
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): 858.3

Power (W): 11.640

Number of Lamps: 1

PF: 0.979

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 858.31, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 73.74

Central intensity(cd): 175.798, Maximum intensity(cd): 216.332

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=180.6

[C90/270]Total=179.0

Maximum s/h(1/2): C0_180=1.74 C90_270=1.75

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

Up flux rate of lamp(%): 7.16%

Down flux rate of lamp(%): 92.84%

Up flux rate of LUM(%): 7.16%

Down flux rate of LUM(%): 92.84%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 69.437%

乐达凯 LCD-RD-DP-12-CCT-120-WT

Zonal flux distribution table

Appendix Page: 2 Total:12

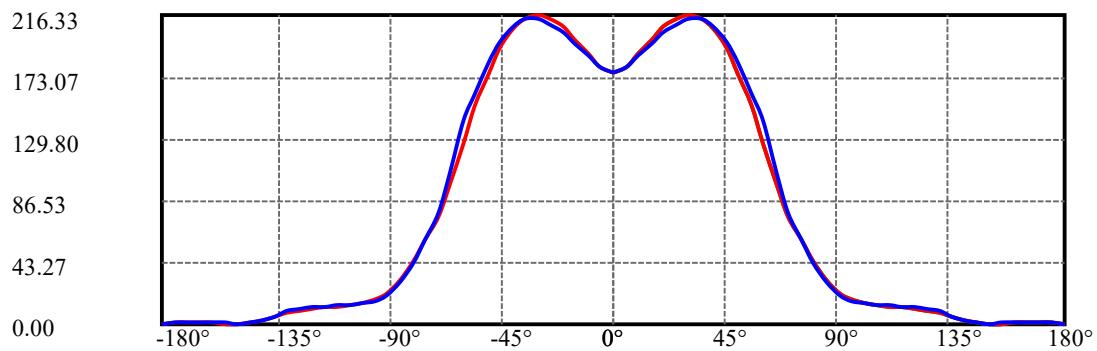
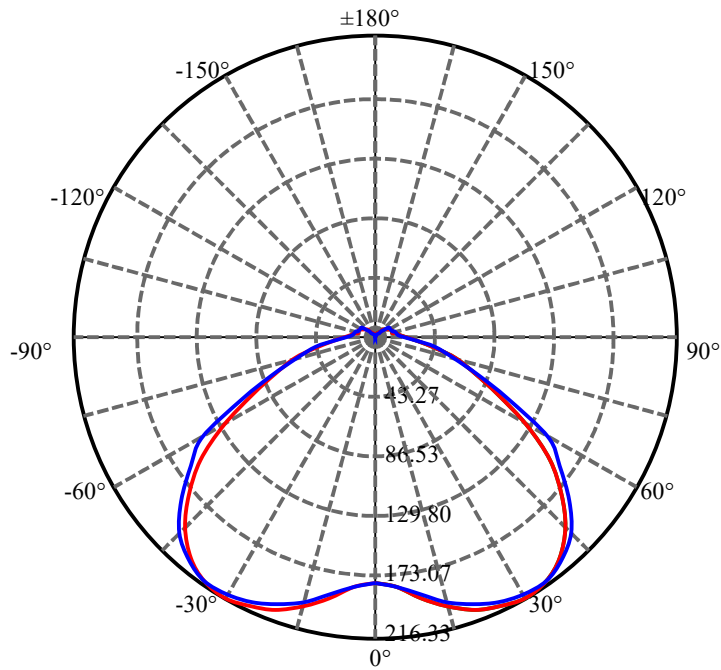
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	175.798	0.000	0	0.00%	0.00%
5.0	179.772	4.251	4.251	0.50%	0.50%
10.0	188.298	13.167	17.418	1.53%	2.03%
15.0	196.710	22.838	40.256	2.66%	4.69%
20.0	204.508	33.066	73.322	3.85%	8.54%
25.0	209.566	43.429	116.751	5.06%	13.60%
30.0	213.085	53.487	170.238	6.23%	19.83%
35.0	213.444	62.809	233.047	7.32%	27.15%
40.0	207.897	70.298	303.345	8.19%	35.34%
45.0	196.668	74.908	378.253	8.73%	44.07%
50.0	180.807	76.274	454.527	8.89%	52.96%
55.0	159.270	73.944	528.471	8.62%	61.57%
60.0	132.788	67.508	595.98	7.87%	69.44%
65.0	103.363	57.409	653.389	6.69%	76.13%
70.0	78.334	46.007	699.396	5.36%	81.49%
75.0	59.024	35.903	735.299	4.18%	85.67%
80.0	43.737	27.496	762.795	3.20%	88.87%
85.0	30.071	20.055	782.85	2.34%	91.21%
90.0	21.114	14.015	796.865	1.63%	92.84%
95.0	16.906	10.410	807.275	1.21%	94.05%
100.0	14.862	8.632	815.908	1.01%	95.06%
105.0	13.551	7.602	823.51	0.89%	95.95%
110.0	12.933	6.922	830.433	0.81%	96.75%
115.0	12.624	6.471	836.904	0.75%	97.51%
120.0	11.855	5.951	842.855	0.69%	98.20%
125.0	10.774	5.231	848.085	0.61%	98.81%
130.0	8.536	4.199	852.284	0.49%	99.30%
135.0	5.833	2.904	855.188	0.34%	99.64%
140.0	2.936	1.624	856.811	0.19%	99.83%
145.0	0.927	0.644	857.456	0.08%	99.90%
150.0	0.463	0.205	857.66	0.02%	99.92%
155.0	0.657	0.142	857.802	0.02%	99.94%
160.0	0.888	0.162	857.964	0.02%	99.96%
165.0	0.927	0.150	858.114	0.02%	99.98%
170.0	0.927	0.110	858.224	0.01%	99.99%
175.0	0.927	0.066	858.29	0.01%	100.00%
180.0	0.463	0.017	858.307	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	170.24	19.83%	19.83%
0-40	303.34	35.34%	35.34%
0-60	595.98	69.44%	69.44%
0-90	796.87	92.84%	92.84%
0-120	842.85	98.20%	98.20%
0-180	858.31	100.00%	100.00%
60-90	200.89	23.40%	23.40%
90-120	45.99	5.36%	5.36%
90-130	55.42	6.46%	6.46%
90-150	60.80	7.08%	7.08%
90-180	61.42	7.16%	7.16%
0-68.61	686.65	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	17.42
10-20	55.90
20-30	96.92
30-40	133.11
40-50	151.18
50-60	141.45
60-70	103.42
70-80	63.40
80-90	34.07
90-100	19.04
100-110	14.52
110-120	12.42
120-130	9.43
130-140	4.53
140-150	0.85
150-160	0.30
160-170	0.26
170-180	0.07

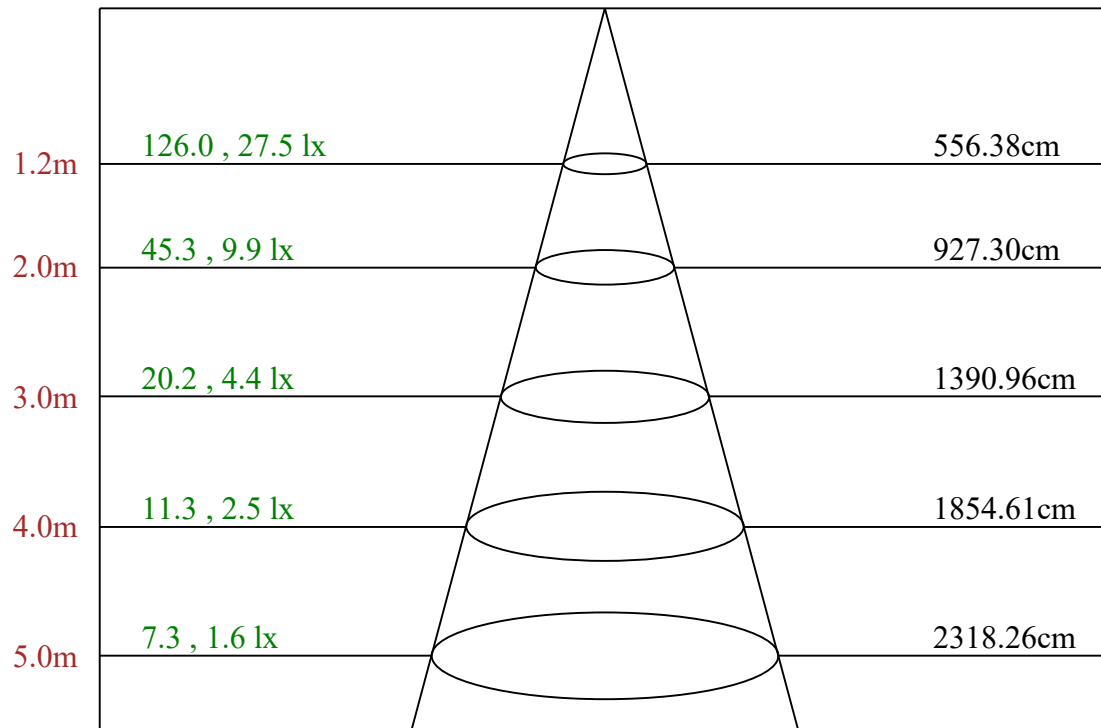
C0(Max): —C0/C180: —C90/C270: —

Field angle(10%Imax):C0/180Left:120.3 Right:60.3

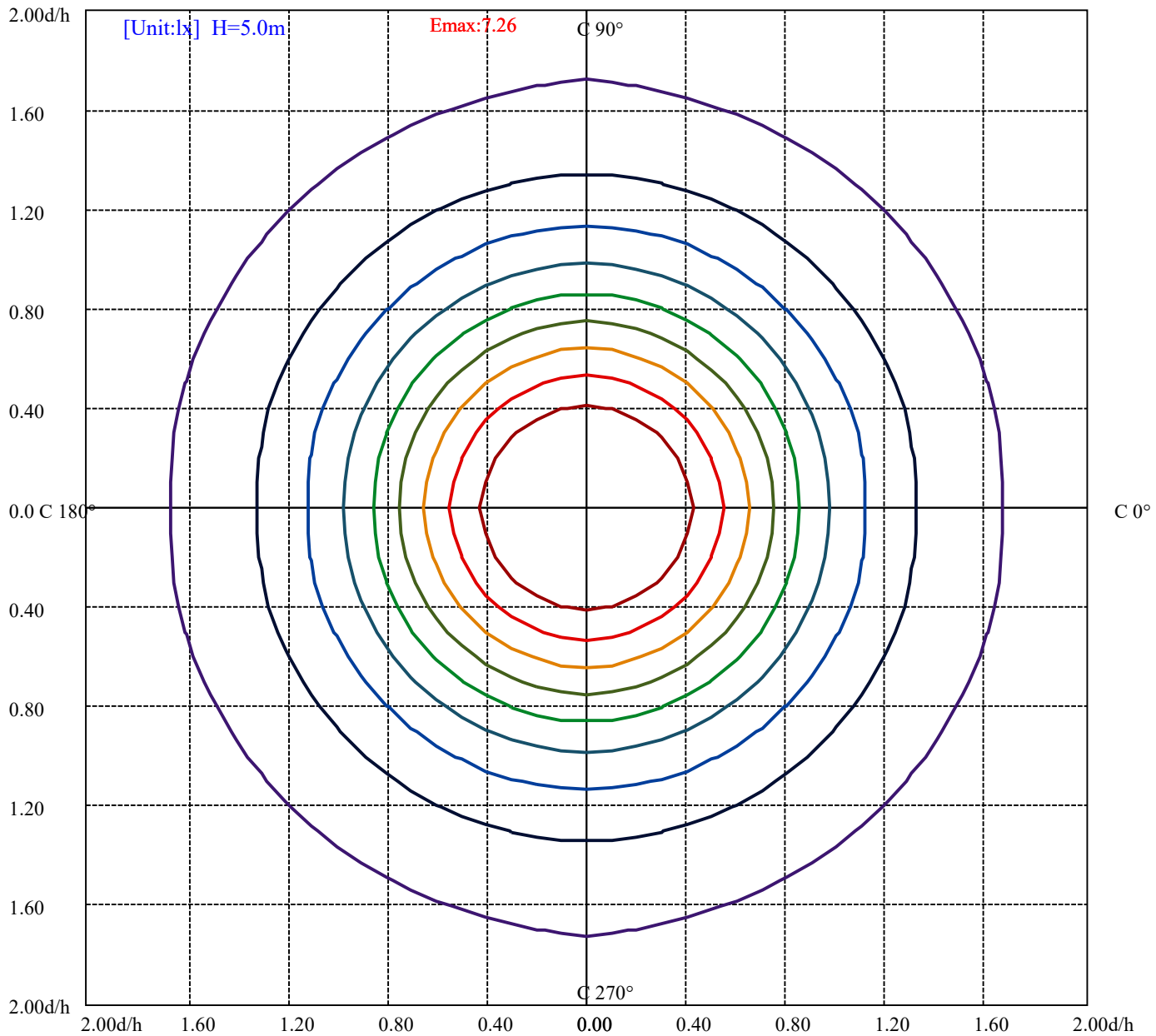
:C90/270Left:124.5 Right:54.5

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

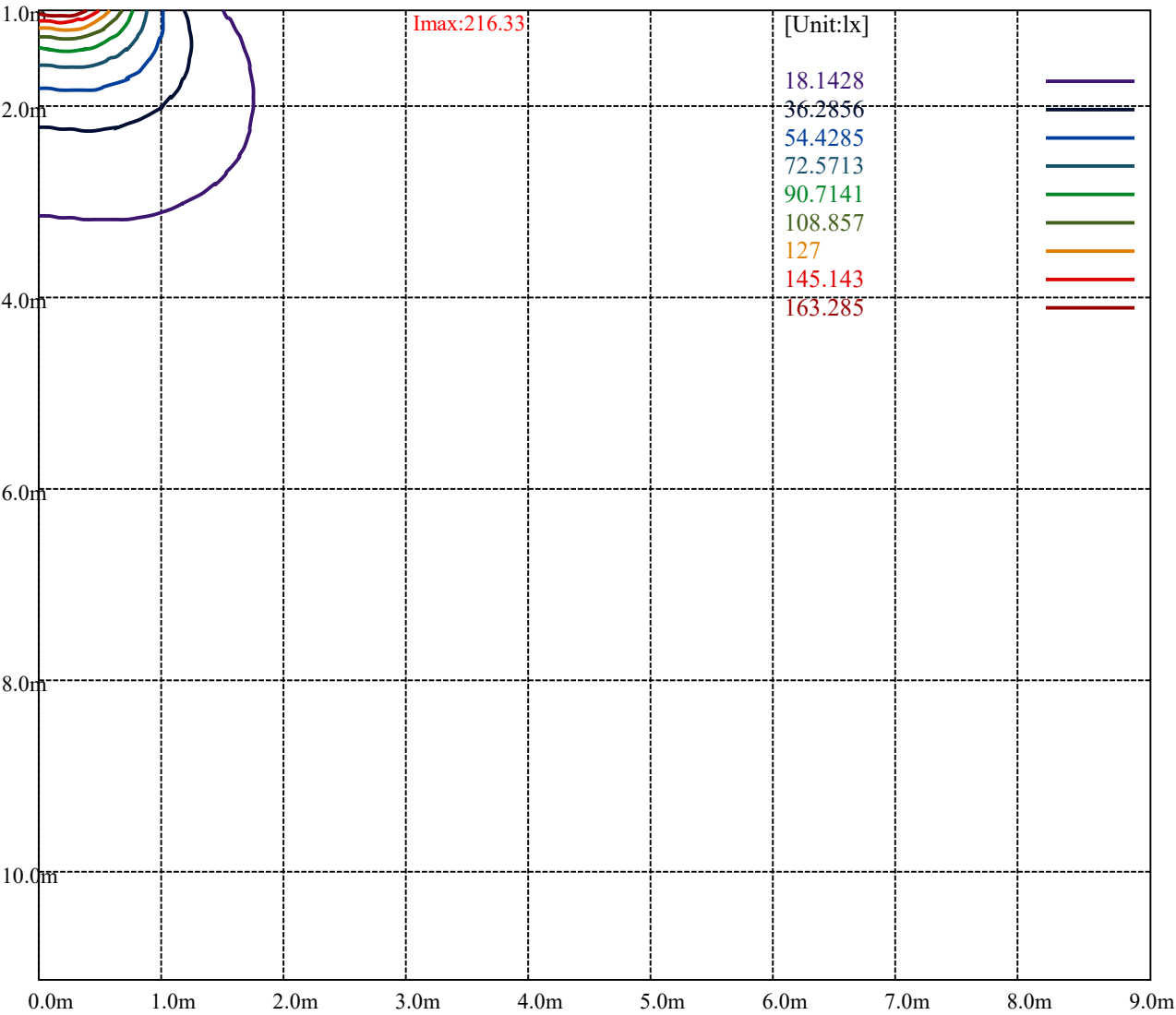
:C90/270Left:99.8 Right:29.8



Max , Ave Beam angle of C0 plane 133.33



(10%Emax) 0.725712	
(20%Emax) 1.451424	
(30%Emax) 2.177136	
(40%Emax) 2.902852	
(50%Emax) 3.628564	
(60%Emax) 4.35428	
(70%Emax) 5.08	
(80%Emax) 5.80572	
(90%Emax) 6.5314	



Luminance Table

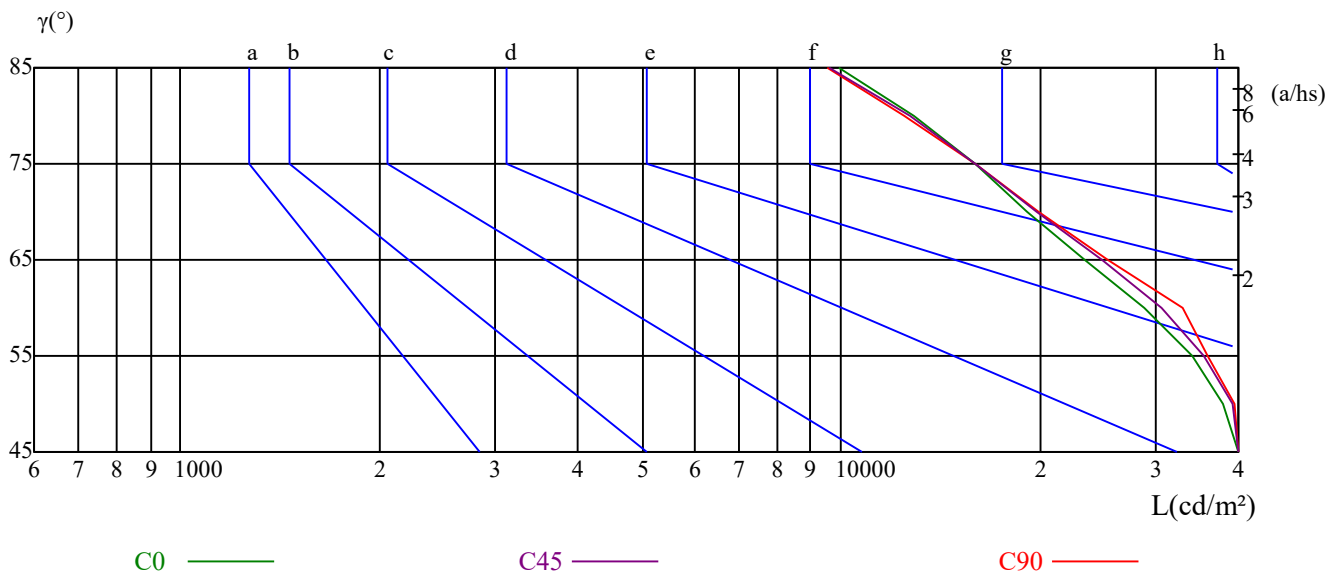
γ	45	50	55	60	65	70	75	80	85
C0	41173	37964	33998	28903	23406	19152	15999	12896	9911
C45	42006	39233	35453	30539	24911	19854	16025	12694	9602
C90	42143	39472	35958	32829	25353	19911	15961	12490	9525

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
59925	64910	63780	59441	59298	59536	92332	88740	89451

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	1.17	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	175.80	174.89	180.35	185.82	188.55	188.55	187.64	184.00	181.26
15.0	175.80	174.88	181.29	187.70	191.36	192.28	190.45	188.62	183.12
30.0	175.80	175.80	183.16	189.60	194.21	196.97	196.97	195.13	191.44
45.0	175.80	173.96	183.16	190.52	197.89	201.57	203.41	204.33	200.65
60.0	175.80	175.80	185.10	194.40	203.70	209.28	213.93	216.72	213.93
75.0	175.80	175.80	186.03	196.26	207.42	216.72	223.24	228.82	227.89
90.0	175.80	175.80	186.03	198.12	211.14	223.24	233.47	239.05	239.05
105.0	175.80	175.80	186.03	199.05	213.00	226.96	239.05	246.49	246.49
120.0	175.80	175.80	186.03	199.98	214.86	229.75	241.84	250.21	251.14
135.0	175.80	177.68	188.02	202.12	217.16	233.14	246.31	254.77	255.71
150.0	175.80	175.80	186.03	199.98	226.03	229.75	242.77	252.07	253.00
165.0	175.80	175.80	186.03	199.05	213.93	227.89	240.91	250.21	250.21
180.0	175.80	185.82	199.48	213.14	226.81	237.74	245.02	244.11	231.36
195.0	175.80	186.79	198.69	210.59	222.49	232.57	238.98	237.14	225.24
210.0	175.80	185.00	197.89	208.01	218.14	224.58	230.10	227.34	217.22
225.0	175.80	184.08	194.21	204.33	210.77	216.30	218.14	216.30	205.25
240.0	175.80	185.10	194.40	201.84	206.49	209.28	209.28	206.49	195.33
255.0	175.80	184.17	192.54	198.12	200.91	200.91	199.05	193.47	184.17
270.0	175.80	183.24	189.75	194.40	196.26	195.33	192.54	188.82	177.66
285.0	175.80	183.24	188.82	192.54	192.54	190.68	186.96	182.31	180.45
300.0	175.80	182.31	186.03	189.75	189.75	186.96	183.24	178.59	169.29
315.0	175.80	183.32	188.02	189.90	189.90	188.02	185.20	181.44	171.10
330.0	175.80	181.38	186.03	187.89	186.96	185.10	182.31	177.66	169.29
345.0	175.80	182.31	186.03	187.89	187.89	186.03	183.24	178.59	169.29
360.0	175.80	174.89	180.35	185.82	188.55	188.55	187.64	184.00	181.26

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	172.15	160.31	148.47	131.17	111.13	90.18	72.87	55.56	40.99
15.0	174.88	163.90	150.16	132.76	110.79	90.65	71.42	54.94	39.37
30.0	182.24	171.20	156.47	135.30	113.21	90.20	69.95	52.46	37.74
45.0	191.44	179.48	161.99	140.82	115.05	88.36	68.11	51.54	35.90
60.0	205.56	192.54	175.80	149.75	118.13	89.29	66.04	50.23	35.35
75.0	219.51	205.56	184.17	154.40	119.99	89.29	65.11	48.37	34.42
90.0	229.75	213.93	192.54	159.06	121.85	87.43	64.18	47.44	33.49
105.0	237.19	219.51	195.33	159.06	120.92	87.43	63.25	46.51	32.56
120.0	240.91	224.17	196.26	160.92	121.85	85.57	62.32	46.51	31.63
135.0	244.43	226.56	200.24	162.64	121.27	85.55	62.99	47.00	32.90
150.0	241.84	223.24	199.98	161.85	122.78	85.57	62.32	46.51	32.56
165.0	239.05	222.31	198.12	162.78	122.78	89.29	62.32	48.37	33.49
180.0	214.97	190.37	157.58	120.23	83.80	61.03	45.54	32.79	20.95
195.0	209.68	188.62	154.74	119.03	86.07	63.18	46.70	32.96	21.06
210.0	202.49	181.32	152.79	118.73	87.44	64.43	47.86	34.06	22.09
225.0	193.29	172.12	147.27	117.81	88.36	67.19	49.70	34.98	23.01
240.0	182.31	164.64	141.38	115.34	90.22	68.83	52.09	37.21	25.11
255.0	173.01	157.20	134.87	112.55	89.29	69.76	53.02	48.37	25.11
270.0	166.50	150.68	131.15	126.50	89.29	69.76	53.95	38.14	26.04
285.0	161.85	146.96	129.29	108.83	88.36	69.76	54.88	38.14	26.97
300.0	159.06	146.03	128.36	108.83	89.29	71.62	54.88	39.07	27.90
315.0	160.76	146.66	128.79	109.99	90.25	72.39	56.41	40.42	28.20
330.0	158.13	146.03	128.36	108.83	89.29	71.62	55.81	39.07	27.90
345.0	159.06	146.03	128.36	109.76	89.29	71.62	54.88	39.07	26.97
360.0	172.15	160.31	148.47	131.17	111.13	90.18	72.87	55.56	40.99

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	28.24	20.95	17.31	14.57	13.66	13.66	11.84	11.84	10.02		
15.0	27.47	20.14	16.48	14.65	13.73	12.82	11.90	11.90	9.16		
30.0	25.77	19.33	16.57	14.73	12.89	12.89	11.97	11.04	9.20		
45.0	24.85	18.41	15.65	14.73	12.89	12.89	11.97	11.97	10.12		
60.0	24.18	17.67	14.88	13.95	13.02	13.02	13.02	12.09	10.23		
75.0	22.32	16.74	14.88	13.95	13.02	13.02	12.09	12.09	10.23		
90.0	21.39	16.74	14.88	13.95	13.02	13.02	12.09	12.09	10.23		
105.0	21.39	15.81	14.88	13.02	13.02	13.02	12.09	12.09	10.23		
120.0	21.39	15.81	14.88	13.02	13.02	13.02	12.09	12.09	10.23		
135.0	21.62	15.98	15.04	13.16	12.22	13.16	12.22	12.22	10.34		
150.0	21.39	15.81	14.88	13.02	12.09	13.02	12.09	12.09	10.23		
165.0	21.39	15.81	13.95	13.02	12.09	12.09	12.09	11.16	9.30		
180.0	15.48	14.57	12.75	11.84	11.84	11.84	10.02	8.20	5.47		
195.0	15.57	14.65	12.82	11.90	11.90	11.90	10.07	8.24	5.49		
210.0	16.57	14.73	13.81	11.97	11.97	11.97	10.12	8.28	5.52		
225.0	17.49	14.73	13.81	12.89	12.89	11.97	11.97	9.20	6.44		
240.0	18.60	15.81	14.88	13.02	13.02	12.09	12.09	10.23	7.44		
255.0	18.60	16.74	14.88	13.95	13.02	12.09	12.09	10.23	7.44		
270.0	19.53	16.74	14.88	13.95	13.02	12.09	12.09	10.23	7.44		
285.0	20.46	17.67	14.88	13.95	13.02	12.09	12.09	10.23	7.44		
300.0	20.46	17.67	14.88	13.95	13.02	12.09	12.09	10.23	8.37		
315.0	20.68	17.86	15.04	14.10	14.10	13.16	12.22	10.34	8.46		
330.0	21.39	17.67	14.88	13.95	13.95	13.02	12.09	10.23	8.37		
345.0	20.46	17.67	14.88	13.95	13.95	13.02	12.09	10.23	7.44		
360.0	28.24	20.95	17.31	14.57	13.66	13.66	11.84	11.84	10.02		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	7.29	3.64	1.82	0.91	0.91	0.91	0.91	0.91	0.91		
15.0	7.32	2.75	1.83	0.92	0.92	0.92	0.92	0.92	0.92		
30.0	7.36	3.68	1.84	0.92	0.92	0.92	0.92	0.92	0.92		
45.0	7.36	4.60	1.84	0.92	0.92	0.92	0.92	0.92	0.92		
60.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
75.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
90.0	7.44	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
105.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
120.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
135.0	8.46	4.70	1.88	0.94	0.94	0.94	0.94	0.94	0.94		
150.0	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
165.0	7.44	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
180.0	2.73	1.82	0.00	0.00	0.00	0.91	0.91	0.91	0.91		
195.0	2.75	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92		
210.0	2.76	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
225.0	3.68	1.84	0.00	0.00	0.00	0.92	0.92	0.92	0.92		
240.0	2.79	0.00	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
255.0	3.72	0.93	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
270.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
285.0	3.72	1.86	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
300.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
315.0	4.70	1.88	0.00	0.00	0.94	0.94	0.94	0.94	0.94		
330.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
345.0	4.65	1.86	0.00	0.00	0.93	0.93	0.93	0.93	0.93		
360.0	7.29	3.64	1.82	0.91	0.91	0.91	0.91	0.91	0.91		

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	0.91
15.0	0.92
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