
弗格斯莱

Client:

LumCAT: KNOP48LAJUDLB

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.504

Lamp flux(lm): 2762.0

Power (W): 59.440

Number of Lamps: 1

PF: 0.984

Length(mm): 130

Width(mm): 130

Phm Type: C

Height(mm): 1420

Photometric Results

Lumens(lm): 2762.02, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 46.47

Central intensity(cd): 68.559, Maximum intensity(cd): 323.339

Angle of maximum intensity: C=150.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=289.3

[C90/270]Total=294.5

Field angle(10%Imax): [C0/180]Total=341.4

[C90/270]Total=340.0

Maximum s/h(1/2): C0_180=3.47 C90_270=3.27

Maximum s/h(1/4): C0_180=3.38 C90_270=3.20

Up flux rate of lamp(%): 49.29%

Down flux rate of lamp(%): 50.71%

Up flux rate of LUM(%): 49.29%

Down flux rate of LUM(%): 50.71%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 20.002%

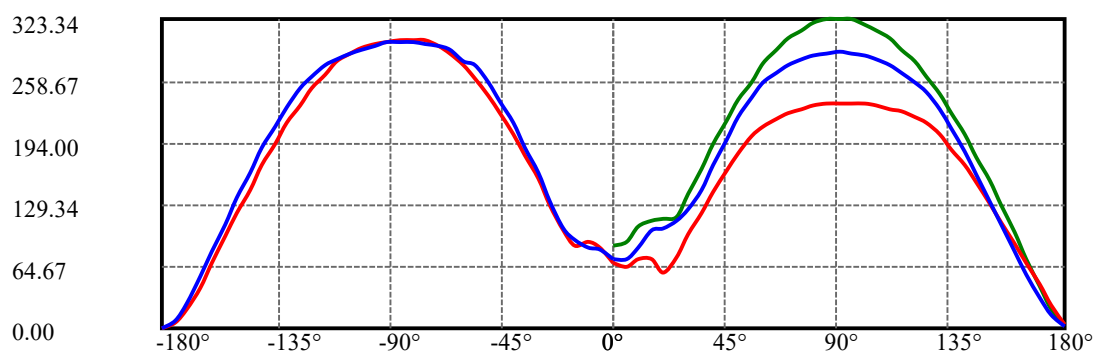
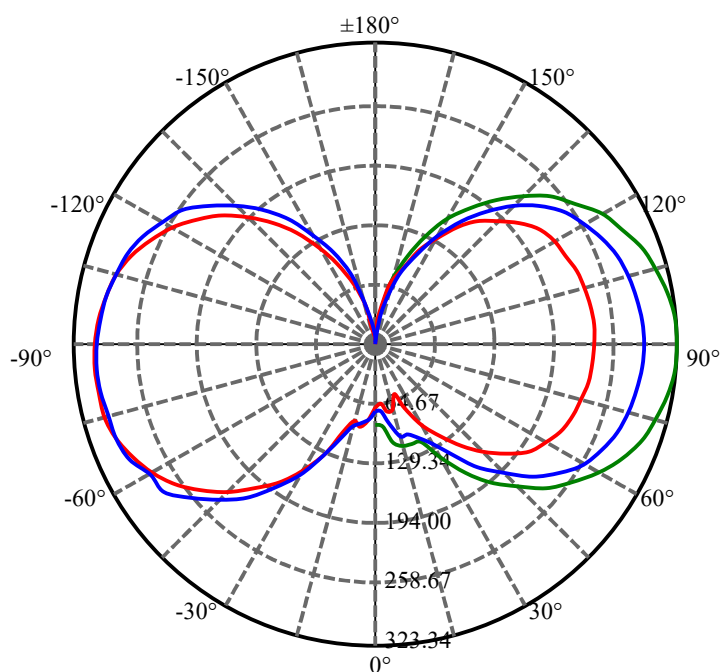
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	73.886	0.000	0	0.00%	0.00%
5.0	78.364	1.820	1.82	0.07%	0.07%
10.0	87.667	5.939	7.76	0.22%	0.28%
15.0	89.327	10.499	18.259	0.38%	0.66%
20.0	91.759	14.924	33.183	0.54%	1.20%
25.0	108.590	21.013	54.196	0.76%	1.96%
30.0	130.826	30.298	84.494	1.10%	3.06%
35.0	155.493	42.162	126.656	1.53%	4.59%
40.0	178.770	55.769	182.426	2.02%	6.60%
45.0	201.508	70.412	252.837	2.55%	9.15%
50.0	221.890	85.554	338.391	3.10%	12.25%
55.0	239.454	100.312	438.703	3.63%	15.88%
60.0	252.695	113.759	552.462	4.12%	20.00%
65.0	261.651	125.039	677.5	4.53%	24.53%
70.0	267.866	134.077	811.577	4.85%	29.38%
75.0	272.267	141.182	952.759	5.11%	34.50%
80.0	275.046	146.446	1099.205	5.30%	39.80%
85.0	276.513	149.872	1249.077	5.43%	45.22%
90.0	276.590	151.444	1400.521	5.48%	50.71%
95.0	275.124	151.064	1551.585	5.47%	56.18%
100.0	272.421	148.781	1700.366	5.39%	61.56%
105.0	268.214	144.659	1845.025	5.24%	66.80%
110.0	262.192	138.639	1983.664	5.02%	71.82%
115.0	254.432	130.812	2114.477	4.74%	76.56%
120.0	245.013	121.416	2235.893	4.40%	80.95%
125.0	232.853	110.457	2346.35	4.00%	84.95%
130.0	216.833	97.777	2444.127	3.54%	88.49%
135.0	197.686	83.760	2527.887	3.03%	91.52%
140.0	177.612	69.490	2597.376	2.52%	94.04%
145.0	154.219	55.364	2652.74	2.00%	96.04%
150.0	130.015	41.855	2694.595	1.52%	97.56%
155.0	105.193	29.766	2724.361	1.08%	98.64%
160.0	80.719	19.499	2743.86	0.71%	99.34%
165.0	55.279	11.208	2755.068	0.41%	99.75%
170.0	31.847	5.168	2760.236	0.19%	99.94%
175.0	12.893	1.601	2761.837	0.06%	99.99%
180.0	2.085	0.179	2762.016	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	84.49	3.06%	3.06%
0-40	182.43	6.60%	6.60%
0-60	552.46	20.00%	20.00%
0-90	1400.52	50.71%	50.71%
0-120	2235.89	80.95%	80.95%
0-180	2762.02	100.00%	100.00%
60-90	848.06	30.70%	30.70%
90-120	835.37	30.24%	30.24%
90-130	1043.61	37.78%	37.78%
90-150	1294.07	46.85%	46.85%
90-180	1361.32	49.29%	49.29%
0-118.92	2209.61	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	7.76
10-20	25.42
20-30	51.31
30-40	97.93
40-50	155.97
50-60	214.07
60-70	259.12
70-80	287.63
80-90	301.32
90-100	299.84
100-110	283.30
110-120	252.23
120-130	208.23
130-140	153.25
140-150	97.22
150-160	49.26
160-170	16.38
170-180	1.60



C150(Max): —————

C0/C180: —————

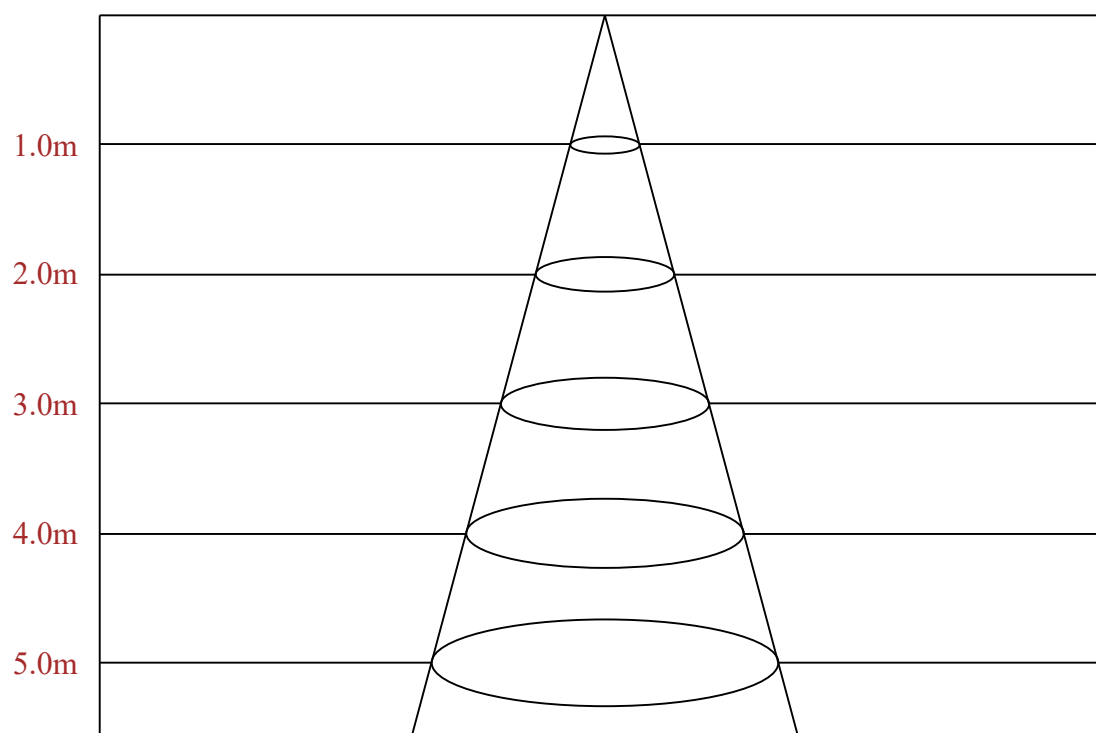
C90/C270: —————

Field angle(10%Imax):C0/180Left:87.7 Right:253.7

:C90/270Left:89.3 Right:250.7

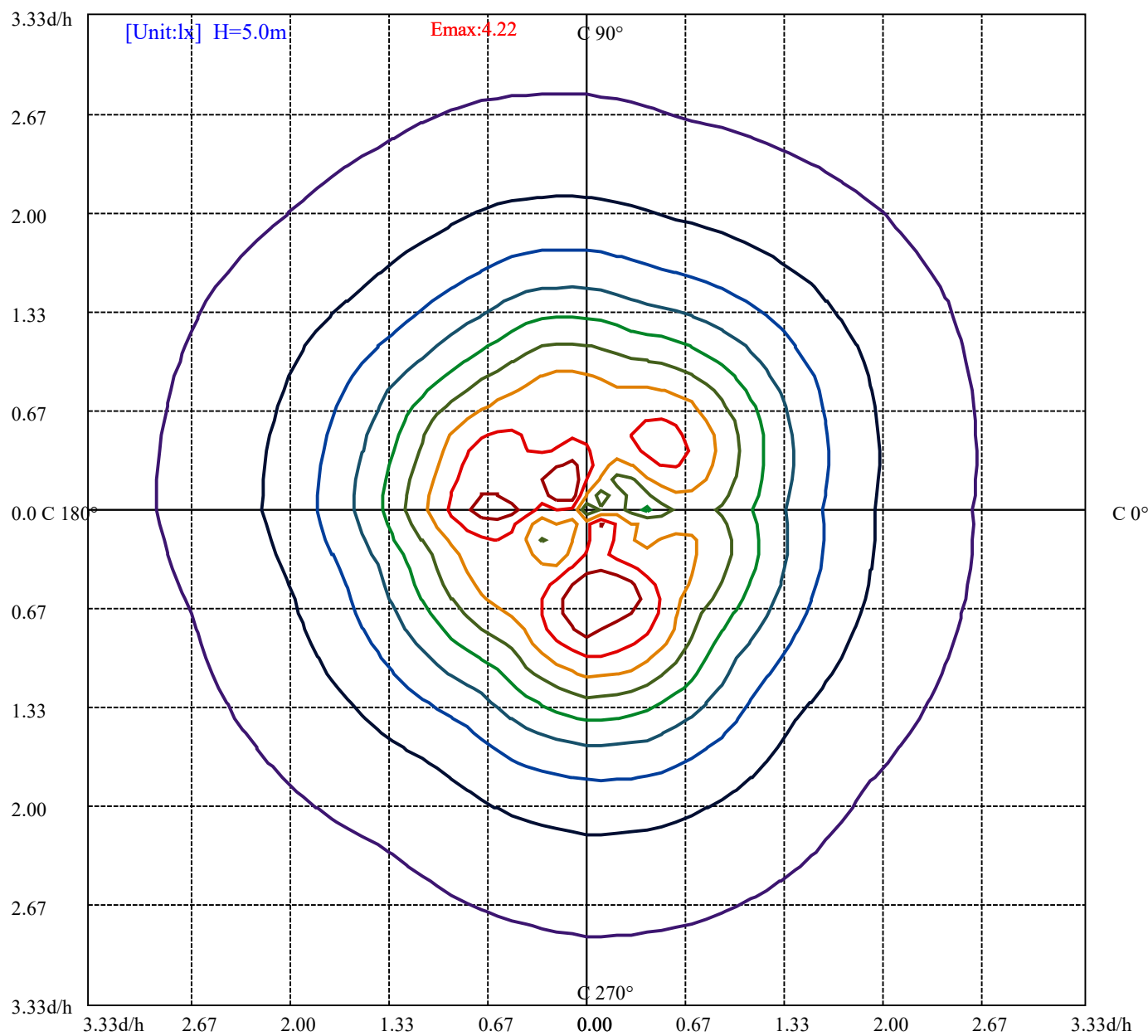
Beam Angle(50%Imax):C0/180Left:63.9 Right:225.4

:C90/270Left:67.5 Right:227.0

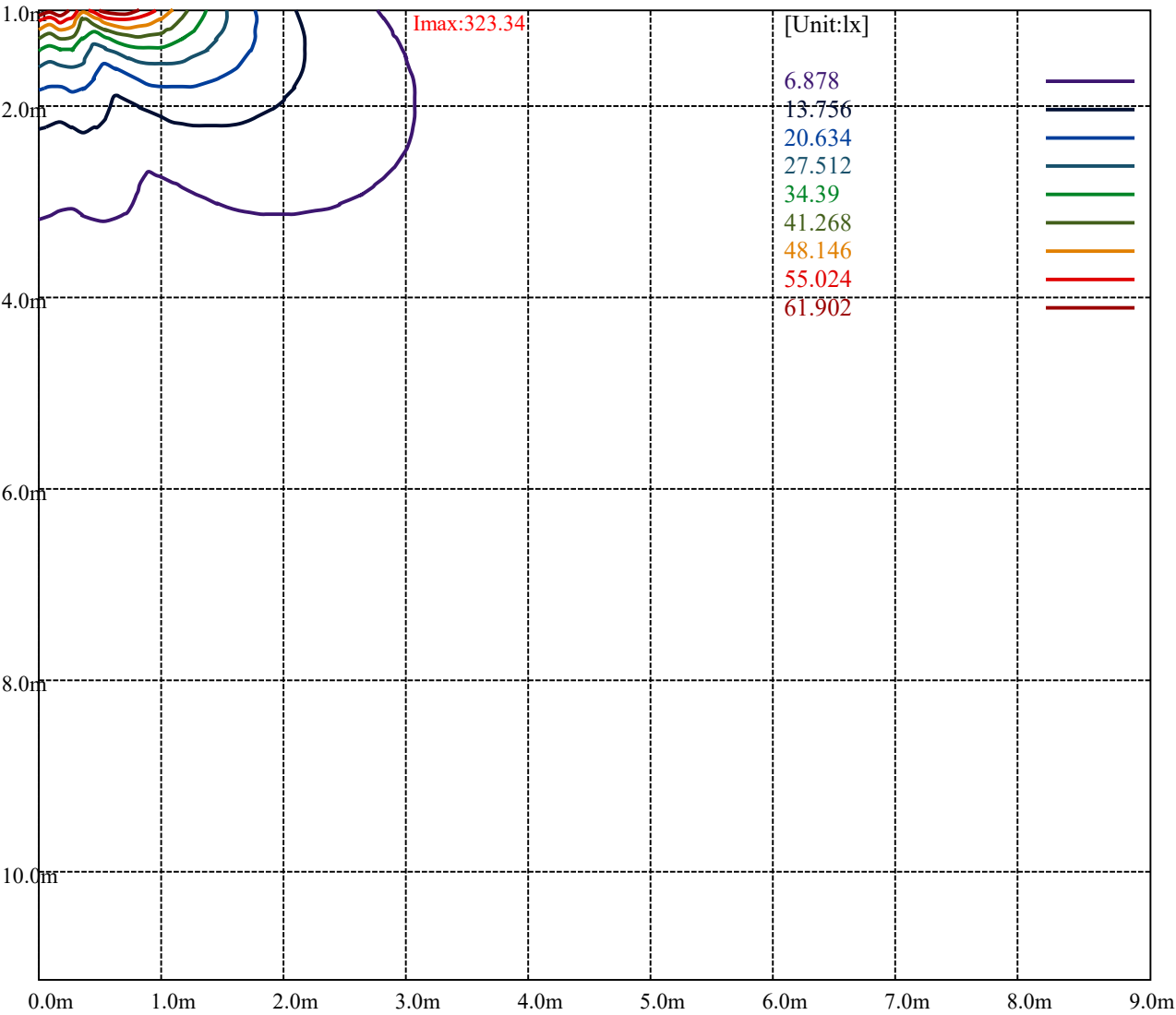


Max , Ave

Beam angle of C150 plane 333.67



(10%Emax) 0.422012	—
(20%Emax) 0.84402	—
(30%Emax) 1.266032	—
(40%Emax) 1.68804	—
(50%Emax) 2.110052	—
(60%Emax) 2.532064	—
(70%Emax) 2.954072	—
(80%Emax) 3.376084	—
(90%Emax) 3.798096	—



Luminance Table

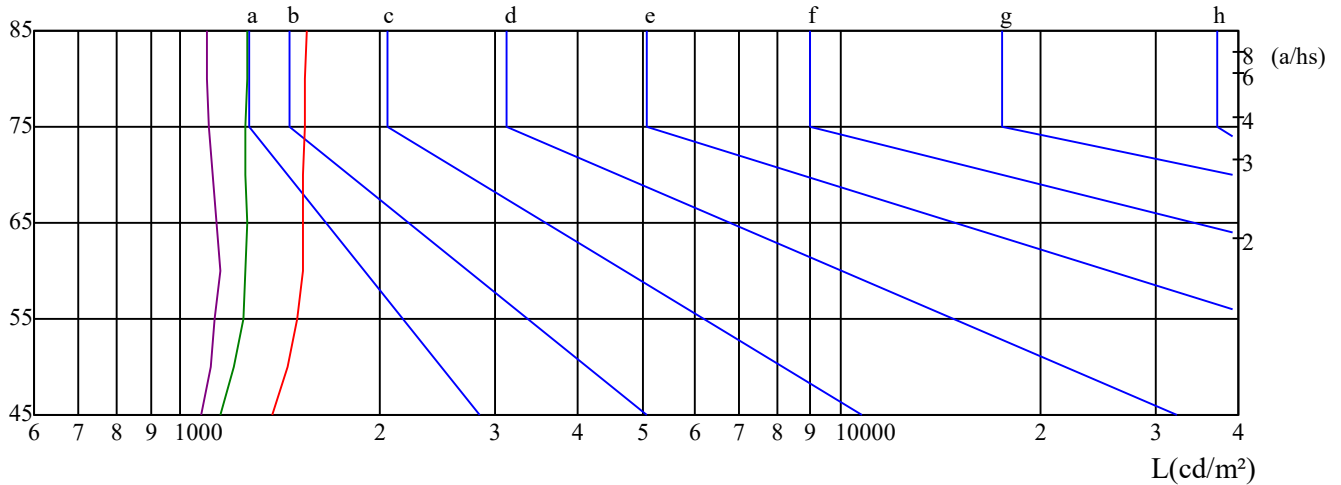
γ	45	50	55	60	65	70	75	80	85
C0	1151	1205	1244	1255	1259	1256	1253	1259	1264
C45	1075	1112	1127	1150	1136	1118	1105	1097	1095
C90	1379	1448	1497	1530	1535	1535	1542	1545	1554

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
35413	39175	36061	60578	66191	61266	182095	199392	184926

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———

RHOC	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	0.84	0.84	0.84	0.70	0.70	0.70	0.57	0.57	0.57	0.51
1	0.86	0.80	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	0.50	0.47	0.41	0.39	0.37	0.31
2	0.72	0.63	0.56	0.65	0.58	0.52	0.54	0.48	0.43	0.43	0.39	0.35	0.33	0.30	0.27	0.22
3	0.61	0.52	0.44	0.56	0.47	0.40	0.46	0.39	0.34	0.36	0.31	0.27	0.28	0.24	0.20	0.16
4	0.53	0.43	0.36	0.48	0.39	0.33	0.39	0.32	0.27	0.31	0.26	0.21	0.24	0.19	0.16	0.12
5	0.46	0.37	0.29	0.42	0.34	0.27	0.35	0.28	0.22	0.27	0.22	0.18	0.21	0.16	0.13	0.09
6	0.41	0.32	0.25	0.37	0.29	0.23	0.31	0.24	0.19	0.24	0.19	0.15	0.18	0.14	0.11	0.08
7	0.37	0.27	0.21	0.33	0.25	0.19	0.27	0.21	0.16	0.22	0.16	0.12	0.16	0.12	0.09	0.06
8	0.33	0.24	0.18	0.30	0.22	0.17	0.25	0.18	0.14	0.20	0.14	0.11	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.20	0.15	0.22	0.16	0.12	0.18	0.13	0.09	0.14	0.10	0.07	0.04
10	0.27	0.19	0.14	0.25	0.18	0.13	0.21	0.15	0.10	0.16	0.12	0.08	0.13	0.09	0.06	0.04

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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	68.56	63.93	73.19	72.26	57.44	74.12	99.13	120.44	142.68		
15.0	67.63	64.85	76.90	74.12	64.85	91.72	116.74	141.75	163.99		
30.0	63.00	60.22	73.19	71.34	72.26	102.84	129.71	158.43	183.44		
45.0	54.66	52.81	65.78	65.78	76.90	105.62	133.41	161.21	187.15		
60.0	62.07	61.15	74.12	77.82	87.09	108.40	129.71	151.94	176.96		
75.0	68.56	68.56	81.53	88.01	94.50	105.62	120.44	138.97	164.91		
90.0	72.26	72.26	85.24	101.91	103.76	112.10	124.15	145.46	171.40		
105.0	81.53	81.53	97.28	113.03	110.25	113.96	124.15	149.16	177.88		
120.0	91.72	92.65	106.54	119.51	111.18	111.18	119.51	147.31	172.32		
135.0	91.72	94.50	111.18	118.59	113.96	114.88	129.71	156.57	180.66		
150.0	87.09	89.87	106.54	112.10	113.96	115.81	140.82	167.69	193.63		
165.0	77.82	80.60	97.28	101.91	101.91	111.18	138.97	167.69	193.63		
180.0	68.56	83.38	90.79	86.16	101.91	128.78	156.57	180.66	202.90		
195.0	67.63	79.68	86.16	78.75	83.38	108.40	130.63	153.79	174.18		
210.0	63.00	73.19	82.46	74.12	75.04	99.13	124.15	149.16	172.32		
225.0	54.66	63.93	75.97	73.19	75.97	98.21	122.29	146.38	171.40		
240.0	62.07	70.41	77.82	75.97	80.60	100.99	123.22	146.38	166.76		
255.0	68.56	78.75	83.38	87.09	97.28	119.51	147.31	172.32	194.56		
270.0	72.26	81.53	85.24	92.65	104.69	132.49	162.13	189.00	214.01		
285.0	81.53	91.72	92.65	96.35	106.54	134.34	162.13	189.00	194.56		
300.0	91.72	100.06	99.13	98.21	99.13	121.37	150.09	176.03	198.26		
315.0	91.72	99.13	98.21	92.65	93.57	101.91	125.07	147.31	168.62		
330.0	87.09	92.65	93.57	87.09	88.01	95.43	115.81	138.97	163.06		
345.0	77.82	83.38	89.87	85.24	88.01	98.21	113.96	136.19	161.21		
360.0	68.56	63.93	73.19	72.26	57.44	74.12	99.13	120.44	142.68		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	163.99	183.44	200.12	211.24	219.57	225.13	228.84	232.54	234.40		
15.0	187.15	205.68	225.13	235.32	242.74	246.44	250.15	251.07	252.00		
30.0	207.53	228.84	248.29	263.12	271.46	275.16	277.94	279.79	280.72		
45.0	211.24	234.40	252.00	269.60	277.02	280.72	283.50	285.35	286.28		
60.0	198.26	221.43	239.96	254.78	262.19	266.82	268.68	271.46	271.46		
75.0	187.15	208.46	225.13	240.88	248.29	252.93	255.71	258.49	259.41		
90.0	196.41	220.50	240.88	257.56	267.75	275.16	281.65	285.35	288.13		
105.0	202.90	226.99	249.22	266.82	278.87	288.13	294.62	300.18	302.96		
120.0	196.41	218.65	237.18	254.78	268.68	278.87	286.28	291.84	295.54		
135.0	202.90	224.21	240.88	257.56	270.53	281.65	289.99	296.47	299.25		
150.0	216.79	239.96	257.56	277.02	291.84	303.88	312.22	318.71	322.41		
165.0	215.87	236.25	256.63	274.24	289.06	301.10	310.37	315.93	320.56		
180.0	224.21	243.66	260.34	275.16	286.28	295.54	301.10	302.03	302.03		
195.0	192.71	211.24	226.99	239.03	250.15	258.49	263.12	264.97	264.97		
210.0	192.71	214.01	229.77	243.66	253.85	261.27	266.82	269.60	269.60		
225.0	191.78	211.24	228.84	240.88	249.22	254.78	258.49	260.34	261.27		
240.0	187.15	203.82	220.50	231.62	236.25	239.03	241.81	242.74	243.66		
255.0	215.87	234.40	251.07	263.12	268.68	271.46	274.24	273.31	274.24		
270.0	236.25	257.56	276.09	278.87	291.84	295.54	297.40	299.25	299.25		
285.0	238.10	256.63	276.09	289.06	293.69	297.40	300.18	301.10	302.03		
300.0	220.50	239.03	257.56	268.68	273.31	277.02	278.87	280.72	281.65		
315.0	186.22	204.75	219.57	228.84	233.47	237.18	239.96	241.81	242.74		
330.0	183.44	201.04	215.87	224.21	230.69	235.32	239.03	241.81	243.66		
345.0	180.66	199.19	211.24	218.65	224.21	229.77	233.47	236.25	238.10		
360.0	163.99	183.44	200.12	211.24	219.57	225.13	228.84	232.54	234.40		

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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	235.32	235.32	234.40	232.54	229.77	226.06	220.50	214.01	202.90		
15.0	252.00	251.07	249.22	247.37	242.74	239.03	233.47	226.99	216.79		
30.0	280.72	278.87	277.02	274.24	269.60	263.12	257.56	250.15	239.96		
45.0	286.28	284.43	282.57	278.87	274.24	268.68	261.27	254.78	243.66		
60.0	271.46	270.53	268.68	264.04	259.41	254.78	248.29	241.81	229.77		
75.0	259.41	258.49	256.63	252.93	248.29	242.74	236.25	228.84	215.87		
90.0	289.06	288.13	285.35	280.72	275.16	267.75	257.56	246.44	229.77		
105.0	304.81	303.88	301.10	296.47	289.06	280.72	268.68	254.78	236.25		
120.0	297.40	295.54	292.77	288.13	280.72	271.46	258.49	244.59	225.13		
135.0	301.10	300.18	296.47	289.99	281.65	270.53	257.56	243.66	226.99		
150.0	323.34	322.41	317.78	312.22	303.88	291.84	279.79	262.19	245.52		
165.0	321.49	319.63	315.93	309.44	301.10	289.99	277.02	261.27	243.66		
180.0	300.18	297.40	293.69	288.13	278.87	264.97	250.15	232.54	214.94		
195.0	264.04	262.19	259.41	254.78	247.37	236.25	223.28	208.46	189.93		
210.0	269.60	267.75	264.04	260.34	252.00	240.88	227.91	213.09	192.71		
225.0	260.34	258.49	255.71	251.07	244.59	234.40	230.69	208.46	189.00		
240.0	242.74	240.88	239.03	233.47	228.84	221.43	212.16	201.04	185.29		
255.0	273.31	271.46	267.75	263.12	257.56	251.07	240.88	230.69	213.09		
270.0	298.32	295.54	291.84	287.21	281.65	274.24	262.19	251.07	231.62		
285.0	300.18	298.32	294.62	289.99	283.50	277.02	266.82	253.85	234.40		
300.0	280.72	278.87	275.16	271.46	264.97	258.49	250.15	236.25	217.72		
315.0	243.66	241.81	239.96	237.18	232.54	226.99	221.43	209.38	191.78		
330.0	243.66	243.66	241.81	239.03	235.32	229.77	222.35	210.31	194.56		
345.0	239.03	238.10	237.18	234.40	229.77	224.21	215.87	203.82	192.71		
360.0	235.32	235.32	234.40	232.54	229.77	226.06	220.50	214.01	202.90		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	187.15	171.40	152.87	130.63	110.25	88.01	67.63	45.40	25.01		
15.0	201.04	184.37	164.91	142.68	120.44	98.21	73.19	49.10	25.01		
30.0	222.35	201.97	180.66	158.43	131.56	106.54	78.75	52.81	25.01		
45.0	226.06	208.46	185.29	162.13	134.34	107.47	78.75	50.96	24.09		
60.0	213.09	192.71	171.40	144.53	118.59	92.65	65.78	39.84	17.60		
75.0	198.26	178.81	156.57	130.63	105.62	80.60	56.51	34.28	12.04		
90.0	209.38	185.29	160.28	133.41	107.47	80.60	55.59	32.43	13.90		
105.0	214.94	189.93	165.84	138.04	112.10	82.46	58.37	33.35	13.90		
120.0	203.82	182.51	161.21	134.34	110.25	83.38	57.44	33.35	12.04		
135.0	207.53	187.15	165.84	141.75	116.74	92.65	64.85	41.69	17.60		
150.0	225.13	201.97	178.81	153.79	127.85	100.06	72.26	44.47	19.46		
165.0	223.28	201.04	178.81	153.79	126.00	99.13	72.26	45.40	20.38		
180.0	192.71	170.47	145.46	119.51	95.43	67.63	42.62	19.46	5.56		
195.0	171.40	151.94	126.93	105.62	81.53	75.97	37.06	17.60	5.56		
210.0	173.25	166.76	126.00	102.84	77.82	54.66	34.28	15.75	5.56		
225.0	169.54	147.31	124.15	101.91	78.75	55.59	35.21	17.60	5.56		
240.0	167.69	149.16	127.85	106.54	83.38	62.07	39.84	20.38	6.49		
255.0	192.71	172.32	149.16	124.15	100.06	74.12	48.18	24.09	7.41		
270.0	210.31	188.07	163.06	136.19	109.32	80.60	53.74	25.94	8.34		
285.0	213.09	189.00	164.91	138.97	111.18	82.46	54.66	26.87	7.41		
300.0	198.26	176.03	153.79	127.85	101.91	75.97	50.03	25.01	7.41		
315.0	174.18	155.65	134.34	112.10	90.79	66.71	44.47	23.16	8.34		
330.0	175.10	156.57	133.41	111.18	87.09	64.85	41.69	22.24	7.41		
345.0	174.18	153.79	129.71	109.32	86.16	64.85	43.54	23.16	8.34		
360.0	187.15	171.40	152.87	130.63	110.25	88.01	67.63	45.40	25.01		

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	3.71
15.0	6.49
30.0	5.56
45.0	3.71
60.0	2.78
75.0	2.78
90.0	2.78
105.0	3.71
120.0	4.63
135.0	4.63
150.0	4.63
165.0	4.63
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	3.71