

# Presenting... Presenting...



## ColorFlex<sup>®</sup>

The Self-Contained Color Measurement Spectrophotometer



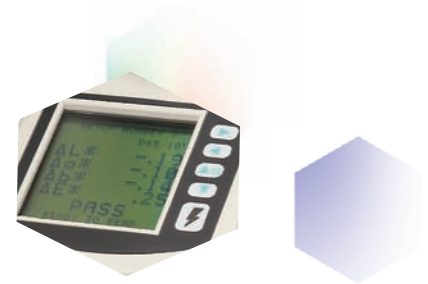
- ◆ Measures the reflected color of solids and liquids
- ◆ Standard storage with Pass/Fail tolerances
- ◆ Displays Color Data, Color Plot, Spectral Data and Spectral Plots
- ◆ Requires very little bench space
- ◆ Available with 45°/0° or diffuse/8° measurement geometry
- ◆ Stores up to 999 sample measurements
- ◆ Can be connected to a printer or a PC
- ◆ Compatible with EasyMatch<sup>®</sup> software

# ColorFlex®

## The complete color measurement solution

ColorFlex is an economically priced, self-contained color measurement spectrophotometer. It can be used in production or in the laboratory for inspecting raw materials and evaluating finished product. Unlike other systems that require an external computer, it has an internal computer with integrated software. Data is easily read on the large LCD and operations are performed using a simplified keypad. Its small size requires very little bench space.

## Precise Precise Measurement



To best fit your measurement requirements, ColorFlex is available with 45°/0° or diffuse/8° measurement geometry. It uses a xenon flash lamp as a light source. To ensure measurement repeatability and stability, double beam optics are used to monitor the source light and spectrally compensates for any variation.

ColorFlex scans the visible spectrum from 400-700nm with 10nm resolution in less than one second. The reflectance standard supplied with the ColorFlex has been calibrated using a reference standard traceable to the National Institute of Standards and Technology (NIST). A check-tile is provided with each instrument to ensure accuracy is maintained.

## Measurement Versatility

ColorFlex is a highly versatile system designed for rugged, real world use. It is able to tackle a variety of color measurement problems from the basic to the sophisticated. With its port-up or port-forward measurement orientations, ColorFlex is ideal for measuring powders, granules, pastes, liquids and opaque or translucent solid materials. And, with a variety of sample-handling accessories, ColorFlex adapts to your specific sample handling needs.

The internal software permits tailoring up to 99 customized setup configurations to suite specific product or customer requirements. ColorFlex provides two ways to enter standard values: by reading the color standard or by entering the color standard's values manually. Tolerance values for Pass/Fail indication can be placed on any color scale, color difference or indices. The CMC color difference method gives acceptable tolerances automatically. This translates into faster implementation of a color control program.

### Each setup includes these parameters:

- **Color Scale, Indices, Illuminant, Observer**  
To specify the conditions under which the data is to be reported
- **Standard Values**  
To identify the product standard or target to be compared to for color difference
- **Pass/Fail Tolerances**  
Per your product specifications
- **Averaging**  
To provide accurate measurements of uneven or inconsistent samples
- **Display Format**  
Reports measurement data multiple ways: color data, color plot, spectral data, spectral plot and spectral difference plot

### A wide variety of illuminants, observers, color scales and indices are provided with ColorFlex.

These include:

- **Illuminants:** A, C, D65, F, TL84
- **Observers:** 2°, 10°
- **Color Scales:** CIE L\*a\*b\*, Hunter Lab, CIE LCh, Rdab, CIE Yxy, CIE XYZ
- **Color Difference Indices:**  $\Delta E^*$ ,  $\Delta E$ ,  $\Delta C$ ,  $\Delta R_{dab}$ ,  $\Delta Y_{xy}$ ,  $\Delta XYZ$ , FMC-2
- **Indices and Metrics:** Whiteness, Yellowness, Y, Z%, 457nm Brightness, Tint, 5-5-5 Shade Number, Opacity, Strength, Gray Change, Gray Stain, Metamerism

Specialized versions of the ColorFlex are available for the tomato industry and citrus industry. These systems include specialized calibration standards and measurement scales appropriate for the industry.

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)