UPRtek

PAR Meter PG200N

Handheld Spectrometer

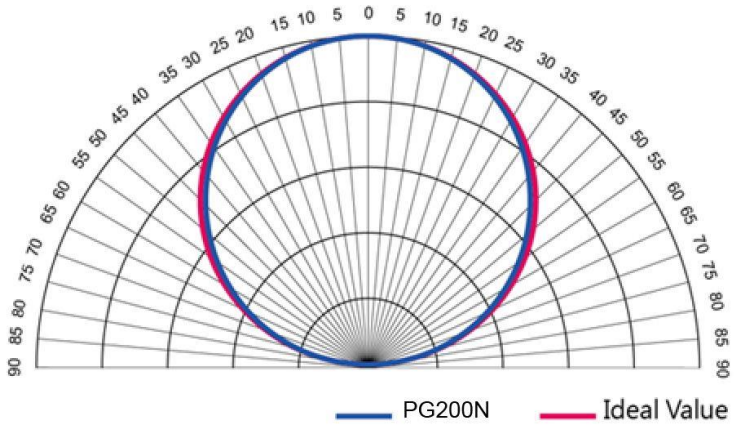
↘ Specification

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	350 to 800 nm	
Wavelength Data Increment	1 nm	
Spectral Bandwidth	Approximately 9 nm (Half Bandwidth)	
Wavelength Reproducibility	± 1 nm *1	
Measurement Range	1. 70 ~ 150,000 lx 2. 0.5~1,000 W/m^2 (Irradiance) 3. 1~3,000 µmol/(m^2*s) (PPFD)	
Illuminance Accuracy	Illuminant A @ 2,856 K at 20,000 lx*2	± 5%
Illuminance Repeatability (2σ)		0.2%
Color Accuracy		x y：± 0.0025
Color Repeatability (2σ)		x y：0.0005
CCT Accuracy		± 2%
CRI Accuracy @ Ra		± 1.5%
Stray Light	-25 dB max. *3	
Integration Time Range	100 µs to 1,000 ms	

Digital Resolution	16 bits
Feature	
Capture Function	One time / Continuous
Dark Mode	Auto Dark
Operation Mode	Standalone Mode / Bluetooth Mode*4 / USB Mode（MSC Mode*5+PC connection）
Integration Mode	Auto/Manual
G sensor mode	Axial Displacement（x,y）
Measuring Modes	1. Basic Mode
	2. Spectrum Mode
	3. PPFD Mode
	4. PPFD Spectrum Mode （Including reference spectrum - Chlorophyll A, Chlorophyll B, Beta-carotene, Phytochrome A red, Phytochrome A far red）
	5. CIE 1931/1976 Chromaticity Mode
	6. Logging Mode
	7. Grid Mode
	8. Compare Mode
	9. Browser Mode
	10. 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
	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. Spectral Power Distribution (SPD)
	10. Peak Wavelength (λp)
	11. Peak Wavelength Value (λpV)
	12. Intergration Time (I-Time)
	13. Irradiance（350nm~800nm）

	14. Photosynthetically Active Radiation (PAR) (1) PPFD(400nm~700nm) (2) PFD-R(600nm~700nm) (3) PFD-G(500nm~600nm) (4) PFD-B(400nm~500nm) (5) PFD(380nm~780nm) (6) PFD-UV(350nm~400nm) (7) PFD-FR(700nm~800nm) (8) PFD-B:G Ratio (400~500nm:500~600nm) (9) PFD-R:FR Ratio (600~700nm:700~800nm)
	15. Phytochrome Photostationary State(PSS)
	16. Temperature (℃)[*7]
	17. Relative Humidity (% RH)[*7]
System Configurations	
Display	4.3" 800X480 Capacitive Touch LCD
Waterproof level	IP66[*6]
Max. Files	≒ 68,000 Files @ 8GB SD Card（Excel + JPG）
Battery Operation Time	≦ 5 hours / Fully Charged
Power	Adapter; 3200 mAh（3.7V Rechargeable Li-ion Battery）
Data Output Interface	MicroSD Card（SD2.0,SDHC / up to 32G）/ Type C / Bluetooth 3.0 and 4.0 compatible with iOS and Android
Data Format	Compatible Excel / JPG
Dimensions	190 x 81.7 x 29.5 mm（H x W x D）
Weight（with Battery）	280 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
PC Software	uSPECTRUM

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：Only sensor, not the whole body

*7：It has to be used with "PG200N Thermo-Hygro cable" to do the measurement.

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