

Photometry and Radiometry, Slovak Republic, SMU (Slovensky Metrologicki Ustav)



Calibration or Measurement Service			Measurand Level or Range			Measurement Conditions/Independent Variable		Expanded Uncertainty					Comments
Quantity	Instrument or Artifact	Instrument Type or Method	Minimum value	Maximum value	Units	Parameter	Specifications	Value	Units	Coverage factor	Level of Confidence	Is the expanded uncertainty a relative one?	
Luminous intensity	Tungsten lamp	Comparison to standard lamps of luminous intensity	8	3 000	cd	Colour temperature	2856 K	3.0	%	2	95%	Yes	
Illuminance responsivity, tungsten source	Illuminance meter	Spectroradiometric measurements			A/lx	Wavelength	360 nm to 780 nm	1.5	%	2	95%	Yes	
						Illuminance	40 lx						
Luminous flux	Tungsten lamp	Integrating sphere	80	15 000	lm	Colour temperature	2787 K	3.0	%	2	95%	Yes	
Illuminance	Tungsten lamp	Comparison with luminous intensity reference standard	2	10000	lx	Correlated colour temperature	2042 K to 3200 K	4.0	%	2	95%	Yes	
Luminance	Tungsten-based source	Comparison with luminous intensity reference standard	10	2500	cd/m ²	Correlated colour temperature	2856 K	5.0	%	2	95%	Yes	
Responsivity, spectral, power	Broad band detector	Double grating monochromator with standard radiometers			Reading/W	Wavelength	300 nm to 400 nm	3 to 0.4, varies linearly with wavelength	%	2	95%	Yes	Approved on 18 April 2006
						Bandwidth	1 nm to 5 nm						
Responsivity, spectral, power	Broad band detector	Double grating monochromator with standard radiometers			Reading/W	Wavelength	400 nm to 1000 nm	0.4	%	2	95%	Yes	Approved on 18 April 2006
						Bandwidth	1 nm to 10 nm						

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						Radiant power	< 50 μ W						
Responsivity, spectral, power	Broad band detector	Double grating monochromator with standard radiometers			Reading/W	Wavelength	1001 nm to 1600 nm	0.5	%	2	95%	Yes	Approved on 18 April 2006
						Bandwidth	1 nm to 10 nm						
						Radiant power	< 100 μ W						
Responsivity, spectral, power	Broad band detector	Double prism monochromator with standard radiometers			Reading/W	Wavelength	1601 nm to 12000 nm	0.5 to 3, varies linearly with wavelength	%	2	95%	Yes	Approved on 18 April 2006
						Bandwidth	10 nm to 50 nm						
						Radiant power	< 50 μ W						
Wavelength	Fibre optic source	Direct measurement by spectrum analyser	600	1700	nm			0.15	nm	2	95%	No	Approved on 18 April 2006
Wavelength	Optical spectrum analyser	Direct measurement of lines	600	1700	nm			0.03	nm	2	95%	No	Approved on 18 April 2006