
Client:

LumCAT: TUCF04LAJD1WH-5000K

Luminaire: LED

Report No:

Ballast type:

Test No: LCZP22040129

Voltage(V): 120.040

LampCAT:

Current(A): 0.084

Lamp flux(lm): 706.0

Power (W): 9.950

Number of Lamps: 1

PF: 0.983

Length(mm): -75

Width(mm): -75

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 705.98, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 70.95

Central intensity(cd): 247.818, Maximum intensity(cd): 247.818

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=111.6

[C90/270]Total=112.0

Field angle(10%Imax): [C0/180]Total=161.0

[C90/270]Total=161.0

Maximum s/h(1/2): C0_180=1.26 C90_270=1.26

Maximum s/h(1/4): C0_180=1.37 C90_270=1.38

Up flux rate of lamp(%): 0.07%

Down flux rate of lamp(%): 99.93%

Up flux rate of LUM(%): 0.07%

Down flux rate of LUM(%): 99.93%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.058%

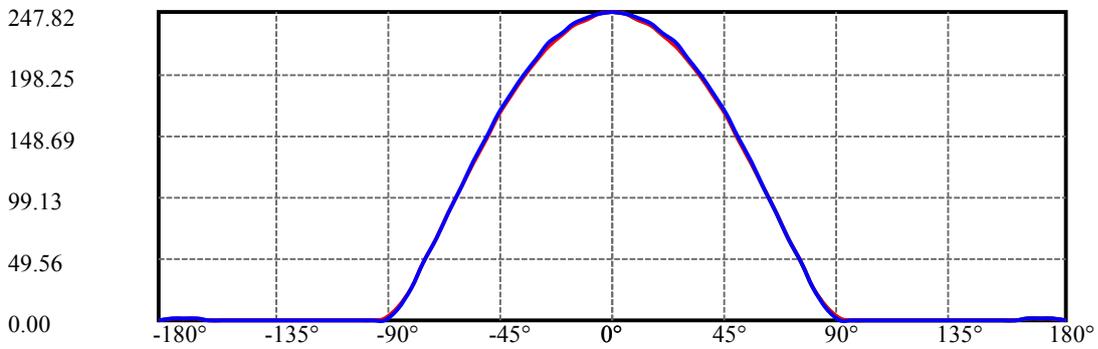
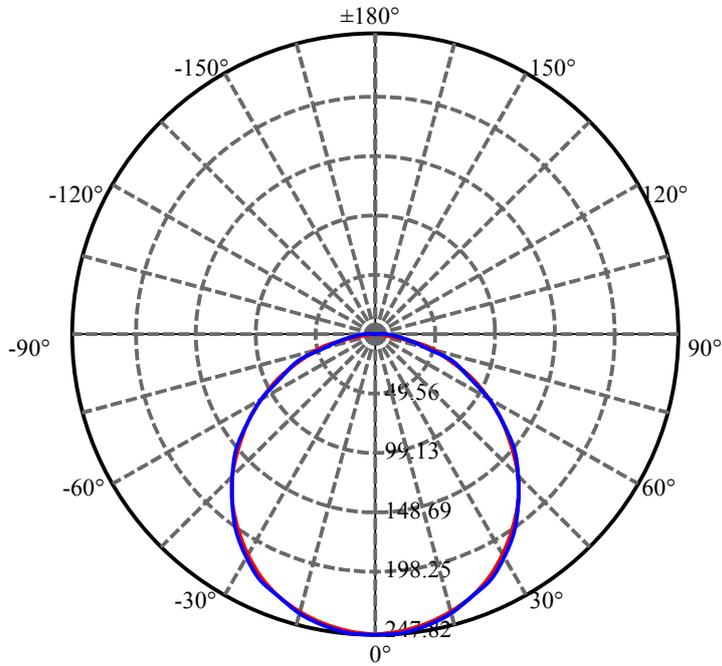
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	247.818	0.000	0	0.00%	0.00%
5.0	246.676	5.912	5.912	0.84%	0.84%
10.0	243.764	17.545	23.456	2.49%	3.32%
15.0	238.342	28.598	52.054	4.05%	7.37%
20.0	230.782	38.662	90.717	5.48%	12.85%
25.0	221.821	47.470	138.186	6.72%	19.57%
30.0	210.794	54.748	192.934	7.75%	27.33%
35.0	196.891	60.034	252.969	8.50%	35.83%
40.0	182.029	63.220	316.189	8.95%	44.79%
45.0	165.619	64.370	380.559	9.12%	53.90%
50.0	147.069	63.183	443.742	8.95%	62.85%
55.0	127.967	59.802	503.544	8.47%	71.33%
60.0	108.200	54.589	558.133	7.73%	79.06%
65.0	86.958	47.443	605.576	6.72%	85.78%
70.0	66.086	38.752	644.328	5.49%	91.27%
75.0	45.986	29.294	673.622	4.15%	95.42%
80.0	26.442	19.380	693.001	2.75%	98.16%
85.0	9.402	9.740	702.741	1.38%	99.54%
90.0	0.699	2.766	705.507	0.39%	99.93%
95.0	0.000	0.191	705.698	0.03%	99.96%
100.0	0.000	0.000	705.698	0.00%	99.96%
105.0	0.000	0.000	705.698	0.00%	99.96%
110.0	0.000	0.000	705.698	0.00%	99.96%
115.0	0.000	0.000	705.698	0.00%	99.96%
120.0	0.000	0.000	705.698	0.00%	99.96%
125.0	0.000	0.000	705.698	0.00%	99.96%
130.0	0.000	0.000	705.698	0.00%	99.96%
135.0	0.000	0.000	705.698	0.00%	99.96%
140.0	0.000	0.000	705.698	0.00%	99.96%
145.0	0.000	0.000	705.698	0.00%	99.96%
150.0	0.000	0.000	705.698	0.00%	99.96%
155.0	0.000	0.000	705.698	0.00%	99.96%
160.0	0.258	0.027	705.725	0.00%	99.96%
165.0	0.737	0.082	705.807	0.01%	99.98%
170.0	0.885	0.096	705.903	0.01%	99.99%
175.0	0.885	0.063	705.967	0.01%	100.00%
180.0	0.443	0.016	705.982	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	192.93	27.33%	27.33%
0-40	316.19	44.79%	44.79%
0-60	558.13	79.06%	79.06%
0-90	705.51	99.93%	99.93%
0-120	705.70	99.96%	99.96%
0-180	705.98	100.00%	100.00%
60-90	147.37	20.88%	20.87%
90-120	0.19	0.03%	0.03%
90-130	0.19	0.03%	0.03%
90-150	0.19	0.03%	0.03%
90-180	0.46	0.07%	0.07%
0-60.70	564.79	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	23.46
10-20	67.26
20-30	102.22
30-40	123.25
40-50	127.55
50-60	114.39
60-70	86.19
70-80	48.67
80-90	12.51
90-100	0.19
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.03
160-170	0.18
170-180	0.06



C0(Max): ———

C0/C180: ———

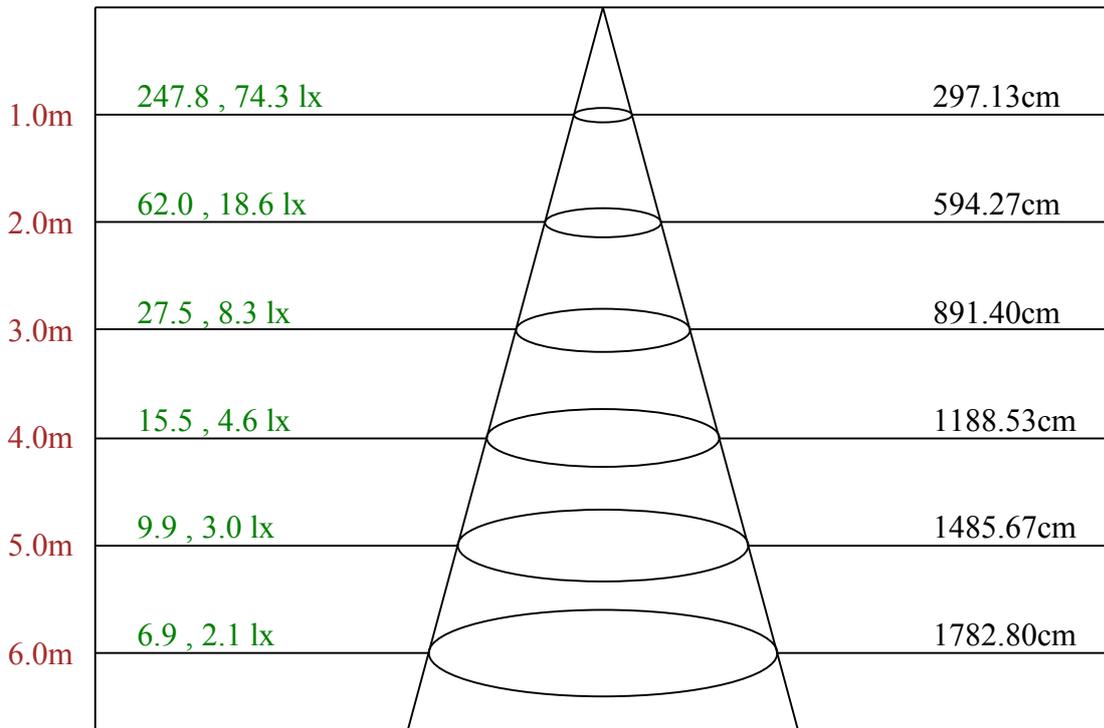
C90/C270: ———

Field angle(10%Imax):C0/180Left:80.5 Right:80.5

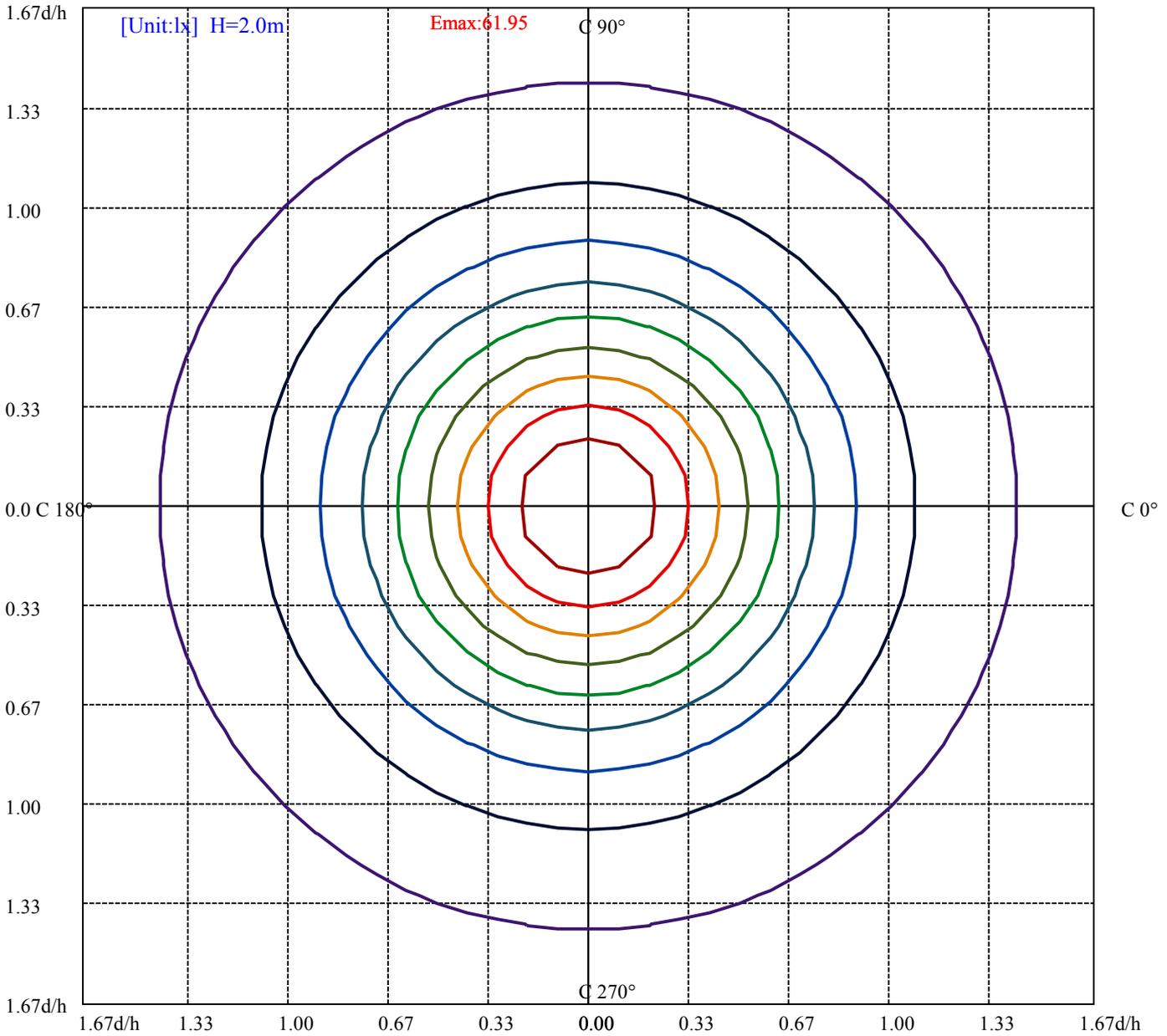
:C90/270Left:80.5 Right:80.5

Beam Angle(50%Imax):C0/180Left:55.8 Right:55.8

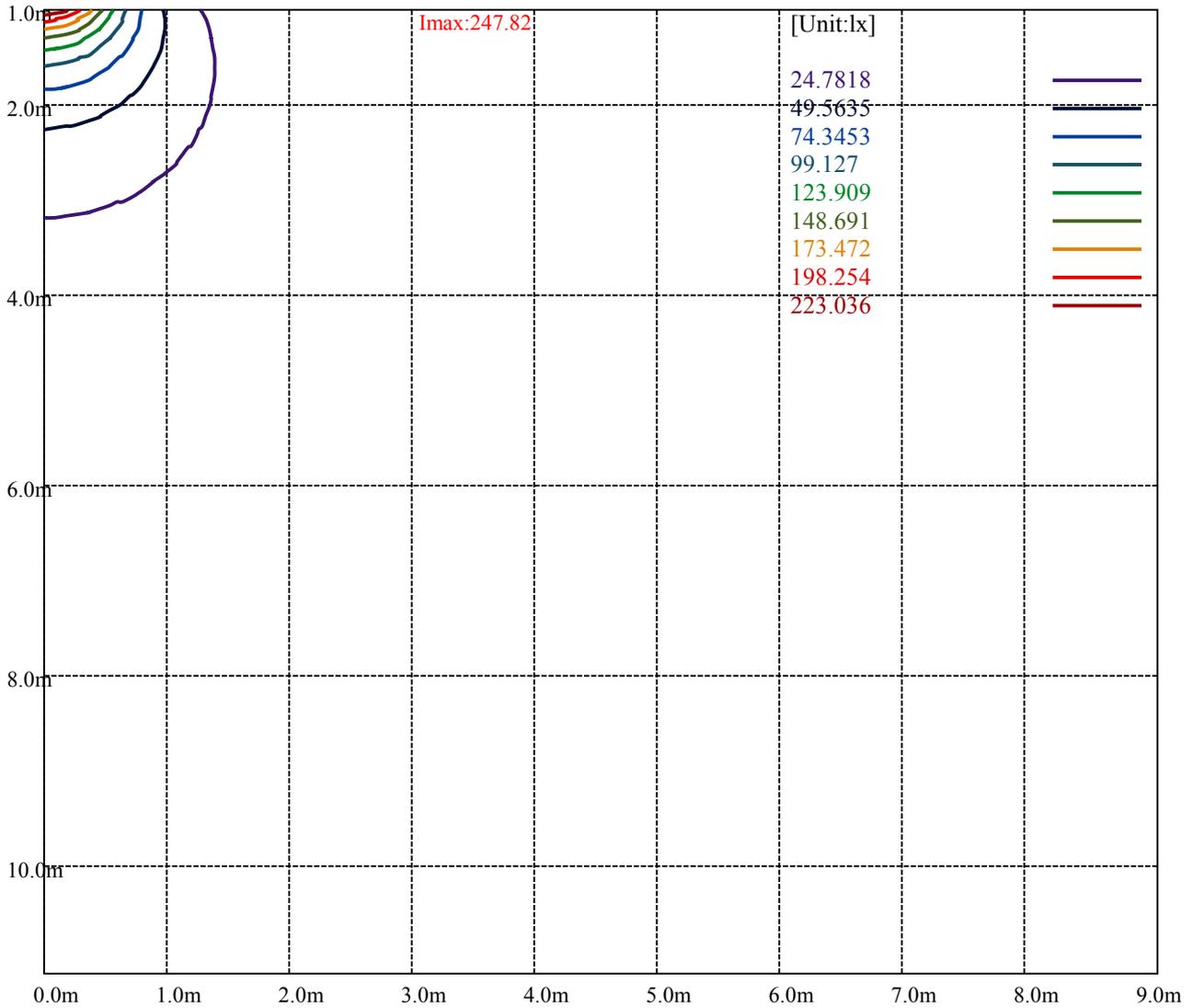
:C90/270Left:56.0 Right:56.0



Max , Ave Beam angle of C0 plane 112.11



(10%Emax) 6.195425	—
(20%Emax) 12.39087	—
(30%Emax) 18.5863	—
(40%Emax) 24.78175	—
(50%Emax) 30.97725	—
(60%Emax) 37.1725	—
(70%Emax) 43.368	—
(80%Emax) 49.5635	—
(90%Emax) 55.759	—



Luminance Table

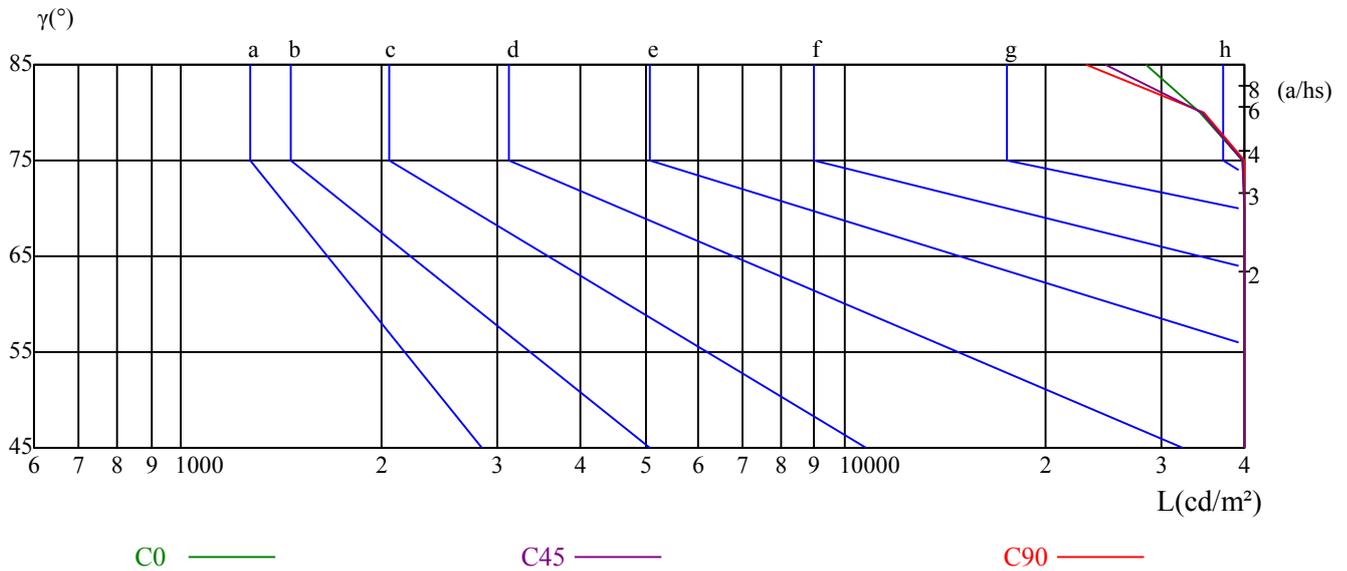
γ	45	50	55	60	65	70	75	80	85
C0	52559	51651	50108	48562	46198	43465	39824	34244	28428
C45	53406	51659	50558	48782	46574	43492	39863	34611	24710
C90	53028	51923	50476	48856	46147	44088	40395	34735	23068

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
46198	46147	46574	39824	40395	39863	28428	23068	24710

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve



RHOCC	80			70			50			30			10			0
RHOW	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR	COEFFICIENTS OF UTILIZATION RHOFC=20 CU															
0	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.04	1.00	0.96	1.02	0.98	0.94	0.97	0.94	0.91	0.93	0.91	0.88	0.90	0.88	0.86	0.84
2	0.91	0.84	0.78	0.89	0.82	0.77	0.85	0.80	0.75	0.82	0.77	0.73	0.79	0.75	0.72	0.70
3	0.79	0.71	0.65	0.78	0.70	0.64	0.75	0.68	0.63	0.72	0.67	0.62	0.70	0.65	0.61	0.59
4	0.70	0.62	0.55	0.69	0.61	0.54	0.67	0.59	0.54	0.64	0.58	0.53	0.62	0.57	0.52	0.50
5	0.63	0.54	0.47	0.62	0.53	0.47	0.60	0.52	0.46	0.58	0.51	0.46	0.56	0.50	0.45	0.43
6	0.57	0.48	0.41	0.56	0.47	0.41	0.54	0.46	0.41	0.52	0.45	0.40	0.50	0.44	0.40	0.38
7	0.51	0.42	0.36	0.50	0.42	0.36	0.49	0.41	0.36	0.47	0.41	0.36	0.46	0.40	0.35	0.33
8	0.47	0.38	0.32	0.46	0.38	0.32	0.45	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.30
9	0.43	0.35	0.29	0.42	0.34	0.29	0.41	0.34	0.29	0.40	0.33	0.29	0.39	0.33	0.29	0.27
10	0.40	0.32	0.26	0.39	0.31	0.26	0.38	0.31	0.26	0.37	0.31	0.26	0.36	0.30	0.26	0.24

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Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	247.82	246.94	244.31	241.69	234.68	227.68	218.04	205.78	192.65
15.0	247.82	248.70	246.05	243.41	237.23	230.18	220.48	207.25	194.02
30.0	247.82	247.82	247.82	244.28	237.20	231.00	220.38	207.99	194.71
45.0	247.82	247.82	247.82	243.39	238.08	231.00	220.38	208.87	194.71
60.0	247.82	248.71	247.82	244.26	238.05	230.94	220.28	208.74	195.41
75.0	247.82	249.60	248.71	244.25	238.01	230.88	221.07	208.59	195.22
90.0	247.82	247.82	246.93	243.38	237.16	230.05	219.39	207.85	192.75
105.0	247.82	247.82	245.16	242.51	235.43	227.46	217.73	204.45	191.17
120.0	247.82	247.82	246.05	241.62	235.43	227.46	216.84	203.56	189.40
135.0	247.82	247.82	245.16	240.74	233.66	225.69	215.07	200.91	187.63
150.0	247.82	246.93	245.16	240.74	233.66	225.69	213.30	200.91	185.86
165.0	247.82	247.82	245.16	240.74	232.77	223.04	213.30	199.14	184.98
180.0	247.82	244.31	239.94	232.93	224.17	213.67	201.41	186.52	169.88
195.0	247.82	244.29	240.76	231.94	224.89	213.42	201.08	186.08	169.33
210.0	247.82	245.16	240.74	232.77	223.92	213.30	200.91	185.86	169.05
225.0	247.82	245.16	239.85	232.77	223.04	212.42	200.02	185.86	169.05
240.0	247.82	246.04	240.71	233.61	223.84	213.18	200.74	185.64	169.65
255.0	247.82	246.03	241.58	234.45	224.64	215.73	202.35	187.20	170.26
270.0	247.82	245.15	240.71	233.61	224.72	214.95	202.52	187.42	172.32
285.0	247.82	246.05	240.74	233.66	225.69	215.07	203.56	189.40	172.59
300.0	247.82	245.16	241.62	234.54	226.58	215.96	204.45	189.40	174.36
315.0	247.82	246.05	242.51	235.43	227.46	216.84	205.33	191.17	176.13
330.0	247.82	245.16	242.51	236.31	229.23	218.61	212.42	192.94	177.90
345.0	247.82	246.05	242.51	237.20	229.23	219.50	207.99	193.83	179.67
360.0	247.82	246.94	244.31	241.69	234.68	227.68	218.04	205.78	192.65
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	176.89	160.25	140.98	121.72	102.45	81.44	61.30	40.28	21.89
15.0	179.03	161.39	143.75	123.47	104.07	82.02	61.73	40.57	21.17
30.0	179.67	162.85	144.27	123.91	103.55	82.31	61.95	40.71	22.13
45.0	179.67	161.97	144.27	123.91	103.55	81.43	60.18	39.83	21.24
60.0	179.42	161.66	143.01	123.46	102.15	80.83	58.62	39.08	18.65
75.0	179.18	161.35	142.63	122.13	100.73	80.23	57.94	37.44	17.83
90.0	176.76	158.99	140.34	119.91	98.59	78.16	55.96	35.53	15.99
105.0	174.36	155.77	138.07	117.71	96.47	74.35	53.99	33.63	14.16
120.0	173.47	154.89	135.41	115.06	95.59	72.58	52.22	30.98	13.28
135.0	169.93	152.23	133.64	113.29	92.93	70.81	50.45	30.09	11.51
150.0	169.05	151.35	132.76	112.40	91.16	69.03	48.68	28.32	10.62
165.0	168.16	150.46	130.10	110.63	89.39	68.15	46.91	27.44	9.74
180.0	151.49	133.10	112.96	92.82	70.05	49.91	29.77	12.26	0.00
195.0	151.69	133.17	112.00	91.72	70.55	50.27	29.99	12.35	0.00
210.0	151.35	132.76	112.40	92.05	70.81	50.45	30.09	12.39	0.00
225.0	151.35	131.87	112.40	92.05	70.81	50.45	30.98	13.28	0.00
240.0	152.78	133.24	113.69	93.26	71.95	52.41	32.86	15.10	0.89
255.0	153.33	134.61	114.10	94.49	73.10	53.49	32.98	16.05	0.89
270.0	154.55	135.90	115.47	95.93	73.72	55.07	36.42	17.76	1.78
285.0	154.89	136.30	118.60	97.36	77.89	57.53	46.02	18.59	2.66
300.0	157.54	138.95	120.37	108.86	79.66	58.41	38.94	21.24	3.54
315.0	166.39	140.72	122.14	101.78	80.54	60.18	40.71	23.01	5.31
330.0	161.08	141.61	123.02	103.55	83.20	62.84	42.48	23.90	6.20
345.0	162.85	144.27	124.79	105.32	84.08	63.72	42.48	24.78	6.20
360.0	176.89	160.25	140.98	121.72	102.45	81.44	61.30	40.28	21.89

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Appendix Page: 11 Total:12

Intensity data(cd)

C/ γ ($^{\circ}$)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
15.0	3.53	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	3.54	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	2.66	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
75.0	0.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
90.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
135.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
360.0	4.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
C/ γ ($^{\circ}$)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88
15.0	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88
30.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
60.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
75.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
90.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
105.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
120.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
135.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
165.0	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89	0.89
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89	0.89
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.89	0.89
360.0	0.00	0.00	0.00	0.00	0.00	0.88	0.88	0.88	0.88

Intensity data(cd)

C/ γ ($^{\circ}$)	180.0
0.0	0.88
15.0	0.88
30.0	0.89
45.0	0.89
60.0	0.89
75.0	0.89
90.0	0.89
105.0	0.89
120.0	0.89
135.0	0.89
150.0	0.89
165.0	0.89
180.0	0.00
195.0	0.00
210.0	0.00
225.0	0.00
240.0	0.00
255.0	0.00
270.0	0.00
285.0	0.00
300.0	0.00
315.0	0.00
330.0	0.00
345.0	0.00
360.0	0.88