Addendum to MiniScan User's Manual

Description

ASTM E284 Standard Terminology of Appearance defines reflectance factor as:

> reflectance factor, n - ratio of the flux reflected from the specimen relative to the flux reflected from the perfect reflecting diffuser under the same geometric and spectral conditions of measurement.

The most common metric for the brightness of materials is the **CIE Y Brightness or Luminance** value which is scaled between 0 representing a Perfect Black of 0% reflectance across the visible spectrum, and 100 representing a Perfect White of 100% reflectance.

ß (Beta) Reflectance or Luminance Factor is the same as Y Brightness but expressed relative to base 1 instead of 100. It can be calculated for any illuminant or observer combination with D65/2 being of particular interest for color applications of highway signage and safety clothing.

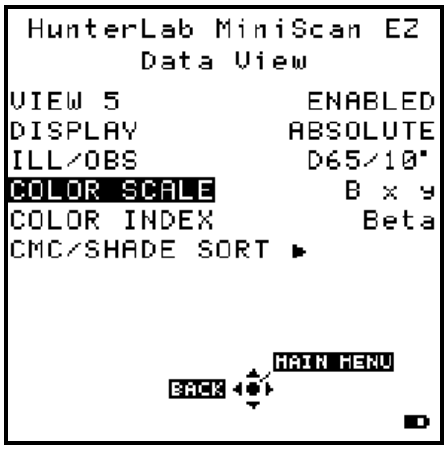
As an example, if Y = 85.06, ß (**B** or **Beta**) reflectance or luminance factor is 0.8506, typically rounded off to 0.85.

Installation

The special firmware will be installed at the factory as firmware burned into ROM memory on the sensor, or upgraded in the field by running a firmware update on CD.

Operation

In any Product Setup, there will now be an additional choice for **B, x, y** (Beta chromaticity) and **Beta** absolute values and **dB, dx, dy, dBeta** differences for display for any illuminant/observer conditions in the Data View configuration screen



As in the following Color Data display, typical selections would be

- B, x, y – Beta chromaticity D65/2
- Y, x, y, Beta – Y chromaticity, Beta Luminance D65/2
- L*, a*, b*, Beta – CIE L*, a*, b*, Beta Luminance D65/2
- Beta – Beta Luminance D65/2
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