

# MULTI ANGLE SPECTROPHOTOMET ER SPE74-300



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Multi angle spectrophotometer is instrument with combine color imaging with multi-angle technology to deliver precise color measurements.

## SPE74-300 MULTI ANGLE SPECTROPHOTOMETER

Multi-angle measurement

More intuitive display

Effect measurement discrimination function

256 Image Element Double Array CMOS Image Sensor

Adopt Full spectrum LED light source with blue enhancement

Concave grating spectrophotometric technology

Professional-grade white board

Higher quality

Ergonomics Novel and fashionable appearance design

Color camera preview, can clearly observe the measured area

Multiple color measurement space, multiple observation light sources

Easily analyze data

## SPECIFICATIONS

|                          |   |
|--------------------------|---|
| Model                    | SPE74-300   |
| Measurement Geometry     | 3 measurement angles (3 illumination sources, 1 receivers)  |
| Measure Angle            | 45° Receiver:45as25°,45as45°,45as110° Standards:ASTM D 2244,E 308,E 1164,E 2194, E2539,DIN 5033,5036,6174,6175-1,6175-2;ISO 7724, 11664-4 SAE J 1545  |
| Light Source             | Full spectrum LED light source with blue enhancement  |
| Lamp Life                | 5 years, 3 million times measurements   |
| Spectroscopic Mode       | Concave Grating   |
| Sensor                   | 256 Image Element Double Array CMOS Image Sensor  |
| Spectral Range           | 400-700nm   |
| Wavelength interval      | 10 nm   |
| Measurement Range        | 0~600%  |
| Semiband Width           | 10 nm   |
| Measuring Aperture       | Φ12mm   |
| color space              | CIE LAB,XYZ,Yxy,LCh,βxy,DIN Lab99   |
| Color Difference Formula | $\Delta E^*_{ab}$ , $\Delta E^*_{94}$ , $\Delta E^*_{cmc}(2:1)$ , $\Delta E^*_{cmc}(1:1)$ , $\Delta E^*_{00}$ , DIN $\Delta E_{99}$ , $\Delta E_{DIN6175}$  |
| Other Colorimetric Index | Flop Index  |
| Observer angle           | 2°/10°  |
| Illuminant               | D65,A,C,D50,D55,D75,F1,F2(CWF),F3,F4,F5,F6,F7(DLF),F8,F9,F10(TPL5),F11(TL84),F12(TL83/U30)  |
| Display                  | Spectrogram/Values, Samples Chromaticity Values, Color Difference Values/Graph, PASS/FAIL Result, Color Offset  |
| Measuring Time           | Approx. 1 second for one angle Approx. 3 seconds for all angles   |
| Repeatability            | Spectral reflectance: Standard deviation within 0.08% Chromaticity value: $\Delta E^*_{ab}$ 0.04 ( When a white calibration plate is measured 30 times at 5 second intervals after white calibration) |
| Reproducibility          | $\Delta E^* < 0.10$ ,avg on the gray tile of BCRA tile set $\Delta E^* < 0.25$ ,avg on the color BCRA tile set  |
| Inter-instrument error   | 0.2 $\Delta E^*_{00}$ (avg on reference Series II BCRA tile set)  |

|   |  |
|---|--|
| Trigger mode  | Pressure sensing trigger, button trigger, software trigger                           |
| Measuring Mode  | Single measurement, average measurement (1-99), continuous measurement (1-99)        |
| Locating Mode   | Color camera preview   |
| Operating Environment   | 10°C to 50°C, humidity does not exceed 85%, no condensation                          |
| Storage Environment   | -20°C to 50°C, humidity does not exceed 85%, no condensation                         |
| Calibration   | Built-in white board parameters, external white board, black light trap, color board |
| Calibration Interval  | 4 hours,8 hours,24 hours,Startup calibration   |
| 3.5-inch TFT color LCD,<br>Capacitive Touch Screen  | Interface  |
| USB   | Data Storage   |
| 1000 pcs<br>Standards,4000 pcs<br>Samples   | Language   |
| Simplified Chinese,<br>Traditional Chinese,<br>English  | Standard Accessories   |
| Power Adapter, USB<br>Cable, User Guide,PC<br>Software(download from<br>the official website),<br>Calibration Board, black<br>light trap,Protective cap,<br>wristband | Optional Accessory   |
| Micro-printer   | Dimension  |
| 195X83X128mm  | Power  |
| Weight  | About 1Kg  |

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