
乐达凯

Client:

LumCAT: LCD-RD-DP-12-CCT-120-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.000

LampCAT:

Current(A): 0.099

Lamp flux(lm): 910.3

Power (W): 11.600

Number of Lamps: 1

PF: 0.979

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 910.26, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 78.47

Central intensity(cd): 186.298, Maximum intensity(cd): 230.133

Angle of maximum intensity: C=0.0 γ =30.0

Beam Angle(50%Imax): [C0/180]Total=126.2

[C90/270]Total=129.6

Field angle(10%Imax): [C0/180]Total=181.2

[C90/270]Total=179.6

Maximum s/h(1/2): C0_180=1.74 C90_270=1.76

Maximum s/h(1/4): C0_180=1.73 C90_270=1.76

Up flux rate of lamp(%): 7.17%

Down flux rate of lamp(%): 92.83%

Up flux rate of LUM(%): 7.17%

Down flux rate of LUM(%): 92.83%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 69.434%

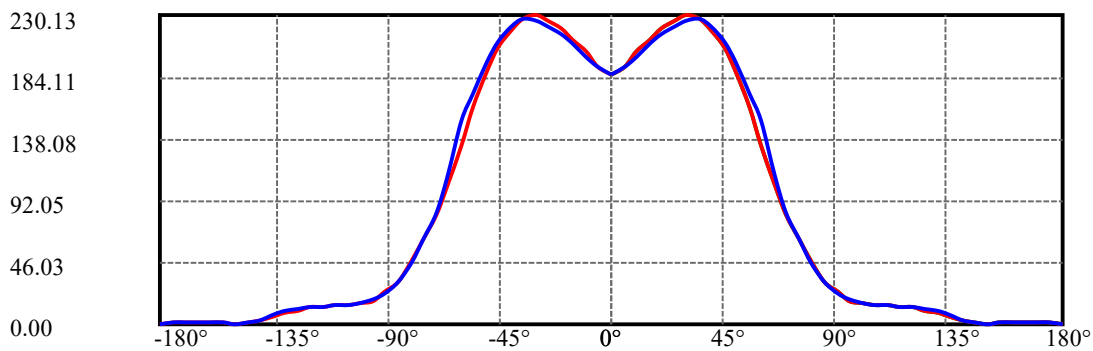
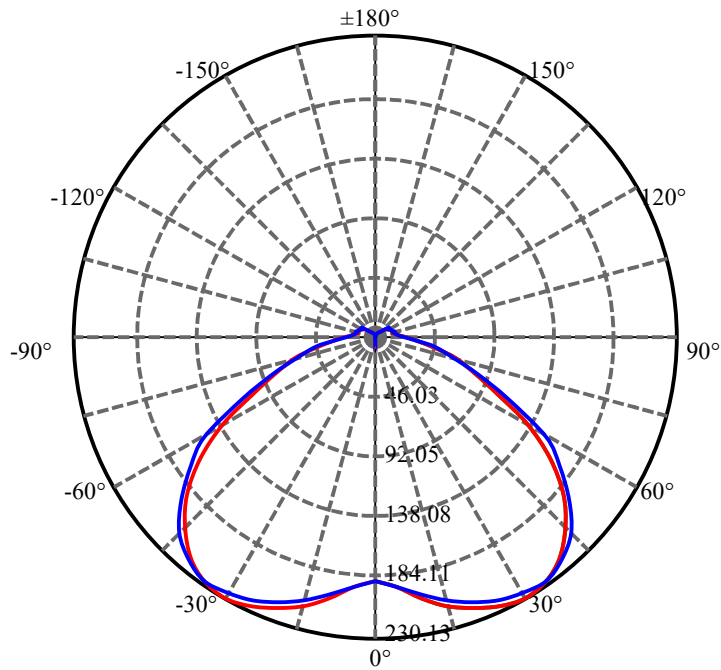
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	186.298	0.000	0	0.00%	0.00%
5.0	190.618	4.506	4.506	0.50%	0.50%
10.0	199.528	13.957	18.463	1.53%	2.03%
15.0	208.713	24.217	42.679	2.66%	4.69%
20.0	217.051	35.089	77.768	3.85%	8.54%
25.0	222.265	46.076	123.844	5.06%	13.61%
30.0	225.783	56.701	180.545	6.23%	19.83%
35.0	226.221	66.561	247.106	7.31%	27.15%
40.0	220.523	74.536	321.642	8.19%	35.34%
45.0	208.638	79.463	401.105	8.73%	44.06%
50.0	191.811	80.917	482.021	8.89%	52.95%
55.0	168.886	78.428	560.449	8.62%	61.57%
60.0	140.783	71.579	632.028	7.86%	69.43%
65.0	109.696	60.892	692.92	6.69%	76.12%
70.0	82.889	48.764	741.683	5.36%	81.48%
75.0	62.614	38.032	779.715	4.18%	85.66%
80.0	46.402	29.169	808.885	3.20%	88.86%
85.0	31.848	21.262	830.147	2.34%	91.20%
90.0	22.541	14.892	845.039	1.64%	92.83%
95.0	17.835	11.055	856.094	1.21%	94.05%
100.0	15.671	9.104	865.199	1.00%	95.05%
105.0	14.478	8.067	873.266	0.89%	95.94%
110.0	13.976	7.437	880.703	0.82%	96.75%
115.0	13.514	6.961	887.664	0.76%	97.52%
120.0	12.509	6.326	893.99	0.69%	98.21%
125.0	11.238	5.489	899.479	0.60%	98.82%
130.0	9.308	4.467	903.947	0.49%	99.31%
135.0	6.065	3.106	907.053	0.34%	99.65%
140.0	2.974	1.674	908.727	0.18%	99.83%
145.0	0.927	0.651	909.378	0.07%	99.90%
150.0	0.463	0.205	909.582	0.02%	99.93%
155.0	0.810	0.161	909.743	0.02%	99.94%
160.0	0.888	0.178	909.922	0.02%	99.96%
165.0	0.927	0.150	910.071	0.02%	99.98%
170.0	0.927	0.110	910.181	0.01%	99.99%
175.0	0.927	0.066	910.247	0.01%	100.00%
180.0	0.463	0.017	910.264	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	180.55	19.83%	19.83%
0-40	321.64	35.34%	35.34%
0-60	632.03	69.43%	69.43%
0-90	845.04	92.83%	92.83%
0-120	893.99	98.21%	98.21%
0-180	910.26	100.00%	100.00%
60-90	213.01	23.40%	23.40%
90-120	48.95	5.38%	5.38%
90-130	58.91	6.47%	6.47%
90-150	64.54	7.09%	7.09%
90-180	65.21	7.16%	7.16%
0-68.62	728.21	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	18.46
10-20	59.31
20-30	102.78
30-40	141.10
40-50	160.38
50-60	150.01
60-70	109.66
70-80	67.20
80-90	36.15
90-100	20.16
100-110	15.50
110-120	13.29
120-130	9.96
130-140	4.78
140-150	0.86
150-160	0.34
160-170	0.26
170-180	0.07



C0(Max):

C0/C180:

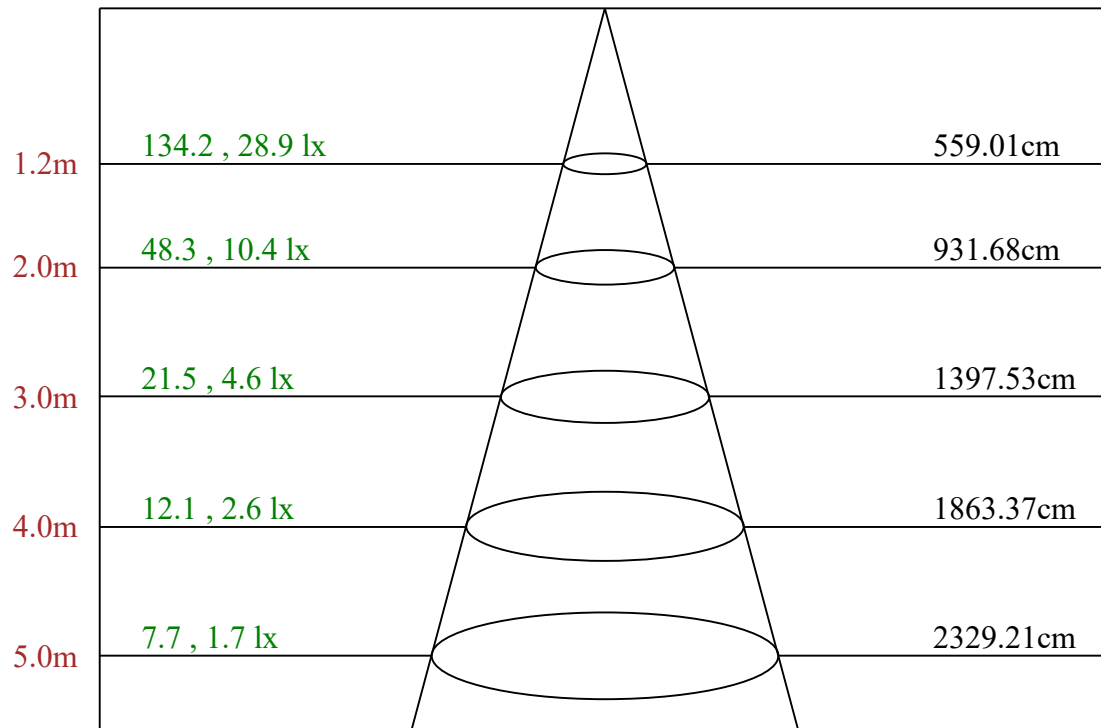
C90/C270:

Field angle(10%Imax):C0/180Left:120.6 Right:60.6

:C90/270Left:124.8 Right:54.8

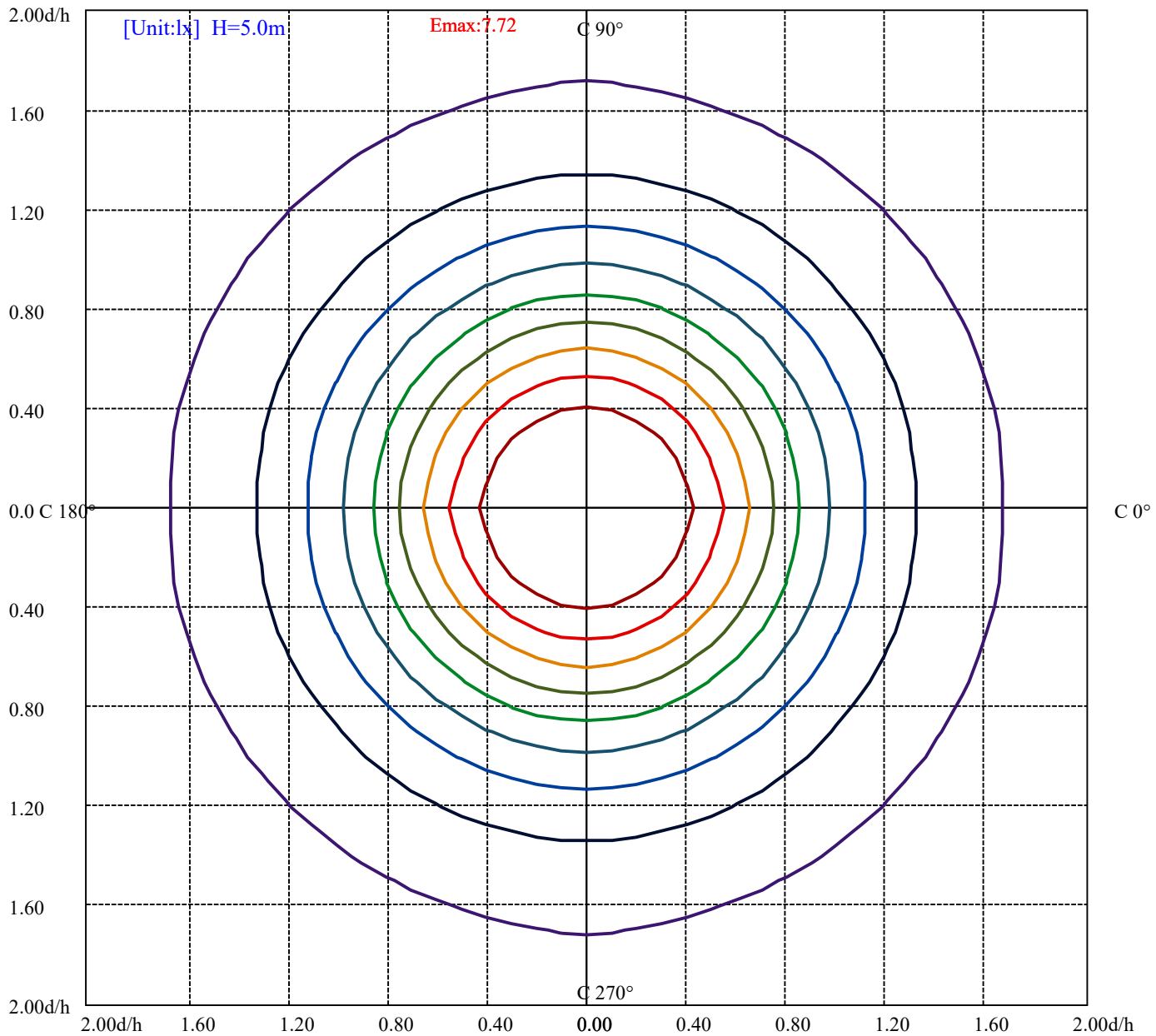
Beam Angle(50%Imax):C0/180Left:93.1 Right:33.1

:C90/270Left:99.8 Right:29.8

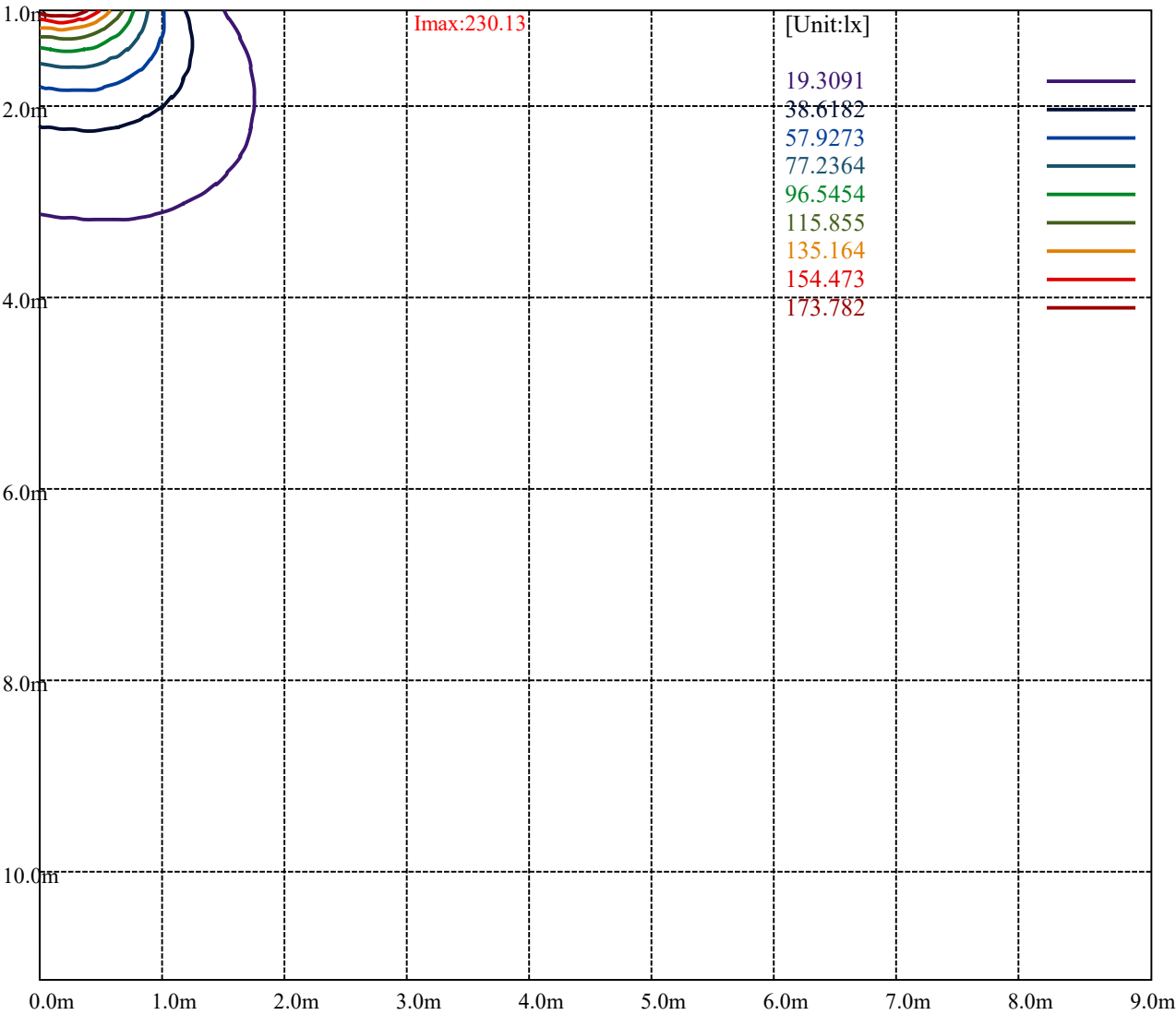


Max , Ave

Beam angle of C0 plane 133.53



(10%Emax) 0.772364	—
(20%Emax) 1.544728	—
(30%Emax) 2.317088	—
(40%Emax) 3.089452	—
(50%Emax) 3.861816	—
(60%Emax) 4.63416	—
(70%Emax) 5.40656	—
(80%Emax) 6.17892	—
(90%Emax) 6.95128	—



Luminance Table

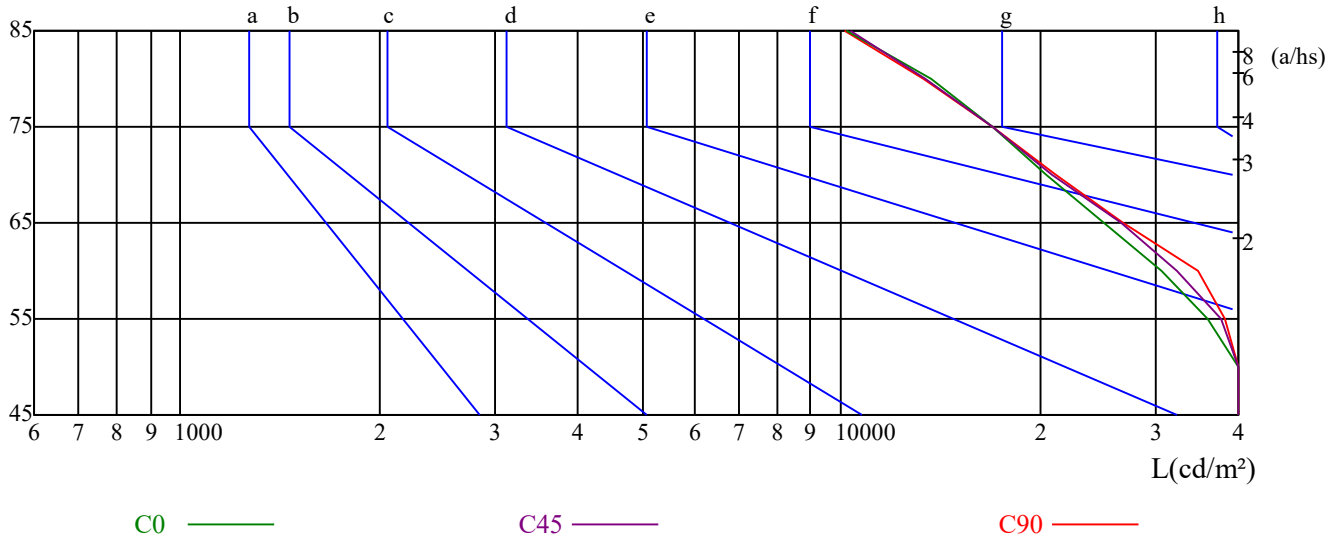
γ	45	50	55	60	65	70	75	80	85
C0	43805	40435	36014	30657	25001	20474	17027	13729	10229
C45	44478	41551	37631	32319	26557	20950	16948	13426	10334
C90	44780	41949	38183	34804	26844	21120	16990	13324	10135

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
64010	68727	67992	63262	63125	62967	95294	94422	96275

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

 $\gamma(^{\circ})$ 

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	1.17	1.17	1.17	1.14	1.14	1.14	1.07	1.07	1.07	1.01	1.01	1.01	0.95	0.95	0.95	0.93
1	1.01	0.96	0.92	0.98	0.93	0.89	0.92	0.88	0.85	0.87	0.84	0.81	0.82	0.80	0.78	0.75
2	0.87	0.79	0.73	0.84	0.77	0.72	0.79	0.74	0.69	0.75	0.70	0.66	0.71	0.67	0.64	0.61
3	0.75	0.67	0.60	0.73	0.65	0.59	0.69	0.62	0.57	0.65	0.60	0.55	0.62	0.57	0.53	0.51
4	0.66	0.57	0.50	0.64	0.56	0.49	0.61	0.54	0.48	0.58	0.51	0.46	0.55	0.49	0.45	0.42
5	0.59	0.49	0.42	0.57	0.48	0.42	0.54	0.46	0.41	0.51	0.45	0.40	0.49	0.43	0.38	0.36
6	0.52	0.43	0.36	0.51	0.42	0.36	0.48	0.41	0.35	0.46	0.39	0.34	0.44	0.38	0.33	0.31
7	0.47	0.38	0.32	0.46	0.37	0.31	0.44	0.36	0.31	0.42	0.35	0.30	0.40	0.34	0.29	0.27
8	0.43	0.34	0.28	0.42	0.33	0.28	0.40	0.32	0.27	0.38	0.31	0.26	0.36	0.30	0.26	0.24
9	0.39	0.30	0.25	0.38	0.30	0.25	0.36	0.29	0.24	0.35	0.28	0.23	0.33	0.27	0.23	0.21
10	0.36	0.28	0.22	0.35	0.27	0.22	0.33	0.26	0.22	0.32	0.26	0.21	0.31	0.25	0.21	0.19

乐达凯 LCD-RD-DP-12-CCT-120-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	186.30	186.30	191.78	197.26	200.00	200.91	199.08	196.34	192.69		
15.0	186.30	185.38	191.78	199.08	202.74	202.74	201.82	199.08	193.60		
30.0	186.30	185.38	193.64	200.06	206.49	208.32	207.41	206.49	202.82		
45.0	186.30	185.38	194.60	202.90	211.20	214.89	215.81	216.73	213.97		
60.0	186.30	185.37	195.57	205.76	215.96	221.52	226.15	228.93	226.15		
75.0	186.30	186.30	196.54	208.65	220.76	230.08	237.53	243.12	242.19		
90.0	186.30	187.23	196.54	210.52	223.56	237.53	246.84	254.30	254.30		
105.0	186.30	187.23	196.54	211.45	227.28	241.26	254.30	260.82	261.75		
120.0	186.30	186.30	197.48	211.45	228.22	244.05	257.09	265.47	267.34		
135.0	186.30	187.23	197.53	213.45	229.36	246.21	259.32	268.68	269.62		
150.0	186.30	186.30	196.54	211.45	240.32	244.05	257.09	267.34	268.27		
165.0	186.30	186.30	196.54	211.45	227.28	242.19	256.16	264.54	265.47		
180.0	186.30	197.26	212.78	226.48	241.09	252.05	261.18	259.36	245.66		
195.0	186.30	197.26	210.04	222.83	235.61	245.66	252.05	251.14	237.44		
210.0	186.30	195.48	209.24	220.25	231.27	237.69	243.20	240.44	230.35		
225.0	186.30	196.44	206.59	217.66	224.11	229.64	231.49	229.64	217.66		
240.0	186.30	195.57	205.76	213.18	218.74	222.45	221.52	217.81	206.69		
255.0	186.30	195.61	204.00	210.52	213.31	213.31	210.52	205.86	195.61		
270.0	186.30	194.68	202.13	206.79	207.72	206.79	204.00	200.27	189.09		
285.0	186.30	193.75	200.27	204.00	204.00	203.06	199.34	193.75	191.89		
300.0	186.30	193.75	198.41	202.13	201.20	199.34	194.68	190.02	179.78		
315.0	186.30	193.79	198.47	201.28	200.34	197.53	194.72	190.98	180.68		
330.0	186.30	192.82	197.48	200.27	199.34	196.54	193.75	188.16	179.78		
345.0	186.30	193.75	198.41	200.27	199.34	196.54	193.75	190.02	179.78		
360.0	186.30	186.30	191.78	197.26	200.00	200.91	199.08	196.34	192.69		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	182.65	170.77	157.07	139.72	118.72	96.80	77.62	59.36	42.92		
15.0	184.47	173.51	159.81	140.64	117.81	95.89	75.80	57.53	41.10		
30.0	192.72	180.79	165.19	144.08	119.30	94.53	74.34	55.98	40.38		
45.0	203.82	190.91	172.46	150.33	122.66	94.07	72.86	54.41	38.74		
60.0	216.88	203.91	185.37	157.57	125.13	94.54	70.44	52.83	36.15		
75.0	233.80	217.97	196.54	163.01	126.68	95.01	68.93	52.16	35.40		
90.0	244.05	227.28	204.00	168.60	129.48	92.22	68.93	50.30	35.40		
105.0	252.43	233.80	206.79	169.53	128.55	92.22	67.07	49.37	35.40		
120.0	256.16	237.53	209.59	171.39	129.48	90.35	66.14	48.44	34.47		
135.0	258.38	238.72	211.57	171.32	128.26	89.87	66.47	49.62	35.57		
150.0	257.09	237.53	212.38	171.39	130.41	92.22	66.14	49.37	35.40		
165.0	253.37	236.60	210.52	173.26	130.41	94.08	66.14	51.23	35.40		
180.0	229.22	202.74	167.12	126.94	89.50	64.84	48.40	34.70	21.00		
195.0	221.91	199.08	163.47	126.03	91.32	66.67	49.31	34.70	21.92		
210.0	213.83	191.80	161.52	125.73	91.77	67.91	50.47	34.87	23.86		
225.0	204.74	183.53	156.79	124.51	94.99	71.01	52.57	37.81	24.90		
240.0	192.79	174.25	149.22	121.42	95.47	72.29	55.61	38.93	25.95		
255.0	183.50	166.74	142.52	119.23	95.01	73.59	55.89	52.16	27.01		
270.0	176.98	160.22	139.72	134.13	94.08	74.52	56.82	40.99	27.94		
285.0	172.33	156.49	136.93	115.50	93.15	74.52	58.68	40.99	28.88		
300.0	169.53	155.56	136.00	115.50	95.01	75.45	58.68	41.92	28.88		
315.0	169.45	154.47	136.68	116.09	96.43	75.83	58.98	42.13	29.96		
330.0	167.67	154.63	136.00	116.44	95.01	75.45	58.68	41.92	28.88		
345.0	169.53	154.63	136.00	116.44	94.08	75.45	57.75	41.92	28.88		
360.0	182.65	170.77	157.07	139.72	118.72	96.80	77.62	59.36	42.92		

乐达凯 LCD-RD-DP-12-CCT-120-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	30.14	21.00	18.26	15.52	14.61	14.61	13.70	11.87	10.96
15.0	29.22	21.00	18.26	15.52	14.61	13.70	12.79	11.87	10.05
30.0	27.53	20.19	17.44	14.68	13.77	13.77	12.85	11.93	10.09
45.0	25.82	19.37	16.60	14.76	13.83	13.83	13.83	11.99	11.07
60.0	25.03	18.54	15.76	14.83	13.90	13.90	13.90	12.05	11.12
75.0	24.22	18.63	15.84	14.90	13.97	13.97	13.04	12.11	11.18
90.0	23.29	17.70	14.90	14.90	13.97	13.97	13.04	12.11	11.18
105.0	23.29	16.77	14.90	14.90	13.97	13.97	13.04	12.11	11.18
120.0	23.29	16.77	14.90	13.97	13.97	13.97	13.04	12.11	11.18
135.0	22.47	16.85	14.98	14.04	14.04	14.04	13.11	12.17	11.23
150.0	23.29	16.77	14.90	13.97	13.04	13.97	13.04	12.11	11.18
165.0	23.29	16.77	14.90	13.97	13.04	13.97	13.04	12.11	10.25
180.0	17.35	14.61	13.70	12.79	12.79	11.87	10.96	9.13	6.39
195.0	17.35	14.61	13.70	12.79	12.79	11.87	10.96	8.22	6.39
210.0	18.35	15.60	14.68	13.77	12.85	11.93	11.01	9.18	5.51
225.0	18.45	16.60	14.76	13.83	13.83	11.99	11.99	9.22	7.38
240.0	19.46	16.68	16.68	13.90	13.90	12.98	12.05	11.12	8.34
255.0	20.49	17.70	15.84	14.90	13.97	13.04	12.11	11.18	8.38
270.0	21.42	18.63	15.84	14.90	13.97	13.04	12.11	11.18	8.38
285.0	21.42	18.63	15.84	14.90	14.90	13.97	12.11	11.18	8.38
300.0	21.42	18.63	15.84	14.90	14.90	13.97	12.11	11.18	8.38
315.0	21.53	18.72	15.91	14.98	14.98	14.04	12.17	11.23	8.43
330.0	21.42	18.63	15.84	14.90	14.90	13.97	12.11	11.18	8.38
345.0	21.42	18.63	15.84	14.90	14.90	13.97	12.11	11.18	8.38
360.0	30.14	21.00	18.26	15.52	14.61	14.61	13.70	11.87	10.96
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	7.31	4.57	1.83	0.91	1.83	0.91	0.91	0.91	0.91
15.0	7.31	2.74	1.83	0.91	1.83	0.91	0.91	0.91	0.91
30.0	7.34	3.67	1.84	0.92	1.84	0.92	0.92	0.92	0.92
45.0	8.30	4.61	1.84	0.92	0.92	0.92	0.92	0.92	0.92
60.0	8.34	4.63	1.85	0.93	1.85	0.93	0.93	0.93	0.93
75.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
90.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
105.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
120.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
135.0	8.43	4.68	1.87	0.94	0.94	0.94	0.94	0.94	0.94
150.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
165.0	8.38	4.66	1.86	0.93	0.93	0.93	0.93	0.93	0.93
180.0	3.65	1.83	0.00	0.00	0.00	0.91	0.91	0.91	0.91
195.0	2.74	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91
210.0	2.75	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92
225.0	4.61	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92
240.0	2.78	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.93
255.0	3.73	0.93	0.00	0.00	0.00	0.93	0.93	0.93	0.93
270.0	4.66	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93
285.0	4.66	1.86	0.00	0.00	0.00	0.93	0.93	0.93	0.93
300.0	4.66	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93
315.0	4.68	1.87	0.00	0.00	0.94	0.94	0.94	0.94	0.94
330.0	4.66	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93
345.0	4.66	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93
360.0	7.31	4.57	1.83	0.91	1.83	0.91	0.91	0.91	0.91

Intensity data(cd)

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C/γ(°)	180.0
0.0	0.91
15.0	0.91
30.0	0.92
45.0	0.92
60.0	0.93
75.0	0.93
90.0	0.93
105.0	0.93
120.0	0.93
135.0	0.94
150.0	0.93
165.0	0.93
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	0.91