

Live Cell Microscopy



LS850

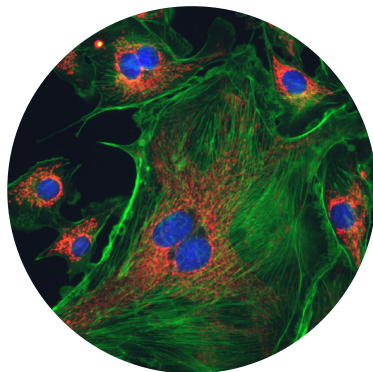
Fully Automated Microscope

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

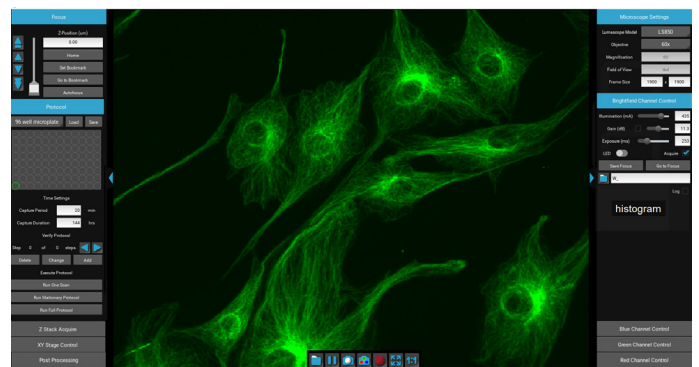
The LS850 offers walk-away automation with the highest quality wide field microscopy images for your research.



Live cell imaging is our specialty



Diffraction limit resolution



LumaviewPro application runs on Windows, Mac, and Linux



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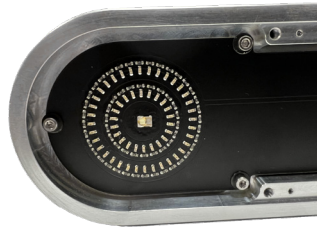
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Lumascope model 850

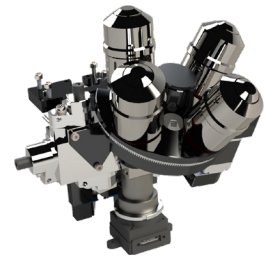
The **Lumascope model 850** is a multi-channel automated inverted microscope which offers the latest advances in optics, cameras, throughput, and user flexibility. The LS850 in your incubator allows you to have a live cell imaging system that offers minimum photo toxicity and the most stable environment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



Uses commercial microscope objectives



Multi-mode transmitted illumination technology



Optional motorized 4-position turret

Features

- High performance optics
- High speed stage with single micron precision and accuracy
- Tile multiple fields of view into a stitched montage
- Optional automated 4-objective turret
- Long range motorized Z for autofocus and Z-stacks down to 100 nm
- LumaviewPro application runs on Windows, Mac, or Linux
- Bright field, phase contrast and dark field illumination
- Accommodates microplates, microfluidic chips, slides, dishes, flasks, and deck-top chambers
- Use in hoods, incubators, hypoxic chambers, gloveboxes

Specifications

LED Excitation:	405 nm, 488 nm, and 589 nm
Fluorescence Filters:	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, Phase Contrast, Dark Field(low mag)
Objectives:	1.25x, 2.5x, 4x, 10x, 20x, 40x, 60x, and 100x(oil)
Camera:	High Sensitivity Monochrome CMOS BSI Sensor; 5 MP, 12-Bit
Image Formats:	JPG, BMP, TIF, or PNG
Image Size:	Adjustable up to 2100 x 2100 pixels
Video Rates:	25 FPS (exposure limited)
Automated XY Stage:	120 mm x 80 mm travel, 1-3 micron positional repeatability
Throughput:	96-well, 3 channel fluorescence, w/o autofocus ~ 6 minutes 30 seconds
Motorized Z:	14mm travel, 100 nm step, image-based autofocus, Z-stacks
Control Software:	LumaviewPro, multi operating system application
Computer Requirements:	Windows 10, 11; Core i7, 512GB SSD, 8GB RAM MacOS with M1; 512GB SSD, 8GB RAM
Linux Debian Distributions:	512GB SSD, 8GB RAM
Power Requirements:	80-264 V, 50-60 Hz <10W typical, 40W Max.
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:	10 Kg/22lbs
Operating Conditions:	0°C - 42°C, 5% - 99% RH non-condensing



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