



PHOTOMETRIC MEASUREMENT REPORT N° StarThrow

Photometric measurement date: **18/06/2019**

Company: **Lux Lumen**

Operator: **/Ellen**

Type of photometric measurement: **C - Gamma**

The measurements have been performed in the following laboratory ambient conditions:

Temperature: **26**

Relative humidity: **42**

Air turbulence:

Stabilization time before measurement:

Regulations applied:

Electro Magnetic Compatibility (EMC): **Shielded instrument**

Luminaire name: **longthrowA-190618_b**

Eulumdat reference: **longthrowA-190618_b**

Size of luminaire (mm): **30 x 200 x 15**

Size of luminous area (mm): **18 x 20**

Number n of standard sets of lamps (optional): **1**

Number of lamps: **1**

Type of light source: **led**

Total luminous flux of the light source (lm): **Not available**

Output luminous flux of the lamp (lm): **113.544247811554**

Colour temperature (K): **2956**

Colour rendering index: **0**

Supply current (mA): **10**

Source power (W): **2**

Power consumption included source power (W): **2**

LED module efficacy (lm/W): **0.00**

System light efficacy (lm/W): **0.00**

Luminaire light efficacy (lm/W): **56.77**

Light Output Ratio of luminaire (LOR): **100**

Downward Flux Fraction (DFF): **100**

Upward Flux Fraction (UFF): **0.00**

Tilt during measurement (for street luminaires): **0**

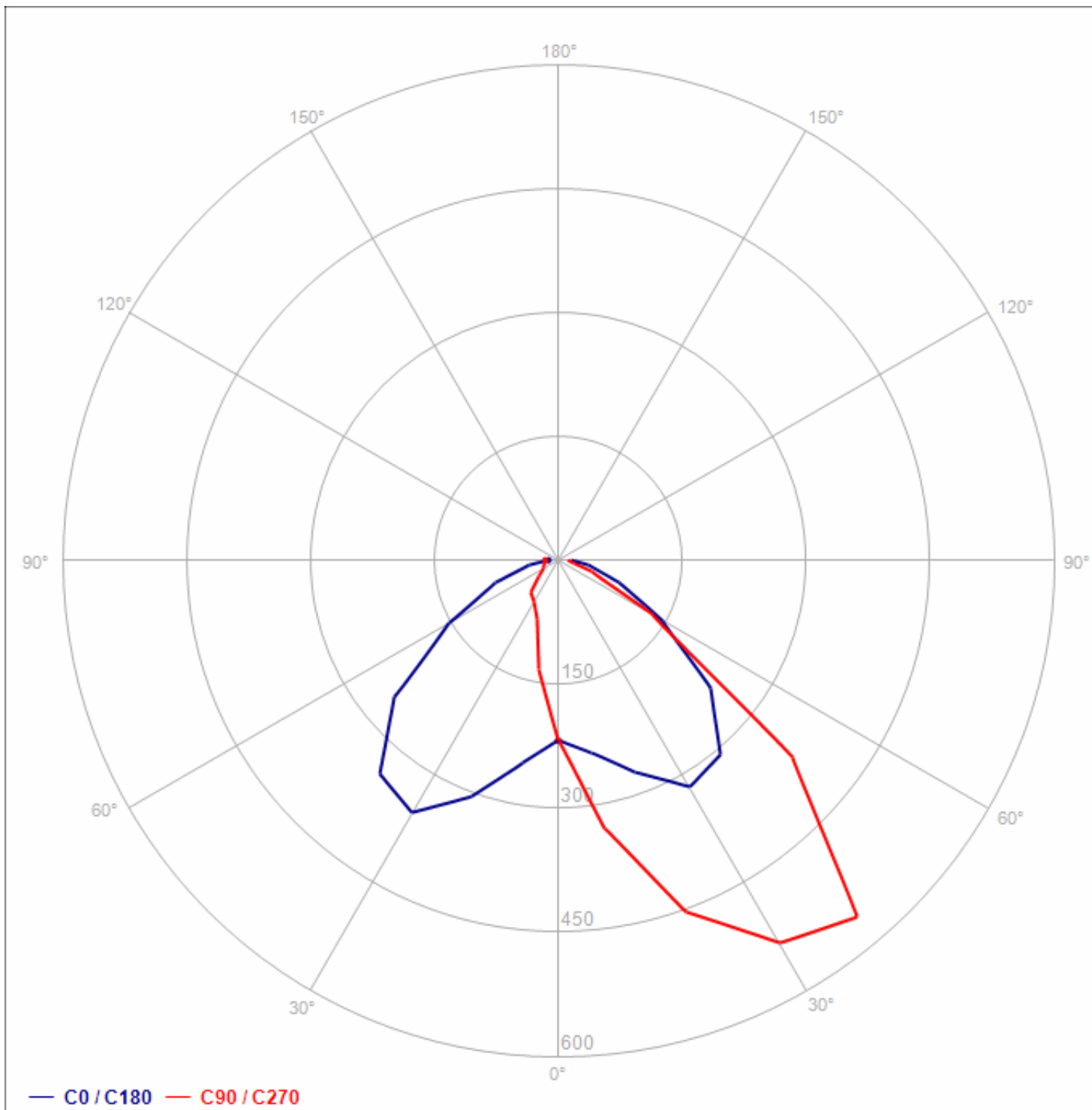
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Luminous intensities

Gamma	C0°	C10°	C20°	C30°	C40°	C50°	C60°	C70°	C80°	C90°	C100°	C110°
0°	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71
10°	236.46	250.21	263.37	275.94	287.35	298.85	310.16	319.31	325.27	329.77	329.01	326.01
20°	272.73	302.59	328.22	353.20	381.68	407.98	426.78	439.29	447.43	452.85	454.14	453.30
30°	317.78	364.88	406.34	450.53	484.91	506.59	519.72	526.13	530.43	535.23	538.52	540.95
40°	307.29	354.04	396.57	449.88	512.40	561.38	576.42	573.88	567.44	564.57	568.06	578.45
50°	242.22	280.82	315.45	355.85	408.32	476.53	496.39	452.01	399.46	372.20	381.73	425.74
60°	145.99	176.14	220.06	274.61	299.64	306.87	285.24	222.68	161.99	133.15	146.06	195.89
70°	78.67	92.25	115.01	147.00	165.04	160.61	135.15	92.48	56.95	42.63	49.03	75.21
80°	38.02	44.13	52.15	63.11	74.84	77.21	61.06	39.06	25.21	19.00	22.14	32.63
90°	15.02	16.55	19.99	24.44	29.41	30.95	25.78	18.68	13.51	11.18	11.55	15.44
Gamma	C120°	C130°	C140°	C150°	C160°	C170°	C180°	C190°	C200°	C210°	C220°	C230°
0°	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71
10°	319.16	309.41	298.50	287.52	275.17	262.78	248.04	232.10	214.24	197.00	180.87	164.86
20°	448.08	436.10	416.21	389.47	361.66	334.75	304.76	269.01	227.43	187.35	150.76	122.76
30°	541.12	535.60	521.97	499.91	456.49	404.31	352.93	294.72	229.01	170.63	122.53	92.67
40°	591.05	596.98	563.49	491.84	428.68	380.24	336.65	277.60	203.21	138.66	92.13	67.76
50°	482.04	500.65	438.80	377.62	335.93	296.43	258.06	212.44	153.21	100.89	66.30	48.59
60°	260.16	299.89	296.30	285.76	237.52	186.83	153.33	125.50	92.90	61.53	42.13	31.59
70°	114.27	147.97	159.87	149.60	120.48	95.39	80.48	67.59	51.75	37.85	28.10	24.27
80°	49.80	70.09	74.84	63.33	52.15	43.15	35.92	32.19	27.11	22.39	20.01	20.01
90°	20.81	27.29	27.78	23.82	18.68	13.51	10.76	11.38	13.61	13.68	15.02	16.35
Gamma	C240°	C250°	C260°	C270°	C280°	C290°	C300°	C310°	C320°	C330°	C340°	C350°
0°	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71	217.71
10°	152.74	143.41	137.65	134.85	135.03	138.24	144.97	154.72	166.84	181.76	198.38	214.86
20°	101.78	88.32	80.70	76.79	77.56	81.14	89.61	104.08	125.90	155.98	192.92	231.44
30°	75.13	65.91	59.89	58.09	58.09	60.81	67.81	79.54	101.08	138.56	192.25	254.96
40°	57.57	53.96	51.63	50.15	49.18	50.79	53.63	59.70	76.96	110.04	167.58	239.01
50°	39.73	34.16	31.77	30.06	30.87	33.62	36.69	42.80	55.07	78.08	124.27	185.57
60°	27.02	24.17	21.97	19.64	19.64	21.84	24.99	28.45	35.38	50.32	77.26	112.74
70°	21.99	21.72	19.45	18.80	18.06	19.77	21.40	22.91	25.04	31.15	43.64	59.67
80°	20.24	19.69	17.99	16.62	17.64	19.10	20.01	20.01	20.01	21.70	25.98	31.39
90°	16.95	17.14	16.23	15.44	15.64	16.23	16.95	16.23	15.64	15.02	15.21	15.64

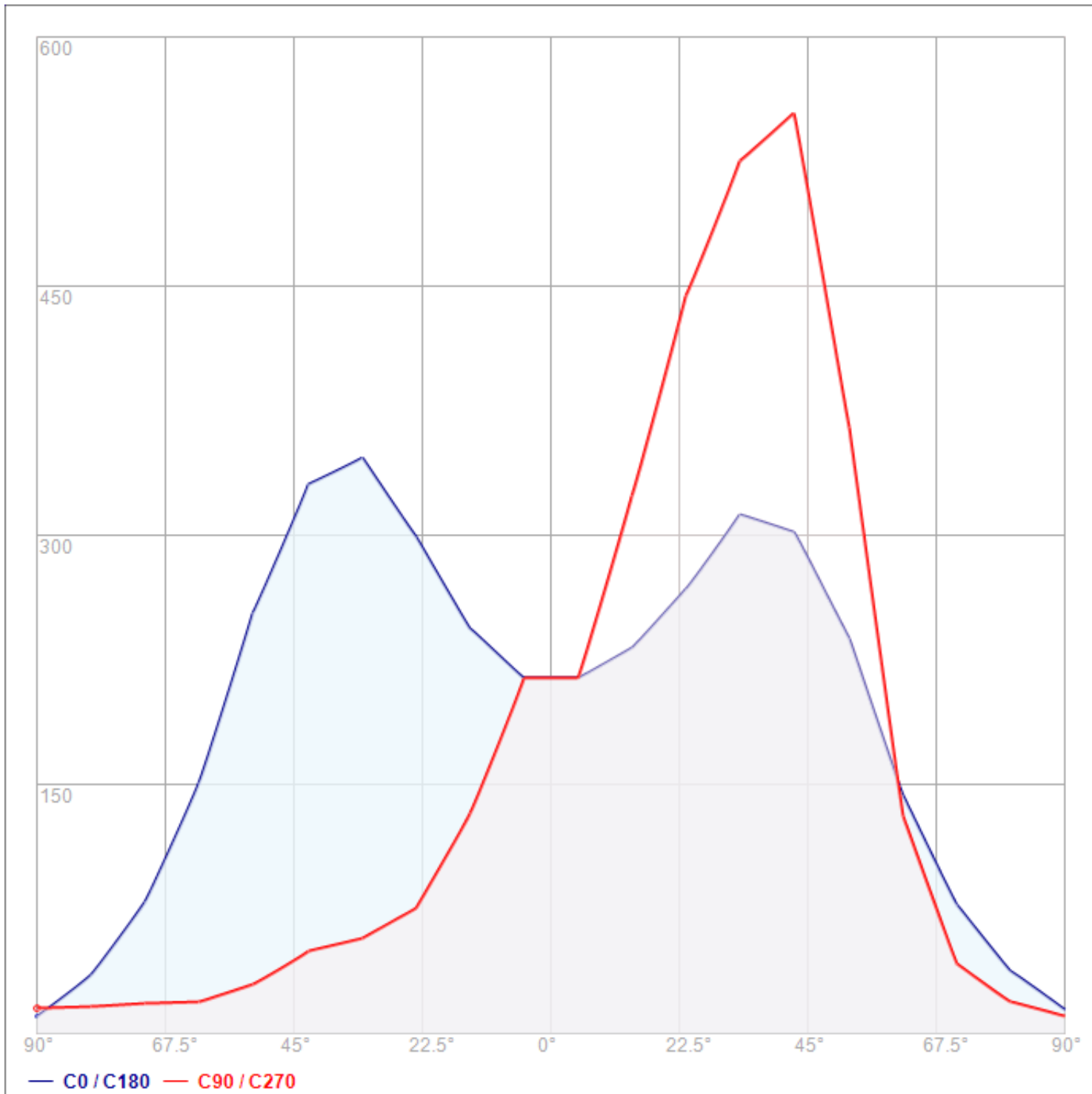
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Photometric Polar Diagram



PHOTOMETRIC MEASUREMENT REPORT N° StarThrow

Photometric Cartesian Diagram



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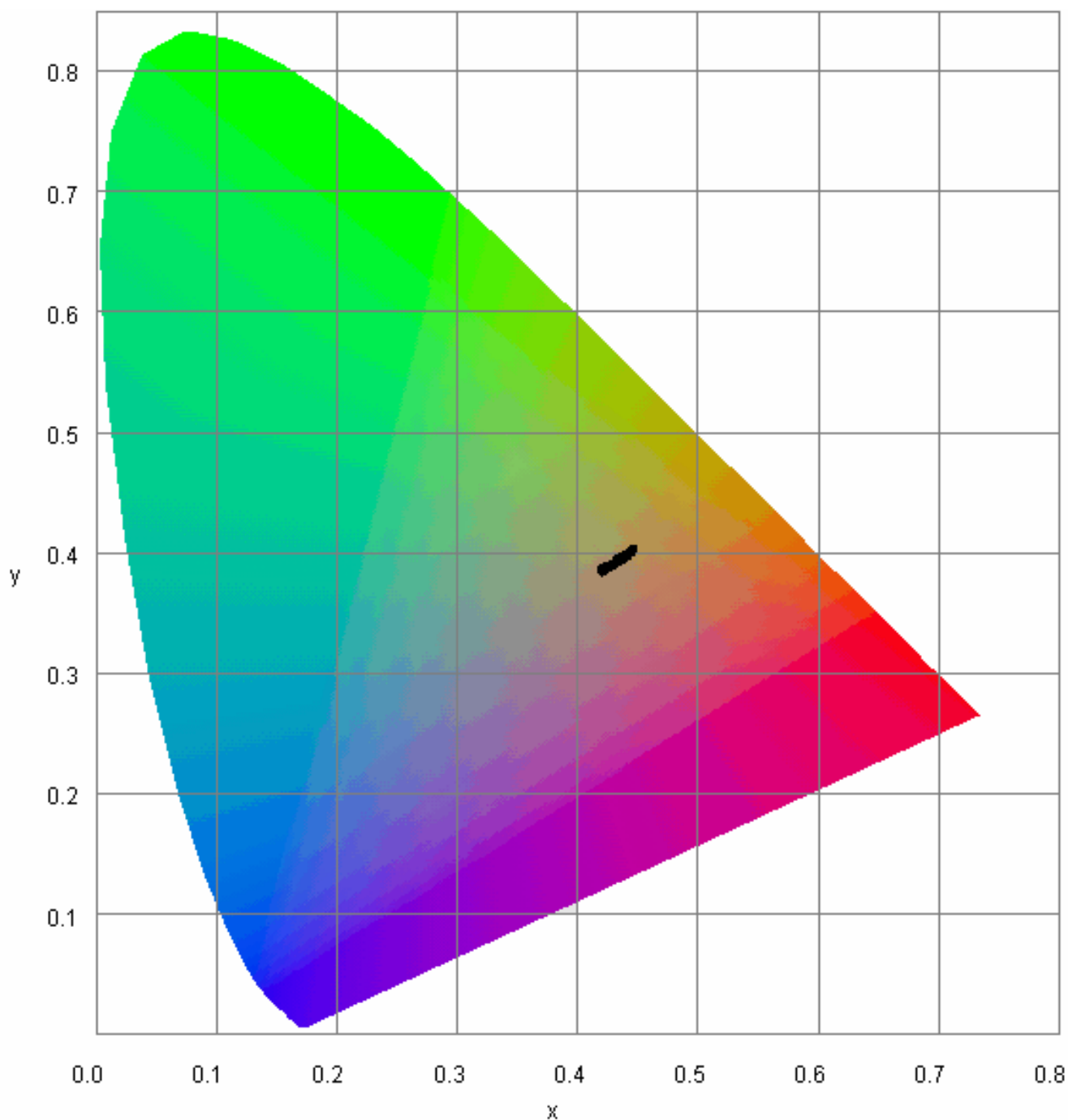
x y

Gamma	C0° x	C0° y	C10° x	C10° y	C20° x	C20° y	C30° x	C30° y	C40° x	C40° y	C50° x	C50° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.435	0.394	0.435	0.394	0.434	0.393	0.434	0.393	0.433	0.393	0.433	0.393
20°	0.436	0.394	0.436	0.394	0.435	0.394	0.435	0.394	0.435	0.393	0.435	0.394
30°	0.436	0.393	0.434	0.393	0.434	0.393	0.435	0.393	0.435	0.393	0.435	0.393
40°	0.437	0.394	0.435	0.393	0.435	0.393	0.435	0.393	0.436	0.393	0.436	0.393
50°	0.438	0.395	0.437	0.394	0.436	0.394	0.437	0.394	0.437	0.394	0.437	0.394
60°	0.438	0.395	0.435	0.393	0.434	0.393	0.436	0.394	0.435	0.394	0.435	0.394
70°	0.435	0.393	0.437	0.395	0.434	0.393	0.434	0.393	0.437	0.394	0.436	0.393
80°	0.430	0.391	0.432	0.392	0.437	0.395	0.434	0.393	0.437	0.395	0.437	0.395
90°	0.432	0.394	0.432	0.393	0.425	0.388	0.433	0.393	0.427	0.389	0.427	0.389
Gamma	C60° x	C60° y	C70° x	C70° y	C80° x	C80° y	C90° x	C90° y	C100° x	C100° y	C110° x	C110° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.433	0.393	0.432	0.392	0.434	0.393	0.433	0.393	0.434	0.393	0.433	0.393
20°	0.436	0.394	0.435	0.393	0.435	0.393	0.436	0.394	0.436	0.394	0.436	0.394
30°	0.434	0.392	0.434	0.392	0.434	0.392	0.434	0.392	0.434	0.392	0.434	0.392
40°	0.436	0.393	0.436	0.393	0.435	0.393	0.435	0.393	0.435	0.393	0.436	0.393
50°	0.437	0.394	0.437	0.394	0.435	0.393	0.436	0.394	0.436	0.394	0.437	0.394
60°	0.435	0.393	0.434	0.393	0.432	0.391	0.430	0.390	0.430	0.390	0.434	0.393
70°	0.434	0.392	0.433	0.392	0.429	0.390	0.427	0.388	0.428	0.389	0.431	0.391
80°	0.434	0.393	0.432	0.392	0.429	0.390	0.436	0.395	0.428	0.389	0.431	0.391
90°	0.427	0.389	0.433	0.393	0.432	0.394	0.419	0.386	0.445	0.402	0.423	0.388
Gamma	C120° x	C120° y	C130° x	C130° y	C140° x	C140° y	C150° x	C150° y	C160° x	C160° y	C170° x	C170° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.433	0.393	0.434	0.393	0.433	0.393	0.434	0.393	0.435	0.394	0.434	0.393
20°	0.436	0.393	0.435	0.393	0.435	0.394	0.435	0.394	0.435	0.394	0.435	0.394
30°	0.435	0.393	0.435	0.393	0.435	0.393	0.435	0.393	0.436	0.393	0.435	0.393
40°	0.436	0.393	0.436	0.394	0.436	0.394	0.436	0.393	0.435	0.393	0.435	0.393
50°	0.438	0.395	0.438	0.395	0.437	0.395	0.437	0.394	0.438	0.395	0.438	0.395
60°	0.434	0.393	0.436	0.394	0.436	0.394	0.437	0.395	0.436	0.394	0.436	0.394
70°	0.436	0.394	0.437	0.395	0.437	0.394	0.436	0.394	0.434	0.393	0.436	0.394
80°	0.437	0.395	0.437	0.395	0.437	0.395	0.437	0.395	0.437	0.395	0.432	0.392
90°	0.433	0.393	0.427	0.389	0.434	0.394	0.433	0.393	0.433	0.393	0.432	0.394
Gamma	C180° x	C180° y	C190° x	C190° y	C200° x	C200° y	C210° x	C210° y	C220° x	C220° y	C230° x	C230° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.434	0.394	0.435	0.394	0.435	0.394	0.436	0.394	0.435	0.394	0.436	0.395
20°	0.436	0.394	0.437	0.395	0.437	0.395	0.436	0.394	0.435	0.394	0.433	0.392
30°	0.435	0.393	0.437	0.394	0.435	0.393	0.433	0.392	0.433	0.392	0.432	0.391
40°	0.436	0.394	0.437	0.394	0.436	0.394	0.435	0.393	0.436	0.394	0.432	0.392
50°	0.439	0.396	0.439	0.396	0.439	0.396	0.438	0.395	0.434	0.393	0.433	0.393
60°	0.437	0.395	0.438	0.395	0.436	0.394	0.434	0.393	0.427	0.388	0.431	0.391
70°	0.435	0.393	0.438	0.395	0.438	0.395	0.433	0.392	0.433	0.393	0.426	0.388
80°	0.437	0.395	0.436	0.394	0.436	0.395	0.436	0.395	0.435	0.394	0.435	0.394
90°	0.431	0.393	0.432	0.394	0.420	0.386	0.444	0.401	0.432	0.394	0.423	0.387
Gamma	C240° x	C240° y	C250° x	C250° y	C260° x	C260° y	C270° x	C270° y	C280° x	C280° y	C290° x	C290° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.435	0.394	0.435	0.394	0.433	0.393	0.433	0.393	0.435	0.394	0.433	0.393
20°	0.433	0.392	0.434	0.393	0.436	0.395	0.436	0.395	0.433	0.393	0.434	0.393
30°	0.432	0.391	0.435	0.394	0.436	0.394	0.434	0.393	0.434	0.393	0.435	0.394
40°	0.430	0.390	0.433	0.392	0.438	0.396	0.433	0.392	0.434	0.393	0.433	0.393
50°	0.432	0.392	0.438	0.396	0.438	0.396	0.438	0.397	0.431	0.392	0.430	0.391
60°	0.423	0.386	0.420	0.384	0.419	0.383	0.428	0.389	0.428	0.389	0.429	0.390
70°	0.434	0.394	0.432	0.392	0.442	0.399	0.422	0.385	0.431	0.392	0.441	0.398

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80°	0.444	0.400	0.437	0.395	0.437	0.396	0.436	0.395	0.435	0.394	0.425	0.388
90°	0.424	0.388	0.433	0.394	0.433	0.395	0.423	0.388	0.433	0.394	0.433	0.395
Gamma	C300° x	C300° y	C310° x	C310° y	C320° x	C320° y	C330° x	C330° y	C340° x	C340° y	C350° x	C350° y
0°	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393	0.434	0.393
10°	0.435	0.394	0.434	0.394	0.435	0.394	0.435	0.394	0.435	0.394	0.435	0.394
20°	0.434	0.394	0.433	0.392	0.435	0.394	0.435	0.394	0.436	0.394	0.437	0.395
30°	0.433	0.392	0.435	0.393	0.433	0.392	0.433	0.392	0.434	0.393	0.435	0.393
40°	0.434	0.393	0.435	0.393	0.432	0.392	0.434	0.393	0.435	0.393	0.437	0.395
50°	0.431	0.392	0.433	0.393	0.433	0.393	0.438	0.396	0.440	0.396	0.439	0.396
60°	0.429	0.390	0.431	0.391	0.432	0.391	0.429	0.389	0.434	0.393	0.436	0.394
70°	0.433	0.393	0.433	0.393	0.434	0.393	0.433	0.393	0.434	0.393	0.438	0.395
80°	0.435	0.394	0.435	0.394	0.435	0.394	0.435	0.394	0.443	0.399	0.443	0.399
90°	0.424	0.388	0.433	0.395	0.433	0.394	0.432	0.394	0.442	0.400	0.433	0.394

(x,y) chromaticity coordinates (CIE 1931)



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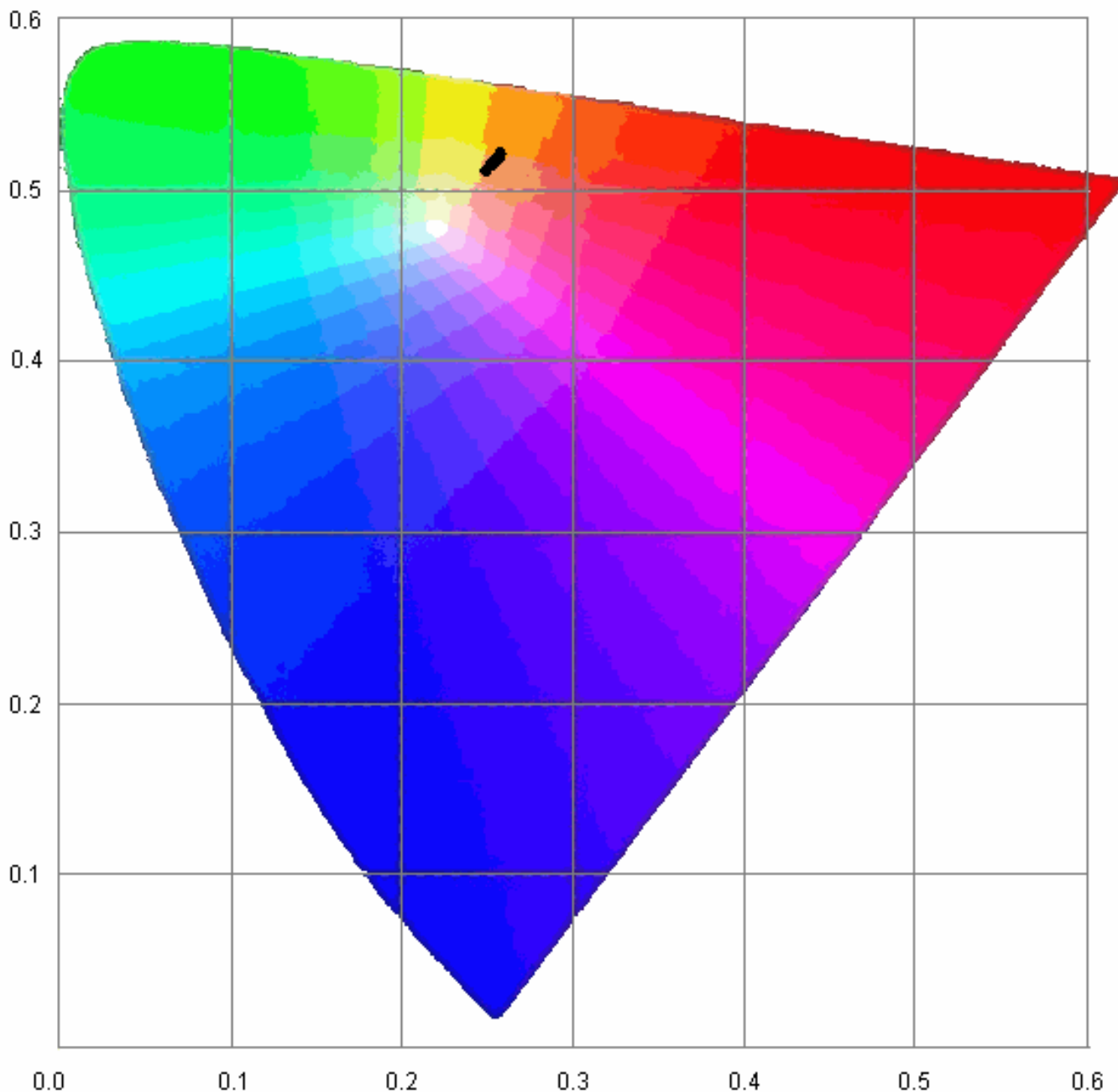
u' v'

Gamma	C0° u	C0° v	C10° u	C10° v	C20° u	C20° v	C30° u	C30° v	C40° u	C40° v	C50° u	C50° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.254	0.517	0.254	0.517	0.253	0.517	0.253	0.517	0.253	0.516	0.253	0.516
20°	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
30°	0.254	0.517	0.254	0.516	0.254	0.516	0.254	0.517	0.254	0.516	0.254	0.517
40°	0.255	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.255	0.517
50°	0.255	0.518	0.255	0.518	0.255	0.517	0.255	0.517	0.255	0.517	0.255	0.518
60°	0.255	0.518	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
70°	0.254	0.517	0.255	0.518	0.254	0.516	0.254	0.516	0.255	0.517	0.254	0.517
80°	0.252	0.515	0.253	0.516	0.255	0.518	0.254	0.517	0.255	0.518	0.255	0.518
90°	0.252	0.516	0.252	0.516	0.250	0.513	0.253	0.516	0.251	0.514	0.251	0.514
Gamma	C60° u	C60° v	C70° u	C70° v	C80° u	C80° v	C90° u	C90° v	C100° u	C100° v	C110° u	C110° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.253	0.516	0.253	0.516	0.253	0.517	0.253	0.516	0.253	0.517	0.253	0.516
20°	0.254	0.517	0.254	0.517	0.254	0.517	0.255	0.517	0.255	0.517	0.254	0.517
30°	0.254	0.516	0.254	0.516	0.254	0.516	0.254	0.516	0.254	0.516	0.254	0.516
40°	0.254	0.517	0.255	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
50°	0.255	0.517	0.255	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.255	0.517
60°	0.254	0.517	0.253	0.516	0.253	0.516	0.252	0.515	0.252	0.515	0.253	0.516
70°	0.254	0.516	0.253	0.516	0.252	0.515	0.251	0.513	0.251	0.514	0.252	0.515
80°	0.253	0.516	0.253	0.516	0.252	0.515	0.254	0.518	0.251	0.514	0.252	0.515
90°	0.250	0.514	0.252	0.516	0.252	0.517	0.247	0.511	0.256	0.522	0.249	0.513
Gamma	C120° u	C120° v	C130° u	C130° v	C140° u	C140° v	C150° u	C150° v	C160° u	C160° v	C170° u	C170° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.517	0.254	0.517	0.253	0.517
20°	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
30°	0.254	0.516	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
40°	0.255	0.517	0.255	0.517	0.255	0.517	0.254	0.517	0.254	0.517	0.254	0.517
50°	0.255	0.518	0.255	0.518	0.255	0.518	0.255	0.518	0.255	0.518	0.255	0.518
60°	0.254	0.516	0.254	0.517	0.255	0.517	0.255	0.518	0.254	0.517	0.254	0.517
70°	0.254	0.517	0.255	0.518	0.255	0.517	0.254	0.517	0.254	0.516	0.254	0.517
80°	0.255	0.518	0.255	0.518	0.255	0.518	0.255	0.518	0.255	0.518	0.253	0.516
90°	0.253	0.517	0.251	0.514	0.253	0.517	0.253	0.516	0.252	0.516	0.252	0.517
Gamma	C180° u	C180° v	C190° u	C190° v	C200° u	C200° v	C210° u	C210° v	C220° u	C220° v	C230° u	C230° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
20°	0.254	0.517	0.255	0.518	0.255	0.518	0.254	0.517	0.254	0.517	0.253	0.516
30°	0.254	0.517	0.255	0.517	0.254	0.517	0.253	0.516	0.253	0.516	0.253	0.515
40°	0.255	0.517	0.255	0.517	0.255	0.517	0.254	0.517	0.254	0.517	0.253	0.516
50°	0.256	0.518	0.256	0.518	0.256	0.518	0.255	0.518	0.254	0.517	0.253	0.516
60°	0.255	0.518	0.255	0.518	0.254	0.517	0.253	0.516	0.251	0.514	0.252	0.515
70°	0.254	0.517	0.255	0.518	0.255	0.518	0.253	0.516	0.253	0.516	0.250	0.513
80°	0.255	0.518	0.254	0.517	0.254	0.518	0.254	0.517	0.254	0.517	0.254	0.517
90°	0.251	0.516	0.252	0.517	0.248	0.511	0.256	0.521	0.252	0.516	0.249	0.512
Gamma	C240° u	C240° v	C250° u	C250° v	C260° u	C260° v	C270° u	C270° v	C280° u	C280° v	C290° u	C290° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.254	0.517	0.254	0.517	0.253	0.516	0.253	0.516	0.254	0.517	0.253	0.516
20°	0.253	0.516	0.253	0.517	0.254	0.518	0.254	0.518	0.253	0.516	0.253	0.517
30°	0.253	0.515	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
40°	0.252	0.515	0.253	0.516	0.255	0.518	0.253	0.516	0.253	0.516	0.253	0.516
50°	0.253	0.516	0.254	0.518	0.254	0.518	0.254	0.519	0.252	0.515	0.252	0.515
60°	0.249	0.512	0.248	0.511	0.248	0.510	0.251	0.514	0.251	0.514	0.252	0.514
70°	0.253	0.517	0.253	0.516	0.256	0.520	0.249	0.511	0.252	0.516	0.256	0.519
80°	0.257	0.521	0.254	0.518	0.254	0.518	0.254	0.517	0.254	0.517	0.250	0.513

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90°	0.249	0.513	0.252	0.517	0.252	0.517	0.249	0.513	0.252	0.517	0.252	0.517
Gamma	C300° u	C300° v	C310° u	C310° v	C320° u	C320° v	C330° u	C330° v	C340° u	C340° v	C350° u	C350° v
0°	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516	0.253	0.516
10°	0.254	0.517	0.253	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517
20°	0.254	0.517	0.253	0.516	0.254	0.517	0.254	0.517	0.254	0.517	0.255	0.518
30°	0.253	0.516	0.254	0.517	0.253	0.516	0.253	0.516	0.254	0.516	0.254	0.517
40°	0.254	0.517	0.254	0.517	0.253	0.516	0.254	0.516	0.254	0.517	0.255	0.518
50°	0.252	0.515	0.253	0.516	0.253	0.516	0.255	0.518	0.256	0.519	0.256	0.518
60°	0.252	0.514	0.252	0.515	0.253	0.515	0.252	0.514	0.254	0.516	0.255	0.517
70°	0.253	0.517	0.253	0.516	0.253	0.517	0.253	0.516	0.254	0.516	0.255	0.518
80°	0.254	0.517	0.254	0.517	0.254	0.517	0.254	0.517	0.257	0.520	0.257	0.520
90°	0.249	0.513	0.252	0.517	0.252	0.517	0.252	0.516	0.256	0.521	0.252	0.517

(u',v') cromaticity diagram (CIE 1976)



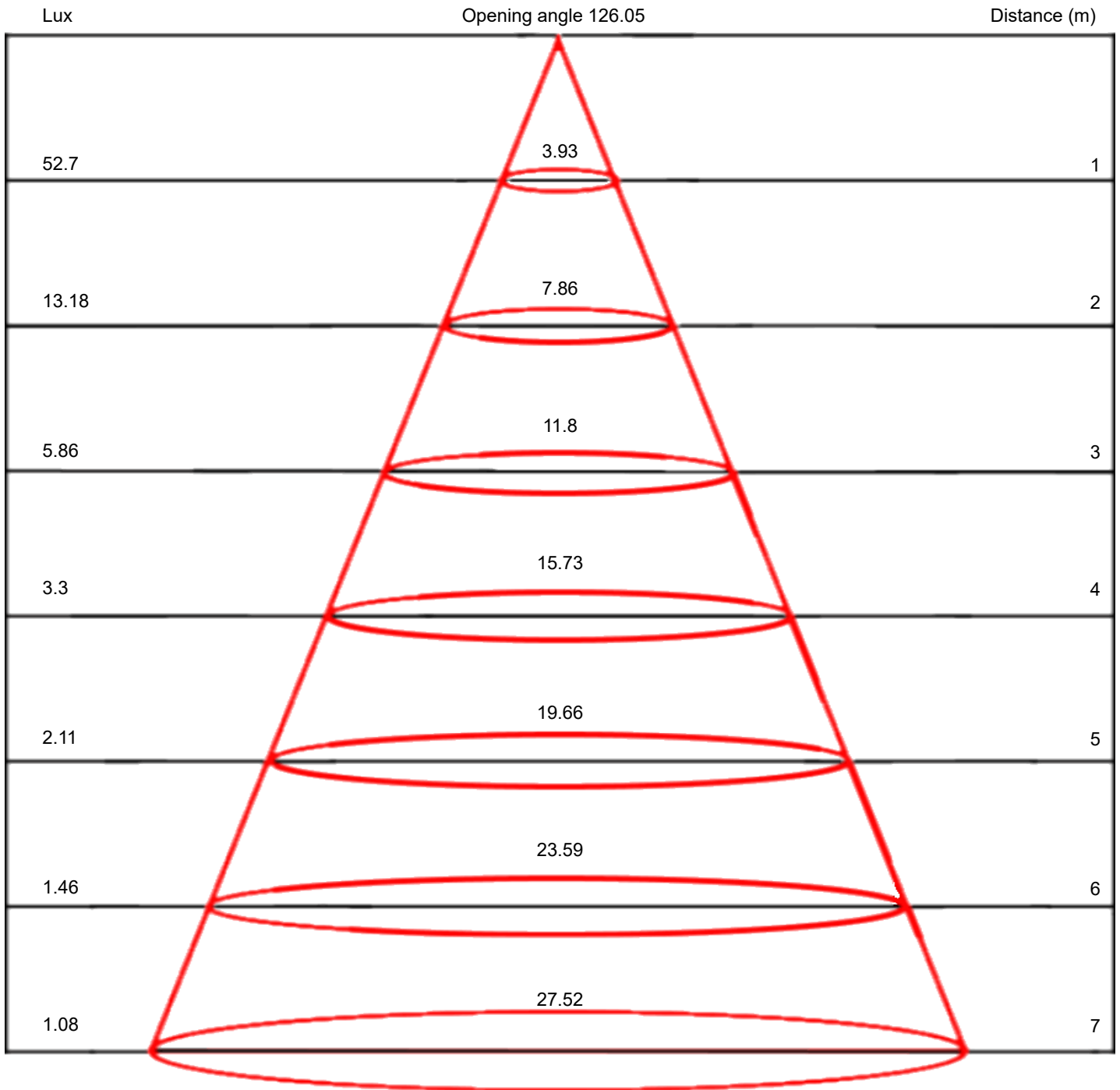
PHOTOMETRIC MEASUREMENT REPORT N° StarThrow

Color temperature

Gamma	C0°	C10°	C20°	C30°	C40°	C50°	C60°	C70°	C80°	C90°	C100°	C110°
0°	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00
10°	2948.00	2948.00	2957.00	2957.00	2975.00	2975.00	2975.00	2984.00	2957.00	2975.00	2957.00	2975.00
20°	2931.00	2931.00	2948.00	2948.00	2940.00	2948.00	2931.00	2940.00	2940.00	2931.00	2931.00	2931.00
30°	2923.00	2957.00	2957.00	2940.00	2940.00	2940.00	2949.00	2949.00	2949.00	2949.00	2949.00	2949.00
40°	2914.00	2940.00	2940.00	2940.00	2923.00	2923.00	2923.00	2923.00	2940.00	2940.00	2940.00	2923.00
50°	2906.00	2914.00	2931.00	2914.00	2914.00	2914.00	2914.00	2914.00	2940.00	2931.00	2931.00	2914.00
60°	2906.00	2940.00	2957.00	2931.00	2948.00	2948.00	2940.00	2957.00	2975.00	3003.00	3003.00	2957.00
70°	2940.00	2923.00	2957.00	2957.00	2914.00	2923.00	2949.00	2966.00	3021.00	3040.00	3031.00	2993.00
80°	3011.00	2984.00	2923.00	2957.00	2923.00	2923.00	2957.00	2984.00	3021.00	2940.00	3031.00	2993.00
90°	3001.00	2993.00	3078.00	2975.00	3049.00	3049.00	3049.00	2975.00	3001.00	3177.00	2850.00	3116.00
Gamma	C120°	C130°	C140°	C150°	C160°	C170°	C180°	C190°	C200°	C210°	C220°	C230°
0°	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00
10°	2975.00	2957.00	2975.00	2957.00	2948.00	2957.00	2966.00	2948.00	2948.00	2931.00	2948.00	2940.00
20°	2923.00	2940.00	2948.00	2948.00	2948.00	2948.00	2931.00	2923.00	2923.00	2931.00	2948.00	2966.00
30°	2940.00	2940.00	2940.00	2940.00	2923.00	2940.00	2940.00	2914.00	2940.00	2966.00	2966.00	2975.00
40°	2923.00	2931.00	2931.00	2923.00	2940.00	2940.00	2931.00	2914.00	2931.00	2940.00	2931.00	2984.00
50°	2906.00	2906.00	2923.00	2914.00	2906.00	2906.00	2897.00	2897.00	2897.00	2906.00	2957.00	2975.00
60°	2957.00	2931.00	2931.00	2923.00	2931.00	2931.00	2923.00	2906.00	2931.00	2957.00	3040.00	2993.00
70°	2931.00	2923.00	2914.00	2931.00	2957.00	2931.00	2940.00	2906.00	2906.00	2966.00	2975.00	3059.00
80°	2923.00	2923.00	2923.00	2923.00	2923.00	2984.00	2923.00	2931.00	2940.00	2940.00	2948.00	2948.00
90°	2975.00	3049.00	2966.00	2975.00	2975.00	3001.00	3011.00	3001.00	3157.00	2857.00	3001.00	3107.00
Gamma	C240°	C250°	C260°	C270°	C280°	C290°	C300°	C310°	C320°	C330°	C340°	C350°
0°	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00	2956.00
10°	2948.00	2948.00	2975.00	2975.00	2948.00	2975.00	2948.00	2966.00	2948.00	2948.00	2948.00	2948.00
20°	2966.00	2957.00	2940.00	2940.00	2975.00	2957.00	2966.00	2966.00	2948.00	2948.00	2931.00	2923.00
30°	2975.00	2948.00	2931.00	2957.00	2957.00	2948.00	2966.00	2940.00	2966.00	2966.00	2957.00	2940.00
40°	3003.00	2966.00	2914.00	2966.00	2957.00	2975.00	2957.00	2940.00	2984.00	2957.00	2940.00	2923.00
50°	2984.00	2914.00	2914.00	2923.00	3002.00	3011.00	3002.00	2975.00	2975.00	2914.00	2880.00	2897.00
60°	3099.00	3140.00	3151.00	3031.00	3031.00	3021.00	3021.00	2993.00	2975.00	3012.00	2957.00	2931.00
70°	2966.00	2984.00	2873.00	3109.00	3002.00	2881.00	2975.00	2975.00	2957.00	2975.00	2957.00	2906.00
80°	2849.00	2923.00	2931.00	2940.00	2948.00	3078.00	2948.00	2948.00	2948.00	2948.00	2857.00	2857.00
90°	3097.00	2984.00	2992.00	3116.00	2984.00	2992.00	3097.00	2992.00	2984.00	3001.00	2881.00	2984.00

PHOTOMETRIC MEASUREMENT REPORT N° StarThrow

Opening angle



PHOTOMETRIC MEASUREMENT REPORT N° StarThrow

Glare Evaluation According to UGR

Room Size		Viewing direction at right angles to lamp axis					Viewing direction parallel to lamp axis				
x	y										
ρ Ceiling		70	70	50	50	30	70	70	50	50	30
ρ Walls		50	30	50	30	30	50	30	50	30	30
ρ Working plane		20	20	20	20	20	20	20	20	20	20
2H	2H	22.22	23.88	22.22	23.88	23.88	26.45	28.10	26.45	28.10	28.10
	3H	24.69	26.23	24.69	26.23	26.23	27.31	28.97	27.35	28.97	28.97
	4H	24.92	26.44	24.92	26.44	26.44	27.46	29.08	27.46	29.08	29.08
	6H	25.41	26.90	25.41	26.90	26.90	27.79	29.40	27.79	29.40	29.40
	8H	25.49	26.97	25.49	26.97	26.97	27.84	29.44	27.84	29.44	29.44
	12H	25.51	26.99	25.51	26.99	26.99	27.85	29.45	27.85	29.45	29.45
4H	2H	23.24	24.85	23.24	24.85	24.85	29.15	30.67	29.15	30.67	30.67
	3H	27.22	28.51	27.22	28.51	28.51	31.40	32.83	31.55	32.83	32.83
	4H	27.71	28.94	27.71	28.94	28.94	31.94	33.17	31.94	33.17	33.17
	6H	28.93	29.95	28.93	29.95	29.95	33.07	34.11	33.07	34.11	34.12
	8H	29.15	30.13	29.15	30.13	30.13	33.48	34.44	33.48	34.44	34.44
	12H	29.20	30.17	29.20	30.17	30.17	33.57	34.51	33.57	34.51	34.51
8H	4H	29.25	30.21	29.25	30.21	30.21	32.96	34.03	32.96	34.03	34.03
	6H	31.39	31.78	31.39	31.78	31.78	34.59	35.29	34.59	35.29	35.29
	8H	31.86	32.09	31.86	32.09	32.09	35.24	35.75	35.24	35.75	35.75
	12H	31.96	32.16	31.96	32.16	32.16	35.40	35.86	35.40	35.86	35.86
12H	4H	29.34	30.29	29.34	30.29	30.29	32.96	34.03	32.96	34.03	34.03
	6H	31.57	31.90	31.57	31.90	31.90	34.59	35.29	34.59	35.29	35.29
	8H	32.07	32.22	32.07	32.22	32.22	35.24	35.75	35.24	35.75	35.75