

## LumenLED - LED Illumination

### Advanced Illumination For Fluorescence Microscopy



The use of LED's as an excitation source for fluorescence microscopy offers a range of advantages over conventional illumination systems. The Lumen LED system from Prior Scientific goes even further with the introduction of new functionality which brings the technology into mainstream fluorescence microscopy

Lumen LED offers two modes of operation which means the LED's can be optimised for specific applications. In Constant Light Mode, a photodiode is used to provide a closed loop feedback mechanism to ensure long term stability of illumination intensity, essential for quantitative experiments for example. For more general imaging applications, Constant Current Mode is available to assure maximum illumination intensity.

The LumenLED is a modular system based around a 2 position or 4 position LED combiner. To maximise light efficiency the combiner is directly coupled to the fluorescence port of the microscope. The system can be mounted on to most of the major manufacturers inverted or upright microscopes using the appropriate adapters.

10 LED modules\* are available and can be easily exchanged in the combiner. Together with the ability to add excitation filters to each LED module ensures the wavelengths are optimised for the current application.

\* More Wavelengths to be added.

Part Number	Description
HF554	Adapter for Olympus microscopes
HF510	Adapter for Zeiss microscopes.
HF500	Adapter for Leica microscopes
HF258	Adapter for Nikon microscopes



CERTIFICATE NO: FM 61600  
STANDARD: BS EN ISO 9001:2000

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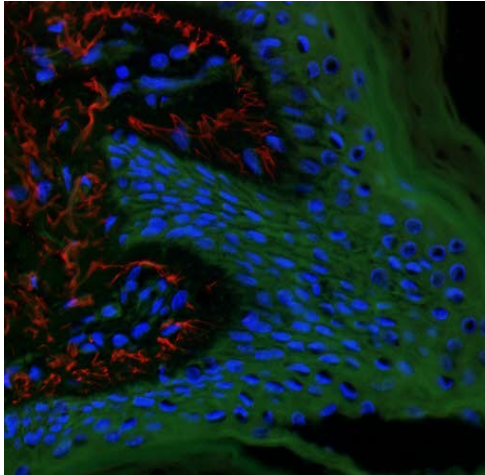
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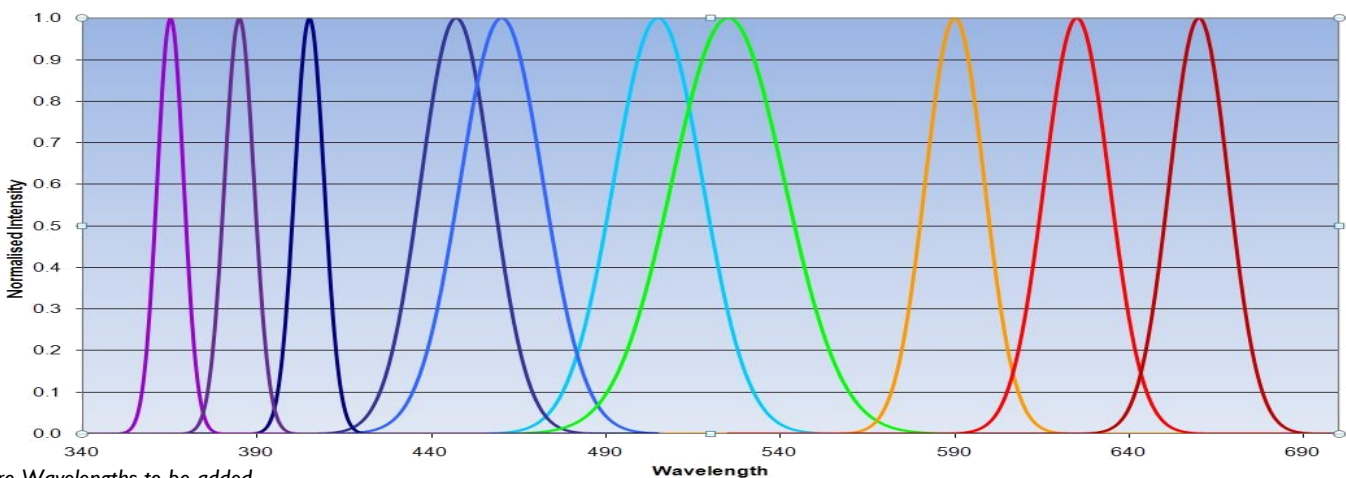
*Skin Section*  
LED 405 Nuclei — Hoechst  
LED 460 F-actin — Alexa 488  
LED 525 Elastin—Cy3



### LED Wavelengths \*

LED365	Single LED unit for 365nm
LED385	Single LED unit for 385nm
LED405	Single LED unit for 405nm
LED447	Single LED unit for 447nm
LED460	Single LED unit for 460nm
LED505	Single LED unit for 505nm
LED525	Single LED unit for 525nm
LED590	Single LED unit for 590nm
LED625	Single LED unit for 625nm
LED660	Single LED unit for 660nm

- Up to 4 LEDs can be used simultaneously.
- Instant On/Off, no warm up time required.
- Precise intensity control in 1% increments.
- Minimal heat and zero mechanical vibrations.
- 10,000+ hours lifetime of LED.
- Up to 10 LEDs available \*, and are easily exchangeable in a matter of seconds.
- Excitation filters can be added to each LED module to optimise bandwidth.
- Switching of wavelengths in microseconds (via TTL).
- 2 modes of operation , Constant Current & Constant Light
- Integrated Closed Loop Optical Feedback system for highest possible stability.
- Direct Coupling to Microscope for maximum light efficiency
- Adapters to fit on to all of the major microscope manufacturers.



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