# X-Cite XYLIS™ II

## Brilliance Across the Spectrum

- Powerful LED fluorescence illumination for both compound and stereomicroscopes
- Broad spectral coverage for excitation from DAPI to Cy7
- Precise intensity control for sensitive samples Convenient light guide delivery
- Low maintenance and mercury-free
- Whisper quiet operation


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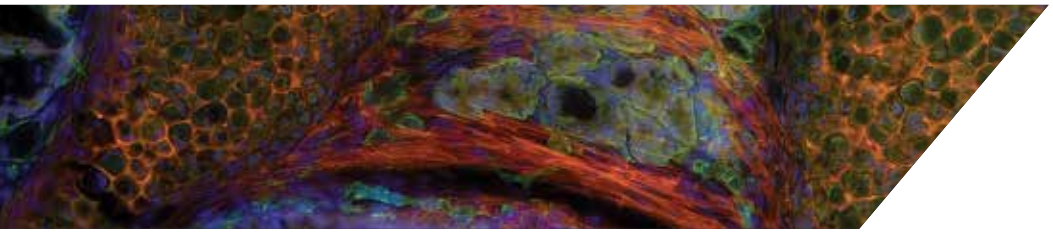
# X-Cite XYLIS II is a true arc lamp replacement for making the switch to LED



## BETTER PERFORMANCE, LESS NOISE

Introducing X-Cite XYLIS™ II. With improvements across its broad spectrum and sound levels 10dB quieter than the original XYLIS, the only thing you'll notice is great performance. Researchers can enjoy the benefits of LED technology without compromising on price, flexibility, or performance. No more hesitation, no more excuses.

## BRIGHTNESS OF AN ARC LAMP

Specially selected LEDs built into the X-Cite XYLIS II are powerful enough to replace arc lamps on both compound and stereomicroscopes. The impressive output and low maintenance of XYLIS II can help breathe new life into under-used microscopes and make better use of laboratory resources.

## BROAD SPECTRAL COVERAGE

Like the original XYLIS, XYLIS II covers an extended spectral range, providing excitation from DAPI to Cy7. Spectral highlights include:

- DAPI: Two X-Cite XYLIS II models are available to provide a choice of UV excitation. XT730S has a 365 nm LED for a closer match to arc lamp output and compatibility with the narrow 365 DAPI filter sets which come standard in most microscopes. XT730L has a 385 nm LED for use with sensitive specimens and 385 DAPI filter sets which are becoming increasingly common.
- TRITC/Tx Rd/mCherry: X-Cite XYLIS II incorporates Excelitas' patented and award-winning LaserLED Hybrid Drive® technology, utilizing high efficiency lasers to excite a phosphor layer and generate light from 500nm to 600nm. The resulting intense, broad peak ensures plenty of power in this critical part of the spectrum.
- Cy7: X-Cite XYLIS II includes a 735 nm peak for Cy7 excitation. Labs no longer have to choose between the benefits of LEDs and keeping their spectral options open.

## FLEXIBILITY TO SUIT APPLICATION NEEDS

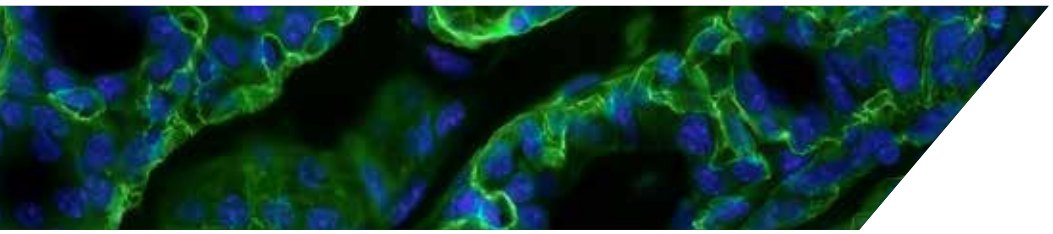
In addition to its powerful output and broad DAPI to Cy7 spectral range, X-Cite XYLIS II offers the ultimate in flexibility. Delivering light through a light guide, XYLIS II can be used with more than a dozen microscope adaptors or, where the microscope design allows, with the light guide alone. X-Cite XYLIS II can be installed on just about any new imaging system or used to retrofit the microscopes labs have depended on for years. Offered in two models with a choice of UV wavelengths (365nm or 385nm), labs may choose the one that is suitable for their preferred or existing DAPI filter sets. "UV Off" mode disables the UV LED when it is not required at all, protecting sensitive samples and extending light guide lifetime. The whisper quiet operation of the XYLIS II makes it ideal for use in multi-station FISH labs and any imaging facility wishing to maintain a peaceful environment for conducting research.

## EXCEPTIONAL CONTROL WITH BUILT-IN OPTIONS

When it comes to control options, all are built into every X-Cite XYLIS II – each system includes manual fingertip control with speedDIAL, hands-free operation with a foot pedal, as well as USB and TTL inputs for automated applications.

X-Cite XYLIS II's ergonomic speedDIAL is designed with a large speed-sensitive intensity dial that doubles as an ON/OFF button, allowing for quick and intuitive control of illumination. With a simple double tap on speedDIAL, users can quickly jump to a favorite intensity setting.

Take full advantage of LED instant ON/OFF capability to limit photobleaching and phototoxicity with ultra-fast PC control or TTL triggering. X-Cite XYLIS II can be driven by commercial imaging software, and an SDK is available to develop customized control solutions.



## X-CITE® COSTS & ENERGY SAVINGS

X-Cite XYLIS II allows researchers to reduce the amount of hardware required by an imaging system – replace an arc lamp, separate shutter and neutral density filters – all with a single device. All systems include high speed shuttering, 1% power adjustment, and multiple manual/automated control options. Enjoy the long-term benefits of using LED technology, including long lifetimes, consistent output, lower maintenance, fewer consumables, reduced energy use, and zero mercury waste.

## POTENTIAL COST AND ENERGY SAVINGS WITH LEDS

Table 1: 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 Cost[3]** | **$0.825** | **$0.465** | **$0.045** |
| **Annual Cost[4]** | **$1,650** | **$929** | **$11** |

Table 2: Energy Consumption (per day)

| | HBO | X-Cite 120Q | X-Cite XYLIS II |
|---|---|---|---|
| ON Time[3] | 8 Hours | 8 Hours | 1 Hour |
| Lamp Lifetime Used | 4% | 0.4% | 0.004% |
| Energy Used[5] | 1.24 kWh | 1.92 kWh | 0.24 kWh |
| Electricity Cost (per day) ($0.15/kWh)[6] | $0.19 | $0.29 | $0.04 |
| **Electricity Cost (per year)[4]** | **$46.50** | **$72.00** | **$9.00** |

**Notes:**

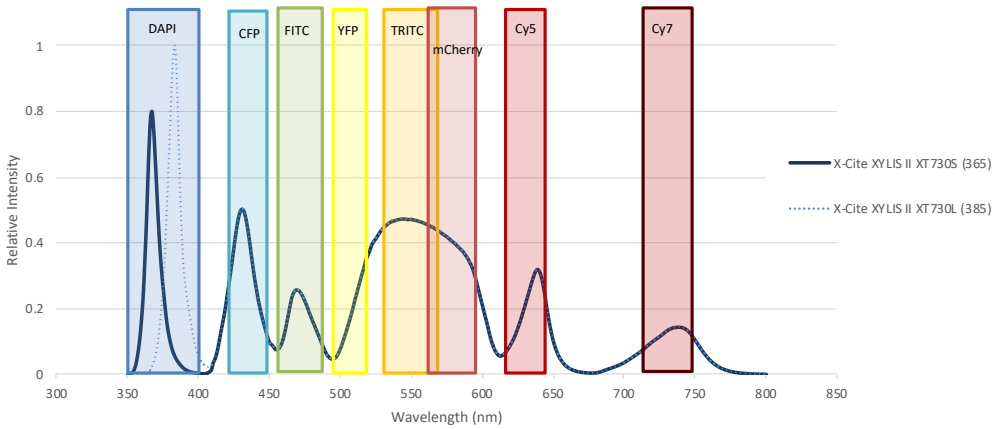
1. Mercury-Free Microscopy white paper: www.mygreenlab.org.
2. Assumes 30 min to change/align HBO lamp, 5 min for X-Cite 120Q.
3. Assumes 8 hour day, 4 x 15 min imaging sessions. Arc lamps left on for the day and LEDs on continuously during each session.
4. Assumes a 5 day week x 50 weeks.
5. Calculated based on published technical specifications.
6. Typical rate. Actual rates will vary by region and/or time of day.

***With instant ON/OFF capabilities, intense output and whisper quiet operation, X-Cite XYLIS II is the ultimate partner to advance your fluorescence imaging research.***

## TECHNICAL SPECIFICATIONS

| | Model: XT730S | Model: XT730L |
|---|---|---|
| Wavelength Range | 360-770 nm | 380-770 nm |
| LED Peaks (nm) | 365, 430, 475, 545, 635, 735 | 385, 430, 475, 545, 635, 735 |
| Input Power Supply | Universal input 100-240VAC, 50/60Hz | |
| Current | 2.4 - 1.0A | |
| LED ON/OFF Response Times | 100 µs TTL / 1 ms USB | |
| Control Options | speedDIAL<br>ON/OFF - TTL compatible<br>RS-232 commands (SDK available), USB<br>Foot Pedal (optional) | |
| I/O Connections | BNC input<br>USB (B-type)<br>3.5mm stereo plug | |
| Dimensions (W x H x D) | 130 mm x 250 mm x 260 mm (5.1" x 9.8" x 10.3") | |
| Weight | 5.2 kg (11.6 lbs) | |
| Certifications | CE, RoHS, UKCA, KC, PSE compliant | |
| Warranty | LEDs: 25,000 hours or 3 years<br>All other X-Cite XYLIS II components: 1 year, parts and labor (excluding LLG) | |
| Patents | X-Cite XYLIS II incorporates technology protected by patent US#9,239,133 | |

## X-Cite XYLIS II Spectra




**Notes:**

- Filter bands shown: 378/52, 438/24, 474/27, 509/22, 554/23, 578/21, 635/18, 735/28

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