

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™ II) now matches the optical output of a lamp!

Lifetime

- >20,000 hours

Phototoxicity

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

Electrical Consumption

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

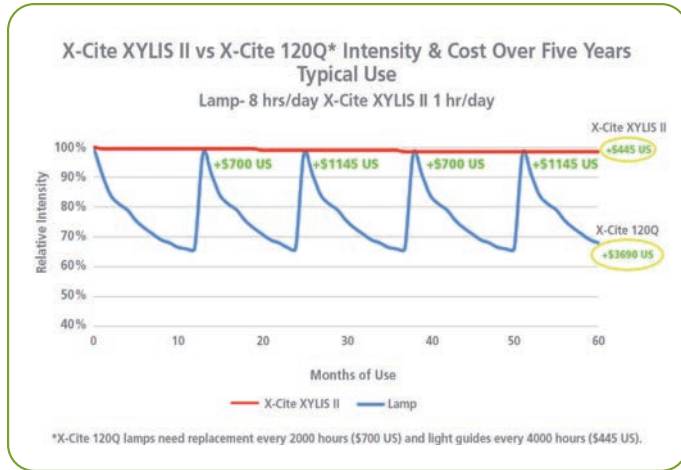
Cost of Ownership

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

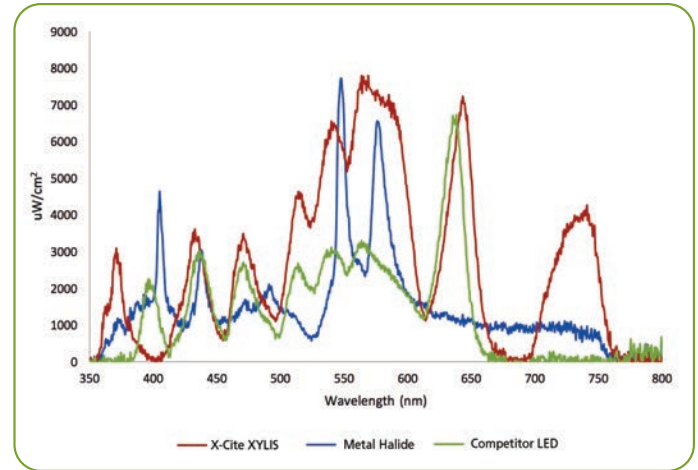
Green

- Zero mercury
- Reduce energy consumption by 84%

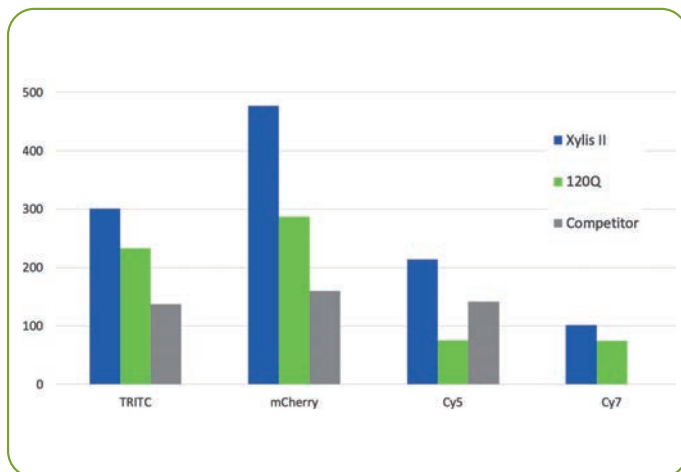
Intensity Over Time - Typical Use



Lamp, X-Cite XYLIS II & Competitive LED Spectra Chart



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



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

	HBO	X-Cite 120Q	X-Cite XYLIS II
Replacement Lamps	100	10	-
Mercury Content	1100 mg	200 mg	-
Lamp Costs	\$15,000	\$7,000	-
Replacement Light Guides	-	5	2
Light Guide Costs	-	\$2,225	\$890
Bulb Disposal (\$5/bulb) ¹	\$500	\$50	-
Maintenance Costs (bulb, \$20/hr) ²	\$1,000	\$17	-
TOTAL	\$16,500	\$9,292	\$890
Hourly Cost³	\$0.825	\$0.465	\$0.045
Annual Cost⁴	\$1,650	\$929	\$11

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, 4 x 15 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.
5. Calculated based on published technical specifications.
6. Typical rate. Actual rates will vary by region and/or time of day.