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乐达凯

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Client:

LumCAT: MIAP15LAJUDBK

Luminaire: LED LAMP

Report No:

Ballast type:

Test No: LCZP26010195

Voltage(V): 119.930

LampCAT:

Current(A): 0.122

Lamp flux(lm): 1468.8

Power (W): 14.380

Number of Lamps: 1

PF: 0.987

Length(mm): -50

Width(mm): -50

Phm Type: C

Height(mm): 380

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Photometric Results

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Lumens(lm): 1468.76, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 102.14

Central intensity(cd): 15.755, Maximum intensity(cd): 157.417

Angle of maximum intensity: C=0.0  $\gamma$ =90.0

Beam Angle(50%Imax): [C0/180]Total=290.4

[C90/270]Total=283.2

Field angle(10%Imax): [C0/180]Total=340.2

[C90/270]Total=336.6

Maximum s/h(1/2): C0\_180=4.95 C90\_270=4.78

Maximum s/h(1/4): C0\_180=4.64 C90\_270=4.49

Up flux rate of lamp(%): 48.45%

Down flux rate of lamp(%): 51.55%

Up flux rate of LUM(%): 48.45%

Down flux rate of LUM(%): 51.55%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 19.970%

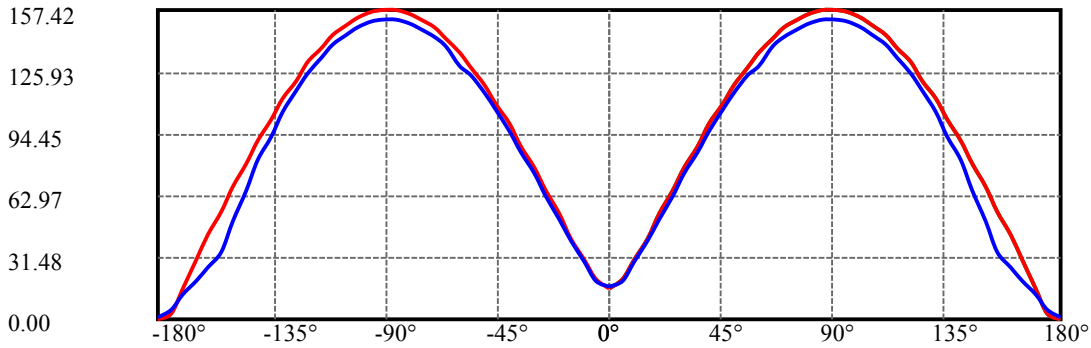
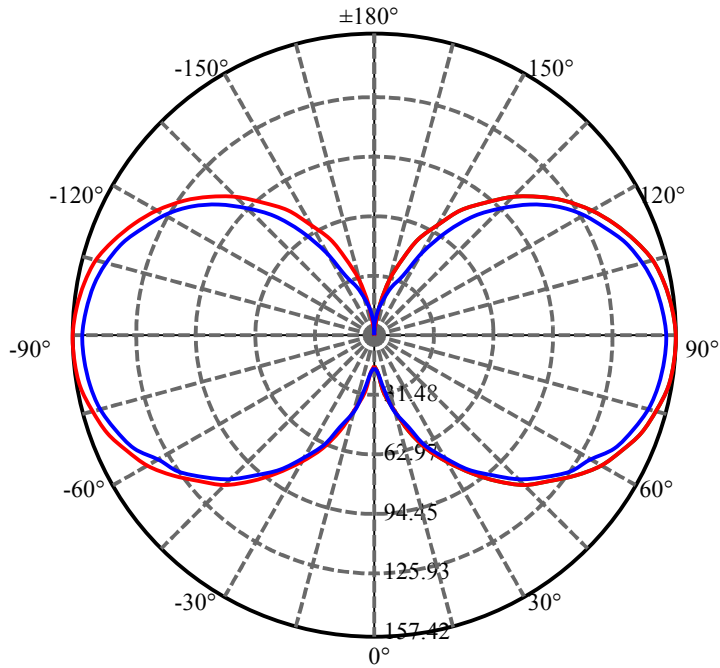
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	15.869	0.000	0	0.00%	0.00%
5.0	19.899	0.428	0.428	0.03%	0.03%
10.0	29.518	1.768	2.195	0.12%	0.15%
15.0	40.568	4.158	6.353	0.28%	0.43%
20.0	52.013	7.630	13.983	0.52%	0.95%
25.0	63.499	12.115	26.098	0.82%	1.78%
30.0	74.963	17.523	43.621	1.19%	2.97%
35.0	86.233	23.737	67.358	1.62%	4.59%
40.0	96.676	30.517	97.875	2.08%	6.66%
45.0	107.251	37.759	135.634	2.57%	9.23%
50.0	116.776	45.268	180.902	3.08%	12.32%
55.0	125.470	52.672	233.574	3.59%	15.90%
60.0	132.994	59.743	293.317	4.07%	19.97%
65.0	139.878	66.336	359.653	4.52%	24.49%
70.0	145.376	72.228	431.881	4.92%	29.40%
75.0	149.524	77.082	508.963	5.25%	34.65%
80.0	152.317	80.764	589.727	5.50%	40.15%
85.0	153.789	83.176	672.903	5.66%	45.81%
90.0	153.944	84.260	757.163	5.74%	51.55%
95.0	152.787	83.985	841.148	5.72%	57.27%
100.0	150.453	82.398	923.546	5.61%	62.88%
105.0	146.332	79.412	1002.958	5.41%	68.29%
110.0	141.043	75.115	1078.073	5.11%	73.40%
115.0	134.379	69.739	1147.812	4.75%	78.15%
120.0	126.828	63.500	1211.311	4.32%	82.47%
125.0	117.672	56.515	1267.827	3.85%	86.32%
130.0	107.711	49.006	1316.832	3.34%	89.66%
135.0	96.820	41.328	1358.161	2.81%	92.47%
140.0	85.990	33.849	1392.01	2.30%	94.77%
145.0	73.096	26.542	1418.552	1.81%	96.58%
150.0	60.183	19.626	1438.178	1.34%	97.92%
155.0	47.501	13.628	1451.806	0.93%	98.85%
160.0	36.391	8.799	1460.604	0.60%	99.44%
165.0	25.394	5.092	1465.696	0.35%	99.79%
170.0	13.976	2.335	1468.032	0.16%	99.95%
175.0	4.686	0.668	1468.699	0.05%	100.00%
180.0	0.508	0.062	1468.761	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	43.62	2.97%	2.97%
0-40	97.87	6.66%	6.66%
0-60	293.32	19.97%	19.97%
0-90	757.16	51.55%	51.55%
0-120	1211.31	82.47%	82.47%
0-180	1468.76	100.00%	100.00%
60-90	463.85	31.58%	31.58%
90-120	454.15	30.92%	30.92%
90-130	559.67	38.10%	38.10%
90-150	681.02	46.37%	46.37%
90-180	711.54	48.44%	48.44%
0-117.14	1175.01	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	2.20
10-20	11.79
20-30	29.64
30-40	54.25
40-50	83.03
50-60	112.42
60-70	138.56
70-80	157.85
80-90	167.44
90-100	166.38
100-110	154.53
110-120	133.24
120-130	105.52
130-140	75.18
140-150	46.17
150-160	22.43
160-170	7.43
170-180	0.67



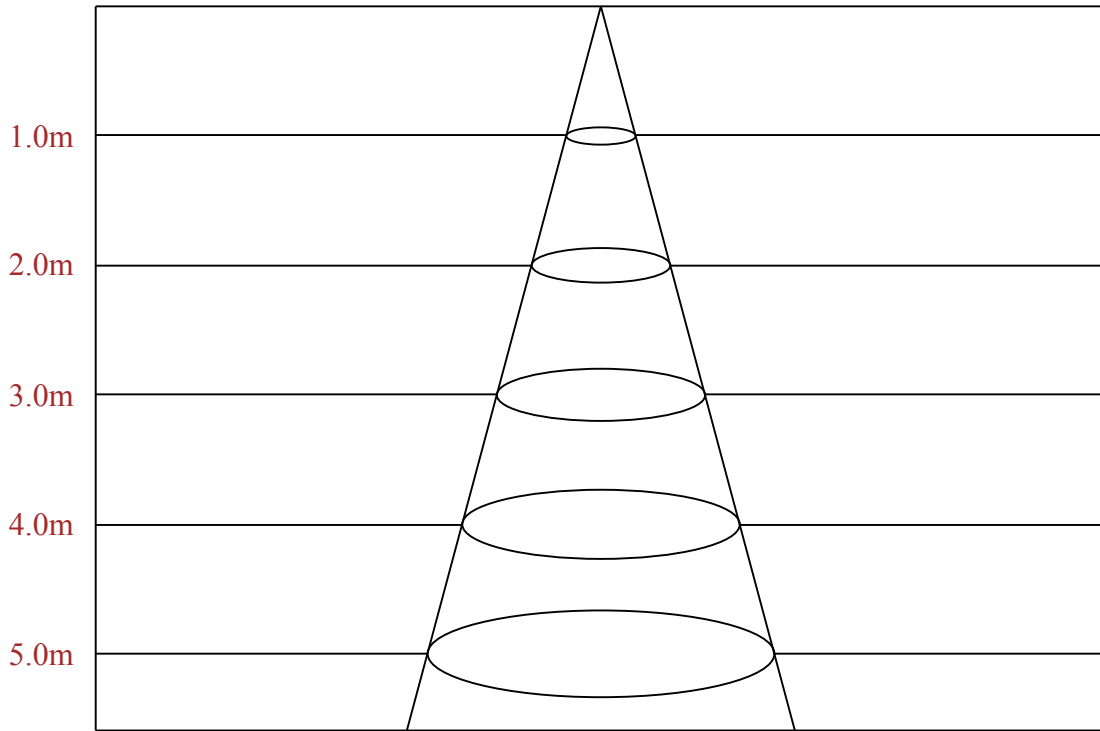
C0(Max): —————

C0/C180: —————

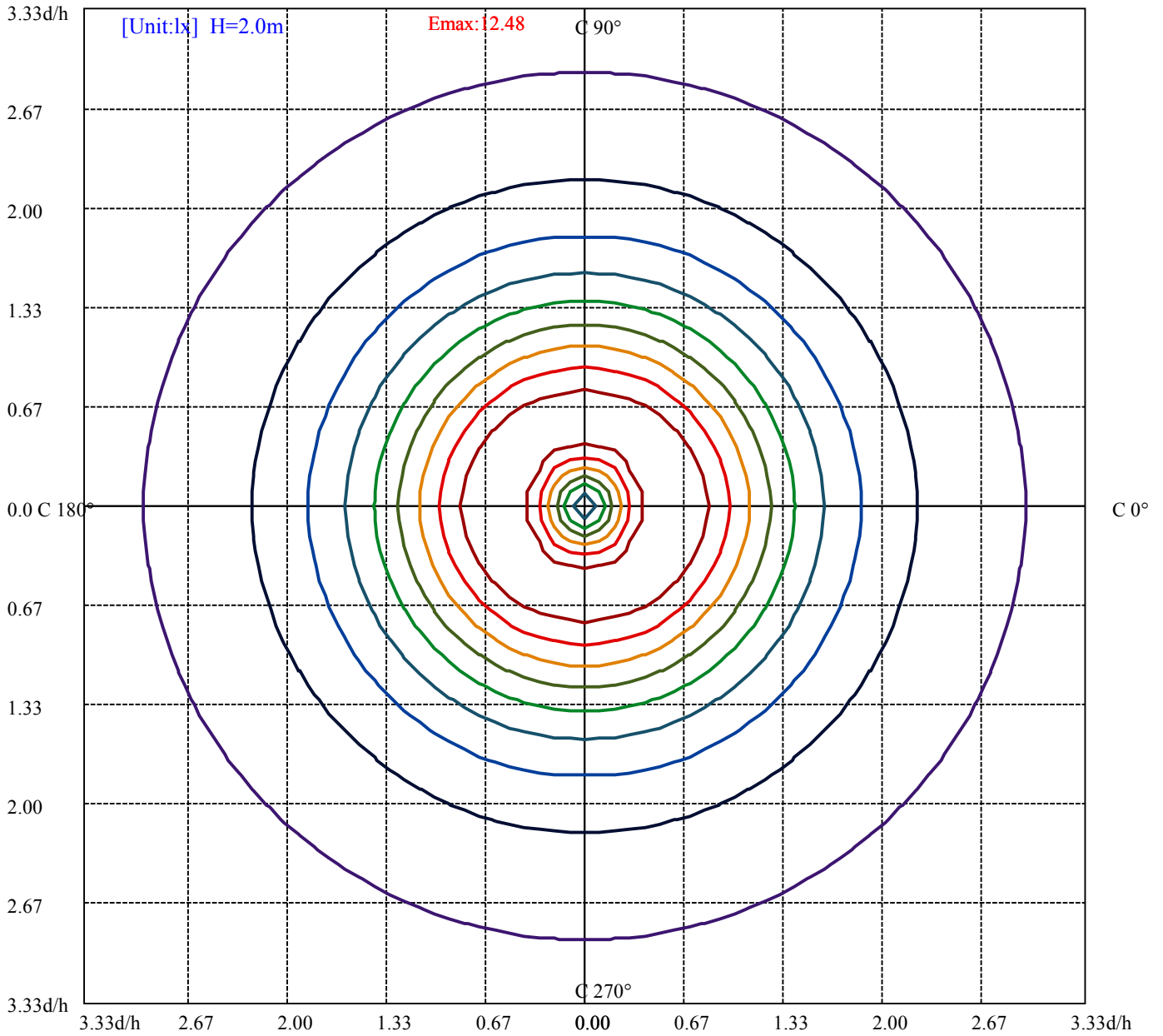
C90/C270: —————

Field angle(10%Imax):C0/180Left:260.1 Right:80.1  
:C90/270Left:258.3 Right:78.3

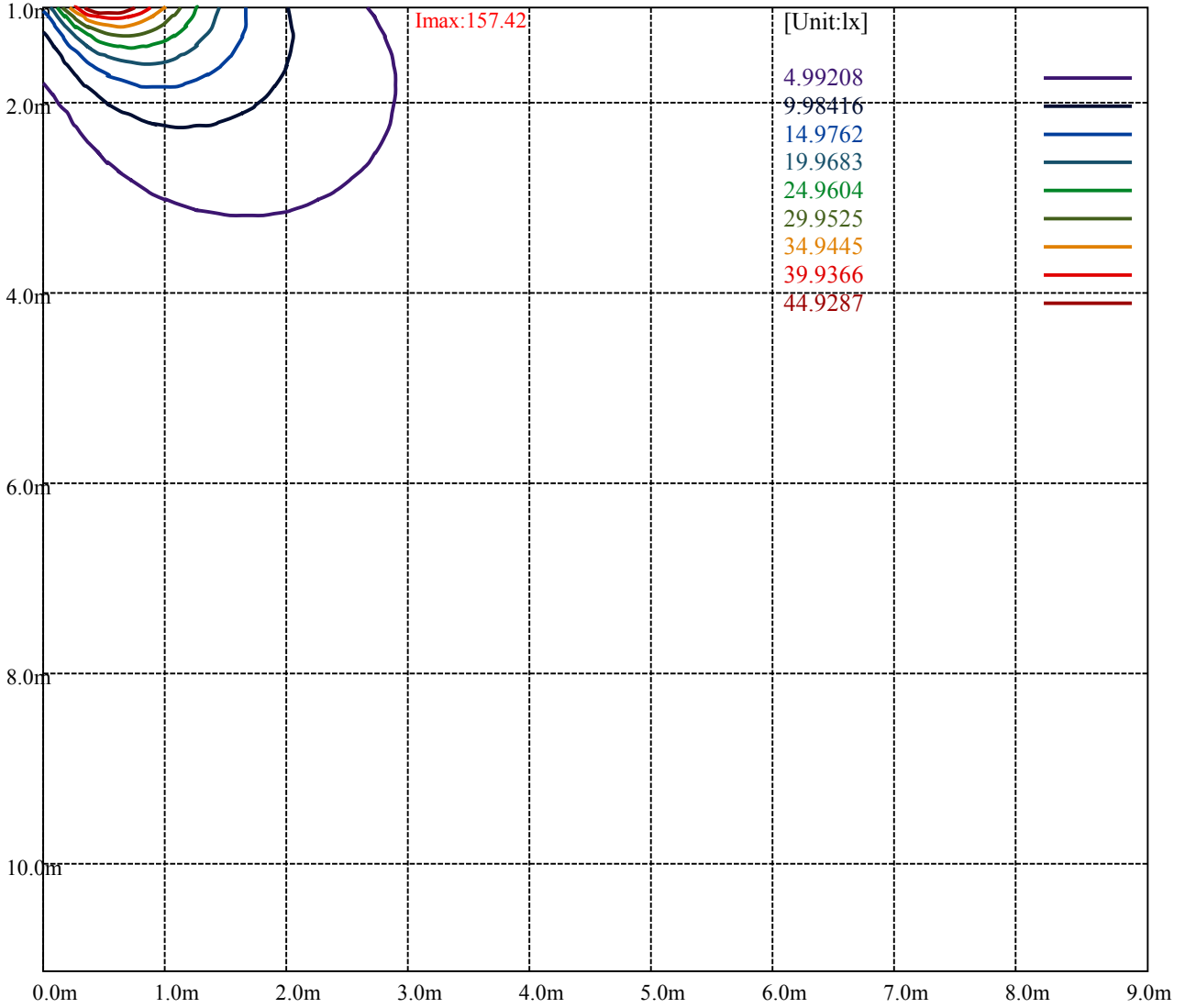
Beam Angle(50%Imax):C0/180Left:235.2 Right:55.2  
:C90/270Left:231.6 Right:51.6



Max , Ave      Beam angle of C0 plane 344.35



- (10%Emax) 1.24802
- (20%Emax) 2.496037
- (30%Emax) 3.74405
- (40%Emax) 4.992075
- (50%Emax) 6.2401
- (60%Emax) 7.488125
- (70%Emax) 8.736125
- (80%Emax) 9.98415
- (90%Emax) 11.23217



Luminance Table

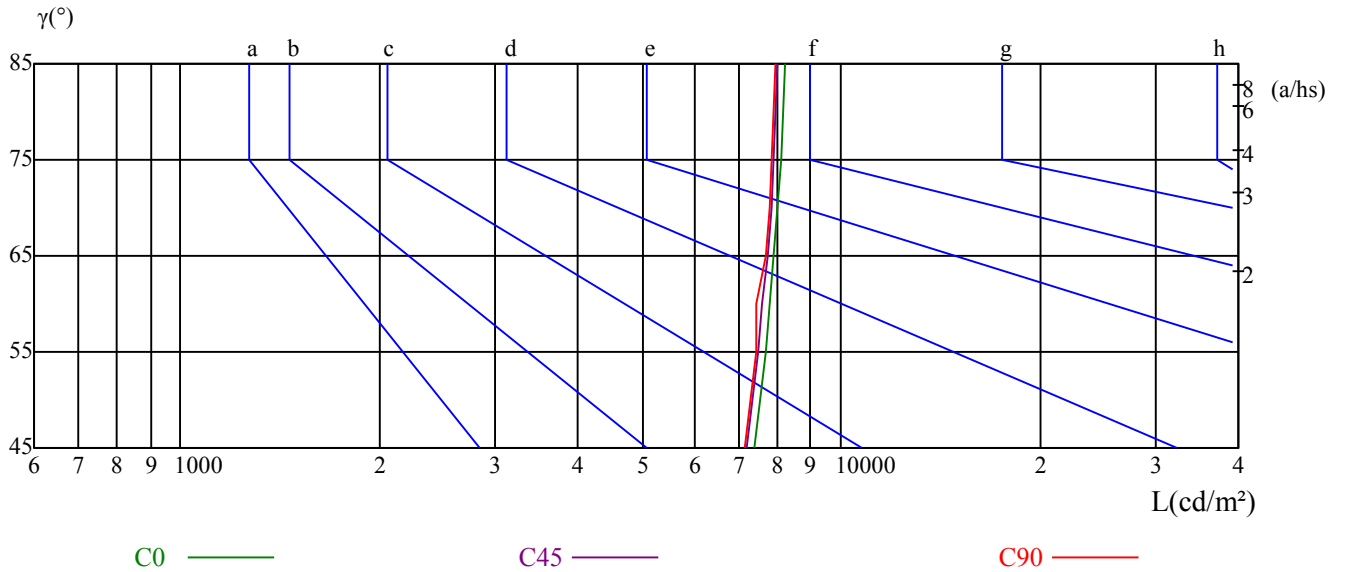
$\gamma$	45	50	55	60	65	70	75	80	85
C0	7419	7543	7694	7809	7922	8015	8102	8174	8237
C45	7214	7363	7497	7615	7726	7830	7909	7980	8034
C90	7161	7321	7456	7427	7689	7779	7851	7918	7968

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
172307	167258	168054	300709	291390	293541	919333	889265	896583

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	1.08	1.08	1.08	0.99	0.99	0.99	0.84	0.84	0.84	0.70	0.70	0.70	0.58	0.58	0.58	0.52
1	0.85	0.79	0.74	0.78	0.73	0.68	0.65	0.61	0.57	0.53	0.50	0.47	0.42	0.39	0.37	0.31
2	0.71	0.63	0.56	0.65	0.58	0.51	0.54	0.48	0.43	0.43	0.39	0.35	0.33	0.30	0.27	0.22
3	0.61	0.51	0.44	0.56	0.47	0.40	0.46	0.39	0.33	0.36	0.31	0.27	0.28	0.24	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	0.24	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	0.21	0.16	0.13	0.09
6	0.41	0.31	0.24	0.37	0.29	0.22	0.31	0.24	0.18	0.24	0.19	0.15	0.18	0.14	0.11	0.08
7	0.36	0.27	0.21	0.33	0.25	0.19	0.27	0.21	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	0.20	0.14	0.11	0.15	0.11	0.08	0.05
9	0.30	0.21	0.16	0.27	0.20	0.14	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	0.17	0.13	0.20	0.14	0.10	0.16	0.11	0.08	0.13	0.09	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	15.76	14.75	24.22	34.61	46.17	57.83	69.58	81.33	92.16
15.0	16.30	14.30	23.41	34.24	45.81	57.10	68.76	80.32	91.53
30.0	16.30	14.02	22.49	33.51	44.99	56.92	68.58	79.96	90.89
45.0	16.67	13.75	22.40	33.33	44.90	56.19	67.94	79.41	90.52
60.0	16.48	13.66	22.49	32.69	44.17	56.01	67.67	79.05	89.80
75.0	16.67	13.57	22.04	32.79	43.53	55.74	67.03	78.41	89.61
90.0	16.67	13.66	21.77	32.51	43.71	55.37	67.03	78.50	89.71
105.0	16.30	13.57	22.13	32.97	43.99	55.28	67.48	78.50	89.61
120.0	15.66	13.84	22.68	32.88	44.17	55.74	67.48	79.23	90.34
135.0	13.39	13.75	22.68	33.51	44.90	56.56	67.85	79.41	90.71
150.0	15.39	14.48	23.13	34.06	54.19	56.56	68.49	80.23	91.62
165.0	14.84	14.57	23.95	34.24	46.36	57.47	69.31	80.87	92.71
180.0	15.76	25.96	36.61	48.45	60.56	72.58	84.33	95.62	106.55
195.0	16.30	26.41	37.25	49.00	61.02	72.40	84.61	95.26	106.10
210.0	16.30	26.77	37.07	48.81	60.65	72.40	83.97	95.17	106.01
225.0	16.67	26.59	37.34	48.91	60.11	72.40	83.15	94.26	104.91
240.0	16.48	26.32	36.79	48.45	60.02	71.40	82.69	93.80	103.73
255.0	16.67	26.41	36.88	48.27	59.20	70.40	81.78	92.80	103.46
270.0	16.67	25.86	36.25	47.54	58.92	70.22	81.05	92.44	102.36
285.0	16.30	25.59	36.34	47.08	58.74	69.31	80.60	91.34	93.80
300.0	15.66	25.41	35.61	46.81	49.45	69.12	80.32	91.16	101.18
315.0	13.39	25.04	35.34	46.45	57.83	69.12	79.78	91.07	100.72
330.0	15.39	24.68	34.79	46.54	57.37	68.76	79.96	90.71	101.09
345.0	14.84	24.59	34.79	45.99	57.56	69.12	79.69	90.71	101.09
360.0	15.76	14.75	24.22	34.61	46.17	57.83	69.58	81.33	92.16
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	103.09	112.75	121.94	130.32	137.61	143.71	148.72	152.45	154.73
15.0	102.18	112.29	121.58	129.78	137.24	143.44	148.45	152.09	154.37
30.0	101.54	111.56	120.94	129.32	136.52	142.98	147.99	151.82	154.18
45.0	101.18	111.11	120.31	128.59	136.06	142.34	147.44	151.09	153.45
60.0	100.72	110.38	119.58	127.95	135.33	141.62	146.72	150.45	152.91
75.0	100.27	110.20	119.39	127.68	134.97	141.34	146.35	150.18	152.36
90.0	100.00	110.29	119.21	127.59	135.06	141.34	146.26	150.09	152.45
105.0	100.45	110.47	119.49	127.77	135.42	141.71	146.72	150.36	152.64
120.0	101.09	110.74	119.94	128.41	135.79	142.16	146.99	150.72	153.09
135.0	101.45	111.47	120.76	129.05	136.33	142.80	147.72	151.45	153.64
150.0	102.46	112.20	121.49	129.87	137.34	143.53	148.45	152.00	154.09
165.0	102.46	112.66	122.04	130.50	137.61	143.89	148.81	152.54	154.64
180.0	116.84	125.86	134.88	141.98	148.35	153.27	156.92	159.01	159.92
195.0	116.30	125.68	134.06	141.43	147.63	152.54	156.00	158.10	158.74
210.0	115.48	125.22	133.05	140.34	146.62	151.36	154.82	156.73	157.28
225.0	114.75	123.95	132.14	139.25	145.26	150.09	153.27	155.28	155.64
240.0	114.11	122.76	130.96	138.15	144.07	148.72	151.91	153.73	154.27
255.0	113.57	122.86	131.14	137.97	143.98	148.17	151.18	151.63	153.00
270.0	112.29	121.31	129.69	131.42	142.53	146.90	149.90	151.63	151.91
285.0	111.11	120.03	128.14	135.06	140.98	145.53	148.81	150.90	151.45
300.0	110.56	119.76	127.50	134.79	140.25	144.99	148.35	150.27	150.90
315.0	110.38	119.30	127.32	134.24	140.16	144.99	148.26	150.36	151.00
330.0	110.83	119.85	127.59	135.06	140.61	145.44	148.81	150.90	151.63
345.0	110.92	119.94	128.14	135.33	141.34	146.17	149.72	151.82	152.64
360.0	103.09	112.75	121.94	130.32	137.61	143.71	148.72	152.45	154.73

## 乐达凯 MIAP15LAJUDBK

Appendix Page: 11 Total:12

## 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	155.55	155.28	153.64	150.90	146.53	140.61	133.60	125.68	116.21
15.0	155.37	155.09	153.73	150.81	146.53	140.98	133.87	126.22	117.21
30.0	155.09	154.73	153.36	150.45	146.53	141.07	134.33	126.32	117.66
45.0	154.46	154.09	152.91	150.09	145.99	140.52	134.06	126.41	117.66
60.0	153.82	153.55	152.18	149.54	145.44	139.98	133.51	126.13	117.48
75.0	153.36	153.27	151.91	149.17	145.08	139.70	133.24	125.59	117.21
90.0	153.45	153.18	151.82	149.08	144.99	139.52	132.96	125.22	116.94
105.0	153.55	153.36	152.09	149.27	144.99	139.43	132.69	125.22	116.66
120.0	153.91	153.73	152.18	149.27	144.89	139.43	132.78	125.04	116.39
135.0	154.37	154.09	152.64	149.72	145.26	139.61	132.96	124.95	116.48
150.0	155.09	154.82	153.18	149.99	145.53	139.98	133.05	125.22	116.39
165.0	155.19	154.91	153.36	149.90	145.71	139.70	132.96	124.86	116.21
180.0	159.28	157.64	154.09	149.17	142.98	135.33	127.50	117.48	107.92
195.0	158.28	156.10	152.64	148.17	141.89	134.42	125.95	116.39	106.01
210.0	157.10	155.00	151.45	146.35	139.89	133.05	124.04	115.21	105.10
225.0	155.09	152.91	149.81	144.53	138.79	131.60	129.23	113.20	102.82
240.0	153.45	151.72	150.72	142.98	136.88	129.41	120.67	111.11	99.72
255.0	152.18	149.90	146.35	141.43	135.15	127.59	119.58	109.56	96.63
270.0	151.18	148.99	145.80	140.98	134.51	126.77	117.76	107.28	94.90
285.0	150.72	148.45	143.53	135.88	127.86	120.12	108.37	94.62	79.78
300.0	150.45	148.17	144.99	139.79	133.05	124.59	115.02	105.28	93.26
315.0	150.36	148.35	145.08	140.25	134.33	125.59	116.94	107.01	96.99
330.0	151.27	149.17	146.26	141.52	135.06	127.04	117.85	108.65	98.17
345.0	152.09	150.36	147.17	142.71	137.15	129.05	120.94	111.47	101.27
360.0	155.55	155.28	153.64	150.90	146.53	140.61	133.60	125.68	116.21
C/ $\gamma$ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	106.37	95.72	84.33	72.40	60.74	47.99	34.61	20.95	4.19
15.0	107.19	96.72	85.88	74.13	61.84	49.09	35.34	19.94	4.10
30.0	107.56	97.36	86.24	74.50	62.66	50.82	36.34	20.04	4.10
45.0	107.83	97.36	86.70	75.41	63.75	51.73	39.62	23.13	8.11
60.0	108.10	97.90	86.97	75.59	64.39	52.37	39.98	25.23	10.11
75.0	107.83	97.99	86.61	75.86	64.02	52.09	39.43	26.23	11.29
90.0	107.28	97.36	86.70	75.32	63.66	52.46	39.52	25.23	9.74
105.0	107.28	97.08	86.79	75.04	63.84	51.91	39.34	24.41	8.47
120.0	106.92	97.17	86.34	74.95	63.48	52.18	39.43	25.41	8.83
135.0	107.01	96.81	86.06	75.22	63.48	51.73	39.52	26.05	11.20
150.0	106.74	96.90	86.06	74.77	62.93	51.64	39.16	26.96	12.02
165.0	106.55	96.26	85.33	74.04	62.84	50.73	38.89	26.23	12.29
180.0	96.99	85.61	74.04	62.84	49.54	38.34	26.14	11.20	0.82
195.0	95.72	84.42	72.95	61.11	49.27	45.81	24.68	10.29	0.91
210.0	94.35	91.71	71.13	59.38	47.90	35.52	23.50	9.11	0.82
225.0	91.98	80.14	67.85	55.74	42.17	28.32	14.94	5.19	0.64
240.0	86.79	72.86	57.83	40.16	22.49	7.83	2.55	2.09	0.64
255.0	81.51	68.39	49.18	26.96	8.38	0.91	0.46	0.64	0.64
270.0	78.59	65.12	44.44	23.77	5.56	0.64	0.46	0.55	0.55
285.0	65.75	54.28	37.34	23.22	9.93	1.00	0.55	0.55	0.64
300.0	81.96	68.03	53.28	38.80	26.23	14.39	5.74	0.64	0.55
315.0	86.15	73.95	61.66	48.72	37.43	26.05	14.02	0.82	0.64
330.0	86.88	74.95	62.75	50.73	39.80	28.60	16.85	1.18	0.55
345.0	90.34	79.69	67.85	55.74	43.71	31.24	18.40	3.37	0.64
360.0	106.37	95.72	84.33	72.40	60.74	47.99	34.61	20.95	4.19

Intensity data(cd)

C/γ(°)	180.0
0.0	0.82
15.0	0.73
30.0	0.82
45.0	0.82
60.0	0.82
75.0	0.91
90.0	1.00
105.0	1.27
120.0	1.37
135.0	1.18
150.0	1.27
165.0	1.18
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