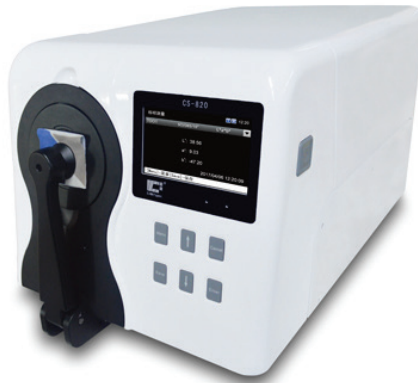


# SPECTRO PHOTOMETER

## CS-820

CS-820 All-in-one Spectrophotometer  
Bench top spectrophotometer CS-820  
can measurement both reflectance  
and transmittance. It is with the best  
repeat-ability  $\Delta E^*ab$  0.015. Four  
apertures to meet all color measure-  
ment requirement.



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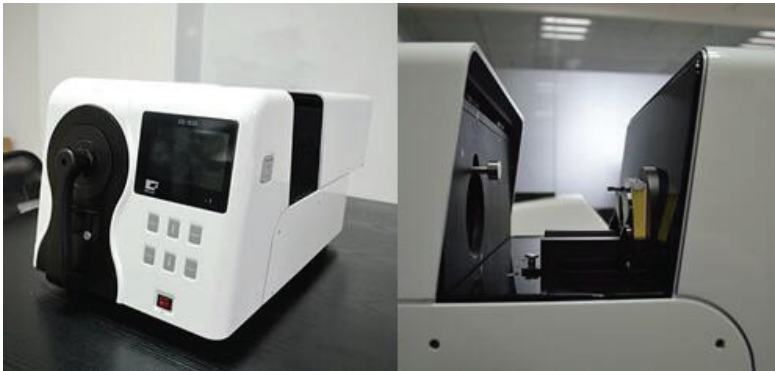
# SPECTRO CS-820 PHOTOMETER



Bench top spectrophotometer CS-820 has the advantage of excellent inter-instrument agreement, high accuracy and good repeat-ability. It could meet your requirement for both color quality control and color matching easily.

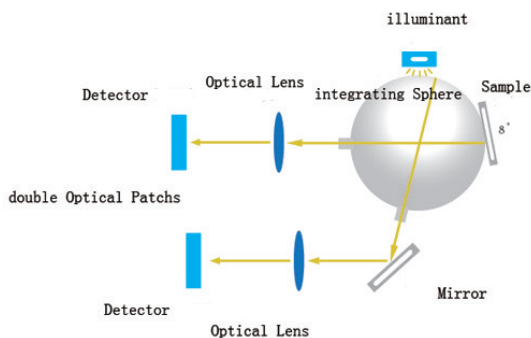
## Brief Introduction

### 1. Transmission D/O Structure and Reflection D/8 Structure

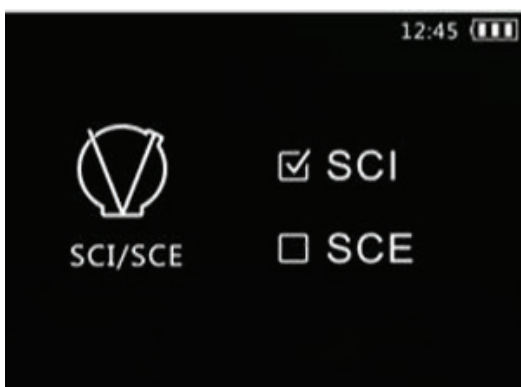


### 2. Double Optical Paths Spectral Analysis Technology

It could get the measurement sample data and internal environment data at the same time to make sure the testing accuracy and stability for long time running.



### 3. Compatible with SCI/SCE Measurement



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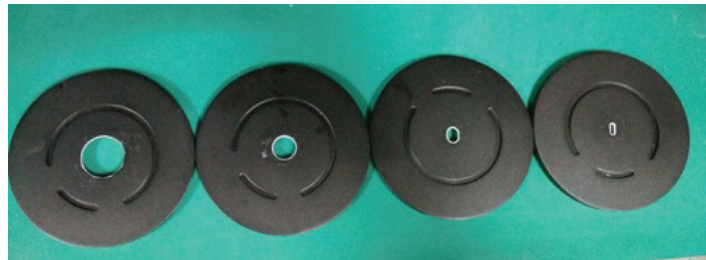
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# SPECTRO CS-820 PHOTOMETER



## 4. Four Testing Apertures

It is easy to adjust the testing calibers. The largest caliber diameter reaches 25.4mm. It could test the sample with different sizes. CS-820 is not only suitable for testing the color of opacity sample, but also suitable for transparent or translucent sample's transmittance.



## 5. Large Screen Display

It could finish the sample measurement without connecting with PC. Large screen display to make sure customer could see the testing result directly and clearly. It will be more convenient to set the instrument status. The color match software are optional according to customer's need.



## 6. Flexible Test Fixture

It could fix the sample with different size and thickness on the testing port tightly in case of stray light entering to affect the testing accuracy.



# SPECTRO CS-820 PHOTOMETER SPECIFICATION



Type	CS-820
Measurement Condition	Reflectance: d/8(Diffused illumination, 8 degrees viewing)
	Compatible with SCI/SCE Measurement ISO7724/1、DIN5033 Teil7、JIS Z8722 condition C、CIE No.15、ASTM E1164)
	Transmission d/0(Diffused lighting, Vertical direction receiving)
Size of integrating sphere	Φ15.2cm
Illumination Light source	CLEDs(entire wavelength balanced LED light source)
Sensor	dual optical path sensor array
Wavelength range	400-700nm or custom made (360-740nm)
Wavelength interval	10nm
Half spectral width	5nm
Reflectivity range	0-200%
Reflectivity resolution	0.01%
Observation angle	2°/10°
Measurement light source	A,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12
	CWF,U30,DLF,NBF,TL83,TL84
Data being displayed	Reflectance and Transmittance graph/value, chromatic value, color difference values, color assessment results, color tendency, color simulation, manual input standard sample, generate measurement reports
Measurement time interval	2 seconds
Reflection Aperture	Large Aperture (LAV):2.54cm(=1inch)
	Medium Aperture (MAV):1.5cm(=0.6inch)
	Small Aperture (SAV):0.75cmx1.0cm(0.3inch x 0.4inch)
	Very Small Aperture (VSAV):0.3cmx0.8cm(0.12inch x 0.31inch)
Color space	CIE-L*a*b,L*C*h,CIE-L*u*v,XYZ,Yxy,Transmittance, Hunterlab, Munsell Ml,CMYK, RGB,HSB
Color difference formulas	$\Delta E^*ab, \Delta E^*CH, \Delta E^*uv, \Delta E^*cmc(2:1), \Delta E^*cmc(1:1), \Delta E^*94, \Delta E^*00$
	$\Delta Eab$ (Hunter),555color classification
Other colorimetric indices	WI(ASTM E313-10,ASTM E313-73,CIE/ISO, AATCC, Hunter, Taube Berger, Ganz, Stensby),YI(ASTM D1925, ASTM E313-00,ASTM E313-73),Tint(ASTM E313-00,CIE,Ganz),Metamerism index Mlim, Stick color fastness, Color fastness, APHA, Pt-Co, Gardner
Repeatability	light splitting reflectivity: standard deviation within 0.08%
	Chromaticity value: Standard deviation within $\Delta E^*ab$ 0.015 * When a white calibration plate is measured 30 x at 5-second intervals after white calibration (max.0.03)
Interface	USB
Data storage	mass storage
Light source longevity	5 years, 1.5 million tests
Size	583*330*304mm(L*W*H)
Work temperature range	15°C-32°C (60°F-90°F)
Relative Humidity	0°C to 45°C,relative humidity 80% or below (at 35°C), no condensation
Standard accessories	power line, color management software, drive software, USB cable, black/white calibration tile, 40x10 cuvette, cuvette support, verification certification





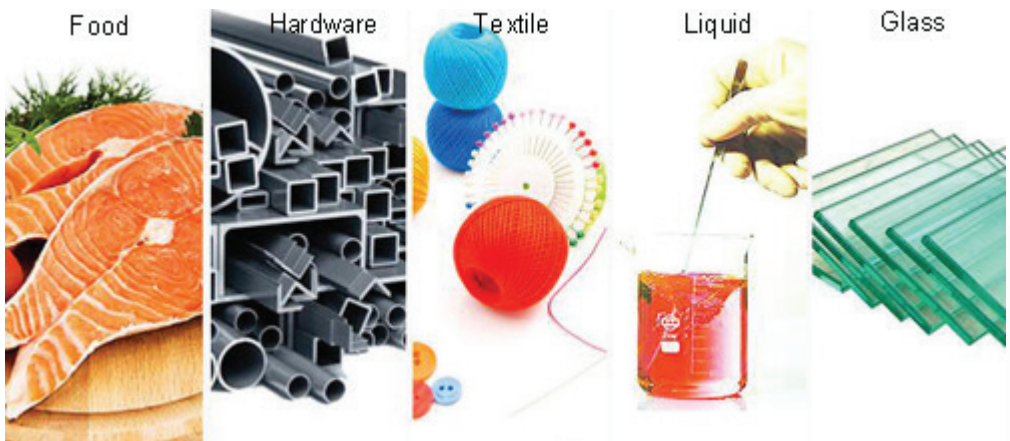
# SPECTRO CS-820 PHOTOMETER SPECIFICATION



## 1. Benchtop Spectrophotometer CS-820 Application Examples

- Textile Fiber Color Measurement
- Drinking Color Measurement
- Color Master Batches Color Measurement

## 2. Benchtop Spectrophotometer CS-820 Application Industries



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