

D-LIGHT

A REVOLUTIONARY NEW FLUORESCENCE ILLUMINATION SYSTEM



D-LIGHT OVERVIEW

The D-Light is a revolutionary new illumination system for fluorescence microscopy.

A 200 Watt metal halide lamp produces a powerful spectral output that closely matches a traditional mercury (HBO) style lamp but unlike a conventional fluorescence lamp housing, the lamp is housed in a fan cooled enclosure and coupled to the microscope with an advanced liquid light guide and a microscope matched colimator.

ADVANTAGES

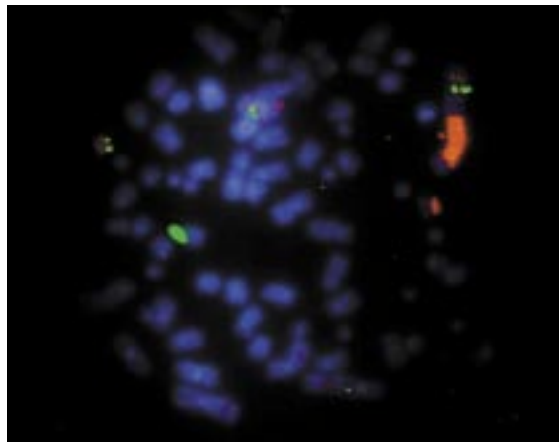
- Up to 20 times the lamp life. 2000 hours.
- Brighter. 200W Metal Halide Lamp.
- No tricky bulb alignment.
- Even illumination over whole field of view.
- More stable. Suitable for long term experiments.
- Lower running costs up to 10 times less!
- Fast and easy bulb changes.
- Low heat transfer; protects your filters.
- Adjustable lamp intensity.
- Compatible with all main microscopes makes.

D-LIGHT PRO

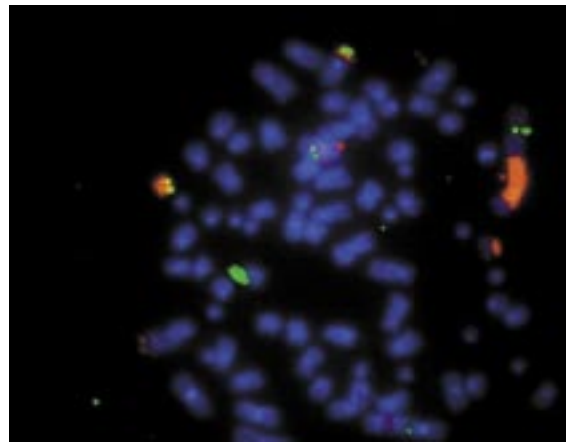
The D-Light is available as the Pro version with an internal computer controlled filter wheel and light attenuating shutter. The D-Light Pro is compatible with the Digital Scientific SmartCapture image acquisition software. This combination is a cost effective means of upgrading an existing manual fluorescence microscope to a full fluorescence imaging system.

D-LIGHT EQ

The D-Light EQ is the extended frequency response version of the D-Light. This new addition to the D-Light range is unique in the market in that it is suitable for use with near infrared (NIR) dyes such as Cy5.5 that require excitation at wavelengths of 700nm and beyond. The D-Light EQ is ideally suited to applications such as M-FISH that depend on having sufficient illumination power at these longer excitation wavelengths.



Sub optimal illumination with conventional lamp



Even illumination with D-Light

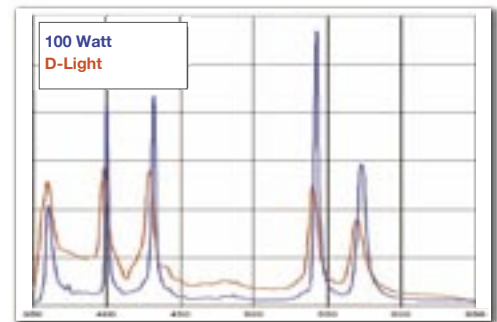
EVEN ILLUMINATION - GUARANTEED

One of the common problems with the conventional fluorescence microscope light source is optimizing and maintaining its proper adjustment to provide even illumination over the whole field of view. Uneven illumination becomes much more of a problem when using digital imaging. This is because contrast stretching used to bring out the signals from the background also enhances uneven illumination across the image. Note how the chromosomes in the images taken using a conventional lamp become darker around the periphery of the image. The red signal on the left is nearly lost altogether.

POWERFUL 200W ILLUMINATION

The D-Light uses a powerful 200W metal halide lamp that gives a similar spectral output to more traditional (HBO) mercury vapour lamps. This spectral comparison graph shows the D-Light delivers 50% higher intensity at 488nm (FITC excitation) compared to an HBO-100. The D-Light allows the lamp intensity to be easily attenuated without any change to the spectral colour balance.

The extra brightness over a conventional light source can make the difference between being able to score small faint signals by eye or not.



EASY LAMP REPLACEMENT

Unlike mercury vapour lamps the lamp used in the Lumen 200 system requires no precision arc alignment for it to provide bright and even illumination. Lamps are pre-centred, lamp changes take only a few minutes. A front panel display shows the number of lamp hours used. An alarm is sounded when the bulb requires changing. The lamp timer is an integral part of the lamp and so the displayed time used is always accurate. No more lamp log books required!

2000 HOUR LAMP LIFE / LOWER RUNNING COSTS

Running costs are substantially lower with the D-Light. The following is a table comparing the per hour cost of a Zeiss HBO-50, HBO-100 and the D-Light. Compared to a Zeiss HBO-50 running for an average of 25 hours a week, the D-Light will save over £1100 per year.

Type	Bulb cost	Life (hrs)	Cost / hr
HBO-50	£109.00	100	£1.09
HBO-100	£130.00	200	£0.65
D-Light	£430.00	2000	£0.17

LOW HEAT TRANSFER

By mounting the D-Light remotely from the microscope stand, heat transfer is eliminated. This aids stability and helps reduce drift due to thermal expansion in long term experiments. The reduced heat also greatly reduces heat damage to excitation filters.

To find out more or arrange a demonstration contact:

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