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Spectrophotometer DS-700D

Part 1. Product Advantage

1) Excellent repeatability and inter-instrument agreement

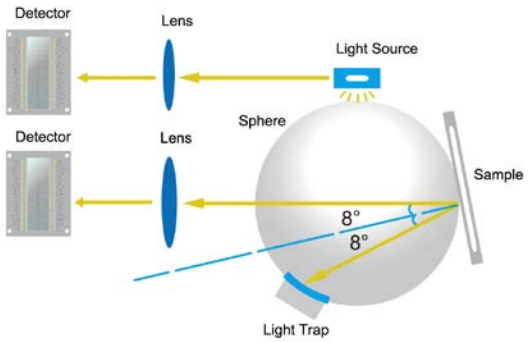
repeatability : dE*ab≤ 0.04 (max.) and inter-instrument agreement : **≤0.25**

Test result is accurate and reliable to ensure the consistency of the measurement data of multiple devices, which can be used for color matching and accurate color communication.

2). It can pass metrology of level I.

3). Dual optical path array sensor

The dual optical path design monitors the energy fluctuation of the light source while measuring the sample signal, reduces interference during the measurement, and obtains better measurement repeatability. The usage of large-area dual-array sensors provides higher spectral response sensitivity, and ensures fast measurement speed, accuracy, stability and consistency between multiple devices.

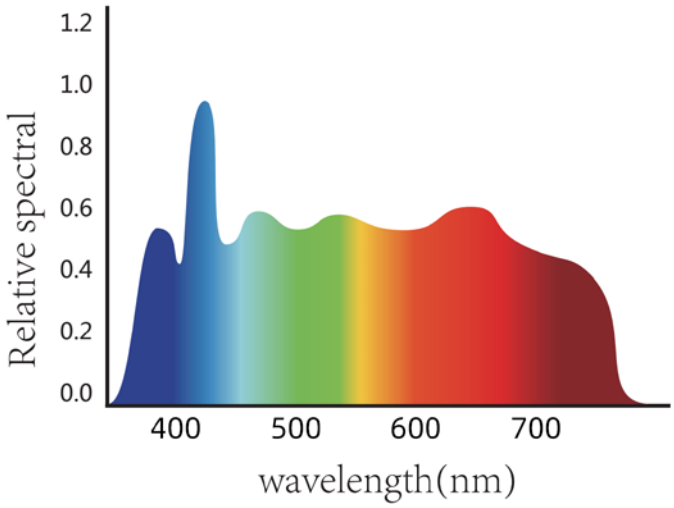


4). Intelligent auto calibration, white tile is made by ZrO2 with reflectance more than 90%, no need for frequent white calibration.

The instrument is placed on the intelligent calibration base, and the instrument can be automatically calibrated without manual intervention through the white tile on the base. It has changed the current situation that traditional instruments must be manually calibrated with white tile. The white tile is made by ZrO2 with reflectance more than 90%, which ensures excellent mechanical strength and weather resistance, and will not be scratched or discolored after long-term use.

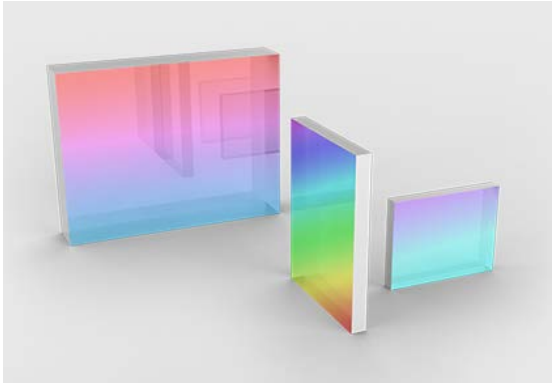
5). **360-700nm Full Wavelength Balanced LED+UV**

The instrument adopts a full wavelength balanced LED and UV as the illuminant, ensuring sufficient spectral distribution in the visible and ultraviolet bands, and materials with fluorescent can also be measured.



6). 10nm Resolution Grating Spectroscopy Technology

The grating combined with the array sensor made by the innovative MEMS process makes color measurement more accurate based on the 10nm spectral resolution.

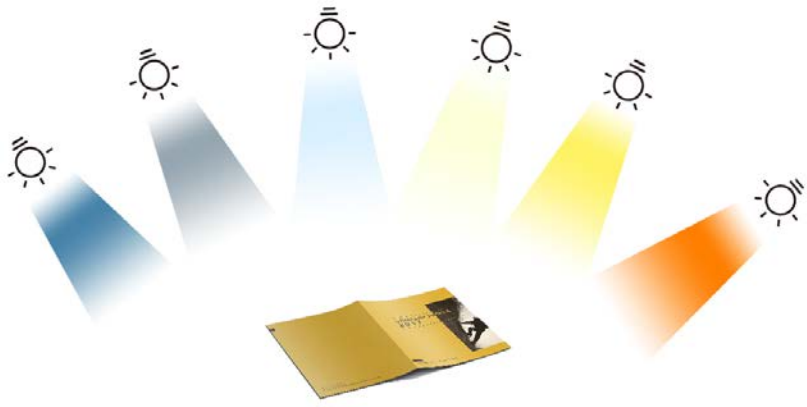


7). Three aperture as standard accessories, no tools are needed and apertures can be replaced at any time to meet different sample measurement requirements

Spectrophotometer DS700D comes with three apertures 11mm/6mm/1*3mm.

8). More than 30 kinds of color indices and 37 kinds of illuminants

DS-700D provides a variety of color indices and evaluation illuminants that comply with international standards. A variety of light sources and color indices can be flexibly chosen through the mobile phone app or PC software.



9). It supports Android, IOS and Windows program.

10). It is with the camera to see the measurement area clearly.

Part 2. Technical Parameter

Model	Spectrophotometer DS-700D
Geometry	d/8, SCI+SCE(diffused illumination,8° viewing, Specular Component Included, Specular Component Excluded)
Repeatability	Chromaticity value: Standard deviation within ΔE*ab ≤ 0.025 Average :dE*ab< 0.025 Max. :dE*ab≤ 0.04 (when a white tile is measured 30 times at 5-seconds interval) Reflectance: Standard deviation < 0.08%
Inter-instrument agreement	ΔE*ab **<** 0.25 (BCRA Series Ⅱ, average measurement of 12 tiles)
Display Resolution	0.01
Illumination Area/Aperture	MAV:Φ8mm/Φ11mm SAV:Φ4mm/Φ6mm MINI:1*3mm
Color Spaces and Indices	Reflectance, CIE-Lab, CIE-LCh, HunterLab, CIE Luv, XYZ, Yxy, RGB, Color difference(ΔE*ab, ΔE*cmc, ΔE*94,ΔE*00),WI(ASTM E313-00,ASTM E313-73,CIE/ISO, AATCC, Hunter, Taube Berger Stensby), YI(ASTM D1925,ASTM E313-00,ASTM E313-73), Blackness(My,dM),Color Fastness,

	Tint,(ASTM E313-00),Color Density CMYK(A,T,E,M), Milm, Munsell, Opacity, Color strength
Illuminants	A,B,C,D50,D55,D65,D75,F1,F2,F3,F4,F5,F6,F7,F8,F9,F10,F11,F12,CWF,U30, U35,DLF,NBF,TL83,TL84,ID50,ID65,LED-B1,LED-B2 LED-B3,LED-B4,LED-B5,LED-BH1,LED-RGB1,LED-V1,LED-V2
Light Source	LED(Full wavelength balanced LED) + UV
Camera to see the measurement area	Yes
Calibration	Intelligent auto calibration
Software	Android, IOS, Windows
Observer Angles	2°,10°
Sphere Size	40mm
Standards	Conform to CIE No.15, GB/T 3978, GB 2893, GB/T 18833, ISO7724-1, ASTM E1164, DIN5033 Teil7
Spectroscopic method	Grating spectroscopy
Sensor	Dual array sensor
Wavelength Interval	10nm
Wavelength Range	0-200%
Reflectance Resolution	0.01%
Measurement Time	< 2s
Interface	USB, Bluetooth
Screen	IPS Full Color Screen,3.5 inches
Battery	Rechargeable, 8000 times continuous tests, 3.7V/3000mAh
Lamp Lifetime	10 years, 1 million tests
Language	Chinese and English
Storage Memory	APP Mass Storage

Part 3. Application

Part 4. Packing List

Qty.	Name	Qty.	Name
1	Main Instrument	1	USB Cable
1	European /American Plug	1	U-disk (PC software)
3	Apertures	1	Operating Manual
1	Verification Certification	1	Black Carrying Case
1	Charge and Calibration Base	1	White Packing Box

Part 5. Warranty

1. One year warranty.

2. The instrument comes with verification certification to ensure the authority of the test result.