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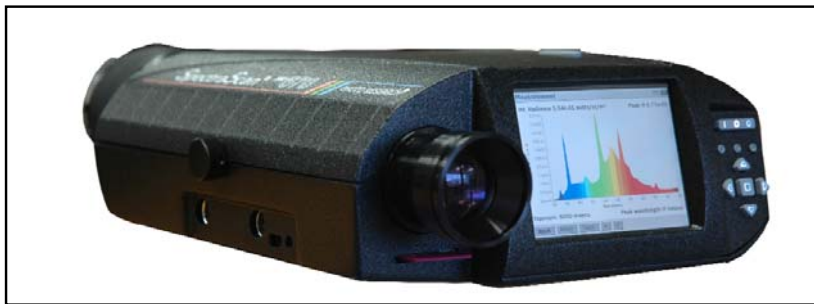
The PR®-670 SpectraScan® Spectroradiometer

Unique Design

The PR-670 SpectraScan is the newest addition to the world renowned SpectraScan spectroradiometer series of instruments. This unique, portable battery powered instrument utilizes a fast-scanning 256 detector element spectrometer with a spectral resolution of 1.56 nm per pixel and is supplied with 4 automated measuring apertures (1°, 1/2°, 1/4° and 1/8°) and automated measure shutter. Other hardware features include AutoSync® for automatically synchronizing to the source refresh rate insuring the utmost accuracy, an external trigger port allowing remote measurement activation from either a push button or peripheral device, a Secure Digital (SD) port for measurement storage, and a long lasting rechargeable Lithium-ion (Li) battery.

Easy to Use

The PR-670 is controlled via the on-board, 2.25" x 3" high resolution, full color touch screen LCD display and 5-way keypad for easy navigation. Following a measurement, the PR-670 displays data *and color* spectral graphs on the system display. The PR-670 design provides stand alone operation - no PC required. The PR-670 can be also controlled via the world famous SpectraWin software over the USB or Bluetooth interface or using text based commands (Remote Mode).



PR-670 SpectraScan Spectroradiometer

and a series of magnification lens for small spot size analysis. In fact, all of the accessories available for the PR-650 SpectraScan can be used on the PR-670. The PR-670 also provides the capability for interactive display white point calibration (RGB software).

Wide Dynamic Range

When it is necessary to test devices that emit low lows and high highs, the wide dynamic range of the PR-670 (0.01 to 2.5 million footlamberts <0.034 to 8.6 million cd/m²> @ 10:1 signal to noise) provides the solution,

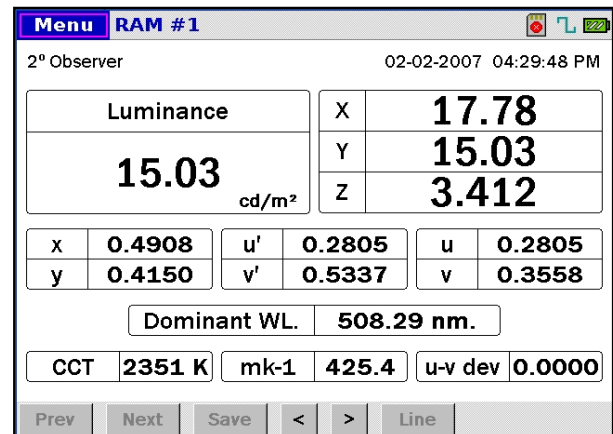
Connectivity

It's easy for the PR-670 to talk to the outside world - it comes equipped with USB and Bluetooth (optional) wireless interfaces. It is supplied with text based, Remote Mode syntax and a driver that emulates an RS232 interface (COM: port) making it a simple task to generate custom programming to perform specific tasks or for inclusion in an ATE environment. If you want, we can optionally add a traditional RS232 I/F.

Flexibility

The unique design of the PR-670 makes tasks such as spectrally based photometric and colorimetric measurements, source spectral power distribution, dominant wavelength and correlated color temperature quick and simple. We've further enhanced the flexibility by adding 2 sensitivity modes and 4 measurement speed settings.

For applications other than radiance or luminance the PR-670 can be supplied with optical accessories such as a cosine receptor for irradiance / illuminance, LR-127 LED Analyzer for testing LED's to CIE 127, fiber probe for remote non-line-of-sight luminance testing,



Measurement Result Screen

Applications

Display luminance and color	Medical / dental color testing
Contrast	Reflectance / transmittance
Projector Calibration	Digital Cinema
LED testing	Human factors
Paper, ink and textile testing	Dominant wavelength
Film and Video Post-Production	Automotive and Aerospace Display Testing

Features	Benefits
Full Color Touch Screen Display	Easy-to-use menu based software
Wide Dynamic Range	Address almost any display measurement requirement
USB Interface	Connects to virtually any PC
Bluetooth ready (optional)	Wireless, remote data transfer
Long lasting rechargeable Li-Ion battery	Excellent for field use
SD Card Storage	Save thousands of measurements

PR-670 Specifications

Detector	256 sensors
Spectroradiometer Wavelength Range	380 to 780 nm
Optics	Pritchard optical system
Digital Resolution	16 bits
Spectral Resolution	1.56 nm / pixel
Spectral bandwidth	8 nm (5 nm optional)
Spectral Accuracy	± 1 nm
Luminance Range	0.01 to 2,500,000 fl †
Luminance accuracy (Against NIST luminance standard)	± 2% *
Luminance repeatability	≤ 1% *
Color Accuracy (for Illuminant A)	± 0.0015 in CIE 1931 x,y *
Measurement Capabilities	Luminance, Illuminance, luminous intensity, chromaticity, correlated color temperature, dominant wavelength.
AutoSync Range	20 to 400 Hz
Measurement Time	6 ms to 30 secs.
Battery	Rechargeable Lithium-ion. (≥ 12 hours continuous operation)
Weight	3.75 lbs (1.7 kg)
Operating Temperature	34° to 95° F (1° to 35° C)

* Stated luminance accuracy, repeatability and color accuracy at 0.15 fL with the 1° aperture.

Notes:

1. All specifications are subject to change without notice.

Measurement Spot Size

Accessory	Working Distance	Aperture			
		1°	1/2°	1/4°	1/8°
MS-75 (355 mm to infinity)	355 mm	5.25 mm	2.63 mm	1.315 mm	0.658 mm
	305 m	5.32 m	2.66 m	1.33 m	665 mm
SL-0.5X	94.1 mm to 137 mm	1.5 mm to 2.54 mm	0.75 mm to 1.27 mm	0.375 mm to 0.635 mm	0.188 mm to 0.318 mm
	SL-1X	46 mm to 66 mm	0.890 mm to 1.32 mm	0.445 mm to 0.660 mm	0.226 mm to 0.330 mm
MS-2.5X	46 mm	0.51 mm	0.225 mm	0.128 mm	0.064 mm
MS-5X	28 mm	0.289 mm	0.145 mm	0.072 mm	0.036 mm
MS-7.5	100 mm	17.5 mm	8.75 mm	4.38 mm	2.19 mm
	30.5 m	53 cm	26.6 cm	13.3 cm	665 mm
LA-670	Contact	13.2 mm	13.2 mm	13.2 mm	13.2 mm
FP-670	Contact	3.17 mm	3.17 mm	3.17 mm	3.17 mm

Luminance Range (fl) †

Access.	Aperture			
	1°	1/2°	1/4°	1/8°
MS-75	0.01 to 39,000	0.04 to 156,250	0.16 to 650,000	0.64 to 2,500,000
SL-0.5X	0.01 to 39,000	0.04 to 156,250	0.16 to 650,000	0.64 to 2,500,000
SL-1X	0.01 to 39,000	0.04 to 156,250	0.16 to 650,000	0.64 to 2,500,000
MS-2.5X	0.025 to 97,500	0.10 to 390,000	0.40 to 1,560,000	1.60 to 6,240,000
MS-5X	0.04 to 156,000	0.16 to 624,000	0.64 to 2,496,000	2.56 to 9,984,000
MS-7.5	0.01 to 39,000	0.04 to 156,250	0.16 to 650,000	0.64 to 2,500,000
LA-670	0.01 to 39,000	0.04 to 156,250	0.16 to 650,000	0.64 to 2,500,000
FP-670	0.025 to 97,500	NA	NA	NA
CR-670	0.02 to 78,000 fc	NA	NA	NA

† Luminance values are for 10:1 signal to RMS noise against an Illuminant A based (2856K) NIST traceable luminance standard



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