How Does the D25NC work?

The D25NC incorporates a set of LED's that illuminate the sample. The LED's flash around 5 times for second. A lens is used to pick up the light that is reflected off the surface and focus the light into a fiber bundle. The observation angle varies depending on the distance from the sample surface, and is typical around 30 degrees.

The fiber bundle is connected to spectrometer electronics that are used in the MSEZ and CFEZ, a robust platform that has been well accepted in the field.

Samples are placed in a pan and centered on the turntable. The sample should be located approximately 3.5 inches from the top surface of the sample to the sensor head. A switch located on the front of the turntable is used to enable motion. If the switch is in the off position, a static measurement is taken. If the switch is set to AUTO, then the sample will begin to rotate when the measurement button is pressed. The number of rotations of the sample under the sensor can be set in the software. A single rotation takes approximately 5 seconds. Increasing the sampling time in 5 second intervals increases the number of rotations averaged for each measurement. At the end of the sampling time, a single average reading is displayed on the front panel.