
乐达凯

Client:

LumCAT: KNTW0816LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.980

LampCAT:

Current(A): 0.171

Lamp flux(lm): 1612.2

Power (W): 20.350

Number of Lamps: 1

PF: 0.991

Length(mm): 155

Width(mm): 55

Phm Type: C

Height(mm): 360

Photometric Results

Lumens(lm): 1612.15, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.22

Central intensity(cd): 35.887, Maximum intensity(cd): 370.985

Angle of maximum intensity: C=75.0 γ =90.0

Beam Angle(50%Imax): [C0/180]Total=288.8

[C90/270]Total=116.8

Field angle(10%Imax): [C0/180]Total=337.2

[C90/270]Total=168.8

Maximum s/h(1/2): C0_180=2.92 C90_270=5.07

Maximum s/h(1/4): C0_180=2.87 C90_270=4.73

Up flux rate of lamp(%): 47.60%

Down flux rate of lamp(%): 52.40%

Up flux rate of LUM(%): 47.60%

Down flux rate of LUM(%): 52.40%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 21.593%

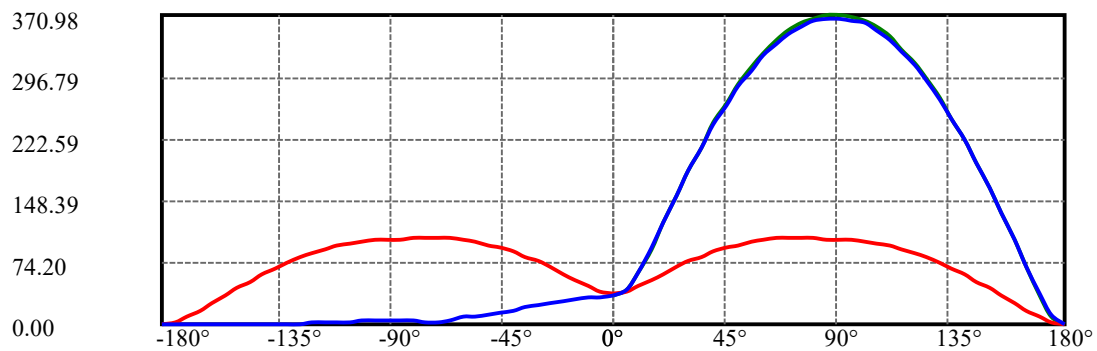
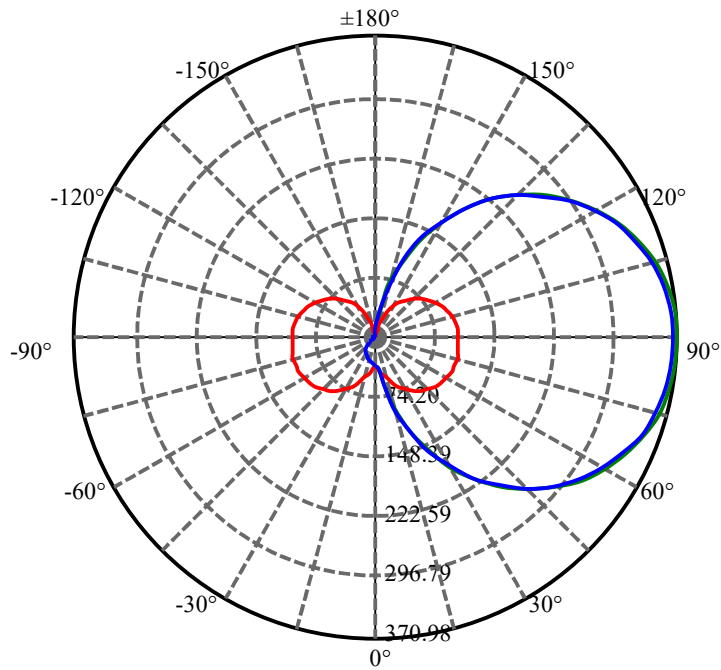
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	35.364	0.000	0	0.00%	0.00%
5.0	37.270	0.868	0.868	0.05%	0.05%
10.0	45.420	2.958	3.826	0.18%	0.24%
15.0	56.822	6.065	9.891	0.38%	0.61%
20.0	69.868	10.441	20.332	0.65%	1.26%
25.0	81.718	15.899	36.231	0.99%	2.25%
30.0	93.830	22.216	58.447	1.38%	3.63%
35.0	105.232	29.313	87.76	1.82%	5.44%
40.0	115.998	36.911	124.671	2.29%	7.73%
45.0	125.194	44.659	169.329	2.77%	10.50%
50.0	133.792	52.332	221.661	3.25%	13.75%
55.0	141.082	59.767	281.428	3.71%	17.46%
60.0	147.400	66.682	348.11	4.14%	21.59%
65.0	152.371	72.875	420.985	4.52%	26.11%
70.0	156.409	78.185	499.17	4.85%	30.96%
75.0	159.549	82.586	581.756	5.12%	36.09%
80.0	161.568	85.922	667.678	5.33%	41.42%
85.0	162.540	88.068	755.746	5.46%	46.88%
90.0	162.652	89.040	844.786	5.52%	52.40%
95.0	161.941	88.876	933.662	5.51%	57.91%
100.0	159.736	87.407	1021.069	5.42%	63.34%
105.0	156.072	84.501	1105.57	5.24%	68.58%
110.0	150.914	80.241	1185.812	4.98%	73.55%
115.0	144.484	74.796	1260.608	4.64%	78.19%
120.0	136.783	68.376	1328.985	4.24%	82.44%
125.0	127.699	61.134	1390.119	3.79%	86.23%
130.0	117.830	53.386	1443.505	3.31%	89.54%
135.0	106.877	45.405	1488.91	2.82%	92.36%
140.0	94.952	37.370	1526.28	2.32%	94.67%
145.0	82.242	29.563	1555.844	1.83%	96.51%
150.0	68.821	22.245	1578.089	1.38%	97.89%
155.0	54.765	15.640	1593.729	0.97%	98.86%
160.0	40.560	9.998	1603.727	0.62%	99.48%
165.0	26.056	5.490	1609.217	0.34%	99.82%
170.0	12.747	2.302	1611.519	0.14%	99.96%
175.0	3.589	0.584	1612.103	0.04%	100.00%
180.0	0.449	0.048	1612.151	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	58.45	3.63%	3.63%
0-40	124.67	7.73%	7.73%
0-60	348.11	21.59%	21.59%
0-90	844.79	52.40%	52.40%
0-120	1328.98	82.44%	82.44%
0-180	1612.15	100.00%	100.00%
60-90	496.68	30.81%	30.81%
90-120	484.20	30.03%	30.03%
90-130	598.72	37.14%	37.14%
90-150	733.30	45.49%	45.49%
90-180	767.32	47.60%	47.60%
0-117.13	1289.72	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	3.83
10-20	16.51
20-30	38.11
30-40	66.22
40-50	96.99
50-60	126.45
60-70	151.06
70-80	168.51
80-90	177.11
90-100	176.28
100-110	164.74
110-120	143.17
120-130	114.52
130-140	82.78
140-150	51.81
150-160	25.64
160-170	7.79
170-180	0.58



C75(Max): —————

C0/C180: —————

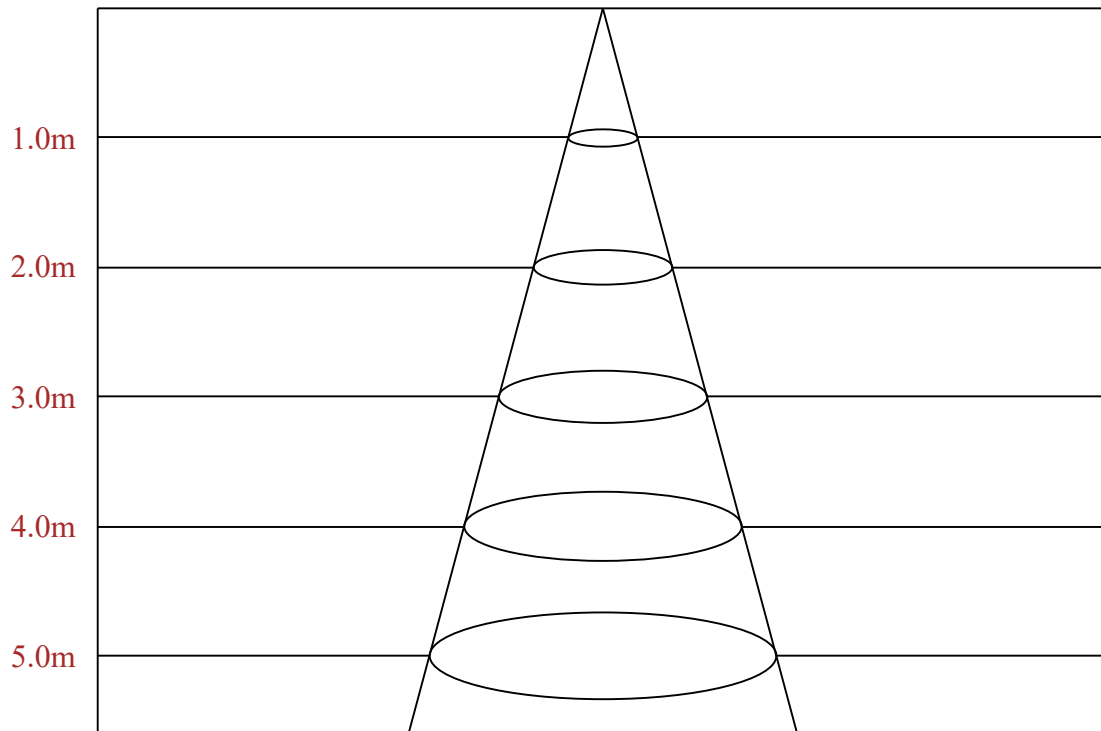
C90/C270: —————

Field angle(10%Imax):C0/180Left:243.6 Right:93.6

:C90/270Left:88.6 Right:80.2

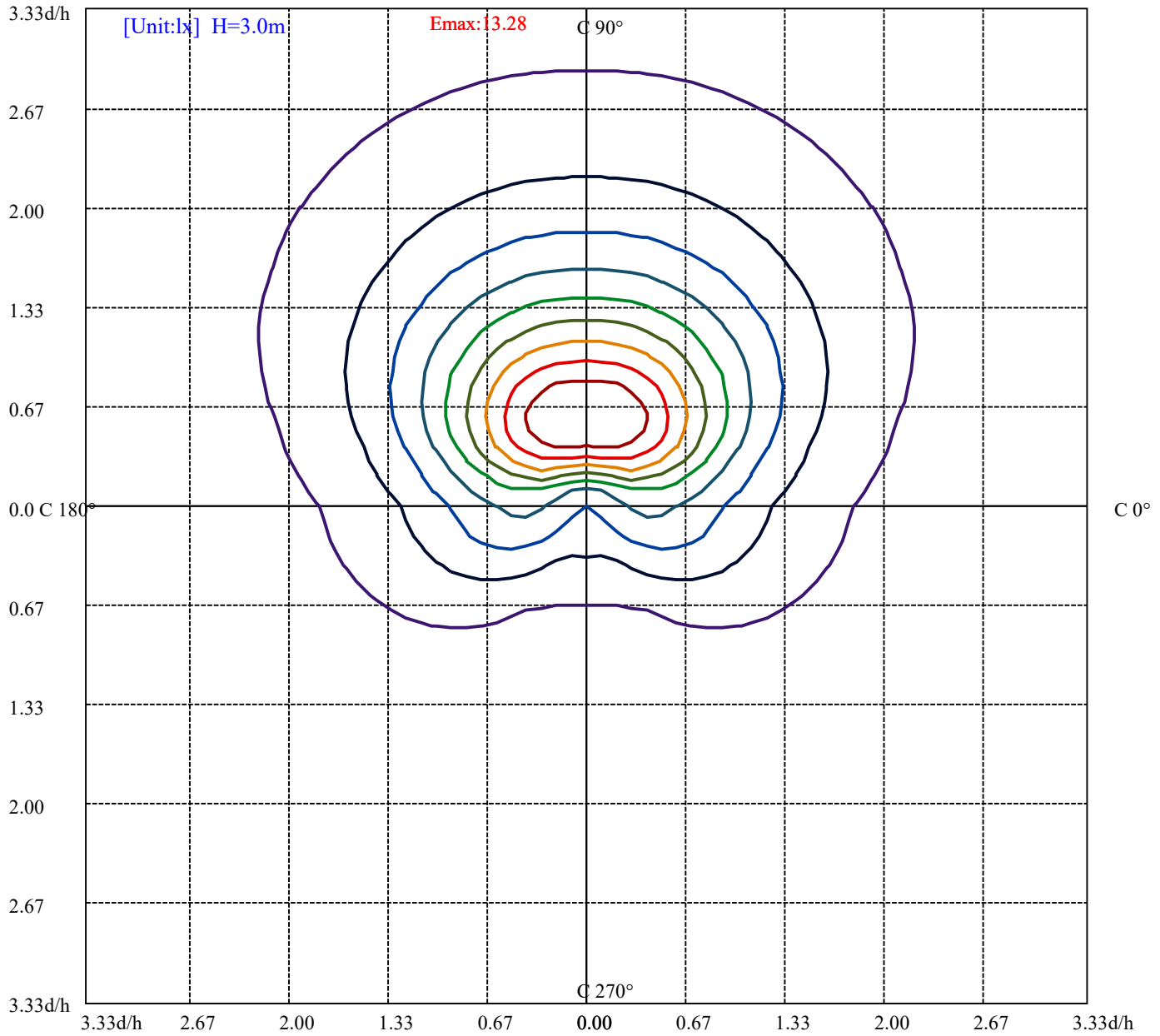
Beam Angle(50%Imax):C0/180Left:219.4 Right:69.4

:C90/270Left:60.1 Right:56.7

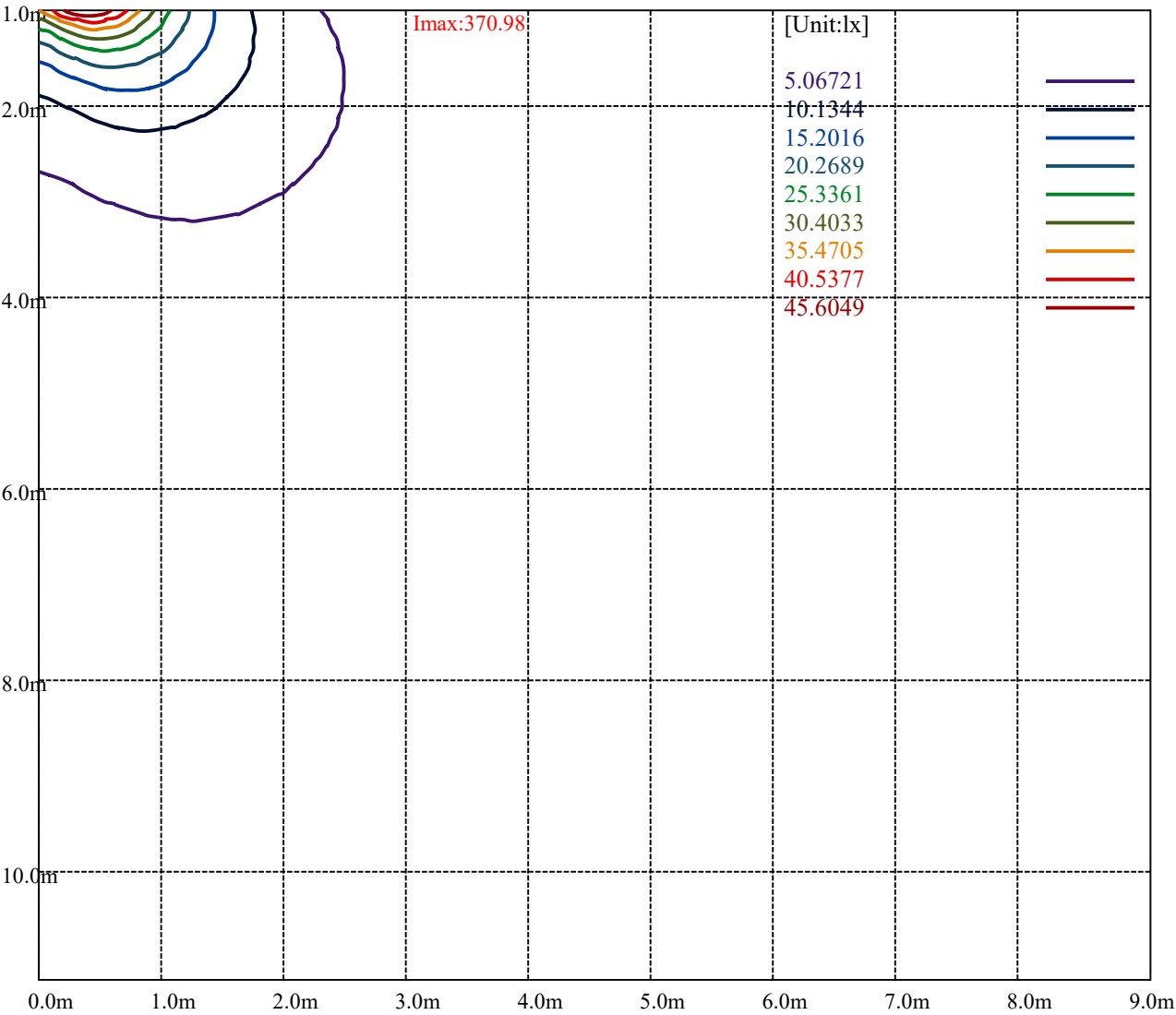


Max , Ave

Beam angle of C75 plane 216.23



(10%Emax) 1.327511	—
(20%Emax) 2.655011	—
(30%Emax) 3.982522	—
(40%Emax) 5.310022	—
(50%Emax) 6.637533	—
(60%Emax) 7.965044	—
(70%Emax) 9.292544	—
(80%Emax) 10.62006	—
(90%Emax) 11.94756	—



Luminance Table

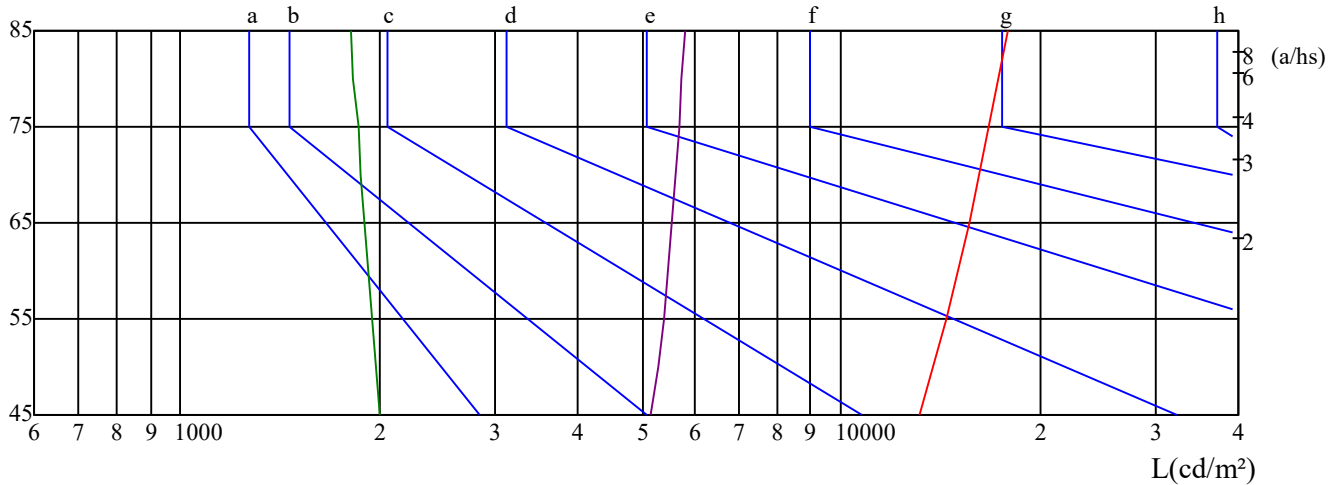
γ	45	50	55	60	65	70	75	80	85
C0	2002	1981	1950	1928	1905	1872	1855	1828	1816
C45	5148	5275	5382	5475	5550	5638	5682	5735	5799
C90	13170	13818	14451	15086	15656	16216	16781	17320	17884

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
28638	47314	45696	47168	81731	78275	137656	248747	238181

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	1.08	1.08	1.08	1.00	1.00	1.00	0.85	0.85	0.85	0.71	0.71	0.71	0.58	0.58	0.58	0.52
1	0.86	0.80	0.74	0.79	0.74	0.69	0.66	0.62	0.58	0.54	0.51	0.48	0.43	0.40	0.38	0.33
2	0.72	0.64	0.56	0.66	0.58	0.52	0.55	0.49	0.44	0.44	0.40	0.36	0.34	0.31	0.28	0.23
3	0.61	0.52	0.44	0.56	0.48	0.41	0.46	0.40	0.34	0.37	0.32	0.28	0.29	0.25	0.21	0.17
4	0.53	0.43	0.36	0.49	0.40	0.33	0.40	0.33	0.28	0.32	0.27	0.22	0.25	0.20	0.17	0.13
5	0.47	0.37	0.30	0.43	0.34	0.27	0.35	0.28	0.23	0.28	0.23	0.18	0.22	0.17	0.14	0.10
6	0.41	0.32	0.25	0.38	0.29	0.23	0.31	0.24	0.19	0.25	0.19	0.15	0.19	0.15	0.11	0.08
7	0.37	0.28	0.21	0.34	0.26	0.20	0.28	0.21	0.16	0.22	0.17	0.13	0.17	0.13	0.10	0.07
8	0.33	0.24	0.18	0.30	0.22	0.17	0.25	0.19	0.14	0.20	0.15	0.11	0.16	0.11	0.08	0.06
9	0.30	0.22	0.16	0.28	0.20	0.15	0.23	0.17	0.12	0.18	0.13	0.10	0.14	0.10	0.07	0.05
10	0.27	0.19	0.14	0.25	0.18	0.13	0.21	0.15	0.11	0.17	0.12	0.09	0.13	0.09	0.06	0.04

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	35.89	37.68	43.96	51.14	59.21	67.29	74.47	80.75	86.13
15.0	35.89	37.68	45.76	57.42	69.98	83.44	96.90	109.46	122.02
30.0	35.89	38.58	51.14	68.19	88.82	109.46	130.99	151.62	170.46
45.0	34.99	39.48	55.63	79.85	105.87	133.68	158.80	186.61	209.04
60.0	34.99	40.37	60.11	87.92	117.53	148.04	178.54	207.25	233.27
75.0	34.99	40.37	61.91	91.51	122.91	155.21	185.72	213.53	242.24
90.0	34.99	41.27	61.91	92.41	122.02	153.42	183.92	212.63	238.65
105.0	34.99	41.27	61.01	89.72	121.12	152.52	183.03	210.84	239.55
120.0	34.99	39.48	58.32	83.44	113.94	142.65	172.26	200.07	226.99
135.0	36.78	38.58	52.93	75.36	100.48	125.61	150.73	176.74	198.28
150.0	34.99	36.78	47.55	63.70	96.00	100.48	120.22	139.06	157.01
165.0	34.99	35.89	43.06	52.93	63.70	75.36	87.03	97.79	109.46
180.0	35.89	39.48	46.65	53.83	61.91	69.08	75.36	80.75	87.03
195.0	35.89	38.58	43.06	49.35	55.63	61.01	66.39	70.88	75.36
210.0	35.89	36.78	39.48	43.96	47.55	51.14	53.83	56.52	59.21
225.0	34.99	34.99	35.89	36.78	37.68	39.48	40.37	40.37	40.37
240.0	34.99	34.09	33.20	31.40	30.50	28.71	26.92	25.12	23.33
255.0	34.99	33.20	31.40	29.61	27.81	25.12	23.33	20.64	17.94
270.0	34.99	33.20	31.40	29.61	27.81	25.12	22.43	19.74	17.05
285.0	34.99	33.20	31.40	29.61	27.81	26.02	23.33	20.64	19.74
300.0	34.99	34.09	33.20	32.30	32.30	30.50	29.61	27.81	26.02
315.0	36.78	34.99	36.78	38.58	40.37	42.17	43.06	43.96	44.86
330.0	34.99	36.78	40.37	44.86	49.35	52.93	56.52	60.11	62.80
345.0	34.99	37.68	43.96	50.24	56.52	62.80	68.19	72.67	77.16
360.0	35.89	37.68	43.96	51.14	59.21	67.29	74.47	80.75	86.13
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	91.51	96.00	99.59	102.28	104.07	104.97	105.87	104.97	104.07
15.0	132.78	143.55	152.52	159.70	165.98	171.36	174.05	175.85	175.85
30.0	188.41	203.66	218.02	229.68	239.55	247.62	253.01	256.59	257.49
45.0	231.47	251.21	268.26	283.51	295.17	306.84	313.12	317.60	320.29
60.0	258.39	280.82	298.76	315.81	331.06	341.83	350.80	356.18	358.87
75.0	265.57	288.89	309.53	326.57	341.83	353.49	363.36	368.74	371.43
90.0	263.77	285.30	305.04	322.99	337.34	349.00	357.98	363.36	366.05
105.0	262.87	286.20	305.94	323.88	338.24	349.90	358.87	365.15	368.74
120.0	250.31	270.95	291.58	306.84	321.19	332.85	341.83	347.21	349.90
135.0	219.81	238.65	255.70	270.05	282.61	292.48	298.76	303.25	305.94
150.0	173.16	188.41	200.97	212.63	222.50	229.68	235.06	238.65	239.55
165.0	118.43	127.40	134.58	141.75	147.14	151.62	154.32	155.21	155.21
180.0	90.62	95.10	97.79	100.48	102.28	102.28	102.28	101.38	100.48
195.0	78.95	81.64	83.44	85.23	86.13	86.13	86.13	86.13	86.13
210.0	61.01	62.80	63.70	63.70	63.70	63.70	62.80	63.70	63.70
225.0	40.37	40.37	39.48	38.58	37.68	36.78	36.78	37.68	38.58
240.0	20.64	18.84	16.15	14.35	12.56	10.77	11.66	11.66	12.56
255.0	14.35	11.66	8.97	6.28	3.59	2.69	2.69	2.69	3.59
270.0	13.46	10.77	8.07	8.07	3.59	2.69	2.69	3.59	3.59
285.0	14.35	11.66	8.97	6.28	3.59	2.69	2.69	3.59	3.59
300.0	24.22	22.43	20.64	18.84	17.05	15.25	16.15	16.15	16.15
315.0	44.86	44.86	44.86	43.96	43.06	42.17	42.17	43.06	43.06
330.0	64.60	66.39	67.29	68.19	68.19	68.19	67.29	67.29	68.19
345.0	80.75	83.44	86.13	87.92	88.82	88.82	88.82	87.92	87.92
360.0	91.51	96.00	99.59	102.28	104.07	104.97	105.87	104.97	104.07

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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	103.18	103.18	101.38	99.59	96.00	92.41	87.92	82.54	76.26
15.0	175.85	174.95	172.26	168.67	162.39	155.21	146.24	135.47	124.71
30.0	257.49	256.59	253.01	247.62	239.55	229.68	217.12	202.76	185.72
45.0	320.29	319.40	314.91	308.63	298.76	286.20	271.85	253.90	235.96
60.0	358.87	357.98	352.59	345.42	334.65	322.09	305.04	285.30	263.77
75.0	372.33	370.54	366.05	357.98	346.31	331.96	314.01	295.17	272.74
90.0	366.95	365.15	360.67	352.59	341.83	327.47	310.43	291.58	269.15
105.0	369.64	367.84	363.36	355.28	343.62	329.27	312.22	292.48	271.85
120.0	350.80	349.00	345.42	338.24	327.47	314.91	299.66	280.82	260.18
135.0	305.94	305.04	302.35	296.07	287.10	275.43	261.98	244.93	226.99
150.0	239.55	239.55	235.96	230.58	224.30	214.43	202.76	189.31	174.05
165.0	155.21	155.21	152.52	149.83	144.45	138.17	130.09	121.12	111.25
180.0	100.48	99.59	97.79	95.10	91.51	87.92	82.54	77.16	70.88
195.0	86.13	85.23	83.44	80.75	78.05	74.47	69.98	65.49	60.11
210.0	63.70	63.70	62.80	61.01	58.32	55.63	52.04	48.45	43.96
225.0	38.58	37.68	36.78	35.89	34.09	32.30	32.30	27.81	25.12
240.0	12.56	11.66	11.66	11.66	10.77	9.87	8.97	8.07	7.18
255.0	3.59	3.59	3.59	2.69	2.69	1.79	1.79	0.90	0.90
270.0	3.59	3.59	3.59	2.69	2.69	1.79	1.79	0.90	0.90
285.0	3.59	3.59	3.59	2.69	2.69	1.79	1.79	0.90	0.90
300.0	16.15	16.15	16.15	15.25	14.35	13.46	11.66	10.77	8.97
315.0	43.06	43.06	42.17	40.37	38.58	36.78	34.09	31.40	28.71
330.0	68.19	67.29	66.39	64.60	61.91	58.32	54.73	51.14	46.65
345.0	87.92	87.03	85.23	82.54	79.85	76.26	71.77	66.39	61.01
360.0	103.18	103.18	101.38	99.59	96.00	92.41	87.92	82.54	76.26
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	69.08	61.91	53.83	45.76	36.78	27.81	17.94	9.87	2.69
15.0	112.15	98.69	84.34	68.19	53.83	37.68	23.33	10.77	2.69
30.0	169.57	148.04	128.30	104.97	81.64	58.32	36.78	16.15	3.59
45.0	213.53	190.20	164.18	138.17	107.66	78.95	49.35	22.43	5.38
60.0	241.34	213.53	186.61	157.01	125.61	93.31	61.91	30.50	8.07
75.0	247.62	221.60	192.89	165.08	133.68	101.38	68.19	34.99	9.87
90.0	245.83	220.71	193.79	164.18	134.58	102.28	69.08	37.68	10.77
105.0	247.62	220.71	194.69	163.29	133.68	101.38	68.19	34.99	10.77
120.0	236.86	211.74	183.92	154.32	123.81	91.51	61.01	30.50	8.07
135.0	205.45	183.03	158.80	133.68	105.87	77.16	48.45	22.43	6.28
150.0	157.01	139.06	120.22	98.69	77.16	54.73	34.99	16.15	3.59
165.0	100.48	87.92	75.36	61.91	49.35	35.89	22.43	10.77	3.59
180.0	63.70	56.52	48.45	40.37	31.40	22.43	14.35	6.28	0.90
195.0	53.83	47.55	41.27	34.09	26.92	24.22	11.66	5.38	0.90
210.0	39.48	38.58	29.61	24.22	18.84	13.46	8.07	3.59	0.90
225.0	22.43	19.74	16.15	13.46	9.87	7.18	3.59	1.79	0.90
240.0	6.28	5.38	4.49	3.59	2.69	1.79	0.90	0.00	0.90
255.0	0.90	0.00	0.00	0.90	0.00	0.00	0.00	0.90	0.90
270.0	0.90	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.90
285.0	0.90	0.00	0.00	0.00	0.00	0.90	0.00	0.00	0.90
300.0	8.07	7.18	5.38	4.49	3.59	2.69	0.90	0.90	0.90
315.0	25.12	22.43	18.84	15.25	11.66	8.07	4.49	1.79	0.90
330.0	42.17	36.78	31.40	26.02	19.74	13.46	8.07	3.59	0.90
345.0	54.73	47.55	41.27	34.09	26.02	18.84	11.66	4.49	0.90
360.0	69.08	61.91	53.83	45.76	36.78	27.81	17.94	9.87	2.69

Intensity data(cd)

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C/γ(°)	180.0
0.0	0.90
15.0	0.90
30.0	0.90
45.0	0.90
60.0	0.90
75.0	0.90
90.0	0.90
105.0	0.90
120.0	0.90
135.0	0.90
150.0	0.90
165.0	0.90
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	0.90