

Why Switch from Lamp to X-Cite mini+™?



Power

- Excitation from DAPI to Cy5
- X-Cite mini+ output power is comparable to a stabilized arc lamp

Stability

- No flicker
- Zero warm up/cool down delays
- Minimal intensity degradation over time
- Better than 1% stability without active feedback control
- Better repeatability than arc lamps

Phototoxicity

- Studies have shown that cells proliferate better and show less phototoxicity after imaging with a LED system vs. mercury lamp

Electrical Consumption

- 80% less than HBO mercury lamp
- LEDs do not run continuously and can be turned ON and OFF instantaneously

Lifetime

- 20,000 hours or 3 year warranty on LEDs

Cost of Ownership

- Zero consumable costs
- Reduction in operating costs by \$1700/year!
- Higher savings on electricity costs

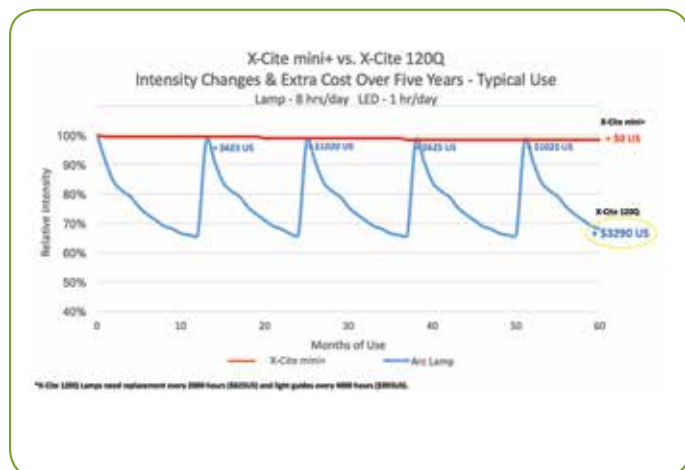
Service & Warranty

- 3-day turnaround for warranty repairs
- Fixed rate service fees
- Extended warranty available (North America only)
- 1 year manufacturer's warranty on system, parts and labor

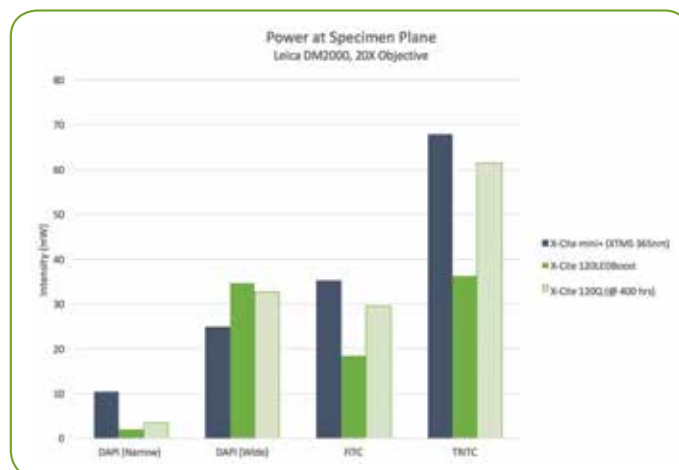
Green

- Zero mercury
- Zero consumables
- Reduction in energy consumption

Intensity Comparison: X-Cite mini+ vs. Lamp



Power: X-Cite mini+ vs. Other X-Cite models



Note: Excitation filters 360nm/40, 385nm/70, 470nm/40, 545nm/30.

Potential Cost and Energy Savings with X-Cite mini+

Table 1: Cost of Ownership (per 20,000 hours of "ON time")

	HBO	X-Cite 120Q	X-Cite mini+
Replacement Lamps	100	10	-
Lamp Costs	\$15,000	\$6,250	-
Replacement Light Guides	-	5	-
Light Guide Costs	-	\$1,975	-
Bulb Disposal (\$5/bulb) ¹	\$500	\$50	-
Maintenance Costs (bulb, \$20/hr) ²	\$1,000	\$17	-
TOTAL	\$16,500	\$8,292	\$0

Notes:

- Mercury-Free Microscopy white paper www.mygreenlab.org.
- Assumes 30 min to change/align HBO lamp, 5 min for X-Cite 120Q.

Table 2: Energy Consumption (per day)

	HBO	X-Cite 120Q	X-Cite mini+
ON Time ¹	8 Hours	8 Hours	1 Hour
Lamp Lifetime Used	4%	0.4%	0.005%
Energy Used ²	1.24 kWh	1.92 kWh	0.24kWh
Electricity Cost (per day) (\$0.15/kWh) ³	\$0.19	\$0.29	\$0.04
Electricity Cost (per year)⁴	\$46.50	\$72.00	\$9.00

Notes:

- Assumes 8 hour day, 4x15 min imaging sessions. Arc lamps left on for the day and LEDs on continuously during each session.
- Calculated based on published technical specifications.
- Typical rate. Actual rates will vary by region and/or time of day.
- Assumes a 5 day week x 50 weeks.