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乐达凯

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Client:

LumCAT: LYL3205LAJD1BN-3000K

Luminaire: LED Lamp

Report No:

Ballast type:

Test No: LCZP25090313

Voltage(V): 119.990

LampCAT:

Current(A): 0.370

Lamp flux(lm): 2556.4

Power (W): 40.540

Number of Lamps: 1

PF: 0.912

Length(mm): 790

Width(mm): 70

Phm Type: C

Height(mm): 100

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Photometric Results

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Lumens(lm): 2556.44, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 63.06

Central intensity(cd): 8.743, Maximum intensity(cd): 1044.859

Angle of maximum intensity: C=90.0  $\gamma$ =120.0

Beam Angle(50%Imax): [C0/180]Total=286.8

[C90/270]Total=107.2

Field angle(10%Imax): [C0/180]Total=358.2

[C90/270]Total=158.1

Maximum s/h(1/2): C0\_180=3.67 C90\_270=9.92

Maximum s/h(1/4): C0\_180=3.53 C90\_270=8.96

Up flux rate of lamp(%): 49.68%

Down flux rate of lamp(%): 50.32%

Up flux rate of LUM(%): 49.68%

Down flux rate of LUM(%): 50.32%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 22.823%

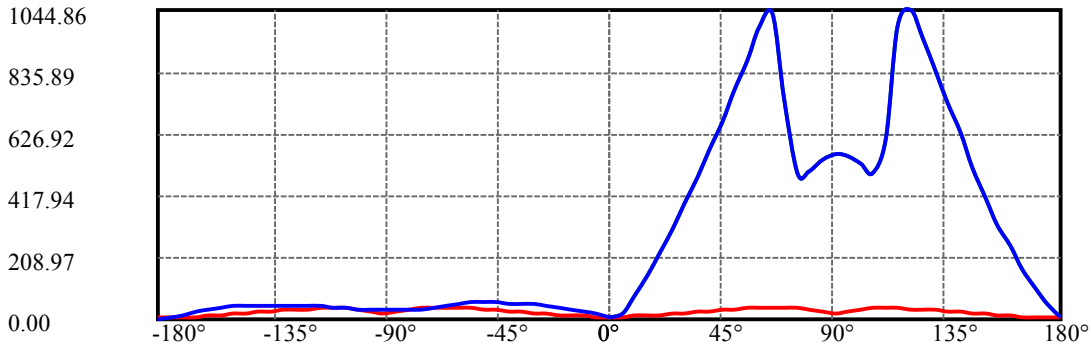
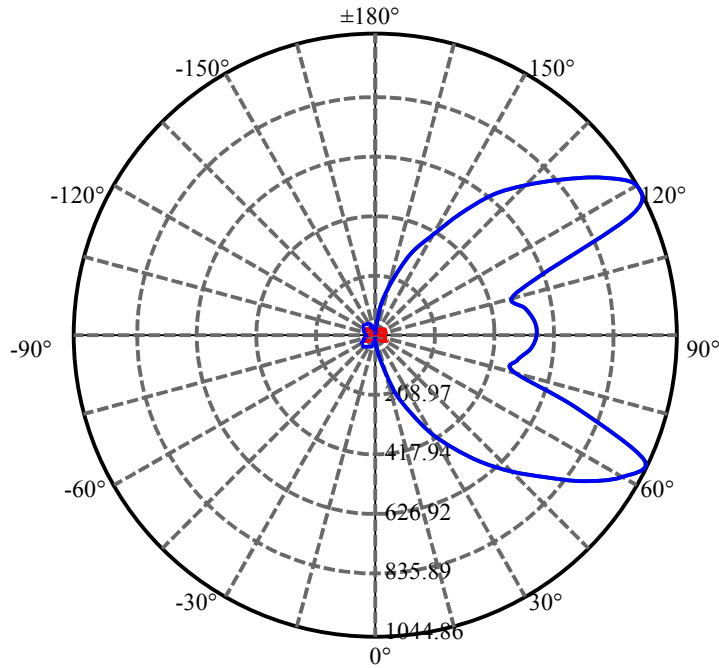
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	8.022	0.000	0	0.00%	0.00%
5.0	13.592	0.258	0.258	0.01%	0.01%
10.0	30.945	1.593	1.852	0.06%	0.07%
15.0	54.043	5.041	6.893	0.20%	0.27%
20.0	79.877	11.037	17.93	0.43%	0.70%
25.0	105.221	19.413	37.343	0.76%	1.46%
30.0	132.326	30.062	67.405	1.18%	2.64%
35.0	159.822	43.021	110.426	1.68%	4.32%
40.0	187.705	57.982	168.409	2.27%	6.59%
45.0	215.975	74.745	243.153	2.92%	9.51%
50.0	245.145	93.176	336.329	3.64%	13.16%
55.0	275.156	113.131	449.46	4.43%	17.58%
60.0	304.542	133.996	583.456	5.24%	22.82%
65.0	321.956	152.303	735.758	5.96%	28.78%
70.0	284.783	153.630	889.389	6.01%	34.79%
75.0	205.635	128.187	1017.576	5.01%	39.80%
80.0	164.224	98.964	1116.54	3.87%	43.68%
85.0	152.681	86.111	1202.651	3.37%	47.04%
90.0	153.485	83.831	1286.481	3.28%	50.32%
95.0	154.483	84.324	1370.806	3.30%	53.62%
100.0	157.678	84.822	1455.627	3.32%	56.94%
105.0	182.195	90.941	1546.568	3.56%	60.50%
110.0	247.357	112.278	1658.846	4.39%	64.89%
115.0	317.042	142.909	1801.755	5.59%	70.48%
120.0	316.021	153.899	1955.654	6.02%	76.50%
125.0	287.352	139.468	2095.122	5.46%	81.95%
130.0	255.853	118.111	2213.233	4.62%	86.57%
135.0	224.024	96.966	2310.199	3.79%	90.37%
140.0	191.576	76.952	2387.151	3.01%	93.38%
145.0	159.568	58.586	2445.736	2.29%	95.67%
150.0	131.332	42.837	2488.574	1.68%	97.35%
155.0	104.868	29.891	2518.465	1.17%	98.51%
160.0	79.467	19.333	2537.798	0.76%	99.27%
165.0	55.690	11.139	2548.937	0.44%	99.71%
170.0	34.865	5.372	2554.309	0.21%	99.92%
175.0	17.489	1.873	2556.182	0.07%	99.99%
180.0	3.753	0.254	2556.436	0.01%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	67.41	2.64%	2.64%
0-40	168.41	6.59%	6.59%
0-60	583.46	22.82%	22.82%
0-90	1286.48	50.32%	50.32%
0-120	1955.65	76.50%	76.50%
0-180	2556.44	100.00%	100.00%
60-90	703.03	27.50%	27.50%
90-120	669.17	26.18%	26.18%
90-130	926.75	36.25%	36.25%
90-150	1202.09	47.02%	47.02%
90-180	1269.70	49.67%	49.67%
0-123.21	2045.15	80.00%	80.00%

## ZONAL LUMEN SUMMARY

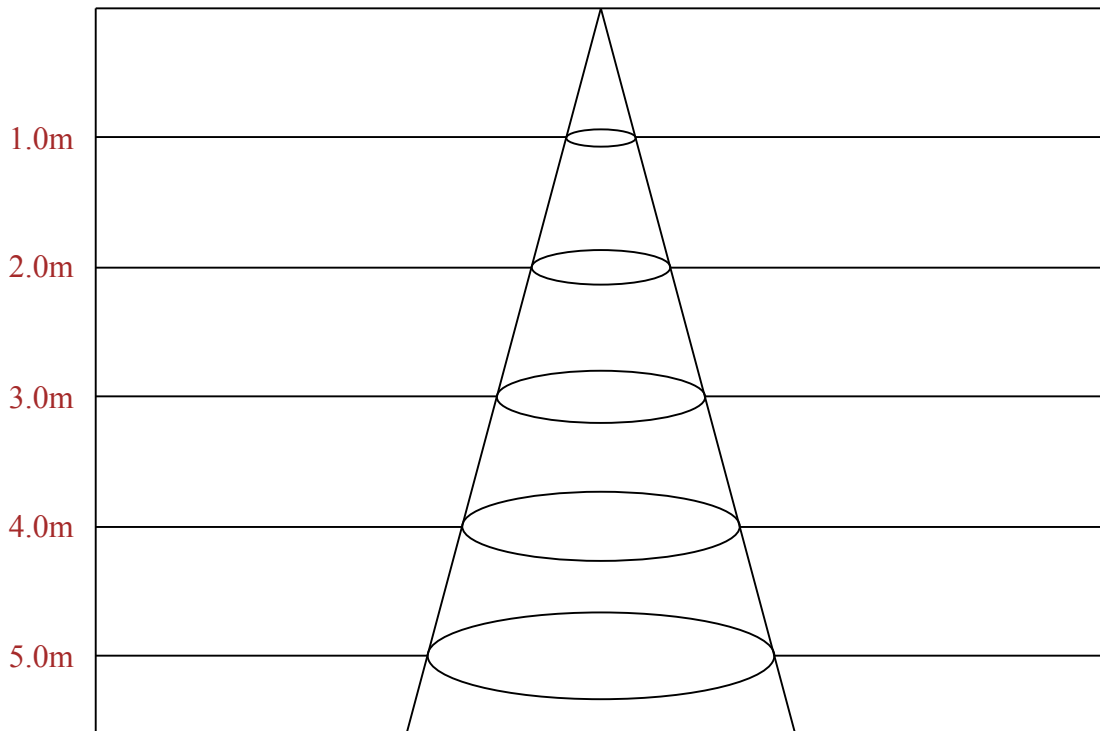
0-10	1.85
10-20	16.08
20-30	49.48
30-40	101.00
40-50	167.92
50-60	247.13
60-70	305.93
70-80	227.15
80-90	169.94
90-100	169.15
100-110	203.22
110-120	296.81
120-130	257.58
130-140	173.92
140-150	101.42
150-160	49.22
160-170	16.51
170-180	1.87



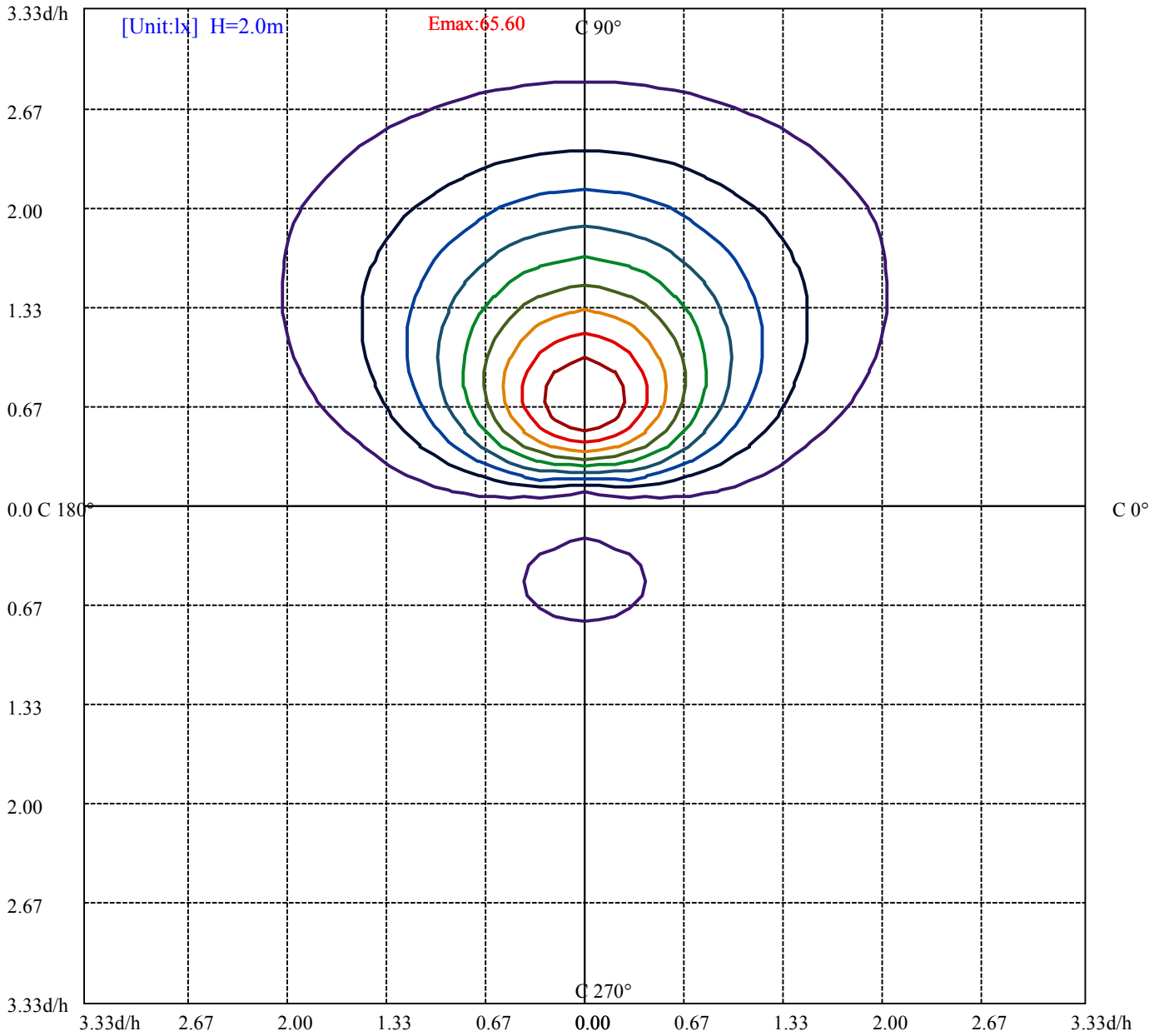
C90(Max): ——  
 C0/C180: ——  
 C90/C270: ——

Field angle(10%Imax):C0/180Left:249.1 Right:109.1  
 :C90/270Left:107.9 Right:50.2

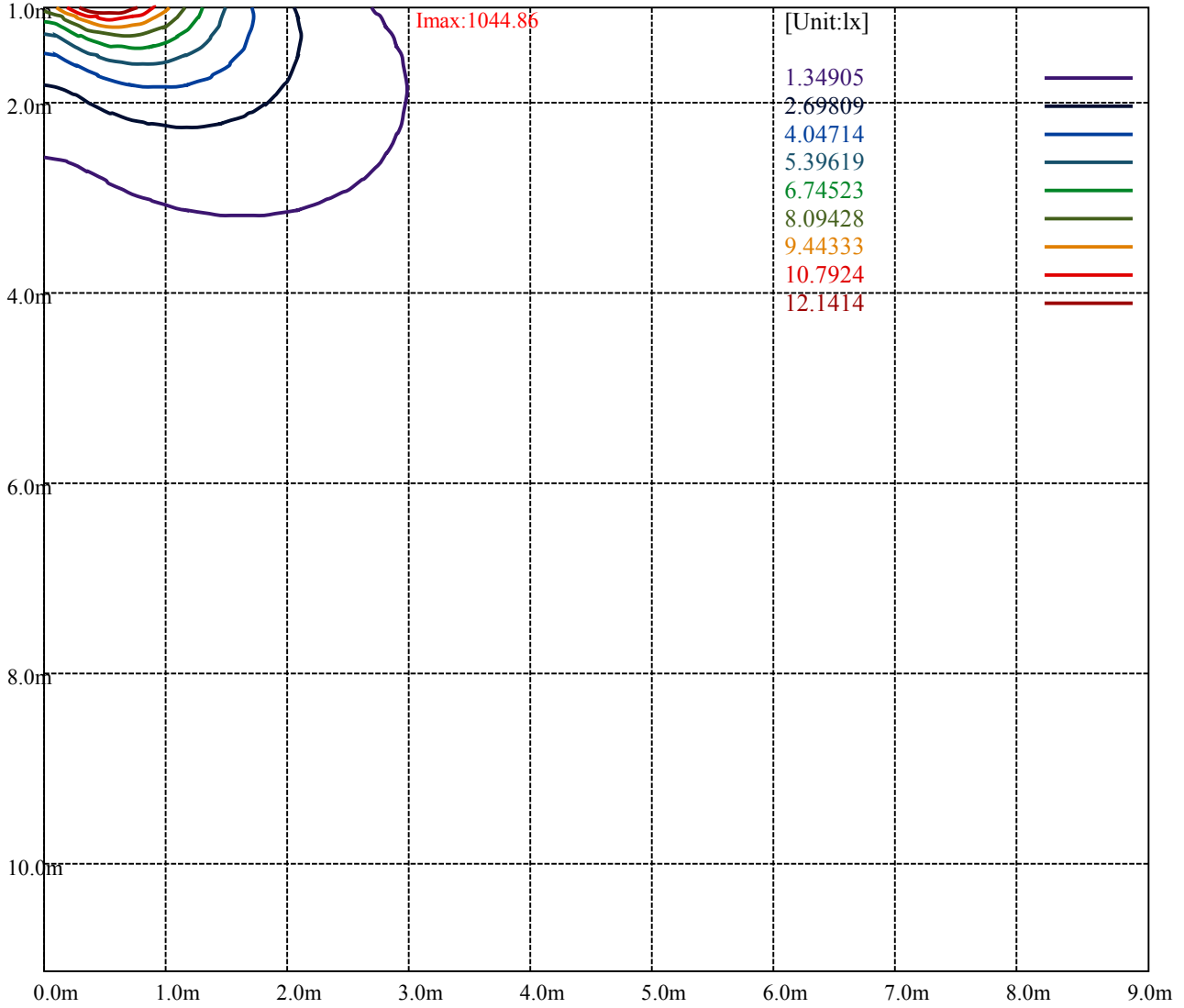
Beam Angle(50%Imax):C0/180Left:213.4 Right:73.4  
 :C90/270Left:82.6 Right:24.6



Max , Ave      Beam angle of C90 plane 353.68



- (10%Emax) 6.55995
- (20%Emax) 13.11992
- (30%Emax) 19.67987
- (40%Emax) 26.23975
- (50%Emax) 32.79975
- (60%Emax) 39.35975
- (70%Emax) 45.91975
- (80%Emax) 52.47975
- (90%Emax) 59.03975



Luminance Table

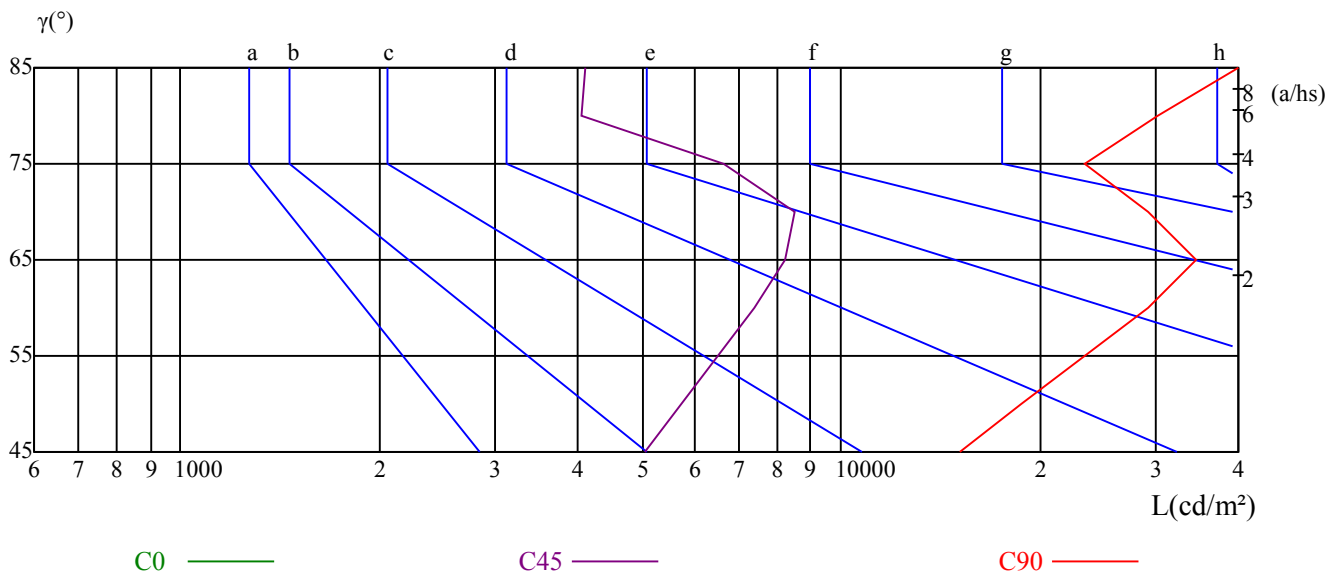
$\gamma$	45	50	55	60	65	70	75	80	85
C0	323	350	377	406	430	447	448	402	297
C45	5049	5746	6521	7402	8255	8485	6635	4054	4092
C90	15143	18827	23400	29292	34623	29231	23483	30115	45640

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1746	23007	14982	2835	18504	18219	5140	58907	30332

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



RHOCC	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	0.69	0.69	0.69	0.56	0.56	0.56	0.50
1	0.88	0.82	0.77	0.81	0.76	0.71	0.67	0.63	0.60	0.55	0.52	0.50	0.43	0.41	0.40	0.34
2	0.74	0.66	0.59	0.67	0.60	0.54	0.56	0.50	0.46	0.45	0.41	0.37	0.35	0.32	0.29	0.24
3	0.63	0.53	0.46	0.57	0.49	0.43	0.47	0.41	0.36	0.38	0.33	0.29	0.29	0.25	0.22	0.18
4	0.54	0.44	0.37	0.49	0.41	0.34	0.40	0.34	0.28	0.32	0.27	0.23	0.25	0.21	0.17	0.13
5	0.47	0.38	0.31	0.43	0.34	0.28	0.35	0.28	0.23	0.28	0.23	0.18	0.21	0.17	0.14	0.10
6	0.42	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	0.22	0.34	0.26	0.20	0.28	0.21	0.16	0.22	0.17	0.13	0.17	0.13	0.09	0.07
8	0.33	0.24	0.18	0.30	0.22	0.17	0.25	0.18	0.14	0.20	0.15	0.11	0.15	0.11	0.08	0.05
9	0.30	0.22	0.16	0.27	0.20	0.15	0.22	0.16	0.12	0.18	0.13	0.09	0.14	0.10	0.07	0.04
10	0.27	0.19	0.14	0.25	0.18	0.13	0.20	0.15	0.10	0.16	0.12	0.08	0.12	0.09	0.06	0.04

## Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	8.74	8.47	9.93	11.93	14.30	17.03	20.22	23.86	27.50
15.0	7.83	10.56	17.39	27.69	41.26	58.74	75.59	93.62	111.47
30.0	7.74	13.48	28.96	60.84	93.35	128.96	165.48	203.36	241.61
45.0	7.92	15.39	46.26	93.53	144.44	195.71	254.36	309.55	367.56
60.0	8.01	17.39	61.93	118.76	183.96	253.54	326.13	396.34	476.58
75.0	8.38	17.94	69.85	137.79	212.10	291.88	370.84	460.18	544.33
90.0	8.56	18.85	74.86	146.08	219.75	302.27	388.60	477.40	570.01
105.0	8.11	18.85	68.85	136.24	209.83	288.06	369.66	448.43	534.95
120.0	7.47	16.57	59.83	115.21	181.41	245.07	315.29	387.05	460.00
135.0	10.29	14.21	43.44	88.43	136.97	185.42	238.42	295.43	347.53
150.0	6.56	11.11	27.23	54.82	111.56	120.85	152.91	187.15	222.12
165.0	6.65	9.02	15.39	24.77	36.43	50.27	65.48	80.96	96.81
180.0	8.74	9.84	11.38	13.66	15.94	18.58	21.31	24.22	27.05
195.0	7.83	9.20	11.29	13.39	15.48	17.67	19.49	21.31	23.13
210.0	7.74	11.29	15.48	19.76	23.50	27.14	30.60	33.88	37.25
225.0	7.92	13.75	19.76	25.32	30.24	35.06	39.52	43.62	47.45
240.0	8.01	15.30	22.68	29.23	35.24	40.71	45.26	49.09	52.27
255.0	8.38	16.48	24.13	31.78	37.98	43.53	47.99	51.46	53.82
270.0	8.56	16.57	24.86	32.33	38.98	44.26	48.91	51.82	54.01
285.0	8.11	16.21	23.86	31.69	37.98	43.53	48.09	51.55	52.09
300.0	7.47	14.84	22.04	28.87	30.33	40.34	45.17	49.18	52.46
315.0	10.29	12.84	18.76	24.41	29.60	34.70	38.98	43.44	46.99
330.0	6.56	10.02	14.48	18.31	22.22	26.05	29.60	33.06	36.25
345.0	6.65	8.01	10.02	12.20	14.21	15.94	17.94	19.76	21.67
360.0	8.74	8.47	9.93	11.93	14.30	17.03	20.22	23.86	27.50
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	31.24	34.70	37.89	40.98	43.17	44.53	44.17	40.53	29.87
15.0	128.96	145.17	159.83	174.04	184.87	194.25	196.08	168.12	90.07
30.0	277.13	315.56	349.35	384.32	417.93	438.96	404.72	250.26	155.28
45.0	426.58	485.59	546.97	611.82	667.64	660.17	475.66	277.13	270.30
60.0	555.35	632.40	722.65	806.80	866.00	758.99	436.87	367.20	396.80
75.0	637.04	733.94	837.95	944.95	989.40	739.86	468.74	458.36	498.43
90.0	667.10	770.19	876.38	987.48	1028.83	745.14	494.88	496.79	538.23
105.0	621.20	721.19	824.65	927.56	972.28	781.85	479.13	457.54	498.61
120.0	535.13	609.36	696.79	777.20	839.95	768.73	457.18	365.29	392.61
135.0	402.44	458.18	516.37	577.12	628.21	630.58	493.79	286.24	264.93
150.0	255.09	290.52	321.75	354.63	385.50	408.45	387.23	277.49	157.37
165.0	110.65	125.59	139.34	151.82	163.56	171.76	176.50	160.29	98.63
180.0	30.05	32.51	34.88	36.97	38.43	38.71	36.97	29.78	19.67
195.0	24.95	26.68	28.41	29.87	31.42	32.42	30.87	24.59	13.02
210.0	40.25	43.26	45.81	48.09	48.54	45.26	37.70	26.96	19.49
225.0	50.73	53.37	55.46	55.46	52.37	45.54	36.88	27.69	24.86
240.0	54.64	56.74	57.01	54.55	48.72	42.07	35.06	28.41	27.14
255.0	55.55	56.92	56.19	52.09	46.81	40.98	34.52	33.06	28.78
270.0	55.55	56.74	55.74	55.01	46.54	41.07	34.79	30.69	29.60
285.0	55.83	57.19	56.28	52.55	47.17	41.26	34.97	30.05	28.78
300.0	54.82	56.83	57.01	54.92	49.63	42.89	35.34	28.87	27.32
315.0	50.27	53.09	55.19	55.10	52.37	45.72	36.70	27.87	24.68
330.0	39.43	42.44	44.99	47.17	47.63	44.72	37.34	25.50	18.67
345.0	23.41	25.32	26.87	28.51	29.96	30.87	29.14	22.68	11.20
360.0	31.24	34.70	37.89	40.98	43.17	44.53	44.17	40.53	29.87

## Intensity data(cd)

C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	17.49	19.76	34.15	41.35	43.35	42.44	40.34	37.79	34.97
15.0	64.48	65.12	129.23	183.51	184.24	172.76	159.01	143.89	128.68
30.0	155.46	154.37	184.15	352.72	436.87	432.68	397.80	348.07	303.63
45.0	279.13	276.13	264.38	363.65	621.11	688.59	646.97	584.40	515.46
60.0	410.91	407.27	385.87	395.34	656.08	878.65	861.90	775.38	687.31
75.0	515.28	510.91	486.41	461.09	602.71	981.20	1004.15	907.43	803.16
90.0	556.54	552.53	525.03	491.15	607.81	985.48	1044.86	955.15	840.22
105.0	515.10	510.91	486.50	462.55	598.06	936.58	984.48	893.95	794.32
120.0	406.63	403.63	383.14	392.70	618.92	818.64	832.21	756.16	671.01
135.0	273.94	272.03	261.28	342.88	555.17	640.69	616.10	562.91	498.52
150.0	152.09	151.18	170.03	304.63	392.33	401.81	372.12	324.76	281.59
165.0	63.02	62.47	100.27	155.19	162.65	153.55	140.43	127.77	114.57
180.0	19.03	29.60	34.79	36.52	35.43	32.88	30.60	27.96	25.14
195.0	12.29	20.76	24.32	24.32	24.59	25.04	25.50	24.86	23.68
210.0	19.31	23.86	31.15	36.16	37.34	37.98	37.34	36.25	35.88
225.0	24.77	26.32	32.06	37.98	42.89	44.81	45.08	44.81	43.62
240.0	27.05	27.96	28.23	36.70	40.80	44.99	47.17	47.63	47.17
255.0	28.69	29.69	32.51	37.07	40.44	43.71	46.90	47.81	47.90
270.0	29.42	30.69	33.15	37.61	40.80	44.08	46.72	47.81	47.90
285.0	28.69	29.78	32.97	37.70	41.35	44.99	47.63	48.18	48.09
300.0	27.23	28.23	33.42	38.89	43.81	47.36	48.63	48.72	48.18
315.0	24.68	27.14	34.33	41.35	46.17	47.17	47.36	46.26	44.26
330.0	18.76	25.59	33.06	37.43	39.16	39.52	38.80	36.25	33.61
345.0	13.66	21.67	23.86	24.22	24.50	23.41	22.40	22.22	21.58
360.0	17.49	19.76	34.15	41.35	43.35	42.44	40.34	37.79	34.97
C/ $\gamma$ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	31.42	27.41	23.41	20.31	16.76	12.66	9.38	7.74	7.01
15.0	112.93	97.45	83.33	69.94	55.55	40.80	25.68	15.03	9.11
30.0	261.10	225.49	189.25	154.00	121.94	93.71	61.84	33.79	13.57
45.0	436.50	365.92	306.91	247.44	197.17	147.99	102.18	54.37	21.77
60.0	602.53	502.44	410.18	331.95	261.47	195.99	139.43	82.69	30.33
75.0	701.79	595.33	481.22	389.69	306.82	229.77	160.19	102.55	45.35
90.0	734.40	631.21	512.46	409.27	321.12	244.44	170.12	106.46	49.72
105.0	694.24	588.59	476.67	386.87	304.82	228.41	159.28	99.54	48.18
120.0	587.32	483.95	400.35	325.58	260.28	191.25	136.97	85.61	38.52
135.0	418.20	351.90	294.62	246.26	190.70	144.53	102.46	64.75	27.87
150.0	244.80	211.01	176.40	145.80	118.12	89.43	62.20	35.79	15.48
165.0	100.91	86.88	73.86	59.74	47.81	35.88	24.77	13.84	8.74
180.0	22.04	18.58	16.21	13.93	11.02	8.29	6.83	6.74	7.01
195.0	21.77	20.31	18.49	16.03	12.75	12.66	9.38	9.11	7.74
210.0	34.70	34.24	29.32	25.96	22.49	17.30	14.02	10.93	8.56
225.0	42.53	40.98	37.98	34.15	29.42	24.77	18.31	12.66	8.83
240.0	46.17	44.81	43.08	39.43	34.61	28.78	21.49	14.02	8.56
255.0	47.54	46.45	44.90	42.44	37.52	31.24	23.86	14.48	7.29
270.0	47.81	46.72	44.90	42.62	38.25	31.78	24.68	10.56	7.47
285.0	47.72	46.36	44.44	41.71	37.07	31.42	16.30	9.65	10.75
300.0	46.81	44.35	41.44	38.80	33.70	27.32	13.21	12.75	10.47
315.0	41.35	38.71	37.25	33.06	28.60	16.85	12.93	12.20	10.02
330.0	32.60	31.60	27.05	23.86	18.12	12.57	11.57	11.66	9.20
345.0	19.40	17.12	15.94	13.11	10.75	9.38	9.47	9.84	8.20
360.0	31.42	27.41	23.41	20.31	16.76	12.66	9.38	7.74	7.01

Intensity data(cd)

C/γ(°)	180.0
0.0	7.01
15.0	6.37
30.0	6.28
45.0	6.74
60.0	7.01
75.0	7.83
90.0	9.29
105.0	10.38
120.0	8.92
135.0	7.65
150.0	6.19
165.0	6.37
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	7.01