Calibrated Spectral and Luminous Flux Standards

NIST traceable standards for light measurement systems

Confidence

Labsphere's Total Spectral and Total Luminous Flux Lamp Standards are selected for their stability and reproducibility. Each standard has been carefully screened, seasoned, and calibrated at our manufacturing facility under the guidelines recommended by the NVLAP accredited ISO 17025 practices for the highest degree of confidence.

Labsphere's Lamp Standards of Total Spectral Flux provide an exceptional artifact for calibrating integrating sphere spectrometers for total spectral radiant flux responsivity from 350 to 1050 nm. All of Labsphere's standard lamps are first seasoned for 1% of their rated life and then screened for stability and repeatable performance before they are selected for calibration.

The selected lamps are then calibrated directly to the NIST spectral flux reference, for a calibration result you can rely on. All calibration certificates include a complete uncertainty analysis.

Multiple choices

Labsphere's lamp standards may be purchased individually or in sets of three's, following the recommendations of national laboratories and industry standards for lamp photometry. The use of three lamps interchangeably prolongs the useful life of each lamp. A multiple lamp set allows the user to check the lamps against each other to verify calibration data over time. A calibration certificate verifies traceability to NIST is provided with each lamp.

Value:
- NIST traceable total spectral and total luminous flux calibration
- Screened and seasoned
- Protective storage case
- ISO 9001:2015 Registered Company
- NVLAP Lab Code 200951-0 Accredited Product (ISO/IEC 17025:2017)

Applications:
- Calibrating spectral flux measurement systems
- Calibrating luminous flux measurement systems
- Maintaining and verifying consistent calibrations
- LM-79

NVLAP® CALIBRATION
NVLAP LAB CODE 200951-0

Easy to use

All lamp standards include a calibration certificate and spectral flux data in W/nm or total luminous flux value with operating current. The spectral flux data is provided on a CD for uploading into Labsphere's Integral® LM Software sold with our world leading illumia®Plus2 and illumia®Pro3 Light Measurement Systems for total spectral flux.

Labsphere's Calibrated Spectral Flux Standards are available in sets of three spectrally calibrated lamps. CSFS-040 is a set of three SCL-040, 40 lumen spectrally calibrated optical grade krypton lamps. CSFS-650 and CSFS-1400 are sets of three SCL-650 and SCL-1400, 650 and 1400 lumen spectrally calibrated tungsten halogen lamps. The SCL-040 is recommended for use with smaller and more sensitive illumiaPlus2 systems while the SCL-650 and SCL-1400 are recommended for larger illumiaPlus2 systems. The 2PI versions are wall mounted internal calibration sources.

Specifications and Ordering Information

Lamp Standard Sets

Model Number	Oder Number	Number of Lamps	Approximate Luminous Flux (lumens)	Lamp Current (amps)	Rated Voltage (volts)	Rated Life (hrs)	Base
CSFS-040	AS-02528-100	3	40	0.97	4.2	650	Wire Leads
CSFS-650	AS-01336-100	3	650	2.955	12.8	600	SC Bayonet
CSFS-1400	AS-01343-000	3	1400	2.680	28	2000	Min Screw
2PI-3-INT-040	AA-80006-101	3	40	0.97	4.2	650	Wire Leads
2PI-3-INT-650	AA-80003-101	3	650	2.955	12.8	600	SC Bayonet
2PI-3-INT-1400	AA-80004-001	3	1400	2.680	28	2000	Min Screw

Individual Lamps

Model Number	Order Number	Number of Lamps	Approximate Luminous Flux (lumens)	Lamp Current (amps)	Rated Voltage (volts)	Rated Life (hrs)	Base
SCL-040	AS-02528-101	1	40	0.97	4.2	650	Wire Leads
SCL-650	AS-01335-100	1	650	2.955	12.8	600	SC Bayonet
SCL-1400	AS-01342-000	1	1400	2.680	28	2000	Min Screw
2PI-1-INT-040	AS-80006-100	1	40	0.97	4.2	650	Wire Leads
2PI-1-INT-650	AS-80003-100	1	650	2.955	12.8	600	SC Bayonet
2PI-1-INT-1400	AS-80004-000	1	1400	2.680	28	2000	Min Screw

Labsphere recommends procuring a set of three calibrated lamps at one time.
The best practice recommendation is to use the identical calibrated lamps of a set as reference standards for one another in the set.