



The world's true measure of color

**HunterLab**

# D25<sup>®</sup> NC



measure  
**color**  
the way your  
**eye** sees it





The easiest and most accurate way to measure the world's most difficult samples.

## D25 NC. Evolutionary. Revolutionary.

### Evolutionary

The D25<sup>®</sup> NC is the latest version of a storied line of instruments from the world's premier color measurement company. It is specifically designed to measure large, irregularly shaped products. Sixty years of experience built into each unit provides the most accurate color measurement with incredible ease-of-use.

Simple as 1, 2, 3. *Pour, place, measure.*



1 Pour



2 Place



3 Measure

### Revolutionary

D25<sup>®</sup> NC revolutionizes color measurement systems by integrating a non-contact sensor and rotating sample dish in one stand-alone instrument. Its design and automated motion enables:

- repeatable results measuring irregularly shaped and colored products
- rapid sampling - 5 flashes per second, 25 times per cycle
- full cycle averaging for a large measured sample area
- easy sample preparation and clean-up



Automatic turntable starts and stops with each programmable measurement cycle.

#### DESIGNED FOR

Potato Chips

RECYCLED MATERIAL

French Fries

extruded plastic pieces  
patties

PELLETS

Building Materials

Animal Feed

CEREAL

DECKING MATERIALS

COFFEE BEANS

BUNS

INGREDIENTS

paper

cookies

PEANUTS

Baked Goods

meat

POWDERS  
rolls

snack foods

BREAD

NUTS

crushed rock

CRACKERS

Frozen Goods

# Intelligent Integrated Height Sensor



Enables:

- an accurate product height measurement
- consistent color measurement independent of height variation
- the measurement of only the sample and not the dish



## Key Features

- Automated non-contact color measurement
- Large Sample Area View: 129 cm<sup>2</sup> (20 in<sup>2</sup>) per cycle
- Simple sample set-up: 'Pour, Place & Measure'
- Easy product setup
- Easy clean-up and maintenance
- Repeatable measurement of irregularly shaped and colored samples
- Stand-alone operation also compatible with EasyMatch QC Data Analysis Software
- Compact design requires minimum bench space
- Easy-to-read color display provides simple built-in user interface
- Low power consumption
- Long life LED illumination
- Rugged design and construction
- USB connectivity for devices such as printer, keyboard, barcode scanner, computer
- Internal storage of up to 250 different set-ups and 2000 sample measurements.



# Easy clean-up

The D25® NC is designed for plant and laboratory use with easy clean-up and maintenance.

Fast assembly and disassembly - no tools required. Parts can be easily cleaned and replaced in minutes.

## PROCESS OF DISASSEMBLY



## The HunterLab Advantage

The D25® NC is backed by over 60 years of quality innovation and experience from HunterLab, the world's most trusted color quality experts.

With an unmatched reputation for delivering the right solution for any challenge, HunterLab tailors products and technologies for every color measurement need and budget offering the broadest range of color measurement solutions in the industry.

For more information go to [www.hunterlab.com](http://www.hunterlab.com)  
or contact your local HunterLab representative.

# SPECIFICATIONS

## D25<sup>®</sup> NC

### Measurement

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<b>Measurement Principle:</b>	Dual-beam spectrophotometer
<b>Geometry:</b>	0°/ 30° typical
<b>Spectrophotometer:</b>	Sealed optics; 256-element diode array; high resolution concave holographic grating
<b>View Diameter:</b>	25.4 mm (1 in) (at 3.5-inch from sensor window)
<b>Area View:</b>	129 cm <sup>2</sup> (20 in <sup>2</sup> ) per cycle
<b>Specular Component:</b>	Excluded
<b>Spectral Range:</b>	400 nm - 700 nm
<b>Spectral Resolution:</b>	< 3 nm
<b>Effective Bandwidth:</b>	10 nm equivalent triangular
<b>Reporting Interval:</b>	10 nm
<b>Photometric Range:</b>	0 to 150 %
<b>Light Source:</b>	Full spectrum, balanced solid state LED system
<b>Lamp Life:</b>	5 years typical
<b>Minimum Interval between Measurement Cycles:</b>	5 seconds (1 cycle)
<b>Number of Flashes Averaged per Measurement Cycle:</b>	25 flashes (1 cycle)
<b>Displayed Height Resolution:</b>	1 mm or 0.1 in
<b>Working Range:</b>	65 mm - 140 mm (2.5 in. - 5.5 in.) Maximum 75 mm - 100 mm (3 in - 4 in) Optimum

### Performance

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<b>Inter-Instrument Agreement:</b>	$\Delta E^* < 0.30$ CIE L*a*b* (Avg) on BCRA II Tile Set $\Delta E^* < 0.50$ CIE L*a*b* (Max) on BCRA II Tile Set
<b>Colorimetric Repeatability:</b> (20 Readings)	$\Delta E^* < 0.05$ (Max)/0.03 (Avg) CIE L*a*b* on white tile

## Firmware

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<b>Data Views:</b>	Color Data, Color Difference Data, Tristimulus Color Plot, Spectral Data, Spectral Difference Data, Spectral Plot, Spectral Difference Plot
<b>Other Features:</b>	Warn/Pass/Fail color indication
<b>Illuminants:</b>	A, C, D50, D55, D65, D75, F2, F7, F11
<b>Observers:</b>	2° and 10°
<b>Color Scales:</b>	CIE L*a*b*, Hunter Lab, CIE L*C*h, CIE Yxy, CIE XYZ
<b>Color Difference Scales:</b>	$\Delta L^*a^*b^*$ , $\Delta Lab$ , $\Delta L^*C^*H$ , $\Delta L^*C^*h$ , $\Delta Yxy$ , $\Delta XYZ$
<b>Color Difference Indices:</b>	$\Delta E^*$ , $\Delta E$ , $\Delta C^*$ , $\Delta C$ and $\Delta E$ CMC
<b>Indices and Metrics:</b>	E313 Whiteness Index, Tint, E313 Yellowness Index, D1925 Yellowness Index, Y Brightness, Z%, 457 nm Brightness, Baking Contrast Units, Colorant Strength (Average and Single Wavelength), Gray Change, Gray Stain, $dc^*$ , $dc$ , Metamerism Index, Shade Number
<b>Data Storage:</b>	As Standard - 250 spectral or tristimulus with Pass/Fail tolerances as Working, Physical, Numeric and Hitch As Sample - 2000 spectral
<b>Languages:</b>	Chinese, English, French, German, Italian, Japanese, Spanish

## Physical / Electrical

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<b>Sensor Dimensions:</b>	Height: 48 cm (19 in.) Width: 36 cm (14 in.) Depth: 48 cm (19 in.) Weight: 13.6 kg (30 lbs)
<b>Display:</b>	7.1 cm x 5.4 cm (2.8 in. x 2.1 in.) backlit color LCD
<b>Interface:</b>	USB (2.0/3.0)
<b>Power:</b>	100 to 240 VAC, 47 to 63 Hz
<b>Operating Environment:</b>	0° to 50°C (32° to 122° F), 10 % to 90 % RH, noncondensing
<b>Storage Environment:</b>	-20° to 65°C (-5° to 150° F), 10 % to 90 % RH, noncondensing
<b>Standard Accessories:</b>	<ul style="list-style-type: none"><li>• Calibrated instrument white tile</li><li>• Certificate of Traceability</li><li>• Black glass</li><li>• Green diagnostic tile</li><li>• Calibration Box</li><li>• 12 in and 6 in sample dishes</li><li>• Power cord (110/220 V)</li><li>• D25 NC User guide on CD</li></ul>

For more information, please contact HunterLab at 703-471-6870, [sales@hunterlab.com](mailto:sales@hunterlab.com) or visit [www.hunterlab.com](http://www.hunterlab.com)

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