MK350S Premium

Handheld Spectrometer

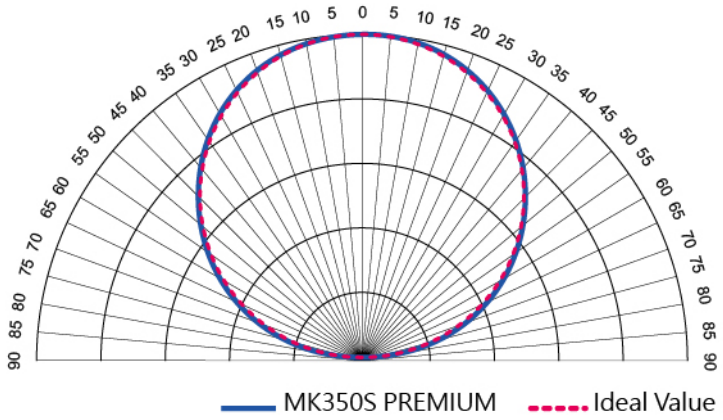
↘ Specification

Spectrum		
Sensor	CMOS Linear Image Sensor	
Illuminance meter class	Directional response conforms to JIS C 1609-1:2006 for General Class AA. Directional response conforms to DIN 5032 Part 7 Class B.	
Wavelength Range	380 to 780 nm	
Wavelength Data Increment	1 nm	
Spectral Bandwidth	Approximately 9 nm (Half Bandwidth)	
Wavelength Reproducibility	± 1 nm *1	
Measurement Range	1 to 150,000 lx	
Illuminance Accuracy	Illuminant A @ 2,856 K*2*7	± 2.5%
Illuminance Repeatability (2σ)		0.2% in CIE 1931 x,y（100 to 150,000 lx） 0.5% in CIE 1931 x,y（5 to 100 lx） 1% in CIE 1931 x,y（1 to 5 lx）
Color Accuracy		x y: ± 0.002（100 to 150,000 lx） x y: ± 0.0025（5 to 100 lx） x y: ±0.003（1 to 5 lx）
Color Repeatability (2σ)		x y: 0.0002（500 to 150,000 lx） x y: 0.0004（30 to 500 lx） x y: 0.001（5 to 30 lx） x y: 0.002（1 to 5 lx）
CCT Accuracy		± 2%
CRI Accuracy @ Ra		± 1.5%

Stray Light	-25 dB max. *3
Integration Time Range	60 us to 5,000 ms
Digital Resolution	16 bits
Flicker	
Measurement Range	1 to 150,000 lx
Sampling Rate	100k sample/sec
Frequency Range	5 to 50k Hz
Frequency Resolution	2, 4, 8, 16, 32 Hz
Accuracy	5%（5 to 30K Hz） *6
Feature	
Capture Function	One time / Continuous
Operation Mode	Standalone Mode / WiFi Mode *4 USB Mode（MSC Mode *5+PC connection）
Integration Mode	Auto / Manual
Dark Calibration	Auto
Measuring Modes	1. Basic Mode
	2. Spectrum Mode
	3. CIE1931/CIE1976 Chromaticity Mode
	4. CRI Mode
	5. TM-30-18 Mode
	6. Measurement Comparison Mode
	7. Flicker Mode
	8. Frequency Mode
	9. Flicker Risk Mode
	10. Blue Light Hazard Mode
	11. HCL Mode
	12. Transmit Mode
	13. LUX Image Distribution Mode
	14. Logging Mode
	15. Quality Control Checker Mode
	16. BIN Chart Mode
	17. Browser Mode
	18. Option Mode
Measuring Capabilities	1. Illuminance (LUX)/Foot Candle (fc)
	2. Correlated Color Temperature (CCT)
	3. CIE Chromaticity Coordinates (1) CIE 1931 x,y Coordinates

	(2) CIE 1976 u',v' Coordinates (3) CIE 1931 XYZ Value
	4. $\triangle x$, $\triangle y$, $\triangle u'$, $\triangle v'$
	5. Delta uv (Duv)
	6. Dominant Wavelength (λd)
	7. Excitation Purity
	8. Scotopic and Photopic Ratio (S/P)
	9. BIN ANSI C78.377 or Customized
	10. Standard Deviation Color Matching (SDCM)
	11. Color Rendering Index (CRI, Ra)/R1 to R15
	12. Color Quality Scale (CQS)
	13. Gamut Area Index (GAI)
	14. TM-30-18 (Rf, Rg, Color Vector Graphic)
	15. Television Lighting Consistency Index (TLCI)
	16. Flicker Frequency
	17. Percent Flicker
	18. Flicker Index
	19. Stroboscopic Effect Visibility Measure (SVM)
	20. Flicker Risk - IEEE PAR1789
	21. Photosynthetically Active Radiation (PAR) (1) PPFD(400nm~700nm) (2) PFD-UV(380nm~400nm) (3)PFD-R(600nm~700nm) (4)PFD-G(500nm~600nm) (5)PFD-B(400nm~500nm) (6)PFD-FR(700 - 780nm)
	22. Irradiance (380nm~780nm) Wm^2
	23. Spectral Power Distribution (SPD) mW/m^2
	24. Peak Wavelength (λp)
	25. Peak Wavelength Value (λpV)
	26. Transmittance
	27. Integration Time (I-Time)
	28. Blue Light Weighted Irradiance (EB)
	29. Blue Light Hazard Efficacy of Luminous Radiation (Kbv)
	30. Blue Light Hazard Risk Group (RG)
	31. Blue Light Hazard Blue-ray

	32. Melanopic Lux (1) Mel Irradiance (2) Mel Daylight Lux (3) Melanopic Ratio (4) Rhodopic Lux (5) Chloropic Lux (6) Erythropic Lux (7) Cyanopic Lux
	33.Cyanosis observation Index (COI)
System Configurations	
Display	4.3" 800X480 Resistive Touch LCD
Max. Files	≒ 21,000 Files @ 8GB SD Card（Excel + JPG）
Battery Operation Time	≦ 4 hours / Fully Charged
Power	Adapter; 2500 mAh（3.7V Rechargeable Li-ion Battery）
Data Output Interface	SD Card（SD2.0,SDHC / up to 32G）/ Mini USB Port（USB 2.0）/ WiFi SD Card compatible with iOS and Android
Data Format	Compatible Excel / JPG
Dimensions	163 x 81 x 26.6 mm（H x W x D）
Weight（with Battery）	260 g ± 10 g
Operating Temperature / Humidity	0 to 35 ℃, relative humidity 70% or less without condensation
Storage Temperature / Humidity	-10 to 40 ℃, relative humidity 70% or less without condensation
Display languages	English / Traditional Chinese / Simplified Chinese / Japanese / Spanish / German / French / Italian / Russian
Camera Resolution	2M pixels
Cosine Correction	



*1：Input source must be a stable light source.

*2：Temperature 23±2℃ and relative humidity 50% or less.

*3：Input the 550nm monochromatic light and measure the stray light ratio at 550nm ± 40nm.

*4：It can be connected to mobile phones and tablets.

*5：MSC- Mass Storage Class.

*6：Test condition is based on Lux > 300 lux of sine wave light source.

*7：Repeatability test is based on the status of shutter opening.

The company reserves the right to change product specifications at any time without prior notice.