
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.097

Lamp flux(lm): 907.4

Power (W): 11.410

Number of Lamps: 1

PF: 0.978

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 907.36, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.52

Central intensity(cd): 185.989, Maximum intensity(cd): 228.840

Angle of maximum intensity: C=0.0 γ =30.0

Beam Angle(50%Imax): [C0/180]Total=126.4

[C90/270]Total=129.8

Field angle(10%Imax): [C0/180]Total=180.6

[C90/270]Total=179.8

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(%): 7.17%

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 : 69.446%

乐达凯 LCD-RD-DP-12-CCT-120-WT

Zonal flux distribution table

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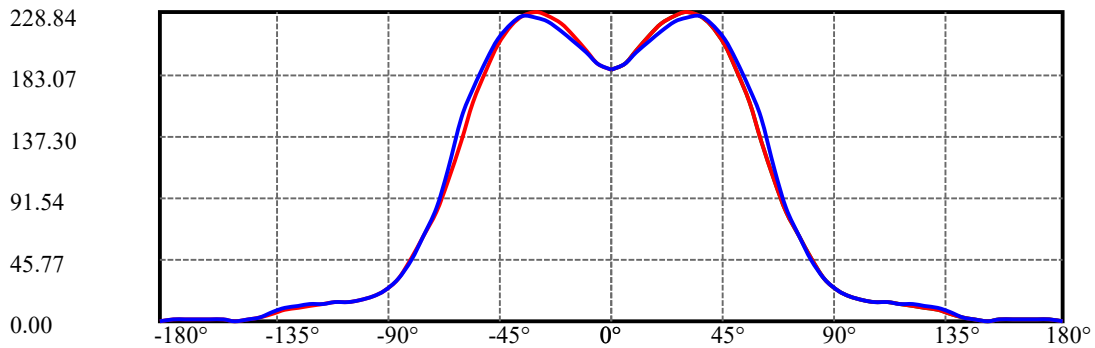
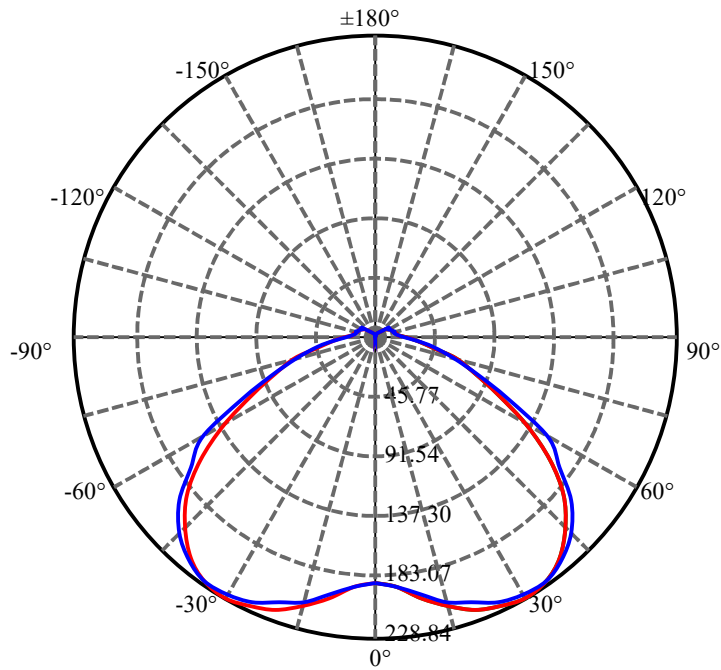
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	185.989	0.000	0	0.00%	0.00%
5.0	190.157	4.497	4.497	0.50%	0.50%
10.0	198.950	13.920	18.416	1.53%	2.03%
15.0	208.057	24.143	42.56	2.66%	4.69%
20.0	216.357	34.978	77.537	3.85%	8.55%
25.0	221.648	45.939	123.476	5.06%	13.61%
30.0	225.282	56.559	180.035	6.23%	19.84%
35.0	225.641	66.402	246.437	7.32%	27.16%
40.0	219.823	74.322	320.759	8.19%	35.35%
45.0	207.823	79.182	399.942	8.73%	44.08%
50.0	191.189	80.626	480.568	8.89%	52.96%
55.0	168.417	78.190	558.758	8.62%	61.58%
60.0	140.314	71.362	630.121	7.86%	69.45%
65.0	109.191	60.655	690.776	6.68%	76.13%
70.0	82.771	48.606	739.381	5.36%	81.49%
75.0	62.343	37.930	777.312	4.18%	85.67%
80.0	46.170	29.035	806.347	3.20%	88.87%
85.0	31.732	21.168	827.515	2.33%	91.20%
90.0	22.387	14.818	842.333	1.63%	92.83%
95.0	17.796	11.002	853.335	1.21%	94.05%
100.0	15.671	9.094	862.429	1.00%	95.05%
105.0	14.439	8.057	870.486	0.89%	95.94%
110.0	13.937	7.417	877.903	0.82%	96.75%
115.0	13.397	6.921	884.824	0.76%	97.52%
120.0	12.432	6.279	891.103	0.69%	98.21%
125.0	11.237	5.471	896.574	0.60%	98.81%
130.0	9.307	4.467	901.041	0.49%	99.30%
135.0	6.064	3.106	904.147	0.34%	99.65%
140.0	2.974	1.674	905.821	0.18%	99.83%
145.0	0.927	0.651	906.472	0.07%	99.90%
150.0	0.463	0.205	906.676	0.02%	99.92%
155.0	0.810	0.161	906.838	0.02%	99.94%
160.0	0.888	0.178	907.016	0.02%	99.96%
165.0	0.927	0.150	907.165	0.02%	99.98%
170.0	0.927	0.110	907.275	0.01%	99.99%
175.0	0.927	0.066	907.342	0.01%	100.00%
180.0	0.463	0.017	907.358	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	180.04	19.84%	19.84%
0-40	320.76	35.35%	35.35%
0-60	630.12	69.45%	69.45%
0-90	842.33	92.83%	92.83%
0-120	891.10	98.21%	98.21%
0-180	907.36	100.00%	100.00%
60-90	212.21	23.39%	23.39%
90-120	48.77	5.37%	5.37%
90-130	58.71	6.47%	6.47%
90-150	64.34	7.09%	7.09%
90-180	65.01	7.16%	7.16%
0-68.61	725.89	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	18.42
10-20	59.12
20-30	102.50
30-40	140.72
40-50	159.81
50-60	149.55
60-70	109.26
70-80	66.97
80-90	35.99
90-100	20.10
100-110	15.47
110-120	13.20
120-130	9.94
130-140	4.78
140-150	0.86
150-160	0.34
160-170	0.26
170-180	0.07

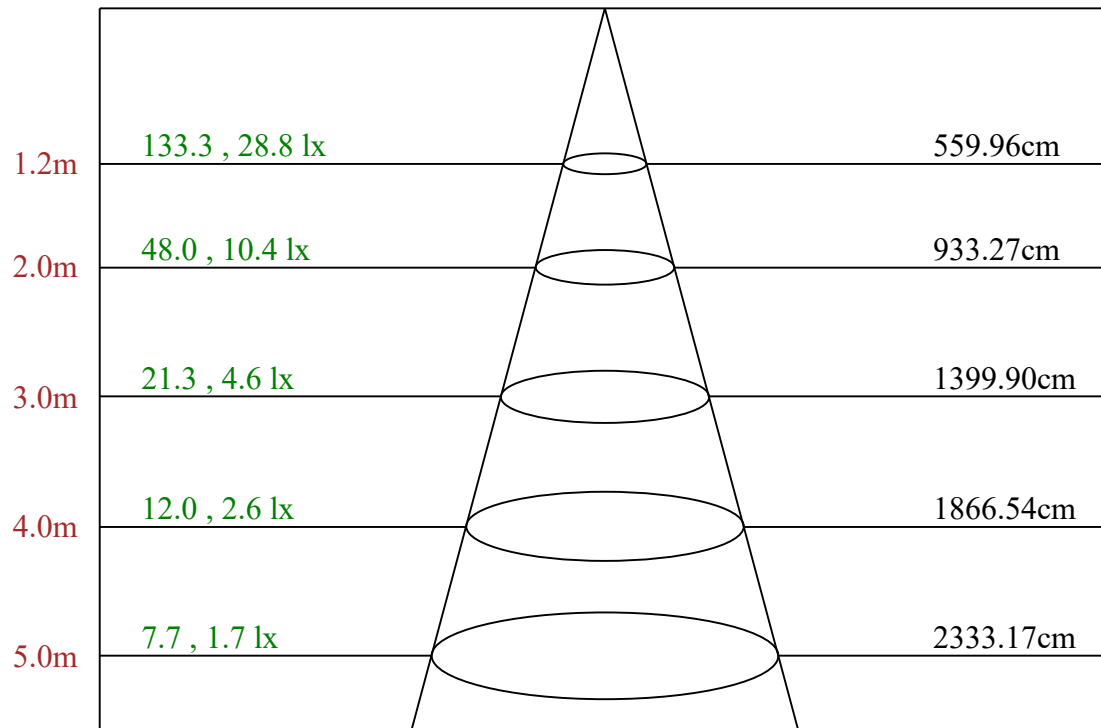
C0(Max): ———C0/C180: ———C90/C270: ———

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

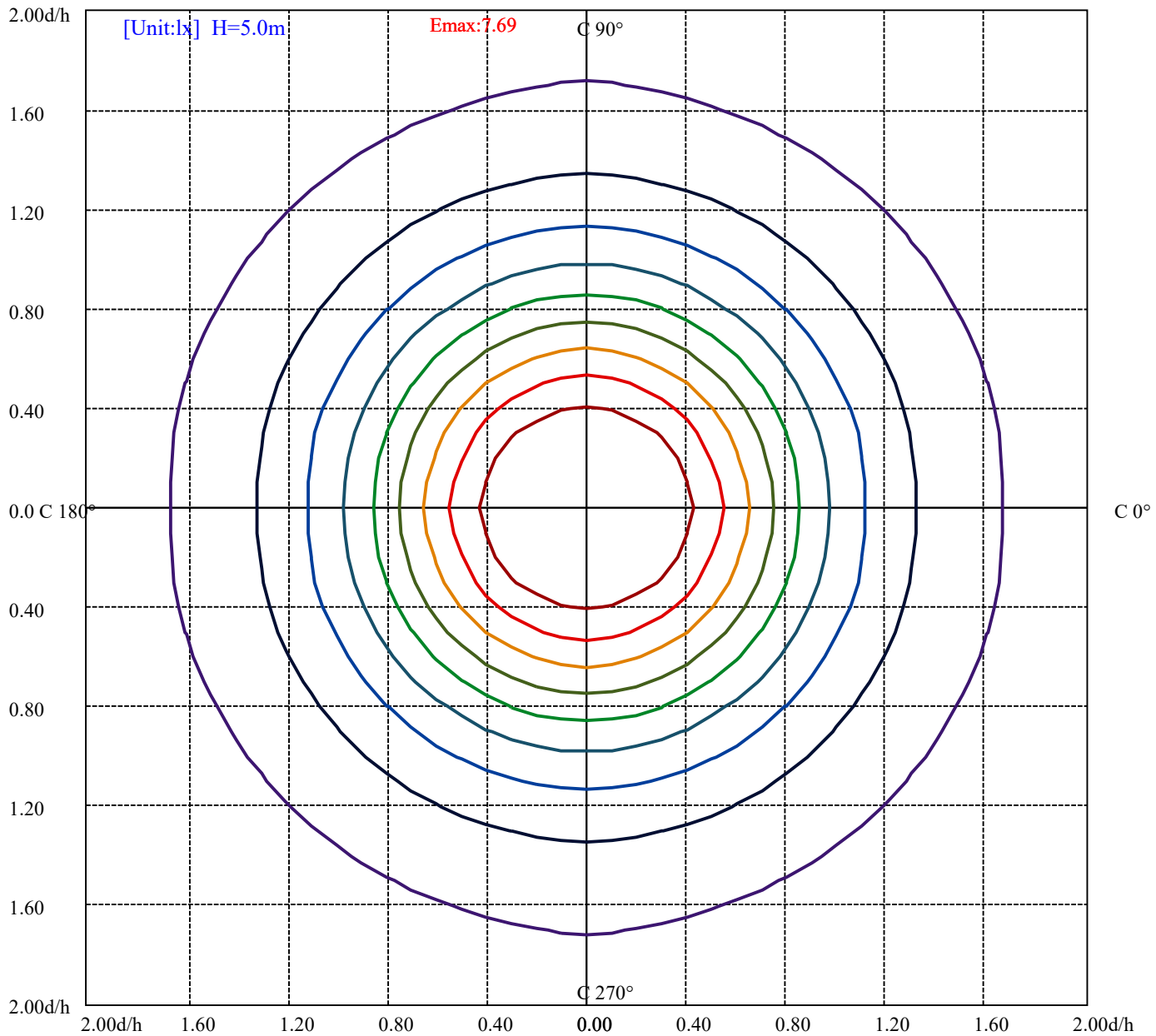
:C90/270Left:124.9 Right:54.9

Beam Angle(50%Imax):C0/180Left:93.2 Right:33.2

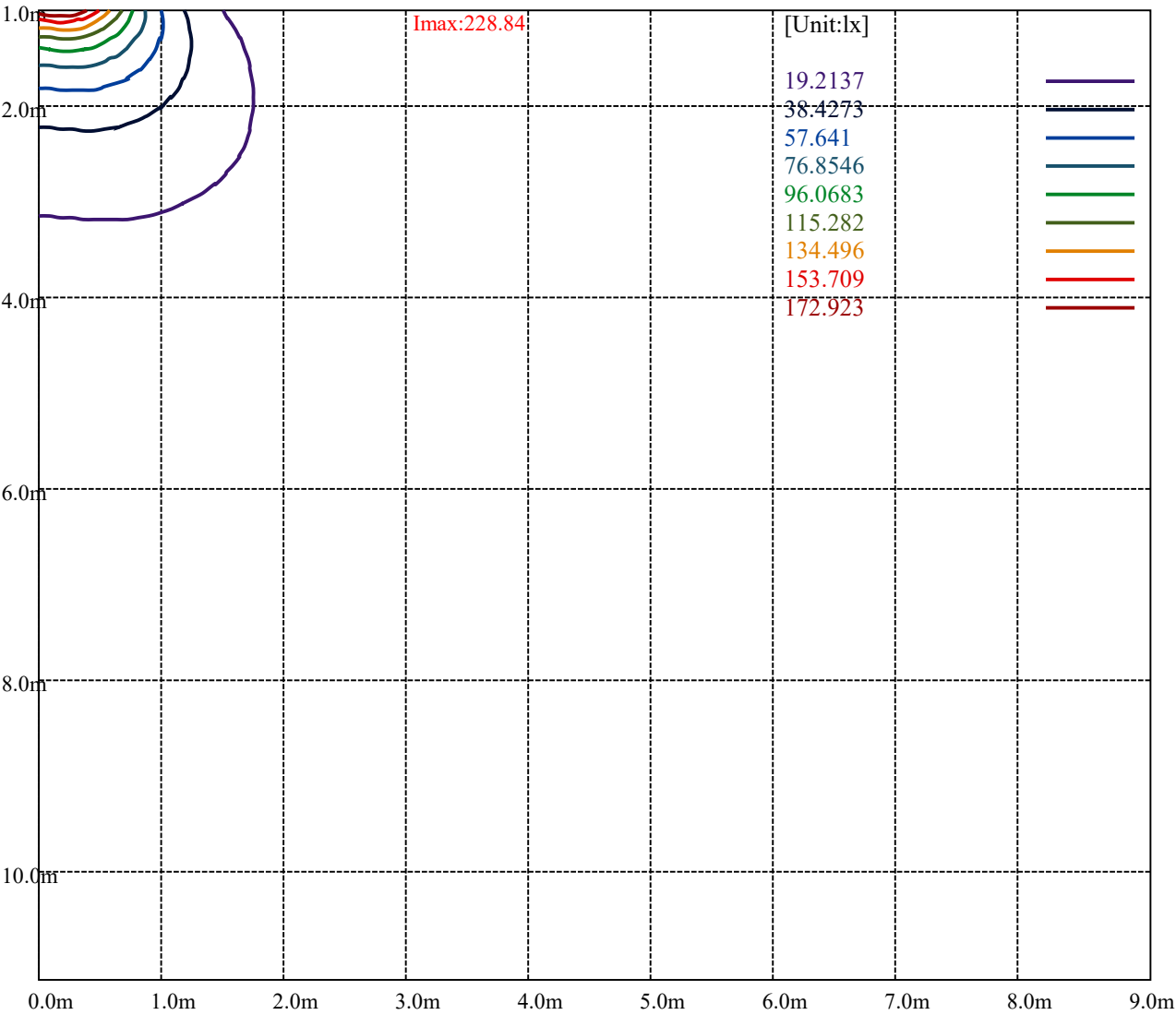
:C90/270Left:99.9 Right:29.9



Max , Ave Beam angle of C0 plane 133.60



(10%Emax) 0.768544	—
(20%Emax) 1.537092	—
(30%Emax) 2.305636	—
(40%Emax) 3.074184	—
(50%Emax) 3.842728	—
(60%Emax) 4.61128	—
(70%Emax) 5.37984	—
(80%Emax) 6.14836	—
(90%Emax) 6.91692	—



Luminance Table

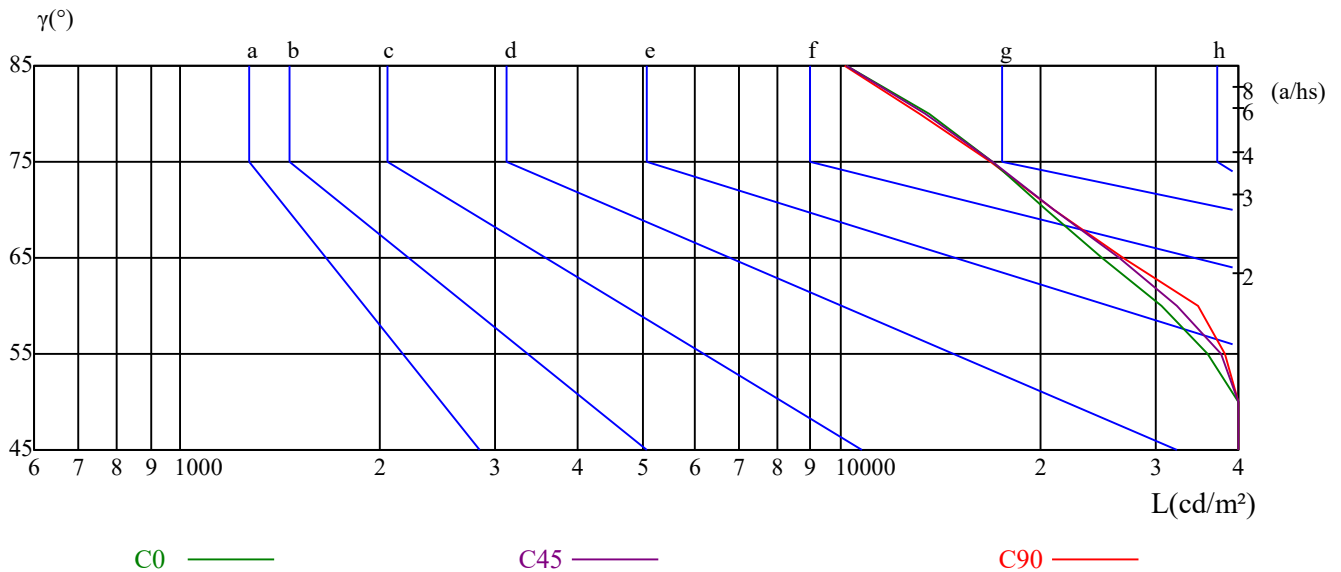
γ	45	50	55	60	65	70	75	80	85
C0	43441	40170	35954	30606	24850	20440	16999	13573	10212
C45	44478	41539	37602	32320	26478	21020	17005	13403	10219
C90	44508	41880	38119	34640	26799	21085	16837	13166	10119

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
63624	68613	67791	63157	62553	63178	95136	94266	95197

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	185.99	185.08	190.55	196.93	199.66	199.66	197.84	195.11	192.37		
15.0	185.99	185.07	191.49	198.82	202.48	203.40	201.56	199.73	194.24		
30.0	185.99	185.07	193.36	199.80	206.25	208.09	208.09	206.25	202.56		
45.0	185.99	185.99	194.32	202.64	210.97	214.67	215.60	216.52	213.75		
60.0	185.99	185.06	194.32	205.42	214.67	220.23	225.78	228.55	224.85		
75.0	185.99	185.99	196.22	207.38	220.40	229.70	237.14	241.79	240.86		
90.0	185.99	186.92	196.22	209.24	223.19	236.21	246.44	252.02	252.95		
105.0	185.99	186.92	196.22	210.17	225.98	239.93	252.95	260.38	260.38		
120.0	185.99	185.99	196.22	210.17	226.91	242.72	255.74	264.10	265.03		
135.0	185.99	187.87	198.20	213.23	229.20	246.11	260.20	269.59	269.59		
150.0	185.99	185.99	196.22	210.17	239.93	243.65	256.67	266.89	266.89		
165.0	185.99	185.99	196.22	210.17	226.91	240.86	253.88	264.10	264.10		
180.0	185.99	196.02	211.52	226.10	239.78	251.63	259.84	258.01	245.25		
195.0	185.99	196.98	210.73	223.55	235.46	245.54	252.87	251.04	237.30		
210.0	185.99	195.20	209.01	220.06	231.11	237.55	243.08	241.23	230.18		
225.0	185.99	196.17	206.35	217.45	223.93	229.48	232.26	229.48	218.38		
240.0	185.99	195.24	204.50	212.82	217.45	220.23	220.23	216.52	205.42		
255.0	185.99	194.36	203.66	209.24	212.03	212.96	210.17	204.59	194.36		
270.0	185.99	193.43	200.87	206.45	206.45	206.45	203.66	199.01	187.85		
285.0	185.99	193.43	199.94	203.66	203.66	201.80	198.08	193.43	190.64		
300.0	185.99	192.50	197.15	200.87	199.94	198.08	193.43	188.78	179.48		
315.0	185.99	193.50	198.20	201.02	200.08	198.20	195.38	191.63	181.29		
330.0	185.99	191.57	196.22	199.01	198.08	196.22	192.50	187.85	178.55		
345.0	185.99	193.43	197.15	199.01	198.08	196.22	193.43	188.78	179.48		
360.0	185.99	185.08	190.55	196.93	199.66	199.66	197.84	195.11	192.37		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	181.43	169.58	156.81	139.49	117.61	96.64	77.50	58.35	42.85		
15.0	184.16	174.08	159.42	141.10	117.27	96.20	75.13	57.72	41.23		
30.0	192.43	180.46	164.81	143.64	119.70	94.84	73.66	55.24	40.51		
45.0	203.57	190.62	172.11	149.90	122.14	94.38	73.10	54.59	38.86		
60.0	215.60	202.64	184.14	156.38	123.99	94.38	70.32	52.74	36.09		
75.0	232.49	216.68	195.29	162.74	126.47	93.92	68.82	51.15	35.34		
90.0	242.72	226.91	203.66	167.39	129.26	92.06	67.89	49.29	35.34		
105.0	251.09	233.42	206.45	168.32	127.40	92.06	66.03	49.29	35.34		
120.0	253.88	237.14	208.31	170.18	128.33	90.20	65.10	48.36	34.41		
135.0	258.32	239.53	212.29	171.90	128.69	90.18	66.69	49.78	34.76		
150.0	255.74	236.21	211.10	171.11	129.26	91.13	66.03	49.29	35.34		
165.0	252.02	235.28	209.24	172.04	130.19	92.99	66.03	50.22	35.34		
180.0	227.02	201.49	166.84	126.73	89.35	64.73	48.32	34.65	20.97		
195.0	221.72	199.73	164.00	125.52	90.70	66.88	49.47	34.82	21.99		
210.0	214.53	191.51	161.13	125.22	92.07	68.13	50.64	34.99	23.02		
225.0	205.42	183.21	156.38	124.92	94.38	71.25	52.74	37.01	24.98		
240.0	192.47	173.03	148.98	121.22	95.31	72.17	55.52	38.86	25.91		
255.0	182.27	166.46	142.28	119.03	93.92	73.47	55.80	52.08	26.97		
270.0	175.76	159.95	139.49	133.91	93.92	74.40	56.73	40.92	27.90		
285.0	171.11	155.30	135.77	114.38	92.99	74.40	57.66	40.92	28.83		
300.0	169.25	154.37	135.77	115.31	93.92	75.33	57.66	41.85	28.83		
315.0	169.08	154.05	136.20	115.54	95.81	76.09	59.18	42.27	29.12		
330.0	167.39	153.44	135.77	115.31	93.92	75.33	58.59	41.85	28.83		
345.0	168.32	153.44	135.77	116.24	93.92	75.33	57.66	41.85	28.83		
360.0	181.43	169.58	156.81	139.49	117.61	96.64	77.50	58.35	42.85		

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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	29.17	20.97	18.23	15.50	14.59	14.59	12.76	11.85	10.94		
15.0	28.40	21.07	18.32	15.58	14.66	13.74	12.83	11.91	10.08		
30.0	27.62	20.26	17.49	14.73	13.81	13.81	12.89	11.97	10.13		
45.0	25.91	19.43	16.66	14.81	13.88	13.88	12.95	12.03	11.10		
60.0	24.98	18.51	15.73	14.81	13.88	13.88	13.88	12.03	11.10		
75.0	24.18	18.60	15.81	14.88	13.95	13.95	13.02	12.09	11.16		
90.0	23.25	17.67	14.88	14.88	13.95	13.95	13.02	12.09	11.16		
105.0	22.32	16.74	14.88	14.88	13.95	13.95	13.02	12.09	11.16		
120.0	22.32	16.74	14.88	13.95	13.95	13.95	13.02	12.09	11.16		
135.0	22.54	16.91	15.03	14.09	13.15	14.09	13.15	12.21	11.27		
150.0	23.25	16.74	14.88	13.95	13.02	13.95	13.02	12.09	11.16		
165.0	23.25	16.74	14.88	13.95	13.02	13.02	13.02	12.09	10.23		
180.0	17.32	14.59	13.68	12.76	12.76	11.85	10.94	9.12	6.38		
195.0	17.41	14.66	13.74	12.83	12.83	11.91	10.99	8.25	6.41		
210.0	18.41	15.65	14.73	12.89	12.89	11.97	11.05	9.21	5.52		
225.0	18.51	15.73	14.81	13.88	13.88	12.03	12.03	9.25	7.40		
240.0	19.43	16.66	16.66	13.88	13.88	12.95	12.03	11.10	8.33		
255.0	20.46	17.67	15.81	14.88	13.95	13.02	12.09	11.16	8.37		
270.0	21.39	18.60	15.81	14.88	13.95	13.02	12.09	11.16	8.37		
285.0	21.39	18.60	15.81	14.88	14.88	13.02	12.09	11.16	8.37		
300.0	21.39	18.60	15.81	14.88	14.88	13.02	12.09	11.16	8.37		
315.0	21.60	18.79	15.97	15.03	15.03	14.09	12.21	11.27	8.45		
330.0	21.39	18.60	15.81	14.88	14.88	13.95	12.09	11.16	8.37		
345.0	21.39	18.60	15.81	14.88	14.88	13.95	12.09	11.16	8.37		
360.0	29.17	20.97	18.23	15.50	14.59	14.59	12.76	11.85	10.94		
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	7.29	4.56	1.82	0.91	1.82	0.91	0.91	0.91	0.91		
15.0	7.33	2.75	1.83	0.92	1.83	0.92	0.92	0.92	0.92		
30.0	7.37	3.68	1.84	0.92	1.84	0.92	0.92	0.92	0.92		
45.0	8.33	4.63	1.85	0.93	0.93	0.93	0.93	0.93	0.93		
60.0	8.33	4.63	1.85	0.93	1.85	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	8.37	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	8.45	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	8.37	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
180.0	3.65	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	4.63	1.85	0.00	0.00	0.00	0.93	0.93	0.93	0.93		
240.0	2.78	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	4.65	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	4.56	1.82	0.91	1.82	0.91	0.91	0.91	0.91		

Intensity data(cd)

C/γ(°)	180.0
0.0	0.91
15.0	0.92
30.0	0.92
45.0	0.93
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