
乐达凯

Client:

LumCAT: RYNW0618LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.970

LampCAT:

Current(A): 0.166

Lamp flux(lm): 383.0

Power (W): 19.690

Number of Lamps: 1

PF: 0.991

Length(mm): 30

Width(mm): 20

Phm Type: C

Height(mm): 420

Photometric Results

Lumens(lm): 382.99, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 19.45

Central intensity(cd): 0.916, Maximum intensity(cd): 92.482

Angle of maximum intensity: C=30.0 γ =90.0

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

[C90/270]Total=110.7

Field angle(10%Imax): [C0/180]Total=344.0

[C90/270]Total=297.1

Maximum s/h(1/2): C0_180=8.53 C90_270=8.49

Maximum s/h(1/4): C0_180=7.63 C90_270=7.63

Up flux rate of lamp(%): 48.94%

Down flux rate of lamp(%): 51.06%

Up flux rate of LUM(%): 48.94%

Down flux rate of LUM(%): 51.06%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.497%

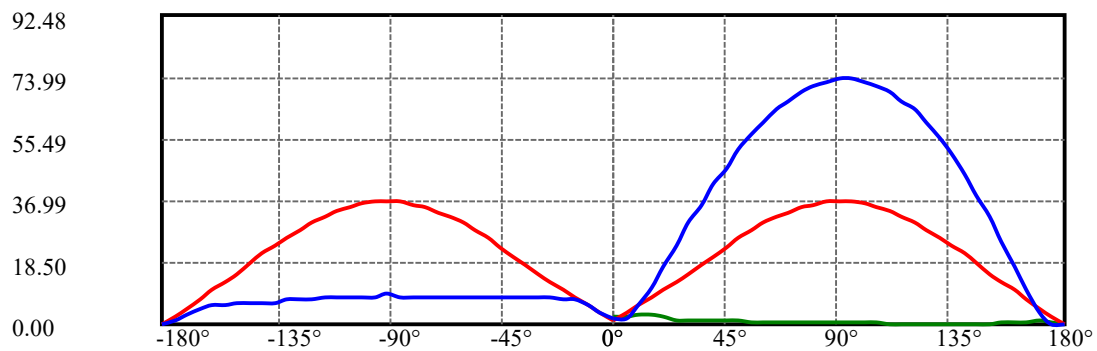
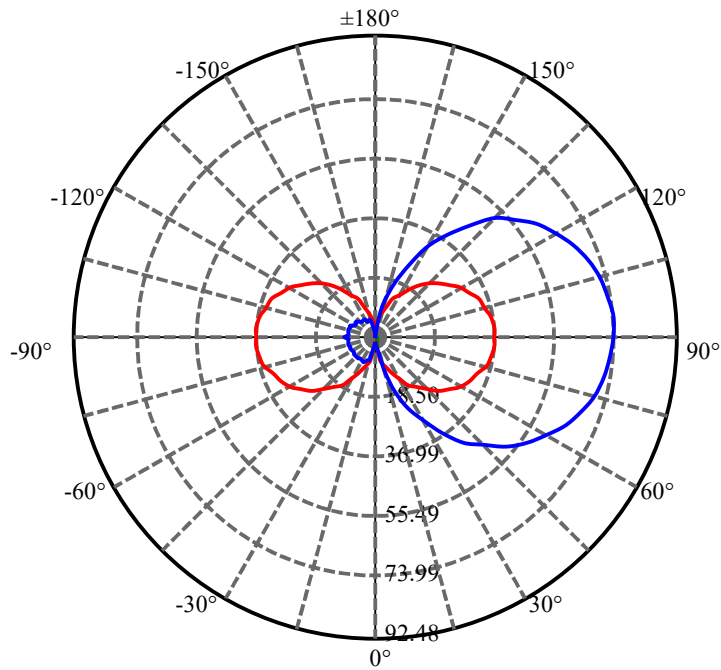
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1.831	0.000	0	0.00%	0.00%
5.0	4.006	0.070	0.07	0.02%	0.02%
10.0	6.944	0.392	0.461	0.10%	0.12%
15.0	9.882	0.998	1.46	0.26%	0.38%
20.0	12.934	1.880	3.34	0.49%	0.87%
25.0	15.833	3.017	6.357	0.79%	1.66%
30.0	18.924	4.399	10.756	1.15%	2.81%
35.0	21.862	6.006	16.762	1.57%	4.38%
40.0	24.723	7.772	24.534	2.03%	6.41%
45.0	27.432	9.657	34.191	2.52%	8.93%
50.0	29.912	11.587	45.778	3.03%	11.95%
55.0	32.239	13.514	59.292	3.53%	15.48%
60.0	34.299	15.380	74.672	4.02%	19.50%
65.0	36.245	17.150	91.821	4.48%	23.97%
70.0	37.771	18.741	110.563	4.89%	28.87%
75.0	38.992	20.065	130.627	5.24%	34.11%
80.0	39.832	21.091	151.718	5.51%	39.61%
85.0	40.251	21.760	173.479	5.68%	45.30%
90.0	40.404	22.084	195.563	5.77%	51.06%
95.0	40.099	22.042	217.605	5.76%	56.82%
100.0	39.488	21.626	239.231	5.65%	62.46%
105.0	38.382	20.836	260.066	5.44%	67.90%
110.0	37.008	19.706	279.772	5.15%	73.05%
115.0	35.177	18.278	298.05	4.77%	77.82%
120.0	33.346	16.658	314.708	4.35%	82.17%
125.0	30.942	14.860	329.568	3.88%	86.05%
130.0	28.424	12.908	342.476	3.37%	89.42%
135.0	25.715	10.940	353.415	2.86%	92.28%
140.0	23.044	9.028	362.444	2.36%	94.63%
145.0	19.611	7.117	369.56	1.86%	96.49%
150.0	16.329	5.292	374.853	1.38%	97.87%
155.0	13.163	3.732	378.585	0.97%	98.85%
160.0	9.691	2.397	380.982	0.63%	99.47%
165.0	6.219	1.311	382.293	0.34%	99.82%
170.0	3.090	0.552	382.845	0.14%	99.96%
175.0	0.801	0.139	382.984	0.04%	100.00%
180.0	0.000	0.010	382.994	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	10.76	2.81%	2.81%
0-40	24.53	6.41%	6.41%
0-60	74.67	19.50%	19.50%
0-90	195.56	51.06%	51.06%
0-120	314.71	82.17%	82.17%
0-180	382.99	100.00%	100.00%
60-90	120.89	31.57%	31.56%
90-120	119.15	31.11%	31.11%
90-130	146.91	38.36%	38.36%
90-150	179.29	46.81%	46.81%
90-180	187.42	48.94%	48.94%
0-117.50	306.40	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	0.46
10-20	2.88
20-30	7.42
30-40	13.78
40-50	21.24
50-60	28.89
60-70	35.89
70-80	41.16
80-90	43.84
90-100	43.67
100-110	40.54
110-120	34.94
120-130	27.77
130-140	19.97
140-150	12.41
150-160	6.13
160-170	1.86
170-180	0.14

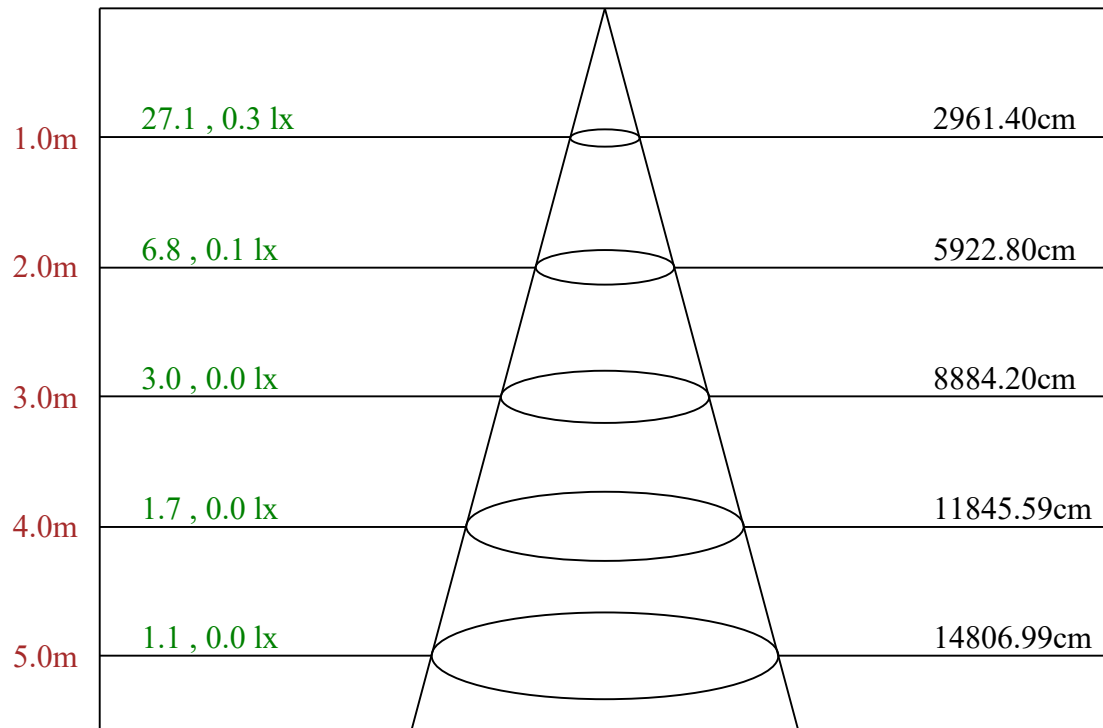
C30(Max): C0/C180: C90/C270: 

Field angle(10%Imax):C0/180Left:267.0 Right:77.0

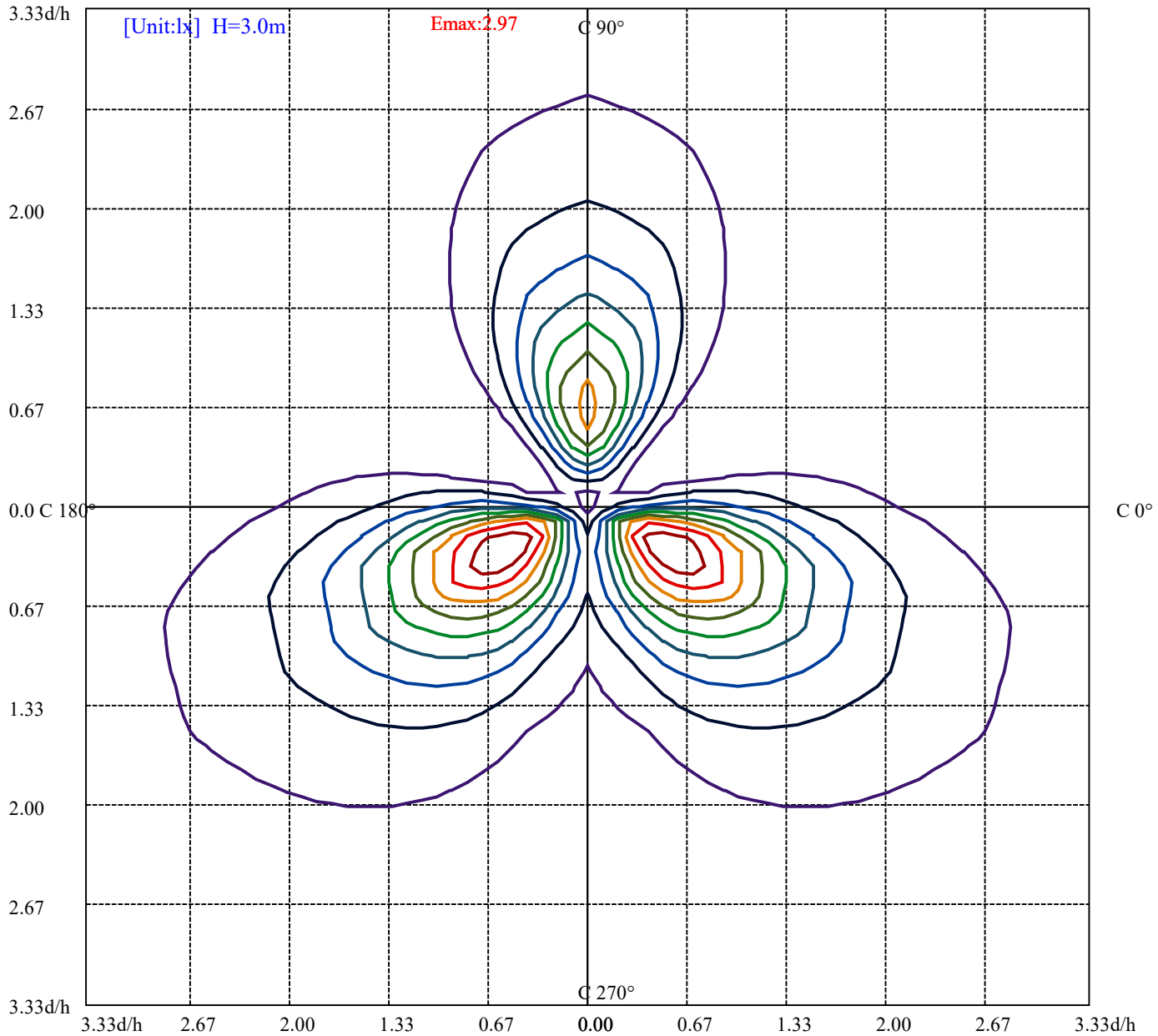
:C90/270Left:225.0 Right:72.1

Beam Angle(50%Imax):C0/180Left:240.0 Right:50.0

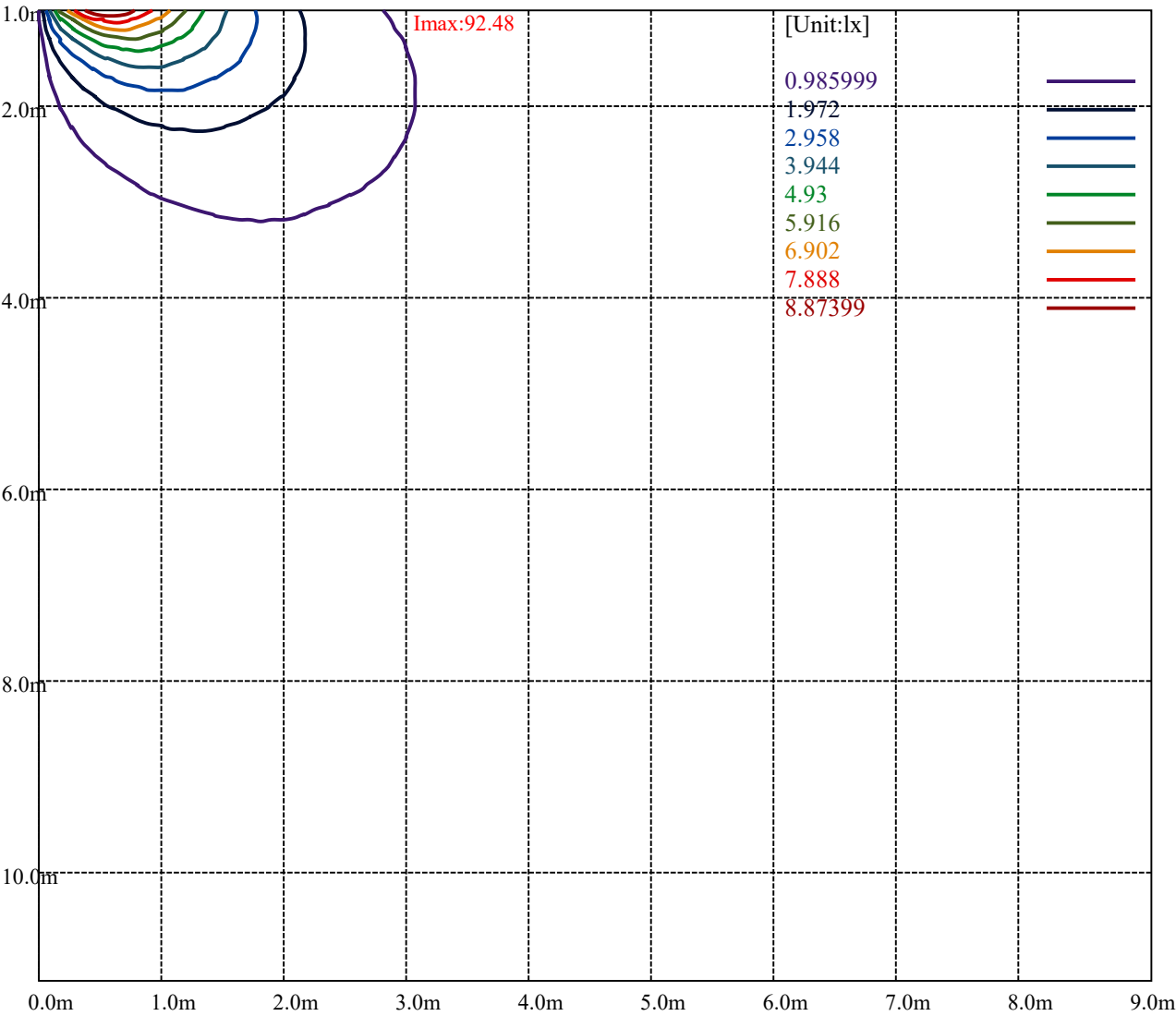
:C90/270Left:59.3 Right:51.4



Max , Ave Beam angle of C30 plane 172.27



(10%Emax) 0.2966344	—
(20%Emax) 0.5932677	—
(30%Emax) 0.8899022	—
(40%Emax) 1.186533	—
(50%Emax) 1.483167	—
(60%Emax) 1.7798	—
(70%Emax) 2.076433	—
(80%Emax) 2.373078	—
(90%Emax) 2.669711	—



Luminance Table

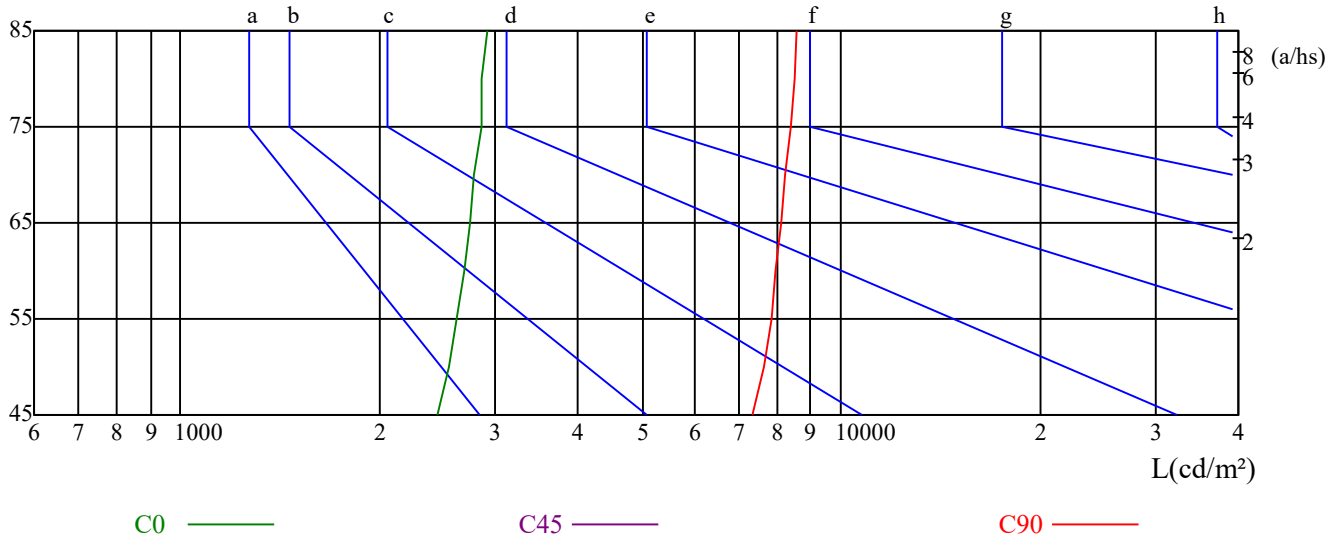
γ	45	50	55	60	65	70	75	80	85
C0	2453	2554	2619	2695	2746	2775	2860	2854	2906
C45	377	350	366	348	367	356	379	404	370
C90	7338	7652	7858	7979	8148	8254	8416	8526	8591

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
126388	142638	135416	227013	250599	235858	700407	770448	722295

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

 $\gamma(^{\circ})$ 

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	0.15
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	0.24	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	8.24	11.90	16.48	20.14	25.64	30.22	34.80		
15.0	0.92	3.66	3.66	3.66	3.66	3.66	4.58	5.49	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	4.58	4.58	5.49	5.49	6.41		
75.0	1.83	1.83	4.58	8.24	10.99	14.65	18.31	22.89	25.64		
90.0	1.83	1.83	5.49	10.99	17.40	23.81	30.22	35.71	42.12		
105.0	1.83	1.83	5.49	11.90	18.31	24.72	31.13	36.63	42.12		
120.0	1.83	1.83	8.24	9.16	12.82	16.48	20.14	23.81	27.47		
135.0	2.75	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	6.41	10.07	13.74	19.23	23.81	28.39	32.96	38.46		
210.0	1.83	6.41	12.82	21.06	28.39	36.63	43.95	52.19	60.43		
225.0	0.92	5.49	10.99	16.48	22.89	29.30	36.63	43.04	49.45		
240.0	1.83	4.58	9.16	12.82	17.40	21.98	26.55	31.13	34.80		
255.0	1.83	4.58	7.33	10.07	12.82	14.65	16.48	19.23	20.14		
270.0	1.83	3.66	5.49	7.33	7.33	8.24	8.24	8.24	8.24		
285.0	1.83	4.58	4.58	8.24	9.16	9.16	10.07	10.07	10.07		
300.0	1.83	5.49	8.24	10.99	14.65	16.48	19.23	21.06	22.89		
315.0	2.75	6.41	10.99	15.57	20.14	23.81	28.39	32.96	36.63		
330.0	2.75	8.24	13.74	19.23	26.55	32.96	39.37	44.87	51.28		
345.0	2.75	9.16	15.57	22.89	30.22	38.46	45.78	53.11	60.43		
360.0	0.92	3.66	8.24	11.90	16.48	20.14	25.64	30.22	34.80		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	39.37	43.95	48.53	52.19	55.86	58.60	61.35	62.27	64.10		
15.0	6.41	6.41	7.33	7.33	7.33	8.24	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	8.24	8.24	9.16	10.07	10.07	10.99	10.99	10.99		
75.0	29.30	32.05	34.80	37.54	40.29	42.12	43.95	44.87	45.78		
90.0	46.70	52.19	56.77	60.43	64.10	66.84	69.59	71.42	72.34		
105.0	47.61	52.19	56.77	60.43	64.10	66.84	69.59	70.51	72.34		
120.0	30.22	32.96	35.71	38.46	40.29	42.12	43.04	43.95	44.87		
135.0	7.33	8.24	9.16	9.16	10.07	10.07	10.07	10.99	10.99		
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	7.33	7.33	8.24	8.24	8.24	9.16	9.16	9.16		
195.0	43.04	47.61	52.19	55.86	59.52	62.27	65.01	66.84	67.76		
210.0	67.76	75.08	81.49	86.99	92.48	97.06	99.81	102.55	103.47		
225.0	54.94	60.43	65.93	70.51	75.08	77.83	80.58	82.41	83.33		
240.0	39.37	42.12	45.78	48.53	51.28	54.02	54.94	56.77	56.77		
255.0	21.06	21.98	22.89	23.81	24.72	25.64	25.64	25.64	25.64		
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	10.99	10.99	10.99	10.99		
300.0	24.72	26.55	27.47	29.30	30.22	31.13	32.05	32.96	32.96		
315.0	40.29	43.95	46.70	49.45	52.19	54.02	54.94	55.86	56.77		
330.0	56.77	61.35	66.84	70.51	74.17	76.92	78.75	80.58	80.58		
345.0	67.76	74.17	79.66	85.16	89.74	93.40	96.15	97.98	98.89		
360.0	39.37	43.95	48.53	52.19	55.86	58.60	61.35	62.27	64.10		

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	64.10	64.10	63.18	61.35	59.52	56.77	53.11	49.45	44.87
15.0	8.24	8.24	8.24	8.24	7.33	7.33	7.33	6.41	6.41
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	11.90	11.90	11.90	10.99	10.99	10.99	10.07	10.07	9.16
75.0	45.78	45.78	45.78	44.87	43.95	42.12	40.29	38.46	35.71
90.0	73.25	73.25	72.34	71.42	69.59	66.84	64.10	60.43	55.86
105.0	72.34	72.34	71.42	70.51	68.68	65.01	62.27	58.60	54.94
120.0	44.87	44.87	44.87	43.95	42.12	41.21	38.46	36.63	33.88
135.0	10.99	10.99	10.07	10.07	10.07	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	9.16	9.16	8.24	8.24	7.33	7.33	6.41	6.41
195.0	67.76	66.84	65.01	62.27	59.52	55.86	52.19	47.61	43.04
210.0	104.39	102.55	100.72	97.98	93.40	88.82	83.33	76.00	69.59
225.0	83.33	83.33	81.49	79.66	76.00	72.34	71.42	63.18	57.69
240.0	57.69	56.77	56.77	54.94	53.11	50.36	47.61	44.87	41.21
255.0	25.64	25.64	24.72	23.81	22.89	21.06	20.14	18.31	16.48
270.0	9.16	8.24	8.24	8.24	8.24	8.24	7.33	7.33	7.33
285.0	10.07	10.07	10.07	10.07	10.07	9.16	9.16	9.16	8.24
300.0	32.96	32.05	32.05	31.13	30.22	28.39	27.47	25.64	23.81
315.0	56.77	55.86	54.94	53.11	51.28	48.53	45.78	43.04	39.37
330.0	80.58	79.66	77.83	76.00	73.25	69.59	65.01	60.43	54.94
345.0	98.89	97.98	96.15	92.48	88.82	84.24	78.75	72.34	65.93
360.0	64.10	64.10	63.18	61.35	59.52	56.77	53.11	49.45	44.87
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	41.21	36.63	32.05	26.55	21.98	17.40	12.82	8.24	4.58
15.0	5.49	4.58	4.58	3.66	3.66	3.66	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	32.96	29.30	24.72	20.14	15.57	10.99	6.41	1.83	0.00
90.0	51.28	44.87	38.46	32.05	24.72	17.40	10.07	3.66	0.00
105.0	49.45	43.95	37.54	30.22	23.81	16.48	9.16	3.66	0.00
120.0	30.22	26.55	22.89	18.31	13.74	9.16	5.49	1.83	0.00
135.0	7.33	6.41	5.49	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	5.49	4.58	3.66	3.66	2.75	1.83	0.92	0.00
195.0	38.46	33.88	28.39	23.81	19.23	15.57	8.24	3.66	0.92
210.0	62.27	60.43	46.70	38.46	31.13	21.98	13.74	6.41	0.92
225.0	52.19	45.78	39.37	32.96	25.64	19.23	11.90	5.49	0.92
240.0	37.54	32.96	28.39	23.81	19.23	13.74	9.16	4.58	0.92
255.0	14.65	12.82	10.99	10.99	9.16	6.41	4.58	2.75	0.92
270.0	6.41	6.41	6.41	6.41	5.49	5.49	4.58	2.75	0.92
285.0	8.24	8.24	7.33	7.33	6.41	5.49	3.66	1.83	0.92
300.0	21.98	20.14	17.40	14.65	11.90	9.16	6.41	2.75	0.92
315.0	34.80	31.13	26.55	21.98	17.40	12.82	8.24	4.58	0.92
330.0	49.45	43.95	37.54	30.22	24.72	17.40	11.90	5.49	0.92
345.0	59.52	52.19	44.87	36.63	29.30	21.06	13.74	7.33	1.83
360.0	41.21	36.63	32.05	26.55	21.98	17.40	12.82	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