

**EVIDENT**

# Fluorescence Ready Illumination

LED Illumination Systems



# LED Illumination for Fluorescence Microscopy

Because fluorescence workflows place different demands on illumination, no single light source is optimal for every microscope or application. Evident offers two solid-state illumination systems, designed to support everything from routine fluorescence imaging to advanced, multichannel workflows.



U-FLLED



U-LGPS

## Which Illumination System Is Right For You?

|                           | U-FLLED                                                          | U-LGPS                                                        |
|---------------------------|------------------------------------------------------------------|---------------------------------------------------------------|
| Fluorophore coverage      | Standard fluorophores (DAPI, FITC, TRITC, Cy5)                   | Standard fluorophores plus CFP and violet dyes                |
| Output power (500–650 nm) | Moderate (Sufficient for routine imaging)                        | High (Demanding or low-signal samples)                        |
| Software support          | cellSens Standard & Dimension                                    | cellSens Standard, Dimension, APEX, FV, VS200 ASW             |
| Standalone control        | Hand controller with per-channel intensity control, no PC needed | Front dial for global control (Per-channel requires cellSens) |
| Configuration & cost      | 2 channel, upgradeable to 3 and 4 as needs evolve                | Fixed 5-LED configuration                                     |

Both U-FLLED and U-LGPS systems provide stable output, uniform illumination, and long-term reliability using solid-state light sources.

This energy-efficient illumination replaces traditional mercury vapor and metal halide light sources, eliminating warm-up time, bulb degradation, and toxic materials while delivering long-term stable output.

# U-FLLED

## Modular Illumination for Everyday Fluorescence Microscopy

The U-FLLED solid-state illumination system is designed for routine fluorescence imaging on conventional microscopes. It mounts directly to the microscope and uses passive, fan-free cooling for silent, vibration-free operation.

The base configuration includes blue and green LEDs optimized for common fluorophores such as FITC and TRITC. Optional UV and deep red modules extend coverage to dyes including DAPI and Cy5, enabling you to expand spectral capability over time.

The U-FLLED system can be operated using the included hand controller for direct LED control without a PC, making it well suited for visual inspection and routine workflows. USB connectivity enables software control to synchronize with camera and to reduce light exposure during multicolor imaging.

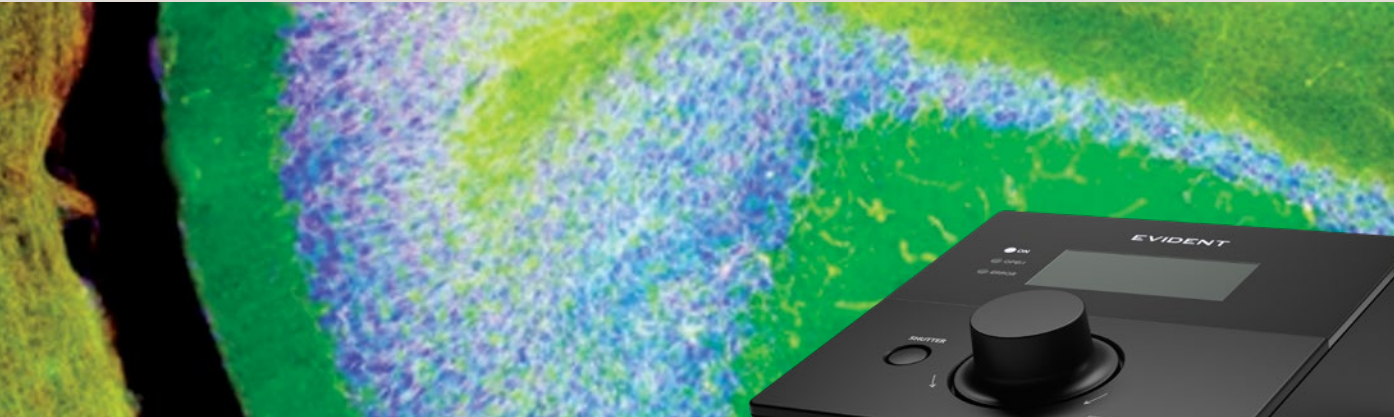
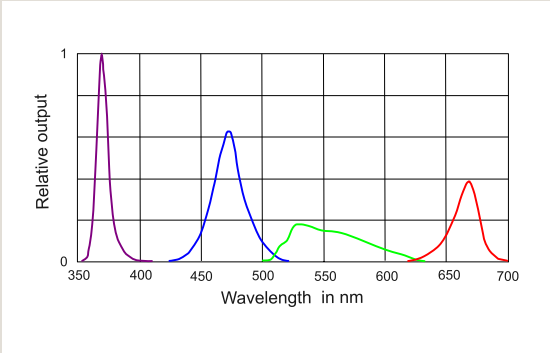


Image: Mouse Brain  
Blue: Nuclear (Hoechst)  
Green: Microtubule Associated Protein 2 (Alexa Fluor 488)  
Red: Myelin Basic Protein (Alexa Fluor 568)  
Sample courtesy of EnCor Biotechnology Inc.



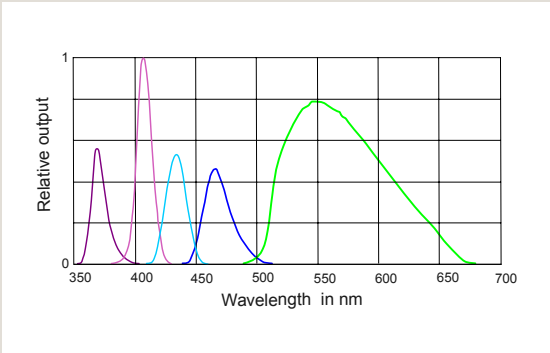
# U-LGPS

## High-Performance Illumination for Advanced Imaging Workflows

The U-LGPS solid-state illumination system is engineered for demanding fluorescence applications that require higher output and faster acquisition. The system connects via a light guide, allowing flexible placement away from the microscope.

In addition to multichannel LEDs, the U-LGPS system incorporates laser diode-pumped phosphor technology (LPD), delivering significantly higher output in the 500–650 nm range. This reduces exposure times for applications such as live imaging, Z-stacks, and large-area scans.

The U-LGPS system is optimized for use with cellSens™ software for automated control and synchronized acquisition. Standalone operation is also supported via the front command dial in white light mode.



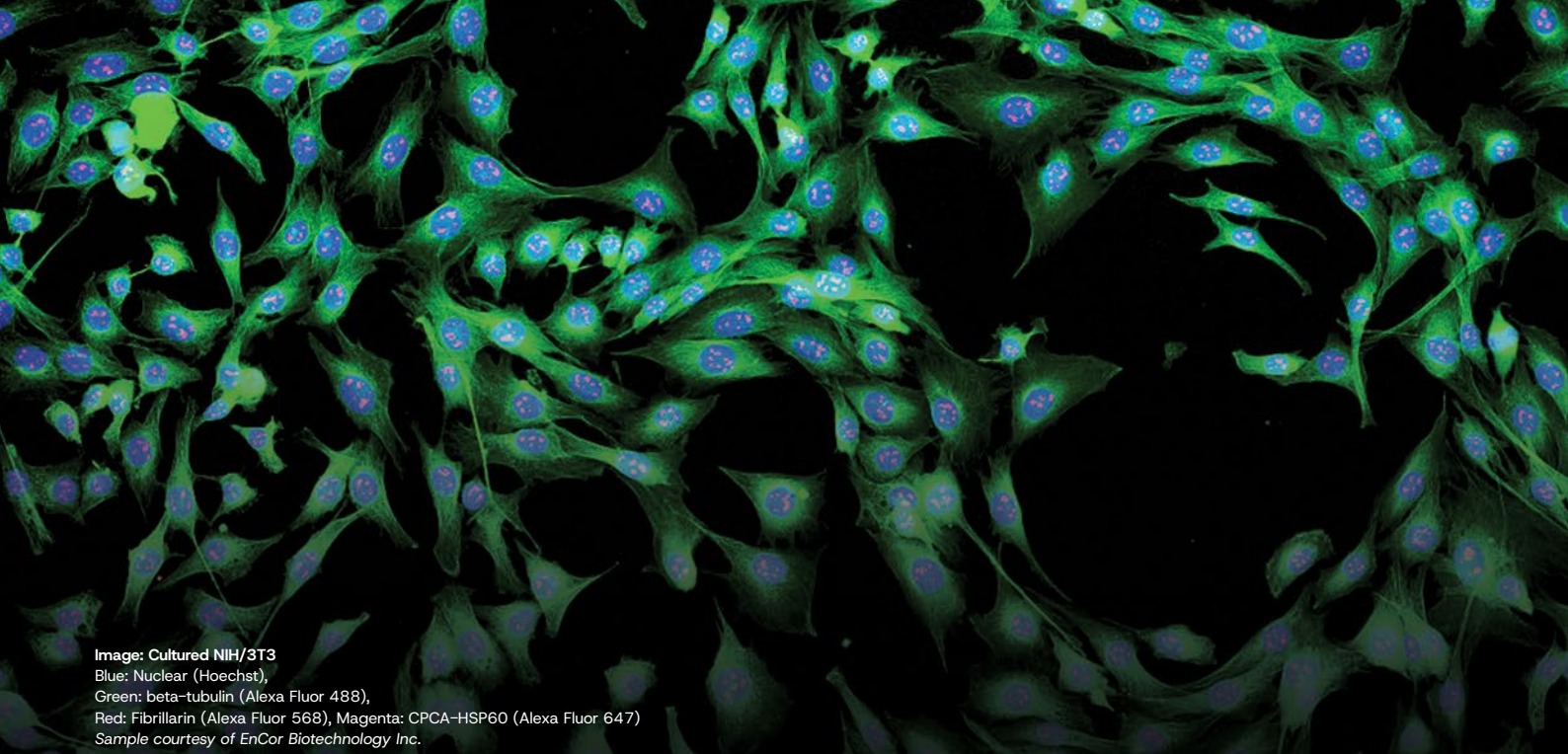


Image: Cultured NIH/3T3  
Blue: Nuclear (Hoechst),  
Green: beta-tubulin (Alexa Fluor 488),  
Red: Fibrillarin (Alexa Fluor 568), Magenta: CPCA-HSP60 (Alexa Fluor 647)  
Sample courtesy of EnCor Biotechnology Inc.

# Key Specifications

| Specification                           | U-FLLED                               | U-LGPS                                                                       |
|-----------------------------------------|---------------------------------------|------------------------------------------------------------------------------|
| Solid-state illumination                | LED                                   | LED plus LDP                                                                 |
| Peak wavelength (nm)                    | 365, 480, 540, 665                    | 367, 407, 436, 470, 550                                                      |
| Number of LEDs                          | 4 (upgradeable 2→4)                   | 5 (fixed)                                                                    |
| Replacement for mercury or metal halide | Yes                                   | Yes                                                                          |
| Output level (500–650 nm)               | Moderate                              | High                                                                         |
| Cooling                                 | Passive                               | Active                                                                       |
| Noise at microscope                     | Silent                                | Low                                                                          |
| Microscope connection                   | Direct mount                          | Light guide up to 3 m                                                        |
| Standalone operation                    | Hand controller                       | Front dial                                                                   |
| Compatible microscopes                  | BX, IX, CKX, SZX, MVX, MX             | BX, IX, CKX, SZX, MVX, MX, GX, APX, FV, VS                                   |
| Software integration                    | cellSens Standard, cellSens Dimension | cellSens Standard, cellSens Dimension, cellSens APEX, cellSens FV, VS200 ASW |
| Lifetime                                | 25,000 hours                          | 25,000 hours                                                                 |

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- Images on the PC monitors are simulated.
- Illumination devices for microscopes have suggested lifetimes. Periodic inspections are required. Please visit our website for details.
- Specifications and appearances are subject to change without any notice or obligation on the part of the manufacturer.