



Spectral PAR Meter PG200

Handheld Spectrometer

Specification

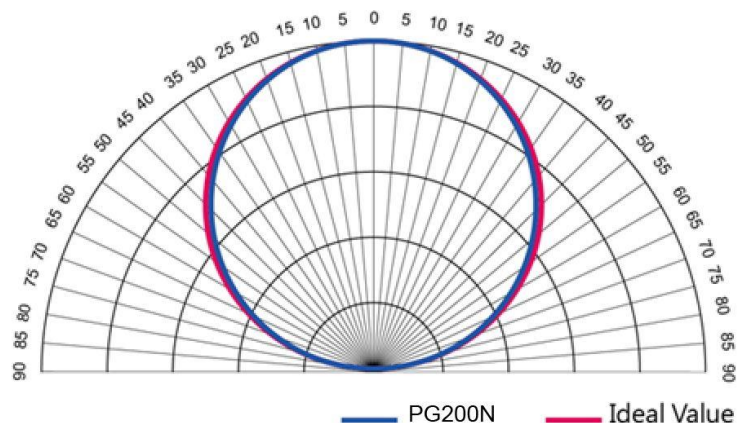
Spectrum		
Sensor	CMOS Linear Image Sensor	
Illuminance meter class	Directional response conforms to JIS C 1609-1:2006 for General Class AA. Directional response conforms to DIN 5032 Part 7 Class B.	
Wavelength Range	350 to 800 nm	
Wavelength Data Increment	1 nm	
Spectral Bandwidth	Approximately 9 nm (Half Bandwidth)	
Wavelength Reproducibility	$\pm 1 \text{ nm}^{*1}$	
Measurement Range	1. 70 ~ 150,000 lx 2. 0.5~1,000 W/m ² (Irradiance) 3. 1~3,000 $\mu\text{mol}/(\text{m}^2 \cdot \text{s})$ (PPFD)	
Illuminance Accuracy	Illuminant A @ 2,856 K at 20,000 lx ^{*2}	$\pm 5\%$
Illuminance Repeatability (2 σ)		0.2%
Color Accuracy		± 0.0025 in CIE 1931 x,y
Color Repeatability (2 σ)		0.0005 in CIE 1931 x,y
CCT Accuracy		$\pm 2\%$
CRI Accuracy @ Ra		$\pm 1.5\%$
Stray Light	-25 dB max. ^{*3}	
Integration Time Range	100 us 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. CIE 1931/1976 Chromaticity Coordinates
	4. PPFD Spectrum Mode (Including reference spectrum - Chlorophyll A, Chlorophyll B, Beta-carotene, Phytochrome A red, Phytochrome A far red)
	5. PPFD Mode
	6. Logging Mode
	7. Browser Mode
	8. Option Mode
Measuring Capabilities	1. Illuminance (LUX)/Foot Candle (fc)
	2. Correlated Color Temperature (CCT)
	3. CIE Chromaticity Coordinates (CIE 1931 x,y / CIE 1976 u',v')
	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) mW/m ²
	10. Peak Wavelength (λ_p)
	11. Peak Wavelength Value (λ_{pV})
	12. Integration Time (I-Time)
	13. Irradiance (350nm~800nm) Wm ²
	14. Photosynthetically Active Radiation (PAR) ($\mu\text{mol}/(\text{m}^2 \cdot \text{s})$) (1) PPFD (400nm-700nm) (2) PFD-R (600nm-700nm) (3) PFD-G (500nm-600nm) (4) PFD-B (400nm-500nm) (5) PFD (350nm-800nm)

	(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)
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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; 2500 mAh (3.7V Rechargeable Li-ion Battery)
Data Output Interface	Micro SD card / Type C / Bluetooth
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

Cosine Correction



1 : Input source must be a stable light source.

*2 : Temperature 23±2°C 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

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