



## Yxy Spectrophotometer NS808

NS808 Yxy Spectrophotometer is special designed for the color measurement of traffic signs. It was researched and developed solely by 3nh independently who owns the complete independent intellectual property rights. NS808 spectrophotometer can be easily used to measure the brightness factor and chromaticity coordinate of all kinds of traffic signal reflection film.



45°/0° ring-shaped illumination



Ergonomic design



Touch screen



More accuracy

## PRODUCT FEATURES

1. Specially designed to measure traffic signs.
2. Elegant appearance combines ergonomic design.
3. 45°/0 geometry optical structure, conform to standard CIE, ISO, ASTM and DIN, incomparable accuracy.
4. 3.5" ultra-large touch-screen makes the operation interface quite friendly.
5. Two kinds of standard observer angles, multiple light sources, multiple color spaces and multiple color difference formulas, fit for all kinds of color measurement requests.
6. Repeatability  $\Delta E^*ab$  within 0.04, inter-instrument  $\Delta E^*ab$  less than 0.2, super stable and reliable performance.
7. Large capacity storage, more than 15000 data.
8. PC SQCT software with powerful extension functions.
9. High hardware configuration with a number of innovative technologies.



## APPLICATION INDUSTRY

NS808 Yxy Spectrophotometer is special designed for the color measurement of traffic signs. It can be easily used to measure the brightness factor and chromaticity coordinate of all kinds of traffic signal reflection film. At the same time, NS808 portable spectrophotometer is also widely used in plastics, electronics, paintings, inks, textiles, garments, dyeing, printing, paper, automobiles, medical, cosmetics and food, etc, and other industries. It is also used in some scientific research institutes and laboratories.



## SPECIFICATION PARAMETER

**Illuminating/Viewing Method:** "45°/0 (45° ring illuminating, 0° viewing)  
Comply to standard CIE No. 15, GB/T3978, GB2893, GB/T18833"

**Integrating sphere Size:** Φ58mm

**Measuring Aperture:** Φ8mm

**Observer:** 2°/10°

**Repetitive Error:** "Spectral Reflectance: standard deviation within 0.1%  
(400~700nm: within 0.2%)

Colorimetric Value: standard deviation  $\Delta E^*ab \leq 0.04$  (Measurement  
Conditions: white calibration plate measured 30 times at 5 seconds intervals after white  
calibration performed.)"

**Inter-Instrument Error:**  $\Delta E^*ab \leq 0.2$  (Average value of measuring the 12 tint plates of BCRA series II)

**Wavelength Range:** 400~700nm

**Wavelength Pitch:** 10nm

**Reflectance Range:** 0~200%

**Light Source Type:** D65, D50, A, C, D55, D75, F2, F6, F7, F8, F10, F11, F12

**Light Source Device:** Combined LED Light

**Battery:** Li-ion Battery, 5000 measurements in 8 hours

**Standard Accessory:** Power Adapter, Li-ion Battery, Operating Instruction, CD-ROM (containing  
management software), Data Line, White and Black Calibration Cavity, Protective Cover and Wrist Strap

**Light Source Life:** 5 years, more than 1.6 million measurements

**Sensor:** Silicon Photoelectric Diode Array

**Color Space:** CIE LAB, XYZ, Yxy, LCh, CIE LUV

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

**Display Data:** "Spectral Graph/Data, Sample Chromatic Value,  
Color Difference Value/Graph, PASS/FAIL Result, Color Offset,  
Color Simulation"

**Other Chromaticity Data:** "Whiteness - WI (ASTM E313, CIE/ISO,  
AATCC, Hunter), Yellowness - YI (ASTM D1925, ASTM 313),  
TI (ASTM E313, CIE/ISO), Metamerism Index (Mt) Colour Stain,  
Color Fastness, Color Strength, Opacity"

**Measuring Time:** 1.5S

**Data Storage:** 1000 standards, 15000 samples

**Data Port:** USB&RS232

**Dimension:** 90\*77\*230mm

**weight:** 600g

**Operation Temperature:** 0~40°C (32~104°F)

**Storage Temperature:** -20~50°C (-4~122°F)

**Optional Accessory:** Universal Test Components, Micro Printer,  
Powder Test Box

**3nh**<sup>®</sup>  
Focus on Color

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