

Specifications

		CA-527	CA-510	
Measurement area		Ø 27 mm	Ø 10 mm	
Acceptance angle		± 8.5°	± 15°	
Accuracy guaranteed measurement distance		30 ± 5 mm	30 ± 5 mm	
Accuracy guaranteed luminance range*7		0.0001 to 10,000 cd/m ²	0.0002 to 20,000 cd/m ²	
Luminance	Accuracy (for white)*1, *3	> 0.0001 cd/m ²	± 9 %	
		> 0.0002 cd/m ²	---	
		> 0.0005 cd/m ²	± 9 %	
		> 0.001 cd/m ²	± 3 %	
		> 0.01 cd/m ²	± 2 %	
		> 0.1 cd/m ²	± 1.5 %	
		> 1 cd/m ²	± 1.5 %	
	Repeatability (2σ)*1	AUTO	> 0.0001 cd/m ²	10 %
			> 0.0002 cd/m ²	10 %
			> 0.0005 cd/m ²	3 %
			> 0.001 cd/m ²	2 %
			> 0.01 cd/m ²	0.30 %
			> 0.1 cd/m ²	0.12 %
			> 1 cd/m ²	0.10 %
Chromaticity	Accuracy guaranteed luminance range*7		0.001 to 10,000 cd/m ²	
	Accuracy (for white)*1, *3	> 0.001 cd/m ²	± 0.003	
		> 0.002 cd/m ²	---	
		> 0.01 cd/m ²	± 0.002	
	Repeatability (2σ)*1	AUTO	> 0.001 cd/m ²	0.0030
			> 0.002 cd/m ²	0.0030
			> 0.01 cd/m ²	0.0009
			> 0.1 cd/m ²	0.0004
			> 1 cd/m ²	0.0002
			> 10 cd/m ²	0.0002
			> 100 cd/m ²	0.0002
Flicker (Contrast)	Flicker *6	Measurement luminance range*7		
		Measurement target (Flicker frequency)		
		Accuracy	0.25 to 65 Hz	
		30 Hz, AC/DC 10% sine wave	± 0.3 %	
	XYZ *6	60 Hz, AC/DC 10% sine wave	± 0.3 %	
		Repeatability (2σ)	± 0.3 %	
		20 to 65 Hz, AC/DC 10% sine wave	0.3 %	
		> 0.001 cd/m ²	0.5 to 10,000 cd/m ²	
	XYZ *6	Measurement luminance range*7		
		Measurement target (Flicker frequency)		
		Accuracy	0.25 to 200 Hz	
		30 Hz, AC/DC 10% sine wave	± 1.5 %	
Flicker (JEITA)	Flicker *6	60 Hz, AC/DC 10% sine wave	± 2.2 %	
		Repeatability (2σ)	1.6 %	
		> 0.001 cd/m ²	0.5 to 10,000 cd/m ²	
		Measurement target (Flicker frequency)	0.42 to 65 Hz	
	XYZ *6	Accuracy	± 0.35 dB	
		30 Hz, AC/DC 4% sine wave	± 0.35 dB	
		30 Hz, AC/DC 1.2% sine wave	± 0.35 dB	
		Repeatability (2σ)	0.1 dB	
	XYZ *6	30 Hz, AC/DC 4% sine wave	0.3 dB	
		30 Hz, AC/DC 1.2% sine wave	0.3 dB	
		> 0.001 cd/m ²	0.5 to 8,500 cd/m ²	
		Measurement target (Flicker frequency)*8	0.42 to 200 Hz	
Waveform	Flicker *6	Accuracy	± 0.35 dB	
		30 Hz, AC/DC 4% sine wave	± 0.35 dB	
		30 Hz, AC/DC 1.2% sine wave	± 0.35 dB	
		Repeatability (2σ)	0.4 dB	
	XYZ *6	30 Hz, AC/DC 4% sine wave	1.4 dB	
		30 Hz, AC/DC 1.2% sine wave	1.4 dB	
		> 0.001 cd/m ²	0.1 to 10,000 cd/m ²	
		Sampling frequency	200 kHz Changeable	
	XYZ *6	Repeatability (2σ)	Lv: Measurement minimum luminance, fs: 3 kHz, fc: 1 kHz	
		> 0.001 cd/m ²	1.8%	
		Sampling frequency	3 kHz Changeable	
		Repeatability (2σ)	Lv: Measurement minimum luminance	
VRR-Flicker	Flicker	> 0.001 cd/m ²	13%	
		Sampling frequency	1.4%	
		Measurement target (Flicker frequency)*8	0.1 to 10,000 cd/m ²	
		Accuracy	0.01 to 100 k [Hz]	
	XYZ	Repeatability (2σ)	± 0.3 %	
		> 0.001 cd/m ²	0.3 %	
		Sampling frequency	200 kHz Changeable	
		Measurement target (Flicker frequency)*8	0.01 to 100 k [Hz]	
	Flicker (Contrast)	Accuracy	0.01 to 100 k [Hz]	
		Repeatability (2σ)	± 0.3 %	
		> 0.001 cd/m ²	1 time/sec (> 0.0001 cd/m ²)	
		Sampling frequency	5 times/sec (> 0.012 cd/m ²)	
Accuracy guaranteed measurement speed *4	Lvxy	Repeatability (2σ)	20 times/sec	
		> 0.001 cd/m ²	0.5 times/sec (at 1 Hz Pitch), 2.5 times/sec (at 10 Hz Pitch)	
		Sampling frequency	0.7 times/sec (at 1s Obs.)	
		Measurement target (Vertical synchronization frequency)	0.5 to 240 Hz (luminance and chromaticity)	
	Flicker (JEITA/VESA)	Power supply	DC 5 V (input from USB bus power line or RS communication connector)	
		Operating temperature/humidity range*5	10 to 35°C, relative humidity 85% or less with no condensation	
		Storage temperature/humidity range	0 to 45°C, relative humidity 85% or less (at 35°C) with no condensation	

*1: Measured under Konica Minolta's standard light source (6,500 K).

*2: Luminance for monochrome is measured when reading of luminance for white is 100 cd/m².

*3: Temperature 23°C/± 2°C, relative humidity 40% ± 10 %

*4: In NTSC [DOUBLE FRAME] synchronization mode using USB with one probe. Measured using a Konica Minolta-designated PC (with PC and probe directly connected, using the supplied measurement software).

*5: Reading fluctuation (compared to reference reading at 23°C, 40% RH): Luminance: ± 2% for white; Chromaticity (at 100 cd/m²):

± 0.002 for white, ± 0.003 for monochrome

*6: "Flicker" and "XYZ" are mode names for PC Software CA-S40.

*7: Measured under Konica Minolta's standard light source (constant light). If the luminance momentarily greatly exceeds the upper limit, such as with a PWM light source with a small duty cycle, luminances below the upper limit may be shown as too high.

*8: The listed values are for use with CA-S40 or CA-SDK2.

**The specifications and product appearance shown here may be changed without notice.