



PAPER TESTING ASSOCIATION

# PAPER Testing Equipment

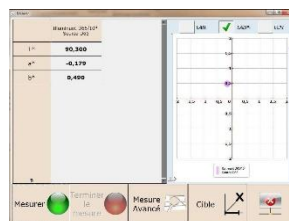


## SPECTROPHOTOMETER with Software Novicolor

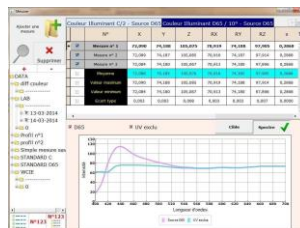
Ref: CM3630A

For determination of ISO brightness (whiteness), color, color differences, fluorescence, and opacity of paper

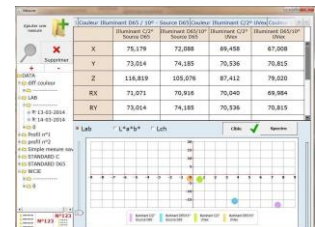
**Application Standards :** ISO 2469, 2470, 2471, 3688, 5631-1, 5631-2, 5631-3, 9416, 11475, 11476, 12625-7, 12625-15 / TAPPI T519, T525, T527 / DIN 53145bis, 53147, 54500



Measure Lab



Measure



Metamerism

NOVICOLOR a modern, easy to use and feature rich Color-QC application for paper and Packaging industries and automotive supply chain members. It enables customers to analyze, report, communicate and visualize accurate color QC results. It incorporates the Indices, Tolerance Methods, Graphs and Light sources D65, C, UV ex.

Compatible with the following system software's: Windows 7 / 8

Control and calibration of the device: Light source filtered according D65, C and UV ex level  
Administration of the sample and standard library.

Sold & serviced by:

**OpTest Equipment Inc.**

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<b>MODEL:</b>	Spectrophotometer with external PC
<b>ILLUMINATION/VIEWING SYSTEM:</b>	Reflectance: d:0° (diffuse illumination, 0-degree viewing) Conforms to ISO 2469, JIS P8148, DIN 53145-1 and DIN 53145-2 standards.
<b>LIGHT-RECEIVING ELEMENT:</b>	Silicon photodiode array (dual 40 elements)
<b>SPECTRAL SEPARATION DEVICE:</b>	Diffraction grating
<b>WAVELENGTH RANGE:</b>	360 nm to 740 nm
<b>WAVELENGTH PITCH:</b>	10 nm
<b>REFLECTANCE RANGE:</b>	0 to 200%; resolution: 0.01%
<b>LIGHT SOURCE:</b>	Pulsed xenon lamps (× 3)
<b>MEASUREMENT TIME:</b>	Approx. 1.5 seconds (for measurements of fluorescent colors, at 9600 bps)
<b>MINIMUM INTERVAL BETWEEN MEASUREMENTS:</b>	Approx. 4 seconds; when reflectance measured, approx. 5 seconds; when fluorescent color
<b>MEASUREMENT/ILLUMINATION AREA:</b>	Ø 30 mm / Ø 34 mm
<b>INTER INSTRUMENT AGREEMENT:</b>	Mean $\Delta E^*$ inferior at 0.2 (mean)
<b>REPEATABILITY:</b>	Spectral reflectance: Standard deviation within 0.1% Colorimetric values: Standard deviation within $\Delta E^*$ inferior at 0.02 (condition; white calibration plate measured 30 times at 10-second intervals)
<b>TEMPERATURE DRIFT:</b>	Spectral reflectance: Within +/- 0.10%/°C Color difference: Within $\Delta E^*_{ab}$ 0.05/°C
<b>UV ADJUSTMENT:</b>	Instantaneous numerical adjustment
<b>UV CUT FILTER:</b>	400 nm cut-off and 420 nm cut-off
<b>CONTROL METHOD:</b>	Directly connected to a touch screen computer
<b>INTERFACE:</b>	RS-232C format
<b>POWER:</b>	100-240V AC 50-60Hz 25W AC (with a dedicated AC adapter)
<b>DIMENSIONS (W × H × D):</b>	302 × 585 × 335 mm
<b>WEIGHT:</b>	18.5 kg
<b>OPERATING TEMPERATURE/HUMIDITY:</b>	13 - 33°C, relative humidity 80% or less (at 30°C) with no condensation
<b>STANDARD FOR CALIBRATION:</b>	ISO Level IR 3
<b>COLOR / COLOR DIFFERENCE SCALES / TOLERANCES:</b>	Measurement of ISO Brightness (R457), WCIE - Color: XYZ, Rx, Ry, Rz, L,a,b L*, a*, b* L*, C*, h* x,y,Y - $\Delta E$ - Color difference between 2 samples respectively between standard and sample - Measurement of fluorescence (optical brighteners)– Opacity - Measurement of Ingede en IE% etc....
<b>PLOTS/GRAPHICS:</b>	CIELab, Trend, Histogram, Chromaticity, interactive zoom function
<b>GENERAL FEATURES:</b>	Statistic Std. deviation/mean avg., descriptors, Configurable Data Grids
<b>MEASUREMENTS:</b>	Average measurements, Remote Measurements, Automated calibration timeout, manual Data input
<b>DATABASE FUNCTIONS:</b>	Store, retrieve, rename, delete Standards and Batches, Organize Samples in a Folder Structure, Unique Sample Identifiers,
<b>EXPORT/IMPORT:</b>	Export to ASCII file, Export result data to EXCEL

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