

# Microscope Spectrophotometer

## Ultra-Small 2.2 to 0.2 mm View Area



Model CM-300 Microscope Spectrophotometer enables accurate color measurement of extremely small objects using State-of-the-Art Technology. Design is based upon a single path dual beam optical system. A pointer illuminates area to be measured, the spectrophotometer uses the same optical path for the measure providing unparalleled measure alignment and accuracy. The instrument has:

- Wide angle view Triocular microscope.
- 200-1100 nm Color Spectrophotometer.
- Pointer illuminates spot to be measured.
- 45/0 geometry 78 LED light illumination ring.
- Non-contact Measurements do not touch specimen.
- Four color spaces with separate Munsell program.
- Selection of six different spot sizes.

## APPLICATION EXAMPLES

- **Pharma** – Small pill color, Color dot of pregnancy kits.
- **Electronics** – Color codes on small wires.
- **Medical** – Analysis skin cancer, biopsies.
- **Museums** – Artifacts, bird feather classification, historical paint chips.
- **Paintings and Textiles** – Color certifications using the optional Boom Stand.
- **Print** – Bank Notes, credit card fonts, print letters, laser print, pixels.
- **Agriculture** – Small grains, infestations, leaf diseases, mold.
- **Plastic** – Individual pellets, small parts.
- **Food** - Individual pasta strands, seeds, nuts, Individual cereal grains such as rice and corn.

**SPOT SIZE** A dime is 1 mm thick. This instrument can measure a spot 20% the thickness of a dime



**Spot Size-**

**STANDARD LENS:** with instrument Barlow 0.5x: Read area 2.2 mm or 1.1 mm diameter spot size.

**OPTIONAL ADDITIONAL LENS:** Barlow 1.0x: Reads area 1.0 mm or 0.5 mm diameter spot size.

**OPTIONAL ADDITIONAL LENS:** Barlow 2.0X: Reads area 0.4 mm or 0.2 mm diameter spot size.

**High Accuracy Sample Alignment-**

A single optical path dual beam system provides a laser pointer beam down the optical path to precisely illuminate the exact spot to be measured. After the spot is aligned, the laser pointer beam is switched off and the spectrometer uses the same optical path to measure the spot providing unparalleled spot measurement precision.

**Ambient Light Compensation-**

Ambient light is measured and removed from the color calculation.

**Color Notations-**

Absolute color values in four color notations: CIEL\*a\*b\*, HLab, CIE XYZ, CIE xyz, and separate Munsell program.

**Illuminants, Degree Observer, Chromaticity and Spectral Curve-**

Choice of 39 illuminants, 2/10 degree observer, display of the chromaticity diagram and spectral curve is provided

**Data Storage-**

Computer documentation storage of measurements only limited by size of the computer memory.

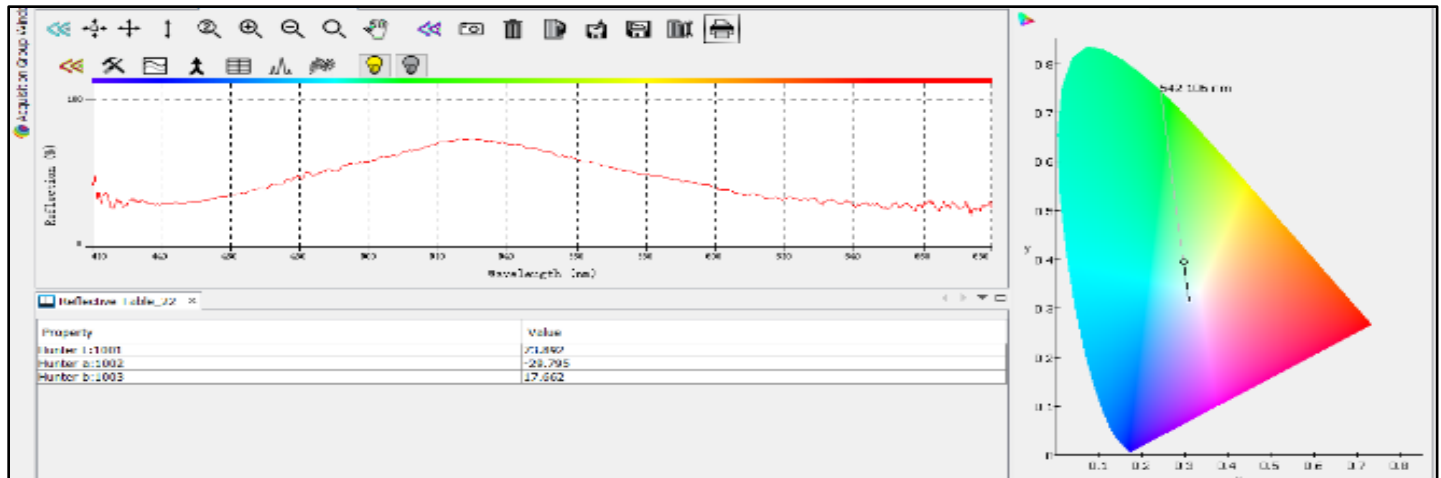
**Sample Time -**

Sample time (Typically one second) can be adjusted for scan time, scans averaged and scan bandwidth.

**Calibration and Certification -**

A Lab Sphere white calibration tile traceable to NIST is provided. In addition a 0.01 mm reticule calibration scale is provided to measure the sample size. Inter-instrument agreement better than DE=+/-1.41 to other 45/0 instruments for Chroma less than 60.

**SOFTWARE DISPLAY**



**OPTIONAL BOOM MOUNT**

**TYPICAL LAB READOUT**



Property	Value
Hunter L:1001	78.696
Hunter a:1002	-29.990
Hunter b:1003	16.504

**Standard Warranty- ONE YEAR. Extended warranty up to FIVE YEARS.**

**Janda Corporation – Color Technology Experts**

3345 North Key Drive #44, North Fort Myers, FL 33903 Tel 410-263-2223

Email: Janda@JandaCorp.net Web Site [www.qctoolbox.com](http://www.qctoolbox.com)