

# X-Cite®

Fluorescence Illumination • In Control

## X-Cite NOVEM™

More Power.  
More Wavelengths.  
More X-Cite.

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Full spectral coverage from Fura-2 to IR800

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9-channel wavelength selection

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LaserLED Hybrid Drive® with 4-position motorized filter changer

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Pre-installed clean-up filters

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Control via speedDIAL, USB, TTL, analog

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Whisper quiet operation

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Microscopy  
TODAY  
2021 Innovation Award

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**EXCELITAS**  
TECHNOLOGIES®



# High power performance that but when it runs this

The X-Cite NOVEM™ has it all. With high power output, a wide spectral range and convenient design features, this 9-channel LED illuminator does everything but compromise.

## More Power and Performance

X-Cite NOVEM incorporates Excelitas' patented and award-winning LaserLED Hybrid Drive technology, utilizing high efficiency laser diodes to excite a phosphor layer and generate light from 500nm to 600nm. The resulting intense, broad peak ensures plenty of power in this critical part of the spectrum.

Individually controllable and powerful, X-Cite NOVEM's nine channels are bright enough to rival arc lamps in microscopy applications. Reduced sample exposure and scanning times will translate to improved image quality and productivity in most applications. Each channel can be set to its own intensity, in 1% increments, giving you full control and flexibility.

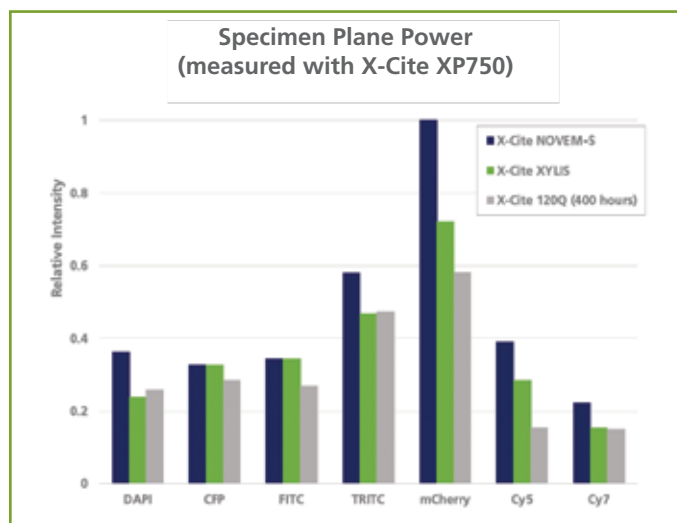
## Extended Spectral Coverage from UV-IR

Spectral coverage in X-Cite NOVEM extends further than in any previous X-Cite system.

With five independent LEDs and the LaserLED Hybrid Drive powering four additional channels, X-Cite NOVEM is the most versatile X-Cite platform.

Spectral highlights include:

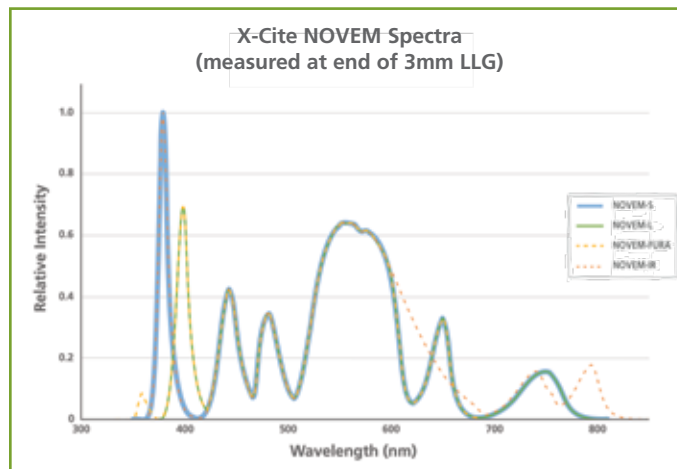
- Fura-2 – Why purchase a light source that is only useful for one application? Available with a combination of 340/385nm LEDs, X-Cite NOVEM is ready for ratiometric calcium imaging as well as traditional widefield fluorescence.
- YFP/TRITC/mCherry – An enhanced LaserLED Hybrid Drive provides increased excitation in the 500-600nm range. In this region, a four-position motorized filter changer automatically isolates spectral bands. There is no need to manually switch between clean up filters. No more having to choose between TRITC or mCherry for experiments... with the X-Cite NOVEM you can do both!
- Cy7 – Imaging labs can keep their spectral options open with X-Cite NOVEM's improved 735nm LED for Cy7.
- IR800 – X-Cite NOVEM is the only LED illuminator to include a 785nm peak for IR800 imaging and other emerging far-red applications.



## Clean-up Filters Made Easy and Smart

Each of X-Cite NOVEM's five independent LEDs has a pre-installed clean-up filter in an individual holder. Mounted on dowel pins, these single filters simply slide out when not required.

In the 500-600nm region, powered by the LaserLED Hybrid Drive, our unique four-position filter changer automatically moves the appropriate clean-up filter into place when channels 4 to 7 are selected. It doesn't get more convenient than this!



# It's impossible to miss... It's quiet, you just might.

## Imaging Software Compatibility

Windows drivers that automatically download, and compatibility with common imaging software platforms make X-Cite NOVEM simple to integrate, right out of the box! Take full advantage of LED instant ON/OFF capability with PC control or TTL triggering. All X-Cite NOVEM models have USB, TTL, and analog inputs for automated applications.

The free downloadable X-Cite Control Panel GUI has been expanded to nine channels, making it easy to troubleshoot connections, create LED groups, and configure ring buffers for single-input triggering.

For manual control, X-Cite NOVEM has an updated speedDIAL. Use the intuitive main dial to turn LEDs on/off and adjust intensity, and the smaller side buttons to conveniently scroll through the nine channels. A new display layout provides information on channel number, peak wavelength, LED status and intensity.



## Whisper Quiet Operation

Everyone in the lab will appreciate X-Cite NOVEM's super quiet operation, thanks to the ultra-efficient design for thermal management.



Fluorophore	Wavelength (nm)	Filter*	Wavelengths Available			
			X-Cite NOVEM-S	X-Cite NOVEM-L	X-Cite NOVEM-FURA	X-Cite NOVEM-IR
FURA-2	340				●	
DAPI	365	378/52	●			●
DAPI	385	378/52		●	●	
CFP	435	438/24	●	●	●	●
FITC	475	474/27	●	●	●	●
Blank Filter	500-600		●	●	●	
YFP	510	509/22	●	●	●	●
TRITC	555	554/23	●	●	●	●
mCherry	580	578/21	●	●	●	●
Cy5	635	635/18	●	●	●	●
Cy7	735	735/28	●	●		●
IR800	785	775/46				●

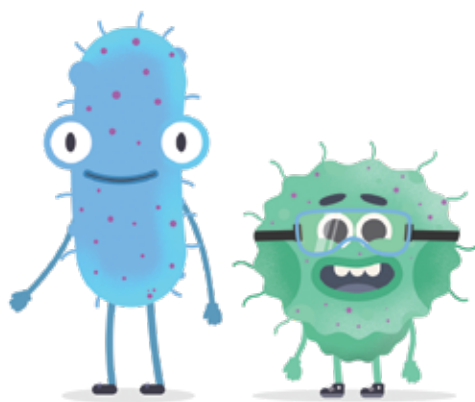
Powered by LaserLED Hybrid Drive and rotary filter changer.

\*Filter holders and rotary filter changer are populated in "-F" models only.

**Whatever the application, from slide scanning to FISH,  
Fura-2 to IR800... X-Cite NOVEM has it covered.**

## TECHNICAL SPECIFICATIONS

<b>Wavelength Ranges</b>	X-Cite NOVEM-S: 360-770nm X-Cite NOVEM-L: 380-770nm X-Cite NOVEM-FURA: 340-660nm X-Cite NOVEM-IR: 360-800nm
<b>Input Power Supply</b>	Universal input 100-240VAC, 50/60Hz
<b>Current</b>	4.5A max/100V, 1.9A max/240V
<b>Response Times</b>	LED ON/OFF: 100µs TTL / 1ms USB Rotary Filter Changer: 500ms / ≤2s minimum duty cycle
<b>Control Options</b>	speedDIAL ON/OFF - TTL compatible Intensity - Analog RS-232 commands (SDK available), USB
<b>I/O Connections</b>	Mini DIN plug, 9pos (speedDIAL) USB (B-type) DB15 x 9 BNC (TTL) DB15 x 6 BNC (Analog)
<b>Dimensions (WxHxD)</b>	205mm x 265mm x 270mm (8.1" x 10.8" x 10.6")
<b>Weight</b>	9kg (19.8lbs)
<b>Shipping Dimensions (WxHxD)</b>	440mm x 400mm x 555mm (17.3" x 15.7" x 21.8")
<b>Shipping Weight</b>	11.8kg (26lbs)
<b>Certifications</b>	CE, RoHS, KC
<b>Warranty</b>	LEDs – 25,000 hours or 3 years All other X-Cite NOVEM components - 1 year, parts and labor (excluding LLG)
<b>Patents</b>	X-Cite NOVEM incorporates technology protected by patent US#9,239,133 and US#10,788,678



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