

COFFEE SPECTROPHOTOMETER & COLORIMETER - CAFFÉSPECTRA™



Professional-grade instrument for accurate coffee roast analysis

The CafféSpectra™ is a high-precision coffee colorimeter and coffee spectrometer designed for fast and reliable color evaluation of roasted coffee beans. Its 7-inch touchscreen provides intuitive control, allowing quick identification of SCAA numbers and HCCI values with corresponding roast levels.

Ideal for quality control, the device includes a color difference comparison feature with adjustable thresholds to detect even subtle variations. It uses a full-spectrum LED light source combined with a high-accuracy spectral sensor for dependable performance.

With built-in mobile and PC software, the CafféSpectra™ simplifies coffee color management across labs, roasteries, and production lines.

APPLICATIONS

Measurement Capabilities and Features

- Measures SCAA number, HCCI value, roast degree, and Lab values
- Supports color difference comparisons with customizable thresholds
- Large 50 mm aperture for consistent sample coverage
- One-touch testing and 7-inch touch display for easy operation

This coffee spectrometer helps ensure uniformity across batches and supports decision-making for roast profiling and quality standards.

Standards and Compliance

The CafféSpectra™ coffee colorimeter conforms to internationally recognized standards:

- Verification regulation for colorimeters and color difference meters
- Geometric conditions and standard illuminants
- Uniform color space and color difference formulas
- Paint film color measurement standards (Parts I, II, III)

Software Compatibility

Mobile App Installation

Compatible with Android 7.0 and iOS 7.0 or higher. Install by scanning the QR code displayed on the device using a mobile browser.

PC Software Installation

Connect the instrument to a Windows-based PC using a USB cable to access advanced software features such as data export and report generation.

FEATURES

SCAA, HCCI and Roast Degree Measurement

The CafféSpectra™ can simultaneously measure the SCAA number, HCCI, and roast degree of coffee beans, offering valuable reference data for the roasting process.

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

Color Measurement and Color Difference Comparison Function

The CafféSpectra™ measures Lab values and color differences in coffee beans, delivering detailed data analysis for raw material testing and the roasting process.

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50mm Large Aperture

With a measuring aperture of up to 50mm and two specialized plastic cuvettes, the CafféSpectra™ is designed to accurately analyze coffee beans of various uneven shapes.

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

7-inch Touch Screen

Featuring a 7-inch touchscreen with an intuitive human-machine interface, the CafféSpectra™ ensures seamless and convenient operation.

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

Good Repeatability

High precision and excellent repeatability with standard deviation $\Delta E^*_{ab} \leq 0.03$. It can pass the test of authoritative metrology institute.

SCAA and HCCI Multi-Point Calibration

The CafféSpectra™ features multi-point calibration for SCAA Agtron numbers and HCCI (HunterLab Coffee Color Index), ensuring precise measurements.

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Provide QC Function

The CafféSpectra™ includes a QC function that allows users to set a custom color difference threshold. It automatically determines whether the color difference meets the set standard.

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

Provide Powerful Mobile APP and PC Software

The CafféSpectra™ comes with a mobile app and PC software, making coffee bean color management efficient and streamlined.

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

CafféSpectra™ with APP

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

CafféSpectra™ with PC software

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

Full Spectrum LED Light Source

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Large Storage Space

Coffee Spectrophotometer & Colorimeter - CafféSpectra™

Compensation Optical Path

TECHNICAL SPECIFICATIONS

Parameters	Value
Illumination geometry	D/8, specular component include (SCI)
Illumination light source	Full spectrum LED light source
Spectral range	400-700nm
Spectral interval	10nm
Measuring aperture	50mm
Measurement conditions	Light source D65, field of view 10°
Measuring time	About 1.5s
Color space	CIE Lab
Color difference formula	ΔE^*ab
Repeatability	Standard deviation ΔE^*ab is within 0.03 (Measurement condition: the average value of 30 measurements on the whiteboard at an interval of 3s after calibration)
Inter-instrument agreement	$\Delta E^*ab \leq 0.4$, based on avg. of 12 BCRA series II tiles
Dimension	211mm×264mm×360mm(LWH)
Weight	3290g

Parameters	Value
Voltage	100~277V 0.4A 50/60HZ
Display	7-inch 1024*600 dot matrix IPS color screen
Language	English and other
Data transmission	USB, Bluetooth
Operating temperature range	0~45℃, 0~85%RH (no condensation)
Storage temperature range	-25~55℃, 0~85%RH (no condensation)

Packing List

No.	Description	Quantity	Unit
1	Main Unit	1	Set
2	USB cable	1	pcs
3	Cleaning cloth	1	pcs
4	Power cable	1	pcs
5	User manual	1	pcs
6	Certificate / Warranty card	1	pcs
7	Calibration Report	1	pcs
8	Plastic Cuvettes	2	pcs



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