

---

乐达凯

---

Client:

LumCAT: LB72201

Luminaire: LED 灯具

Report No:

Ballast type:

Test No: LCZP23060295

Voltage(V): 120.000

LampCAT:

Current(A): 0.213

Lamp flux(lm): 2005.5

Power (W): 25.350

Number of Lamps: 1

PF: 0.994

Length(mm): -380

Width(mm): -380

Phm Type: C

Height(mm): 0

---

Photometric Results

---

Lumens(lm): 2005.45, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.11

Central intensity(cd): 741.480, Maximum intensity(cd): 741.480

Angle of maximum intensity: C=15.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=107.8

[C90/270]Total=107.4

Field angle(10%Imax): [C0/180]Total=156.6

[C90/270]Total=157.0

Maximum s/h(1/2): C0\_180=1.25 C90\_270=1.24

Maximum s/h(1/4): C0\_180=1.35 C90\_270=1.35

Up flux rate of lamp(%): 0.44%

Down flux rate of lamp(%): 99.56%

Up flux rate of LUM(%): 0.44%

Down flux rate of LUM(%): 99.56%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 80.852%

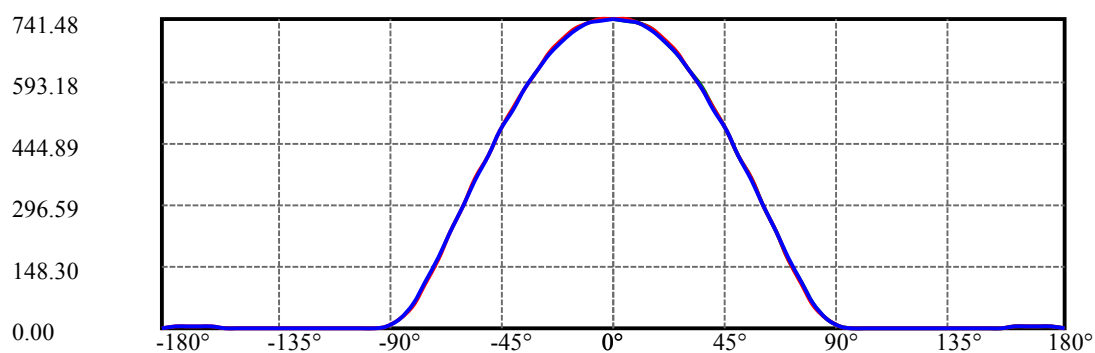
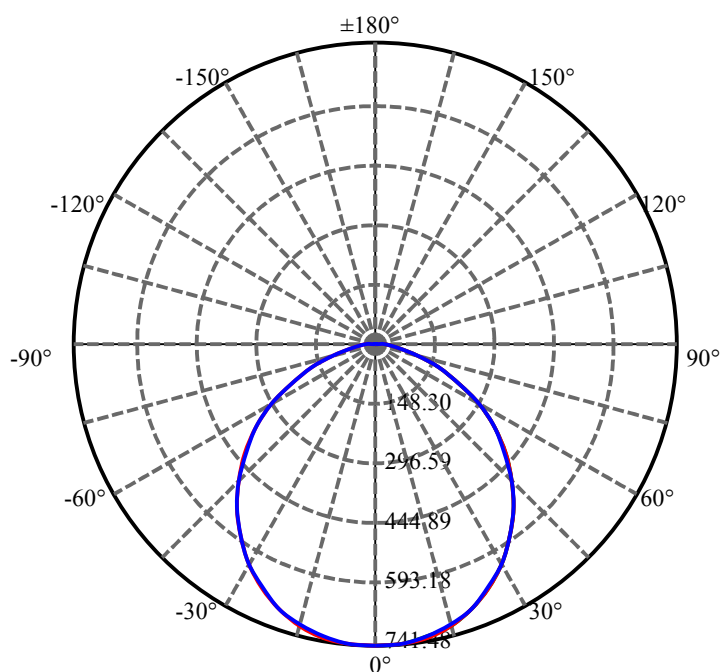
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	741.480	0.000	0	0.00%	0.00%
5.0	738.882	17.697	17.697	0.88%	0.88%
10.0	731.209	52.590	70.287	2.62%	3.50%
15.0	716.571	85.881	156.168	4.28%	7.79%
20.0	692.703	116.144	272.312	5.79%	13.58%
25.0	660.308	141.906	414.218	7.08%	20.65%
30.0	622.759	162.373	576.592	8.10%	28.75%
35.0	577.019	176.676	753.267	8.81%	37.56%
40.0	527.405	184.265	937.532	9.19%	46.75%
45.0	474.669	185.542	1123.074	9.25%	56.00%
50.0	415.941	179.961	1303.035	8.97%	64.97%
55.0	356.352	167.922	1470.957	8.37%	73.35%
60.0	294.740	150.498	1621.455	7.50%	80.85%
65.0	230.145	127.600	1749.056	6.36%	87.21%
70.0	167.623	100.717	1849.773	5.02%	92.24%
75.0	109.930	72.548	1922.321	3.62%	95.85%
80.0	58.254	45.001	1967.322	2.24%	98.10%
85.0	22.407	21.917	1989.24	1.09%	99.19%
90.0	4.724	7.429	1996.668	0.37%	99.56%
95.0	0.902	1.541	1998.209	0.08%	99.64%
100.0	0.958	0.505	1998.714	0.03%	99.66%
105.0	1.003	0.525	1999.239	0.03%	99.69%
110.0	1.029	0.531	1999.77	0.03%	99.72%
115.0	0.996	0.513	2000.283	0.03%	99.74%
120.0	0.943	0.471	2000.754	0.02%	99.77%
125.0	0.984	0.446	2001.2	0.02%	99.79%
130.0	1.003	0.432	2001.632	0.02%	99.81%
135.0	1.044	0.414	2002.046	0.02%	99.83%
140.0	1.183	0.412	2002.458	0.02%	99.85%
145.0	1.456	0.440	2002.898	0.02%	99.87%
150.0	1.830	0.484	2003.382	0.02%	99.90%
155.0	2.227	0.513	2003.895	0.03%	99.92%
160.0	2.534	0.499	2004.395	0.02%	99.95%
165.0	2.777	0.438	2004.832	0.02%	99.97%
170.0	2.983	0.342	2005.174	0.02%	99.99%
175.0	3.215	0.222	2005.396	0.01%	100.00%
180.0	1.658	0.058	2005.454	0.00%	100.00%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	576.59	28.75%	28.75%
0-40	937.53	46.75%	46.75%
0-60	1621.46	80.85%	80.85%
0-90	1996.67	99.56%	99.56%
0-120	2000.75	99.77%	99.77%
0-180	2005.45	100.00%	100.00%
60-90	375.21	18.71%	18.71%
90-120	4.09	0.20%	0.20%
90-130	4.96	0.25%	0.25%
90-150	6.71	0.33%	0.33%
90-180	8.73	0.44%	0.44%
0-59.43	1604.36	80.00%	80.00%

## ZONAL LUMEN SUMMARY

0-10	70.29
10-20	202.03
20-30	304.28
30-40	360.94
40-50	365.50
50-60	318.42
60-70	228.32
70-80	117.55
80-90	29.35
90-100	2.05
100-110	1.06
110-120	0.98
120-130	0.88
130-140	0.83
140-150	0.92
150-160	1.01
160-170	0.78
170-180	0.22



C15(Max):

C0/C180:

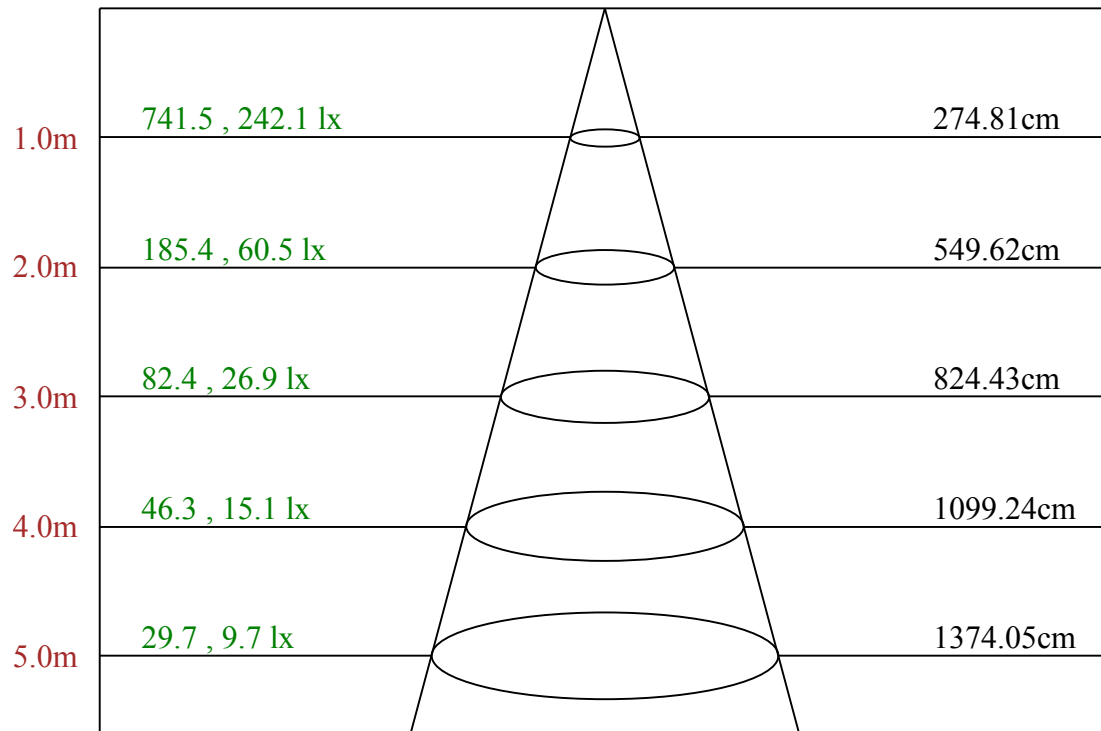
C90/C270:

Field angle(10%Imax):C0/180Left:78.3 Right:78.3

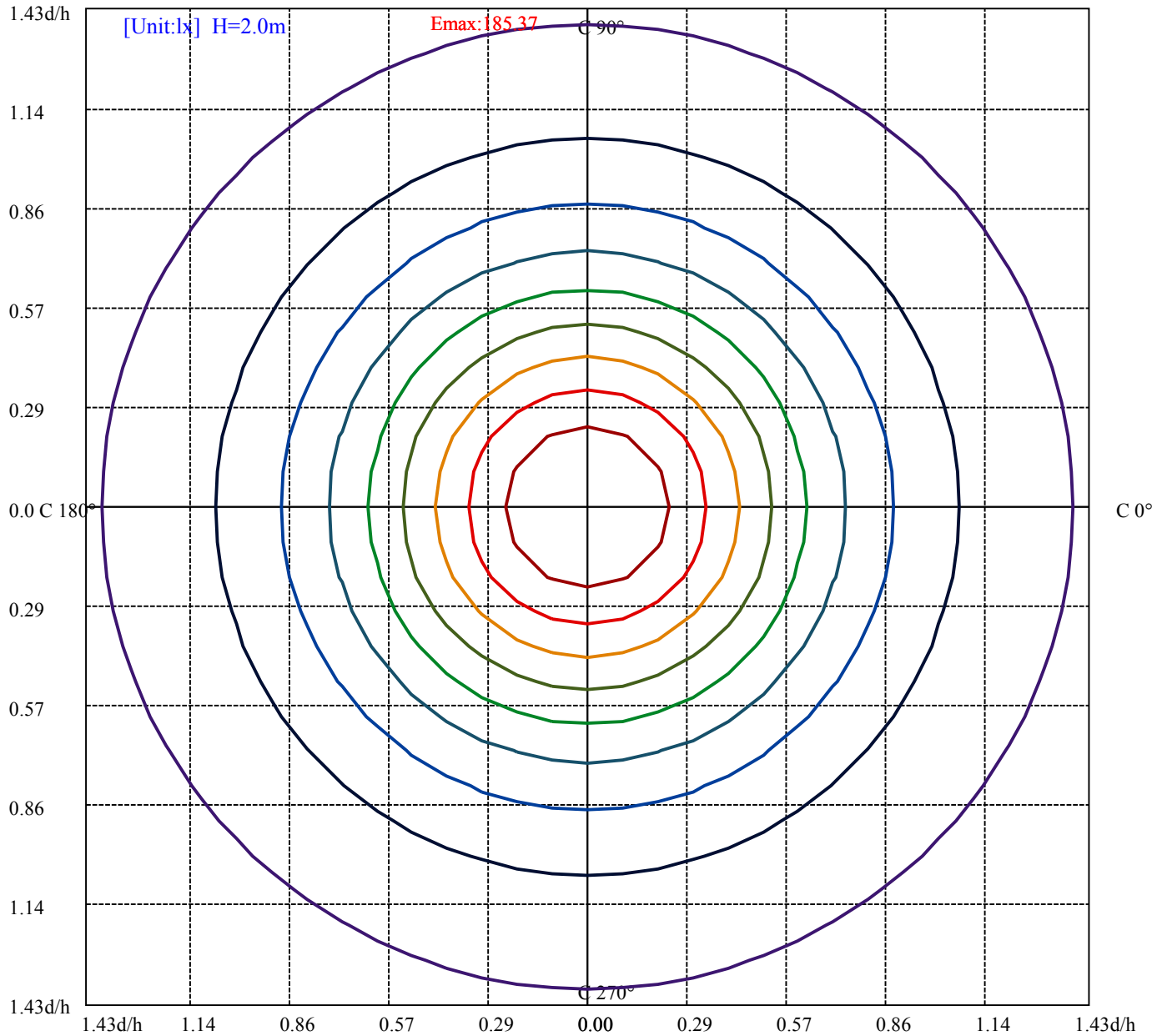
:C90/270Left:78.5 Right:78.5

Beam Angle(50%Imax):C0/180Left:53.9 Right:53.9

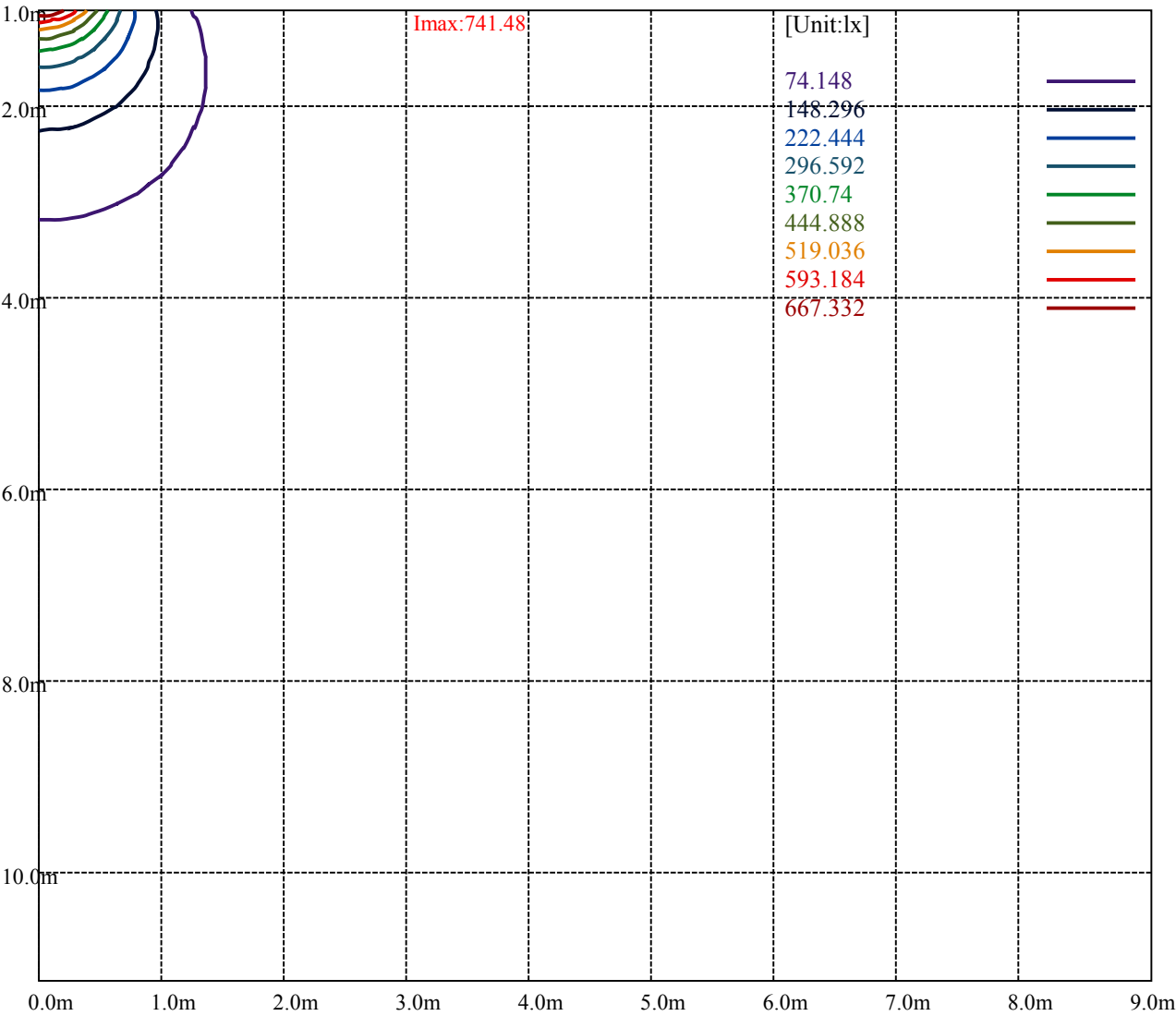
:C90/270Left:53.7 Right:53.7



Max , Ave      Beam angle of C15 plane 107.91



(10%Emax) 18.537	—
(20%Emax) 37.074	—
(30%Emax) 55.611	—
(40%Emax) 74.148	—
(50%Emax) 92.685	—
(60%Emax) 111.222	—
(70%Emax) 129.759	—
(80%Emax) 148.296	—
(90%Emax) 166.833	—



Luminance Table

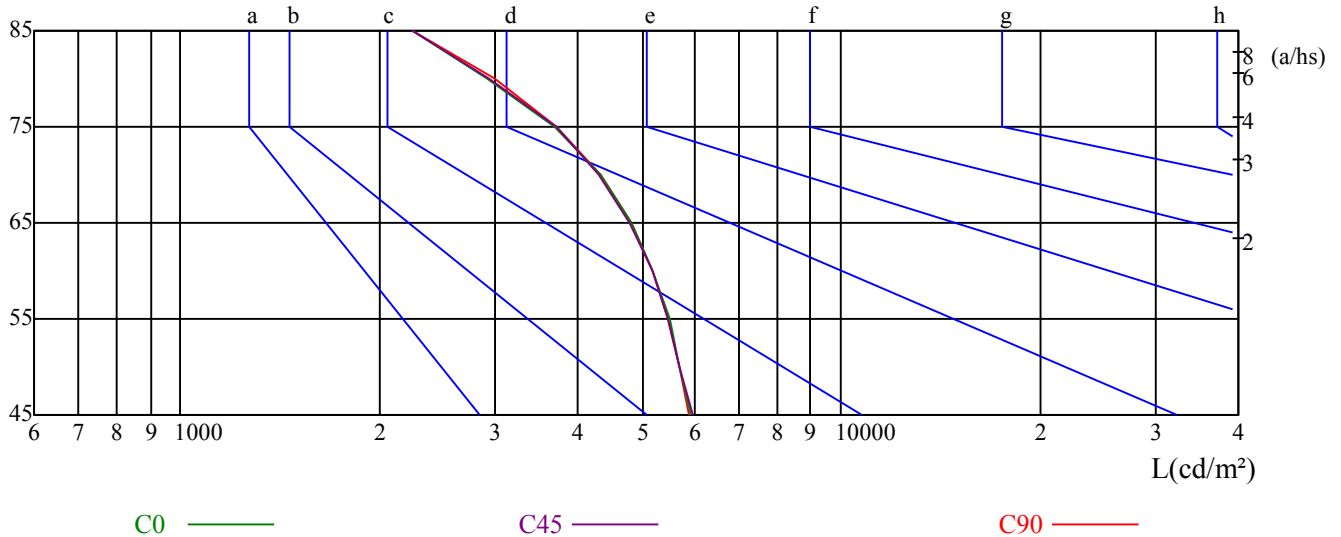
$\gamma$	45	50	55	60	65	70	75	80	85
C0	5922	5715	5494	5181	4812	4319	3677	2914	2240
C45	5981	5702	5470	5180	4797	4311	3711	2937	2244
C90	5890	5689	5472	5172	4809	4337	3708	2985	2251

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4812	4809	4797	3677	3708	3711	2240	2251	2244

Glare Table

Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	$\leq 300$				
1.5	B		2000	1000	500	$\leq 300$			
1.85	C			2000	1000	500	$\leq 300$		
2.2	D				2000	1000	500	$\leq 300$	
2.55	E					2000	1000	500	$\leq 300$
		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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.04	1.00	0.97	1.02	0.98	0.95	0.98	0.95	0.92	0.94	0.91	0.89	0.90	0.88	0.86	0.84
2	0.91	0.85	0.79	0.89	0.83	0.78	0.86	0.81	0.76	0.83	0.78	0.75	0.79	0.76	0.73	0.71
3	0.81	0.73	0.66	0.79	0.71	0.66	0.76	0.70	0.64	0.73	0.68	0.63	0.70	0.66	0.62	0.60
4	0.71	0.63	0.56	0.70	0.62	0.56	0.68	0.61	0.55	0.65	0.59	0.54	0.63	0.58	0.53	0.51
5	0.64	0.55	0.49	0.63	0.54	0.48	0.61	0.53	0.48	0.59	0.52	0.47	0.57	0.51	0.47	0.44
6	0.58	0.49	0.42	0.57	0.48	0.42	0.55	0.47	0.42	0.53	0.46	0.41	0.51	0.46	0.41	0.39
7	0.52	0.44	0.38	0.51	0.43	0.37	0.50	0.42	0.37	0.48	0.42	0.37	0.47	0.41	0.37	0.35
8	0.48	0.39	0.34	0.47	0.39	0.33	0.46	0.38	0.33	0.44	0.38	0.33	0.43	0.37	0.33	0.31
9	0.44	0.36	0.30	0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.40	0.34	0.30	0.28
10	0.40	0.33	0.27	0.40	0.32	0.27	0.39	0.32	0.27	0.38	0.32	0.27	0.37	0.31	0.27	0.25

## 乐达凯 LB72201

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	741.48	741.75	736.77	724.05	703.96	675.60	637.73	594.16	547.57
15.0	741.48	742.46	733.96	724.29	705.21	674.85	639.75	594.97	547.87
30.0	741.48	741.48	734.58	724.27	706.06	676.66	638.73	595.96	547.10
45.0	741.48	739.87	733.95	725.43	702.85	673.53	637.32	595.55	547.33
60.0	741.48	738.79	734.75	724.24	703.86	675.40	640.21	594.87	547.11
75.0	741.48	739.50	736.63	726.66	705.54	676.88	640.50	597.01	550.47
90.0	741.48	740.40	736.63	726.29	706.96	677.30	642.15	598.65	550.65
105.0	741.48	743.64	738.05	729.12	710.91	682.41	644.53	601.61	554.26
120.0	741.48	741.03	738.87	728.60	710.13	682.21	645.55	602.41	555.48
135.0	741.48	742.65	738.96	730.39	711.74	682.99	648.29	606.56	557.98
150.0	741.48	744.64	739.41	731.56	713.97	684.21	649.21	607.54	560.73
165.0	741.48	741.93	738.15	730.68	712.49	684.95	650.74	609.69	561.62
180.0	741.48	739.52	729.74	708.58	683.87	647.59	606.25	561.71	507.83
195.0	741.48	737.63	727.06	707.54	682.38	646.56	607.06	561.84	508.47
210.0	741.48	738.07	727.76	709.65	682.22	646.80	607.35	559.74	507.83
225.0	741.48	735.12	727.05	707.42	679.99	643.15	606.13	556.74	507.26
240.0	741.48	734.84	726.67	706.65	678.81	643.89	602.23	556.54	506.80
255.0	741.48	735.37	724.68	707.43	676.34	641.66	601.14	553.89	501.51
270.0	741.48	735.37	725.57	705.08	676.13	639.19	598.74	551.19	501.48
285.0	741.48	737.24	725.34	704.96	675.47	641.47	598.45	553.27	501.05
300.0	741.48	735.90	724.37	702.84	675.64	639.16	598.62	550.44	499.63
315.0	741.48	736.07	723.54	702.91	674.97	638.10	597.46	548.88	496.69
330.0	741.48	736.07	723.26	704.50	673.20	638.30	615.30	549.10	497.69
345.0	741.48	733.83	723.30	704.57	672.17	634.54	592.77	546.14	493.30
360.0	741.48	741.75	736.77	724.05	703.96	675.60	637.73	594.16	547.57
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	497.70	439.55	382.92	319.89	257.92	193.46	133.36	78.06	33.52
15.0	495.93	439.96	382.29	319.43	254.41	192.44	131.91	75.31	32.78
30.0	494.29	441.12	380.60	316.77	255.08	190.88	130.45	75.58	33.08
45.0	493.90	437.79	379.17	316.60	254.75	189.22	129.17	74.58	32.45
60.0	495.67	437.49	380.21	317.01	254.52	190.69	130.27	75.86	33.31
75.0	498.63	436.64	380.40	319.03	257.04	190.02	129.82	75.20	31.89
90.0	499.14	441.26	384.09	319.19	257.17	192.90	131.77	76.67	32.81
105.0	500.33	444.15	383.55	322.76	258.46	194.16	132.93	77.20	33.64
120.0	502.88	445.59	386.68	323.63	261.39	196.18	135.20	77.73	33.60
135.0	504.53	447.21	388.63	327.52	263.35	198.28	136.81	78.59	33.80
150.0	509.32	453.94	393.33	329.57	265.71	202.30	140.70	81.63	35.72
165.0	510.58	453.42	395.36	332.26	269.87	204.43	142.59	85.07	36.91
180.0	452.09	393.68	331.89	267.70	203.33	141.63	82.51	36.72	10.76
195.0	451.87	395.01	332.41	269.82	205.16	142.74	84.18	39.40	11.37
210.0	453.85	393.96	333.98	271.22	204.42	145.25	86.70	39.99	11.92
225.0	451.68	393.33	332.55	270.70	205.72	145.03	88.20	40.34	12.46
240.0	448.89	392.78	330.65	268.35	206.31	145.89	89.42	41.39	12.93
255.0	446.88	389.74	330.36	268.09	204.75	144.29	88.23	41.96	12.58
270.0	445.48	388.22	327.82	267.41	203.86	143.55	85.93	40.90	11.69
285.0	446.58	386.52	327.90	264.60	201.20	140.68	109.48	39.86	11.81
300.0	445.41	385.87	325.97	290.58	198.16	138.17	83.05	39.00	10.63
315.0	468.39	384.39	322.93	260.20	195.94	136.27	81.57	37.85	10.00
330.0	440.32	382.78	320.82	257.05	194.46	134.30	78.11	35.36	8.75
345.0	437.67	378.17	317.94	254.39	190.48	130.17	75.98	33.85	9.36
360.0	497.70	439.55	382.92	319.89	257.92	193.46	133.36	78.06	33.52

## 乐达凯 LB72201

Intensity data(cd)									Appendix Page: 11 Total:12		
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0		
0.0	7.73	0.53	0.62	0.62	0.53	0.44	0.44	0.71	1.07		
15.0	7.34	0.54	0.63	0.63	0.63	0.54	0.45	0.81	0.99		
30.0	6.90	0.45	0.54	0.63	0.72	0.63	0.63	0.81	0.99		
45.0	7.26	0.45	0.54	0.63	0.72	0.81	0.81	0.81	0.99		
60.0	7.27	0.63	0.54	0.63	0.81	0.81	0.81	0.90	0.99		
75.0	7.91	0.63	0.63	0.72	0.72	0.72	0.81	0.99	0.90		
90.0	7.82	0.54	0.63	0.63	0.72	0.81	0.81	0.99	1.08		
105.0	8.66	0.54	0.63	0.72	0.72	0.72	0.72	0.90	0.99		
120.0	8.65	0.45	0.63	0.72	0.63	0.72	0.72	0.72	0.99		
135.0	9.37	0.54	0.63	0.63	0.72	0.63	0.63	0.81	0.99		
150.0	9.83	0.54	0.54	0.63	0.63	0.54	0.54	0.72	0.90		
165.0	10.35	0.54	0.54	0.63	0.72	0.45	0.45	0.72	0.99		
180.0	1.16	1.24	1.42	1.33	1.16	1.16	0.98	0.89	0.98		
195.0	1.16	1.25	1.25	1.25	1.34	1.25	1.16	1.07	0.90		
210.0	1.08	1.08	1.26	1.34	1.34	1.34	1.26	1.17	0.99		
225.0	1.17	1.17	1.17	1.34	1.43	1.43	1.43	1.34	1.08		
240.0	1.17	1.26	1.35	1.35	1.53	1.62	1.53	1.35	1.17		
255.0	1.26	1.35	1.35	1.44	1.53	1.53	1.35	1.26	1.08		
270.0	1.17	1.44	1.35	1.44	1.62	1.53	1.44	1.35	1.08		
285.0	1.26	1.35	1.44	1.53	1.53	1.53	1.35	1.17	0.99		
300.0	1.26	1.35	1.44	1.44	1.44	1.35	1.17	1.08	0.99		
315.0	1.17	1.26	1.35	1.35	1.26	1.08	0.99	1.08	0.99		
330.0	1.17	1.26	1.26	1.17	1.17	1.17	1.08	0.99	0.99		
345.0	1.26	1.26	1.26	1.26	1.08	1.08	1.08	0.99	0.99		
360.0	7.73	0.53	0.62	0.62	0.53	0.44	0.44	0.71	1.07		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	1.07	1.24	1.60	1.96	2.40	2.76	3.02	3.11	3.20		
15.0	1.16	1.34	1.61	1.97	2.42	2.69	2.96	3.13	3.13		
30.0	1.17	1.26	1.61	1.97	2.33	2.69	3.05	3.14	3.23		
45.0	1.08	1.17	1.61	1.97	2.42	2.78	3.05	3.14	3.23		
60.0	1.08	1.26	1.53	2.06	2.42	2.78	2.96	3.05	3.23		
75.0	1.08	1.26	1.62	1.98	2.34	2.79	3.05	3.05	3.23		
90.0	1.08	1.26	1.44	1.98	2.34	2.70	2.97	3.06	3.15		
105.0	1.08	1.26	1.62	1.98	2.43	2.71	2.98	3.07	3.25		
120.0	1.08	1.17	1.53	1.98	2.34	2.70	2.97	3.06	3.15		
135.0	0.99	1.17	1.53	1.89	2.34	2.70	2.97	3.15	3.15		
150.0	0.99	1.26	1.53	1.89	2.35	2.71	2.98	3.07	3.25		
165.0	0.99	1.26	1.62	1.98	2.34	2.70	2.88	3.06	3.24		
180.0	0.98	1.16	1.33	1.78	2.04	2.40	2.49	2.93	3.29		
195.0	0.99	1.07	1.34	1.70	2.15	2.33	2.51	2.87	3.22		
210.0	0.99	1.17	1.34	1.52	2.15	2.33	2.60	2.87	3.23		
225.0	1.08	1.17	1.34	1.70	2.06	2.33	2.60	2.87	3.23		
240.0	1.08	1.17	1.35	1.71	2.06	2.42	2.60	2.87	3.23		
255.0	0.99	1.08	1.35	1.62	2.07	2.34	2.52	2.87	3.14		
270.0	1.08	1.08	1.44	1.71	2.07	2.34	2.61	2.88	3.24		
285.0	0.99	1.08	1.35	1.71	2.07	2.43	2.53	2.89	3.25		
300.0	0.99	1.08	1.26	1.71	2.07	2.25	2.61	2.88	3.15		
315.0	0.99	1.08	1.35	1.71	1.98	2.34	2.61	2.79	3.24		
330.0	0.99	1.17	1.26	1.71	2.16	2.35	2.53	2.89	3.25		
345.0	1.08	1.17	1.35	1.71	2.07	2.25	2.61	2.88	3.24		
360.0	1.07	1.24	1.60	1.96	2.40	2.76	3.02	3.11	3.20		

## Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	3.20
15.0	3.40
30.0	3.32
45.0	3.32
60.0	3.32
75.0	3.32
90.0	3.33
105.0	3.34
120.0	3.24
135.0	3.33
150.0	3.43
165.0	3.24
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	3.20