Spectrocolorimeter PS230

Introduction:

"Fat girl" is the nickname of PS series domestic color spectrometer. It is serious about color measurement and high user satisfaction.

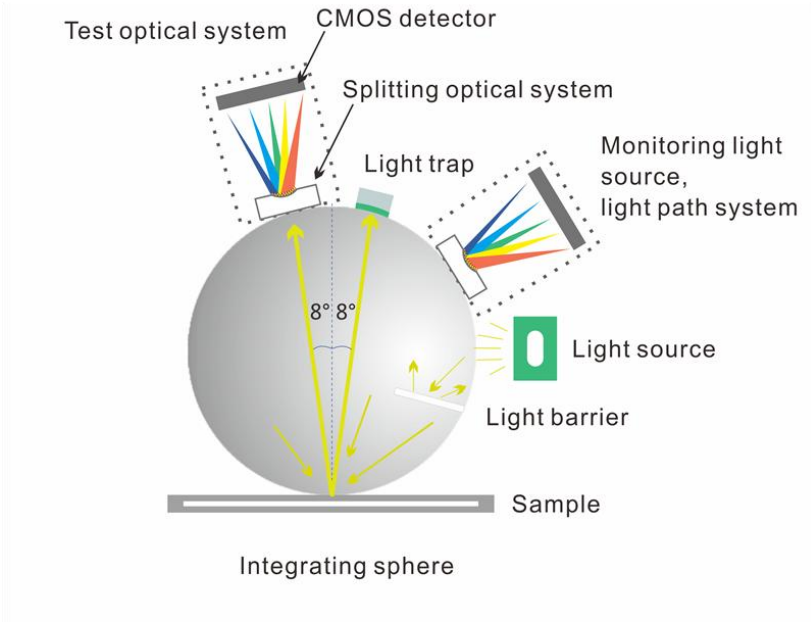
PS230 "Fat girl" spectrocolorimeter is our developed by CMOS dual-channel spectrocolorimeter sensor, which is not only a colorimeter, but also a spectrocolorimeter, with excellent repeatability and the inner-instrument error. The measurement data is stable, accurate and reliable. with a comfortable and round appearance more people love it. It also has quality management software facilitate quality monitoring and data management.

PS230 spectrocolorimeter is equipped with six apertures MAV:Φ8mm(flat+tip)、SAV:Φ4mm (flat+tip)、SSAV:1x3mm(flat+tip), widely used for plastic electronics, paint ink, textile and garment printing, printing, ceramics and other industries color difference quality control. UV is included for the measurement of fluorescent samples.

Technical Advantages

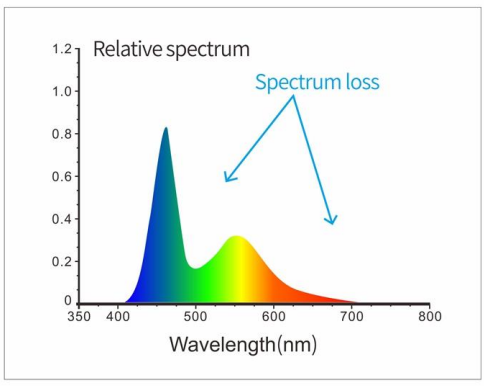
1、 Adopt D/8 optical structure and SCI/SCE mode.

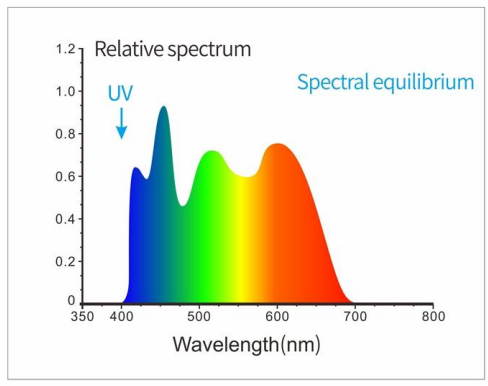
PS230 spectrocolorimeter adopts D/8(diffused illumination, 8-degree viewing angle) which is widely applicable in the world, and SCI/SCE (specular component included/specular component excluded) Synthesis technology. It is suitable for color management and quality control in various industries such as color matching and coating, textile, plastic, food, building materials, cosmetics, etc.



2、Adopt full waveband balanced LED light source + UV light

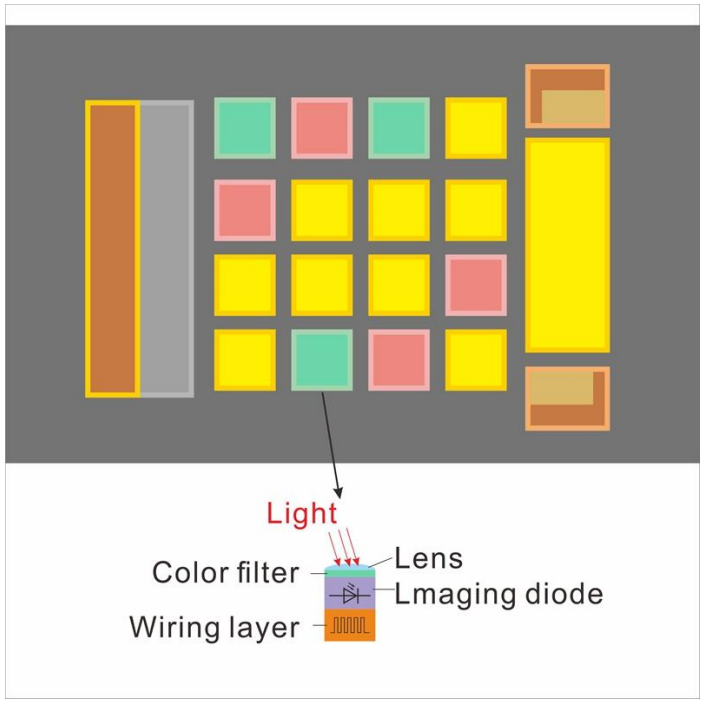
The 400~700nm full waveband balanced LED light source and UV light ensures sufficient spectral distribution in the visible light range, avoids the spectral loss of white LED in specific waveband, Fluorescent materials can also be easily measured and ensures the measurement speed and accuracy of the measurement results.





3、 CMOS dual beam splitting sensor

High speed and high sensitivity CMOS dual beam splitter sensor makes color data processing more efficient and accurate.

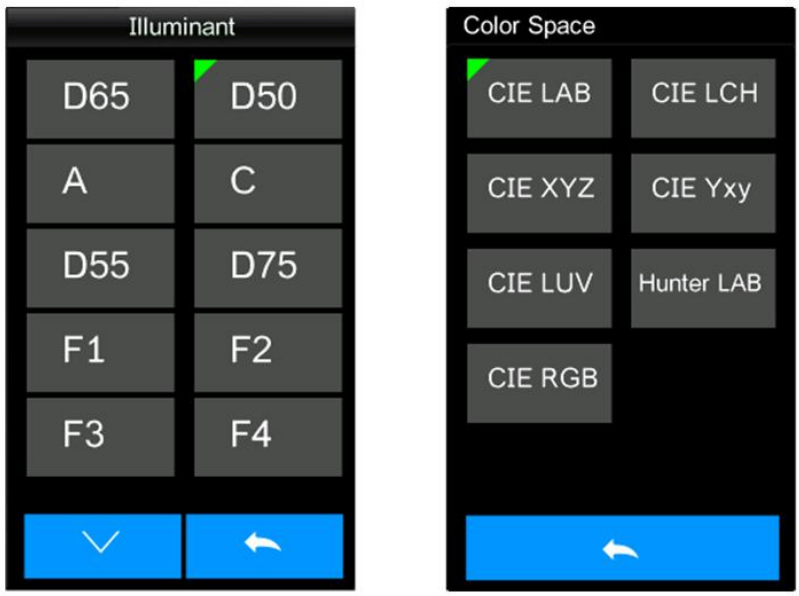


4、Contact automatic whiteboard calibration

The spectrocolorimeter PS230 is equipped with an intelligent calibration base.Contact automatic whiteboard calibration is available, professional standard whiteboard reflectivity R%≥95%, good surface uniformity. It has high stability and can obtain repeated and accurate data.

5、Multiple color measurement spaces, multiple illumination source

The spectrocolorimeter PS230 support CIE LAB,XYZ,Yxy,LCh,CIE LUV,S- RGB,β xy,DIN Lab99 Color space and D65,A,C,D50,D55,D75, F1,F2(CWF),F3,F4,F5, F6,F7(DLF),F8 ,F9,F10(TPL5),F11(TL84),F12(TL83/ U30), U35,NBF,ID50,ID65 multiple illumination source,Meet different measurement requirements.



6、Ergonomic design and easy measurement

The fitted palm is suitable for continuous detection, which makes you fast and easy to use. An easy to measure device for automatic measurement is added. Which is portable, fast, easy to measure and use.

7、Cloud storage, carrying massive color databases

Use apps and applets to establish your private color database in the cloud, without carrying heavy color cards, you can share them with partners anytime and anywhere.

8、Calibration Certificate

Each PS230 spectrocolorimeter has been verified and tested. After leaving the factory, each instrument is verified according to the measurement standards of authoritative verification departments, and the measurement data are traceable to the National Metro technical Institute to ensure the authority of the instrument test data.

9、The camera can clearly observe the measured area

The built-in camera is used for view taking and positioning. Through real-time view taking, it can accurately determine whether the measured part of the object is the target center, which improves the measurement efficiency and accuracy.

10、Color management software

Quality management software Andriod, IOS, Windows, Wechat app and Hongmeng system are applicable to quality monitoring and color data management in various industries. Data the user's color management. compare colon differences, and generate test reports.

Application

Spectrocolorimeters are widely used in industries such as plastics, electronics, paint and ink, textiles, clothing printing and dyeing, printed paper products, automobiles, healthcare, cosmetics, and food, as well as in research institutions and laboratory fields. The instrument is equipped with high-end color management software, which can be connected to a computer for further functional expansion.

Technical Specification

Model	PS230 spectrocolorimeter
Optical Geometry	D/8(diffused illumination, 8-degree viewing angle), SCI/SCE (specular component included/specular component excluded) Mode, Comply to CIE No.15,GB/T 3978,GB 2893,GB/T 18833,ISO7724-1,ASTM E1164,DIN5033 Teil7
Characteristic	Adopt CMOS dual beam splitting sensor;Used for color difference quality control in plastic electronics, paint and ink, textile and garment printing and dyeing, printing, ceramics and other industries, also for fluorescence sample measurement.
Light Source	Combined full spectrum LED light source, UV light source
Integrating Sphere Size	Φ40mm
Sensor	CMOS dual beam splitting sensor
Wavelength Range	400-700nm
Measuring Aperture	Six Apertures: MAV:Φ8mm/Φ10mm；SAV:Φ4mm/Φ5mm；SSAV:1x3mm
Specular Component	SCI/SCE
Color Space	CIE LAB,XYZ,Yxy,LCh,CIE LUV,s-RGB,HunterLab,βxy,DIN Lab99
Color Difference Formula	ΔE*ab,ΔE*uv,ΔE*94,ΔE*cmc(2:1),ΔE*cmc(1:1),ΔE*00, DINΔE99,ΔE(Hunter)
Other Colorimetric Index	Spectral reflectance, WI(ASTM E313,CIE/ISO,AATCC,Hunter), YI(ASTM D1925,ASTM E313),Metamerism Index Mt,Staining Fastness, Color Fastness,Color Strength, Opacity,555 tone classification, Munsell(C/2)(Partially realize through the PC software /APP software)

Observer Angle	2°/10°
Illuminant	D65,A,C,D50,D55,D75, F1,F2(CWF),F3,F4,F5, F6,F7(DLF),F8 ,F9,F10(TPL5),F11(TL84),F12(TL83/U30),U35,NBF,ID50,ID65(Partially realize through the PC software /APP software)
Display	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Simulation, Color Offset
Measuring Time	About 1s
Repeatability	Chromaticity value: MAV/SCI, within ΔE*ab 0.02 (After preheating and correction, the average value of the whiteboard was measured for 30 times at an interval of 5s);Spectral reflectance: MAV/SCI, Standard deviation within 0.08% (400nm to 700nm: within 0.18%)
Inter-instrument Error	MAV/SCI, Within ΔE*ab 0.2 (Average for 12 BCRA Series II color tiles)
Displayed Accuracy	0.01
Measured Reflectance Range	0-200%
Reflectance Resolution	0.01%
Measurement Mode	Single Measurement, Average Measurement(2-99times)
Locating Method	Stabilizer position+camera locating
White Calibration mode	Non-contact automatic calibration
Dimension	94X68X188mm
Weight	About 410g
Battery	Lithium battery,3.7V,3200mAh,8000 cycles in 8 hours
Illuminant Life Span	More than 1.2 million measurements over 10 years
Screen	2.8 inch TFT true color, Capacitive Touch Screen
Interface	USB,Bluetooth®
Data Storage	Standard 200Pcs, Sample 10000Pcs(One data is able to include SCI/SCE); PC mass storage
Software support	Andriod,IOS,Windows,Wechat small program, Hongmeng
Language	Simplified Chinese, English, Traditional Chinese
Operating Environment	0~40°C, 0~85%RH (no condensing),Altitude < 2000m

Storage Environment	-20~50℃, 0~85%RH (no condensing)
Standard Accessory	Power Adapter, USB Cable, User Guide, SQCX PC Software(Download from office website), White and Black Calibration Cavity, Protective Cover, Wrist strap, Aperture
Optional Accessory	USB Micro Printer, Powder Test Box
Notes	Technical parameters are only for reference, subject to the actual sale of the product