-channel automated inverted microscope which offers the latest advances in optics, cameras, and user flexibility. The LS820 in your incubator allows you to have a live cell imaging system that offers minimum photo toxicity and the most stable environment for long term imaging.

Uses commercial microscope objectives



Multi-mode transmitted illumination technology

Optional manual stage

Features

- High performance, diffraction limited optics
- Three channel fluorescence, bright field and phase contrast
- Use in incubators, hoods, hypoxia chambers, and on the bench
- Autofocus and z-stacks to 100 nm
- LumaviewPro control application on Windows, Mac, or Linux
- Accomodates microplates, microfluidics, slides, dishes, flasks and deck-top chambers

Specifications

LED Excitations	405 nm, 488 nm, 589 nm
Filter Set	Blue: Excitation 370-410 nm, Emission 429-462 nm Green: Excitation 473-491 nm, Emission 502-561 nm Red: Excitation 580-598 nm, Emission 612-680 nm
Transmitted Modes	Bright Field and Phase Contrast
Objectives	1.25x, 2.5x, 4x, 10x, 20x, 40x, 60x, 100x incl. oil immersion
Camera	High QE Monochrome CMOS BSI Sensor; 4.4 megapixel, 12-Bit
Image Formats	TIF, BMP, PNG, JPG
Image Size	100 x 100 up to 2100 x 2100 pixels
Video Rate	45 FPS (exposure limited)
Motorized Z	14 mm travel, 100 nm step, image-based autofocus, Z-stacks
Control Software	LumaviewPro, Multi OS control application
Computer Requirements	Windows 10, 11: Core i7, 1TB SSD, 8GB RAM Mac OS: M1, 1TB SSD, 8GB RAM Linux (Debian): 1TB SSD, 8GB RAM
Power Requirements	100-240 V, 50-60 Hz
Integration	Python source under the MIT Open Source License
Dimensions	24 cm W x 22.6 cm D x 27.8 cm H
Weight	10 lb (5 kg)
Operating Conditions	4°C - 42°C, 5% - 95% RH non-condensing

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