
乐达凯

Client:

LumCAT: RYNW0648LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No: LCZP24090313

Voltage(V): 119.960

LampCAT:

Current(A): 0.325

Lamp flux(lm): 760.4

Power (W): 38.660

Number of Lamps: 1

PF: 0.990

Length(mm): 30

Width(mm): 20

Phm Type: C

Height(mm): 1160

Photometric Results

Lumens(lm): 760.38, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 19.67

Central intensity(cd): 2.839, Maximum intensity(cd): 188.902

Angle of maximum intensity: C=30.0 γ =85.0

Beam Angle(50%Imax): [C0/180]Total=292.0

[C90/270]Total=114.3

Field angle(10%Imax): [C0/180]Total=346.6

[C90/270]Total=316.9

Maximum s/h(1/2): C0_180=7.05 C90_270=6.20

Maximum s/h(1/4): C0_180=6.58 C90_270=5.68

Up flux rate of lamp(%): 48.86%

Down flux rate of lamp(%): 51.14%

Up flux rate of LUM(%): 48.86%

Down flux rate of LUM(%): 51.14%

CIE Type : General diffuse lighting

Output flux ratio in π solid angle : 19.566%

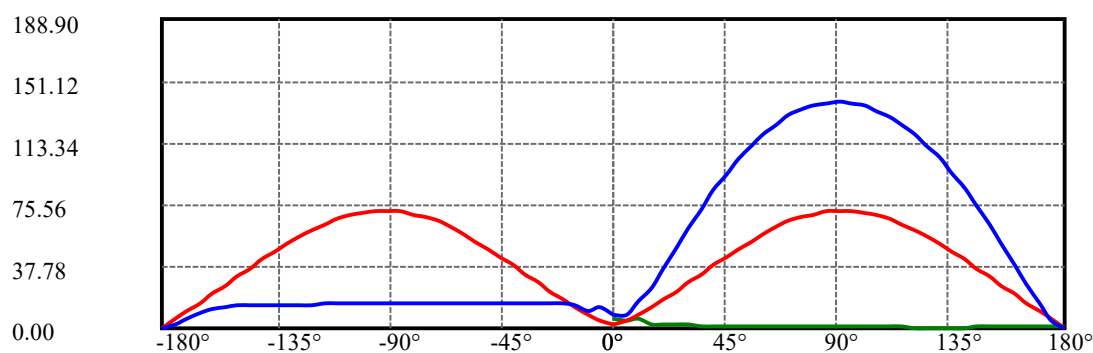
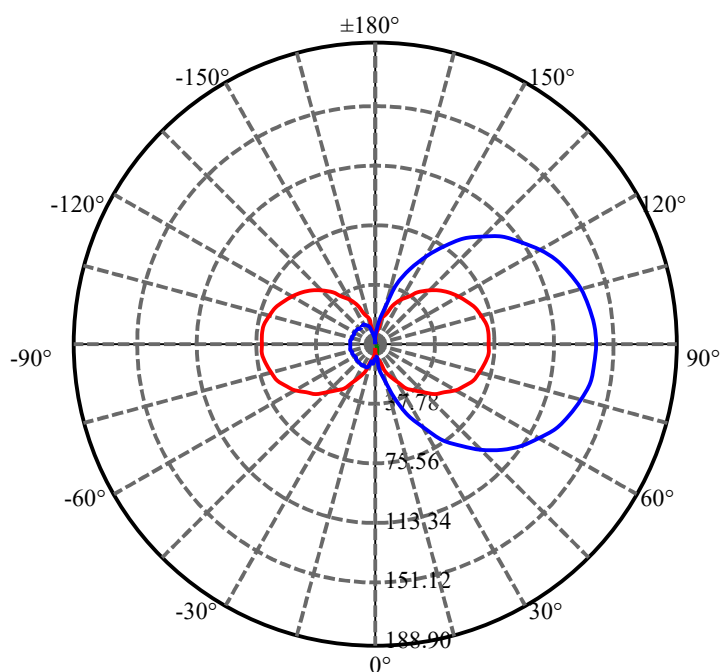
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6.417	0.000	0	0.00%	0.00%
5.0	9.927	0.195	0.195	0.03%	0.03%
10.0	14.067	0.858	1.054	0.11%	0.14%
15.0	18.588	1.937	2.991	0.25%	0.39%
20.0	24.673	3.565	6.556	0.47%	0.86%
25.0	31.354	5.876	12.432	0.77%	1.64%
30.0	37.455	8.708	21.14	1.15%	2.78%
35.0	43.525	11.925	33.065	1.57%	4.35%
40.0	49.244	15.478	48.543	2.04%	6.38%
45.0	54.704	19.247	67.789	2.53%	8.92%
50.0	59.888	23.155	90.944	3.05%	11.96%
55.0	64.482	27.042	117.987	3.56%	15.52%
60.0	68.736	30.793	148.78	4.05%	19.57%
65.0	72.219	34.267	183.046	4.51%	24.07%
70.0	75.218	37.332	220.378	4.91%	28.98%
75.0	77.404	39.893	260.272	5.25%	34.23%
80.0	78.946	41.835	302.107	5.50%	39.73%
85.0	79.716	43.112	345.219	5.67%	45.40%
90.0	79.747	43.662	388.881	5.74%	51.14%
95.0	79.072	43.486	432.367	5.72%	56.86%
100.0	77.721	42.604	474.971	5.60%	62.46%
105.0	75.504	40.999	515.97	5.39%	67.86%
110.0	72.742	38.749	554.72	5.10%	72.95%
115.0	69.308	35.968	590.688	4.73%	77.68%
120.0	65.692	32.819	623.506	4.32%	82.00%
125.0	61.014	29.288	652.794	3.85%	85.85%
130.0	56.172	25.480	678.274	3.35%	89.20%
135.0	50.911	21.638	699.912	2.85%	92.05%
140.0	45.841	17.914	717.826	2.36%	94.40%
145.0	39.622	14.259	732.085	1.88%	96.28%
150.0	33.506	10.769	742.854	1.42%	97.69%
155.0	27.356	7.702	750.556	1.01%	98.71%
160.0	21.202	5.093	755.649	0.67%	99.38%
165.0	14.494	2.942	758.59	0.39%	99.76%
170.0	8.355	1.355	759.946	0.18%	99.94%
175.0	2.842	0.401	760.346	0.05%	100.00%
180.0	0.317	0.038	760.384	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	21.14	2.78%	2.78%
0-40	48.54	6.38%	6.38%
0-60	148.78	19.57%	19.57%
0-90	388.88	51.14%	51.14%
0-120	623.51	82.00%	82.00%
0-180	760.38	100.00%	100.00%
60-90	240.10	31.58%	31.58%
90-120	234.63	30.86%	30.86%
90-130	289.39	38.06%	38.06%
90-150	353.97	46.55%	46.55%
90-180	371.47	48.85%	48.85%
0-117.68	608.31	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	1.05
10-20	5.50
20-30	14.58
30-40	27.40
40-50	42.40
50-60	57.84
60-70	71.60
70-80	81.73
80-90	86.77
90-100	86.09
100-110	79.75
110-120	68.79
120-130	54.77
130-140	39.55
140-150	25.03
150-160	12.79
160-170	4.30
170-180	0.40

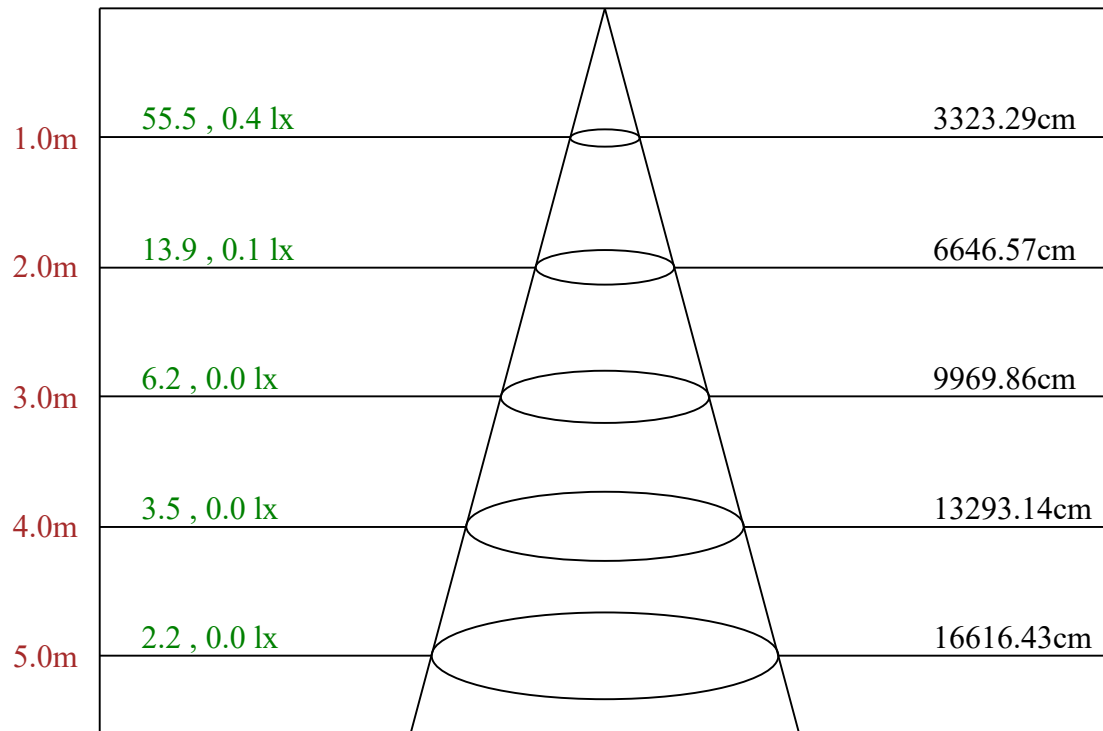
C30(Max): C0/C180: C90/C270: 

Field angle(10%Imax):C0/180Left:263.3 Right:83.3

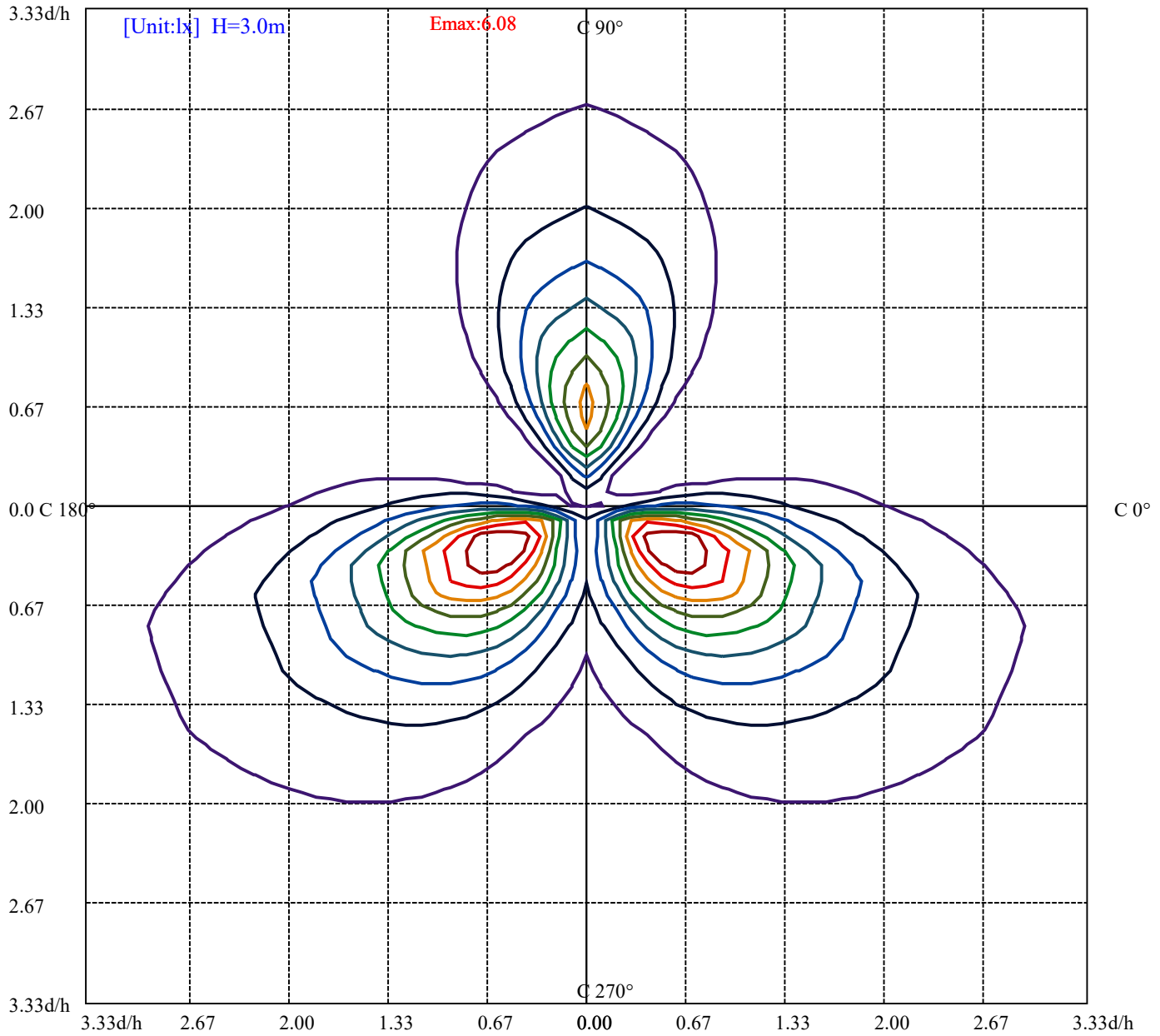
:C90/270Left:236.3 Right:80.7

Beam Angle(50%Imax):C0/180Left:236.0 Right:56.0

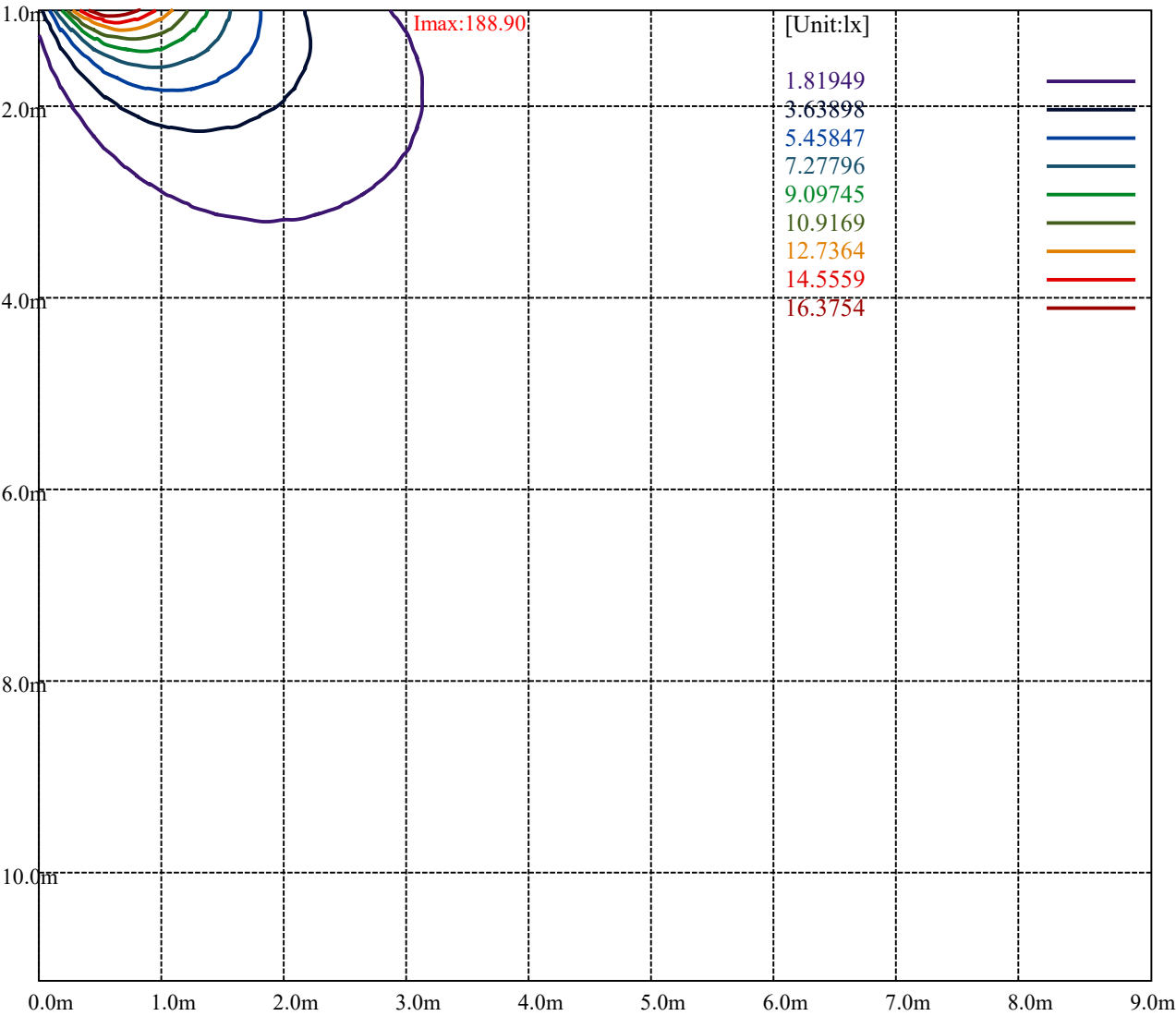
:C90/270Left:56.7 Right:57.6



Max , Ave Beam angle of C30 plane 173.11



(10%Emax) 0.60803	—
(20%Emax) 1.216056	—
(30%Emax) 1.824089	—
(40%Emax) 2.432122	—
(50%Emax) 3.040156	—
(60%Emax) 3.648178	—
(70%Emax) 4.256211	—
(80%Emax) 4.864244	—
(90%Emax) 5.472278	—



Luminance Table

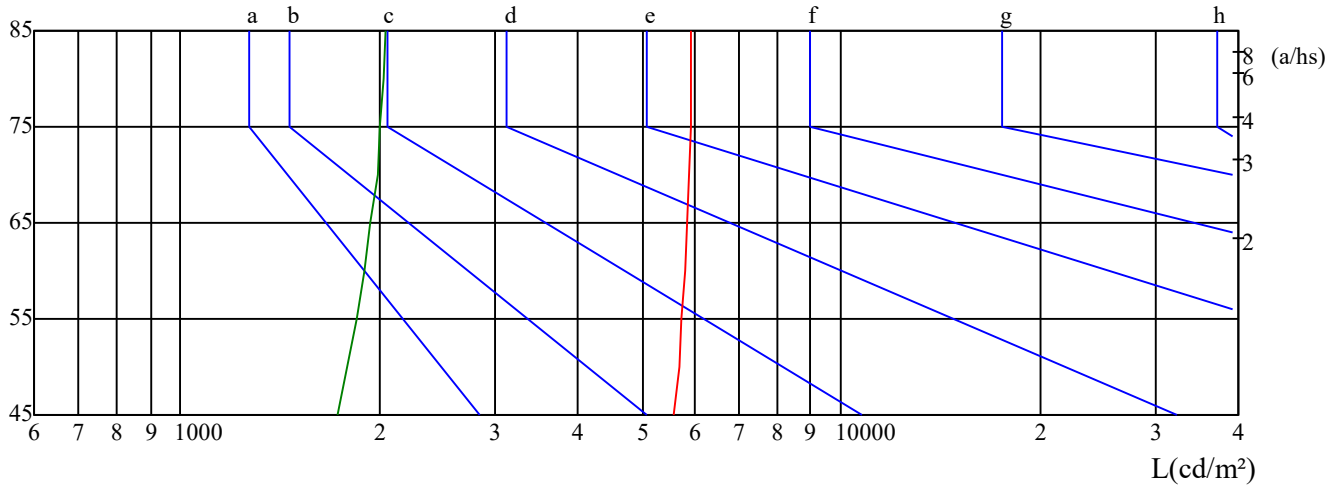
γ	45	50	55	60	65	70	75	80	85
C0	1732	1793	1847	1898	1940	1984	2008	2030	2051
C45	140	134	125	124	122	122	121	122	121
C90	5582	5683	5745	5815	5865	5904	5921	5940	5937

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
243207	276790	260540	436632	480855	453437	1361416	1465602	1380240

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	0.37	0.31
2	0.71	0.63	0.56	0.65	0.58	0.51	0.54	0.48	0.42	0.43	0.38	0.34	0.33	0.30	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

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	2.84	4.49	9.25	14.74	21.15	28.29	35.71	42.94	50.36
15.0	4.12	4.21	4.58	3.39	3.11	2.93	2.93	2.84	2.84
30.0	6.87	6.50	7.42	2.75	2.38	2.01	1.56	1.28	1.01
45.0	9.25	8.97	10.07	2.56	2.29	2.11	1.65	1.28	1.10
60.0	12.09	12.00	14.83	8.06	10.80	13.83	16.57	19.23	21.61
75.0	13.46	13.74	19.50	17.49	26.46	35.16	43.68	51.37	58.97
90.0	7.97	8.42	16.39	24.08	36.26	49.54	61.44	73.07	83.97
105.0	2.56	3.30	11.35	21.52	32.51	43.49	53.47	63.82	72.80
120.0	2.66	3.02	7.78	13.46	19.14	24.72	30.03	35.07	39.74
135.0	1.83	2.29	3.85	4.85	5.68	6.23	6.50	6.87	7.14
150.0	4.94	4.03	4.58	2.93	2.47	2.38	2.11	1.65	1.28
165.0	8.42	7.51	7.87	3.02	2.84	2.66	2.20	2.01	1.47
180.0	2.84	5.22	7.60	10.26	13.46	16.67	19.78	23.26	26.19
195.0	4.12	12.18	21.15	32.87	44.59	57.50	70.60	83.78	96.88
210.0	6.87	16.67	27.10	41.57	57.05	72.89	87.63	104.02	118.12
225.0	9.25	16.48	21.52	33.42	44.96	57.14	68.68	81.22	92.85
240.0	12.09	16.76	16.94	25.27	33.06	41.66	48.99	56.41	63.55
255.0	13.46	17.49	13.83	18.95	23.44	27.20	30.40	33.24	35.80
270.0	7.97	12.64	11.08	13.55	15.02	15.47	15.57	15.57	15.47
285.0	2.56	8.24	12.82	16.94	20.05	21.98	23.44	24.63	24.81
300.0	2.66	9.07	16.39	23.26	25.18	36.81	42.85	48.35	53.20
315.0	1.83	11.17	20.14	30.86	41.02	51.92	62.45	72.70	82.50
330.0	4.94	15.75	26.00	39.56	53.84	68.49	83.23	96.60	111.25
345.0	8.42	18.13	25.55	40.75	55.40	71.42	87.45	103.38	118.95
360.0	2.84	4.49	9.25	14.74	21.15	28.29	35.71	42.94	50.36
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	57.32	64.55	71.33	77.83	83.51	88.55	92.39	95.05	97.34
15.0	2.84	3.11	3.30	3.30	3.48	3.66	3.75	3.94	4.03
30.0	0.82	0.64	0.64	0.55	0.64	0.73	0.73	0.82	0.92
45.0	0.82	0.73	0.55	0.64	0.64	0.73	0.73	0.82	0.82
60.0	23.90	26.10	27.84	29.67	31.04	32.23	33.15	33.70	33.97
75.0	66.11	72.52	78.38	83.51	87.90	91.02	93.67	95.60	96.69
90.0	93.95	103.20	111.16	118.58	124.81	129.93	133.60	136.34	137.53
105.0	81.49	89.37	96.60	102.74	107.96	112.08	115.10	117.39	118.67
120.0	44.04	48.07	51.64	54.67	57.41	59.52	61.26	62.08	62.91
135.0	7.42	7.78	7.97	8.24	8.52	8.70	8.88	9.07	9.07
150.0	1.01	0.82	0.64	0.64	0.55	0.55	0.64	0.82	0.82
165.0	1.28	1.19	1.19	1.10	1.10	1.19	1.10	1.19	1.28
180.0	29.39	32.41	35.25	37.73	39.83	42.03	43.22	44.50	45.05
195.0	109.42	121.51	132.04	143.21	151.54	159.33	165.19	169.31	171.41
210.0	132.41	145.77	158.14	168.85	177.36	186.06	191.10	195.77	196.96
225.0	102.65	113.27	121.42	129.29	135.79	141.20	145.13	147.79	148.98
240.0	70.23	76.28	81.68	86.44	89.74	92.85	95.23	96.88	97.43
255.0	38.55	40.66	42.94	44.59	46.06	47.34	48.26	48.35	49.08
270.0	15.29	15.29	15.38	15.38	15.57	15.57	15.75	15.75	15.75
285.0	26.46	27.38	28.11	28.84	29.48	29.94	30.31	30.58	30.67
300.0	58.14	62.45	66.48	69.96	72.89	75.18	76.82	77.83	78.38
315.0	91.66	100.08	107.22	113.73	119.31	123.71	126.91	128.93	129.84
330.0	123.43	135.52	146.60	156.30	164.64	171.14	176.27	179.47	180.84
345.0	134.24	148.61	161.07	173.89	183.50	192.02	198.52	202.73	204.74
360.0	57.32	64.55	71.33	77.83	83.51	88.55	92.39	95.05	97.34

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	97.88	97.70	96.51	94.31	91.20	87.08	82.14	76.64	70.41
15.0	4.12	4.21	4.21	4.21	4.12	4.03	4.12	3.94	3.94
30.0	0.92	0.92	1.01	0.92	0.82	0.64	0.64	0.64	0.55
45.0	0.82	0.92	0.92	0.82	0.73	0.55	0.55	0.55	0.55
60.0	34.15	33.97	33.51	32.78	31.87	30.58	29.12	27.47	25.46
75.0	97.06	96.69	95.41	93.40	90.74	87.45	83.33	78.75	72.80
90.0	138.27	137.35	135.89	133.14	129.38	124.71	118.85	111.89	104.02
105.0	119.04	118.49	117.02	114.37	111.07	106.95	102.01	95.96	89.28
120.0	62.91	62.54	61.72	60.34	58.42	56.22	53.47	50.18	46.61
135.0	8.97	8.88	8.70	8.52	8.15	7.60	7.23	6.68	6.23
150.0	0.82	0.92	0.92	0.92	0.64	0.55	0.46	0.46	0.46
165.0	1.37	1.28	1.28	1.37	1.19	1.10	0.92	0.92	0.82
180.0	45.23	45.05	44.50	43.40	42.03	40.20	37.91	35.44	32.60
195.0	170.96	169.49	165.28	159.69	152.46	143.76	134.60	123.71	112.08
210.0	196.78	194.67	190.55	184.32	176.63	167.02	156.30	144.49	132.41
225.0	148.43	147.24	144.13	139.91	134.33	127.92	126.00	111.53	102.01
240.0	97.43	96.60	95.96	92.12	89.00	85.07	80.67	75.36	69.50
255.0	49.08	48.71	48.07	47.07	45.69	44.04	42.21	40.20	37.63
270.0	15.75	15.66	15.47	15.29	15.20	14.83	14.65	14.38	14.19
285.0	30.58	30.40	29.94	29.30	28.57	27.84	27.01	25.82	24.81
300.0	78.20	77.47	76.18	74.17	71.70	68.86	65.29	61.17	56.59
315.0	129.93	128.29	126.09	122.33	117.57	111.89	105.21	98.34	90.10
330.0	180.39	178.37	174.43	168.76	162.35	153.01	144.22	133.14	121.23
345.0	204.83	201.90	197.60	190.64	181.94	171.50	159.69	146.69	133.87
360.0	97.88	97.70	96.51	94.31	91.20	87.08	82.14	76.64	70.41
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	64.28	56.86	50.27	43.13	35.99	28.84	22.34	15.20	8.70
15.0	3.85	3.85	3.75	3.75	3.66	3.57	3.75	3.66	2.75
30.0	0.55	0.55	0.64	0.73	0.82	1.10	1.37	1.65	1.47
45.0	0.64	0.55	0.64	0.64	0.64	0.73	0.92	0.92	0.92
60.0	23.26	20.79	18.31	15.38	12.36	9.25	6.50	3.57	1.47
75.0	66.84	59.98	52.38	44.32	36.35	27.47	18.59	10.26	3.39
90.0	95.14	85.98	74.72	63.91	51.92	39.28	26.65	15.20	5.04
105.0	81.59	73.07	63.91	54.12	44.50	33.61	22.80	12.54	4.03
120.0	42.49	37.91	33.24	27.84	22.62	16.94	11.81	6.23	2.20
135.0	5.59	5.04	4.40	3.66	2.93	2.29	1.56	1.10	0.73
150.0	0.46	0.55	0.55	0.64	0.64	0.73	0.82	0.82	0.92
165.0	0.82	0.92	0.92	0.92	1.01	1.10	1.10	1.10	1.10
180.0	29.58	26.65	23.44	20.05	16.39	12.82	9.25	5.95	2.01
195.0	99.99	87.63	74.99	63.18	50.18	46.52	24.63	14.01	3.85
210.0	117.75	114.46	89.83	73.71	59.06	43.49	28.66	15.29	4.12
225.0	92.30	81.49	69.87	58.05	46.52	33.70	22.80	12.27	3.02
240.0	63.09	56.31	49.08	41.85	33.61	25.46	17.21	9.61	2.20
255.0	35.07	32.23	29.21	25.82	22.16	17.76	12.73	7.05	2.01
270.0	14.10	13.92	13.92	13.55	12.91	11.45	9.07	5.68	2.11
285.0	23.53	22.34	21.15	19.69	17.76	14.93	11.45	7.05	2.29
300.0	51.83	46.70	41.85	36.08	29.85	23.07	16.02	9.16	2.56
315.0	81.22	71.79	61.90	51.64	41.94	31.04	21.34	11.54	3.02
330.0	108.51	96.05	82.23	68.13	53.93	39.92	27.10	14.65	3.75
345.0	119.40	104.57	89.74	73.34	58.79	43.77	29.39	16.02	4.58
360.0	64.28	56.86	50.27	43.13	35.99	28.84	22.34	15.20	8.70

Intensity data(cd)

Appendix Page: 12 Total:12

C/ $\gamma(^{\circ})$	180.0
0.0	0.82
15.0	1.47
30.0	0.82
45.0	0.64
60.0	0.46
75.0	0.46
90.0	0.46
105.0	0.46
120.0	0.46
135.0	0.46
150.0	0.55
165.0	0.55
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	0.82