X-Cite® 120LED Illumination System

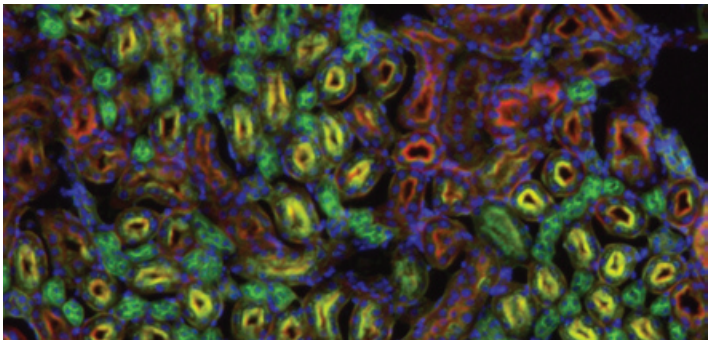
Advanced yet simple. Think of the potential.

Superior Performance. Precision. Reliability.

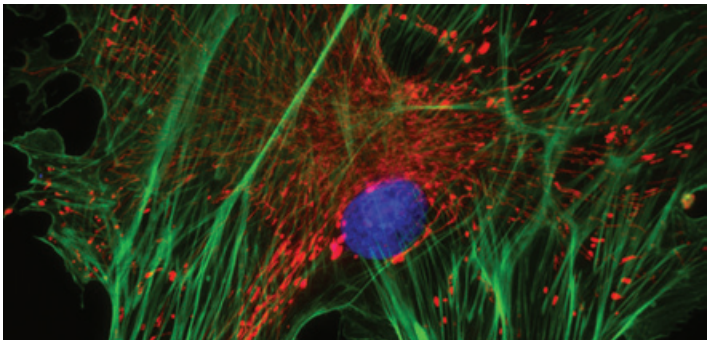
- High-power, broad-spectrum fluorescence excitation
- Exceptional field uniformity at the specimen
- Instant ON/OFF without mechanical shuttering
- Ergonomic manual controller and built-in USB interface
- Long-life, zero maintenance technology
- Quiet, vibration-free thermal management

X-Cite®
Fluorescence Illumination • In Control

www.ldgi.com



Mouse kidney section stained with DAPI, Alexa Fluor® 488 WGA and Alexa Fluor® 568 phalloidin.



BPAE cells labeled with MitoTracker® Red CMXRos, Alexa Fluor® 488 phalloidin and DAPI.

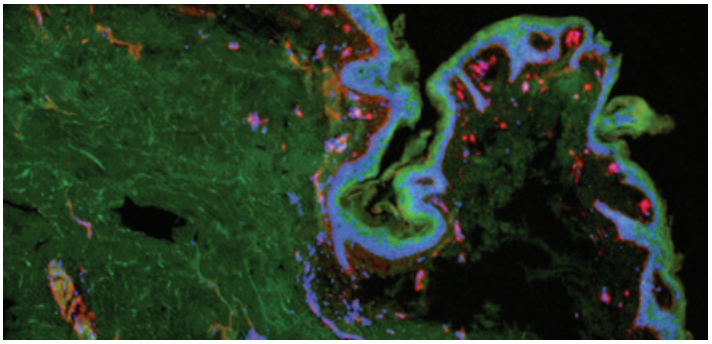
X-Cite® 120LED represents everything you expect from X-Cite®, plus everything you ever wanted in a light source – the superior optical performance of the X-Cite® 120 combined with the mercury-free benefits of long-life LED technology. No compromise required.

Simple and Intuitive

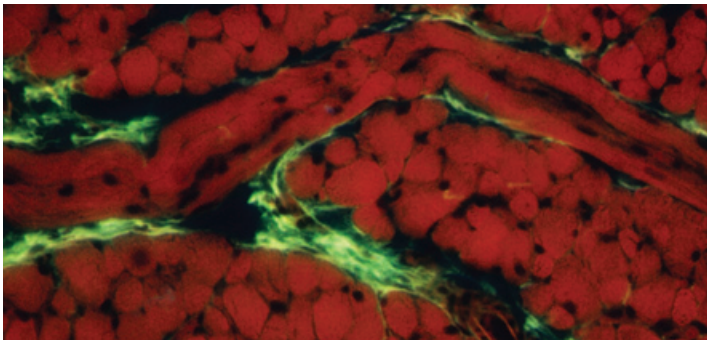
The X-Cite® 120LED redefines ease and convenience in fluorescence excitation. Designed with intuitive controls and no bulbs or modules to install, set-up and operation has never been simpler. With LEDs rated to 25,000 hours and the elimination of consumable components, the X-Cite® 120LED lets researchers focus on their experiments instead of equipment maintenance.

Versatile

X-Cite® 120LED is the ideal mercury-free choice for typical fluorescence imaging applications. The X-Cite® 120LED provides high-power, broad-spectrum fluorescence excitation from 370-700nm, catering to a wide range of popular fluorophores and fluorescent proteins. Highly-engineered direct coupling optics ensure bright, uniform illumination on microscopes from all major manufacturers.



Skin section stained with Hoechst, Alexa Fluor® 488 F-Actin, Cy3 Collagen IV.



Tongue autofluorescence.

Direct Coupling Without Vibration

The innovative thermal management design of the X-Cite® 120LED allows direct coupling to the microscope for maximum power without adding mechanical vibration. Electronic shuttering provides sub-millisecond operation while avoiding the vibration and failure risk of mechanical shutters.

Electronic Shutter and Silent Thermal Management

Fanless, high output LED head design and lack of shutter noise make for virtually silent operation, providing an optimal work environment for microscopists, while at the same time allowing for maximum precision in vibration-sensitive imaging experiments.

Multiple Control Options for Maximum Flexibility

X-Cite® 120LED offers complete automation for multi-day time-lapse experiments and simple ergonomic manual control via speedDIAL. Take full advantage of LED instant ON/OFF capability to limit photobleaching and phototoxicity with ultra-fast PC control or TTL triggering. X-Cite® 120LED can be driven by commercial imaging software, and an SDK is available for developing customized control solutions.

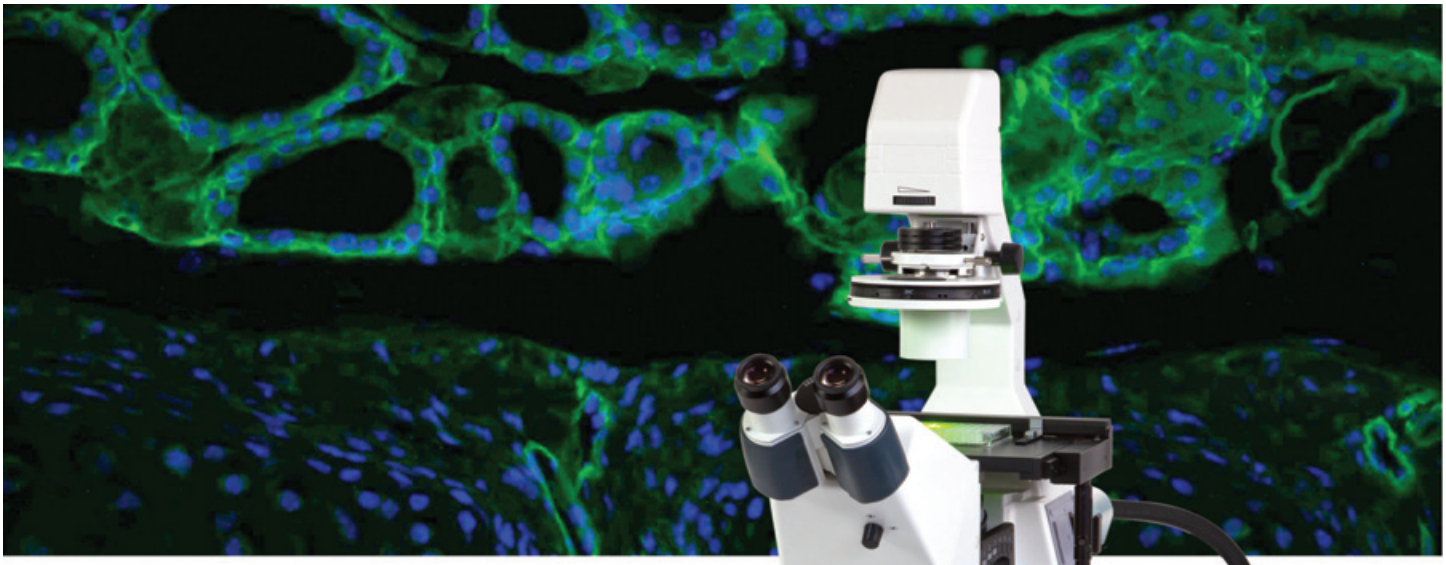
Ergonomic Fingertip Control

X-Cite® 120LED's ergonomic speedDIAL can be placed where it is most comfortable for individual users. With a large speed-sensitive intensity dial that doubles as an ON/OFF button, controlling illumination is quick and intuitive. Always know the current intensity setting regardless of room lighting conditions via speedDIAL's backlit display. Quickly jump to a favorite intensity setting with a double-tap on speedDIAL.

Ready When You Are!

With instant-on capability, X-Cite® 120LED is ready to use within seconds, giving researchers the freedom to set the schedule. Whether fluorescence is required occasionally, daily or continuously, X-Cite® 120LED will be ready.

> *"The X-Cite® 120LED provides accurate FRET measurements and works well with all of our fluorophores. We find it bright, uniform and easy to use."*
>
> **Dr. Ammasi Periasamy**
> W.M. Keck Center for Cellular Imaging
> University of Virginia, USA



Trachea section stained with Hoechst and Alexa Fluor® 488 laminin.

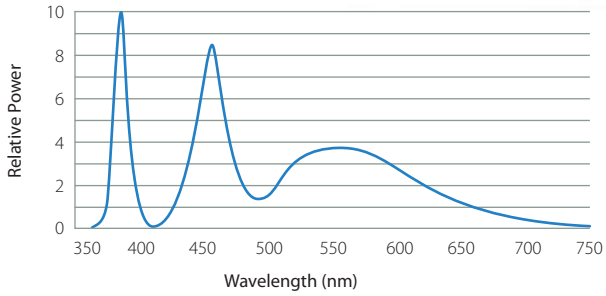
X-Cite® 120LED System includes:

- X-Cite® 120LED Head
- X-Cite® 120LED powerCUBE
- X-Cite® 120LED speedDIAL
- Your choice of microscope flange
- Accessory kit (hex key, manual/driver disk, quick start guide, USB cable, power cord)

Technical Specifications

X-Cite® 120LED			
Wavelength Range	370-700nm		
Power Supply	Universal input 100-240VAC, 50/60Hz		
Power Consumption	230W		
LED ON/OFF Response Times	50µs TTL 1ms USB		
Control Options	Manual – speedDIAL (1% increments) TTL compatible – BNC input RS-232 commands (SDK available) USB		
	powerCUBE	**LED Head**	**speedDIAL**
Height	213mm (8.4")	116mm (4.6")	59mm (2.3")
Width	173mm (6.8")	90mm (3.5")	80mm (3.1")
Depth	260mm (10.2")	166mm (6.5")	112mm (4.4")
Weight	4.8kg (10.6lbs)		0.3kg (0.7lbs)
Certifications	CE marked; certified to IEC, Canadian and US standards; RoHS2 compliant		
Warranty	LEDs – 25,000 hours (or 3 years); all other X-Cite® 120LED components 1 year, parts and labor		

X-Cite® 120LED Spectra



Images courtesy of: cover – Dr. Scott Olenych, Carl Zeiss Microscopy; inside – James Jonkman, University Health Network, Toronto and Dr. Kavita Aswani, Lumen Dynamics; back – Dr. Kavita Aswani, Lumen Dynamics.

LUMEN DYNAMICS
PUTTING YOU IN CONTROL

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