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Spectral Colorimeter XZB-C280



High Precision

Spectral colorimeter is the colorimeter which adopts the theory of spectrophotometer. It is widely used for plastic, printing, paint, ink, textile, dyeing and other industries for color management. It could measure the target L*a*b, L*c*h and the sample ΔE and ΔLab value.

Part One. Instrument Introduction

- 1. Spectro colorimeter: The highest precision colorimeter
- 2. Adopts spectral measurement working theory which greatly improve the accuracy of colorimeter
- 3. Patented technology guarantees the measurement stability
- 4. Obtain national metrology certification
- 5. Ergonomic Design

Instrument girth radian designs according to human palm so we could test data for a long time. Superior leather design increases the friction in case of fingers sliding.

6. Mass storage memory

It could save 100 pcs targets and 200 pcs samples.

Part Two. Technology Advantages

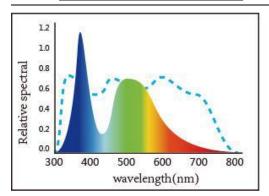
1).Uses CLEDs light source – spectrally balanced LED light source (Patent NO. : ZL2013107548347)

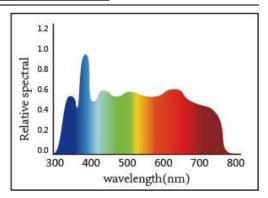
LED light source that has balanced intensity across visible spectrum avoids the spectral deficiency in certain parts of the spectrum in common white LEDs, which guarantees the speed and accuracy of the measurement results. This research has been published in national leading optical journal Chinese Optics Letter.



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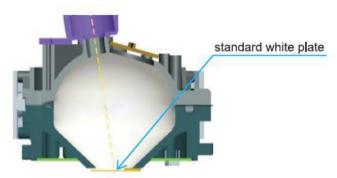
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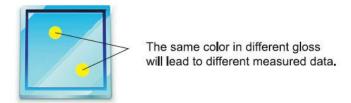
2).ETC-Every Test calibration technology (Patent NO. : ZL20130373360.1)

Currently, most instruments use standard white boards for calibration. When white board is damaged, the instrument's accuracy or precision will no longer be guaranteed. In XZBELEC's spectrophotometers, it uses innovative ETC(Every Test Calibration); standard white board is included in the optical system, and therefore has reliable accuracy and repeatability in every measurement.



3). Automatic gloss compensation technology (Patent NO. : ZL201310511357.1)

Different gloss or different instrument's light source or observation conditions will largely affect the color measurement. The automatic gloss compensation technology guarantees the accuracy of color measurement data for surfaces of different gloss. This research is published in international leading journal Optik.



4). Innovative light splitting SCS optical engine (Patent NO.: ZL201210337619.2)

Adopt innovative single-grating-dual-light-paths light splitting system: SCS optical engine, creates the best measurement repeatability for portable spectrophotometers in the industry, and guaranteed accurate measurement of surface color of materials.



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Part Three. Instrument Details



Part Four. Technical Data

Type	XZB-C280	XZB-C280+	
	di/8(Diffused Illumination, 8 degree viewing)		
Illumination	(conform to CIE No.15、ISO 7724/1、ASTM E1164、DIN 5033 Teil7、 JIS Z8722		
	Condition c standard)		
Size of			
integrating	Φ40mm, Avian diffused reflection surface coating		
sphere			
Illumination	CLED		
Light source	CLED		
Sensor	array sensor		
Wavelength	400-700nm		



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Spectrum Resolution	10nm		
Measurement Time	2s		
Measurement Aperture	11mm,optional 4mm,6mm,15mm		
Repeatability	Standard Deviation ΔE^* ab 0.08(when a white calibration plate is measured 30 x at 10-second intervals after calibration)		
Observe Angles	2° and 10°		
Light Source	A,C,D50 and D65		
Display	Chromaticity value (L*a*b, L*C*h), delta E value, pass/fail, color tendency, average, generate test report		
		With camera to see the measurement area	
Color Difference Formula	ΔE*ab,ΔE*CH		
Color Space	CIE-L*a*b,L*C*h	CIE-L*a*b,L*C*h,XYZ,Yxy	
		WI(ASTM E313-10,ASTM E313-73, CIE/ISO, AATCC,	
Other		Hunter, Taube Berger, Ganz, Stensby)	
		YI(ASTM D1925, ASTM E313-00,ASTM E313-73)	
Data Storage	20000 samples		
Light Source	5 years, 1.5 million times		
Lifetime			
Other Function	without	camera view, input color swatches	
Screen	Panchromatic True Color Screen		
Language	Chinese and English		
Interface	USB2.0		
Operating Temperature	5~45°C, relative humidity 80% or below(at 35° C),no condensation		
Storage temperature range	-25°C to 55°C, relative humidity 80% or below(at 35°C),no condensation		
Power	Rechargeable Lithium Battery 8.4V/2000mAh, adaptor DC12V		
Size	77×86×210mm		
Weight	About 550g		
Standard Accessories	adapter, operating manual, color management software, drive software, electronic		
	manual, color management guide, USB cable, black/white calibration tube, protective		
	cover, portable bag, electronic color charts		
Optional	Micro Printer		
Color Matching	Not matched		
System			
UV Light Source	without		



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Part Five. Application



Part Six. Guarantee

1).Longest Guarantee Time



- a. One Year Guarantee Time.
- b. If testing data is not correct, we can do refund.
- c. We will provide testing report for every device to assure the authority of the data and it will save the calibration cost for 1 year.

ShenZhen Xinzhibang Inst. & Eqpt. Co., Ltd