
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.117

Lamp flux(lm): 1221.1

Power (W): 13.660

Number of Lamps: 1

PF: 0.974

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1221.10, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.39

Central intensity(cd): 2161.073, Maximum intensity(cd): 2161.073

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(%): 0.33%

Down flux rate of lamp(%): 99.67%

Up flux rate of LUM(%): 0.33%

Down flux rate of LUM(%): 99.67%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.369%

乐达凯 LCD-RD-LS-15-CCT-120-36-WT

Zonal flux distribution table

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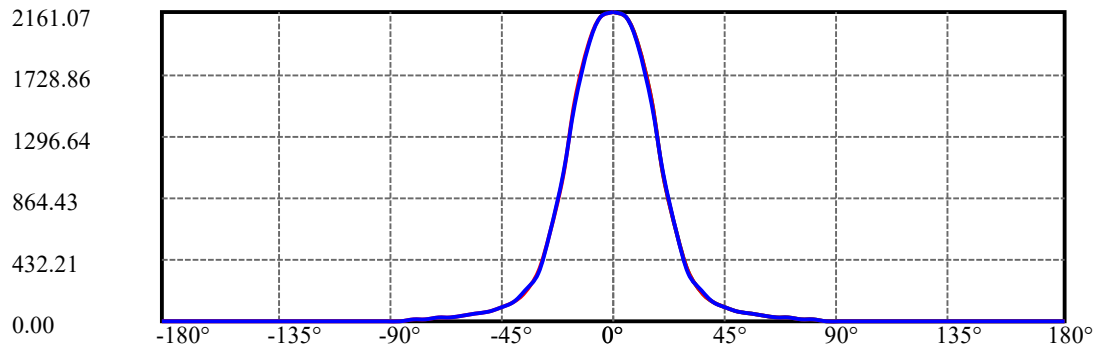
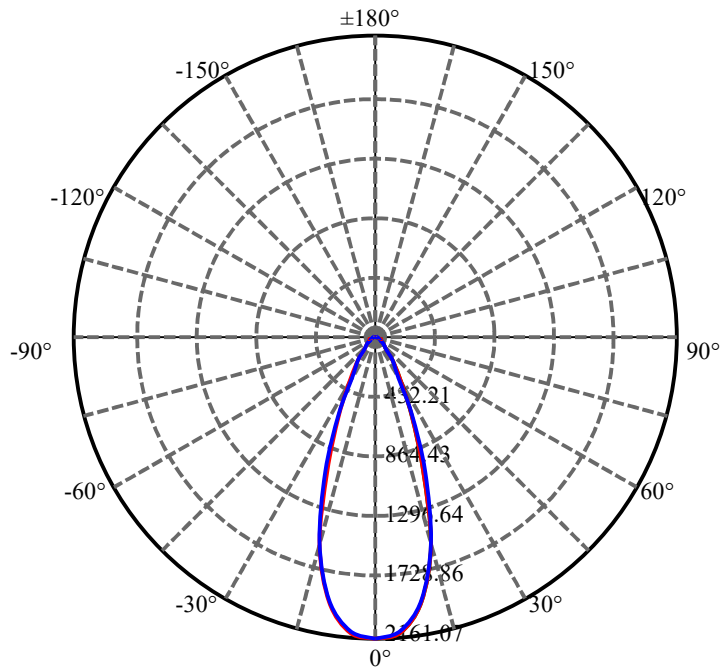
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2161.073	0.000	0	0.00%	0.00%
5.0	2124.047	51.227	51.227	4.20%	4.20%
10.0	1929.318	145.002	196.229	11.87%	16.07%
15.0	1533.278	205.399	401.628	16.82%	32.89%
20.0	1033.627	211.549	613.177	17.32%	50.22%
25.0	610.261	172.413	785.59	14.12%	64.33%
30.0	347.188	121.166	906.756	9.92%	74.26%
35.0	207.684	81.709	988.465	6.69%	80.95%
40.0	132.180	56.704	1045.169	4.64%	85.59%
45.0	89.599	41.064	1086.233	3.36%	88.96%
50.0	66.474	31.537	1117.77	2.58%	91.54%
55.0	51.341	25.617	1143.387	2.10%	93.64%
60.0	40.225	21.165	1164.552	1.73%	95.37%
65.0	30.766	17.258	1181.81	1.41%	96.78%
70.0	23.201	13.665	1195.474	1.12%	97.90%
75.0	15.788	10.191	1205.665	0.83%	98.74%
80.0	9.497	6.766	1212.431	0.55%	99.29%
85.0	3.319	3.483	1215.914	0.29%	99.58%
90.0	0.695	1.099	1217.013	0.09%	99.67%
95.0	0.000	0.190	1217.203	0.02%	99.68%
100.0	0.000	0.000	1217.203	0.00%	99.68%
105.0	0.000	0.000	1217.203	0.00%	99.68%
110.0	0.000	0.000	1217.203	0.00%	99.68%
115.0	0.000	0.000	1217.203	0.00%	99.68%
120.0	0.000	0.000	1217.203	0.00%	99.68%
125.0	0.000	0.000	1217.203	0.00%	99.68%
130.0	0.000	0.000	1217.203	0.00%	99.68%
135.0	0.000	0.000	1217.203	0.00%	99.68%
140.0	0.000	0.000	1217.203	0.00%	99.68%
145.0	0.926	0.155	1217.358	0.01%	99.69%
150.0	1.853	0.409	1217.767	0.03%	99.73%
155.0	3.243	0.645	1218.412	0.05%	99.78%
160.0	4.131	0.773	1219.185	0.06%	99.84%
165.0	5.096	0.760	1219.946	0.06%	99.91%
170.0	5.559	0.632	1220.578	0.05%	99.96%
175.0	6.022	0.414	1220.992	0.03%	99.99%
180.0	2.779	0.105	1221.097	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	906.76	74.26%	74.26%
0-40	1045.17	85.59%	85.59%
0-60	1164.55	95.37%	95.37%
0-90	1217.01	99.67%	99.67%
0-120	1217.20	99.68%	99.68%
0-180	1221.10	100.00%	100.00%
60-90	52.46	4.30%	4.30%
90-120	0.19	0.02%	0.02%
90-130	0.19	0.02%	0.02%
90-150	0.75	0.06%	0.06%
90-180	3.98	0.33%	0.33%
0-34.29	976.88	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	196.23
10-20	416.95
20-30	293.58
30-40	138.41
40-50	72.60
50-60	46.78
60-70	30.92
70-80	16.96
80-90	4.58
90-100	0.19
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.56
150-160	1.42
160-170	1.39
170-180	0.41



C0(Max):

C0/C180:

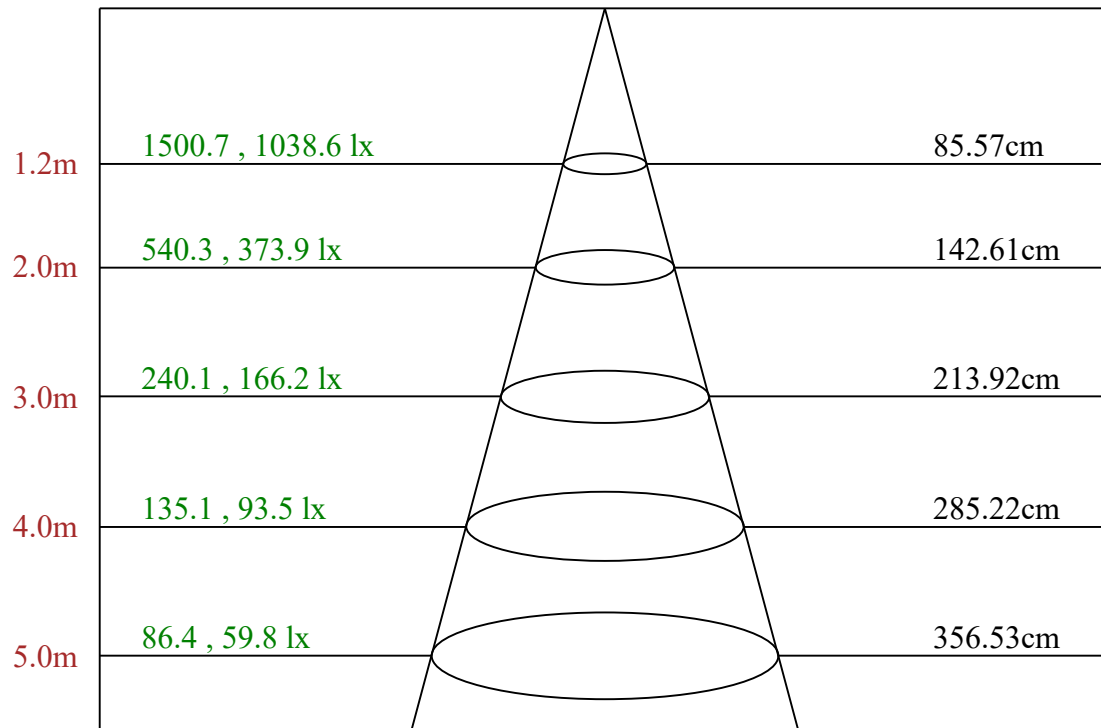
C90/C270:

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

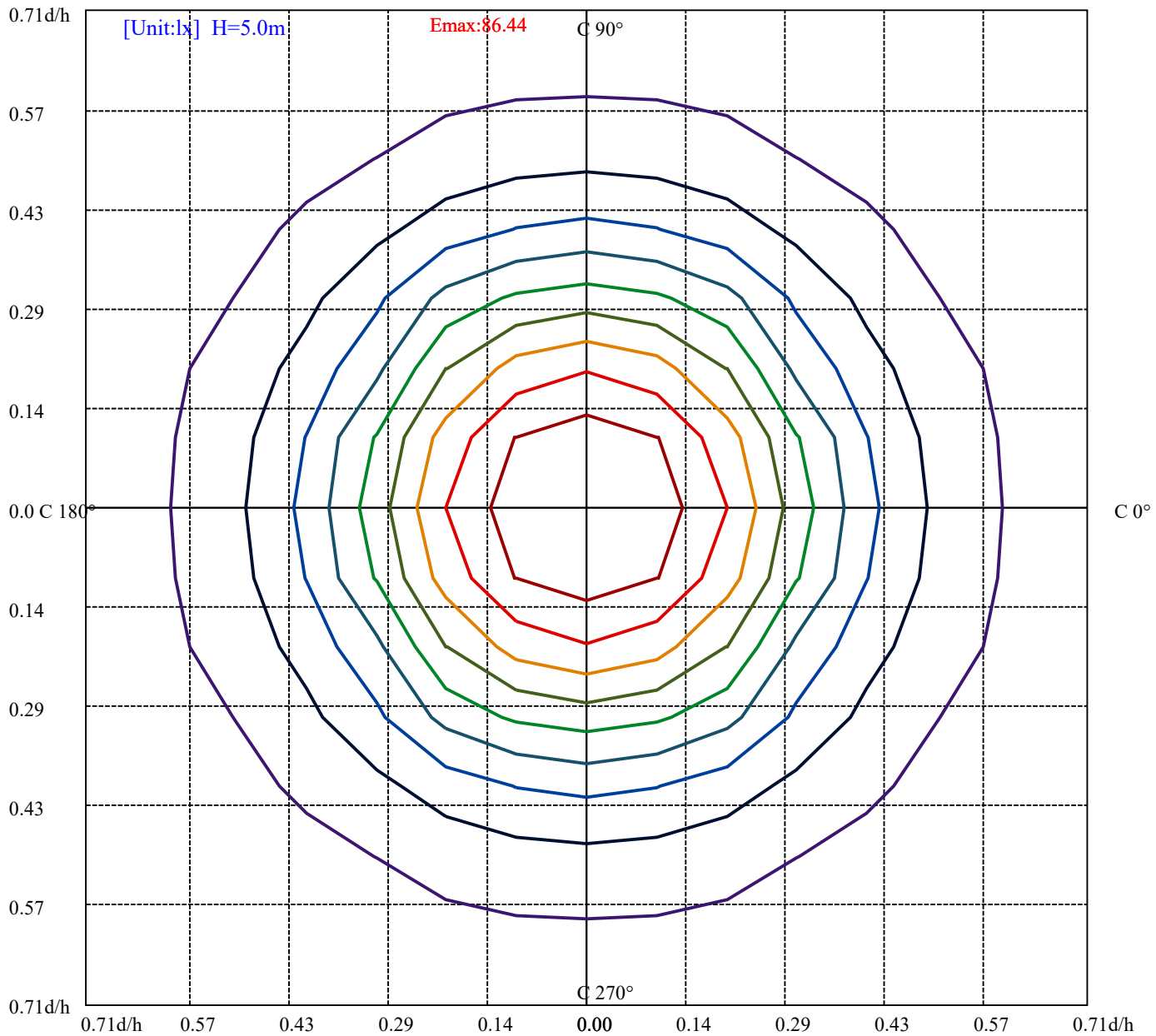
:C90/270Left:34.7 Right:34.7

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

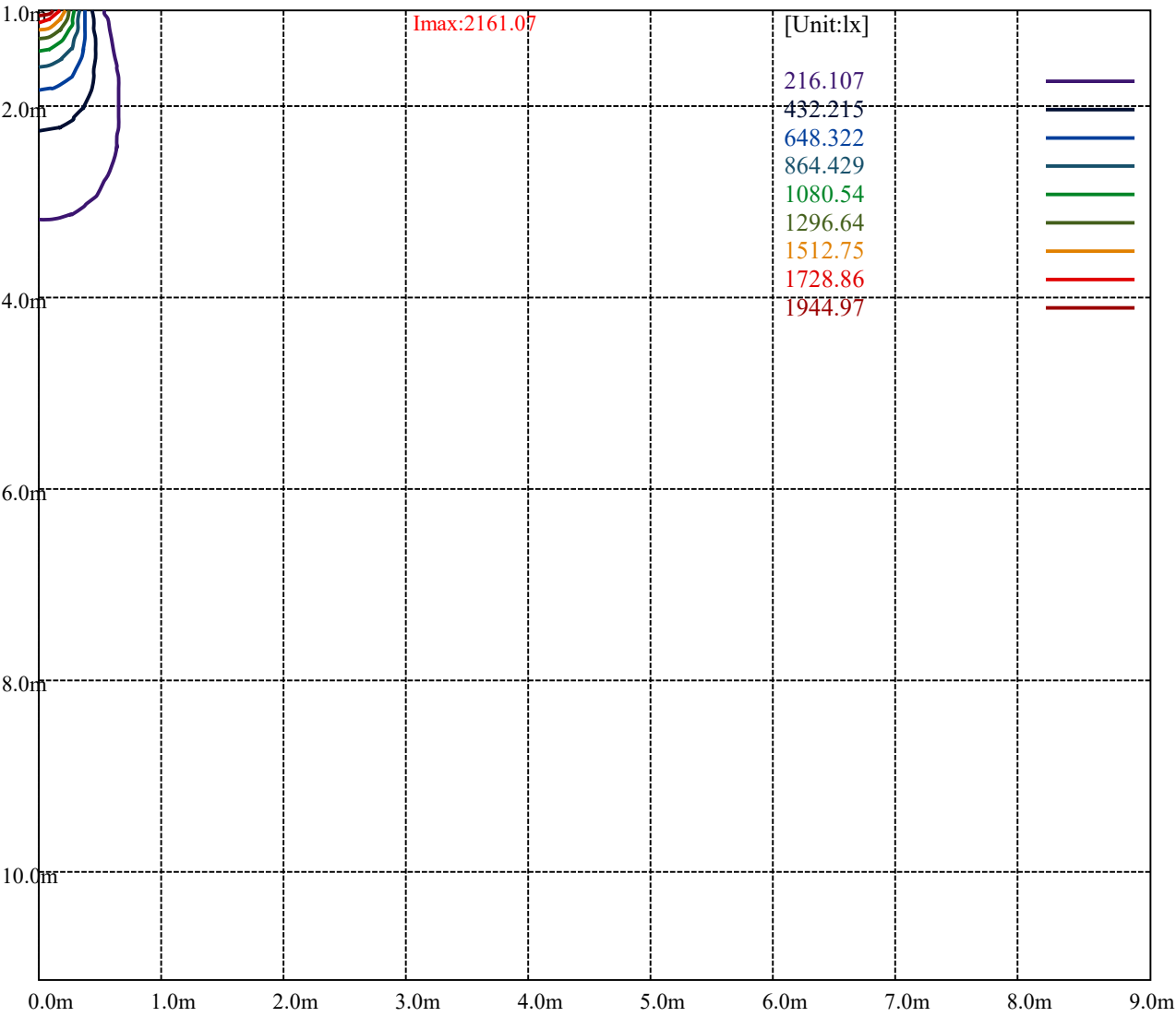
:C90/270Left:19.5 Right:19.5



Max , Ave Beam angle of C0 plane 39.24



(10%Emax)	8.644279	
(20%Emax)	17.28856	
(30%Emax)	25.93284	
(40%Emax)	34.57716	
(50%Emax)	43.2216	
(60%Emax)	51.8656	
(70%Emax)	60.51	
(80%Emax)	69.1544	
(90%Emax)	77.7984	



Luminance Table

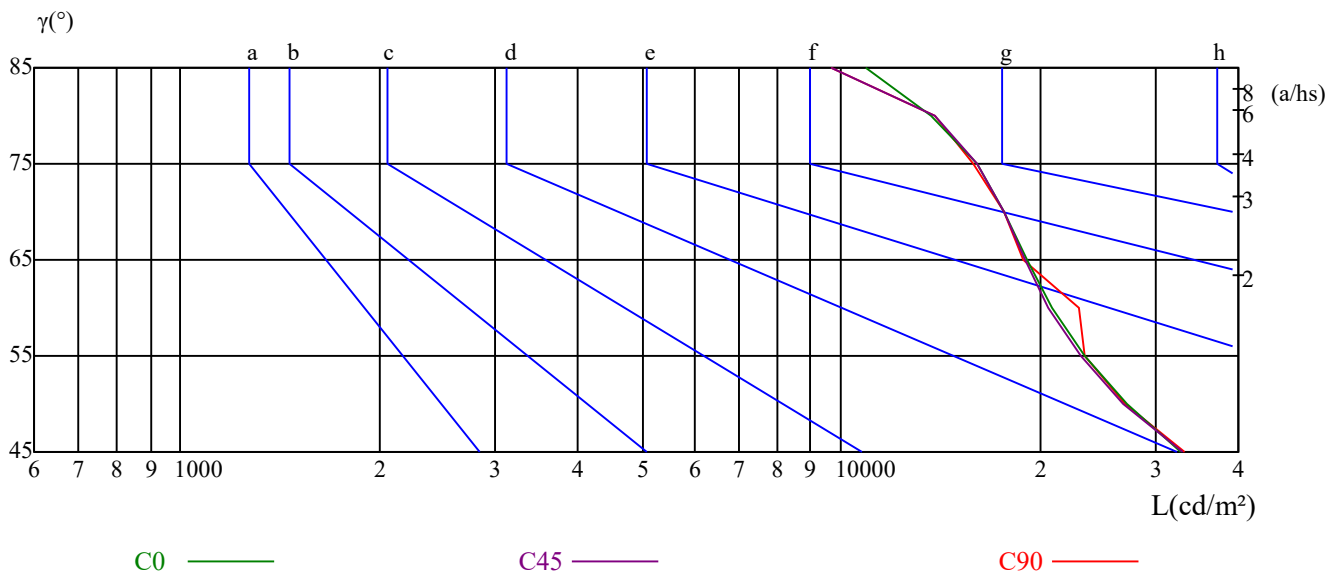
γ	45	50	55	60	65	70	75	80	85
C0	32753	27162	23399	20903	19110	17710	16061	13679	10902
C45	32876	26772	23160	20650	19002	17654	16097	13909	9699
C90	33103	27030	23350	22925	18843	17639	15850	13897	9691

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
19110	18843	19002	16061	15850	16097	10902	9691	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	0.93
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	0.72	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	2161.07	2169.30	2111.71	1853.92	1304.51	816.34	451.59	259.62	159.06		
15.0	2161.07	2171.18	2103.21	1846.05	1322.54	797.20	450.95	259.92	157.97		
30.0	2161.07	2172.15	2096.45	1847.20	1333.02	798.52	436.65	254.79	155.09		
45.0	2161.07	2163.86	2095.22	1836.45	1340.24	779.10	439.63	255.99	154.89		
60.0	2161.07	2162.00	2099.75	1842.39	1316.53	783.23	427.38	257.36	157.95		
75.0	2161.07	2161.07	2103.47	1828.46	1320.24	787.87	432.03	256.43	157.02		
90.0	2161.07	2152.71	2091.42	1828.60	1299.24	794.03	422.56	258.18	159.74		
105.0	2161.07	2153.65	2093.37	1847.58	1317.98	792.08	437.78	255.99	161.38		
120.0	2161.07	2156.43	2086.78	1832.31	1339.18	810.75	445.77	258.18	157.88		
135.0	2161.07	2162.00	2097.73	1846.23	1338.56	805.74	459.23	258.96	162.08		
150.0	2161.07	2163.87	2100.53	1834.12	924.98	819.72	458.30	272.00	162.08		
165.0	2161.07	2154.57	2095.14	1842.53	1337.32	815.39	458.78	272.11	157.88		
180.0	2161.07	2079.71	1759.76	1233.20	741.38	427.83	252.31	155.41	101.47		
195.0	2161.07	2080.25	1769.82	1250.91	752.20	423.40	251.65	158.89	101.95		
210.0	2161.07	2095.53	1775.20	1240.70	747.74	422.80	257.56	155.09	105.24		
225.0	2161.07	2097.08	1796.57	1226.15	755.91	430.36	255.99	158.60	105.73		
240.0	2161.07	2104.40	1755.99	1241.27	754.42	428.31	259.22	157.95	106.85		
255.0	2161.07	2093.25	1761.56	1231.98	766.50	422.74	257.36	161.66	105.92		
270.0	2161.07	2083.99	1743.16	1211.02	755.96	428.13	255.39	158.81	104.94		
285.0	2161.07	2072.03	1752.97	1219.66	744.78	419.23	248.57	157.67	140.05		
300.0	2161.07	2083.99	1741.30	1210.09	1101.43	417.91	247.03	153.23	101.23		
315.0	2161.07	2087.48	1757.73	1218.40	732.16	408.00	247.78	149.97	100.60		
330.0	2161.07	2088.42	1747.49	1233.30	728.43	415.45	243.12	150.90	98.74		
345.0	2161.07	2068.20	1767.31	1196.16	731.81	402.12	235.89	146.73	96.58		
360.0	2161.07	2169.30	2111.71	1853.92	1304.51	816.34	451.59	259.62	159.06		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	104.21	75.88	58.51	45.71	35.65	27.42	20.11	13.71	6.40		
15.0	103.78	74.39	58.78	45.00	34.90	26.63	19.29	13.78	6.43		
30.0	101.55	74.77	57.23	45.23	35.08	27.69	20.31	13.85	6.46		
45.0	101.10	73.27	57.50	44.52	35.24	27.82	20.40	13.91	6.49		
60.0	103.13	74.33	57.60	44.60	35.31	27.87	19.51	13.94	6.50		
75.0	103.13	74.33	58.53	45.53	35.31	27.87	20.44	13.94	6.50		
90.0	104.01	75.22	58.51	46.43	35.29	27.86	20.43	13.93	6.50		
105.0	103.88	75.13	57.50	44.52	35.24	26.90	19.48	13.91	6.49		
120.0	103.09	73.37	57.58	44.58	35.29	26.93	19.50	13.93	6.50		
135.0	106.19	75.45	58.68	45.64	35.40	27.01	19.56	13.04	6.52		
150.0	108.05	77.31	59.62	46.57	35.40	27.94	19.56	13.97	6.52		
165.0	106.80	77.08	60.37	47.36	36.22	27.86	19.50	13.00	6.50		
180.0	74.05	58.51	44.79	34.74	26.51	19.20	11.88	4.57	0.91		
195.0	75.31	57.86	45.00	34.90	26.63	19.29	11.94	4.59	0.00		
210.0	76.62	59.08	44.31	35.08	26.77	18.46	12.00	4.62	0.92		
225.0	76.98	59.36	44.52	35.24	26.90	19.48	12.06	4.64	0.00		
240.0	77.11	59.46	45.53	35.31	26.01	19.51	12.08	4.65	0.00		
255.0	77.11	59.46	45.53	34.38	26.01	19.51	11.15	10.22	0.00		
270.0	76.15	58.51	44.58	41.79	26.00	18.57	11.14	4.64	0.00		
285.0	75.13	57.50	44.52	34.32	25.97	18.55	11.13	4.64	0.00		
300.0	74.30	57.58	43.65	33.43	26.00	18.57	11.14	4.64	0.00		
315.0	73.59	56.82	43.78	33.53	26.08	18.63	12.11	5.59	0.00		
330.0	72.66	55.89	42.85	33.53	25.15	18.63	12.11	4.66	0.00		
345.0	72.44	54.79	42.72	33.43	26.00	18.57	12.07	5.57	0.00		
360.0	104.21	75.88	58.51	45.71	35.65	27.42	20.11	13.71	6.40		

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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	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
75.0	1.86	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	5.48	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	4.57	5.48		
195.0	0.00	0.00	0.92	1.84	2.76	2.76	4.59	4.59	5.51		
210.0	0.00	0.00	0.92	1.85	2.77	3.69	4.62	4.62	5.54		
225.0	0.00	0.00	0.93	1.85	2.78	3.71	4.64	4.64	5.56		
240.0	0.00	0.00	0.93	1.86	2.79	3.72	4.65	4.65	5.57		
255.0	0.00	0.00	0.93	1.86	2.79	3.72	4.65	4.65	5.57		
270.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	4.64	5.57		
285.0	0.00	0.00	0.93	1.85	2.78	3.71	4.64	4.64	5.56		
300.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	4.64	5.57		
315.0	0.00	0.00	0.93	1.86	2.79	3.73	4.66	4.66	5.59		
330.0	0.00	0.00	0.93	1.86	2.79	3.73	4.66	4.66	5.59		
345.0	0.00	0.00	0.93	1.86	2.79	3.71	4.64	4.64	5.57		
360.0	0.00	0.00	0.91	1.83	3.66	4.57	5.48	6.40	6.40		

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