



## FLUOLED<sup>®</sup> 2CFW

### Two color LED illuminator for reflected light fluorescence

- **Reflected light LED illuminator for 1 and 2 color applications, best for routine fluorescence.**
- **Fluorescence excitation provided by long-life Light Emitting Diodes (LED).**
- **Includes all components required to transform a bright field microscope into a unit capable of fluorescence.**



Universal illuminator for reflected light fluorescence.

This all-round illuminator allows transforming a standard bright field microscope into a unit capable of fluorescence.

Illumination is provided by solid-state sources (light emitting diodes – LED) with a lifetime of typically 30.000 hours.

Available for 1 and 2 color fluorescence.

#### **Application examples:**

- IFA (Immunofluorescence Assays, 1 color Blue excitation)
- Bacteriology and parasitology (especially 2 color excitation Blue-Green and UV-Blue)

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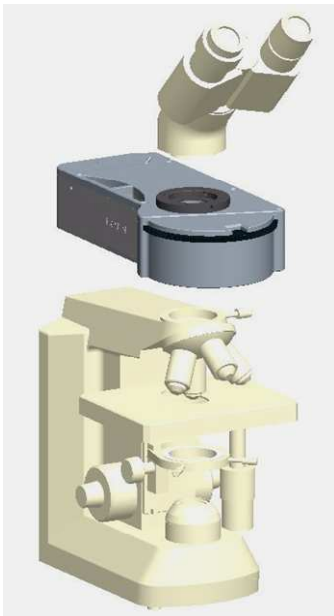


## Philosophy and goals

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FLUOLED® 2CFW represent a fast and reliable solution for routine fluorescence microscopy using light emitting diodes (LED) as a source of excitation.

Different from other LED devices, FLUOLED® 2CFW includes the epi-fluorescence light path (vertical illuminator) for optimized illumination of the sample. Fluorescence becomes available even on microscopes where original accessories are not manufactured any more.



The illuminator is easily installed between microscope stand and tube within minutes, not requiring any alignment of the light source. Optical components like filter cubes and light sources are installed at factory.



## General Characteristics

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FLUOLED® 2CFW is designed for infinite focus optical microscopes. The illuminator mounts on the microscope between the observation tube and the stand. Fluorescence excitation is provided by long lasting light emitting diodes (LED) mounted into the main illuminator's body. The light sources are installed at factory.

Dimensions (mm) 2CFW:	293 (L) x 130 (W) x 64 (H)
Weight (Kg) 2CFW:	3,8 Kg
Power	100-240VAC 50/60Hz universal voltage
Operating temperature	5°C to +40 °C (41°F to 104°F)
Typical LED life time	30.000 hrs

FLUOLED® 2CFWL light sources:  
(light sources are installed at factory, more colours available on request)

FLUOLED® 1CSL & 2CSL	
UV	365 nm
ROYAL BLUE	450 nm
BLUE	480 nm
GREEN	535 nm
YELLOW	590 nm
RED	630 nm

FLUOLED® 2CFW complies to the followings standards:

**EMC std.:**

EN 55015:2006  
EN 61547:1995 +A1:2000  
EN 61000-3-2:2006

**SAFETY std.:**

EN 62471:2008  
EN 60950:2006

Technical documentation kept by: Fraen Corporation S.r.l.

## Mechanical and optical characteristics

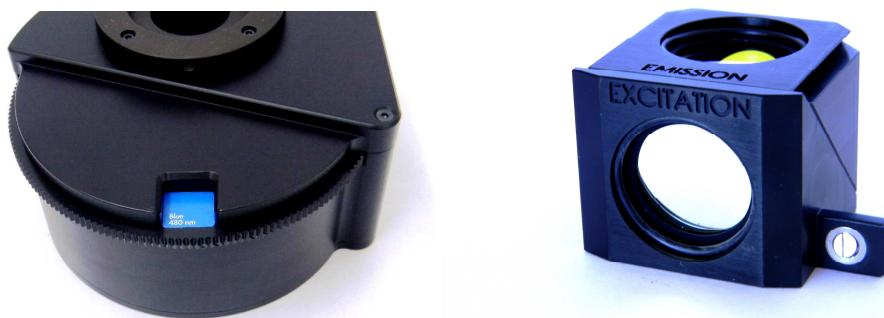
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- The illuminator mounts on the microscope between the observation tube and the stand.
- The filter wheel is completely dust protected, for the insertion of fluorescent filter sets mounted on filter cubes. Additional empty position for transmitted light observations.
- ON/OFF switches for individual LED control; illumination intensity is fixed at 100%.
- Designed for infinite focus optical microscopes.



FLUOLED<sup>®</sup> 2CFW: side view with detail of ON/OFF switch (left)  
rear view with slots for LED cassettes (right)

The machined aluminium illuminator body offers increased stability and protection of the optical and electronic system components. The filter slider is completely dust protected and allows for the insertion of fluorescent filter sets mounted on filter cubes.



Three positions filter wheel and filter cube

### Microscope compatibility

FLUOLED<sup>®</sup> 2CFW is available for a selection of microscopes. Please inquire for models and brands.