



Method Instructions CIE Color Coordinates for Liquids

The CIE color coordinates for liquids application consist of two methods (Lab_Backg and Lab_XYZ) that will calculate and report the CIE color standards according to CIE 1931 and ASTM Standard Practices E308 and E313. The most common parameters are reported to the i-LAB[®]'s screen, while every calculated parameter is saved to the log. More information on the application, as well as the CIE and ASTM standards can be found in the CIE Color Coordinate application note.

The methods can be downloaded via the i-LAB[®] Spectrum Software from the www.microptixtech.com website. This document provides the basic instructions for downloading and running the CIE Color Coordinates Methods.

Downloading the Methods:

1. Create a New Methods Folder in Spectrum called CIE.
2. Click on the CIE folder and click on the "Add Method (from Web)" tab.
3. Enter License Key **7ed29bce-d2d8-4afc-9ac6-479cb5dda3c2** to download the Lab_Backg Method.
(The Lab_Backg method is also used by the RGB color standards application and does not need to be downloaded if the RGB application methods have already been downloaded).
4. Click on the "Add Method (from Web)" tab again and enter License Key **2ac8b2eb-abbd-43e6-b893-a48dd94f1daf** to download the Lab_XYZ Method.
5. Turn on your i-LAB[®] and connect to the computer with the included USB cable.
6. Click on each method individually and click on the "Send to i-LAB" tab to download the methods to your i-LAB[®] hand-held spectrometer.

Running the CIE Color Methods:

There are 2 steps required to run the CIE Color application:

1. Scan and save your background reference standard with the Lab_Backg method.
2. Scan your sample using the Lab_XYZ method to determine the sample's CIE parameters.

Scanning the Background Reference Standard:

1. Turn on the i-LAB[®], Press the Menu Button and Select Lab_Backg under Methods.
2. Following the prompts, you will be asked to Scan your background. The background spectrum will be saved and be used as the reference against which the sample's CIE parameters will be calculated.
Once you have scanned your reference standard, you will not need to run this method again unless you want to update or change your reference standard. However, it is recommended that the background reference be updated after every 20 sample measurements.

Comparing your Sample against the Reference Standard:

1. Turn on the i-LAB[®], Press the Menu Button and Select Lab_XYZ under Methods.
2. Following the prompts, you will be asked to Scan the sample. The i-LAB[®] will compare the sample spectrum against the reference spectrum and calculate the CIE parameters. The key CIE parameters will be output to the i-LAB[®]'s screen. All the CIE parameters (including those displayed to the screen will be saved in the log automatically.

The Lab_XYZ method can be run repeatedly for as many samples as are necessary, provided that the reference background is updated at the recommended interval.