UV3000S Ultraviolet Cosmetics SPF Test Instrument



Simplifying Sun Protection Validation with Speed and Versatility

Labsphere's UV3000S incorporates the latest technologies and software enhancements to achieve accurate in vitro SPF Sun Protection Factor analysis of cosmetics and sun care products to qualify and receive the "very high, 50 or higher SPF" sun protection label, and HEVIS sun protection testing. Driven by industry requirements to simplify product labeling and improved in vitro methods to validate product UV Protection, the UV3000S is designed to comply with approved in vitro methods and in vivo spectrophotometer methods.

Fast

The UV3000S flash technology saves time and money when bringing new products to market. The UV3000 rapidly measures the diffuse transmittance of sunscreen samples in the ultraviolet wavelength region from 290 nm - 450 nm and High Energy Visible (HEV) blue light from 400 nm to 500 nm. Labsphere's Spectralon® integrating sphere incorporates a re-optimized xenon flash lamp to provide exceptional diffuse illumination of the product sample and minimize data integration time. Our new high-performance diode array spectrometers coupled by advanced fiber optics are optimized at the system level for low stray light with superior wavelength stability and flash-to-flash repeatability.

Value

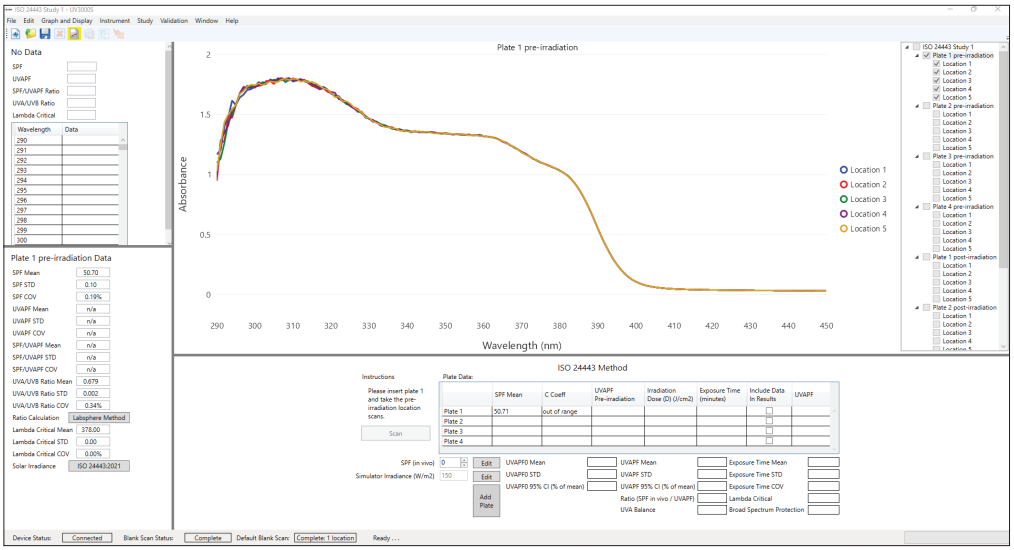
Stay current with the latest global cosmetic testing and reporting of SPF, UVA, UVB, UVR, and more:

- ISO23675
- ISO 23698
- ISO24443
- FDA 2012
- COLIPA
- Boots Star Rating

Benefits

- NEW **Robust industrial design** built to last
- Save time and money with Labsphere's **flash technology** for rapid testing
- NEW Low learning curve **menu-driven software** for sample testing and reporting to industry standards plus new configurable interface and reporting features
- NEW Know more with **extended test capabilities** over the UV-VIS range from 290 nm to 500 nm for testing **UV SPF and Hyperpigmentation HEVIS**
- NEW **Save time and trust results** with our calibration validation kit with our linear filter holder that improves calibration validation efficiencies by more than 75%
- **Achieve repeatable sample placement** with the manually operated sample stage positioning for pre and post-irradiation
- NEW Be more efficient with our optional **Automated Sample Stage**
- **Versatile testing options** with 50 mm, 75 mm and ISO 9 point sample test templates for repeatable testing and reporting

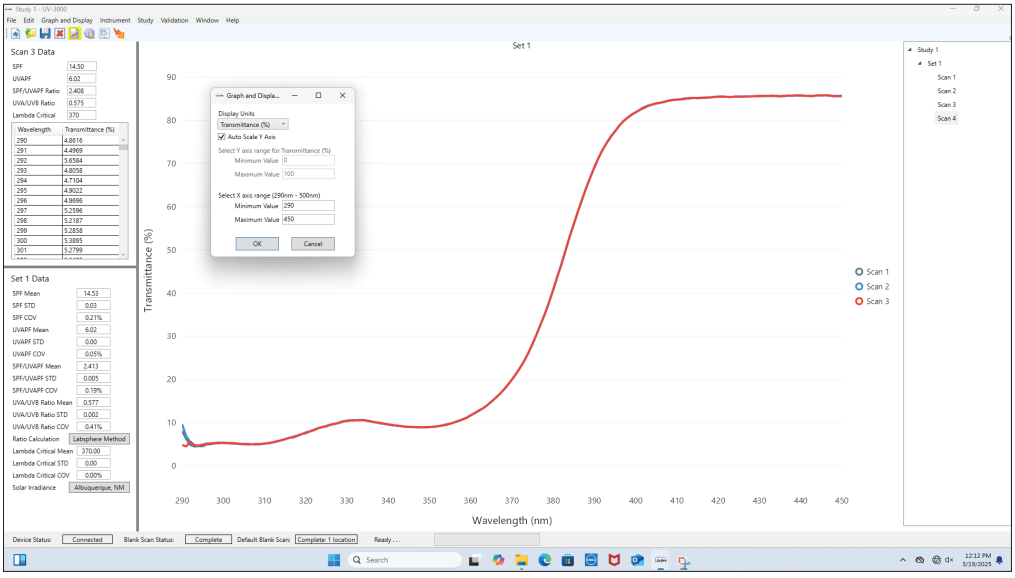
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Easy to operate

The menu driven software guides the user through industry test methods. The built-in report functions generate essential information analysis and industry standard reporting formats. Reports include necessary information such as date, time, operator name, sample identification, and test parameters. Reports are conveniently viewed on your PC, printed, or can be exported to data processing software for further review and analysis.



Powerful application software

- Developed with .NET Framework® , this easy to use Windows® 11 compatible software
- Capture, Archive and Retrieval and export of all data including bare substrate data that may impact UVA-PF due to surface roughness.
- Integrated Performance Validation Routine that allows for on-site validation and re-validation to ensure optimum instrument performance.

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Ordering Information and Specifications

Model Name	Order Number
UV3000S	AA-01628-000

Includes everything needed to start testing out of the box:

- UV3000S Cosmetics SPF Test Instrument
- UV3000S Control Software
- Manual Sample stage with 50 mm x 50 mm, 75 mm x 75 mm, and ISO 9 point templates
- HD6 PMMA Plate
- SB6 PMMA Plates
- UV SPF Spectrophotometer Validation Kit: A set of calibrated standards, including a wavelength standard that captures six relevant spectral bands.

Specifications

Wavelength Range:	290 to 500 nm*
Wavelength Accuracy:	±1 nm
Bandwidth: (FWHM)	< 4 nm
Wavelength Step: (Data Interval)	1 nm
Optical Geometry:	Hemispherical Illumination/0° viewing (d/0)
Integrating Sphere Material:	Spectralon®
Integrating Sphere Port Area:	< 5%
Sample Exposure Area:	0.79 cm^2
Lamp: Xenon	Flash Lamp
UV Dose Per Measurement Cycle:	< 0.2 J/cm^2
Sample Positioning Stage:	Manual Stage
Measurement Range:	
Transmittance:	0 - 100%
Absorbance:	0 – 3.0 A
SPF:	1 - 70+
Scan Time:	< 5 s

Measurement Methods Supported:

- Bare Substrate Analysis and Data Archival
- SPF, UVA, UVB, UVA/UVB(UVR)
- Critical Wavelength
- HEVIS Spectral Transmission
- ISO 23675 Cosmetics Sun Protection Test Methods - In vitro determination of sun protection factor (SPF)
- ISO 23698 Cosmetics - Measurement of the sunscreen efficacy by diffuse reflectance spectroscopy**
- ISO 24443 UVA Photoprotection Method
- FDA 2012 and 2019 Labeling and Effectiveness Testing, (Broad Spectrum & UV1/UV)
- COLIPA (2011) Method for in vitro determination of UVA protection (UVA Protection Factor)
- Boots Star Rating (2011): Testing Standard and Labeling of UVA protection

Computer Interface:	USB
Computer Requirements:	Windows11 and newer
Power Requirements:	110 - 120/220 - 240 VAC, 60/50 Hz
Operating Environment:	00 - 50°C, 0% - 70% RH (non-condensing)

Optional Accessories and Extras

- Automated Sample Stage
- UV3000S Starter Kit
- HD6 PMMA Plates
- SB6 PMMA Plates

* All SPF specifications are based on a wavelength range of 290 to 450 nm.
** Spectrophotometer method

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