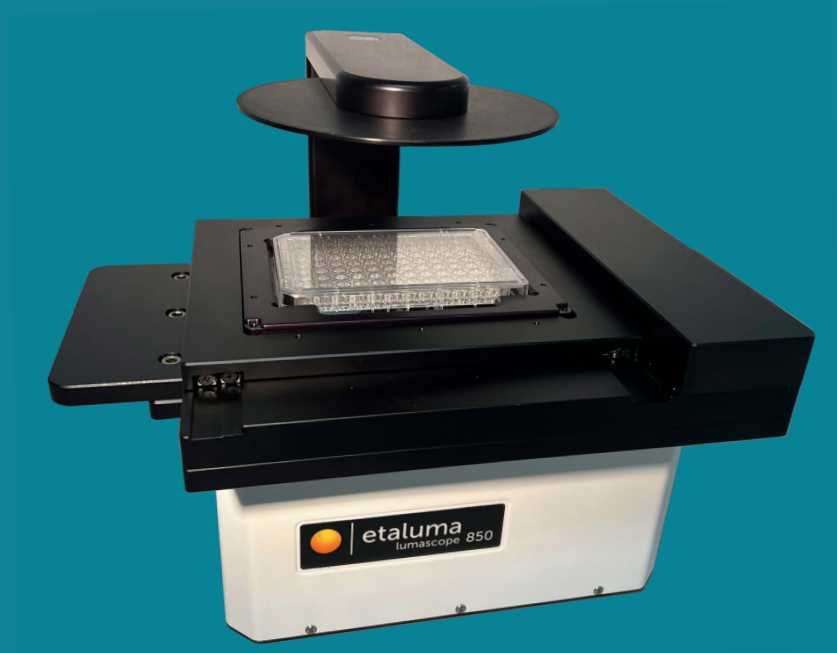
Live Cell Microscopy



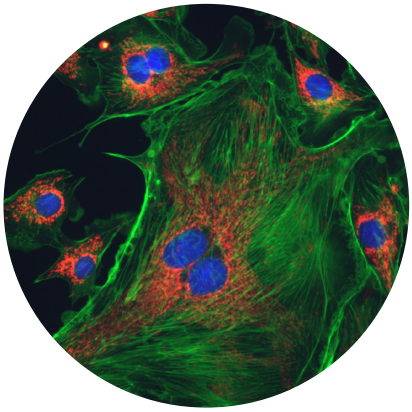
LS850

Fully Automated Microscope

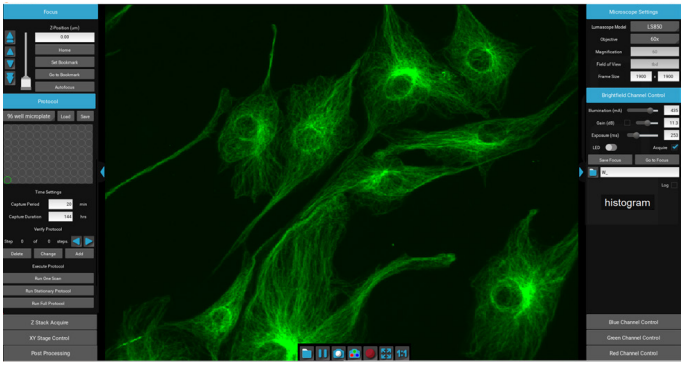
- High Resolution 3-Color Fluorescence
- Multi-position imaging with Z-control
- Live Cell Imaging in Your Incubator

The LS850 offers walk-away automation with the highest quality wide field microscopy images for your research.

Live cell imaging is our specialty



Diffraction limited resolution



LumaviewPro is a powerful microscope control application

etaluma™

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Lumascope model 850

The **Lumascope model 850** is a multi-channel automated inverted microscope which offers the latest advances in optics, cameras, throughput, and user flexibility. The LS850 in your incubator allows you to have a live cell imaging system that offers minimum phototoxicity and the most stable environment for long-term imaging.

Uses real microscope objectives

Multi-mode transmitted illumination technology

Optional motorized 4-position turret

Features

- *High performance, diffraction limited optics*
- *Three channel fluorescence, bright field and phase contrast*
- *Use in incubators, hoods, hypoxia chambers, and on the bench*
- *High speed stage with single digit micron precision for tiling with stitching*
- *Autofocus and z-stacks to 100 nm*
- *LumaviewPro control application on Windows, Mac, or Linux*
- *Optional automated 4-position turret*
- *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)
Automated XY	110 mm x 74 mm, 1-3 micron positional reproducibility
Motorized Z	14 mm travel, 100 nm step, image-based autofocus, Z-stacks
Throughput	96-well microplate, transmitted only, no AF: 2.5 minutes 3 channel Fl, no AF: 6.5 minutes
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	39.8 cm W x 29.7 cm D x 29.7 cm H (15.6 in W x 11.6 in D x 11.6 in H)
Weight	21 lb (9.5 kg)
Operating Conditions	4°C - 42°C, 5% - 95% RH non-condensing

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