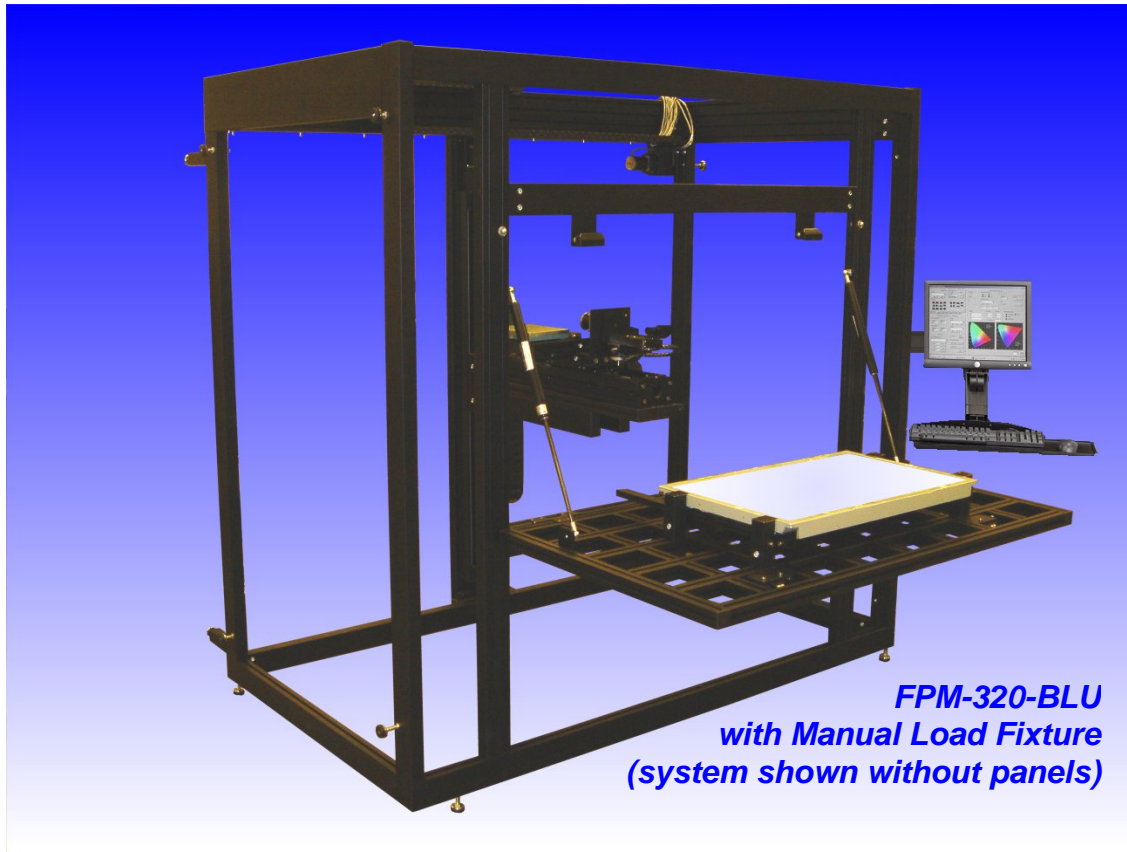


## Westar FPM-320-BLU System Back Light Unit (BLU) Measurement System



- **Measurements** – Luminance uniformity, CCT, chromaticity, dimming curve, power consumption, luminous efficiency, flicker and more!
- **Includes Optical Instrument** – High precision fiber-optically coupled spectroradiometer.
- **Includes Manual Load Fixture** – Manual lift gate with DUT fixture can handle back lights up to 50" diagonal.
- **Includes System Controller PC** – Windows XP and Westar ViewPoint™ Software.
- **ViewPoint™ Software Platform** – Manual Control Interface and industry standard test sequences with Excel reports for full BLU characterization with NI's TestStand™.

*The FPM-320-BLU is built upon our industry standard FPM System architecture. This 3-axis system performs comprehensive electro-optical testing on all backlight types.*

### System Options

- *BM-7 / BM-7-FAST instead of the standard spectroradiometer*
- *PBCM – Precision Backlight Current Measurement and Control*
- *Programmable DC Power Supplies*
- *Flicker Measurements*
- *Thermal Chamber Configuration*

## FPM-320-BLU System Specification Summary<sup>1</sup>:

Baseline System Specifications	
Test Capabilities  <i>NOTE: Some capabilities require optional hardware and software. See System Options below.</i>	<ul style="list-style-type: none"> <li>Luminance &amp; Chromaticity Uniformity: user programmable matrix</li> <li>Correlated Color Temperature (CCT)</li> <li>Dimming Curve (luminance vs. backlight control signal)</li> <li>Power Consumption (total power = inverter + lamp)</li> <li>Luminous Efficiency (L:P Ratio)</li> <li>Dominant Flicker Component, Flicker Spectra, Time Domain Luminance Waveform</li> <li>All measurement points are programmable</li> </ul>
Motion Base	Three-Axis: X, Y, Z – precision stepper motor controlled
XYZ Accuracy, Precision	± 0.5 mm, 0.1 mm
Maximum DUT Size	50" (127 cm) diagonal
Light Safe Enclosure	Black fabric panels completely enclose the system; easily removed and replaced.
Viewing Angle	Optional 2-Axis precision stepper motor controlled Polar Gimbal (rotating optical probe)
Standard Optical Instrument Included	<u>B&amp;W Tek BTC611E Spectroradiometer (Back-Thinned CCD, F/O coupled)</u> <ul style="list-style-type: none"> <li>Luminance Range: 0.05 ~ 1500 cd/m<sup>2</sup> (0.5 ~ 15,000 cd/m<sup>2</sup> with ND filter)</li> <li>Luminance Accuracy: ±4%, Chromaticity Accuracy: ±0.0015</li> <li>Spectral Measurements: 380-780 nm, 4 nm resolution</li> <li>Spot Size: ~ 2.5 cm at 20 cm working distance</li> </ul>
System PC	Dell Optiplex with 17" Flat Panel Monitor, Windows XP, Office XP
System Software	Westar ViewPoint™ (MCI and Test Objects) and National Instruments TestStand™
Test Sequences	Sample Back Light Unit Test Sequences with Excel Spreadsheet Report
System Size	2.3m wide x 1.2m deep. Height: 2.3m
System Weight	~800 lbs. (363 kg)
System Power	120 VAC / 60 Hz Single Phase / 20 Amps
Optional Hardware and Software	
Optional Instrument Interfaces	BM-5AS, BM-7A, SR-3, SR-ULx, PR-650, PR-880A, PR-705, PR-715, CS-2000
Optional Backlight Power and Control	<u>Sorensen DC Power Supplies:</u> <ul style="list-style-type: none"> <li>Choose from 300W / 600W / 1000W models</li> <li>Software controlled via GPIB</li> </ul> <u>PBCM – Precision Backlight Current Measurement &amp; Control</u> <ul style="list-style-type: none"> <li>For voltage controlled inverters only</li> <li>Lamp Current Set-Point: ±0.050 mA</li> <li>Includes Agilent 6½ digit DMM, Precision "Zero-L" 100-Ohm Resistor, Cabling Kit</li> <li>Requires at least one Sorensen supply</li> </ul>
Optional Flicker Measurement	<u>TRD-100A, NI DAQ Card, Westar Signal Analyzer Software</u> <ul style="list-style-type: none"> <li>Measures dominant flicker component and entire flicker spectra</li> <li>Includes Oscilloscope and Spectrum Analyzer software functions</li> </ul>
Optional Thermal Chamber	Terchy Walk-In Chamber, 0° ~ 50°C

<sup>1</sup>Specifications are subject to change.