
弗格斯莱

Client:

LumCAT: KNOF18LAJUDBK

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.050

LampCAT:

Current(A): 0.286

Lamp flux(lm): 1590.1

Power (W): 34.220

Number of Lamps: 1

PF: 0.995

Length(mm): 400

Width(mm): 400

Phm Type: C

Height(mm): 90

Photometric Results

Lumens(lm): 1590.10, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 46.47

Central intensity(cd): 1.821, Maximum intensity(cd): 202.178

Angle of maximum intensity: C=30.0 γ =105.0

Beam Angle(50%Imax): [C0/180]Total=288.5

[C90/270]Total=282.1

Field angle(10%Imax): [C0/180]Total=335.7

[C90/270]Total=334.0

Maximum s/h(1/2): C0_180=11.14 C90_270=154.82

Maximum s/h(1/4): C0_180=10.95 C90_270=112.94

Up flux rate of lamp(%): 50.55%

Down flux rate of lamp(%): 49.45%

Up flux rate of LUM(%): 50.55%

Down flux rate of LUM(%): 49.45%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 17.413%

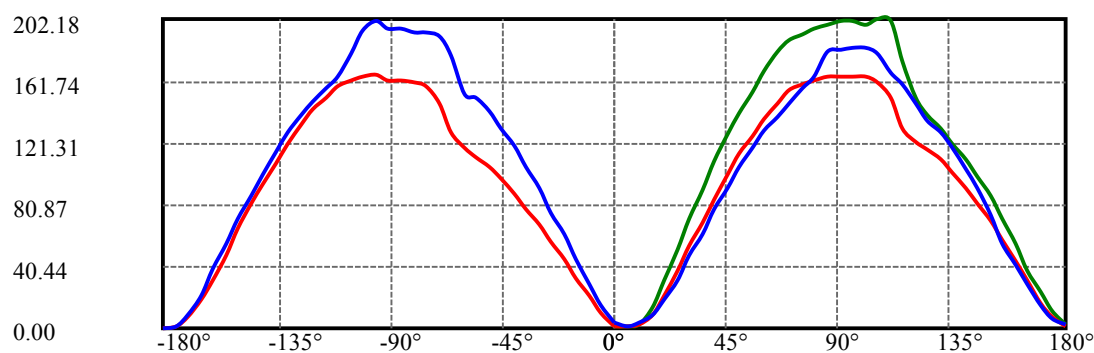
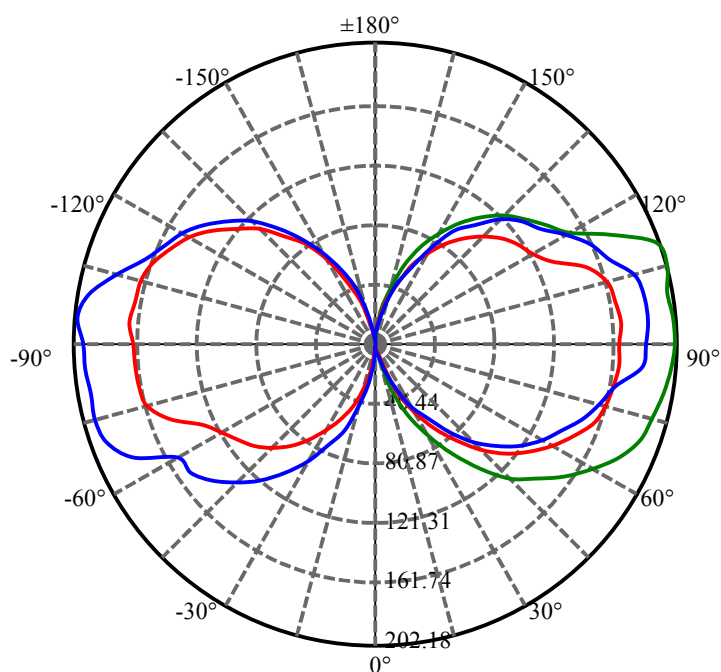
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2.277	0.000	0	0.00%	0.00%
5.0	5.578	0.094	0.094	0.01%	0.01%
10.0	12.940	0.662	0.756	0.04%	0.05%
15.0	23.641	2.170	2.926	0.14%	0.18%
20.0	36.846	4.985	7.911	0.31%	0.50%
25.0	51.228	9.237	17.148	0.58%	1.08%
30.0	65.685	14.795	31.944	0.93%	2.01%
35.0	79.422	21.368	53.312	1.34%	3.35%
40.0	92.399	28.667	81.979	1.80%	5.16%
45.0	105.301	36.606	118.585	2.30%	7.46%
50.0	116.457	44.810	163.394	2.82%	10.28%
55.0	126.399	52.805	216.199	3.32%	13.60%
60.0	136.151	60.688	276.887	3.82%	17.41%
65.0	146.814	68.789	345.677	4.33%	21.74%
70.0	156.301	76.751	422.427	4.83%	26.57%
75.0	165.029	83.990	506.418	5.28%	31.85%
80.0	171.441	90.030	596.448	5.66%	37.51%
85.0	174.629	94.036	690.483	5.91%	43.42%
90.0	175.426	95.848	786.331	6.03%	49.45%
95.0	174.591	95.837	882.168	6.03%	55.48%
100.0	172.314	94.262	976.431	5.93%	61.41%
105.0	167.457	90.913	1067.344	5.72%	67.12%
110.0	159.716	85.518	1152.862	5.38%	72.50%
115.0	148.977	78.163	1231.025	4.92%	77.42%
120.0	139.642	70.164	1301.189	4.41%	81.83%
125.0	129.814	62.284	1363.473	3.92%	85.75%
130.0	120.328	54.389	1417.863	3.42%	89.17%
135.0	109.323	46.404	1464.267	2.92%	92.09%
140.0	97.446	38.285	1502.552	2.41%	94.49%
145.0	83.975	30.269	1532.821	1.90%	96.40%
150.0	70.315	22.720	1555.541	1.43%	97.83%
155.0	55.478	15.919	1571.46	1.00%	98.83%
160.0	40.792	10.097	1581.557	0.63%	99.46%
165.0	25.538	5.467	1587.024	0.34%	99.81%
170.0	13.471	2.314	1589.338	0.15%	99.95%
175.0	5.540	0.680	1590.018	0.04%	99.99%
180.0	1.404	0.083	1590.101	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	31.94	2.01%	2.01%
0-40	81.98	5.16%	5.16%
0-60	276.89	17.41%	17.41%
0-90	786.33	49.45%	49.45%
0-120	1301.19	81.83%	81.83%
0-180	1590.10	100.00%	100.00%
60-90	509.44	32.04%	32.04%
90-120	514.86	32.38%	32.38%
90-130	631.53	39.72%	39.72%
90-150	769.21	48.37%	48.37%
90-180	803.69	50.54%	50.54%
0-117.93	1272.08	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	0.76
10-20	7.15
20-30	24.03
30-40	50.04
40-50	81.42
50-60	113.49
60-70	145.54
70-80	174.02
80-90	189.88
90-100	190.10
100-110	176.43
110-120	148.33
120-130	116.67
130-140	84.69
140-150	52.99
150-160	26.02
160-170	7.78
170-180	0.68



C30(Max): —————

C0/C180: —————

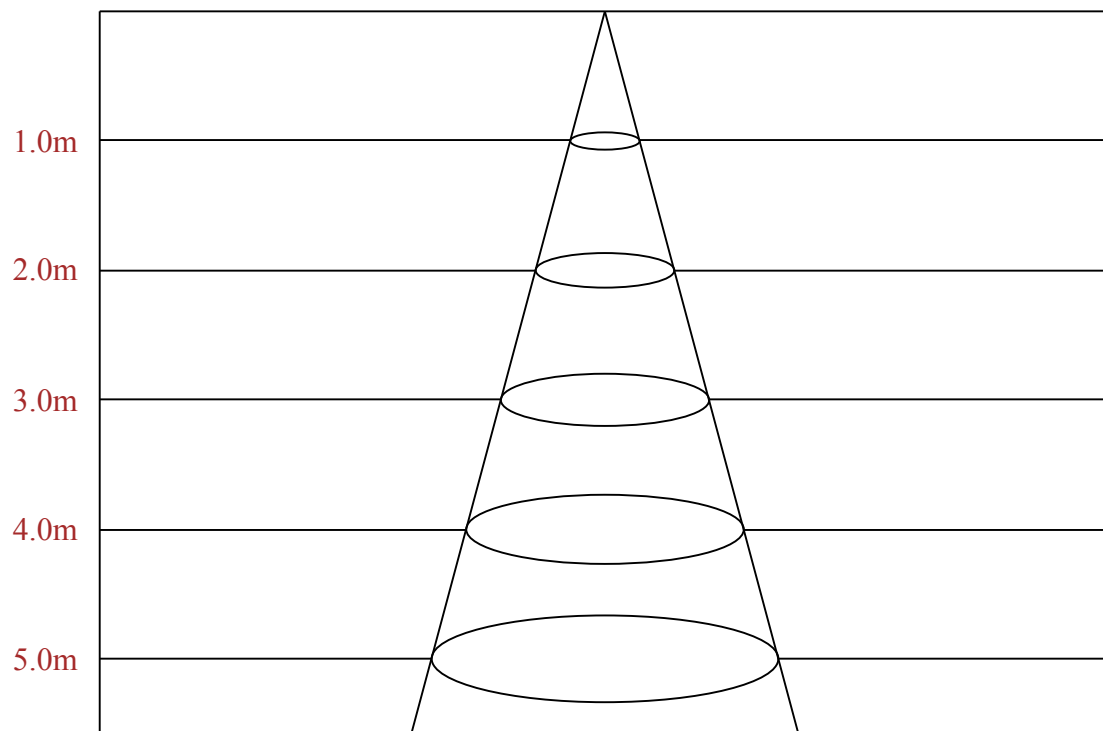
C90/C270: —————

Field angle(10%Imax):C0/180Left:70.8 Right:264.9

:C90/270Left:70.7 Right:263.3

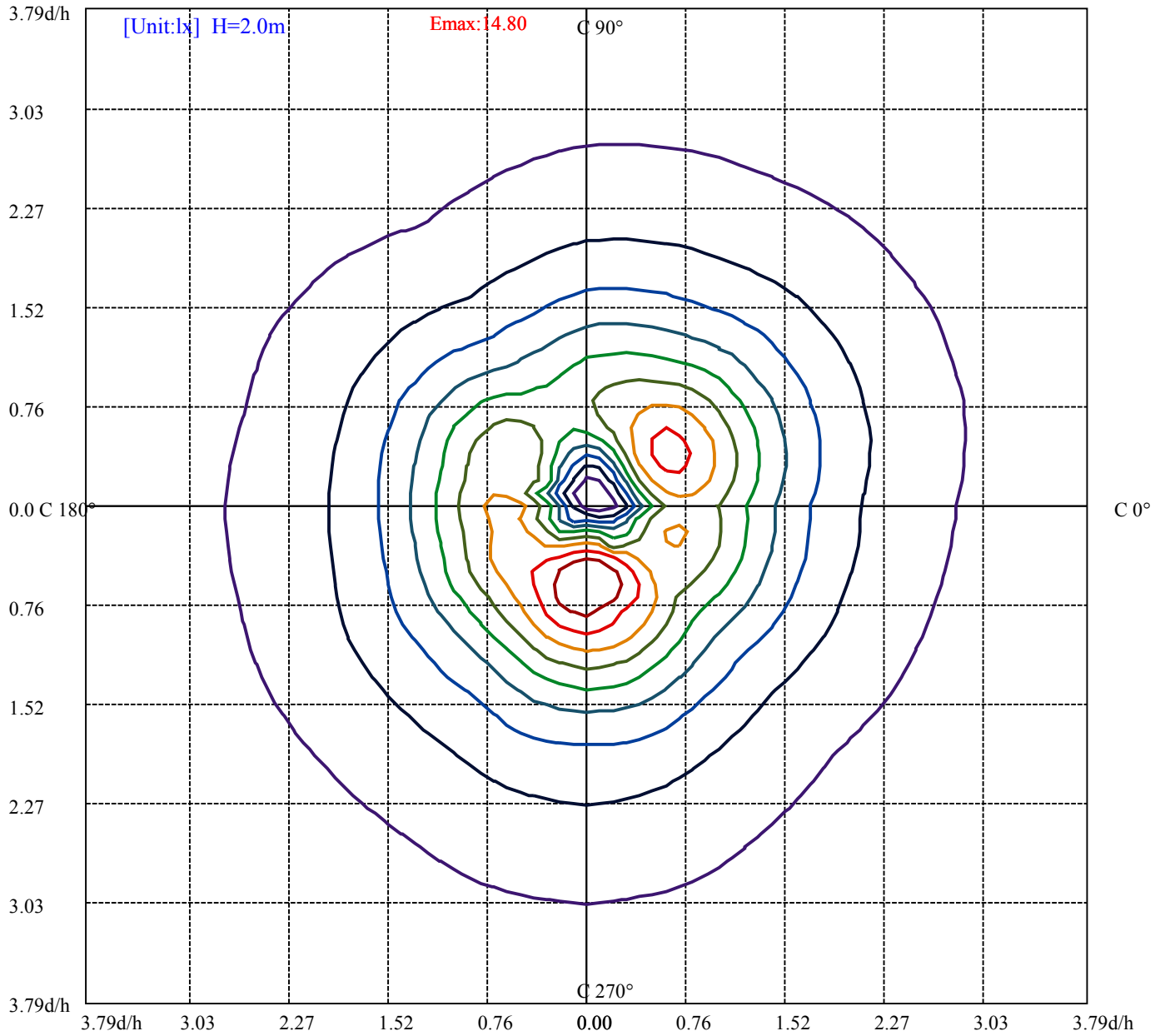
Beam Angle(50%Imax):C0/180Left:49.3 Right:239.2

:C90/270Left:45.3 Right:236.8

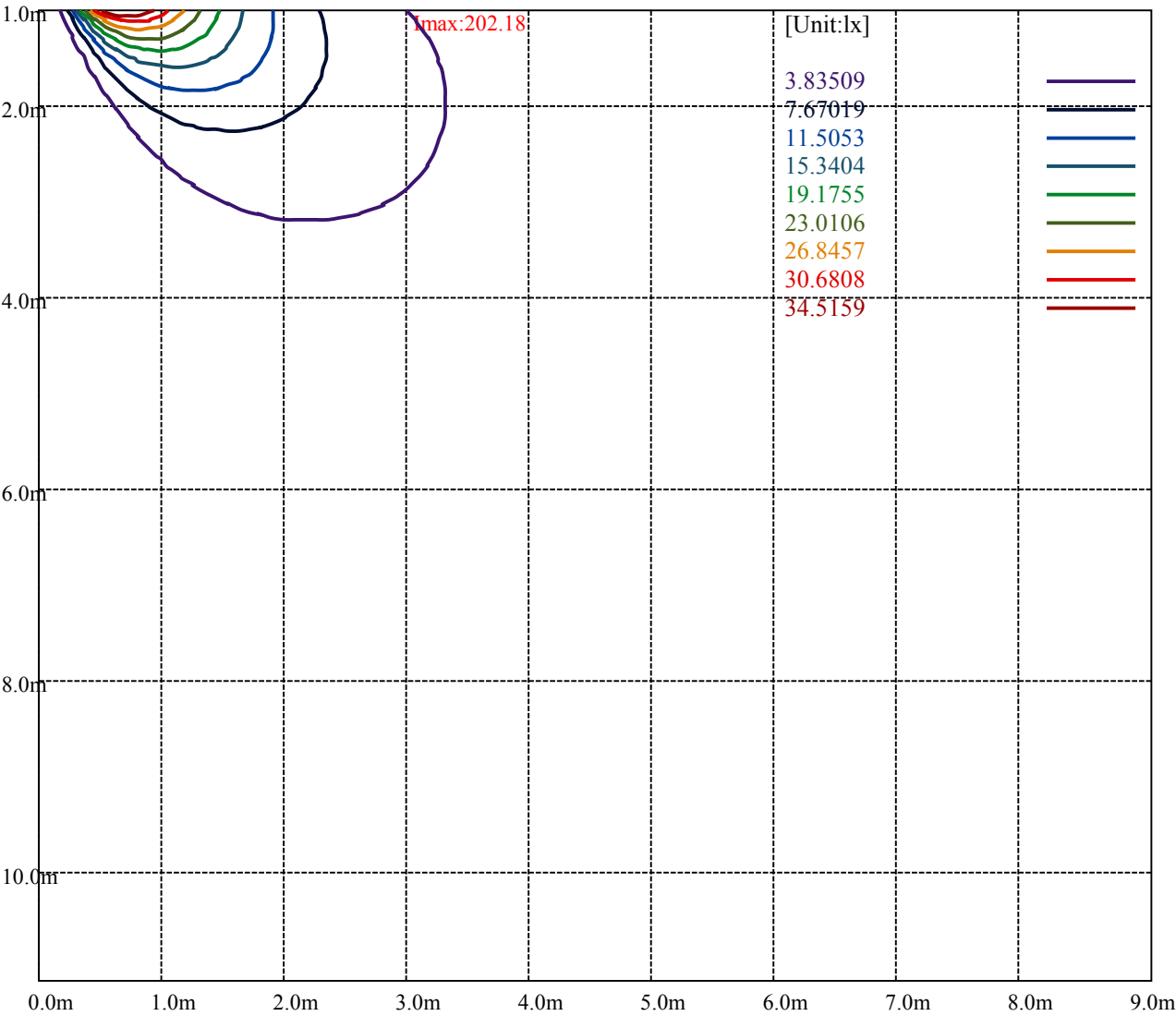


Max , Ave

Beam angle of C30 plane 348.89



(10%Emax) 1.479802	—
(20%Emax) 2.9596	—
(30%Emax) 4.4394	—
(40%Emax) 5.9192	—
(50%Emax) 7.399	—
(60%Emax) 8.8788	—
(70%Emax) 10.3586	—
(80%Emax) 11.8384	—
(90%Emax) 13.31822	—



Luminance Table

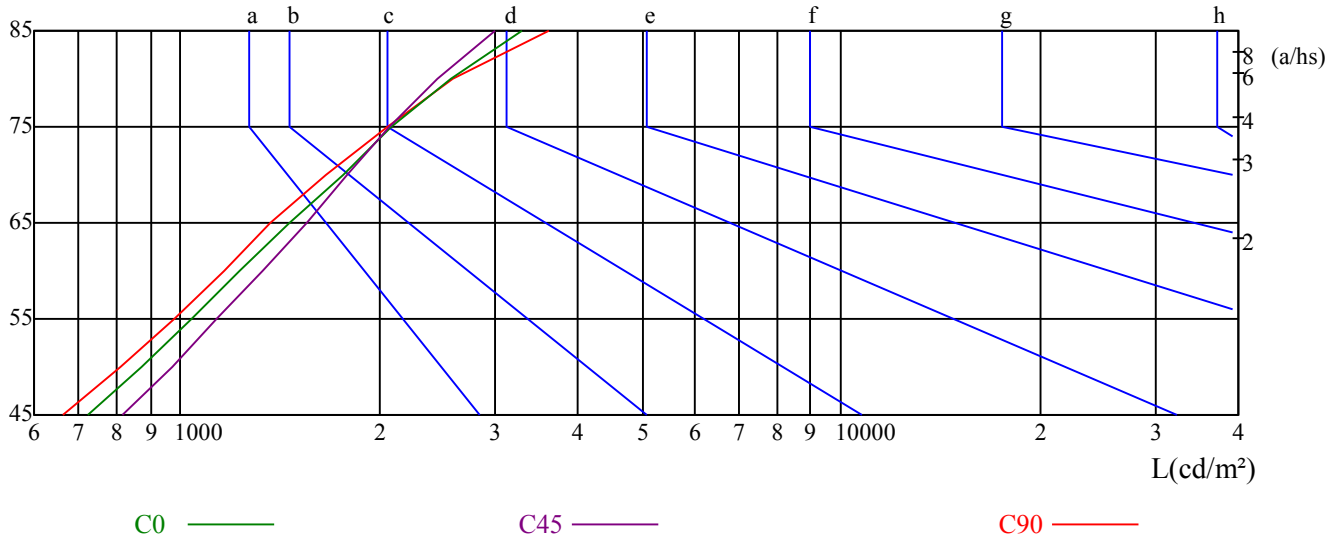
γ	45	50	55	60	65	70	75	80	85
C0	723	873	1036	1229	1463	1759	2092	2563	3291
C45	818	969	1133	1328	1553	1794	2071	2443	3000
C90	664	810	976	1163	1372	1666	2056	2592	3620

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2027	2337	2155	3838	4233	3948	11690	13486	12490

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

 $\gamma(^{\circ})$ 

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	1.07	1.07	1.07	0.99	0.99	0.99	0.83	0.83	0.83	0.69	0.69	0.69	0.56	0.56	0.56	0.49
1	0.85	0.78	0.73	0.77	0.72	0.67	0.64	0.59	0.55	0.51	0.48	0.45	0.39	0.37	0.35	0.29
2	0.71	0.62	0.55	0.64	0.57	0.50	0.52	0.46	0.41	0.41	0.37	0.33	0.31	0.28	0.25	0.20
3	0.60	0.50	0.43	0.55	0.46	0.39	0.44	0.38	0.32	0.35	0.30	0.25	0.26	0.22	0.19	0.14
4	0.52	0.42	0.35	0.47	0.38	0.32	0.38	0.31	0.26	0.30	0.24	0.20	0.22	0.18	0.14	0.10
5	0.45	0.36	0.28	0.41	0.33	0.26	0.33	0.26	0.21	0.26	0.21	0.16	0.19	0.15	0.12	0.08
6	0.40	0.31	0.24	0.37	0.28	0.22	0.30	0.23	0.18	0.23	0.18	0.13	0.17	0.13	0.09	0.06
7	0.36	0.27	0.20	0.33	0.24	0.18	0.26	0.20	0.15	0.21	0.15	0.11	0.15	0.11	0.08	0.05
8	0.32	0.23	0.17	0.29	0.21	0.16	0.24	0.17	0.13	0.19	0.14	0.10	0.14	0.10	0.07	0.04
9	0.29	0.21	0.15	0.27	0.19	0.14	0.22	0.15	0.11	0.17	0.12	0.08	0.13	0.09	0.06	0.03
10	0.27	0.19	0.13	0.24	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.07	0.12	0.08	0.05	0.03

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Intensity data(cd)										Appendix Page: 10 Total:12	
C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0		
0.0	1.82	0.91	2.73	8.20	20.95	37.34	53.73	69.21	84.70		
15.0	1.82	0.91	2.73	11.84	28.23	46.45	65.57	83.79	101.09		
30.0	1.82	0.91	2.73	13.66	30.96	51.91	71.04	90.16	109.29		
45.0	2.73	0.91	2.73	12.75	30.05	49.18	69.21	86.52	105.64		
60.0	2.73	0.91	2.73	10.02	25.50	40.98	59.20	75.59	91.98		
75.0	3.64	0.91	2.73	8.20	19.12	34.61	51.91	67.39	83.79		
90.0	3.64	0.91	3.64	9.11	19.12	31.87	47.36	61.93	77.41		
105.0	2.73	0.91	5.46	13.66	23.68	32.79	43.71	56.46	68.30		
120.0	2.73	0.91	8.20	18.21	28.23	40.07	51.91	62.84	72.86		
135.0	0.91	1.82	9.11	20.95	32.79	46.45	59.20	71.95	83.79		
150.0	1.82	0.91	10.02	21.86	45.54	49.18	61.93	75.59	87.43		
165.0	0.91	1.82	9.11	20.95	32.79	46.45	59.20	71.95	85.61		
180.0	1.82	10.02	20.95	32.79	44.62	56.46	67.39	78.32	88.34		
195.0	1.82	8.20	18.21	29.14	40.98	52.82	64.66	76.50	86.52		
210.0	1.82	8.20	19.12	30.96	43.71	56.46	68.30	80.14	91.98		
225.0	2.73	9.11	20.04	31.87	44.62	58.29	71.04	82.87	92.89		
240.0	2.73	11.84	23.68	37.34	51.00	63.75	77.41	88.34	99.27		
255.0	3.64	14.57	27.32	42.80	58.29	73.77	88.34	101.09	113.84		
270.0	3.64	14.57	29.14	44.62	61.02	75.59	91.07	105.64	119.30		
285.0	2.73	14.57	27.32	42.80	59.20	74.68	89.25	102.91	105.64		
300.0	2.73	11.84	23.68	37.34	39.16	65.57	78.32	91.07	102.00		
315.0	0.91	9.11	18.21	28.23	40.07	51.00	62.84	73.77	85.61		
330.0	1.82	5.46	12.75	20.95	31.87	45.54	61.02	74.68	89.25		
345.0	0.91	3.64	8.20	19.12	32.79	48.27	62.84	77.41	91.07		
360.0	1.82	0.91	2.73	8.20	20.95	37.34	53.73	69.21	84.70		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	100.18	113.84	125.68	136.61	146.62	155.73	159.37	162.11	163.93		
15.0	117.48	132.96	146.62	159.37	170.30	179.41	183.05	186.70	187.61		
30.0	126.59	140.25	154.82	168.48	180.32	188.52	192.16	195.80	198.54		
45.0	122.04	137.52	151.18	164.84	176.68	183.96	187.61	190.34	193.98		
60.0	108.37	122.04	135.70	146.62	157.55	166.66	168.48	169.39	173.95		
75.0	98.36	112.93	125.68	137.52	146.62	156.64	160.29	163.93	173.95		
90.0	91.98	105.64	118.39	129.32	137.52	147.54	156.64	163.93	180.32		
105.0	81.96	93.80	103.82	112.93	120.21	131.14	144.80	165.75	170.30		
120.0	82.87	91.07	98.36	104.73	108.37	114.75	133.87	153.91	157.55		
135.0	93.80	103.82	112.02	119.30	123.86	135.70	159.37	173.04	177.59		
150.0	99.27	109.29	118.39	125.68	132.05	145.71	173.95	183.05	182.14		
165.0	95.62	104.73	113.84	122.04	128.41	140.25	164.84	177.59	174.86		
180.0	97.45	105.64	112.02	118.39	127.50	146.62	158.46	161.20	162.11		
195.0	96.54	104.73	112.02	120.21	133.87	145.71	161.20	164.84	165.75		
210.0	102.00	111.11	118.39	131.14	146.62	153.91	158.46	173.95	173.95		
225.0	102.91	111.11	118.39	132.05	148.45	155.73	159.37	165.75	168.48		
240.0	109.29	117.48	123.86	134.79	152.09	163.02	166.66	165.75	167.57		
255.0	123.86	133.87	141.16	153.00	171.21	183.96	185.79	185.79	188.52		
270.0	131.14	142.07	151.18	153.00	178.50	191.25	193.98	193.07	195.80		
285.0	127.50	137.52	147.54	156.64	168.48	183.96	183.96	185.79	187.61		
300.0	113.84	122.95	132.05	140.25	147.54	154.82	162.11	164.84	165.75		
315.0	97.45	108.37	119.30	127.50	133.87	135.70	147.54	154.82	156.64		
330.0	102.00	114.75	125.68	135.70	142.07	143.89	147.54	161.20	164.84		
345.0	104.73	117.48	127.50	137.52	144.80	146.62	151.18	152.09	159.37		
360.0	100.18	113.84	125.68	136.61	146.62	155.73	159.37	162.11	163.93		

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Intensity data(cd)									Appendix Page: 11 Total:12
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	163.93	164.84	163.93	161.20	150.27	130.23	122.04	116.57	110.20
15.0	189.43	189.43	187.61	188.52	184.87	156.64	141.16	132.96	125.68
30.0	200.36	200.36	198.54	202.18	200.36	173.95	150.27	139.34	131.14
45.0	195.80	195.80	196.71	194.89	189.43	167.57	145.71	133.87	126.59
60.0	176.68	176.68	175.77	173.04	167.57	145.71	128.41	119.30	112.02
75.0	177.59	178.50	177.59	173.95	165.75	148.45	134.79	121.12	112.93
90.0	182.14	183.05	183.05	179.41	166.66	159.37	147.54	135.70	127.50
105.0	173.04	182.14	175.77	166.66	162.11	158.46	150.27	140.25	131.14
120.0	159.37	160.29	160.29	160.29	158.46	154.82	150.27	141.16	131.14
135.0	176.68	176.68	176.68	176.68	175.77	172.12	167.57	158.46	148.45
150.0	183.05	183.96	183.96	185.79	183.05	179.41	173.04	163.93	153.91
165.0	176.68	176.68	177.59	179.41	175.77	173.95	167.57	158.46	147.54
180.0	162.11	165.75	163.93	162.11	158.46	151.18	142.98	132.96	121.12
195.0	159.37	160.29	158.46	157.55	153.91	146.62	137.52	126.59	115.66
210.0	174.86	159.37	159.37	158.46	154.82	147.54	137.52	126.59	114.75
225.0	169.39	163.02	152.09	153.00	148.45	140.25	138.43	119.30	107.46
240.0	167.57	165.75	163.93	153.91	147.54	139.34	131.14	122.04	111.11
255.0	187.61	186.70	183.96	172.12	162.11	154.82	146.62	136.61	125.68
270.0	195.80	200.36	194.89	179.41	164.84	156.64	148.45	139.34	128.41
285.0	192.16	189.43	187.61	172.12	153.91	145.71	140.25	131.14	120.21
300.0	165.75	163.93	164.84	147.54	132.05	125.68	121.12	112.93	103.82
315.0	155.73	150.27	150.27	140.25	124.77	114.75	109.29	102.00	93.80
330.0	163.93	157.55	147.54	142.98	128.41	117.48	111.11	103.82	95.62
345.0	161.20	159.37	151.18	137.52	123.86	114.75	108.37	101.09	91.98
360.0	163.93	164.84	163.93	161.20	150.27	130.23	122.04	116.57	110.20
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	102.00	91.98	81.05	70.12	58.29	43.71	30.96	16.39	7.29
15.0	115.66	104.73	93.80	81.05	68.30	51.91	35.52	20.95	10.02
30.0	121.12	111.11	99.27	86.52	71.95	55.55	38.25	23.68	10.93
45.0	117.48	107.46	96.54	83.79	71.04	52.82	38.25	22.77	10.93
60.0	104.73	95.62	86.52	74.68	62.84	49.18	32.79	20.95	9.11
75.0	104.73	93.80	82.87	71.95	58.29	43.71	29.14	17.30	7.29
90.0	117.48	104.73	91.98	74.68	55.55	41.89	29.14	15.48	6.37
105.0	120.21	106.55	90.16	78.32	62.84	43.71	30.05	18.21	7.29
120.0	120.21	108.37	95.62	81.96	67.39	51.91	34.61	21.86	10.93
135.0	136.61	122.95	108.37	92.89	76.50	61.02	40.98	24.59	11.84
150.0	141.16	128.41	114.75	98.36	80.14	63.75	44.62	27.32	12.75
165.0	136.61	123.86	109.29	94.71	78.32	61.93	41.89	25.50	11.84
180.0	108.37	94.71	81.05	65.57	48.27	31.87	18.21	7.29	0.91
195.0	101.09	86.52	71.95	56.46	39.16	34.61	14.57	4.55	0.91
210.0	101.09	97.45	68.30	52.82	36.43	23.68	11.84	3.64	0.91
225.0	93.80	80.14	67.39	54.64	40.98	25.50	12.75	5.46	0.91
240.0	99.27	87.43	74.68	60.11	47.36	32.79	16.39	6.37	0.91
255.0	112.02	99.27	84.70	69.21	53.73	37.34	20.95	7.29	0.91
270.0	115.66	101.09	86.52	71.95	55.55	39.16	21.86	8.20	1.82
285.0	109.29	95.62	82.87	68.30	52.82	36.43	20.04	7.29	1.82
300.0	94.71	82.87	71.04	59.20	45.54	31.87	16.39	5.46	1.82
315.0	82.87	72.86	61.02	48.27	36.43	24.59	12.75	4.55	1.82
330.0	84.70	71.04	59.20	46.45	30.96	20.04	10.02	3.64	1.82
345.0	82.87	70.12	56.46	45.54	32.79	20.04	10.93	4.55	1.82
360.0	102.00	91.98	81.05	70.12	58.29	43.71	30.96	16.39	7.29

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	0.91
15.0	2.73
30.0	2.73
45.0	2.73
60.0	2.73
75.0	2.73
90.0	2.73
105.0	2.73
120.0	2.73
135.0	3.64
150.0	3.64
165.0	3.64
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	0.91