

SP-100F

Multifunctional Spectroradiometer System

with Small Spot Size Optics for Character Displays



Fully NIST Traceable Spectroradiometer with Internal Target Spot Laser

- Luminance, Radiance
- Small Spot Size Optics
- Illuminance, Irradiance
- x,y and u',v' chromaticity coordinates
- Dominant Wavelength
- CCT and CRI

Applications

- Character Display Measurement
- Display Measurement (LCD, PDP, OLED ...)
- Backlight Unit Measurement (LED and CCFL)
- Front Projector Measurement
- LED Measurement
- Spectral Transmission & Reflection

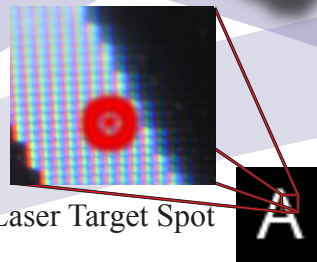
The **SP-100F Multifunctional Spectroradiometer** features a versatile “swap-and-go” design that utilizes interchangeable head attachments to allow measurement of spectral radiance, irradiance and flux. The **SP-100F** senses which measurement head is attached and automatically switches measurement units and calibration files, making this the most versatile, cost-effective spectroradiometer available.

Small Spot Size Attachments

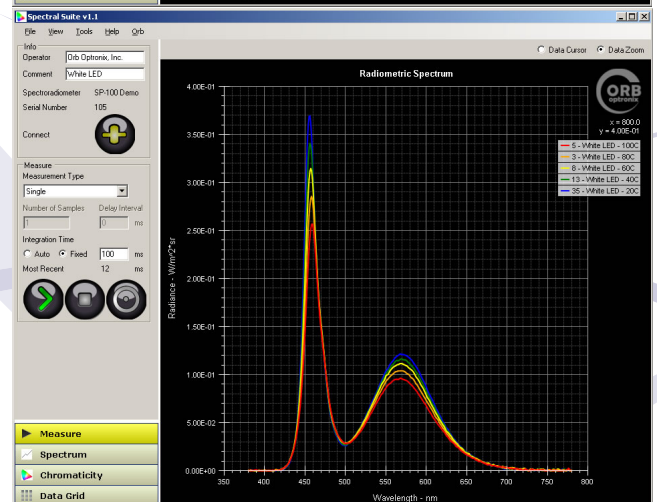
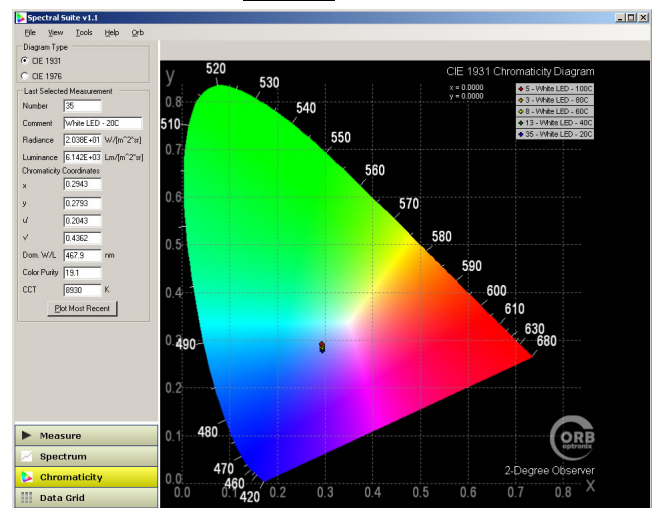
The **SP-100F** has all of the features of our SP-100 with the additional capability of measuring small spot sizes. Users may select optical attachments that allow 3 mm, 1 mm, 0.5 mm and 0.25 mm diameter spot measurements. The small spot size optical attachments have a magnifier for the operator to look through to align the red laser spot on the spot to be measured. The image above shows a real view of the laser spot on an LCD display character as seen through the magnifying optics.



SP-100F-03



Laser Target Spot



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SP-100F Multifunctional Spectroradiometer System

Measurements



Radiance / Luminance



Irradiance / Illuminance



Radiance / Luminance
(w / Small Spot Size Optics)

Specifications

Photodiode Array Resolution:	1024 pixel
Spectral Range:	380 to 780 nm
Optical Bandwidth:	4 nm
Wavelength Binning Resolution:	1 nm
Dynamic Range Resolution:	14 bit
Radiance Full View Angle:	1.8°
Normal Radiance Measurement Spot Diameter:	6mm diameter at 20cm 31mm diameter at 100 cm

Small Spot Size Optics	SP-100F-01	SP100F-02	SP-100F-03	SP-100F-04
Measurement Diameter	3 mm	1 mm	0.5 mm	0.25 mm
Measurement Distance	70 mm	26 mm	46 mm	46 mm
Dield of View	2.1 °	1.9 °	0.6 °	0.2 °
Length	77 mm	26 mm	77 mm	77 mm

Measurement Range Luminance:	1 cd/m ² to 7 x10 ⁴ cd/m ²
Measurement Range Illuminance:	20 lx to 5 x 10 ⁵ lx
Luminance Accuracy:	± 2 %
Luminance Repeatability:	± 1 %
Chromaticity Accuracy (x,y):	± 0.002 x, y
Chromaticity Repeatability (x,y):	± 0.0005 x, y
Wavelength Accuracy:	± 0.5 nm
Dimensions:	5.51 in. x 2.28 in x 1.34 in.
Weight:	0.35 kg
Operating Environment:	10 to 40 °C and < 85 % relative humidity
Interface:	USB 2.0

Software Capabilities:

Chromaticity Coordinates: x,y & u',v'
CCT
Dominant Wavelength
Color Rendering Index
Multiple Spectroradiometer Control

Accessories (Included):

Small Spot Size Optics
Cosine Correction Measurement Head
PC Software
Transportation Case
USB Cable