
乐达凯

Client:

LumCAT: RYNW0618LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.970

LampCAT:

Current(A): 0.168

Lamp flux(lm): 325.7

Power (W): 19.900

Number of Lamps: 1

PF: 0.990

Length(mm): 30

Width(mm): 20

Phm Type: C

Height(mm): 420

Photometric Results

Lumens(lm): 325.67, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 16.37

Central intensity(cd): 0.916, Maximum intensity(cd): 78.747

Angle of maximum intensity: C=30.0 γ =85.0

Beam Angle(50%Imax): [C0/180]Total=288.4

[C90/270]Total=111.7

Field angle(10%Imax): [C0/180]Total=344.4

[C90/270]Total=297.8

Maximum s/h(1/2): C0_180=7.91 C90_270=7.91

Maximum s/h(1/4): C0_180=7.28 C90_270=7.28

Up flux rate of lamp(%): 48.97%

Down flux rate of lamp(%): 51.03%

Up flux rate of LUM(%): 48.97%

Down flux rate of LUM(%): 51.03%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.496%

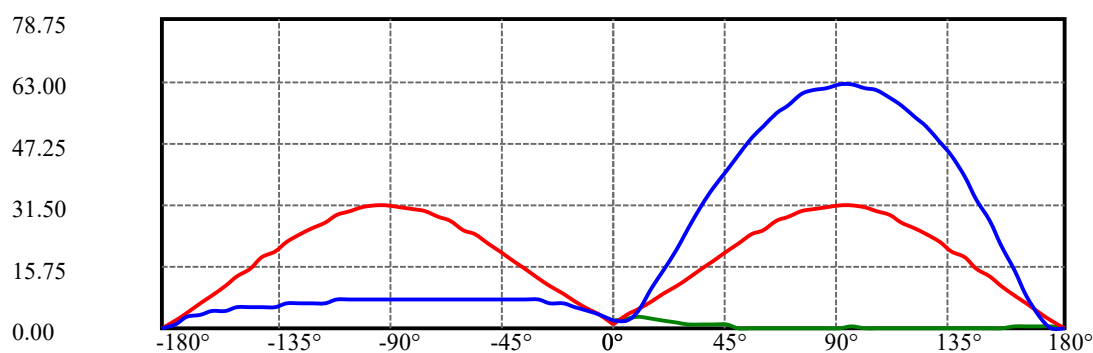
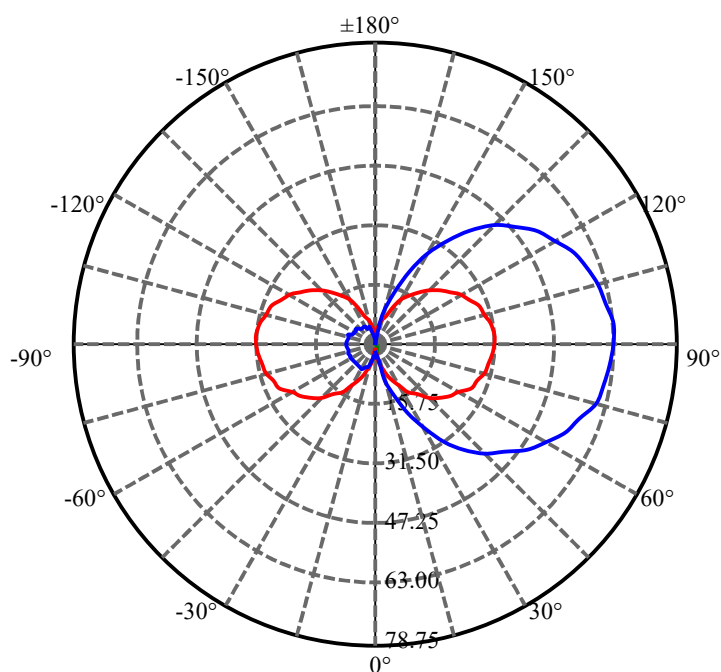
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1.602	0.000	0	0.00%	0.00%
5.0	3.357	0.059	0.059	0.02%	0.02%
10.0	5.914	0.332	0.391	0.10%	0.12%
15.0	8.432	0.851	1.242	0.26%	0.38%
20.0	10.950	1.597	2.839	0.49%	0.87%
25.0	13.468	2.561	5.4	0.79%	1.66%
30.0	16.139	3.747	9.147	1.15%	2.81%
35.0	18.619	5.118	14.265	1.57%	4.38%
40.0	21.099	6.626	20.892	2.03%	6.42%
45.0	23.350	8.230	29.122	2.53%	8.94%
50.0	25.333	9.837	38.959	3.02%	11.96%
55.0	27.394	11.465	50.423	3.52%	15.48%
60.0	29.149	13.070	63.493	4.01%	19.50%
65.0	30.827	14.580	78.073	4.48%	23.97%
70.0	32.048	15.921	93.994	4.89%	28.86%
75.0	33.078	17.023	111.017	5.23%	34.09%
80.0	33.842	17.906	128.923	5.50%	39.59%
85.0	34.223	18.495	147.418	5.68%	45.27%
90.0	34.338	18.772	166.19	5.76%	51.03%
95.0	34.147	18.752	184.942	5.76%	56.79%
100.0	33.613	18.412	203.354	5.65%	62.44%
105.0	32.621	17.722	221.076	5.44%	67.88%
110.0	31.438	16.744	237.82	5.14%	73.02%
115.0	29.874	15.524	253.344	4.77%	77.79%
120.0	28.348	14.154	267.498	4.35%	82.14%
125.0	26.364	12.646	280.144	3.88%	86.02%
130.0	24.227	11.000	291.144	3.38%	89.40%
135.0	21.862	9.313	300.457	2.86%	92.26%
140.0	19.611	7.679	308.136	2.36%	94.62%
145.0	16.711	6.060	314.196	1.86%	96.48%
150.0	14.002	4.523	318.719	1.39%	97.87%
155.0	11.102	3.177	321.896	0.98%	98.84%
160.0	8.279	2.033	323.928	0.62%	99.47%
165.0	5.418	1.129	325.057	0.35%	99.81%
170.0	2.709	0.482	325.539	0.15%	99.96%
175.0	0.687	0.121	325.661	0.04%	100.00%
180.0	0.000	0.008	325.669	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	9.15	2.81%	2.81%
0-40	20.89	6.41%	6.42%
0-60	63.49	19.50%	19.50%
0-90	166.19	51.03%	51.03%
0-120	267.50	82.14%	82.14%
0-180	325.67	100.00%	100.00%
60-90	102.70	31.53%	31.53%
90-120	101.31	31.11%	31.11%
90-130	124.95	38.37%	38.37%
90-150	152.53	46.84%	46.84%
90-180	159.47	48.97%	48.97%
0-117.54	260.54	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	0.39
10-20	2.45
20-30	6.31
30-40	11.74
40-50	18.07
50-60	24.53
60-70	30.50
70-80	34.93
80-90	37.27
90-100	37.16
100-110	34.47
110-120	29.68
120-130	23.65
130-140	16.99
140-150	10.58
150-160	5.21
160-170	1.61
170-180	0.12



C30(Max): —————

C0/C180: —————

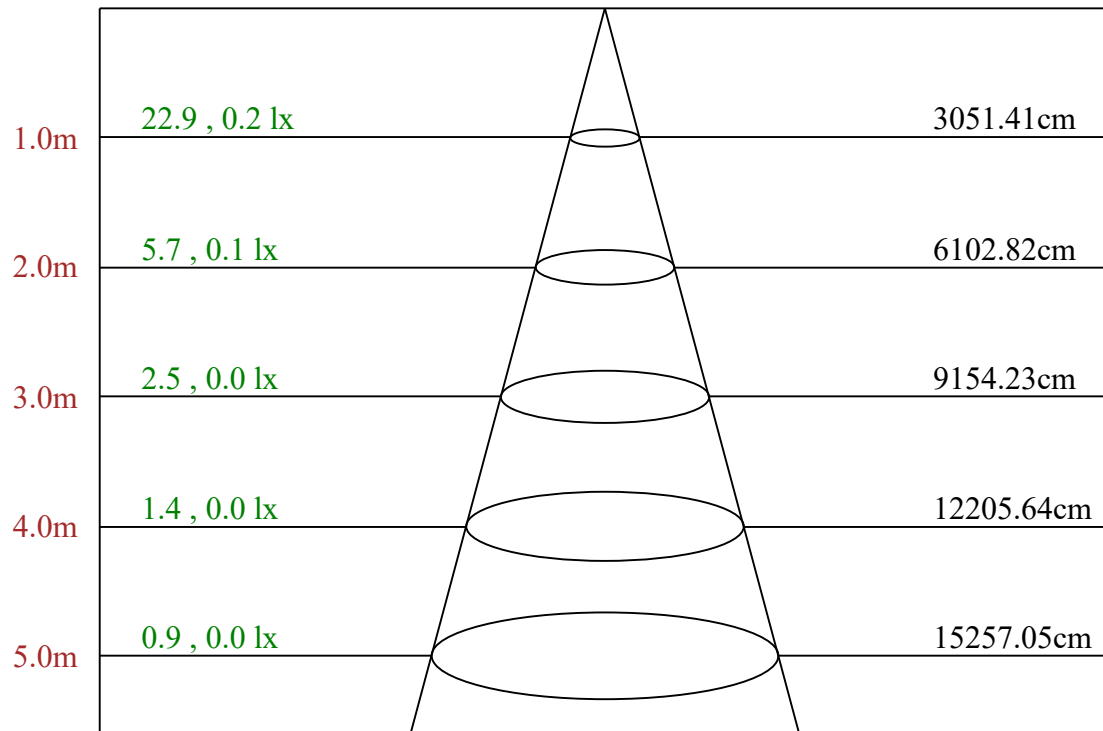
C90/C270: —————

Field angle(10%I_{max}):C0/180Left:267.2 Right:77.2

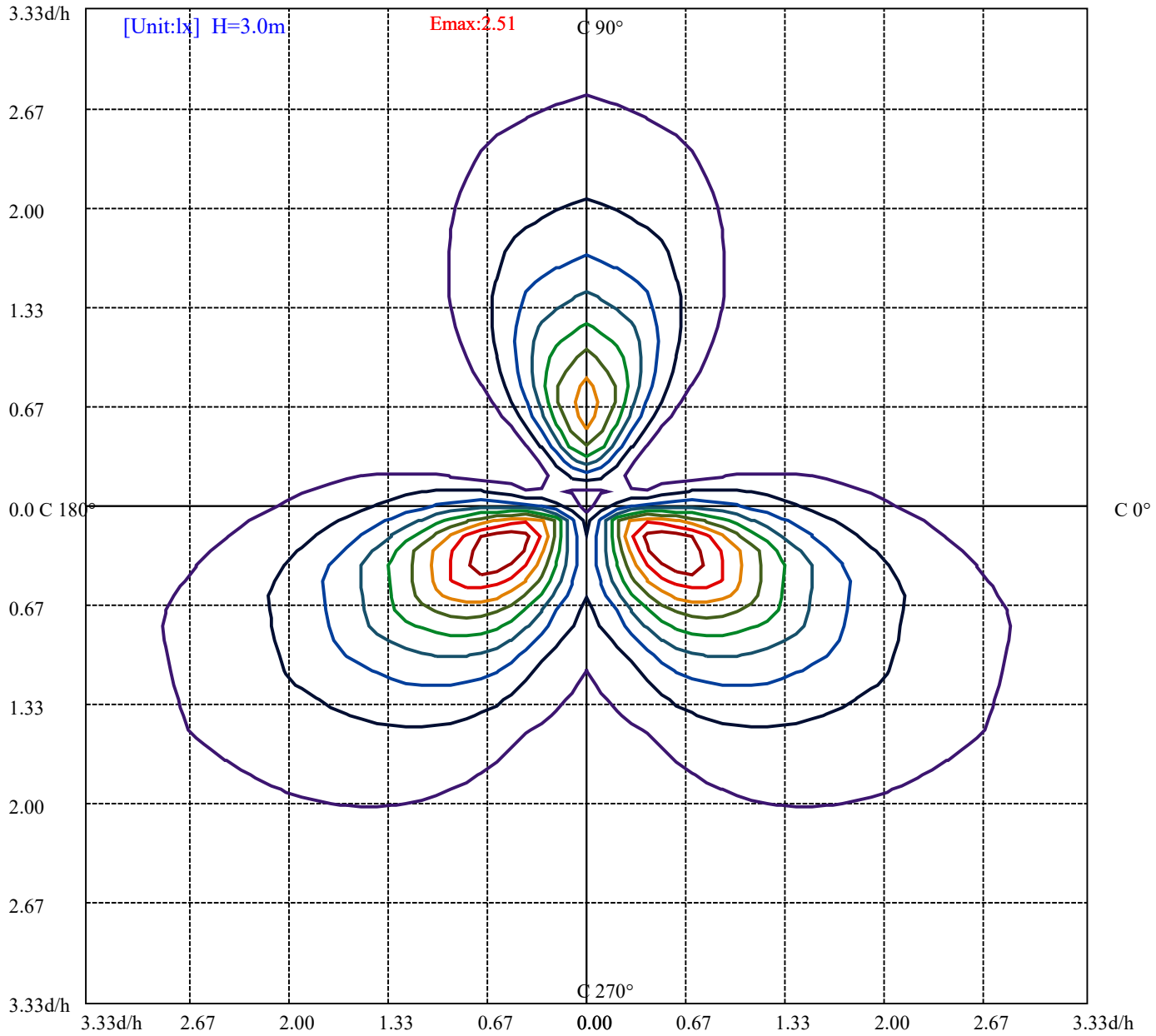
:C90/270Left:226.0 Right:71.8

Beam Angle(50%I_{max}):C0/180Left:239.2 Right:49.2

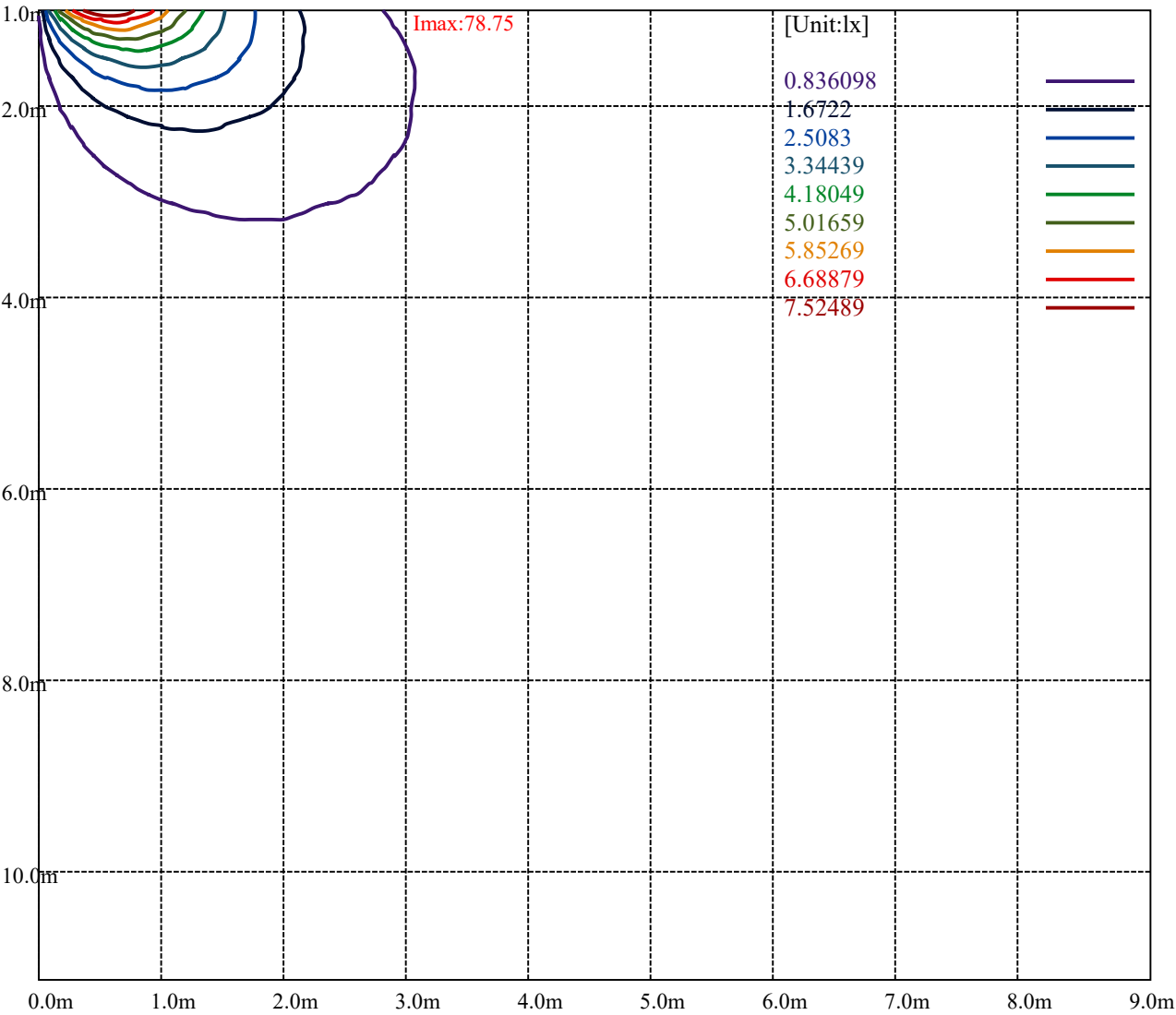
:C90/270Left:60.0 Right:51.7



Max , Ave Beam angle of C30 plane 172.50



(10%Emax) 0.2513789	—
(20%Emax) 0.5027578	—
(30%Emax) 0.7541367	—
(40%Emax) 1.005517	—
(50%Emax) 1.2569	—
(60%Emax) 1.508278	—
(70%Emax) 1.759655	—
(80%Emax) 2.011033	—
(90%Emax) 2.262411	—



Luminance Table

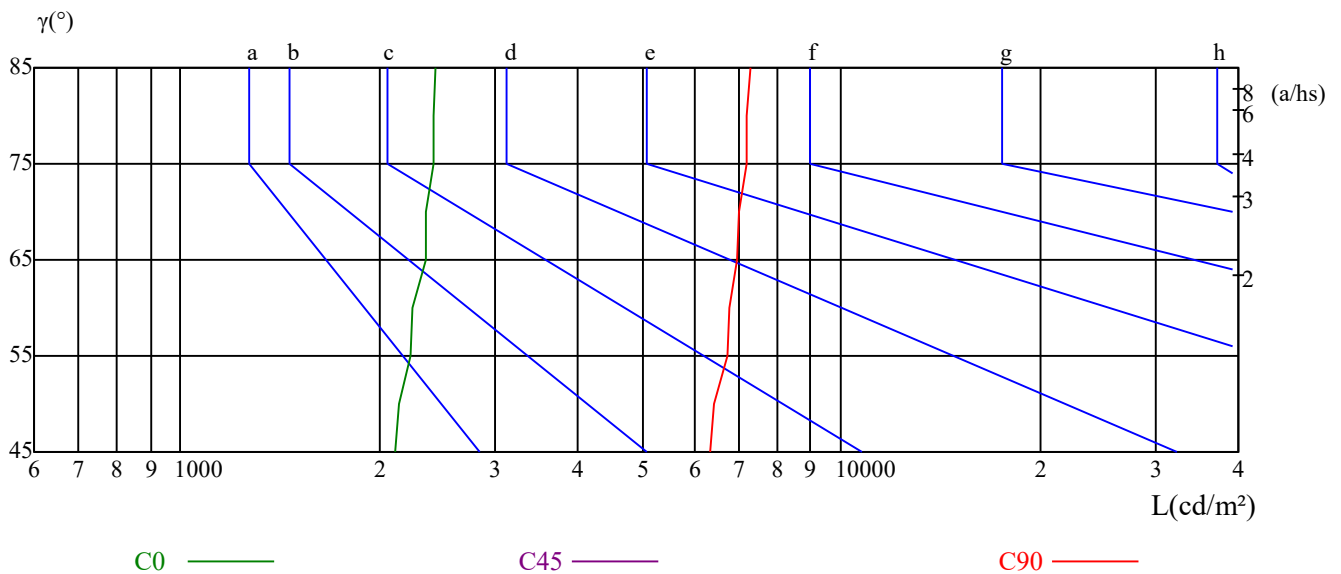
γ	45	50	55	60	65	70	75	80	85
C0	2109	2144	2232	2246	2353	2357	2414	2415	2434
C45	293	311	293	313	301	291	316	311	308
C90	6331	6444	6717	6770	6984	7010	7198	7215	7286

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
108333	122777	114652	191635	215220	200479	586591	656632	612856

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



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	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.52	0.49	0.46	0.41	0.39	0.36	0.31
2	0.71	0.63	0.56	0.65	0.57	0.51	0.53	0.48	0.42	0.43	0.38	0.34	0.33	0.29	0.26	0.21
3	0.61	0.51	0.44	0.55	0.47	0.40	0.45	0.39	0.33	0.36	0.31	0.26	0.27	0.23	0.20	0.15
4	0.53	0.43	0.35	0.48	0.39	0.32	0.39	0.32	0.27	0.31	0.26	0.21	0.23	0.19	0.16	0.12
5	0.46	0.36	0.29	0.42	0.33	0.27	0.34	0.27	0.22	0.27	0.22	0.17	0.20	0.16	0.13	0.09
6	0.41	0.31	0.24	0.37	0.29	0.22	0.30	0.23	0.18	0.24	0.19	0.14	0.18	0.14	0.10	0.07
7	0.36	0.27	0.21	0.33	0.25	0.19	0.27	0.20	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	0.16	0.25	0.18	0.13	0.19	0.14	0.10	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.19	0.14	0.22	0.16	0.12	0.18	0.13	0.09	0.13	0.09	0.06	0.04
10	0.27	0.19	0.14	0.25	0.17	0.12	0.20	0.14	0.10	0.16	0.11	0.08	0.12	0.08	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	0.92	3.66	6.41	10.07	13.74	17.40	21.98	25.64	29.30
15.0	0.92	2.75	3.66	3.66	3.66	3.66	3.66	4.58	4.58
30.0	0.92	2.75	2.75	1.83	1.83	0.92	0.92	0.92	0.92
45.0	0.92	1.83	2.75	2.75	1.83	1.83	0.92	0.92	0.92
60.0	0.92	1.83	2.75	3.66	3.66	3.66	4.58	4.58	5.49
75.0	1.83	1.83	3.66	6.41	10.07	12.82	15.57	19.23	21.98
90.0	1.83	1.83	4.58	10.07	14.65	20.14	25.64	31.13	35.71
105.0	1.83	0.92	4.58	10.07	15.57	21.06	26.55	31.13	36.63
120.0	1.83	0.92	6.41	7.33	10.99	13.74	17.40	20.14	22.89
135.0	1.83	0.92	2.75	3.66	4.58	4.58	5.49	5.49	6.41
150.0	2.75	1.83	2.75	2.75	1.83	1.83	0.92	0.92	0.92
165.0	2.75	1.83	2.75	2.75	1.83	0.92	0.92	0.92	0.92
180.0	0.92	2.75	3.66	3.66	3.66	3.66	3.66	4.58	4.58
195.0	0.92	5.49	8.24	11.90	15.57	20.14	23.81	28.39	32.96
210.0	0.92	5.49	10.99	17.40	23.81	31.13	37.54	44.87	51.28
225.0	0.92	4.58	9.16	14.65	20.14	24.72	31.13	36.63	42.12
240.0	0.92	4.58	7.33	10.99	14.65	18.31	22.89	26.55	29.30
255.0	1.83	3.66	6.41	8.24	10.99	12.82	14.65	15.57	17.40
270.0	1.83	3.66	4.58	5.49	6.41	6.41	7.33	7.33	7.33
285.0	1.83	3.66	4.58	6.41	7.33	8.24	8.24	8.24	8.24
300.0	1.83	4.58	7.33	10.07	11.90	14.65	16.48	17.40	19.23
315.0	1.83	5.49	9.16	12.82	16.48	20.14	24.72	27.47	31.13
330.0	2.75	6.41	11.90	16.48	21.98	27.47	32.96	38.46	43.95
345.0	2.75	7.33	12.82	19.23	25.64	32.96	39.37	45.78	52.19
360.0	0.92	3.66	6.41	10.07	13.74	17.40	21.98	25.64	29.30
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	33.88	37.54	41.21	43.95	47.61	49.45	52.19	53.11	54.02
15.0	5.49	5.49	5.49	6.41	6.41	6.41	7.33	7.33	7.33
30.0	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	6.41	6.41	7.33	8.24	8.24	9.16	9.16	9.16	10.07
75.0	24.72	27.47	30.22	32.05	33.88	35.71	36.63	38.46	38.46
90.0	40.29	43.95	48.53	51.28	54.94	56.77	59.52	60.43	61.35
105.0	40.29	44.87	48.53	52.19	54.94	56.77	58.60	60.43	61.35
120.0	25.64	28.39	30.22	32.05	33.88	35.71	36.63	37.54	38.46
135.0	6.41	7.33	7.33	8.24	8.24	8.24	9.16	9.16	9.16
150.0	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	0.92	0.00	0.00	0.00	0.92	0.92	0.00	0.92	0.92
180.0	5.49	5.49	6.41	6.41	7.33	7.33	7.33	7.33	7.33
195.0	36.63	40.29	43.95	47.61	50.36	53.11	54.94	56.77	57.69
210.0	57.69	63.18	68.68	74.17	78.75	82.41	85.16	86.99	88.82
225.0	46.70	51.28	55.86	60.43	64.10	66.84	68.68	70.51	71.42
240.0	32.96	36.63	39.37	41.21	43.95	45.78	46.70	48.53	48.53
255.0	18.31	19.23	20.14	20.14	21.06	21.06	21.98	21.98	21.98
270.0	7.33	7.33	7.33	7.33	7.33	7.33	7.33	7.33	7.33
285.0	8.24	8.24	9.16	9.16	9.16	9.16	9.16	9.16	9.16
300.0	21.06	21.98	23.81	24.72	25.64	26.55	27.47	27.47	27.47
315.0	33.88	37.54	39.37	42.12	43.95	45.78	46.70	47.61	47.61
330.0	48.53	52.19	56.77	59.52	63.18	65.01	66.84	68.68	68.68
345.0	57.69	63.18	67.76	72.34	76.00	79.66	82.41	83.33	84.24
360.0	33.88	37.54	41.21	43.95	47.61	49.45	52.19	53.11	54.02

Intensity data(cd)

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	54.94	54.94	54.02	52.19	50.36	47.61	44.87	42.12	38.46
15.0	7.33	7.33	7.33	6.41	6.41	6.41	5.49	5.49	5.49
30.0	0.00	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
60.0	10.07	10.07	10.07	10.07	9.16	9.16	9.16	8.24	8.24
75.0	39.37	39.37	39.37	38.46	37.54	35.71	34.80	32.96	30.22
90.0	62.27	62.27	61.35	60.43	58.60	56.77	54.02	51.28	47.61
105.0	61.35	61.35	61.35	59.52	57.69	55.86	53.11	50.36	46.70
120.0	38.46	38.46	37.54	37.54	35.71	34.80	32.96	31.13	28.39
135.0	9.16	9.16	9.16	9.16	8.24	8.24	7.33	7.33	6.41
150.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
165.0	0.92	0.92	0.92	0.00	0.00	0.00	0.00	0.00	0.00
180.0	7.33	7.33	7.33	7.33	7.33	6.41	6.41	5.49	5.49
195.0	57.69	56.77	54.94	53.11	51.28	47.61	44.87	40.29	36.63
210.0	88.82	87.90	86.07	83.33	79.66	75.08	70.51	65.01	59.52
225.0	71.42	70.51	69.59	67.76	65.01	61.35	61.35	54.02	49.45
240.0	48.53	48.53	48.53	46.70	44.87	43.04	40.29	37.54	34.80
255.0	21.98	21.06	21.06	20.14	19.23	18.31	16.48	15.57	13.74
270.0	7.33	7.33	7.33	7.33	7.33	6.41	6.41	6.41	6.41
285.0	9.16	9.16	8.24	8.24	8.24	8.24	8.24	7.33	7.33
300.0	27.47	27.47	27.47	26.55	25.64	24.72	22.89	21.98	20.14
315.0	47.61	47.61	46.70	44.87	43.95	41.21	39.37	36.63	32.96
330.0	68.68	67.76	66.84	65.01	62.27	58.60	54.94	51.28	46.70
345.0	84.24	83.33	81.49	78.75	76.00	71.42	66.84	62.27	56.77
360.0	54.94	54.94	54.02	52.19	50.36	47.61	44.87	42.12	38.46
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	34.80	31.13	26.55	22.89	18.31	14.65	10.99	7.33	3.66
15.0	4.58	4.58	3.66	3.66	2.75	2.75	2.75	2.75	1.83
30.0	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92	0.92
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92
60.0	7.33	6.41	5.49	4.58	3.66	2.75	1.83	0.92	0.00
75.0	27.47	24.72	21.06	17.40	13.74	9.16	5.49	1.83	0.00
90.0	43.95	38.46	32.96	27.47	21.06	14.65	8.24	2.75	0.00
105.0	42.12	37.54	32.05	25.64	20.14	13.74	8.24	2.75	0.00
120.0	25.64	22.89	19.23	15.57	11.90	8.24	4.58	1.83	0.00
135.0	5.49	5.49	4.58	3.66	2.75	1.83	0.92	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	4.58	4.58	3.66	3.66	2.75	1.83	1.83	0.92	0.00
195.0	32.96	28.39	24.72	20.14	16.48	12.82	7.33	3.66	0.92
210.0	53.11	51.28	39.37	32.96	26.55	19.23	11.90	5.49	0.92
225.0	43.95	39.37	33.88	28.39	21.98	16.48	10.07	4.58	0.92
240.0	32.05	28.39	24.72	20.14	16.48	11.90	8.24	3.66	0.92
255.0	12.82	10.99	10.07	9.16	7.33	5.49	3.66	2.75	0.92
270.0	5.49	5.49	5.49	5.49	4.58	4.58	3.66	2.75	0.92
285.0	7.33	6.41	6.41	6.41	5.49	4.58	3.66	1.83	0.92
300.0	18.31	16.48	14.65	12.82	10.07	8.24	5.49	2.75	0.00
315.0	30.22	26.55	22.89	19.23	14.65	10.99	7.33	3.66	0.92
330.0	42.12	37.54	32.05	25.64	21.06	15.57	10.07	4.58	0.92
345.0	50.36	43.95	37.54	31.13	24.72	18.31	11.90	6.41	0.92
360.0	34.80	31.13	26.55	22.89	18.31	14.65	10.99	7.33	3.66

Intensity data(cd)

Appendix Page: 12 Total:12

C/ γ (°)	180.0
0.0	0.00
15.0	0.00
30.0	0.00
45.0	0.00
60.0	0.00
75.0	0.00
90.0	0.00
105.0	0.00
120.0	0.00
135.0	0.00
150.0	0.00
165.0	0.00
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	0.00