



Innovative Photonics

## KEY FEATURES

- 150W Halogen Lightsource
- *Light-Lock™* Light Feedback
- *Internal Photocalibration*
- *TUV Safety Certification*
- RS-232 (USB & Ethernet Options)
- Lamp Lifetime Indicator
- *Manual or Serial Control*
- Internal Filter Holder
- *100-240VAC Operation*
- *Smallest Form Factor*

## APPLICATIONS

- Hyperspectral Imaging
- CIE-A Illuminant Standards
- Biomedical Diagnostics
- CCD/CMOS Sensor Testers
- NIR Applications (700-2000nm)
- Food Processing
- Digital & Confocal Microscopy
- Pharmaceutical Development
- Precision Scientific R&D

# 3900e

**Fully Automated Internal Lamp Calibration**



A member of the robust *SmartLite™* family, the 3900e integrates the short and long term stability of the 3900 with the calibration technology of the 4900, providing the only truly easy to use, easy to implement fiberoptic lightsource. Updated using fully digital control loops, the 3900e is our most stable, repeatable, and widest dynamic ranged tungsten halogen lightsource to date - as well as being our most compact.

Requiring no external companion calibrator, the 3900e offers the industry's first ever integral *AutoCal™* feature, ensuring that every system manufactured provides the same photonic output - forever. That means the same photonic output after numerous lamp replacements - even when performed by untrained operators that are outside of the OEM's control. Calibration is performed only when a new lamp is deployed and is a simple one button operation. Perfect for applications where FDA cGMP standards 21 CFR Parts 210 and 211 (Pharmaceuticals) and 21 CFR Part 820 (Medical Devices) mandated compliance standards for equipment/process validation and calibration.

During auto-calibration the 3900e also performs a proprietary lamp characterization which then provides a highly precise and reliable measure of the lamp's condition and usable lifetime - dramatically reducing unscheduled maintenance. This measure is displayed on the front panel as a tri-colored LED, and as an analog signal gauge which estimates percent of life remaining.

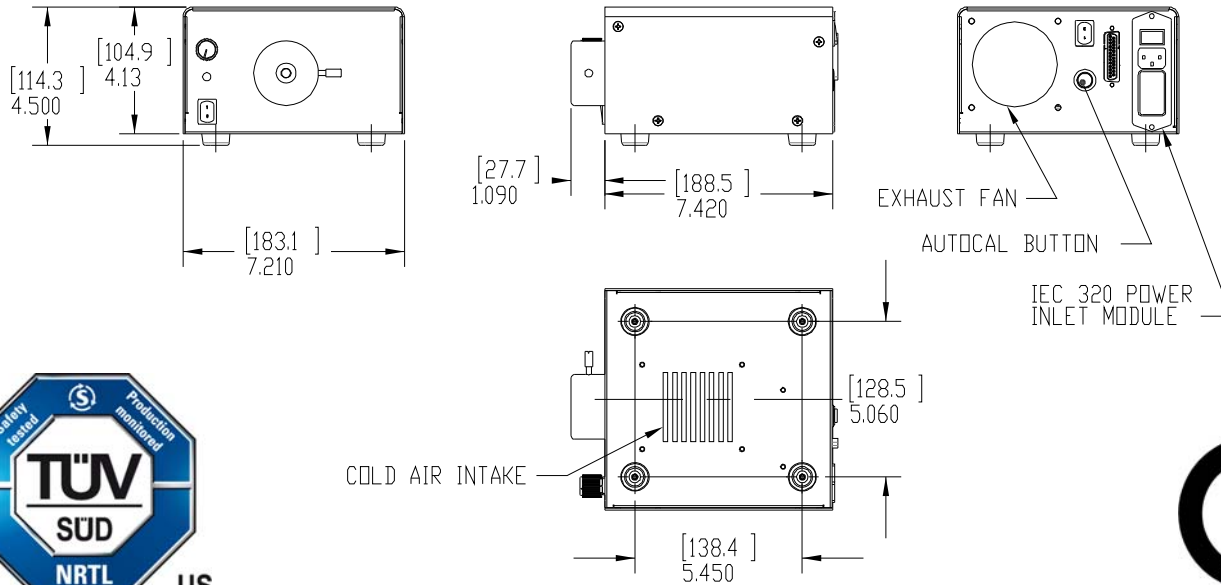
The 3900e unit accepts all of the standard Illumination Technologies accessories including the entire line of standard and custom fiberoptic light delivery components. Fiberoptic receptacles for all major brands are also available. All Illumination Technologies products offer a full one year warranty.

PART NUMBER: **3900e-LL-II-RR**



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| <p><b>LL (Lamp Designator)</b></p> <ul style="list-style-type: none"> <li>-Blank (3000K, 400-750nm)</li> <li>-ER (400-2200nm)</li> <li>-IR (750-2200nm)</li> <li>-HC (4200K, 400-750nm)</li> </ul> | <p><b>II (Interface Designator)</b></p> <ul style="list-style-type: none"> <li>-Blank (RS-232)</li> <li>-ET Ethernet Interface</li> <li>-US USB</li> </ul> | <p><b>RR (Receptacle)</b></p> <ul style="list-style-type: none"> <li>-Blank 16mm (0.63")</li> <li>-VO 15mm (0.59")</li> <li>-FO 18.3mm (0.72")</li> <li>-DJ 25.4mm (1.0")</li> </ul> |
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**DETAIL DRAWING**



**TECHNICAL SPECIFICATIONS**

**Physical**

Height: 4.5" (115mm)  
 Width: 7.2" (185mm)  
 Length: 7.5" (190mm)  
 Weight: 4.4lbs (2.0kg)

**Electrical**

Input: 100-240VAC  
 50/60Hz  
 Input Power: 290VA  
 Inrush: 120V 3.6A  
 Current: 240V 2.6A

**Output Stability**

Regulation: 0.1% (Photometric)  
 Noise: 0.1% (Photometric)  
 Long-term: 1.0% (Photometric)

**Regulation Scheme**

Short-term: Linear DC Regulator  
 Long-term: Optical Light Feedback

**Environmental**

Temperature: 0 to 40C  
 Relative Humidity: 0 to 95%

**Control**

Manual: Front Panel Pot  
 Standard Serial: RS-232  
 COM Options: USB, Ethernet  
 SS Relay: Manual & Serial

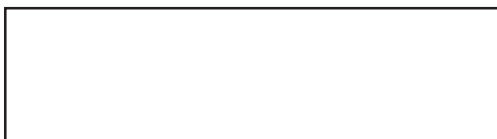
**Diagnostics**

Lamp Status: Tri-color LED  
 Lifetime Gauge: 0-5VDC

**Lamp Options**

Visible: 9596-B  
 High Color: 9596-HC  
 CIE-A: 9596-ER  
 NIR: 9596-IR

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