

X-Cite®

Model Comparison - Overview



Key feature differences between X-Cite® models:

X-Cite® 120 Q	X-Cite® 120PC Q	X-Cite® 200DC	X-Cite® <i>exacte</i>
120W AC lamp	120W AC lamp	200W DC lamp	200W DC lamp
5-step iris (optional)	5-step iris	0-100% continuous iris	100-step iris
	Internal shutter, ~200ms	High speed internal shutter, 5-6ms (via TTL)	High speed internal shutter, 5-6ms (via TTL)
	Full PC control via RS-232	TTL shutter control only	Full PC control via USB
		340-800nm filter	340-675nm filter
		Auto Liquid Light Guide (LLG) detection	Auto Liquid Light Guide (LLG) detection
			Closed-Loop Feedback (CLF)
			Output calibration

Recommended Applications

Applications requiring high output power; good minute to hour stability	Applications requiring high output power; good minute to hour stability; PC control of shutter and iris	Applications requiring high degree of short term (ms) stability; high speed shuttering; excitation up to 800nm	Applications requiring high degrees of short term (ms) or long term (days) stability; repeatable light levels; full PC control of shutter and iris
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All X-Cite® illumination systems feature:

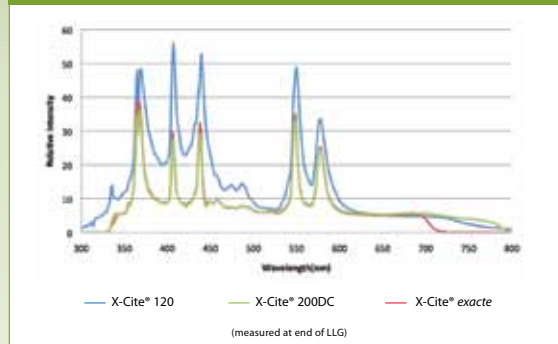
- Pre-aligned, long life lamps with Intelli-Chip® automatic lamp hour tracking
- 2000 hour lamp warranty
- Intense, uniform illumination – comparable to, or better than, conventional HBO lamps
- Microscope coupling via liquid light guide and optical adaptor – no heat to microscope

X-Cite® systems are ideal for:

- Labs where fluorescence illumination is used regularly and standard 200-hour HBO lamps require frequent replacement – X-Cite® lamps will last 10X longer than HBO
- Facilities where microscopes from multiple manufacturers are used – X-Cite® can standardize equipment, eliminating the need to keep different types of replacement lamps on hand
- Anyone who would enjoy the freedom of not having to worry about checking lamp alignment

X-Cite® accessories also available from Lumen Dynamics – light guides, replacement lamps, microscope adaptors and power measurement tools. Visit www.LDGI-XCite.com for further details.

Spectral Comparison



X-Cite® 120

- High optical coupling efficiency for most power at objective plane
- Increased output 450-550nm

X-Cite® 200DC

- Increased output 675-800nm to excite more fluorophores (e.g. Cy7)

X-Cite® exacte

- Limits higher wavelengths for added LLG protection during long imaging experiments
- Note: available with extended range filter upon request

Stability of AC vs. DC Lamp Technology

	X-Cite 120® Series (AC lamps)	X-Cite® 200DC/exacte (DC lamps)
Short term (ms)	Intensity pulses every 3ms (not detectable by eye)	Maintains intensity at $\pm 0.5\%$ or better over milliseconds or hours
Medium term (s to hr)	Maintains intensity at $\pm 1.5\%$ at typical camera integration times	Maintains intensity at $\pm 0.5\%$ or better over milliseconds or hours
Long term (days)	Intensity can wander from day to day over lifetime; not detectable in most applications, but multi-day time lapses can be affected	Intensity is less variable day to day with steadier degradation over lifetime; X-Cite® exacte only – CLF can compensate for changes during long experiments
Applications	Appropriate for most applications	Often required for advanced applications, e.g. high speed imaging, structured illumination



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Hg-LAMP CONTAINS MERCURY, Manage in Accord with Disposal Laws, see www.lamprecycle.org or +1 800 668-8752

Lumen Dynamics Group Inc. is certified under the globally recognized ISO 9001 Quality Management System and the ISO 14001 Environmental Management System. Our global customers can trust that Lumen Dynamics strives to be the best possible supplier in all aspects of our business.

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