S.I. Photonics Series 400 Colorimetry Software

The colorimetry software for the Series 400 Spectrophotometer provides a full range of colorimetry calculations in an intuitive Windows® based application.

Taking full advantage of the Series 400 Spectrophotometer using a charge coupled device (CCD), rapid full spectral acquisition over the entire colorimetry range is possible along with colorimetry calculation in a matter of seconds.

Calculations include:

- 1931 Cl E 2° Observer Tristimulus Values X,Y, and Z
- 1964 CIE 10° Observer Tristimulus Values X, Y, and Z
- 1931 CIE Chromaticity Coordinates x and y
- 1960 CIE Chromaticity Coordinates u and v
- 1976 CIE Chromaticity Coordinates u' and v'
- CIELAB
- CIELUV
- Hunter Lab
- Yellowness Index
- Gardner Color

These calculations can be performed for standard illuminants A, B, C, Dso, Dss, De5, D75, and E.

An inherent benefit of the CCD array spectrometer in the Series 400 instrument is that no moving parts provide extremely high wavelength stability and reproducibility yielding more consistent colorimetric results. Also, the Series 400 optical system is designed for use with fiber optics allowing a great deal of flexibility compared to normal instruments. Sampling can be performed using the standard fiber optic dip probe for solutions, fiber optic reflectance probe for surface measurements, or with the Universal Fiber Optic Sampling Bench with a standard cuvette or filter holders. Custom fiber optic probes, sample holders, and colorimetric calculations can also be provided to meet the challenges of demanding applications.

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