
弗格斯莱

Client:

LumCAT: KNOP48LAJUDPC

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 119.950

LampCAT:

Current(A): 0.503

Lamp flux(lm): 2816.9

Power (W): 59.420

Number of Lamps: 1

PF: 0.984

Length(mm): 130

Width(mm): 130

Phm Type: C

Height(mm): 1420

Photometric Results

Lumens(lm): 2816.89, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 47.41

Central intensity(cd): 70.412, Maximum intensity(cd): 329.824

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=341.5

[C90/270]Total=340.0

Maximum s/h(1/2): C0_180=3.46 C90_270=3.26

Maximum s/h(1/4): C0_180=3.37 C90_270=3.19

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 : 20.004%

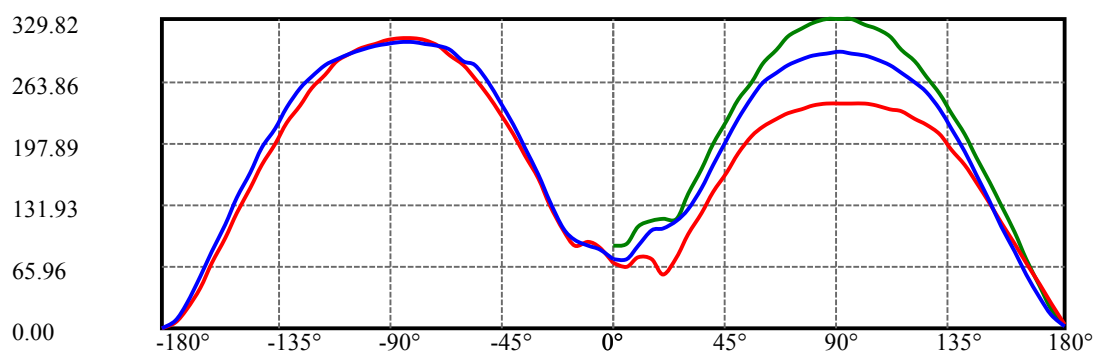
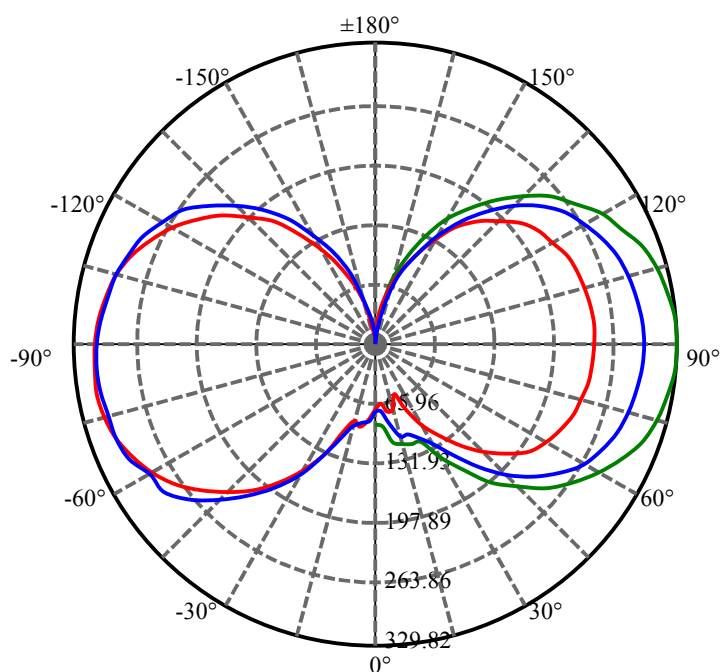
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	75.507	0.000	0	0.00%	0.00%
5.0	79.947	1.858	1.858	0.07%	0.07%
10.0	89.443	6.060	7.918	0.22%	0.28%
15.0	91.257	10.719	18.637	0.38%	0.66%
20.0	93.535	15.229	33.867	0.54%	1.20%
25.0	110.636	21.414	55.28	0.76%	1.96%
30.0	133.489	30.894	86.175	1.10%	3.06%
35.0	158.658	43.021	129.195	1.53%	4.59%
40.0	182.283	56.884	186.079	2.02%	6.61%
45.0	205.484	71.798	257.877	2.55%	9.15%
50.0	226.291	87.246	345.123	3.10%	12.25%
55.0	244.318	102.326	447.45	3.63%	15.88%
60.0	257.675	116.034	563.484	4.12%	20.00%
65.0	266.708	127.479	690.962	4.53%	24.53%
70.0	273.193	136.707	827.669	4.85%	29.38%
75.0	277.710	143.997	971.666	5.11%	34.49%
80.0	280.489	149.359	1121.025	5.30%	39.80%
85.0	281.995	152.840	1273.865	5.43%	45.22%
90.0	282.072	154.446	1428.311	5.48%	50.71%
95.0	280.528	154.044	1582.355	5.47%	56.17%
100.0	277.826	151.718	1734.074	5.39%	61.56%
105.0	273.618	147.551	1881.624	5.24%	66.80%
110.0	267.519	141.444	2023.069	5.02%	71.82%
115.0	259.412	133.422	2156.491	4.74%	76.56%
120.0	249.916	123.819	2280.31	4.40%	80.95%
125.0	237.524	112.670	2392.98	4.00%	84.95%
130.0	221.002	99.699	2492.679	3.54%	88.49%
135.0	201.662	85.405	2578.085	3.03%	91.52%
140.0	181.202	70.890	2648.975	2.52%	94.04%
145.0	157.230	56.465	2705.44	2.00%	96.04%
150.0	132.563	42.674	2748.114	1.51%	97.56%
155.0	107.239	30.347	2778.461	1.08%	98.64%
160.0	82.379	19.887	2798.348	0.71%	99.34%
165.0	56.360	11.434	2809.782	0.41%	99.75%
170.0	32.620	5.278	2815.061	0.19%	99.94%
175.0	13.279	1.642	2816.703	0.06%	99.99%
180.0	2.085	0.184	2816.886	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	86.17	3.06%	3.06%
0-40	186.08	6.61%	6.61%
0-60	563.48	20.00%	20.00%
0-90	1428.31	50.71%	50.71%
0-120	2280.31	80.95%	80.95%
0-180	2816.89	100.00%	100.00%
60-90	864.83	30.70%	30.70%
90-120	852.00	30.25%	30.25%
90-130	1064.37	37.79%	37.79%
90-150	1319.80	46.85%	46.85%
90-180	1388.39	49.29%	49.29%
0-118.92	2253.51	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	7.92
10-20	25.95
20-30	52.31
30-40	99.90
40-50	159.04
50-60	218.36
60-70	264.19
70-80	293.36
80-90	307.29
90-100	305.76
100-110	289.00
110-120	257.24
120-130	212.37
130-140	156.30
140-150	99.14
150-160	50.23
160-170	16.71
170-180	1.64



C150(Max): —————

C0/C180: —————

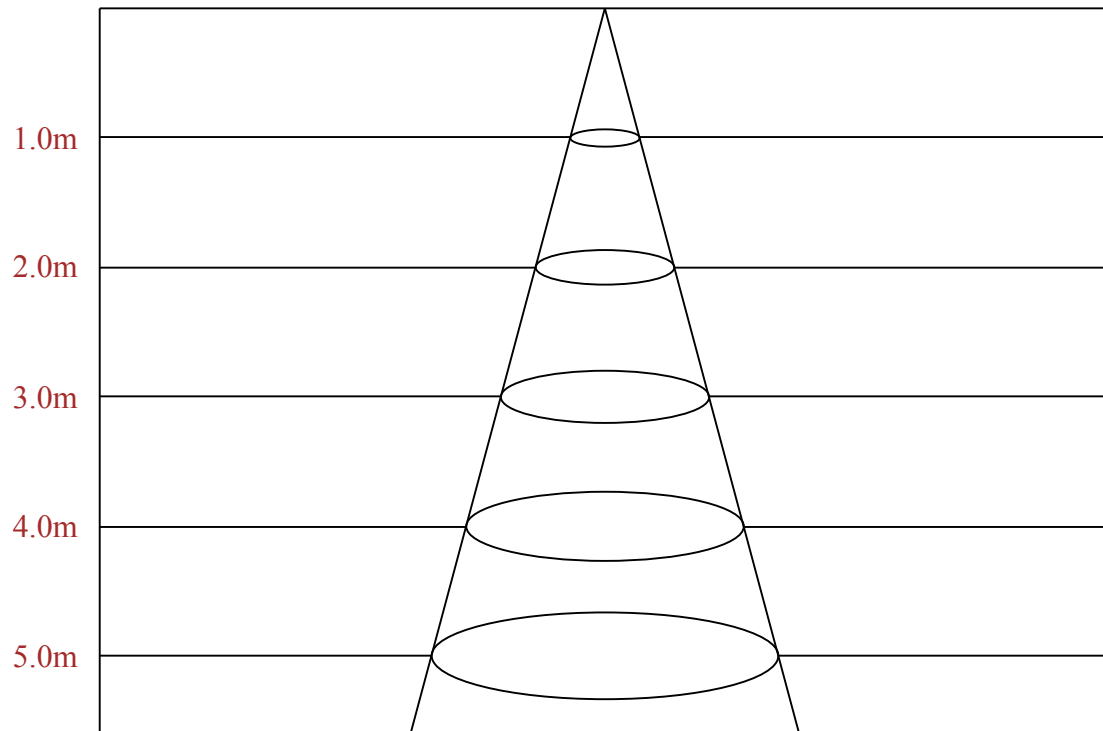
C90/C270: —————

Field angle(10%Imax):C0/180Left:87.7 Right:253.8

:C90/270Left:89.4 Right:250.6

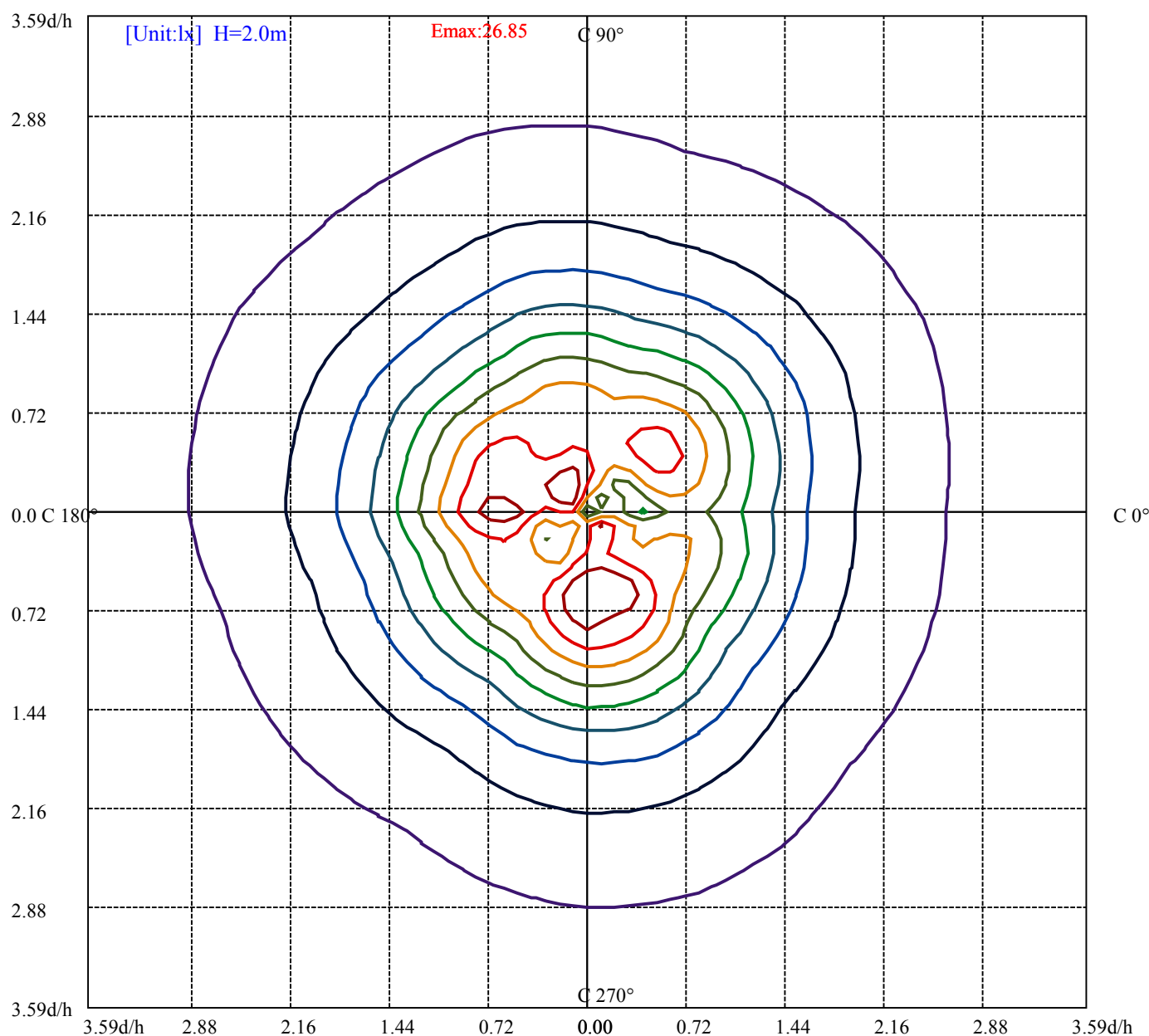
Beam Angle(50%Imax):C0/180Left:64.0 Right:225.3

:C90/270Left:67.5 Right:227.0

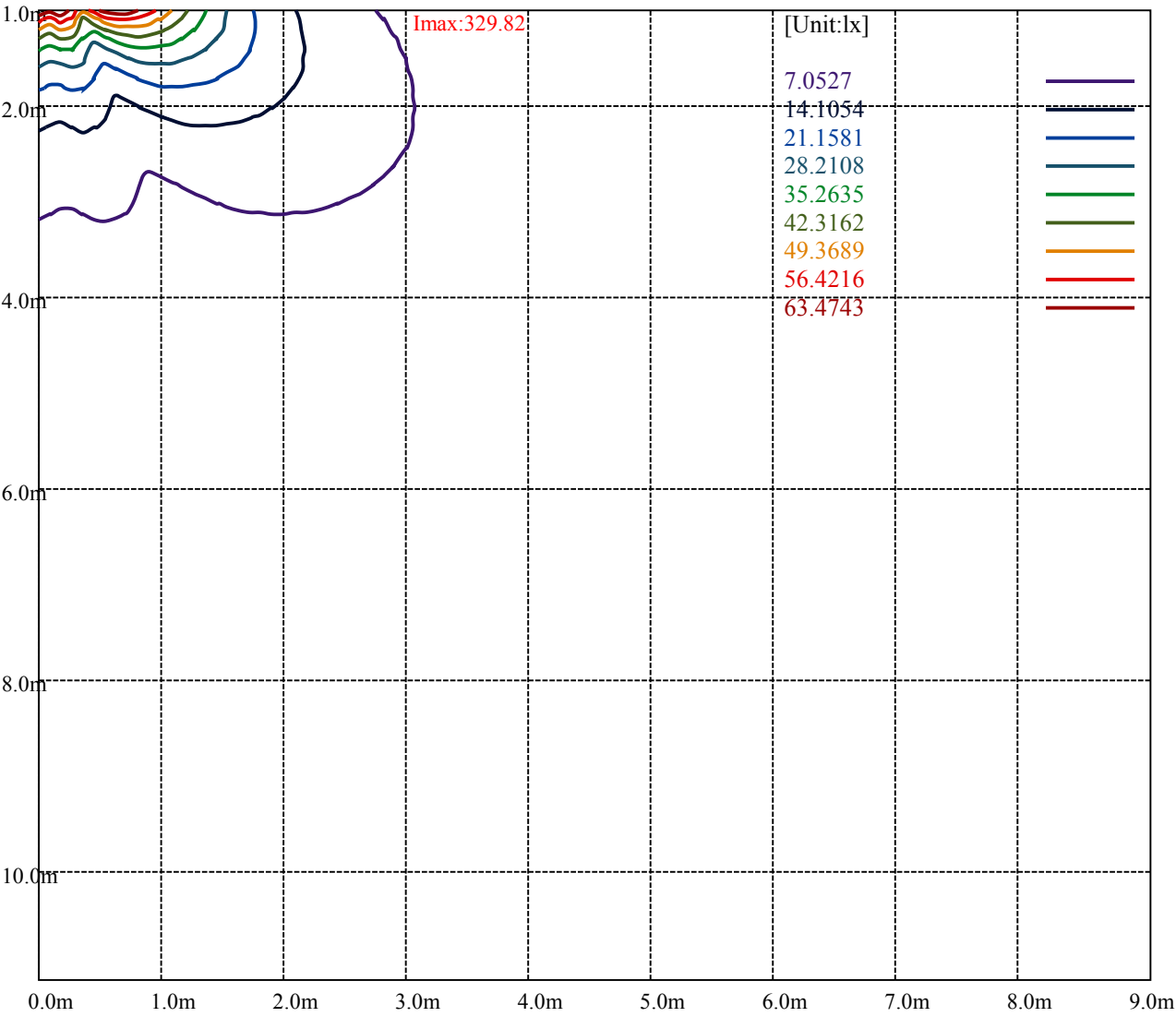


Max , Ave

Beam angle of C150 plane 333.68



(10%Emax) 2.6847	—
(20%Emax) 5.369375	—
(30%Emax) 8.054075	—
(40%Emax) 10.73875	—
(50%Emax) 13.42345	—
(60%Emax) 16.10813	—
(70%Emax) 18.79283	—
(80%Emax) 21.4775	—
(90%Emax) 24.1622	—



Luminance Table

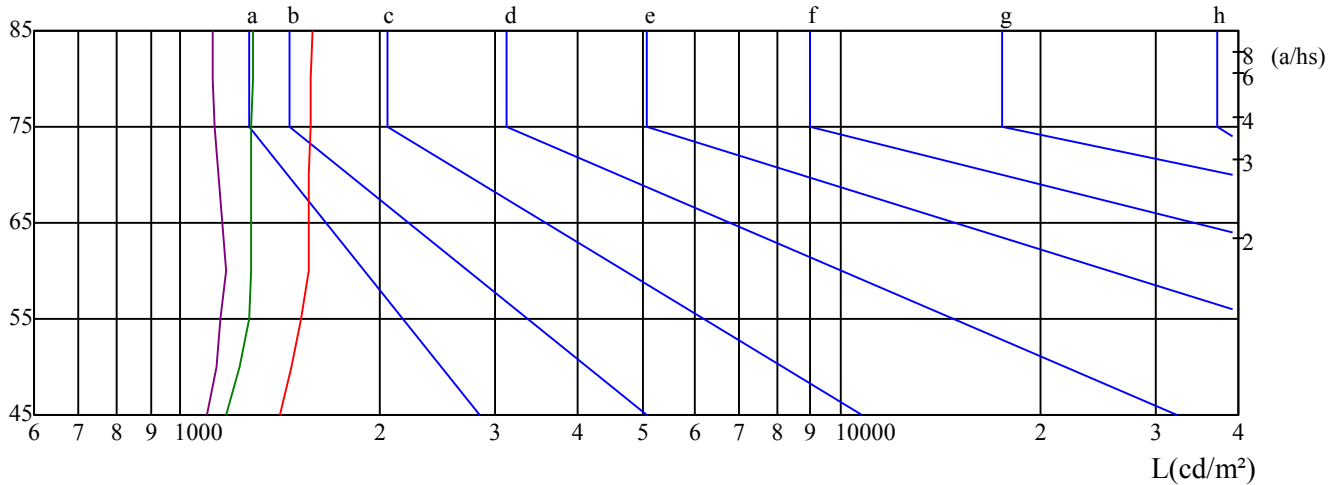
γ	45	50	55	60	65	70	75	80	85
C0	1170	1229	1272	1277	1280	1282	1278	1284	1289
C45	1094	1134	1152	1169	1159	1140	1127	1119	1116
C90	1411	1472	1526	1563	1561	1566	1572	1575	1584

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
36061	39888	36775	61849	67462	62484	185869	203166	188542

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 ———

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	0.84	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	70.41	64.85	75.04	74.12	58.37	75.97	100.99	123.22	145.46		
15.0	69.49	65.78	78.75	75.97	65.78	93.57	118.59	144.53	166.76		
30.0	63.93	61.15	75.04	73.19	74.12	104.69	132.49	161.21	187.15		
45.0	55.59	53.74	67.63	67.63	78.75	107.47	136.19	163.99	190.85		
60.0	63.00	62.07	75.97	79.68	88.94	110.25	132.49	154.72	180.66		
75.0	70.41	70.41	83.38	89.87	96.35	107.47	123.22	141.75	167.69		
90.0	74.12	74.12	87.09	103.76	105.62	113.96	126.93	149.16	175.10		
105.0	83.38	83.38	99.13	114.88	112.10	115.81	126.93	151.94	181.59		
120.0	93.57	94.50	108.40	122.29	113.03	113.03	122.29	151.01	176.03		
135.0	93.57	96.35	113.03	121.37	115.81	116.74	132.49	159.35	184.37		
150.0	88.94	90.79	108.40	113.96	115.81	117.66	143.60	170.47	197.34		
165.0	79.68	82.46	99.13	103.76	103.76	113.03	141.75	170.47	197.34		
180.0	70.41	85.24	91.72	88.01	103.76	131.56	159.35	184.37	207.53		
195.0	69.49	81.53	88.01	80.60	85.24	110.25	133.41	156.57	177.88		
210.0	63.93	75.04	84.31	75.97	76.90	100.99	126.93	151.94	176.03		
225.0	55.59	64.85	77.82	75.04	77.82	100.06	125.07	150.09	175.10		
240.0	63.00	72.26	79.68	77.82	82.46	102.84	126.00	150.09	169.54		
255.0	70.41	80.60	85.24	88.94	99.13	122.29	151.01	176.03	198.26		
270.0	74.12	83.38	87.09	94.50	106.54	135.26	164.91	192.71	217.72		
285.0	83.38	93.57	94.50	98.21	108.40	137.12	164.91	192.71	198.26		
300.0	93.57	101.91	100.99	100.06	100.99	124.15	152.87	179.74	202.90		
315.0	93.57	100.99	100.06	94.50	95.43	103.76	127.85	151.01	171.40		
330.0	88.94	94.50	95.43	88.94	89.87	97.28	117.66	141.75	165.84		
345.0	79.68	85.24	90.79	87.09	89.87	100.06	115.81	138.97	163.99		
360.0	70.41	64.85	75.04	74.12	58.37	75.97	100.99	123.22	145.46		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	166.76	187.15	204.75	214.94	223.28	229.77	233.47	237.18	239.03		
15.0	190.85	210.31	229.77	239.96	247.37	251.07	255.71	256.63	257.56		
30.0	211.24	233.47	253.85	268.68	276.09	280.72	283.50	285.35	286.28		
45.0	214.94	239.03	257.56	274.24	282.57	286.28	289.06	290.91	291.84		
60.0	202.90	225.13	244.59	260.34	267.75	271.46	273.31	276.09	276.09		
75.0	190.85	212.16	229.77	245.52	253.85	258.49	261.27	264.04	264.97		
90.0	201.04	224.21	245.52	263.12	272.38	280.72	287.21	290.91	293.69		
105.0	207.53	231.62	254.78	271.46	284.43	293.69	300.18	306.66	309.44		
120.0	201.04	222.35	241.81	260.34	273.31	284.43	291.84	297.40	301.10		
135.0	207.53	228.84	245.52	263.12	275.16	287.21	295.54	302.03	304.81		
150.0	220.50	244.59	263.12	282.57	297.40	310.37	318.71	325.19	328.90		
165.0	219.57	240.88	262.19	279.79	294.62	307.59	316.85	322.41	327.04		
180.0	228.84	248.29	265.90	280.72	291.84	301.10	307.59	308.52	308.52		
195.0	196.41	214.94	231.62	243.66	255.71	264.04	268.68	270.53	270.53		
210.0	196.41	217.72	234.40	248.29	259.41	266.82	271.46	274.24	274.24		
225.0	195.49	214.94	233.47	245.52	254.78	260.34	264.04	265.90	266.82		
240.0	190.85	208.46	224.21	236.25	240.88	243.66	246.44	247.37	248.29		
255.0	219.57	239.03	256.63	268.68	273.31	276.09	279.79	277.94	279.79		
270.0	240.88	263.12	281.65	284.43	297.40	301.10	302.96	304.81	304.81		
285.0	242.74	262.19	281.65	294.62	299.25	302.96	306.66	307.59	308.52		
300.0	224.21	243.66	263.12	273.31	277.94	282.57	284.43	286.28	287.21		
315.0	189.93	209.38	223.28	233.47	238.10	241.81	244.59	246.44	247.37		
330.0	187.15	205.68	219.57	228.84	235.32	239.96	243.66	246.44	248.29		
345.0	184.37	203.82	214.94	222.35	228.84	234.40	238.10	240.88	242.74		
360.0	166.76	187.15	204.75	214.94	223.28	229.77	233.47	237.18	239.03		

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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	239.96	239.96	239.03	237.18	234.40	230.69	224.21	217.72	207.53		
15.0	257.56	256.63	254.78	252.93	247.37	243.66	238.10	231.62	220.50		
30.0	286.28	284.43	282.57	279.79	274.24	268.68	263.12	255.71	244.59		
45.0	291.84	289.99	288.13	284.43	279.79	273.31	266.82	260.34	248.29		
60.0	276.09	275.16	273.31	269.60	264.97	260.34	253.85	246.44	234.40		
75.0	264.97	264.04	262.19	258.49	253.85	247.37	240.88	233.47	219.57		
90.0	294.62	293.69	290.91	286.28	280.72	272.38	263.12	251.07	234.40		
105.0	311.29	310.37	307.59	302.03	294.62	286.28	273.31	260.34	240.88		
120.0	302.96	301.10	298.32	293.69	286.28	276.09	264.04	249.22	229.77		
135.0	307.59	306.66	302.03	295.54	287.21	275.16	263.12	248.29	231.62		
150.0	329.82	328.90	324.27	318.71	310.37	297.40	285.35	267.75	250.15		
165.0	327.97	326.12	322.41	315.93	307.59	295.54	282.57	266.82	248.29		
180.0	306.66	302.96	299.25	293.69	284.43	270.53	255.71	237.18	218.65		
195.0	269.60	267.75	264.97	260.34	252.93	240.88	227.91	212.16	193.63		
210.0	274.24	272.38	269.60	265.90	257.56	245.52	232.54	216.79	196.41		
225.0	265.90	264.04	261.27	256.63	249.22	239.03	235.32	212.16	192.71		
240.0	247.37	245.52	243.66	238.10	233.47	225.13	215.87	205.68	189.00		
255.0	277.94	276.09	272.38	268.68	263.12	256.63	245.52	235.32	216.79		
270.0	303.88	301.10	297.40	292.77	287.21	279.79	267.75	256.63	236.25		
285.0	306.66	303.88	300.18	295.54	289.06	282.57	271.46	259.41	239.03		
300.0	286.28	284.43	280.72	276.09	270.53	264.04	255.71	240.88	221.43		
315.0	248.29	246.44	244.59	241.81	237.18	231.62	225.13	213.09	195.49		
330.0	248.29	248.29	246.44	243.66	239.96	234.40	226.99	214.01	198.26		
345.0	243.66	242.74	241.81	239.03	234.40	228.84	219.57	208.46	196.41		
360.0	239.96	239.96	239.03	237.18	234.40	230.69	224.21	217.72	207.53		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	190.85	175.10	155.65	133.41	112.10	89.87	69.49	46.32	25.94		
15.0	205.68	188.07	167.69	145.46	123.22	100.06	75.04	50.03	25.94		
30.0	226.99	206.60	184.37	161.21	134.34	108.40	80.60	53.74	25.94		
45.0	230.69	212.16	189.00	164.91	137.12	109.32	80.60	51.88	25.01		
60.0	216.79	196.41	175.10	148.24	121.37	94.50	67.63	40.76	18.53		
75.0	202.90	182.51	159.35	133.41	107.47	82.46	57.44	34.28	12.04		
90.0	213.09	189.00	163.06	136.19	109.32	82.46	56.51	32.43	14.82		
105.0	218.65	193.63	168.62	140.82	113.96	84.31	59.29	33.35	14.82		
120.0	208.46	186.22	163.99	137.12	112.10	85.24	58.37	33.35	12.04		
135.0	211.24	190.85	168.62	144.53	118.59	94.50	65.78	42.62	18.53		
150.0	229.77	206.60	182.51	156.57	130.63	101.91	74.12	45.40	20.38		
165.0	227.91	205.68	182.51	156.57	128.78	100.99	74.12	46.32	21.31		
180.0	196.41	174.18	149.16	122.29	97.28	69.49	43.54	20.38	5.56		
195.0	175.10	154.72	129.71	107.47	83.38	77.82	37.06	18.53	5.56		
210.0	176.96	169.54	128.78	104.69	79.68	55.59	34.28	16.68	5.56		
225.0	173.25	151.01	126.93	103.76	80.60	56.51	35.21	18.53	5.56		
240.0	170.47	151.94	130.63	108.40	85.24	63.00	40.76	21.31	6.49		
255.0	196.41	176.03	151.94	126.93	101.91	75.97	49.10	25.01	7.41		
270.0	214.01	191.78	165.84	138.97	111.18	82.46	54.66	26.87	8.34		
285.0	216.79	192.71	167.69	141.75	113.03	84.31	55.59	27.79	7.41		
300.0	202.90	179.74	156.57	130.63	103.76	77.82	50.96	25.94	7.41		
315.0	177.88	158.43	137.12	113.96	91.72	68.56	45.40	24.09	8.34		
330.0	178.81	159.35	136.19	113.03	88.94	65.78	42.62	23.16	7.41		
345.0	177.88	156.57	132.49	111.18	88.01	65.78	44.47	24.09	8.34		
360.0	190.85	175.10	155.65	133.41	112.10	89.87	69.49	46.32	25.94		

Intensity data(cd)

C/ γ (°)	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