

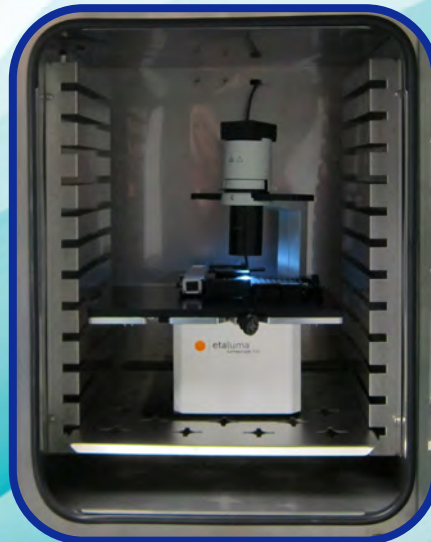
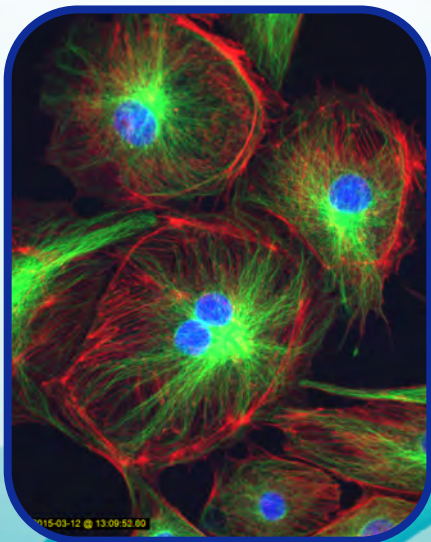


etaluma™
microscopy simplified™

LS720

Fully automated microscopy

High Resolution 3-Color Fluorescence
Automated XY Stage & Auto Z-Focus
Live Cell Imaging in Your Incubator



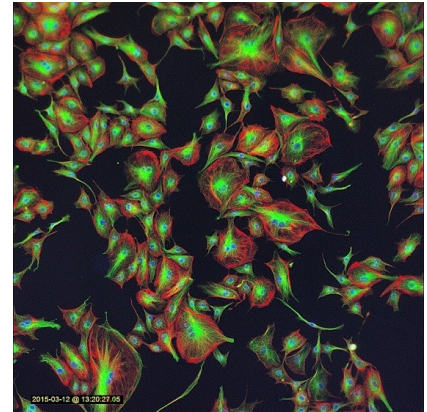
Blue, Green and Red Fluorescence, Brightfield, Optional Phase Contrast

www.etaluma.com

Lumascope™ 720

Blue, Green & Red Fluorescence and Walk-Away Automation

The powerful, new Lumascope 720 (LS720) adds walk-away automation to the many features and high performance of the flagship 3-color LS620. Exquisite XY motion control, motorized focus that allows autofocus and z-stacks, and easy-to-configure software combine to facilitate your microscopy experiments and high content screens. Place the LS720 in your incubator and you have a live cell imaging system at a fraction of the cost of conventional HCS systems. Whether imaging multiple fields in your flasks or 1536 wells of cells with 3 fluorophores in a 48 hour time-lapse, the 720 offers a whole new world of automated microscopy!



Typical 3-color fluorescent image with 720 optics

Features and Benefits

- Automated XY stage with autofocus in Z provides images (photos), time-lapse series, and videos recorded directly to your computer
- Fully functioning microscope empowers users to visualize cells from microplates, flasks, slides or custom labware
- Modern LED and advanced optical design provide near diffraction-limited (theoretical maximum) resolution
- Robust software allows set-up and control across many locations, including microplates and custom arrays
- Versatile and compact design enables use inside cell culture incubators and hoods
- Detects blue, green and red fluorophores, including BFP, DAPI, FITC, Fluo-4, GFP & mCherry
- Flip-up deck allows easy objective access
- Used manually, but also robot compatible (RS485, RS232, 5V digital interfaces)
- Objective compatibility with standard lenses permits use of your own objectives

Lumascope 720 Specifications	
Optics	Blue, green & red fluorescence; brightfield
Phase Contrast	Phase contrast optional
Objective Options	2.5x, 4x, 10x, 20x, 40x, 60x, and 100x(oil) magnification
Objective Compatibilities	RMS-threaded, infinity corrected, 45 mm parfocal distance
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
Camera	High Sensitivity Monochrome CMOS Sensor; C-mount
Image Formats	JPG, BMP, TIF, GIF, or PNG
Image Size	100 x 100 to 1900 x 1900 pixels
Field of View	0.9 x 0.9 mm with 20x objective
Video Rates	Up to 10 frames per second (fps); with reduced frame size, up to 30 fps
Automated XY Stage	SBS nest, 6- to 1536-well microplates; microfluidic chambers (contact Etaluma)
Subdeck	No automation; most flasks, dishes, other
Stage Travel Range	110 mm x 74 mm
Stage Move Speed	25 mm/sec
Well-to-well time (seconds)	Image 96 wells: a) 1 color focus & image: 13 min, b) 3 color focus & image: 34 min
Computer Requirements	Windows 7, 8, 8.1; 2 monitors recommended
Automation Friendly	SDK available
Power Requirements	USB for Lumascope; 100-240 V, 50-60 Hz for AutoStage
Dimensions	37.2 cm W x 40.5 cm D x 22.4 cm H (14.6 in W x 15.9 in D x 8.82 in H)
Weight	11 kg (25 lb)
Operating Conditions	0°C - 42°C, 5% - 95% RH non-condensing