
乐达凯

Client:

LumCAT: RYNW0618LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.980

LampCAT:

Current(A): 0.172

Lamp flux(lm): 370.9

Power (W): 20.380

Number of Lamps: 1

PF: 0.990

Length(mm): 30

Width(mm): 20

Phm Type: C

Height(mm): 420

Photometric Results

Lumens(lm): 370.86, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 18.20

Central intensity(cd): 0.916, Maximum intensity(cd): 89.278

Angle of maximum intensity: C=30.0 γ =85.0

Beam Angle(50%Imax): [C0/180]Total=290.0

[C90/270]Total=111.4

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

[C90/270]Total=298.9

Maximum s/h(1/2): C0_180=8.34 C90_270=8.34

Maximum s/h(1/4): C0_180=7.55 C90_270=7.55

Up flux rate of lamp(%): 48.95%

Down flux rate of lamp(%): 51.05%

Up flux rate of LUM(%): 48.95%

Down flux rate of LUM(%): 51.05%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.512%

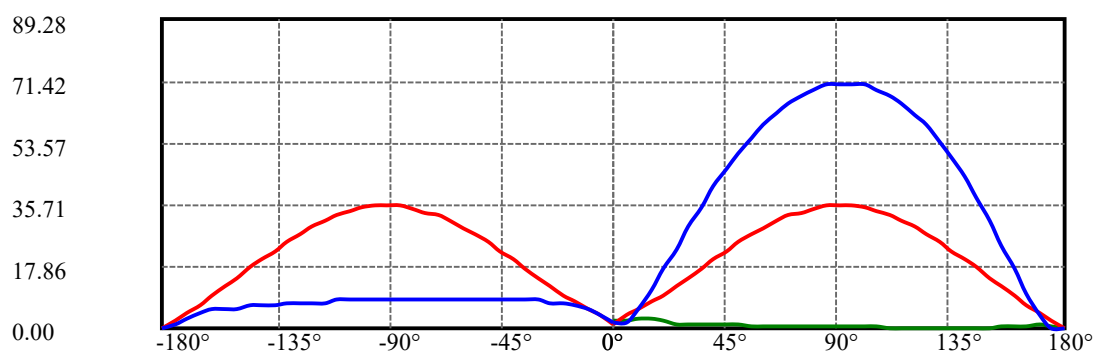
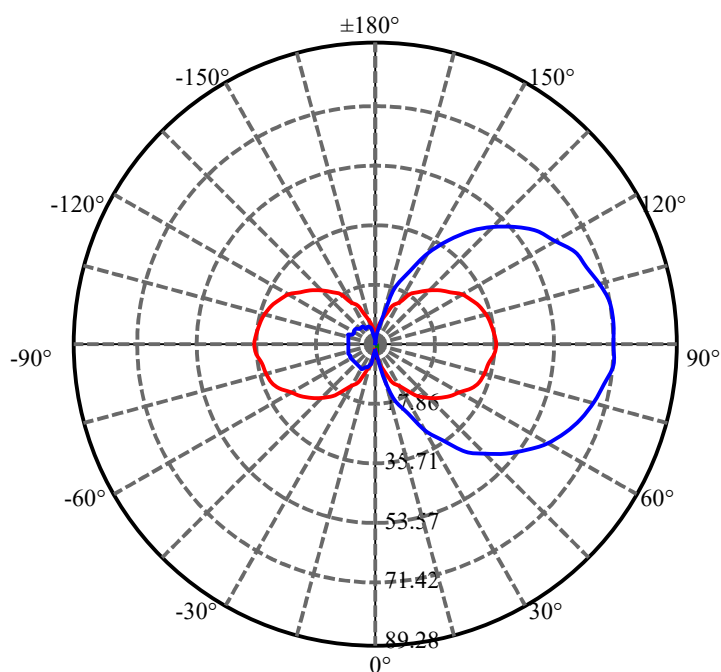
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1.755	0.000	0	0.00%	0.00%
5.0	3.853	0.067	0.067	0.02%	0.02%
10.0	6.639	0.375	0.442	0.10%	0.12%
15.0	9.576	0.962	1.404	0.26%	0.38%
20.0	12.438	1.814	3.219	0.49%	0.87%
25.0	15.337	2.913	6.132	0.79%	1.65%
30.0	18.428	4.273	10.405	1.15%	2.81%
35.0	21.137	5.826	16.231	1.57%	4.38%
40.0	24.036	7.537	23.768	2.03%	6.41%
45.0	26.593	9.374	33.142	2.53%	8.94%
50.0	28.958	11.225	44.367	3.03%	11.96%
55.0	31.247	13.091	57.457	3.53%	15.49%
60.0	33.231	14.904	72.361	4.02%	19.51%
65.0	35.062	16.602	88.964	4.48%	23.99%
70.0	36.550	18.133	107.096	4.89%	28.88%
75.0	37.695	19.407	126.503	5.23%	34.11%
80.0	38.496	20.387	146.89	5.50%	39.61%
85.0	38.954	21.045	167.935	5.67%	45.28%
90.0	39.145	21.384	189.319	5.77%	51.05%
95.0	38.801	21.342	210.661	5.75%	56.80%
100.0	38.344	20.962	231.623	5.65%	62.46%
105.0	37.161	20.203	251.826	5.45%	67.90%
110.0	35.749	19.058	270.884	5.14%	73.04%
115.0	34.032	17.669	288.553	4.76%	77.81%
120.0	32.315	16.129	304.682	4.35%	82.16%
125.0	29.988	14.401	319.083	3.88%	86.04%
130.0	27.546	12.510	331.593	3.37%	89.41%
135.0	24.876	10.593	342.186	2.86%	92.27%
140.0	22.243	8.724	350.91	2.35%	94.62%
145.0	18.962	6.875	357.785	1.85%	96.48%
150.0	15.833	5.124	362.909	1.38%	97.86%
155.0	12.896	3.636	366.544	0.98%	98.84%
160.0	9.424	2.341	368.885	0.63%	99.47%
165.0	6.104	1.280	370.165	0.35%	99.81%
170.0	3.052	0.543	370.708	0.15%	99.96%
175.0	0.801	0.138	370.846	0.04%	100.00%
180.0	0.000	0.010	370.856	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	10.40	2.81%	2.81%
0-40	23.77	6.41%	6.41%
0-60	72.36	19.51%	19.51%
0-90	189.32	51.05%	51.05%
0-120	304.68	82.16%	82.16%
0-180	370.86	100.00%	100.00%
60-90	116.96	31.54%	31.54%
90-120	115.36	31.11%	31.11%
90-130	142.27	38.36%	38.36%
90-150	173.59	46.81%	46.81%
90-180	181.53	48.95%	48.95%
0-117.52	296.68	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	0.44
10-20	2.78
20-30	7.19
30-40	13.36
40-50	20.60
50-60	27.99
60-70	34.74
70-80	39.79
80-90	42.43
90-100	42.30
100-110	39.26
110-120	33.80
120-130	26.91
130-140	19.32
140-150	12.00
150-160	5.98
160-170	1.82
170-180	0.14



C30(Max): —————

C0/C180: —————

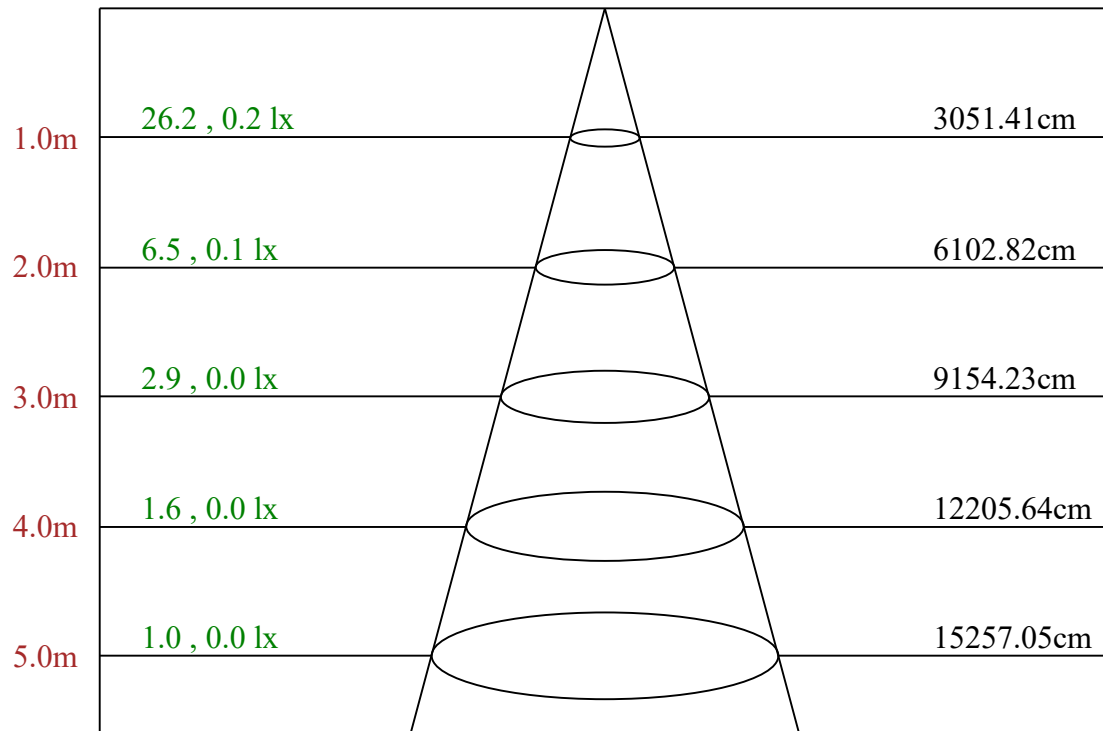
C90/C270: —————

Field angle(10%Imax):C0/180Left:262.2 Right:82.2

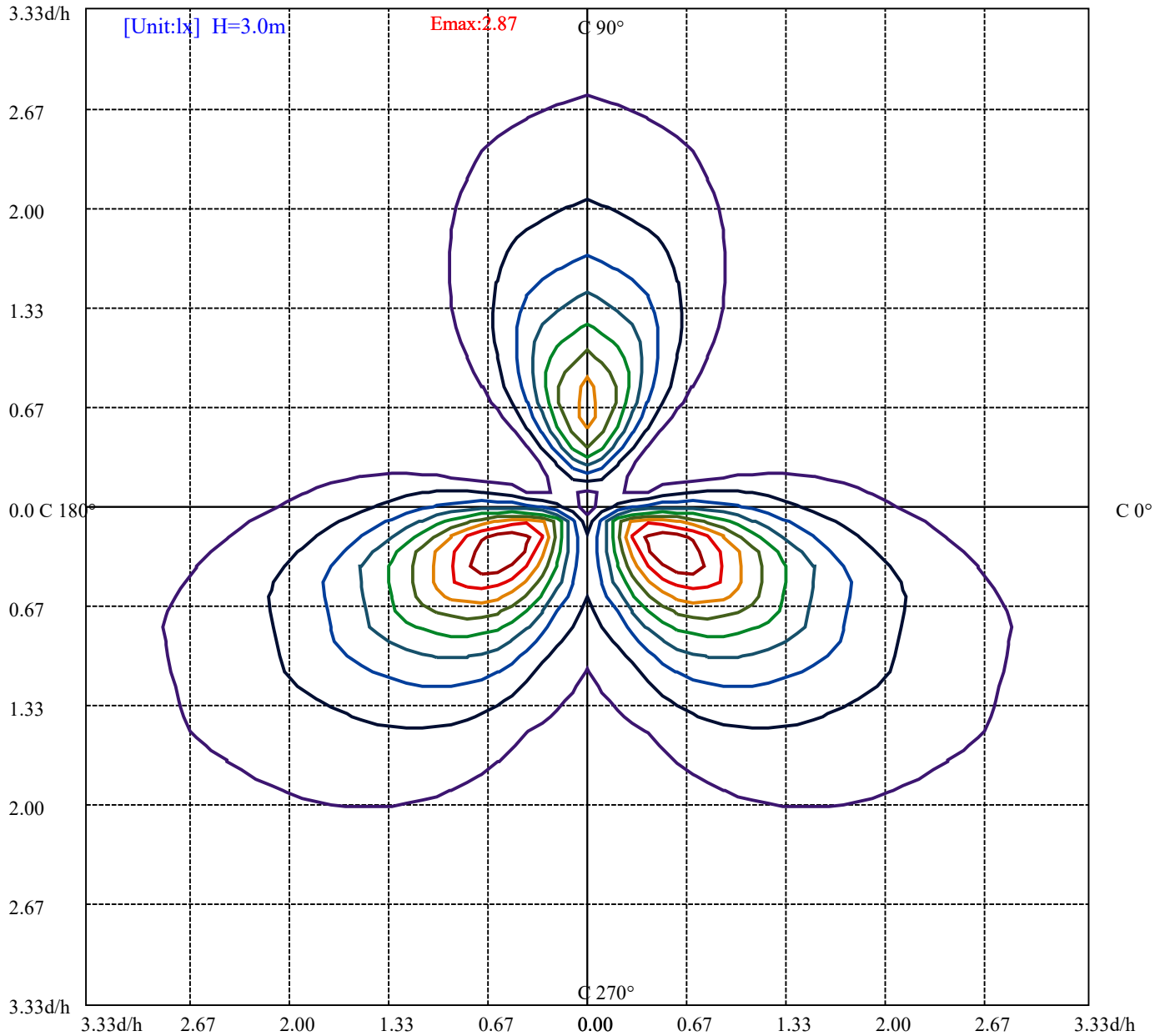
:C90/270Left:231.5 Right:67.4

Beam Angle(50%Imax):C0/180Left:235.0 Right:55.0

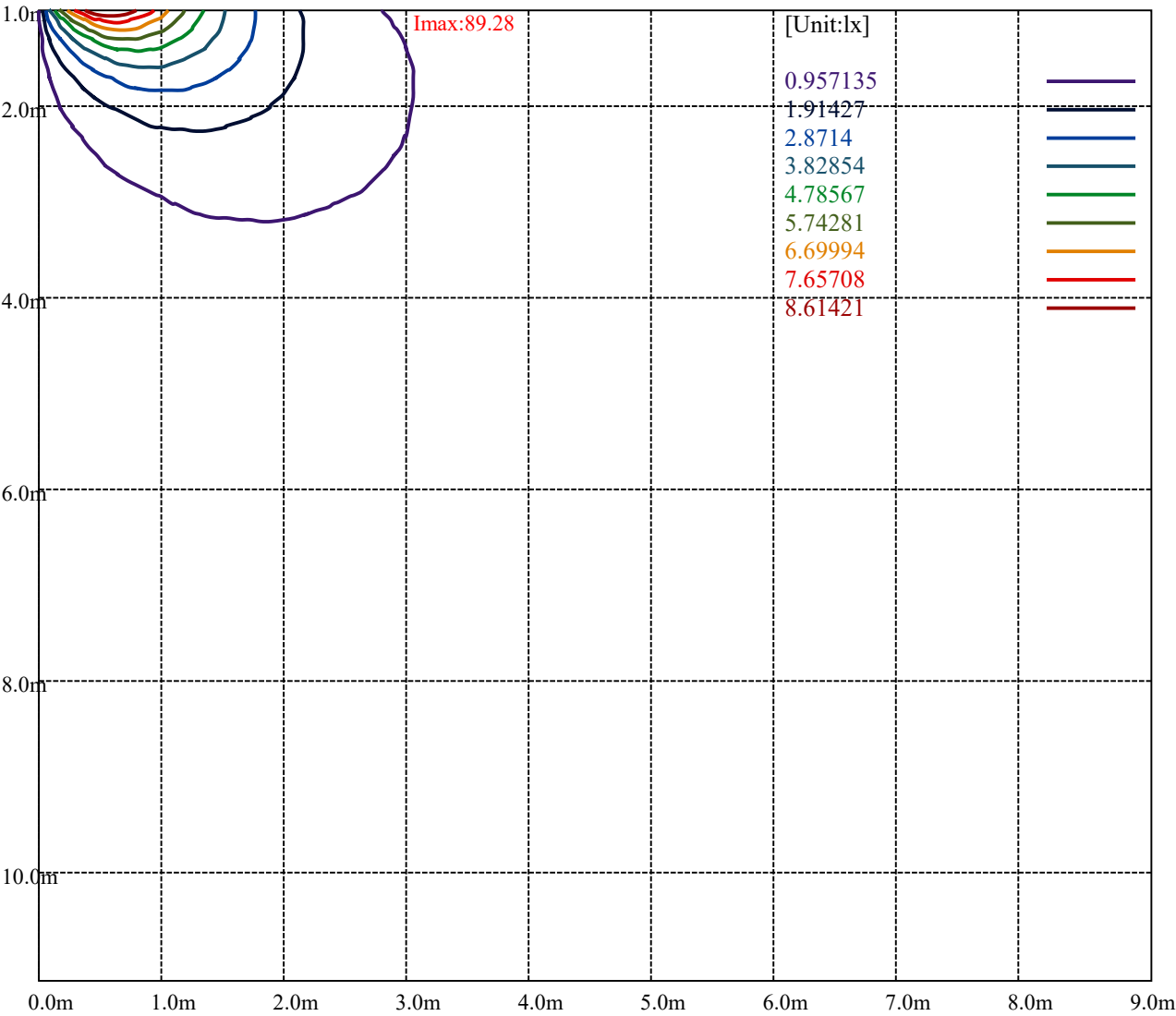
:C90/270Left:64.6 Right:46.8



Max , Ave Beam angle of C30 plane 172.50



(10%Emax) 0.2869955	—
(20%Emax) 0.5739911	—
(30%Emax) 0.8609866	—
(40%Emax) 1.147978	—
(50%Emax) 1.434978	—
(60%Emax) 1.721978	—
(70%Emax) 2.008967	—
(80%Emax) 2.295967	—
(90%Emax) 2.582955	—



Luminance Table

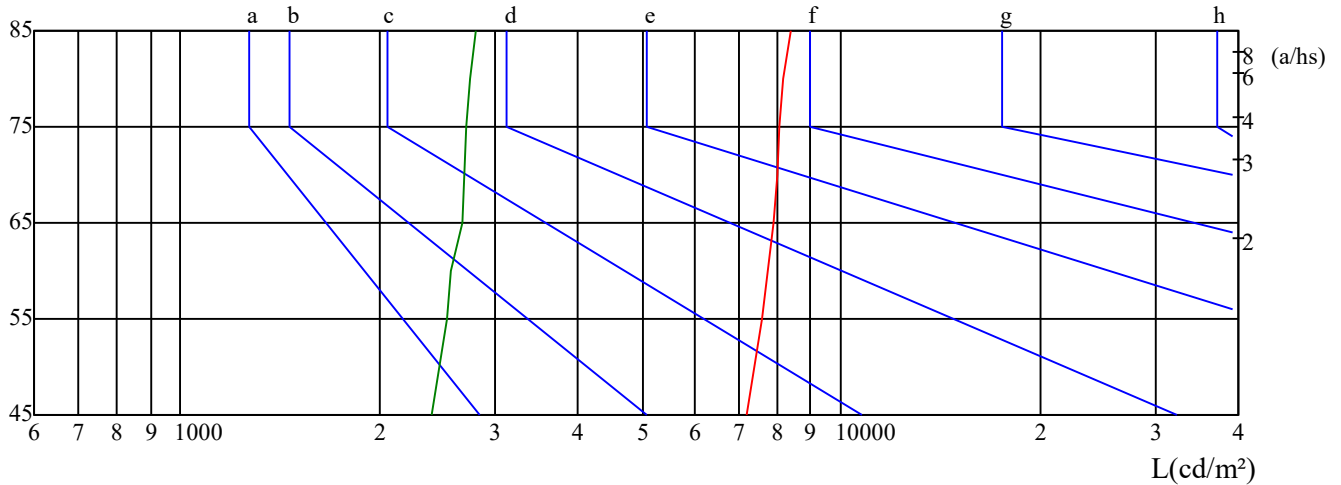
γ	45	50	55	60	65	70	75	80	85
C0	2404	2463	2533	2573	2667	2699	2712	2744	2797
C45	377	350	329	348	334	356	379	373	339
C90	7194	7384	7604	7737	7915	8028	8084	8198	8373

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
122777	139027	129999	215220	241754	228487	674142	752938	696030

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	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	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	0.16
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	0.24	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

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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	0.92	3.66	7.33	11.90	15.57	20.14	24.72	29.30	33.88		
15.0	0.92	2.75	3.66	3.66	3.66	3.66	4.58	4.58	5.49		
30.0	1.83	2.75	2.75	2.75	1.83	0.92	0.92	0.92	0.92		
45.0	0.92	2.75	2.75	2.75	1.83	1.83	0.92	0.92	0.92		
60.0	1.83	1.83	3.66	3.66	3.66	4.58	5.49	5.49	6.41		
75.0	1.83	1.83	4.58	7.33	10.99	14.65	18.31	21.98	25.64		
90.0	1.83	1.83	5.49	10.99	17.40	22.89	29.30	34.80	41.21		
105.0	1.83	1.83	5.49	11.90	17.40	23.81	30.22	35.71	41.21		
120.0	1.83	1.83	7.33	8.24	11.90	15.57	20.14	22.89	26.55		
135.0	1.83	1.83	3.66	4.58	5.49	5.49	6.41	6.41	7.33		
150.0	2.75	1.83	2.75	2.75	2.75	1.83	1.83	0.92	0.92		
165.0	2.75	1.83	2.75	2.75	1.83	1.83	0.92	0.92	0.92		
180.0	0.92	3.66	3.66	3.66	3.66	4.58	4.58	5.49	5.49		
195.0	0.92	5.49	9.16	13.74	18.31	22.89	27.47	32.05	37.54		
210.0	1.83	6.41	12.82	20.14	27.47	34.80	43.04	50.36	58.60		
225.0	0.92	5.49	10.07	16.48	22.89	28.39	35.71	41.21	47.61		
240.0	1.83	4.58	8.24	12.82	16.48	21.06	25.64	30.22	33.88		
255.0	1.83	4.58	7.33	10.07	11.90	14.65	16.48	18.31	19.23		
270.0	1.83	3.66	5.49	6.41	7.33	7.33	8.24	8.24	8.24		
285.0	1.83	4.58	4.58	7.33	8.24	9.16	9.16	9.16	9.16		
300.0	1.83	5.49	8.24	10.99	13.74	16.48	18.31	20.14	21.98		
315.0	1.83	6.41	10.07	14.65	19.23	23.81	27.47	32.05	35.71		
330.0	2.75	7.33	12.82	18.31	25.64	31.13	37.54	43.95	49.45		
345.0	2.75	8.24	14.65	21.98	29.30	36.63	44.87	51.28	58.60		
360.0	0.92	3.66	7.33	11.90	15.57	20.14	24.72	29.30	33.88		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	38.46	43.04	46.70	50.36	54.02	56.77	58.60	60.43	62.27		
15.0	5.49	6.41	6.41	7.33	7.33	7.33	8.24	8.24	8.24		
30.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
45.0	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.00		
60.0	7.33	7.33	8.24	9.16	9.16	10.07	10.07	10.99	10.99		
75.0	28.39	31.13	33.88	36.63	38.46	40.29	42.12	43.04	43.95		
90.0	45.78	50.36	54.94	58.60	62.27	65.01	66.84	68.68	70.51		
105.0	46.70	51.28	54.94	58.60	62.27	65.01	66.84	68.68	69.59		
120.0	29.30	32.05	34.80	36.63	39.37	40.29	42.12	43.04	43.04		
135.0	7.33	8.24	8.24	9.16	9.16	10.07	10.07	10.07	10.07		
150.0	0.92	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
165.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
180.0	6.41	6.41	7.33	7.33	8.24	8.24	8.24	8.24	8.24		
195.0	42.12	45.78	50.36	54.02	57.69	60.43	63.18	64.10	65.01		
210.0	65.01	72.34	78.75	84.24	89.74	93.40	97.06	99.81	100.72		
225.0	53.11	58.60	64.10	68.68	72.34	76.00	77.83	79.66	80.58		
240.0	37.54	41.21	44.87	47.61	49.45	52.19	54.02	54.94	55.86		
255.0	20.14	21.06	22.89	22.89	23.81	24.72	24.72	24.72	24.72		
270.0	8.24	8.24	8.24	8.24	8.24	8.24	8.24	8.24	8.24		
285.0	10.07	10.07	10.07	10.07	10.07	10.07	10.07	10.07	10.07		
300.0	23.81	25.64	26.55	28.39	29.30	30.22	31.13	31.13	32.05		
315.0	39.37	42.12	44.87	47.61	50.36	52.19	53.11	54.02	54.94		
330.0	54.94	59.52	64.10	67.76	71.42	74.17	76.00	77.83	77.83		
345.0	65.01	71.42	77.83	82.41	86.99	90.65	93.40	95.23	96.15		
360.0	38.46	43.04	46.70	50.36	54.02	56.77	58.60	60.43	62.27		

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	62.27	62.27	61.35	59.52	57.69	54.94	51.28	47.61	43.95
15.0	8.24	8.24	8.24	7.33	7.33	7.33	6.41	6.41	5.49
30.0	0.92	0.92	0.92	0.92	0.00	0.00	0.00	0.00	0.00
45.0	0.00	0.92	0.92	0.00	0.00	0.00	0.00	0.00	0.00
60.0	10.99	10.99	10.99	10.99	10.99	10.07	10.07	9.16	9.16
75.0	44.87	44.87	44.87	43.95	42.12	41.21	39.37	37.54	34.80
90.0	70.51	70.51	70.51	68.68	66.84	65.01	61.35	58.60	54.02
105.0	70.51	69.59	69.59	67.76	65.93	63.18	60.43	56.77	53.11
120.0	43.95	43.95	43.04	42.12	41.21	39.37	37.54	34.80	32.96
135.0	10.07	10.07	10.07	10.07	9.16	9.16	9.16	8.24	7.33
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	0.92	0.92	0.92	0.00	0.00	0.00
180.0	9.16	8.24	8.24	8.24	8.24	7.33	7.33	6.41	6.41
195.0	65.01	64.10	63.18	60.43	57.69	54.02	50.36	46.70	42.12
210.0	100.72	99.81	97.98	95.23	90.65	86.07	80.58	74.17	67.76
225.0	81.49	80.58	78.75	76.92	73.25	70.51	69.59	61.35	55.86
240.0	55.86	54.94	54.94	53.11	51.28	48.53	45.78	43.04	39.37
255.0	24.72	24.72	23.81	22.89	21.98	20.14	19.23	17.40	15.57
270.0	8.24	8.24	8.24	8.24	8.24	7.33	7.33	7.33	7.33
285.0	10.07	10.07	10.07	10.07	9.16	9.16	9.16	9.16	8.24
300.0	32.05	31.13	31.13	30.22	29.30	27.47	26.55	24.72	22.89
315.0	54.94	54.02	53.11	51.28	49.45	46.70	44.87	41.21	37.54
330.0	77.83	76.92	76.00	73.25	70.51	66.84	63.18	58.60	53.11
345.0	96.15	95.23	93.40	89.74	86.07	81.49	76.00	70.51	64.10
360.0	62.27	62.27	61.35	59.52	57.69	54.94	51.28	47.61	43.95
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	39.37	34.80	31.13	25.64	21.06	16.48	11.90	8.24	4.58
15.0	5.49	4.58	4.58	3.66	3.66	2.75	2.75	2.75	1.83
30.0	0.00	0.00	0.00	0.00	0.92	0.92	0.92	1.83	0.92
45.0	0.00	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92
60.0	8.24	7.33	6.41	5.49	4.58	3.66	1.83	0.92	0.00
75.0	32.05	28.39	23.81	20.14	15.57	10.99	6.41	1.83	0.00
90.0	49.45	43.95	37.54	31.13	23.81	17.40	10.07	3.66	0.00
105.0	47.61	42.12	35.71	29.30	22.89	15.57	9.16	3.66	0.00
120.0	29.30	25.64	21.98	17.40	13.74	9.16	5.49	1.83	0.00
135.0	6.41	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	0.92	0.92	0.00	0.00	0.00	0.00
180.0	5.49	4.58	4.58	3.66	3.66	2.75	1.83	0.92	0.00
195.0	37.54	32.96	27.47	22.89	19.23	14.65	8.24	3.66	0.92
210.0	60.43	58.60	44.87	37.54	30.22	21.06	13.74	6.41	0.92
225.0	50.36	44.87	38.46	32.05	25.64	18.31	11.90	5.49	0.92
240.0	35.71	32.05	27.47	22.89	19.23	13.74	9.16	4.58	0.92
255.0	14.65	12.82	10.99	10.07	8.24	6.41	4.58	2.75	0.92
270.0	6.41	6.41	6.41	5.49	5.49	5.49	4.58	2.75	0.92
285.0	8.24	7.33	7.33	7.33	6.41	5.49	3.66	1.83	0.92
300.0	21.06	19.23	17.40	14.65	11.90	9.16	5.49	2.75	0.92
315.0	33.88	30.22	25.64	21.06	17.40	12.82	8.24	3.66	0.92
330.0	47.61	42.12	35.71	29.30	23.81	17.40	10.99	5.49	0.92
345.0	57.69	50.36	43.04	35.71	28.39	20.14	13.74	7.33	1.83
360.0	39.37	34.80	31.13	25.64	21.06	16.48	11.90	8.24	4.58

Intensity data(cd)

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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