UPRtek

MK350N Premium

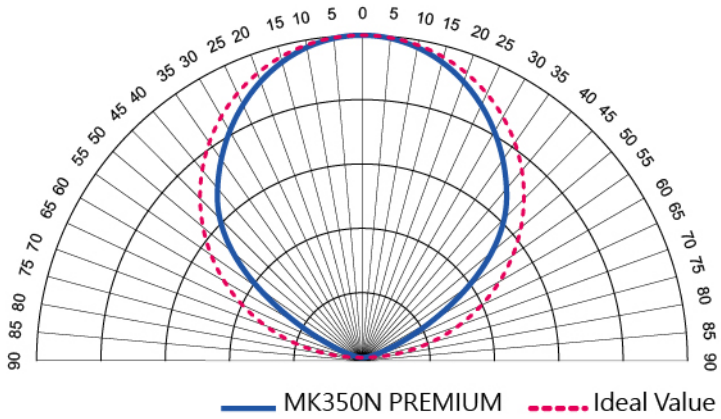
Handheld Spectrometer

↘ Specification

Spectrum		
Sensor	CMOS Linear Image Sensor	
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	5 to 100,000 lx	
Illuminance Accuracy	Illuminant A @ 2,856 K *2	± 2.5%
Illuminance Repeatability (2σ)		0.2%（100 ~ 100,000 lx） 0.5%（5 ~ 100 lx）
Color Accuracy		x y: ± 0.002（100 to 100,000 lx） x y: ± 0.0025（5 to 100 lx）
Color Repeatability (2σ)		x y: 0.0002（500 to 100,000 lx） x y: 0.0004（30 to 500 lx） x y: 0.001（5 to 30 lx）
CCT Accuracy		± 2%
CRI Accuracy @ Ra		± 1.5%
Stray Light	-25 dB max. *3	
Integration Time Range	100 us to 1,000 ms	
Digital Resolution	16 bits	

Flicker	
Measurement Range	5 to 100,000 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
Measuring Modes	1. Basic Mode
	2. Spectrum Mode
	3. CIE 1931/1976 Chromaticity Mode
	4. CRI mode
	5. TM-30-18 Mode
	6. Compare Mode
	7. Browser Mode
	8. Flicker Mode
	9. Frequency Mode
	10. Flicker Risk Mode
	11. 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. Color Rendering Index (CRI, Ra)/R1 to R15
	9. Color Quality Scale (CQS)
	10. Television Lighting Consistency Index (TLCI)
	11. Blue-ray
	12. TM-30-18 (Rf, Rg, Color Vector Graphic)

	13. Flicker Frequency
	14. Percent Flicker
	15. Flicker Index
	16. Stroboscopic Effect Visibility Measure (SVM)
	17. Flicker Risk - IEEE PAR1789
	18. Irradiance（380nm~780nm）
	19. Spectral Power Distribution (SPD)
	20. Peak Wavelength (λp)
	21. Peak Wavelength Value (λpV)
	22. Integration Time (I-Time)
	23.Scotopic and Photopic Ratio (S/P)
	24.Blue Light Weighted Irradiance (EB)
	25.Blue Light Hazard Efficacy of Luminous Radiation (Kbv)
	26.Blue Light Hazard Risk Group (RG)
System Configurations	
Display	3.5" 320X240 Resistive Touch LCD
Max. Files	≒ 68,000 Files @ 8GB SD Card（Excel + JPG）
Battery Operation Time	≦ 5 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	147.5 x 78 x 24 mm（H x W x D）
Weight（with Battery）	255 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
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.