

# STALWART

## Handheld Spectrophotometer ST-306



## Introduction

ST-306 grating spectrophotometer features UV, SCI/SCE, USB / bluetooth, 8mm / 4mm switch aperture, etc. It has high accuracy 0.03 based on white calibration plate measured 30 times at 5 seconds intervals after white calibration was performed.

### ST-306 Grating Spectrophotometer

Full Illuminants + UV, 8mm&4mm Apertures, SCI&SCE, Bluetooth Comm, High Precision. Comply with CIE No.15, ISO7724/1,ASTM E1164,DIN5033 Teil7, ST-306 color spectrophotometer features only 8mm single aperture. Both SCI and SCE mode makes it widely use in many applications. It has high accuracy 0.06 based on white calibration plate measured 30 times at 5 seconds intervals after white calibration was performed.

## Features

- Perfect combination of beautiful appearance and the human body mechanics structural design
- D/8 geometrical optics, conforms with CIE No.15,ISO7724/1,ASTM E1164, DIN5033 Teil
- Use long life and low power consumption combined LED light source
- Single 8mm aperture, support both SCI and SCE at the same \_me
- Measure sample spectra, accurate Lab data , can be used in color matching and accurate color transmission.
- High electronic hardware configuration: 3.5-inch TFT color LCD, Capacitive Touch Screen, concave grating, 256 image Element Double Arrays CMOS Image Sensor.
- USB port.
- Super stain-resistant and stable standard white calibration plate
- Large capacity storage space, over 20,000 measurement data
- Two standard observer angles, a variety of illuminant, a variety of color indexes, conforms with a variety of standard colorimetric data, meet a variety of customers' demand for color measurement
- Camera Locating Function, better position
- PC software has a powerful function extension.

## Specification

Item	ST-306
Optical Geometry	Reflect: di:8°, de:8°(diffused illumination, 8-degree viewing angle)
Integrating Sphere Size	48mm
Light Source	Combined LED Light, UV Light
Spectrophotometric Mode	Concave Grating
Sensor	256 Image Element Double Array CMOS Image Sensor
Wavelength Range	400-700nm
Wavelength Interval	10nm
Semi band Width	10nm
Measured Reflectance Range	0-200%
Measuring Aperture	Dual Aperture: 10mm/8mm & 5mm/4mm
Specular Component	SCI &SCE Color Space CIE Lab, XYZ,Yxy, LCh, CIE LUV, LAB
Color Difference Formula	$\Delta E^*_{ab}$ , $\Delta E^*_{uv}$ , $\Delta E^*_{94}$ , $\Delta E^*_{cmc}(2:1)$ , $\Delta E^*_{cmc}(1:1)$ , $\Delta E^*_{00v}$ , $\Delta E$

## Specification

Other Colorimetric Index	WI(ASTM E313, CIE/ISO, AATCC),YI(ASTM D1925,ASTM 313), TI(ASTM E313, CIE/ISO), Metamerism Index MI, Staining Fastness, Color Fastness, Color Strength, Opacity, 8° Glossiness
Observer Angle	2°/10°
Illuminant	D65, A, C, D50, D55, D75, F1, F2, F3, F4, F5, F6, F7, F8, F9, F10, F11, F12
Displayed Data	Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset
Measuring Time	2.6s
Repeatability	MAV/SCI: $\Delta E^* \leq 0.03$
Inter-instrument Error	MAV/SCI: $\Delta E^* \leq 0.15$
Measurement Mode	Single Measurement, Average Measurement
Locating Method	Camera View Finder Locating
Battery	Li-ion battery. 5000 measurements within 8 hours
Dimension	L*W*H=184*77*105mm
Weight	600g
Illuminant Life Span	5 years, more than 3 million times measurements
Display	3.5-inch TFT color LCD, Capacitive Touch Screen
Data Port	USB, Bluetooth 4.0
Data Storage	Standard 2000 Pcs, Sample 20000 Pcs
Operating Environment	0~40°C, 0~85%RH (no condensing), Altitude < 2000m
Storage Environment	-20~50°C, 0~85%RH (no condensing)
Standard Accessory	Power Adapter, Built-In Li-ion Battery, User Guide, PC Software, White and Black Calibration Cavity, Dust Cover
Optional Accessory	Micro Printer, Powder Test Box

## Application

Stalwart handheld spectrophotometer can easily achieve color transferring, and be used as a precision instrument for color matching system. It's widely used in plastics, electronics, painting, ink, textile and garment, printing and dyeing, printing paper, automove, medical, cosmetics and food industries, scientific research Institutes, schools and laboratories



## Accessories



Powder Test Box



Calibration Plate



8mm Extended Measuring Aperture



Micro Printer