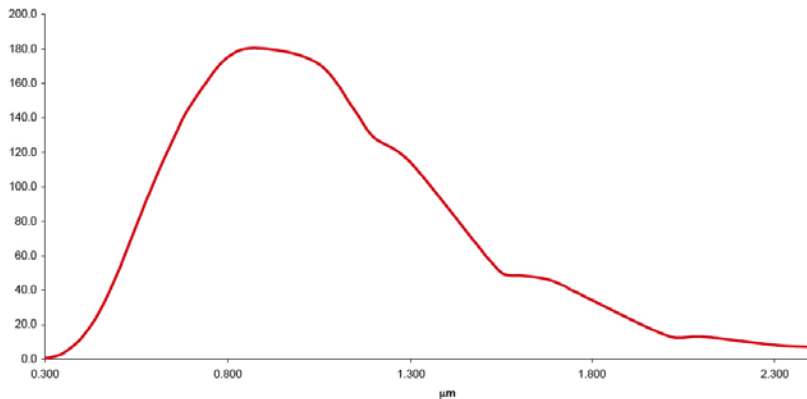


USS-1200V-LL “STARLIGHT” UNIFORM SOURCE SYSTEM

Provides irradiance levels comparable to those of an $m=0$ star in the UV, VIS, and IR.

TYPICAL SPECTRAL IRRADIANCE



ACCURATE

The USS-1200V-LL Uniform Source System is specifically designed to provide spectral irradiance levels comparable to those of an $m=0$ star in the UV, VIS, and IR. Irradiance is variable over more than eight decades. Uniformity is greater than 98%. The system is calibrated to display irradiance in $\text{phot}/(\text{s}\cdot\text{cm}^2)$ in each of seven spectral bands.

FEATURES:

- Simulate stellar radiance
- Variable radiance levels
- Uniformity >98%
- 12 inch integrating sphere
- 4 inch diameter exit port
- Dual-band monitoring
- Source filter wheel
- Calibration
 - Irradiance responsivity
 - Spectral radiance and irradiance

APPLICATIONS:

- Calibrate and test UV/VIS/NIR sensors

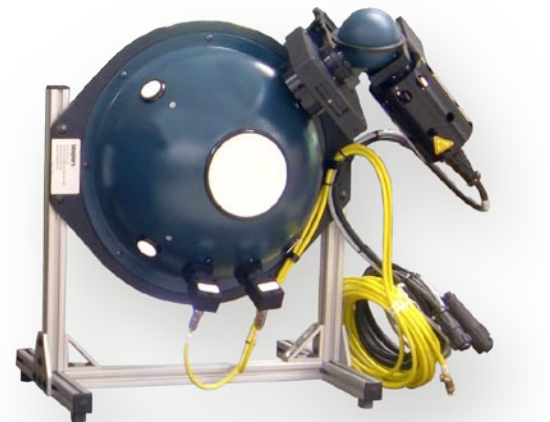
PRACTICAL

The USS-1200V-LL includes a satellite sphere illuminator with an external halogen light source and a motorized variable attenuator to provide precise control of illumination levels. Light from the satellite sphere enters the main sphere by passing through a two-part filter system: A bandpass filter-wheel permits selection of a specific spectral channels, while neutral-density filters determine the system's irradiance range.

Two different detectors are installed to monitor the irradiance at the system's exit port. The SC 6000 System Controller includes a radiometer, which can process signals from either detector and also serves as the communication hub between the power supply, and optional detector multiplexer. The SC 6000 offers both an IEEE-488 bus and an RS-232 serial port for computer control of the system.

EASY-TO-USE

The USS-1200V-LL can be operated either directly, from the front-panel controls, or through Labsphere's standard USS software, which permits remote control of the lamp power supply, variable attenuator, and optional detector multiplexer. The software automatically corrects detector readings using programmable calibration factors, and corrected readings are displayed in graphic and numeric format.



USS-1200V-LL SPHERE

Specifications

Description and Model
12 Inch Low Level Light Uniform Source System

USS-1200V-LL
AA-00785-000

System Includes

12 Inch Spectrareflect Uniform Source Sphere, US-120-SF	USS-1200V-LL
Two Radiometer/Photometers, SC 6000	AS-02448-000
75 Watt Rhodium External Light Source, EHLS-100-75R	AS-02702-000
Lamp Power Supply, LPS-100-0625	AS-02247-075
Unfiltered Silicon Detector Assembly, SDA-050-U-RTA-CX	AS-02600-625
InGaAs Detector Assembly, IDA-050-RTA-CX	AS-02522-400
1" Aperture Automated Variable Attenuator, VA-100-SC	AS-02522-400
2" Neutral Density Filter Sets, NDFS-200	AS-02450-100
Motor Controller, MC-1000	AS-00148-600
	AS-02609-000

System Properties and Performance

System Specifications

Sphere Diameter	US-120-SF
Exit Port	12 in (30 cm)
Irradiance Uniformity*	4 in (10 cm)
Dynamic Range	>98%
at 0.400 μm :	$10^8 - 10^{14}$ phot/(s·cm ² · μm)
at 2.300 μm :	$10^5 - 10^{11}$ phot/(s·cm ² · μm)
Narrowband filter wavelength	400, 500, 600, 700, 800, 900, 1100 nm
Sphere Dimension (W x D x H)	17.1 x 11.3 x 19.7 in (43.4 x 28.7 x 50.0 cm)
Rack Dimension (W x D x H)	19.7 x 21.7 x 21.9 in (50 x 55 x 56 cm)

* Applies at maximum radiance, uniformity may vary at lower radiance levels.

Radiometer/Photometer

Power Requirements	SC 6000
Current Dynamic Range	110./220 VAC, 50/60 Hz
Voltage Dynamic Range	1 pA – 1 mA
Computer Interface	10 mVdc – 50 Vdc- Ethernet

Power Supply

Power Requirements	LPS-100-0625
Current Stability	110./220 VAC, 50/60 Hz
Current Rise Time	0.01%
Regulated Current	20 s
Weight	2.60 A +/- 0.1%
Dimension (W x D x H)	6.5 lbs (2.9 kg)
Compliance	8.3 x 10.5 x 3.5 in (21.1 x 26.7 x 8.9 cm)
	CE

Optional Accessories

Replacement Lamp, 75W	OC-03125-000
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Computer Requirements

Operating System	Windows 2000® PE or Windows XP®
Drives	3 1/2 Disk Drive, or CD-ROM