

# INFINITY*lite*

1.5 Megapixel CMOS USB 2.0 Camera

Low cost scientific digital camera for documentation in Life Science, Clinical and Material Science Applications



## INFINITY*lite*

The INFINITY*lite* is specifically designed for the educational market as well as entry level microscopy applications. It is a compact, affordable microscopy camera that delivers outstanding image quality and excellent value. Highlights include live video preview and focus for the efficient capture of optimal images, as well as full integration to popular third-party imaging applications through our TWAIN drivers.

School districts can rest assured that an INFINITY*lite* camera will place their students at the forefront of digital imaging technology. The imaging skills acquired by students using an INFINITY*lite* can be directly applied throughout their careers in research, industrial or clinical microscopy.

## Excellent Color Reproduction

Years of experience in the microscopy market have allowed Lumenera to develop specialized color algorithms ensuring excellent color reproduction in samples ranging from stained cells to wafer inspection.

## INFINITY CAPTURE Software Included

INFINITY CAPTURE, an intuitive image capture program offering camera control, white balance, exposure controls and video production is included. Camera and software are combined to create a complete microscopy imaging solution for your application. INFINITY ANALYZE software is not included, however it can be ordered separately. Contact us for more information and pricing.

## USB 2.0 Plug-and-Play Interface

Once the software has been installed, running one or more cameras on a single computer is as simple as plugging them into a high-speed USB 2.0 port.

## Third-party Software Integration

INFINITY cameras are integrated into a variety of third-party software packages through direct drivers or with TWAIN/DirectX support.

## Superior Technical Assistance Center (TAC)

As a Lumenera partner you gain access to the TAC group and knowledge base which provide full support for cameras, software and microscopy applications.

## Features:

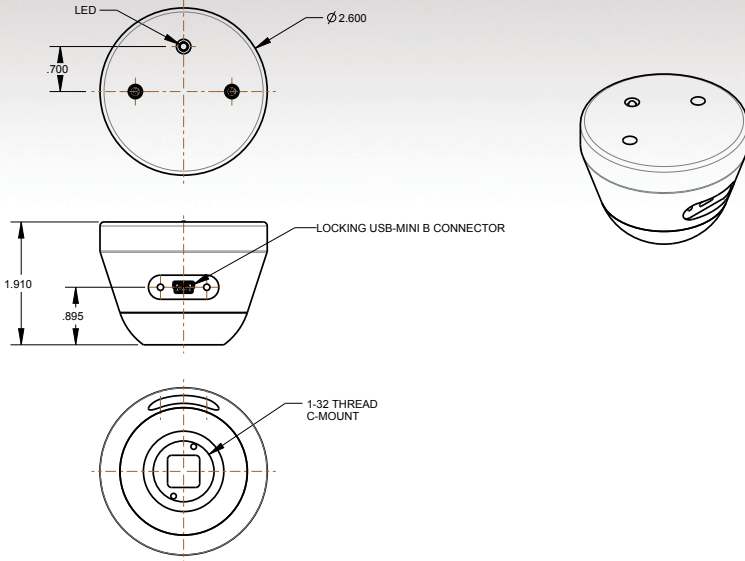
- Progressive scan 1.5 megapixel CMOS sensor
- Full color sub-windowing allows for rapid focus and scanning of samples
- Software compatible with Windows 8, 7, XP, Vista, Mac OS X 10.7, 32 and 64-bit operating systems.
- Includes TWAIN and DirectX/ Direct Show support
- Two (2) year warranty

## Recommended Applications:

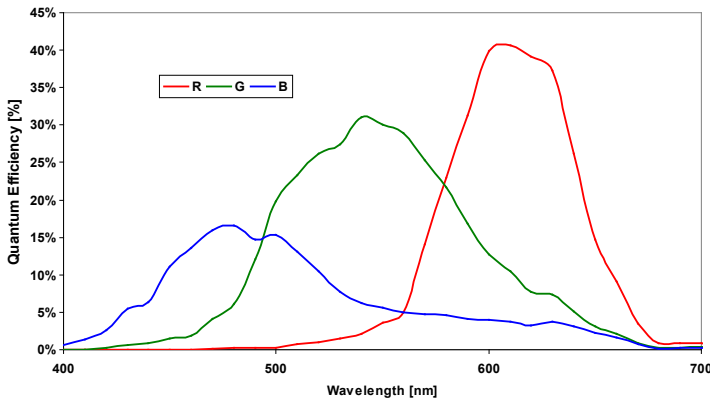
All typical entry-level industrial, clinical and life science applications including:

- Teaching labs
- Brightfield/Darkfield
- Histology
- Pathology
- Cytology
- Defect Analysis
- Veterinary Pathology
- Geology
- Histology
- Semiconductor Inspection
- Documentation
- DIC
- Live Cell Imaging





Quantum Efficiency



Sensor Specifications	
Image Sensor	CMOS, color, progressive scan
Optical Format	1/2.5"
Active Area	6.0 x 4.5 mm
Pixel Size	4.2 x 4.2 $\mu\text{m}$
Resolution	1440 x 1080 pixels
Region of Interest Control	Any multiple of 8 x 8 pixels, 32 x 32 pixels minimum
Camera Specifications	
Frame Rate	10 fps
Bit Depth	8-bits
Binning / Subsampling Modes	2x subsampling mode
Exposure	Manual and automatic control
Exposure Range	81 $\mu\text{s}$ to 339 ms (video), 81 $\mu\text{s}$ to 339 ms (snapshot)
Gain	Manual and automatic control
Gain Range	1 to 7.75 x
White Balance	Manual and automatic control
Camera Characteristics	
Sensitivity	2.2DN/(nJ/cm <sup>2</sup> ) [at 8-bit, 1x gains]
Dynamic Range	47.5 dB
Pixel Well Depth	12,600 e-
Quantum Efficiency	40% (red - peak)
Read Noise	53 e-
Dark Current Noise	<8 e-/s
Mechanical Specifications	
Data Interface	USB 2.0
Lens Mount	C-Mount standard
Dimensions	2.60 x 1.91 inch
Mass	245 grams
Operating Temperature	0 to 50 °C
Storage Temperature	-30 to 70 °C
Operating Humidity	5 to 95%, non-condensing
Shock / Vibration	50 G shock, 5 G (2-200 Hz) vibration
Camera Software	
Operating Systems	Windows XP, Windows Vista, Windows 7, Windows 8. 32 and 64-bits
Power and Emissions	
Power Consumption	~2.5 W
Power Requirement	USB bus power only
Emissions Compliances	FCC Class BE, CE Certified
Hazardous Materials	RoHS, WEEE Compliant
System Requirements	
Recommended PC Specs:	<ul style="list-style-type: none"> <li>• Pentium 4, 1.3 GHz or higher</li> <li>• 512 MB RAM</li> <li>• 500 MB hard drive free space or more</li> <li>• USB 2.0 Port</li> <li>• Windows 7</li> </ul>
Minimum PC Specs:	<ul style="list-style-type: none"> <li>• 600 MHz Processor</li> <li>• 256 MB of SDRAM</li> <li>• 200 MB hard drive free space</li> <li>• USB 2.0 Port</li> <li>• Windows XP</li> </ul>
Included In The Box	
INFINITY <i>liteB</i>	1.5 MP USB 2.0 digital camera
LuINFLTSW-DVD	DVD with INFINITY <i>lite</i> user application software, TWAIN driver and documentation
Lu802	2 m USB 2.0 Cable
Ordering Information	
INFINITY <i>liteB</i>	1.5 megapixel CMOS Camera
Ordering Options	
LuSDK	Software Developer's Kit (Web Download)
LuSDKSW-DVD	Software Developer's Kit (DVD)
Lu927	INFINITY ANALYZE Software

