

Live Cell Microscopy

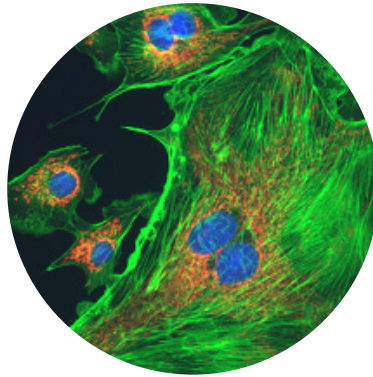
The LS800 Series microscopes from Etaluma are the latest in high quality wide field microscopy for your research



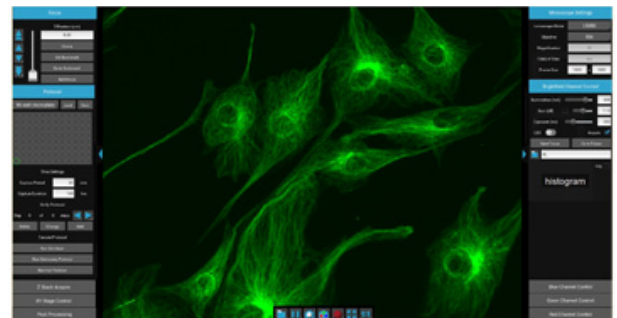
High Resolution
3-Color Fluorescence
Live Cell Imaging in Your Incubator



Live cell imaging is our specialty



Near Diffraction-limited resolution



LumaViewPro is a powerful microscope control application



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Lumascope 800 Series

The **Lumascope 800 Series** is a multi-channel automated inverted microscope platform which offers the latest advances in optics, cameras, and user flexibility. The LS820 and 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 available on the LS850

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 available on the LS850 only
- Autofocus and z-stacks to 100 nm
- LumaViewPro control application on Windows or Linux
- Optional automated 4-position turret for the LS850 only
- Accommodates microplates, microfluidics, slides, dishes, flasks, deck-top chambers, and robot accessible
- Supports Optogenetics

Specifications

<i>LED Excitations</i>	405 nm, 488 nm, 589 nm OR 485 nm, 555 nm, 640 nm
<i>Filter Set</i>	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
<i>Transmitted Modes</i>	Bright Field and Phase Contrast
<i>Objectives</i>	1.25x, 2.5x, 4x, 10x, 20x, 40x, 60x, 100x, incl. oil immersion
<i>Camera</i>	High QE Monochrome CMOS BSI Sensor; 4.4 megapixel, 12-Bit
<i>Image Formats</i>	TIF
<i>Image Size</i>	100 x 100 up to 2100 x 2100 pixels
<i>Video Rate</i>	45 FPS (exposure limited)
<i>Automated XY</i>	LS850 only: 110 mm x 74 mm, 1-3 micron positional reproducibility
<i>Motorized Z</i>	14 mm travel, 100 nm step, image-based autofocus, Z-stacks
<i>Throughput (LS850)</i>	96-well microplate, transmitted only, no AF: < 2 minutes
<i>Control Software</i>	LumaViewPro, Multi OS control application
<i>Computer Requirements</i>	Windows 11: Core i7, 2TB SSD, 16 GB RAM Linux (Debian): 1 TB SSD, 16 GB RAM
<i>Power Requirements</i>	100-240 V, 50-60 Hz
<i>Integration</i>	Python source under the MIT Open Source License
<i>Dimensions</i>	LS850: 39.8 cm W x 29.7 cm D x 29.7 cm H LS820: 24 cm W x 22.6 cm D x 27.8 cm H
<i>Weight</i>	LS850: 21 lbs. (9.5 kg) LS820: 10 lbs. (5 kg)
<i>Operating Conditions</i>	4°C - 42°C, 5% - 95% RH non-condensing



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