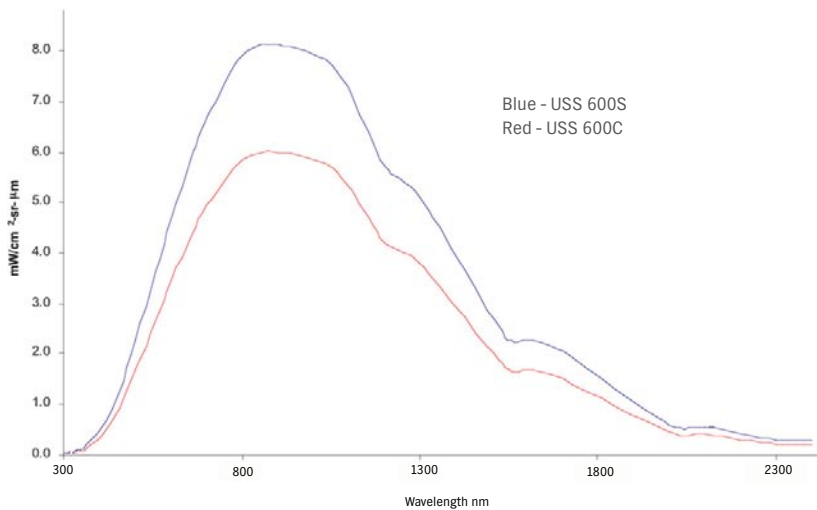


SMALL USS UNIFORM SOURCE SYSTEMS

Exceptional uniform radiance for the test and calibration of imaging and non-imaging devices

SPECTRAL RADIANCE PLOT



ACCURATE

The small Uniform Source systems center on a 6-inch diameter integrating sphere with a highly reflective Spectrafect® coated interior that provides better than 98% radiance uniformity. Both durable and highly stable over time, this material ensures the consistent integration of light over the lifetime of your sphere.

The USS 600 series provides luminance output with a manual iris diaphragm from 15 to 2,800 cd/m² or continuous output variability from 5 to 2,100 cd/m² with an automated variable attenuator. A photopic response photodetector monitors the source luminance. Each system provides National Institute of Standards and Technology (NIST) calibrations.

FEATURES:

Stepped or continuous radiance variability from 5 to 2,800 cd/m²

Spectrafect® Interior provides better than 98% radiance uniformity

Satellite sphere improves uniform input into main sphere

Interchangeable components

Radiometric and photometric calibration reports

NIST traceable luminance calibration

Backed by an ISO 9001:2000 Registered Quality Management System

BEST FOR CALIBRATING:

Imaging Radiometers
Cameras

Telespectroradiometers

Small-area remote sensing devices

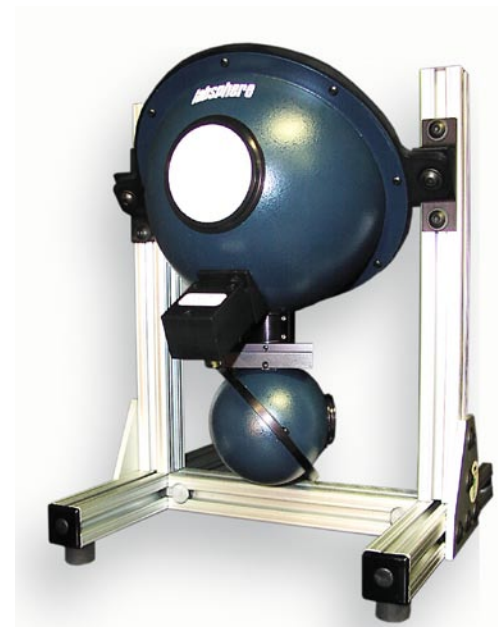
Displays

FLEXIBLE DESIGN

The USS 600 yields high returns on investment by facilitating system modifications, upgrades and enhancements. Swap lamps to meet your radiance requirement. Add filter holder and filters to the uniform source to enhance spectral distribution. Reduce port size with Spectrafect coated accessories to match your applications field of view.

EASY-TO-USE

The durable port framed exit port allow for repetitious mounting of devices under test. Rack-mounted electronics allow quick set-up and mobility for bench-top use. The USS 600 is operated through a control chassis that features a regulated DC constant current power supply and an SC 6000 System Control. Digital readout of the source luminous is displayed on an LCD display located on the front panel of the SC 6000. Both IEEE-488 and RS-232C serial ports are included for optional computer interface.



USS-600

Specifications

Description and Model

6-inch Uniform Source System

USS 600S

AS-02451-201

USS 600C

AS-02451-301

System Includes

6-inch Uniform Source Sphere, US-060-SF
 Internal Halogen Lamp Assembly*, IHLS-100-035
 Preset Power Supply*, LPS-100-0307
 Photopic Detector, SDA-050-P-RTA-CX
 Radiometer/Photometer*, SC 6000
 Iris Diffuser (S Series only)
 Variable Attenuator, VA-100-SC (C Series only)
 Motor Controller*, MC-1000 (C Series only)
 SCC-LU Luminance Calibration
 *Product sheet available for additional information

AS-02451-100
 AS-02639-000
 AS-02600-307
 AS-02522-401
 AS-02702-100
 AS-02452-000

AS-02451-100
 AS-02639-000
 AS-02600-307
 AS-02522-401
 AS-02702-100

AS-02450-100
 AS-02609-000
 SCC-LU

System Properties and Performance

System Specifications

Sphere Diameter	USS 600S 6 in (15 cm)	USS 600C 6 in (15 cm)
Exit Port Diameter	2 in (5 cm)	2 in (5 cm)
Sphere Coating Reflectance	98%	98%
Luminance Range (cd/m ²)	15 – 2800	0– 2100
Luminance Range (ft-L)	5 – 800	0– 600
Illuminance Range (lux)	60 – 8700	0 – 6600
Peak Radiance (mW/cm ² -sr-µm at 0.9 µm)	8.0	6.0
Luminance Uniformity*	>98%	>98%
Sphere Dimension (W x D x H)	9.83 x 10.0 x 11.7 in (25 x 25 x 30 cm)	9.83 x 10.0 x 11.7 in (25 x 25 x 30 cm)
Rack Dimension (W x D x H)	19.7 x 21.7 x 11.4 in (50 x 55 x 29 cm)	19.7 x 21.7 x 11.4 in (50 x 55 x 29 cm)

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

Detector

Active Area	VI Filter Silicon Photodiode 5.7 mm ²	VI Filter Silicon Photodiode 5.7 mm ²
Range	Visible	Visible
f1'	4%	4%
Connector	BNC	BNC

Radiometer/Photometer

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

Lamp Assemblies

Power	IHLS-100-035 Qty 1, 35 W	IHLS-100-035 Qty 1, 35 W
Color temperature	3000K	3000K

Power Supplies

Power Requirements	LPS-100-0307 110./220 VAC, 50/60 Hz	LPS-100-0307 110./220 VAC, 50/60 Hz
Current Stability	3.07 A +/- 0.1%	3.07 A +/- 0.1%
Current Rise Time	20 s	20 s
Weight	6.5 lbs (2.9 kg)	6.5 lbs (2.9 kg)
Dimension (W x D x H)	8.3 x 10.5 x 3.5 in (21.1x 26.7 x 8.9 cm)	8.3 x 10.5 x 3.5 in (21.1x 26.7 x 8.9 cm)
Compliance	CE	CE

Optional Accessories/Calibrations

Labsphere Light Source Assemblies	IHLS/EHLS
Labsphere Power Supplies	LPS
Spectral Radiance Calibrations (300-2400 nm)	USC-SR
Radiance Calibration	SCC-RA
Exit Port Luminance Uniformity Mapping	USC-PM
Illuminance Calibration	SCC-IL
Custom Spectral Radiance Calibrations	Optional

Recommended Computer Requirements

Operating System	Windows 98® 2nd Edition, Windows 2000® PE or later
Drives	3 1/2 in Disk Drive, CD-ROM Drive