# Portable 45/0 Spectrophotometer

**45S**

## Color Appearance Control with Confidence

The Datacolor 45S provides highly accurate control of color appearance to achieve a close correlation to visual assessment. Powered with Bluetooth wireless and the Datacolor TOOLS® quality control software, the portable 45S spectrophotometer offers an excellent combination of performance and value. Ideal for inspection and control of color appearance for retail hard goods, building products, office furniture and other applications involving plastics, painted surfaces and coil coatings.

## Measure With Confidence

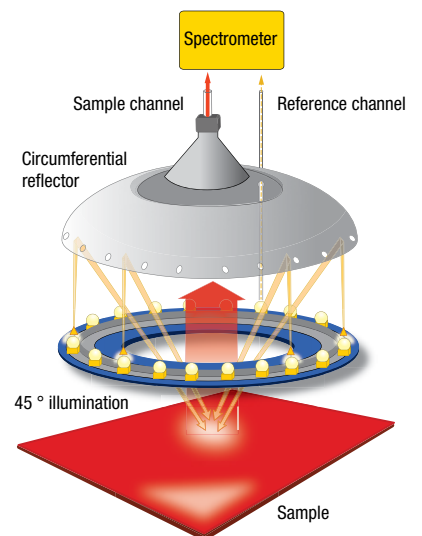### Excellent Repeatability, even on Textured Samples

The Datacolor 45S's patented illuminator uses a diamond-turned reflector positioned over a circular array of full spectrum LEDs. This optical system provides highly efficient light mixing resulting in exceptionally uniform circumferential illumination without any shadowing effects. This means that you can achieve excellent repeatability, even on highly textured samples, and minimize the need for additional rotational measurements.

### Reproducible Results across Different Operators and Different Sites

The Datacolor 45S calibration stand serves a dual purpose as a measurement stand, especially for flat samples with texture or gloss. Its pivoting stage securely locks the instrument in place for precise calibration and consistent measurements. As a result, measurements are identical, irrespective of the operator or the measurement site.
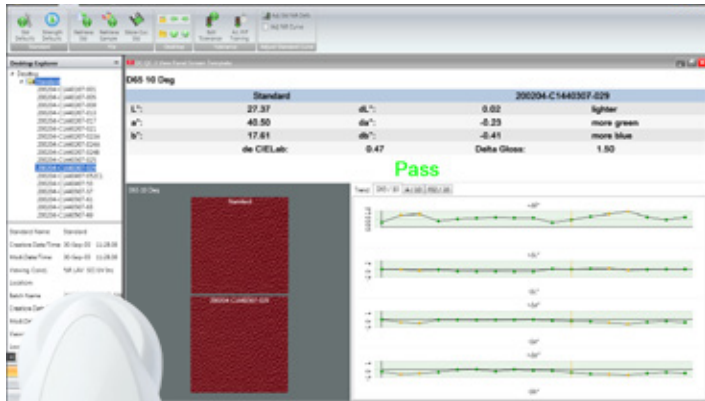
### Economical Operation with Unbeatable Reliability

The Datacolor 45S is powered with longer lasting, Lithium Ion rechargeable battery that provides a stable charge for up to 2000 measurements. In addition, the electrical system is optimized to deliver a consistent high intensity illumination. This means that that the instrument can be operated economically without compromising on reliability.



*Datacolor 45S measurement principle*

## Easy-to-Learn, Easy-to-Use

**Extensive Onboard Functionality - In Color**

Large color LCD with an intuitive user interface makes the instrument easy-to-learn and easy-to-use.

- 1-click continuous sample measurement.
- Live Navigation bar enables easy access to Target, Batch, Tolerance, and other settings.
- Pass/Fail, Auto-Standard, Auto-Naming, Auto-Saving, Indices and more.

**Bluetooth® and USB Peripheral Support allows Easy Measurement in the Lab or on the Shop Floor**

- Connect to Datacolor TOOLS® quality control software with Bluetooth or USB.
- Easy export of data to a USB flash-drive.
- Support for USB keyboards and bar code scanners.

**Thoughtfully Designed for Optimal Use**

- Sleek design with a low-profile probe for usage in hard to access locations.
- Measure buttons on either side allow for left and right handed usage.

## Everything You Need to Control Appearance

- Comes with the most complete standard accessory package and powerful Datacolor TOOLS quality control software for analysis and data management.
- All instruments can be serviced in the field or at one of our many service centers located worldwide.

| FEATURES COMPARISON | DATACOLOR 45G | DATACOLOR 45S |
|---|---|---|
| Close Tolerance (Color and Gloss) | - | - |
| Built-in 60° Glossmeter | ✔ | - |
| Bluetooth Wireless | ✔ | ✔ |
| Precision Calibration / Measurement Stand | ✔ | ✔ |
| Rechargeable Li-Ion Battery | ✔ | ✔ |
| Datacolor TOOLS QC Software | ✔ | ✔ |

| FUNCTIONAL DATA | DESCRIPTION |
|---|---|
| Color Systems | CIELab, CIELch, Lab (h), XYZ, Yxy |
| Color Difference | $\Delta E^*$, $\Delta E$ (h), $\Delta E94$, $\Delta ECMC$ (2:1, 1:1, adjustable l:c), $\Delta E2000$ |
| Indices | Metamerism, CIE, Whiteness (CIE and E313), Yellowness (D1925 and E313) |
| Illuminants | D50, D55, D65, D75, A, C, U3000, Horizon, F2, F7, F11 |
| Data Storage | > 2,000 standards w/ Tolerances, max 10,000 batches |
| Languages | English, French, German, Portuguese, Simplified Chinese and Spanish |

| TECHNICAL SPECIFICATIONS | DESCRIPTION |
|---|---|
| Measuring Geometry | 45°/0 °, viewing in conformance with CIE: 2004 |
| Light Source | LED solid-state circumferential illumination |
| Spectral Range | 400 to 700nm |
| Effective Bandwidth | 10 nm |
| Wavelength Resolution | 2 nm |
| Spectrometer Principle | Master concave holographic grating |
| Detector | Proprietary Dual 256 element diode array |
| Color Repeatability | < 0.01 $\Delta E^*ab$ on white ceramic tile |
| Color Inter-Instrument Agreement | 0.15 $\Delta E^*ab$ avg of 12 BCRA tiles, 0.25 $\Delta E^*ab$ max on any BCRA tile |
| Aperture Size | 11 mm target window (8 mm measurement) |
| Battery | Rechargeable Li Ion > 2,000 measures/charge |
| Operating Environment | 10° to 40°C up to 85% RH, non-condensing |
| Interface | USB, Bluetooth wireless |

| PHYSICAL SPECIFICATIONS | DESCRIPTION |
|---|---|
| Display | Color LCD Backlit (2.8", 240 x 320 pixels) |
| Weight | 1.8 lbs (816 g) |
| Comes Complete with | Aluminum case, Spectrophotometer with certificate of instrument performance, Switching power supply, global connectors, USB cable, USB memory-stick with calibration data and User guide, quick start guide, Black trap, White calibration tile, Precision Calibration Stand<br><br>QC Software Datacolor TOOLS 2.0.6 or higher |

For more information, please visit **www.datacolor.com/45S**

**STANDALONE SYSTEM REQUIREMENTS**
System Requirements: Intel I3 processor or higher; 4 GB RAM; 500 GB HDD; 17" Monitor at 1280x720 resolution; 128 MB true graphics card; CD drive; USB/Serial Port; Windows 7, Windows 8 and Windows Server 2008

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