

Photometry and Radiometry

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
1.3 Gloss Meters	(0 to 100) GU 20° 60° 85°	0.93 GU 0.91 GU 1.1 GU	Standard Gloss Tile
Illuminance/Lux Meter	35 lux 50 lux 100 lux 500 lux 1 000 lux 1 500 lux 2 000 lux 3 000 lux 4 000 lux 5 000 lux	0.46 lux 0.66 lux 1.3 lux 6.6 lux 13 lux 20 lux 26 lux 39 lux 52 lux 65 lux	Comparison to Standard Illuminance/Lux Meter

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Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
<p>^s Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry 8°: DI, 8°: DE Pale Grey		Standard Color Tile
	x	0.000 3	
	y	0.000 3	
	Y	0.42	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.21	
	a*	0.14	
	b*	0.14	
	C*	0.18	
	H*	0.18	
	Mid Grey		
	x	0.000 3	
	y	0.000 3	
	Y	0.21	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.21	
	a*	0.14	
	b*	0.18	
	C*	0.21	
	H*	0.22	
	Diff Grey		
	x	0.000 3	
	y	0.000 3	
	Y	0.21	
	u'	0.000 3	
v'	0.000 3		
L*	0.21		
a*	0.14		
b*	0.18		
C*	0.21		
H*	0.22		

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Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
<p>^s Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry S°: DI, S°: DE Deep Grey	0.000 3 0.000 3 0.14 0.000 3 0.000 3 0.42 0.2 0.21 0.17 0.19	Standard Color Tile
	Deep Pink	0.001 6 0.000 6 0.21 0.001 4 0.000 3 0.28 0.26 0.21 0.19 0.2	
	Red	0.006 4 0.000 9 0.21 0.004 8 0.001 4 0.42 0.35 0.71 0.68 0.92	

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<p>⁵ Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry 8°: DI, 8°: DE, Orange		Standard Color Tile
	x	0.002	
	y	0.000 7	
	Y	0.35	
	u'	0.001	
	v'	0.000 6	
	L*	0.28	
	a*	0.28	
	b*	0.52	
	C*	0.44	
	H*	0.42	
	Bright Yellow		
	x	0.000 7	
	y	0.000 9	
	Y	0.5	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.35	
	a*	0.21	
	b*	0.44	
	C*	0.35	
	H*	0.19	
	Green		
	x	0.000 7	
	y	0.001 4	
	Y	0.21	
	u'	0.000 7	
v'	0.000 6		
L*	0.3		
a*	0.24		
b*	0.3		
C*	0.3		
H*	0.31		

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<p>^s Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry S°: DI, S°: DE, Diff. Green		Standard Color Tile
	x	0.000 7	
	y	0.001 4	
	Y	0.21	
	u'	0.000 7	
	v'	0.000 6	
	L*	0.3	
	a*	0.24	
	b*	0.3	
	C*	0.3	
	H*	0.31	
	Cyan		
	x	0.001 7	
	y	0.000 7	
	Y	0.28	
	u'	0.001	
	v'	0.000 6	
	L*	0.28	
	a*	0.28	
	b*	0.21	
	C*	0.28	
	H*	0.28	
	Deep Blue		
	x	0.026	
	y	0.029	
	Y	0.14	
	u'	0.008 5	
v'	0.028		
L*	1.2		
a*	1.8		
b*	1.4		
C*	2.9		
H*	2.5		

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<p>⁵ Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry 0°:45°, Pale Grey		Standard Color Tile
	x	0.000 3	
	y	0.000 3	
	Y	0.71	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.42	
	a*	0.14	
	b*	0.14	
	C*	0.17	
	H*	0.18	
	Mid Grey		
	x	0.000 3	
	y	0.000 3	
	Y	0.35	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.35	
	a*	0.14	
	b*	0.14	
	C*	0.2	
	H*	0.2	
	Diff. Grey		
	x	0.000 3	
	y	0.000 3	
	Y	0.35	
	u'	0.000 3	
v'	0.000 3		
L*	0.35		
a*	0.14		
b*	0.14		
C*	0.2		
H*	0.2		

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<p>⁵ Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry 0°:45°, Deep Grey		Standard Color Tile
	x	0.000 5	
	y	0.000 3	
	Y	0.28	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.71	
	a*	0.14	
	b*	0.2	
	C*	0.19	
	H*	0.2	
	Deep Pink		
	x	0.001 6	
	y	0.000 6	
	Y	0.28	
	u'	0.001 4	
	v'	0.000 3	
	L*	0.42	
	a*	0.28	
	b*	0.21	
	C*	0.17	
	H*	0.19	
	Red		
	x	0.006 4	
	y	0.000 9	
	Y	0.35	
	u'	0.004 8	
v'	0.001 4		
L*	0.57		
a*	0.42		
b*	1.3		
C*	0.86		
H*	1		

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<p>^s Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	Geometry 0°:45°, Orange		Standard Color Tile
	x	0.002	
	y	0.000 7	
	Y	0.57	
	u'	0.001	
	v'	0.000 6	
	L*	0.42	
	a*	0.28	
	b*	0.86	
	C*	0.44	
	H*	0.41	
	Bright Yellow		
	x	0.000 7	
	y	0.000 8	
	Y	0.78	
	u'	0.000 3	
	v'	0.000 3	
	L*	0.42	
	a*	0.21	
	b*	0.42	
	C*	0.32	
	H*	0.2	
	Green		
	x	0.000 7	
	y	0.001 4	
	Y	0.28	
	u'	0.000 7	
	v'	0.000 6	
	L*	0.35	
	a*	0.21	
b*	0.28		
C*	0.29		
H*	0.3		

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<p>^s Colorimeter Illuminant A, C, D50, D65 Observer: 2°, 10°</p>	<p>Geometry 0°:45°, Diff. Green</p>		<p>Standard Color Tile</p>
	x	0.000 7	
	y	0.001 4	
	Y	0.28	
	u'	0.000 7	
	v'	0.000 6	
	L*	0.35	
	a*	0.21	
	b*	0.28	
	C*	0.29	
	H*	0.3	
	Cyan		
	x	0.001 7	
	y	0.000 7	
	Y	0.35	
	u'	0.001	
	v'	0.000 6	
	L*	0.42	
	a*	0.28	
	b*	0.28	
	C*	0.32	
	H*	0.32	
	Deep Blue		
	x	0.026	
	y	0.029	
	Y	0.28	
	u'	0.008 6	
v'	0.028		
L*	2.1		
a*	3.2		
b*	2.5		
C*	3		
H*	3.2		