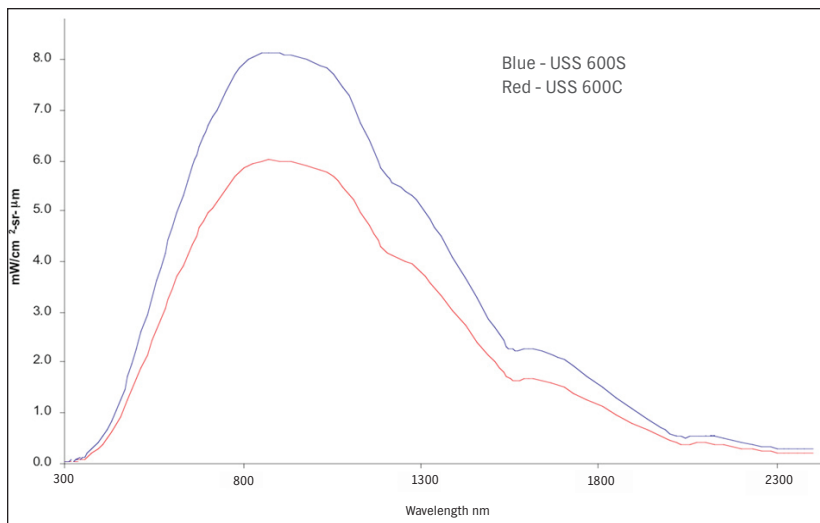


SMALL USS UNIFORM SOURCE SYSTEMS

Exceptional Uniform Radiance for the Test and Calibration of Imaging and Non-imaging Devices

SPECTRAL RADIANCE PLOT



ACCURATE

Small Uniform Source Systems feature 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.

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 allows for repetitious mounting of devices under test. Portable 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.

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

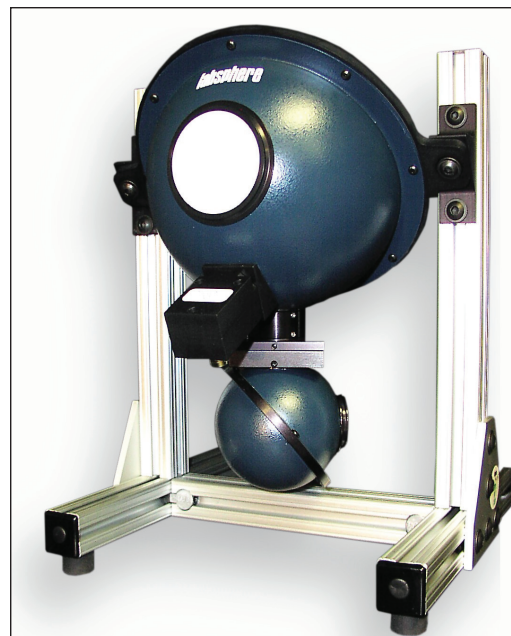
Cameras

Telespectroradiometers

Small-Area Remote Sensing Devices

Displays

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

AS-02451-100

AS-02631-035

AS-02600-307

AS-02522-401

AS-02702-100

AS-02452-000

AS-02451-100

AS-02631-035

AS-02600-307

AS-02522-401

AS-02702-100

AS-02450-100

AS-02609-000

SCC-LU

*Product sheet available for additional information

SYSTEM PROPERTIES AND PERFORMANCE

System Specifications

Sphere Diameter:

Exit Port Diameter:

Sphere Coating Reflectance:

Luminance Range: (cd/m²)

Luminance Range: (ft-L)

Illuminance Range: (lux)

Peak Radiance: (mW/cm²-sr- μ m at 0.9 μ m)

Luminance Uniformity*:

Sphere Dimension: (W x D x H)

USS 600S

6 in (15 cm)

2 in (5 cm)

98%

15 - 2800

5 - 800

60 - 8700

8.0

>98%

9.83 x 10.0 x 11.7 in (25 x 25 x 30 cm)

USS 600C

6 in (15 cm)

2 in (5 cm)

98%

0 - 2100

0 - 600

0 - 6600

6.0

>98%

9.83 x 10.0 x 11.7 in (25 x 25 x 30 cm)

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

Detector:

Active Area:

Range:

f1':

Connector:

VI Filter Silicon Photodiode

5.7 mm²

Visible

4%

BNC

VI Filter Silicon Photodiode

5.7 mm²

Visible

4%

BNC

Radiometer/Photometer

Power Requirements:

Current Dynamic Range:

Voltage Dynamic Range:

Computer Interface:

SC 6000

110./220 VAC, 50/60 Hz

1 pA - 1 mA

10 mVdc - 50 Vdc-

Ethernet

SC 6000

110./220 VAC, 50/60 Hz

1 pA - 1 mA

10 mVdc - 50 Vdc-

Ethernet

Lamp Assemblies

Power:

Color Temperature:

IHLS-100-035

Qty 1, 35 W

3000K

IHLS-100-035

Qty 1, 35 W

3000K

Power Supplies

Power Requirements:

Current Stability:

Current Rise Time:

Weight:

Dimension: (W x D x H)

Compliance:

LPS-100-0307

110./220 VAC, 50/60 Hz

3.07 A +/- 0.1%

20 s

6.5 lbs. (2.9 kg.)

8.3 x 10.5 x 3.5 in (21.1 x 26.7 x 8.9 cm)

CE

LPS-100-0307

110./220 VAC, 50/60 Hz

3.07 A +/- 0.1%

20 s

6.5 lbs. (2.9 kg.)

8.3 x 10.5 x 3.5 in (21.1 x 26.7 x 8.9 cm)

CE

Recommended Computer Requirements

Operating System:

Drives:

Windows 98® 2nd Edition, Windows 2000® PE or later

3 1/2 in Disk Drive, CD-ROM Drive

Optional Accessories/Calibrations

Labsphere Light Source Assemblies:

Labsphere Power Supplies:

Spectral Radiance Calibrations
(300-2400 nm)

Radiance Calibration:

Exit Port Luminance Uniformity Mapping:

Illuminance Calibration:

Custom Spectral Radiance Calibrations

Rack Mounted Electronics

IHLS/EHLS Series

LPS Series

USC-SR

SCC-RA

USC-PM

SCC-IL

Optional

Optional