

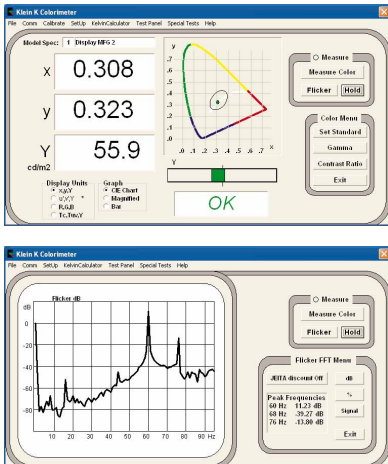
Klein K-1 Colorimeter

for use with the Klein
colorimetry pc program
over a DB9 serial port



KLEIN INSTRUMENTS CORPORATION

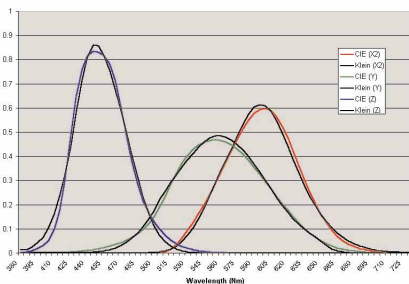
Klein K-1 Features



The Klein K-1 tri-stimulus CIE Colorimeter Probe was designed specifically to be the best colorimeter in sensitivity, stability and speed. The K-1 probe attaches directly to a PC's serial port, and runs with the Klein measurement PC application.

- Large Photodiodes. Diodes that are 5mm x 5mm each, along with thermally stable components, are combined to report the highest degree of accuracy.
- Exceptionally Accurate Filters. Not only is the f1' of Y critical, but the accuracy of X and Z as well. See the actual Klein vs. CIE graph, below, left.
- Quick Measurements over an RS-232 line. The head takes 256 measurements per second even at low light. For readability 8 measurements per second is displayed.
- FFT FlickerMeter. Probe measures & integrates Y data in the head, and streams in real time to the pc, and a Fast Fourier Transform is performed. JEITA approved method.
- Klein pc Program. Create calibration files & set measuring parameters. Then data log, graph and export. The pc program manages the data in an easy to use interface.
- Rugged Construction. The K-1's auto ranging is solid state and the case is impact resistant to hold up to 24 hours a day, 7 days a week required usage.
- Included items are the the Klein pc program and a certificate of calibration.

Product Specifications



(actual X, Y, Z, filter data)

Measuring Function: Colorimetric; x y Y, u v Y, RGB, Tc Tuv Y,

Measuring Range: .00003-1575 fL

.0001-5400 cd/m² (candelas per square meter)

Display Intervals: .1 sec. auto ranging; 6 ranges, ea. channel independently

Filtering: 20Hz low pass 3 pole analog filter, 14 bit A/D Cnvtr.; digital averaging

Accuracy (Illuminant A): Chroma ± 0.002 x, y (displayed value $> .05$ cd/m²)

Luminance $\pm 1\%$ Y, ± 1 LSB (displayed value $> .0025$ cd/m²)

Repeatability: Chroma ± 0.002 x, y (displayed value $> .05$ cd/m²)

Luminance $\pm 1\%$ Y, ± 1 LSB (displayed value $> .0025$ cd/m²)

Data Interface: 9600 baud RS232 Communication to PC.

Output Connectors: Serial com 9 pin (DB9), USB plug for 5v power only

Size: 6.25" Long x 2.25" Diameter (159mm x 57mm)

Power Supply: 5 volts, 75mA max from a pc's USB port,

or from included power supply

Operating Requirements: Temperature: 0-40 C;

Humidity: below 85% RH non-condensation

Material: Platinum colored high- impact plastic

Weight/Shipping Weight: net 7oz (198g.); gross 3 pounds