

# wLS

The wLS broad-band LED illumination unit is designed to provide a long-life alternative to traditional Mercury and Mercury Metal Halide fluorescence excitation sources. The broad-band excitation covers common fluorophores, ranging from DAPI to Cy5, allowing existing filter cubes and protocols to remain in place. Unlike other broad-band LED solutions, the wLS provides rapid control over individual excitation LED wavebands (Ultraviolet, Blue and Green/Yellow/Red). This enables the use of multiband pass filters instead of individual filters, followed by slow mechanical filter changes during multi-label imaging.

LED excitation provides many advantages over traditional fluorescence light sources, most notably eliminating one source of toxic Mercury from the lab. It also lowers operating cost with its 25,000 hour LED lifetime, which consumes 80% less energy.

A control handset is included which provides instant on/off and intensity control in increments of 1% to 100%, over each individual Ultraviolet, Blue, and Green/Yellow/Red (GYR) excitation waveband. When used with a QImaging camera, the on/off control is easily accomplished with the cameras expose out signal and the wLS TTL input. The wLS further extends control to popular microscopy automation and analysis packages with its USB interface.

Upgrading an existing microscope is easy. The wLS supports a comprehensive range of microscope adapters that fit to current and older microscope systems. A 3mm liquid light guide option is available for hard to adapt or non-microscope systems.

## LED Light Source for Easy Fluorescence Imaging



features	advantages
Safe, long-life LEDs	<ul style="list-style-type: none"> <li>LED lifetime to 25,000 hours</li> <li>No dangerous Mercury lamps to change every 300 hours</li> </ul>
Broad excitation spectrum	<ul style="list-style-type: none"> <li>Excites common fluorescence labels in single and multiband sets</li> <li>No need to change filter sets</li> </ul>
Instant on/off	<ul style="list-style-type: none"> <li>Ready to go when you are</li> <li>Stable with minimum warm up and cool down</li> <li>No mechanical shutters to wear out</li> </ul>
Precise intensity control in 1% steps	<ul style="list-style-type: none"> <li>No ND filters required</li> <li>Stable and repeatable</li> </ul>
Easy coupling directly to the microscope	<ul style="list-style-type: none"> <li>Maximizes light coupled to specimen</li> <li>Produces optimal uniformity across FOV</li> <li>Minimal alignment</li> </ul>
TTL and USB control	<ul style="list-style-type: none"> <li>Easily integrates into your experiment</li> </ul>

Wide range of microscopes are supported with a simple adapter change

- Easily share a light source between microscopes



# WLS™ LED Illumination Unit

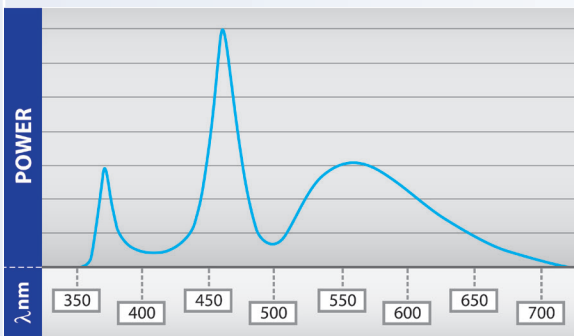
## specifications

Illumination	White light or individual UV, Blue or GYR wavebands
Intensity Control	1% steps from 0 – 100%
Attachment to Microscope	Direct Fit or Liquid Light Guide
Triggering	TTL for on/off control of selected channels using a BNC connection Switching time < 30 uS
Software Control	USB control for Windows 7, supported in most high end imaging packages
Power Requirements	100-240V a.c. 50/60Hz, 2A
Power Consumption	2W (standby), 80W (full white intensity)
Single and Multiband Wavelength Sets	Select UV wavelength to match your existing DAPI filters: Singleband for DAPI excitation at 365 nm, Multiband for DAPI excitation at 400 nm
Warranty	Electronics 12 months, LEDs 36 months

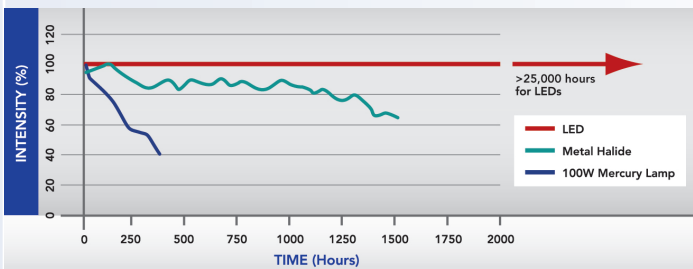
## dimensions

Light Source	77mm(w) x 186mm(d) x 162(h) - Weight 1.4kg
Control Pad	88mm(w) x 125mm(d) x 37mm(h) - Weight 0.32kg
Power Supply	167mm(w) x 67m(d) x 35mm(h) Weight 0.62kg

## illumination spectrum



## comparative lifetime



## supported software

- **Micromanager**  
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- **NIS Elements**  
Nikon Instruments
- **cellSens**  
Olympus
- **MetaMorph**  
Molecular Devices
- **Slidebook**  
Intelligent Imaging Innovations
- **VisiView**  
Visitron
- **Image-Pro Plus**  
Media Cybernetics

## included

- **wLS LED Illumination Unit**  
Model: wLS-SB  
wLS-WHITE; DIRECT COUPLED; SINGLE BAND  
Model: wLS-MB  
wLS-WHITE; DIRECT COUPLED; MULTI BAND
- *Handset Controller*
- *USB Cable*
- *Power Supply*
- *Adapter for Microscope\**

## handset controller



\*Supported by most microscopes.  
Note: Specifications are typical and subject to change.  
Refer to QImaging website for detailed listing of supported operating systems.  
Contact your local imaging representative for more information



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www.qimaging.com

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