

## imaging reimagined



## REVOLUTIONARY LED BASED FLUORESCENCE IMAGING



## **REVOLUTIONARY LED BASED FLUORESCENT IMAGING (Patented\*)**

- Advanced Precision LED Array
- Ultra-high Sensitivity
- Early Faint Signal Detection
- 90X Bright Powerful Light on Specimen
- Reduced Background Effects
- No "Auto Fluorescence"
- No Warm Up, Extra Long Lifetime

 Compare with traditional instruments which use basic white light illumination such as Perkin Elmer IVIS<sup>®</sup> Spectrum, Lumina<sup>™</sup> or Bruker Extreme<sup>™</sup>



\*Spectral Instruments Imaging was awarded US Patent #8901516 for this technology.

- In a LED based fluorescence illumination system light flows from the LED to the specimen
- No fiber, filter wheels and other overhead needed with LED based systems
- LED's contribute 90X more power on specimen compared to white light based imaging systems
- More light on specimen allows for early faint signal detection
- Our patented LED array operates a mix of precision selected frequencies preventing white light from blasting indiscriminately
- Filtering is vastly simplified with little or no 'out-of-band' noise
- No pseudo-science phenomenon such as 'auto fluorescence' which occurs on white light based imaging systems
- LEDs are stable and require no warm up time
- LED's lifetimes are 1000X longer than white light sources
- LED control (power vs. intensity) is completely linear and accurate so precise control is possible

14 LED Fluorescence Excitation Wavelengths of **360**, **405**, **430**, **465**, **500**, **535**, **570**, **605**, **640**, **675**, **710**, **745**, **770** and **805nm** are standard for excitation of fluorescence species.

20 Emission Filters for Fluorescence and Luminescence Imaging **490**, **510**, **530**, **550**, **570**, **590**, **610**, **630**, **650**, **670**, **690**, **710**, **730**, **750**, **770**, **790**, **810**, **830**, **850**, **and 870nm**.

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