
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.122

Lamp flux(lm): 1201.1

Power (W): 14.210

Number of Lamps: 1

PF: 0.975

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1201.11, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 84.53

Central intensity(cd): 2125.713, Maximum intensity(cd): 2125.713

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(%): 0.34%

Down flux rate of lamp(%): 99.66%

Up flux rate of LUM(%): 0.34%

Down flux rate of LUM(%): 99.66%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.360%

乐达凯 LCD-RD-LS-15-CCT-120-36-WT

Zonal flux distribution table

Appendix Page: 2 Total:12

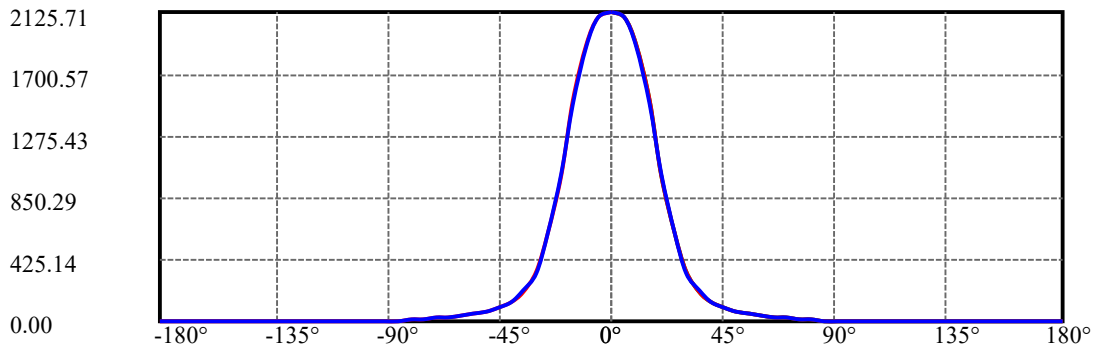
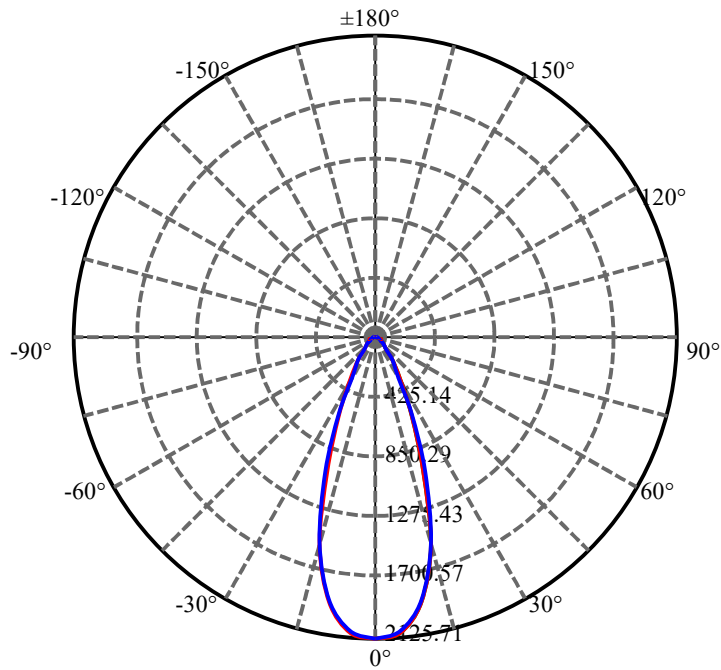
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2125.713	0.000	0	0.00%	0.00%
5.0	2089.306	50.389	50.389	4.20%	4.20%
10.0	1897.819	142.632	193.021	11.88%	16.07%
15.0	1508.341	202.051	395.072	16.82%	32.89%
20.0	1016.674	208.097	603.169	17.33%	50.22%
25.0	600.225	169.583	772.752	14.12%	64.34%
30.0	341.475	119.173	891.925	9.92%	74.26%
35.0	204.250	80.362	972.287	6.69%	80.95%
40.0	130.018	55.770	1028.057	4.64%	85.59%
45.0	88.093	40.385	1068.442	3.36%	88.95%
50.0	65.200	30.975	1099.417	2.58%	91.53%
55.0	50.493	25.156	1124.572	2.09%	93.63%
60.0	39.530	20.809	1145.381	1.73%	95.36%
65.0	30.381	16.995	1162.376	1.41%	96.78%
70.0	22.661	13.430	1175.807	1.12%	97.89%
75.0	15.827	10.060	1185.867	0.84%	98.73%
80.0	9.265	6.714	1192.581	0.56%	99.29%
85.0	3.319	3.420	1196	0.28%	99.57%
90.0	0.618	1.078	1197.078	0.09%	99.66%
95.0	0.000	0.169	1197.248	0.01%	99.68%
100.0	0.000	0.000	1197.248	0.00%	99.68%
105.0	0.000	0.000	1197.248	0.00%	99.68%
110.0	0.000	0.000	1197.248	0.00%	99.68%
115.0	0.000	0.000	1197.248	0.00%	99.68%
120.0	0.000	0.000	1197.248	0.00%	99.68%
125.0	0.000	0.000	1197.248	0.00%	99.68%
130.0	0.000	0.000	1197.248	0.00%	99.68%
135.0	0.000	0.000	1197.248	0.00%	99.68%
140.0	0.000	0.000	1197.248	0.00%	99.68%
145.0	0.927	0.155	1197.402	0.01%	99.69%
150.0	1.853	0.409	1197.812	0.03%	99.73%
155.0	3.165	0.635	1198.447	0.05%	99.78%
160.0	4.131	0.765	1199.212	0.06%	99.84%
165.0	5.057	0.757	1199.969	0.06%	99.91%
170.0	5.443	0.623	1200.592	0.05%	99.96%
175.0	6.022	0.410	1201.002	0.03%	99.99%
180.0	2.780	0.105	1201.107	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	891.92	74.26%	74.26%
0-40	1028.06	85.59%	85.59%
0-60	1145.38	95.36%	95.36%
0-90	1197.08	99.66%	99.66%
0-120	1197.25	99.68%	99.68%
0-180	1201.11	100.00%	100.00%
60-90	51.70	4.30%	4.30%
90-120	0.17	0.01%	0.01%
90-130	0.17	0.01%	0.01%
90-150	0.73	0.06%	0.06%
90-180	3.92	0.33%	0.33%
0-34.29	960.89	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	193.02
10-20	410.15
20-30	288.76
30-40	136.13
40-50	71.36
50-60	45.96
60-70	30.43
70-80	16.77
80-90	4.50
90-100	0.17
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.56
150-160	1.40
160-170	1.38
170-180	0.41



C0(Max):

C0/C180:

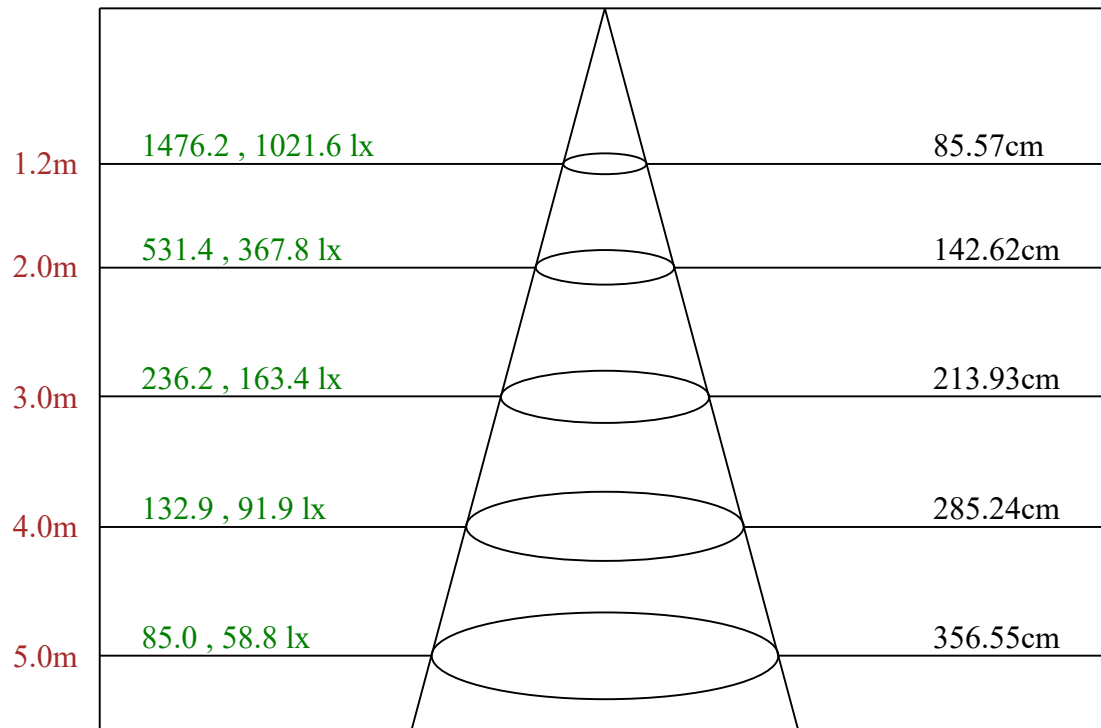
C90/C270:

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

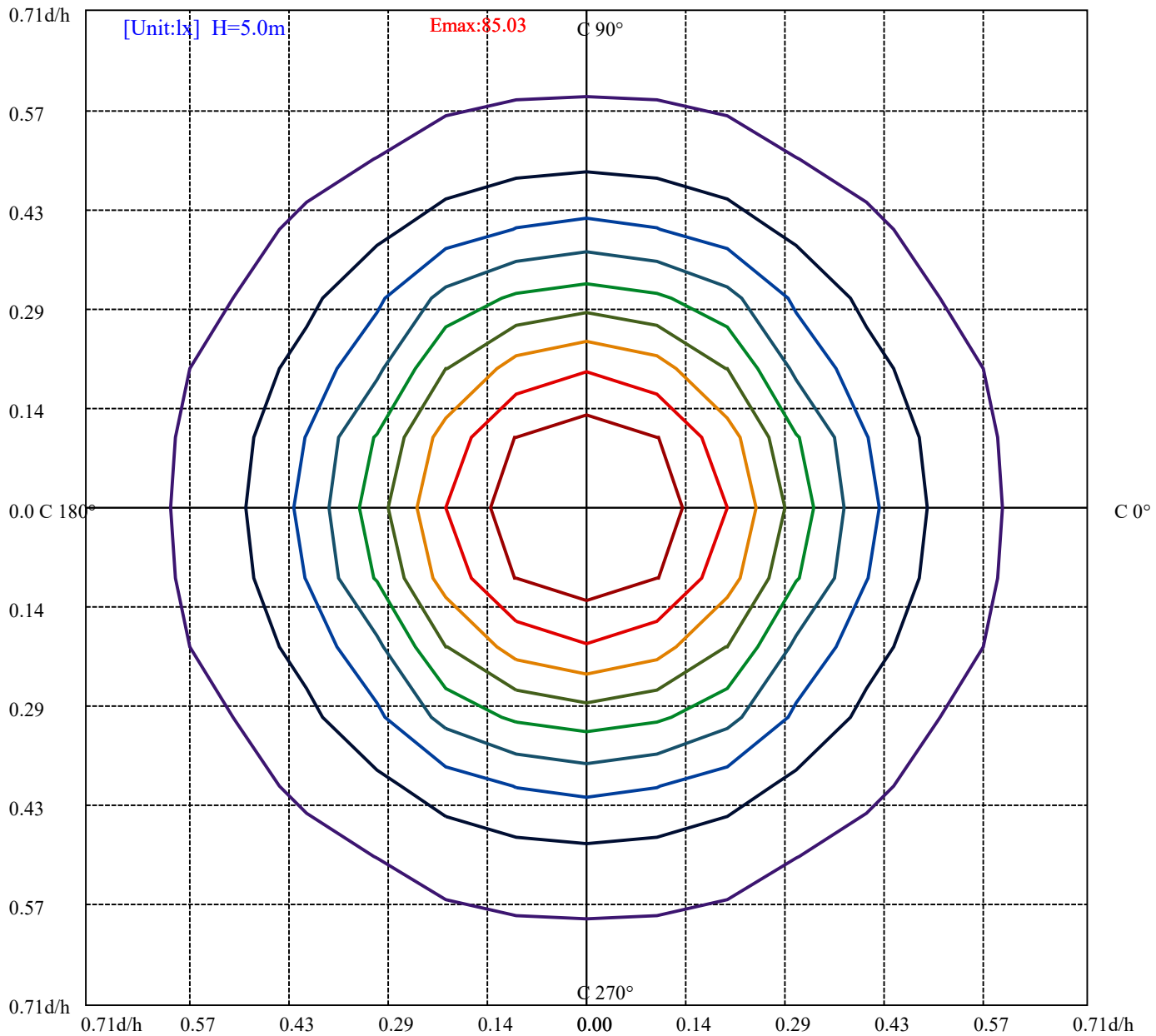
:C90/270Left:34.7 Right:34.7

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

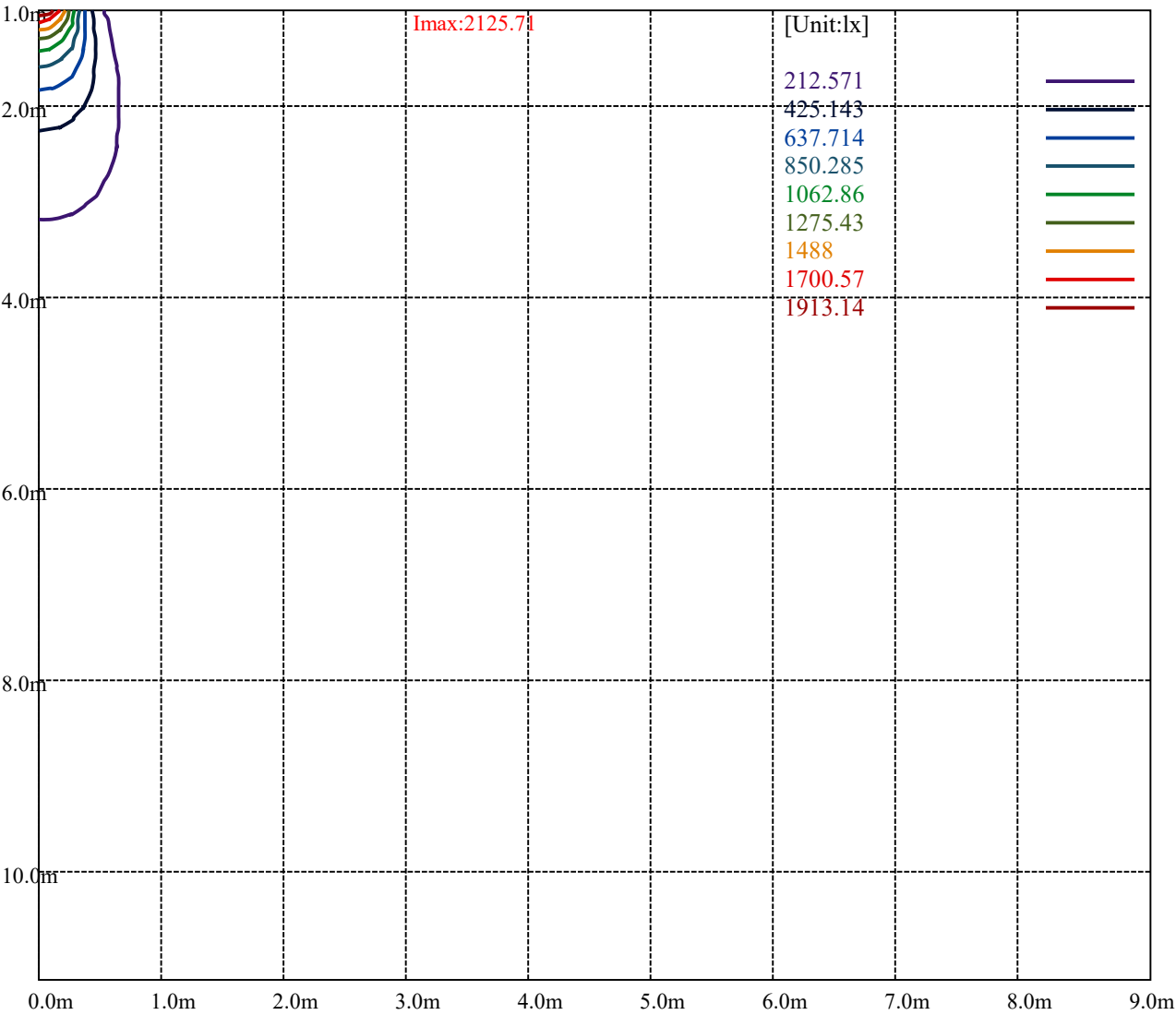
:C90/270Left:19.5 Right:19.5



Max , Ave Beam angle of C0 plane 39.25



(10%Emax)	8.50284	
(20%Emax)	17.00568	
(30%Emax)	25.50856	
(40%Emax)	34.0114	
(50%Emax)	42.5144	
(60%Emax)	51.0172	
(70%Emax)	59.52	
(80%Emax)	68.0228	
(90%Emax)	76.5256	



Luminance Table

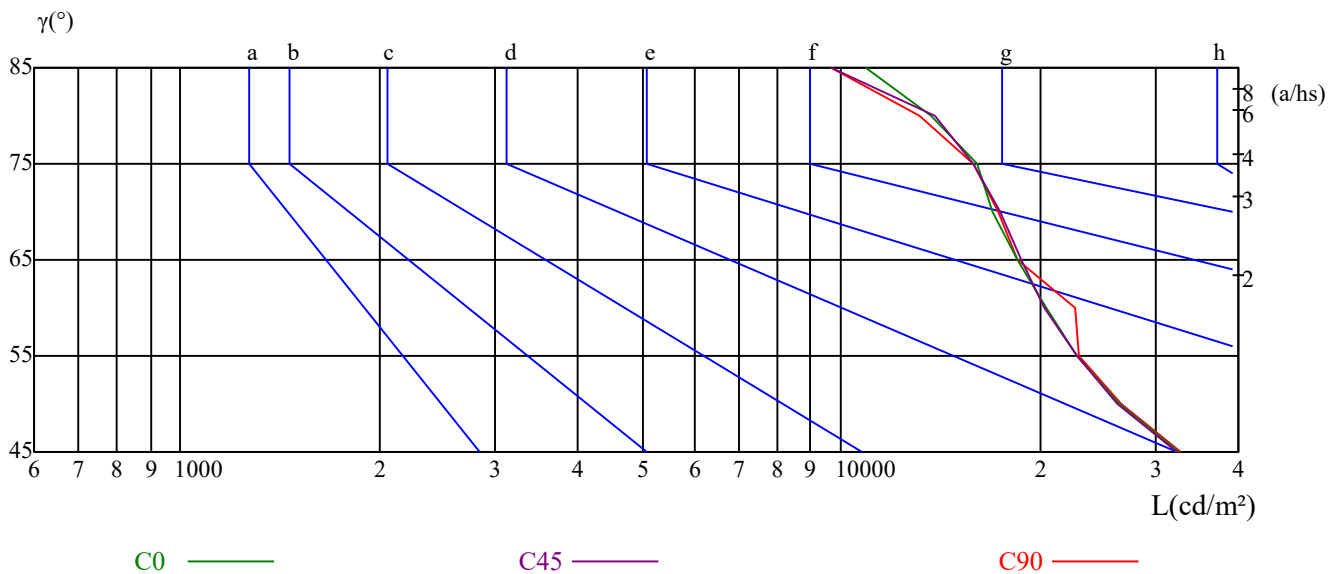
γ	45	50	55	60	65	70	75	80	85
C0	32422	26426	22781	20431	18551	17018	16063	13681	10903
C45	32363	26302	22843	20287	18716	17477	15864	13909	9699
C90	32761	26654	22929	22683	18557	17286	15850	13202	9690

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
18551	18557	18716	16063	15850	15864	10903	9690	9699

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	0.92
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	0.89	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	0.72	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	0.68	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	0.61	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	2125.71	2133.94	2077.26	1824.00	1282.74	802.74	444.34	255.09	156.34		
15.0	2125.71	2134.89	2068.78	1815.35	1300.22	784.17	443.51	254.35	155.18		
30.0	2125.71	2135.87	2062.02	1817.42	1310.69	784.57	430.13	250.14	152.30		
45.0	2125.71	2128.50	2060.79	1806.67	1317.90	767.00	432.19	251.34	152.10		
60.0	2125.71	2126.64	2065.32	1812.62	1294.19	770.20	420.87	253.64	155.15		
75.0	2125.71	2125.71	2069.04	1797.75	1298.84	774.84	425.51	251.78	154.23		
90.0	2125.71	2117.35	2056.99	1797.89	1277.84	781.01	415.11	254.45	157.87		
105.0	2125.71	2118.29	2059.86	1816.87	1296.57	779.06	430.34	252.27	158.59		
120.0	2125.71	2121.07	2052.35	1802.54	1316.85	797.72	438.33	254.45	156.02		
135.0	2125.71	2127.58	2063.30	1815.52	1317.16	792.72	451.78	255.23	159.29		
150.0	2125.71	2130.37	2067.00	1804.20	910.49	806.11	451.05	267.46	159.36		
165.0	2125.71	2119.21	2060.71	1812.75	1315.92	802.37	451.33	267.46	156.02		
180.0	2125.71	2045.26	1730.74	1214.17	729.60	420.57	247.77	152.69	100.57		
195.0	2125.71	2045.83	1740.97	1230.43	739.18	416.88	247.92	156.10	100.09		
210.0	2125.71	2061.10	1745.43	1220.23	735.65	415.36	252.91	152.30	102.46		
225.0	2125.71	2062.65	1767.72	1206.61	743.81	422.92	250.41	155.81	102.95		
240.0	2125.71	2069.97	1727.14	1221.73	742.33	420.87	254.57	156.08	104.98		
255.0	2125.71	2058.82	1732.72	1212.44	754.40	415.29	253.64	158.87	104.98		
270.0	2125.71	2049.56	1714.31	1191.48	743.86	420.68	250.74	156.02	103.08		
285.0	2125.71	2038.53	1724.13	1200.12	732.68	412.71	244.85	155.81	138.19		
300.0	2125.71	2049.56	1713.39	1190.55	1083.75	411.40	242.38	150.44	99.37		
315.0	2125.71	2053.05	1728.89	1198.86	719.13	401.48	244.06	148.11	99.67		
330.0	2125.71	2054.89	1720.33	1213.36	716.65	409.11	239.50	148.18	96.92		
345.0	2125.71	2034.70	1738.46	1176.62	719.71	395.61	232.17	143.94	94.72		
360.0	2125.71	2133.94	2077.26	1824.00	1282.74	802.74	444.34	255.09	156.34		
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	102.40	74.06	56.69	44.80	34.74	26.51	20.11	13.71	6.40		
15.0	101.92	73.46	56.93	44.08	34.89	26.63	20.20	12.86	6.43		
30.0	99.69	72.92	56.30	44.30	35.07	26.77	20.31	13.85	6.46		
45.0	100.16	72.34	56.57	44.52	35.24	26.90	20.40	13.91	6.49		
60.0	100.34	72.47	56.67	44.60	35.30	26.94	20.44	13.94	6.50		
75.0	100.34	73.40	57.60	44.60	35.30	26.94	20.44	13.01	6.50		
90.0	103.08	74.29	56.65	45.50	34.36	26.93	20.43	13.00	6.50		
105.0	102.02	73.27	56.57	44.52	35.24	25.97	20.40	12.98	6.49		
120.0	101.22	72.44	56.65	44.58	34.36	26.93	20.43	13.00	6.50		
135.0	104.33	74.52	57.75	44.71	35.40	27.01	20.49	13.04	6.52		
150.0	106.24	75.49	59.64	45.66	35.41	27.03	20.50	13.05	6.52		
165.0	105.87	76.15	59.43	46.43	35.29	26.93	19.50	13.00	6.50		
180.0	74.06	56.69	43.89	33.83	25.60	18.29	11.89	4.57	0.91		
195.0	74.38	56.93	44.08	33.97	25.71	18.36	11.02	4.59	0.00		
210.0	74.76	58.15	44.30	34.15	25.84	18.46	12.00	4.62	0.92		
225.0	75.12	57.50	44.52	34.32	25.97	19.48	11.13	4.64	0.00		
240.0	75.25	58.53	44.60	34.38	26.01	18.58	11.15	4.65	0.00		
255.0	75.25	57.60	44.60	33.45	26.01	18.58	11.15	10.22	0.00		
270.0	75.22	57.58	44.58	41.79	26.00	18.57	11.14	4.64	0.00		
285.0	75.12	56.57	44.52	33.39	25.97	17.62	11.13	4.64	0.00		
300.0	72.44	56.65	42.72	33.43	26.00	18.57	11.14	4.64	0.00		
315.0	72.66	55.89	42.85	32.60	25.15	18.63	11.18	5.59	0.00		
330.0	71.76	54.05	41.94	32.62	25.16	18.64	11.18	4.66	0.00		
345.0	70.58	53.86	41.79	32.50	25.07	18.57	12.07	5.57	0.00		
360.0	102.40	74.06	56.69	44.80	34.74	26.51	20.11	13.71	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	1.85	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	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
105.0	1.85	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
120.0	1.86	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	3.66	4.57	5.49	6.40	6.40
15.0	0.00	0.00	0.92	1.84	3.67	4.59	5.51	6.43	6.43
30.0	0.00	0.00	0.92	1.85	3.69	4.62	5.54	6.46	6.46
45.0	0.00	0.00	0.93	1.85	3.71	4.64	5.56	6.49	6.49
60.0	0.00	0.00	0.93	1.86	3.72	4.65	5.57	6.50	6.50
75.0	0.00	0.00	0.93	1.86	3.72	4.65	5.57	6.50	6.50
90.0	0.00	0.00	0.93	1.86	3.71	4.64	5.57	6.50	6.50
105.0	0.00	0.00	0.93	1.85	3.71	4.64	5.56	6.49	6.49
120.0	0.00	0.00	0.93	1.86	3.71	4.64	5.57	6.50	6.50
135.0	0.00	0.00	0.93	1.86	3.73	4.66	5.59	6.52	6.52
150.0	0.00	0.00	0.93	1.86	3.73	4.66	5.59	6.52	6.52
165.0	0.00	0.00	0.93	1.86	3.71	4.64	5.57	6.50	6.50
180.0	0.00	0.00	0.91	1.83	2.74	3.66	4.57	5.49	5.49
195.0	0.00	0.00	0.92	1.84	2.75	3.69	4.62	5.54	5.54
210.0	0.00	0.00	0.92	1.85	2.77	3.71	4.64	5.56	5.56
225.0	0.00	0.00	0.93	1.85	2.78	3.71	4.64	5.56	5.56
240.0	0.00	0.00	0.93	1.86	2.79	3.72	4.65	5.57	5.57
255.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	5.56	5.56
270.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	5.56	5.56
285.0	0.00	0.00	0.93	1.85	2.79	3.71	4.64	5.56	5.56
300.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	5.56	5.56
315.0	0.00	0.00	0.93	1.86	2.79	3.73	4.66	5.59	5.59
330.0	0.00	0.00	0.93	1.86	2.80	3.73	4.66	5.59	5.59
345.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	5.56	5.56
360.0	0.00	0.00	0.91	1.83	3.66	4.57	5.49	6.40	6.40

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	5.49
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	5.49