

# 3nh

Start a new era of intelligent color measurement

## TO COST-EFFECTIVE, XENON LAMP OF SPECTROPHOTOMETER RECOMMENDED

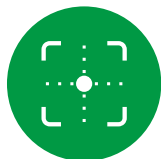
### Expert measurement



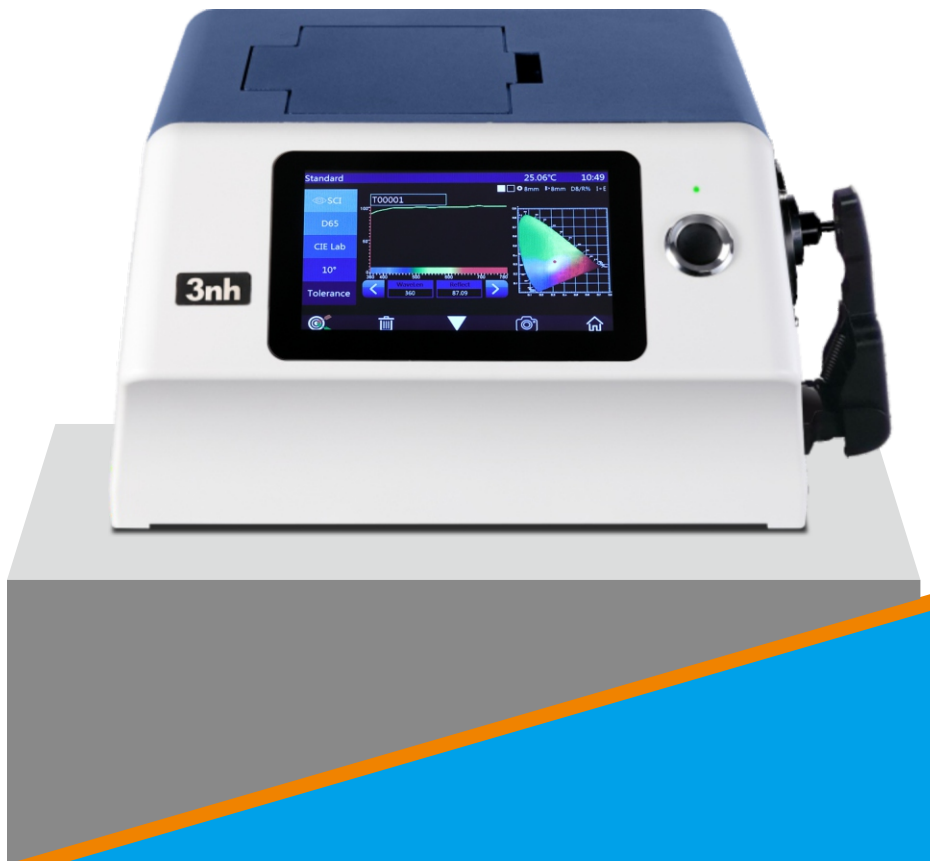
Concave Grating



Concave Grating



camera locating



YS 6080 is a benchtop grating spectrophotometer which is developed by 3nh independently with independent intellectual property. YS6080 has powerful features, accurate measurement, high configuration of hardware, 7 inches TFT capacitive touch screen display, full illuminants, reflected/d and transmissive/d/0 geometry (including or excluding UV). Large storage and powerful PC software all makes YS6080 ideal for color accurate analysis and transmission in laboratory.



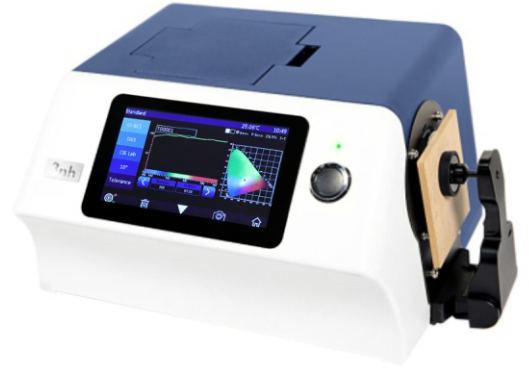
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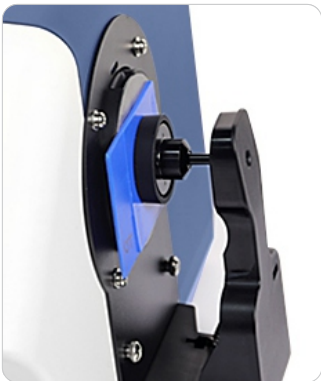


## PRODUCT FEATURES

- 1、 High configuration of hardware: 7 inches TFT Color Capacitive Touch-screen Display; Bluetooth 2.1; Concave Grating.
- 2、 Double Array 256 Image Element CMOS Sensor; Long life-span stable xenon lamp.
- 3、 With reflective and transmissive spectrum, accurate Lab value, good to calculate color formula and do precise color transmission.
- 4、 Auto identify measuring aperture. Freely switchable between 3 measuring apertures:  $\Phi$  25.4mm/8mm/4mm. Users also can customize apertures.
- 5、 Built-in temperature sensor to monitor and compensate the measuring temperature to ensure the measurement more precision.
- 6、 Wavelength range 360nm – 780nm. Built-in 400nm/420nm/460nm cut off Xenon lamp, more professional in UV measurement.
- 7、 Independent light source detector, continuously monitor the condition of light sources to ensure the light source reliable.
- 8、 Multiple measurement modes: Quality Management Mode, Sample Mode; Meet more users' requirement.
- 9、 A variety of optional accessories: Reflection sample holding tool, transmission fixture, micro 4mm aperture transmission test components, instrument inversion test components, applicable to more working conditions.
- 10、 Big capacity data storage, for 20000 pieces test result.
- 11、 Built-in camera locating.
- 12、 More powerful extended functions at the PC software.



## PRODUCT FEATURES



**plastic sample**

Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle) Conforms to ISO7724/ 1、 CIE、 ASTM、 DIN and JIS



**Transmissive samples**

Transmittance: di:0°, de:0° (diffuse illumination: 0° viewing); Conforms to ISO、 CIE、 ASTM 、 DIN.



**Liquid, Powder, Solid samples**



**Measuring Aperture**

Auto identify measuring aperture. Freely switchable between 3 measuring apertures:  $\Phi$  25.4mm/8mm/4mm.

## APPLICATION INDUSTRY

YS 6003 benchtop spectrophotometer is designed for accurate analysis and transmission of laboratory color and appearance: It's widely used in plastics, paints, inks, textile and garment printing, dyeing, printing paper, automotive, medical, cosmetics, food industries, scientific research institutions and laboratories.



Automobile



Leather



Plastics



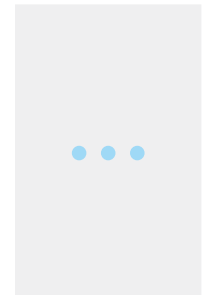
Paint



Food stuff



Laboratory



Others

**Model:** YS6080(Pulsed xenon lamp)

**Optical Geometry:** Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle);SCI (specular component included)/SCE (specular component excluded);Include UV / excluded UV light source; Transmittance: di:0°, de:0° (diffuse illumination: 0° viewing);SCI (specular component included)/SCE (specular component excluded);Include UV / excluded UV light source; Haze(ASTM D1003); Conforms to CIE No. 15, GB/T 3978,GB 2893,GB/T 18833, ISO7724/1, ASTM E1164, DIN5033 Teil7

**Integrating Sphere Size:** Φ 154mm

**Light Source Device:** 360nm-780nm Xenon Lamp, 400nm cut-off Xenon Lamp,420nm cut-off Xenon Lamp,460nm cut-off Xenon Lamp

**Spectrophotometric Mode:** Concave Grating

**Sensor:** 256 Image Element Double Array CMOS Image Sensor

**Wavelength Range:** 360-780nm

**Wavelength Pitch:** 10nm

**Semiband Width:** 5nm

**Reflectance Range:** 0~200%

**Measuring Aperture:** Reflective : Φ30mm/Φ25.4mm, Φ18mm/Φ15mm, Φ10mm/Φ8mm, Φ6mm/Φ4mm;Transmissive : Φ30mm/Φ25mm;  
Remark: 1. Automatic identification of switch caliber 2. Customized Configuration caliber and lens position

**Specular Component:** Reflectance: SCI&SCE Transmittance: SCI&SCE

**Color Space:** CIE Lab, XYZ, Yxy, LCh, CIE LUV, Hunter LAB, Munsell, s-RGB, HunterLab, DIN, βxy

**Color Difference Formula:**  $\Delta E^*ab$ ,  $\Delta E^*uv$ ,  $\Delta E^*94$ ,  $\Delta E^*cmc(2:1)$ ,  $\Delta E^*cmc(1:1)$ ,  $\Delta E^*00v$ ,  $\Delta E$ (Hunter), DIN  $\Delta E99$

**Colorimetric Index:** WI (ASTM E313, CIE/ISO, AATCC, Hunter),YI (ASTM D1925, ASTM 313),TI (ASTM E313, CIE/ISO),MI (Metamerism Index), Staining Fastness, Color Fastness, Color Strength, Opacity,Gardner Index, Pt-Co Index, 555 Index, Haze(ASTM D1003)

**Observer Angle:** 2° & 10°

**Illuminants:** D65, A, C, UV, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12

**Displayed Data:** Spectrogram/Values, Chromaticity Values, Color Difference Values/Graph, Pass/Fail Result, Color Offset

**Measuring Time:** About 2.4s (Measure SCI & SCE about 5s)

**Repeatability:** Spectral reflectance: Φ25.4mm/SCI, Standard deviation within 0.06% (400 nm to 700 nm: within 0.05%)Chromaticity value: Φ25.4mm/SCI, Standard deviation within  $\Delta E^*ab$  0.012 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)Spectral Transmittance: Φ25.4mm/SCI, Standard deviation within 0.06% (400 nm to 700 nm: within 0.06%)Chromaticity value: Φ25.4mm/SCI, Standard deviation within  $\Delta E^*ab$  0.015 (When a white calibration plate is measured 30 times at 5 second intervals after white calibration)

**Inter-instrument Error:** Φ25.4mm/SCI, Within  $\Delta E^*ab$  0.12(Average for 12 BCRA Series II color tiles)

**Size:** 370×300×200mm

**Weight:** About 9.6kg

**Power Supply:** DC 24V, 3A Power Adapter

**Light Source Device Life:** 5 years, more than 3 million times measurements.

**Display:** 7" TFT Capacitive Screen-touch Display

**Data Port:** USB & Bluetooth & Print serial port

**Data Storage:** Standard 5000 Pcs, Sample 40000 Pcs

**Language:** Simplified Chinese, Traditional Chinese, English, (Optional Customized German, French and Spanish)

**Working Environment:** Temperature: 0~40°C; Humidity: 0~85% (No Condensation)

**Storage Environment:** Temperature: -20~50°C; Humidity: 0~85% (No Condensation)

**Standard Accessory:** Power Adapter, User Guide, CD Disk(PC Software), USB cable, Standard Calibration Board, Black Calibration Cavity, Transmission black baffle, Sample holder, 25.4 caliber, 15 caliber, 8 caliber, 4 caliber,Transmissive Test Component

**Optional Accessory:** Micro-printer, Micro Aperture(4mm) transmission test clamp component, Instrument inversion components

**Notes:** The specifications are subject to change without notice.



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