

LED spectrometer to analyze LED performance / Determination of color of LED light / Measurement of Color temperature / Lux measurement / Spectral analysis on lighting

The LED spectrometer MK350S is applied to measure LEDs. The LED spectrometer performs a spectral analysis on light, which is emitted by LEDs. The MK350S LED spectrometer measures besides the color spectrum also the illumination level in Lux, the color temperature and many other parameters, that are used for the selection of LEDs. This professionally used LED spectrometer features a touch screen for an easier navigation. The menu navigation is self explanatory, so even beginners can easily operate the LED spectrometer. The results of the LED spectrometer are saved on a SD memory card. This SD memory card not only stores the data, but also facilitates as a WiFi interface. Thus the LED spectrometer can be connected with an Apple or Android device. After downloading the relevant app, the device can be used for remote controlling the LED spectrometer ML350S.

- LED measurement
- Measurement of Color temperature
- Measurement of wave length
- Spectrometer function
- Single or continuous measurement
- Integrated camera
- Remote Control via App (Apple and Android)
- Intuitive navigation due to touch screen

Technical Specifications of the LED Spectrometer

| | |
|-----------------------|---|
| Sensor | CMOS linear image sensor |
| Spectral band width | approx. 12 nm |
| Receptor size | Ø 6.6 ± 0.1 mm |
| Cosine Balance | |
| Measurement range | 70 ... 70000 Lux |
| Range of wave lengths | 280 ... 780 nm |
| Averaging time range | 6 ... 5000 ms |
| Sampling rate | single / continuous |
| Averaging mode | automatic / manual |
| Measuring mode | Basic mode light spectrum diagram mode CIE 1931 Chromaticity shares CIE 1976 Chromaticity shares Color Index mode Lux mode |

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|---|--|
| | Logging mode |
| | CCT color temperature |
| | Mode for quality control |
| | Comparative measurement mode |
| | View of measured data |
| Measurement functions | CCT |
| | Lux measurement |
| | CRI Ra / R1 ... R15 |
| | Spectral radiation |
| | CIE chromatic coordination |
| | wave length (peak / dominance) |
| | $\Delta x, \Delta y, \Delta u', \Delta v'$ |
| | Duv, Purity |
| | PPF (400 ... 700 nm) |
| | PPF-R (600 ... 699 nm) |
| | PPF-G (500 ... 599 nm) |
| | PPF-B (400 ... 499 nm) |
| | PPF-UV (380 ... 399 nm) |
| | PPF-NIR (700 ... 780 nm) |
| | BIN |
| Digital resolution | 16 bits |
| Calibration on black | yes |
| Repeatability wave length | ± 0.5 nm |
| Accuracy illumination level (at color temperature: 2856 K / Brightness: 20 kLux) | ± 5 % |
| Accuracy of color measurement | ± 0.0025 in CIE 1931 x,y |
| Repeatability of color measurement (at color temperature: 2856 K / Brightness: 20 kLux) | ± 0.0005 in CIE 1931 x,y |
| Accuracy of color temperature CCT (at color temperature: 2856 K / Brightness: 20 kLux) | ± 2 % |
| CRI accuracy @ Ra (at color temperature: 2856 K / Brightness: 20 kLux) | ± 1.5 % |
| General Technical Specifications of LED Spectrometer | |
| Display | 3.5 " LCD 320 x 240 Touch Panel |
| Camera resolution | 800 x 480 pixels touch screen |
| Max. data capacity | 2 mega pixels |
| Battery operation | 2000 data sets on 2 GB memory card |
| Battery type | Approx. 4 hours with fully charged battery |
| Data output | 2500 mAh/ Li-Ion SD memory card |
| Data format | MS Excel JPG |
| Dimensions | 163 x 81 x 51,8 mm (H x W x D) |
| Weight (with battery) | approx. 250 g |
| Operating temperature | 0 ... +35 °C |
| Surrounding temperature | -10 ... +40 °C |
| Languages | English Japanese Chinese |

The cosine correction is a necessary application for the measurement of color and quality of various light sources. The reflection of light that hits an objects depends on that impact angle. The more acute the impact angle, the more the reflection. So if the light does not hit the object in a rectangular angle, the spectrometer would otherwise measure

much to low values. But by using the cosine correction the values are much more accurate.

Delivery Content of the LED Spectrometer MK350S:

1 x LED Spectrometer MK350S,

1 x hard case,

1 x protecting case,

1 x battery,

1 x USB cable,

1 x charging adapter,

1 x safety band

1 x instruction manual

1 x holder for stand