



PAR Meter PG200N

Handheld Spectrometer

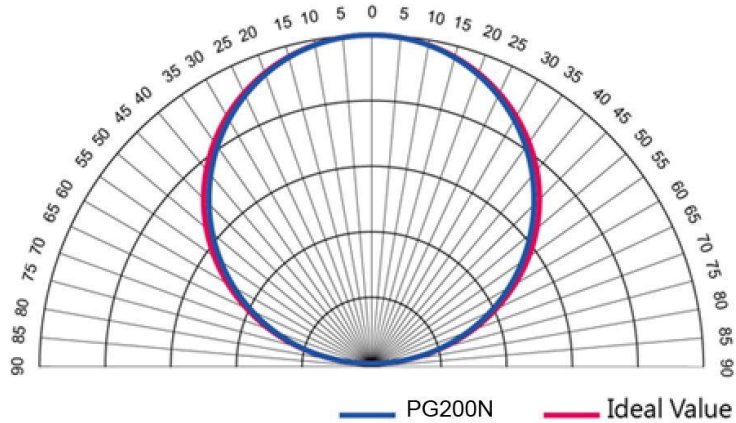
Specification

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. PPF Mode
	4. PPF 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. Δx , Δy , $\Delta u'$, $\Delta v'$
	5. Delta uv (Duv)
	6. Dominant Wavelength (λ_d)
	7. Excitation Purity
	8. Color Rendering Index (CRI, Ra)/R1 to R15
	9. Spectral Power Distribution (SPD)
	10. Peak Wavelength (λ_p)
	11. Peak Wavelength Value (λ_{pV})
	12. Intergration Time (I-Time)
	13. Irradiance (380nm~780nm)

	<p>14. Photosynthetically Active Radiation (PAR)</p> <p>(1) PPF(400nm~700nm)</p> <p>(2) PFD-R(600nm~700nm)</p> <p>(3) PFD-G(500nm~600nm)</p> <p>(4) PFD-B(400nm~500nm)</p> <p>(5) PFD(380nm~780nm)</p> <p>(6) PFD-UV(350nm~400nm)</p> <p>(7) PFD-FR(700nm~800nm)</p> <p>(8) PFD-B:G Ratio (400~500nm:500~600nm)</p> <p>(9) PFD-R:FR Ratio (600~700nm:700~800nm)</p>
	15. Phytochrome Photostationary State(PSS)
	16. Temperature (°C) ^{*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 °C, relative humidity 70% or less without condensation
Storage Temperature / Humidity	-10 to 40 °C, 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 $23\pm 2^{\circ}\text{C}$ and relative humidity 50% or less.
- *3 : Input the 550nm monochromatic light and measure the stray light ratio at $550\text{nm} \pm 40\text{nm}$.
- *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.