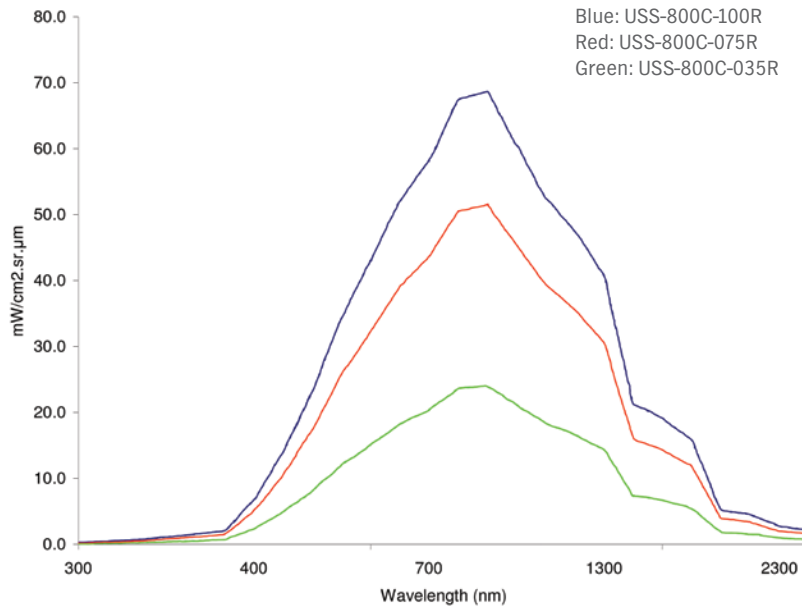


USS-800C CONTINUOUS UNIFORM SOURCE SYSTEM

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

TYPICAL RADIANCE



ACCURATE

Labsphere's USS-800C systems center on an 8-inch diameter integrating sphere with a 2-inch exit port suitable for portable imaging systems and arrays. The sphere is coated with highly reflective Spectrafect® coated interior that provides a better than 98% uniformity. Both durable and highly stable over time, Spectrafect coating ensures the consistent integration of light over the lifetime of your sphere.

The USS-800C systems provide continuous luminance output variability from zero to 9800, 13500, or 24000 cd/m², depending on the model. A built-in photopic response photodetector continuously monitors the source luminance. Each system provides National Institute of Standards and Technology (NIST) traceable calibration.

FEATURES:

Continuous radiance variability from 0 to 9800, 13500, or 24000 cd/m²

Spectrafect interior provides >98% radiance uniformity

Simple design

Radiometric and photometric calibration reports

NIST traceable luminance calibration

Backed by an ISO 9000:2001 registered quality management system

BEST FOR CALIBRATING:

Imaging radiometers

Cameras

Telespectroradiometers

Small-area remote sensing devices

Displays

FLEXIBLE DESIGN

The USS-800C systems yield high returns on investment by facilitating system modifications, upgrades and enhancements. A broad choice of light sources allow users to swap lamps in order to choose the appropriate configuration to meet their radiance performance requirement. Spectrafect coated port accessories allow users to reduce the port size of their sphere to match their applications.

EASY-TO-USE

A durable port framed exit port allow for the repetitious mounting of devices under test. The USS-800 systems are operated through a control chassis that features a regulated DC constant current power supply and an SC 6000 radiometer/controller that provides accurate monitoring and control of the exit port luminance. Digital readout of the source output is displayed on an LCD display located on the front panel of the SC 6000. Ethernet ports are included for optional computer interface.



USS-800C

Specifications

Model and Description

USS-800C 8-inch Continuous Uniform Source System

USS-800C-035R

AS-02711-100

USS-800C-075R

AS-02711-200

USS-800C-100R

AS-02711-300

Systems Include:

8-inch Uniform Source Sphere USS-800-SF
 External Halogen Lamp Supply EHLS-100-35R, 75R, 100R
 Preset Power Supply LPS-100-0307, 0625, 0833
 Photopic Detector SDA-050-P-RTA-CX
 Variable Attenuator, VA-100-MIC
 Radiometer/Photometer SC 6000
 Luminance calibration SCC-LU

AS-02465-000
 AS-02630-035
 AS-02600-307
 AS-02522-301
 AS-02455-000
 AS-02702-000
 SCC-LU

AS-02465-000
 AS-02630-075
 AS-02600-625
 AS-02522-301
 AS-02455-000
 AS-02702-000
 SCC-LU

AS-02465-000
 AS-02630-100
 AS-02600-833
 AS-02522-301
 AS-02455-000
 AS-02702-000
 SCC-LU

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*

USS-800C-035R

8 in (20 cm)
 2 in (5 cm)
 98%
 0 - 9800
 0 - 2800
 0 - 30000
 24
 >98%

USS-800C-075R

8 in (20 cm)
 2 in (5 cm)
 98%
 0 - 13500
 0 - 4000
 0 - 42000
 52
 >98%

USS-800-100R

8 in (20 cm)
 2 in (5 cm)
 98%
 0 - 24000
 0 - 7200
 0 - 75000
 69
 >98%

* 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

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

Lamp Assemblies

Power
 Reflector
 Color temperature

EHLS-100-035R

Qty 1, 35 W
 Rhodium
 3000K

EHLS-100-075R

Qty 1, 75 W
 Rhodium
 3000K

EHLS-100-100R

Qty 1, 100 W
 Rhodium
 3000K

Power Supplies

Power Requirements
 Current Stability
 Current Rise Time
 Weight
 Dimension (W x D x H)

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
 (21.1x 26.7 x 8.9 cm)
 CE

LPS-100-0625

110./220 VAC, 50/60 Hz
 6.25 A +/- 0.1%
 20 s
 6.5 lbs (2.9 kg)
 8.3 x 10.5 x 3.5 in
 (21.1x 26.7 x 8.9 cm)
 CE

LPS-100-0833

110./220 VAC, 50/60 Hz
 8.33 A +/- 0.1%
 20 s
 6.5 lbs (2.9 kg)
 8.3 x 10.5 x 3.5 in
 (21.1x 26.7 x 8.9 cm)
 CE

Compliance

Recommended Computer Requirements

Operating System
 Drives
 Ports

Windows 98® 2nd Edition, Windows 2000® PE or later
 CD-ROM Drive
 TCP/IP

Optional Calibrations

Standard Spectral Radiance Calibrations
 Radiance Calibration
 Exit Port Luminance Uniformity Mapping
 Illuminance Calibration
 Custom Spectral Radiance Calibrations Optional

USC-SR (300-2400 nm)
 SCC-RA
 USC-PM
 SCC-IL