

X-Cite®

Fluorescence Illumination • In Control

Why Switch from Lamp to LED?



Stability

- No flicker
- No warm up time / delay
- Slower intensity degradation over time
- Better than 1% stability without active feedback control
- Better repeatability than arc lamps

Power

- LED (X-Cite® XYLIS) now matches the optical output of a lamp!

Lifetime

- >10,000 hours

Phototoxicity

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

Electrical Consumption

- 69% less than mercury lamp
- LEDs do not run continuously and can be turned ON and OFF instantaneously

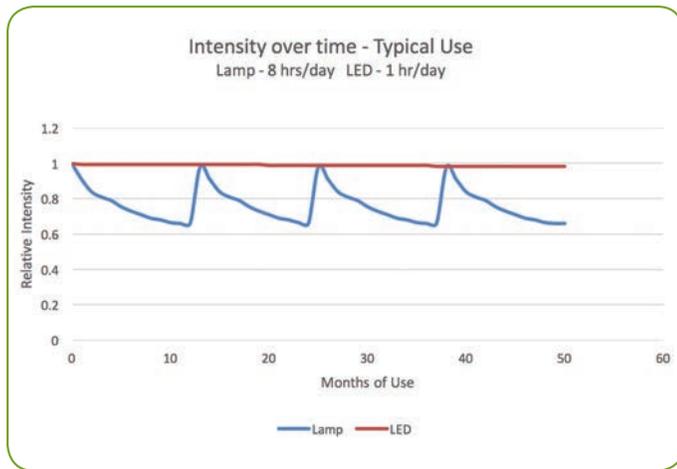
Cost of Ownership

- Reduce operating costs by \$1700/year!
- Savings on replacement lamps, light guides, electricity

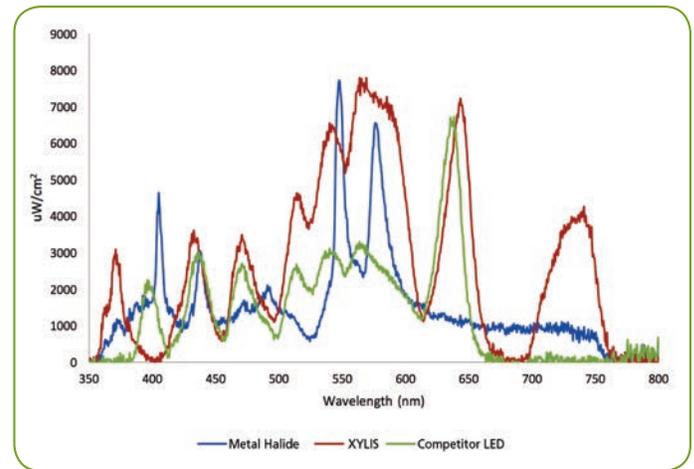
Green

- Zero mercury
- Reduce energy consumption by 84%

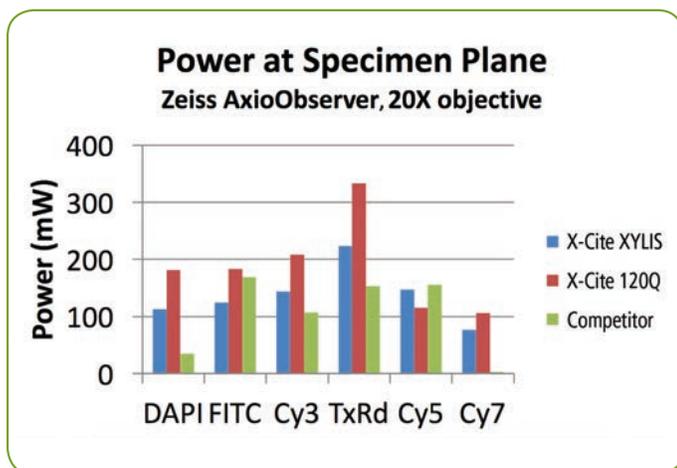
Intensity Over Time - Typical Use



Lamp, X-Cite XYLIS & Competitive LED Spectra Chart



X-Cite XYLIS Compared with X-Cite 120Q and Competitor



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

	HBO	X-Cite 120Q	X-Cite 120LEDmini	X-Cite XYLIS
Replacement Lamps	100	10	-	-
Mercury Content	1100 mg	200 mg	-	-
Lamp Costs	\$15,000	\$6,250	-	-
Replacement Light Guides	-	5	-	2
Light Guide Costs	-	\$1,975	-	\$790
Bulb Disposal (\$5/bulb) ¹	\$500	\$50	-	-
Maintenance Costs (bulb, \$20/hr) ²	\$1,000	\$17	-	-
TOTAL	\$16,500	\$8,292	\$0	\$790
Hourly Cost³	\$0.82	\$0.41	\$0	\$0.04
Annual Cost⁴	\$1,650	\$829	\$0	\$10

Notes:

1. Mercury-Free Microscopy white paper www.mygreenlab.org.
2. Assumes 30 min to change/align HBO lamp, 5 min for X-Cite 120Q.
3. Assumes 8 hour day, 4x15 min. imaging sessions. Arc lamps left on for the day and LEDs on continuously during each session.
4. Assumes a 5 day week x 50 weeks.