
乐达凯

Client:

LumCAT: LCD-RD-LS-15-CCT-120-36-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.050

LampCAT:

Current(A): 0.123

Lamp flux(lm): 1149.7

Power (W): 14.340

Number of Lamps: 1

PF: 0.974

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1149.71, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 80.18

Central intensity(cd): 2035.768, Maximum intensity(cd): 2035.768

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.8

[C90/270]Total=39.0

Field angle(10%Imax): [C0/180]Total=69.4

[C90/270]Total=69.4

Maximum s/h(1/2): C0_180=0.64 C90_270=0.64

Maximum s/h(1/4): C0_180=0.63 C90_270=0.63

Up flux rate of lamp(%): 0.31%

Down flux rate of lamp(%): 99.69%

Up flux rate of LUM(%): 0.31%

Down flux rate of LUM(%): 99.69%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.398%

乐达凯 LCD-RD-LS-15-CCT-120-36-WT

Zonal flux distribution table

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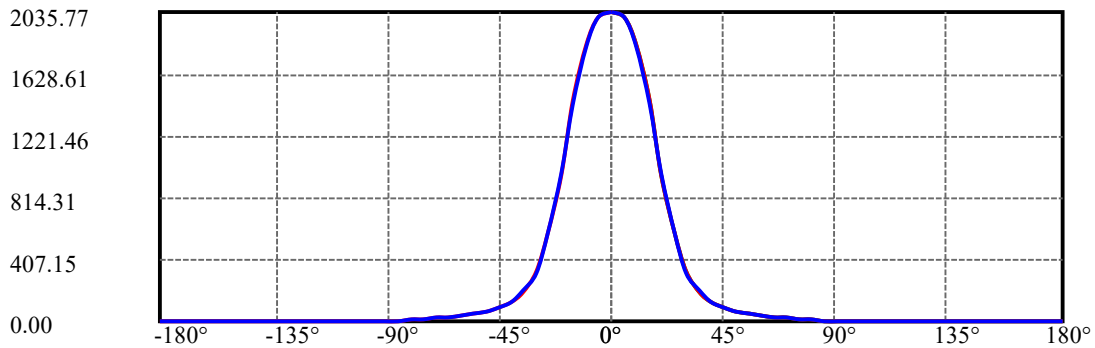
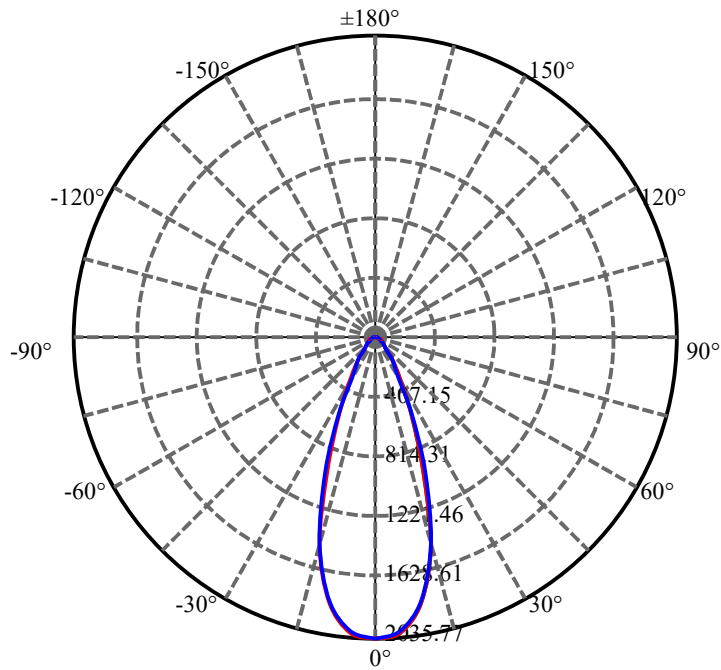
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2035.768	0.000	0	0.00%	0.00%
5.0	2000.673	48.254	48.254	4.20%	4.20%
10.0	1817.255	136.579	184.834	11.88%	16.08%
15.0	1444.184	193.466	378.3	16.83%	32.90%
20.0	973.600	199.259	577.56	17.33%	50.24%
25.0	574.786	162.397	739.957	14.13%	64.36%
30.0	326.999	114.122	854.078	9.93%	74.29%
35.0	195.525	76.945	931.024	6.69%	80.98%
40.0	124.574	53.406	984.43	4.65%	85.62%
45.0	84.348	38.684	1023.114	3.36%	88.99%
50.0	62.536	29.680	1052.794	2.58%	91.57%
55.0	48.330	24.106	1076.9	2.10%	93.67%
60.0	37.754	19.898	1096.798	1.73%	95.40%
65.0	29.029	16.235	1113.033	1.41%	96.81%
70.0	21.773	12.863	1125.897	1.12%	97.93%
75.0	15.132	9.646	1135.543	0.84%	98.77%
80.0	8.879	6.425	1141.968	0.56%	99.33%
85.0	3.049	3.241	1145.209	0.28%	99.61%
90.0	0.463	0.962	1146.171	0.08%	99.69%
95.0	0.000	0.127	1146.298	0.01%	99.70%
100.0	0.000	0.000	1146.298	0.00%	99.70%
105.0	0.000	0.000	1146.298	0.00%	99.70%
110.0	0.000	0.000	1146.298	0.00%	99.70%
115.0	0.000	0.000	1146.298	0.00%	99.70%
120.0	0.000	0.000	1146.298	0.00%	99.70%
125.0	0.000	0.000	1146.298	0.00%	99.70%
130.0	0.000	0.000	1146.298	0.00%	99.70%
135.0	0.000	0.000	1146.298	0.00%	99.70%
140.0	0.000	0.000	1146.298	0.00%	99.70%
145.0	0.618	0.103	1146.401	0.01%	99.71%
150.0	1.429	0.301	1146.702	0.03%	99.74%
155.0	2.780	0.533	1147.235	0.05%	99.78%
160.0	3.668	0.676	1147.911	0.06%	99.84%
165.0	5.057	0.719	1148.63	0.06%	99.91%
170.0	5.096	0.602	1149.232	0.05%	99.96%
175.0	5.559	0.381	1149.613	0.03%	99.99%
180.0	2.780	0.100	1149.713	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	854.08	74.29%	74.29%
0-40	984.43	85.62%	85.62%
0-60	1096.80	95.40%	95.40%
0-90	1146.17	99.69%	99.69%
0-120	1146.30	99.70%	99.70%
0-180	1149.71	100.00%	100.00%
60-90	49.37	4.29%	4.29%
90-120	0.13	0.01%	0.01%
90-130	0.13	0.01%	0.01%
90-150	0.53	0.05%	0.05%
90-180	3.44	0.30%	0.30%
0-34.27	919.77	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	184.83
10-20	392.73
20-30	276.52
30-40	130.35
40-50	68.36
50-60	44.00
60-70	29.10
70-80	16.07
80-90	4.20
90-100	0.13
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.40
150-160	1.21
160-170	1.32
170-180	0.38



C0(Max):

C0/C180:

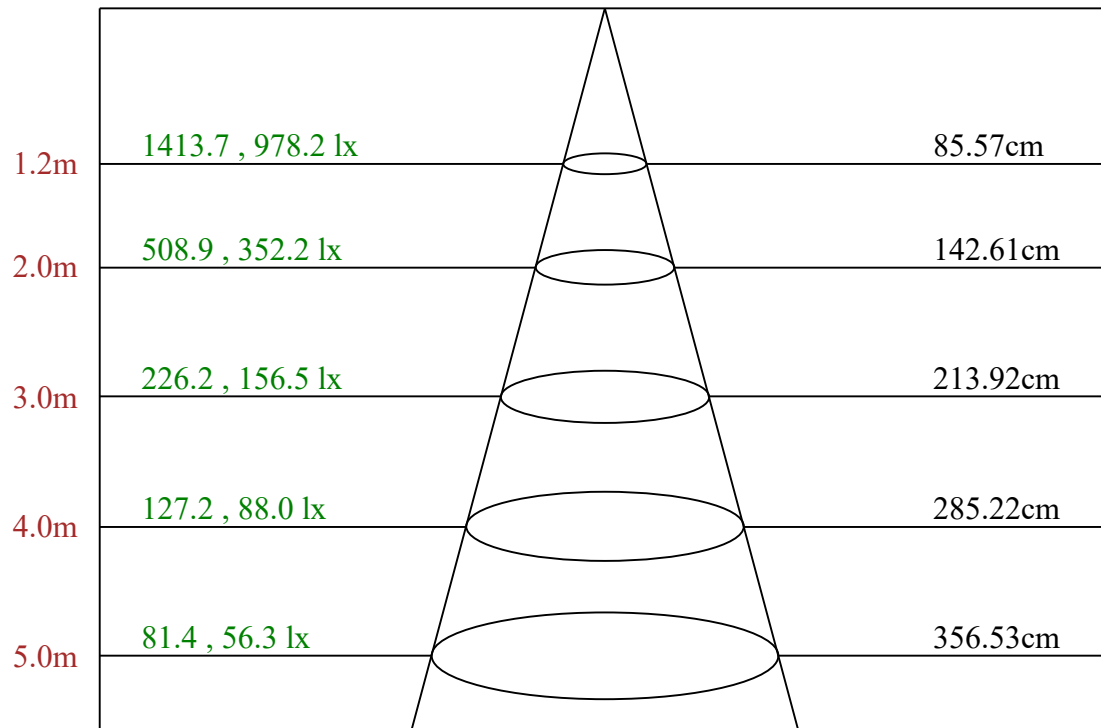
C90/C270:

Field angle(10%Imax):C0/180Left:34.7 Right:34.7

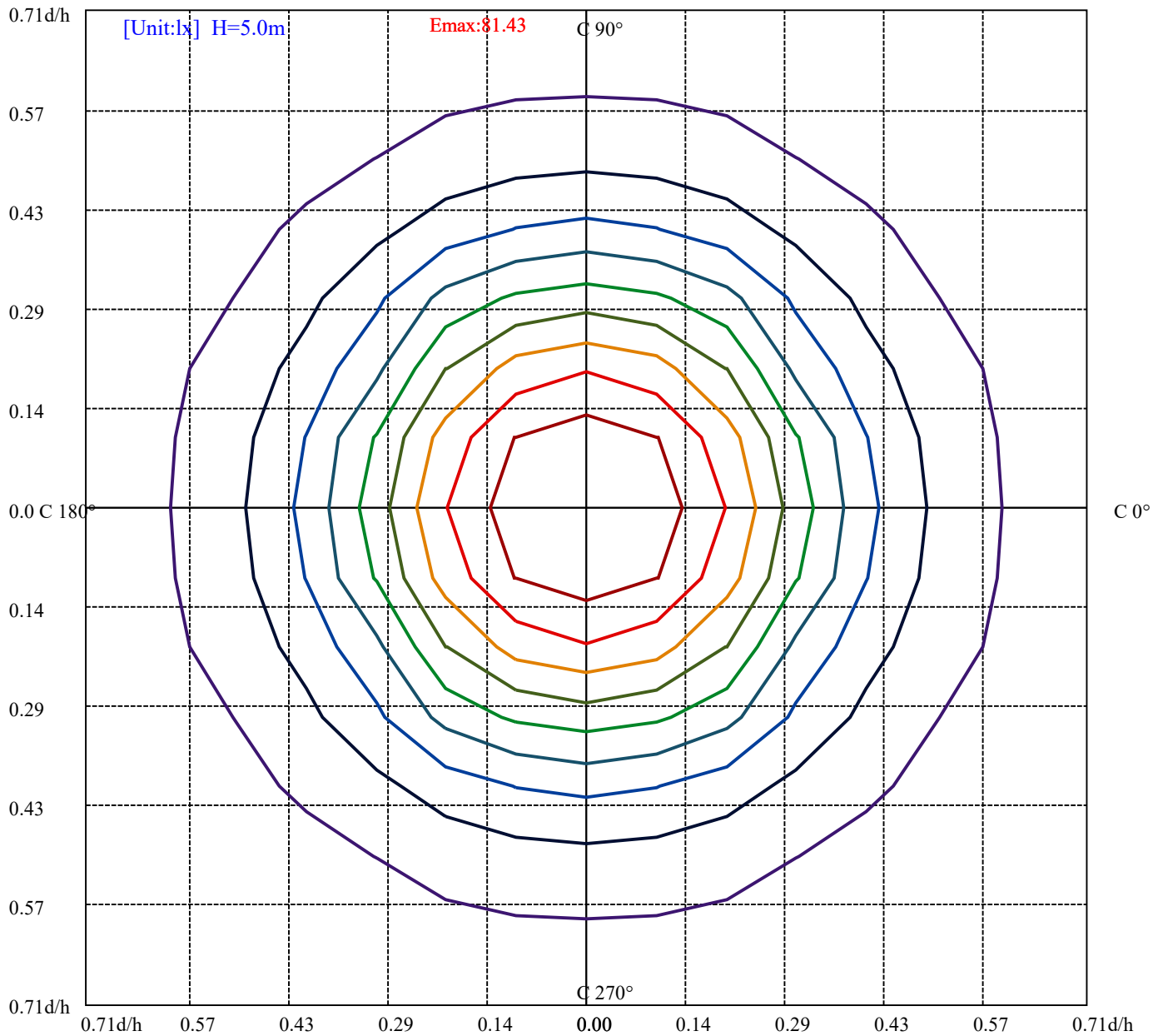
:C90/270Left:34.7 Right:34.7

Beam Angle(50%Imax):C0/180Left:19.4 Right:19.4

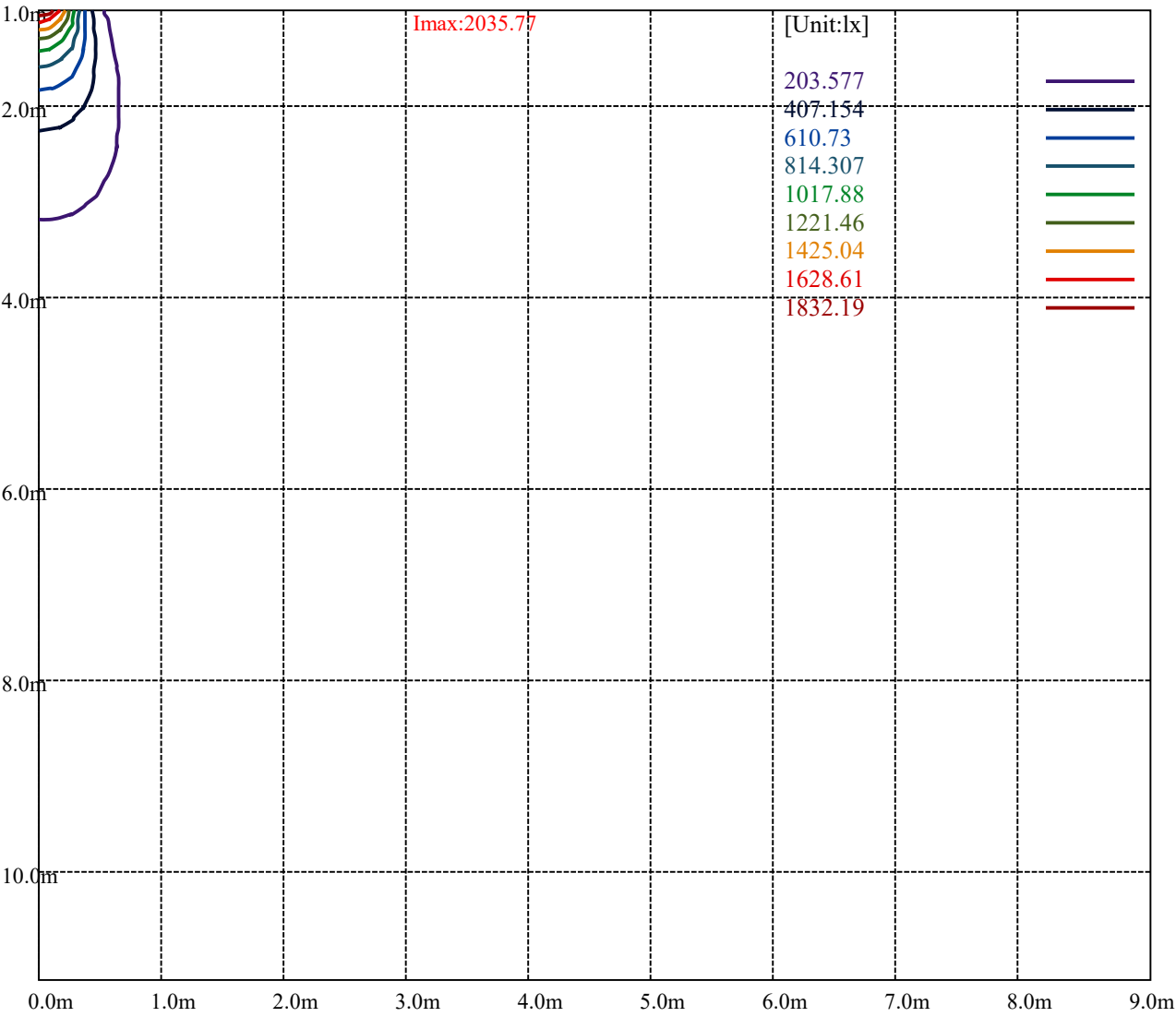
:C90/270Left:19.5 Right:19.5



Max , Ave Beam angle of C0 plane 39.25



(10%Emax) 8.14308	—
(20%Emax) 16.28612	—
(30%Emax) 24.4292	—
(40%Emax) 32.57228	—
(50%Emax) 40.7152	—
(60%Emax) 48.8584	—
(70%Emax) 57.0016	—
(80%Emax) 65.1444	—
(90%Emax) 73.2876	—



Luminance Table

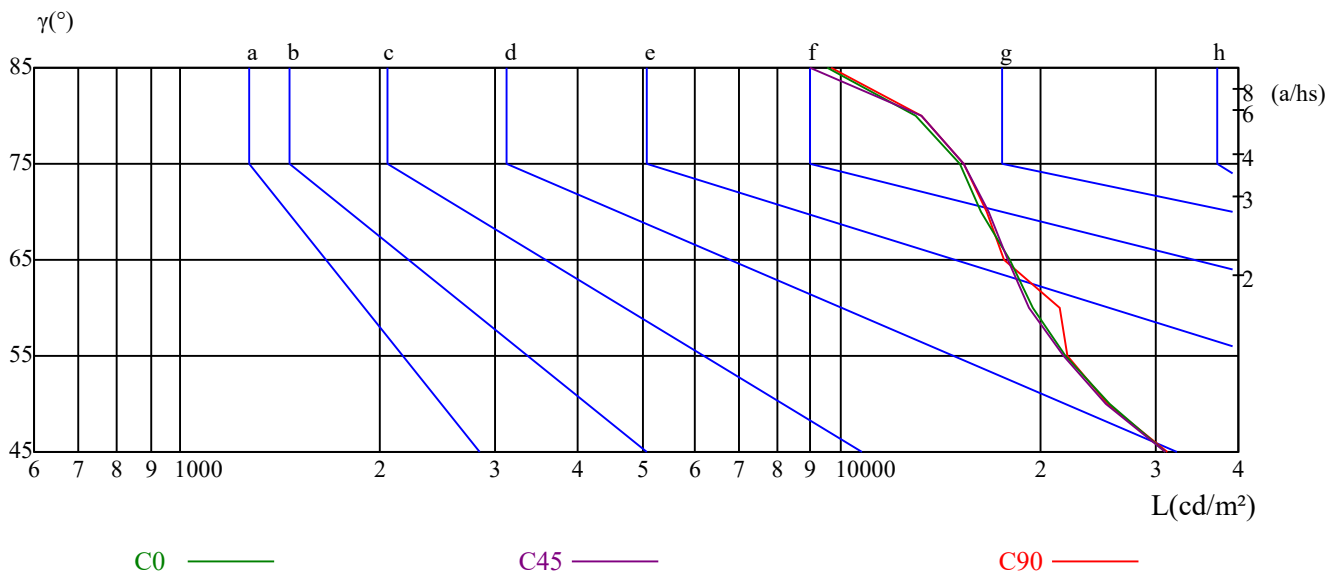
γ	45	50	55	60	65	70	75	80	85
C0	31073	25498	21949	19478	17986	16321	15143	12995	9539
C45	30993	25171	21788	19319	17856	16769	15395	13212	9004
C90	31228	25342	22089	21478	17702	16581	15385	13202	9691

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
17986	17702	17856	15143	15385	15395	9539	9691	9004

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



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	1.10	1.08	1.05	1.08	1.06	1.04	1.04	1.02	1.00	1.00	0.99	0.97	0.97	0.95	0.94	0.93
2	1.02	0.98	0.95	1.01	0.97	0.94	0.97	0.94	0.91	0.94	0.92	0.89	0.91	0.89	0.88	0.86
3	0.95	0.90	0.86	0.94	0.89	0.86	0.91	0.87	0.84	0.89	0.86	0.83	0.87	0.84	0.82	0.80
4	0.90	0.84	0.80	0.88	0.83	0.79	0.86	0.82	0.78	0.84	0.80	0.77	0.82	0.79	0.76	0.75
5	0.84	0.78	0.74	0.83	0.78	0.74	0.81	0.77	0.73	0.80	0.76	0.73	0.78	0.75	0.72	0.70
6	0.80	0.74	0.70	0.79	0.73	0.69	0.77	0.72	0.69	0.76	0.72	0.68	0.74	0.71	0.68	0.66
7	0.75	0.70	0.65	0.75	0.69	0.65	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.63
8	0.72	0.66	0.62	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.64	0.61	0.68	0.64	0.61	0.60
9	0.68	0.63	0.59	0.68	0.62	0.59	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.57
10	0.65	0.60	0.56	0.65	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.55	0.54

乐达凯 LCD-RD-LS-15-CCT-120-36-WT

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	2035.77	2043.08	1988.23	1745.99	1228.59	768.78	425.07	244.07	149.92		
15.0	2035.77	2044.95	1981.59	1738.25	1245.15	750.21	425.15	244.26	148.76		
30.0	2035.77	2045.92	1975.76	1740.33	1255.62	751.53	411.77	240.05	145.87		
45.0	2035.77	2038.55	1973.63	1729.71	1262.27	733.62	413.65	241.14	146.54		
60.0	2035.77	2036.70	1978.16	1735.65	1239.49	737.75	402.32	242.51	148.66		
75.0	2035.77	2035.77	1981.88	1722.64	1244.13	742.39	407.90	240.65	147.73		
90.0	2035.77	2027.41	1969.83	1721.86	1224.06	747.62	397.49	243.33	150.45		
105.0	2035.77	2028.35	1971.77	1739.91	1241.86	745.68	412.72	242.07	152.10		
120.0	2035.77	2031.12	1965.18	1725.57	1261.21	764.34	419.78	243.33	149.52		
135.0	2035.77	2035.77	1975.23	1738.69	1260.95	758.99	432.11	243.99	152.73		
150.0	2035.77	2039.49	1978.93	1727.37	871.14	772.38	431.38	256.22	151.87		
165.0	2035.77	2030.20	1973.54	1735.79	1260.28	768.06	431.86	256.33	148.60		
180.0	2035.77	1958.98	1657.32	1161.86	698.40	403.13	236.76	146.26	95.98		
195.0	2035.77	1958.63	1666.63	1178.12	707.97	399.44	236.91	148.76	96.42		
210.0	2035.77	1973.91	1672.01	1168.84	704.44	397.92	241.89	145.87	98.79		
225.0	2035.77	1975.48	1692.61	1154.68	712.29	405.30	240.21	149.32	99.24		
240.0	2035.77	1981.88	1653.89	1169.80	710.80	403.25	244.37	148.66	100.35		
255.0	2035.77	1971.66	1659.46	1160.51	722.88	397.68	242.51	152.38	100.35		
270.0	2035.77	1963.33	1641.99	1140.48	712.33	403.07	240.54	149.52	98.44		
285.0	2035.77	1951.37	1650.87	1149.12	701.16	395.10	234.65	148.39	132.63		
300.0	2035.77	1962.40	1640.13	1139.55	1037.39	393.78	233.11	143.95	95.66		
315.0	2035.77	1964.99	1654.88	1147.33	689.14	384.62	233.75	141.55	94.99		
330.0	2035.77	1967.75	1646.32	1161.83	685.73	391.31	229.20	141.62	93.17		
345.0	2035.77	1948.47	1664.28	1126.54	689.11	378.92	222.89	138.38	91.02		
360.0	2035.77	2043.08	1988.23	1745.99	1228.59	768.78	425.07	244.07	149.92		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	98.73	71.30	54.85	42.96	33.82	25.60	19.20	12.80	6.40		
15.0	97.33	70.71	55.10	42.24	33.06	25.71	19.28	12.86	5.51		
30.0	95.09	70.17	54.47	42.47	33.24	25.85	19.39	12.93	6.46		
45.0	95.53	68.63	53.79	41.74	33.39	25.97	19.48	12.98	6.49		
60.0	96.63	69.69	53.89	42.74	33.45	26.02	19.51	13.01	6.50		
75.0	96.63	70.62	54.82	42.74	33.45	26.02	19.51	13.01	6.50		
90.0	98.44	70.58	54.79	43.65	33.43	26.00	19.50	13.00	6.50		
105.0	97.38	70.49	54.72	41.74	33.39	25.04	18.55	12.06	6.49		
120.0	97.52	69.65	53.87	42.72	32.51	26.00	18.57	12.07	5.57		
135.0	99.65	71.71	54.95	42.84	33.53	26.08	19.56	12.11	5.59		
150.0	101.56	72.67	56.83	43.79	33.54	26.09	18.63	12.11	5.59		
165.0	101.23	72.44	56.65	44.58	34.36	26.00	18.57	12.07	5.57		
180.0	70.39	54.85	42.05	31.99	24.68	17.37	10.97	4.57	0.00		
195.0	70.71	54.18	42.24	33.06	24.79	17.45	11.02	4.59	0.00		
210.0	72.01	55.40	42.47	32.31	24.93	17.54	11.08	4.62	0.00		
225.0	72.34	55.65	42.66	32.46	25.04	18.55	11.13	4.64	0.00		
240.0	72.47	55.75	42.74	32.52	25.09	17.65	11.15	4.65	0.00		
255.0	72.47	55.75	42.74	32.52	25.09	17.65	11.15	9.29	0.00		
270.0	71.51	54.79	42.72	39.01	24.15	17.65	11.14	4.64	0.00		
285.0	71.41	54.72	41.74	31.53	25.04	17.62	11.13	4.64	0.00		
300.0	69.65	53.87	40.86	31.58	24.15	17.65	11.14	4.64	0.00		
315.0	69.85	53.08	40.98	31.66	24.21	17.69	11.18	5.59	0.00		
330.0	68.01	52.18	40.06	31.68	24.22	17.70	11.18	4.66	0.00		
345.0	67.80	52.01	39.94	31.58	24.15	17.65	11.14	5.57	0.00		
360.0	98.73	71.30	54.85	42.96	33.82	25.60	19.20	12.80	6.40		

乐达凯 LCD-RD-LS-15-CCT-120-36-WT

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	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15.0	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30.0	0.92	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
45.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
60.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
75.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
150.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
165.0	0.93	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
360.0	0.91	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	0.00	0.00	0.91	1.83	2.74	3.66	5.48	5.48	5.48		
15.0	0.00	0.00	0.92	1.84	2.75	3.67	5.51	5.51	5.51		
30.0	0.00	0.00	0.92	1.85	2.77	3.69	5.54	5.54	5.54		
45.0	0.00	0.00	0.93	1.85	2.78	3.71	5.56	5.56	5.56		
60.0	0.00	0.00	0.93	1.86	2.79	3.72	5.57	5.57	5.57		
75.0	0.00	0.00	0.93	1.86	2.79	3.72	5.57	5.57	5.57		
90.0	0.00	0.00	0.93	1.86	2.79	3.71	5.57	5.57	5.57		
105.0	0.00	0.00	0.93	1.85	2.78	3.71	5.56	5.56	5.56		
120.0	0.00	0.00	0.93	1.86	2.79	3.71	5.57	5.57	5.57		
135.0	0.00	0.00	0.93	1.86	2.79	3.73	5.59	5.59	5.59		
150.0	0.00	0.00	0.93	1.86	2.80	3.73	5.59	5.59	5.59		
165.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	5.57	5.57		
180.0	0.00	0.00	0.91	0.91	2.74	3.66	4.57	4.57	5.48		
195.0	0.00	0.00	0.00	0.92	2.75	2.75	4.59	4.59	5.51		
210.0	0.00	0.00	0.00	0.92	2.77	3.69	4.62	4.62	5.54		
225.0	0.00	0.00	0.00	0.93	2.78	3.71	4.64	4.64	5.56		
240.0	0.00	0.00	0.00	0.93	2.79	3.72	4.65	4.65	5.57		
255.0	0.00	0.00	0.93	0.93	2.79	3.72	4.65	4.65	5.57		
270.0	0.00	0.00	0.00	0.93	2.79	3.71	4.64	4.64	5.57		
285.0	0.00	0.00	0.00	0.93	2.78	3.71	4.64	4.64	5.56		
300.0	0.00	0.00	0.93	0.93	2.79	3.71	4.64	4.64	5.57		
315.0	0.00	0.00	0.00	1.86	2.79	3.73	4.66	4.66	5.59		
330.0	0.00	0.00	0.93	0.93	2.80	3.73	4.66	4.66	5.59		
345.0	0.00	0.00	0.00	0.93	2.79	3.71	4.64	4.64	5.57		
360.0	0.00	0.00	0.91	1.83	2.74	3.66	5.48	5.48	5.48		

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	5.48
15.0	5.51
30.0	5.54
45.0	5.56
60.0	5.57
75.0	5.57
90.0	5.57
105.0	5.56
120.0	5.57
135.0	5.59
150.0	5.59
165.0	5.57
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	5.48