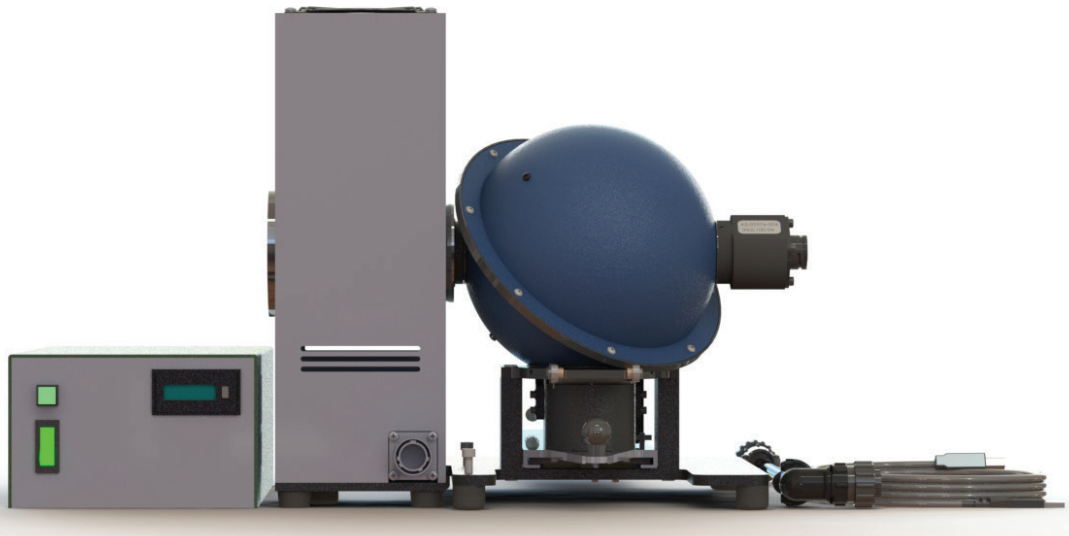
MEASURE
any light source

illumia®Pro2-UV
UV-LED Characterization



Accurately Characterize Packaged UV LEDs

UV LED performance depends on the junction temperature. Thermal variances at the junction can impact UV LED output and life expectancy. With Labsphere's illumia®Pro2-UV users can quickly and accurately test UV-LED performance as a function of thermal condition.

Dependable Results

- NMI-Traceable Calibrated Xe spectral radiant flux standard
- High dynamic range for a variety of light levels
- Spectralon® integrating sphere, EPV Spectralon optional
- CDS-2600-UV Spectrometer with highly-efficient stray light rejection

Measure

- Total Radiant Flux
- Total Photon Flux
- Electrical Power
- Wavelength Characterization
- Peak Wavelength
- FWHM
- L, I, V, T Sweeps

Applications

- Germicidal UV (GUV)
- UVC disinfection and purification
- UV Curing
- Medical phototherapy
- Analytical instruments
- Horticulture lighting

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Advancing the Technology of Light: Measure. Create. Reflect.

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PB-14096-000 Rev 01

LIVT Sweep Measurement Functions

Name	Constant	Vary	Measure
ILV	T	I	L, V
VLI	T	V	L, I
TLV	I	T	L, V
TLI	V	T	L, I
ILV/T	T for each I Setting	I, T	L, V
VLI/T	T for each V setting	V, T	L, I

Key: I=current, L=optical watts, V=voltage, T=temperature

Measurement Parameters

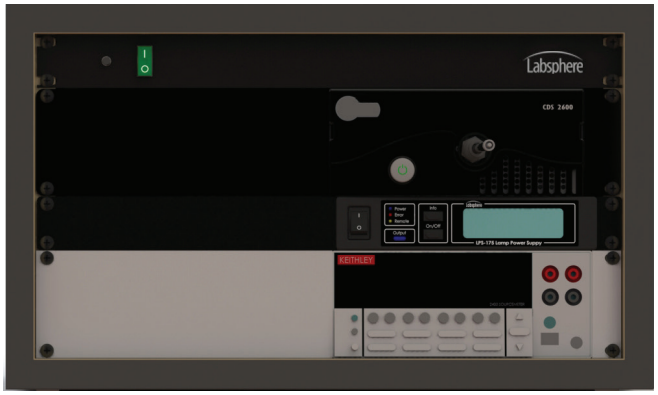
Electrical: Current, Voltage, Electrical Watts

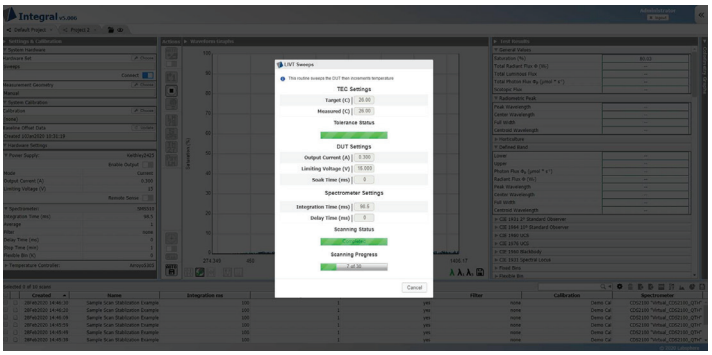
Optical: Spectral and Total Radiant Flux, Photon Flux, Peak Wavelength, Center Wavelength, Centroid Wavelength, FWHM

Thermal: Case Temperature Control vs. Electrical and Optical Parameters

Typical illumia®Pro2-UV Specifications

Measurement Range:	200 - 400 nm
LED Optical Flux:	1 mW - 2000 mW
5 W Thermal Load Operating T:	20 - 85 C
Sphere Size:	6”
Sphere Material:	Spectralon
Spectrometer:	CDS-2600-UV
Sourcemeter:	Keithley 2400
TE Chiller:	Arroyo TE Chiller 207
TEC Source:	Arroyo 5305
Software:	Integral





Integral® Software

Integral software is a comprehensive light test application package. It allows for data collection and system control of a variety of system configurations and applications. As a certified National Instruments LabVIEW Alliance partner, Labsphere has designed Integral to include robust reporting capabilities. Integral includes multi-language support and can be accessed remotely via an HTML5-enabled browser. Integral also offers an optional API license option allowing users to create their own programs and interface with existing software applications.

System Spectrometer Specifications

Spectrometer:	**CDS-2600-UV**
Detector:	TE Cooled 1044 x 64 CCD (back thinned)
Cooling:	-10 ± 0.05 C
Spectral Range:	200 - 960 nm
UV Calibrated Range:	200 nm - 400 nm
Resolution:	2.2 nm
Wavelength Accuracy:	< ± 0.4 nm
Data Point Interval:	1.0 nm
Integration Time	8 ms - 900 Seconds
Dynamic Range:	> 200,000:1*
Average % Noise: (360 - 830 nm)	0.07%
Software Corrected Stray Light:	< 1.0%**

* Measured as the saturation signal divided by the standard deviation of the dark signal with 10 scans averaged.

** Stray light is the average reported transmittance from 210 - 370 nm through a 500 nm cut-on filter

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