
乐达凯

Client:

LumCAT: LCD-RDD-DP-15-CCT-UNV-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.246

Lamp flux(lm): 2322.7

Power (W): 29.260

Number of Lamps: 1

PF: 0.992

Length(mm): 190

Width(mm): 70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 2322.66, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 79.38

Central intensity(cd): 517.049, Maximum intensity(cd): 559.287

Angle of maximum intensity: C=30.0 γ =20.0

Beam Angle(50%Imax): [C0/180]Total=134.0

[C90/270]Total=128.0

Field angle(10%Imax): [C0/180]Total=195.6

[C90/270]Total=177.4

Maximum s/h(1/2): C0_180=1.56 C90_270=1.57

Maximum s/h(1/4): C0_180=1.64 C90_270=1.64

Up flux rate of lamp(%): 7.09%

Down flux rate of lamp(%): 92.91%

Up flux rate of LUM(%): 7.09%

Down flux rate of LUM(%): 92.91%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 66.776%

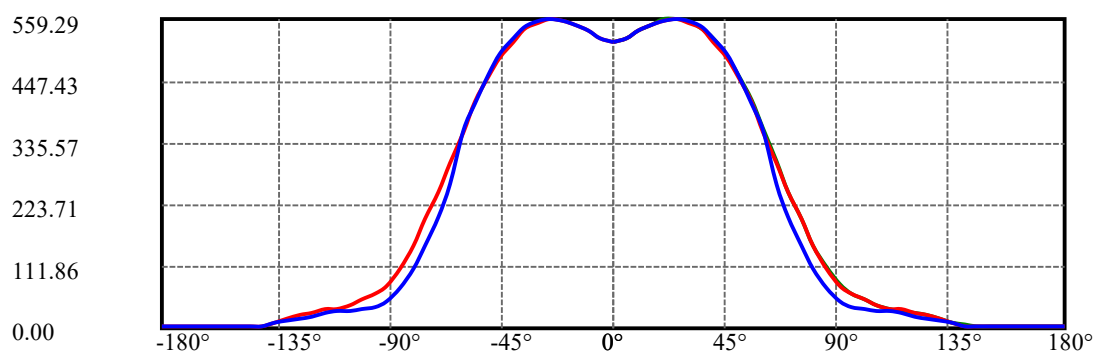
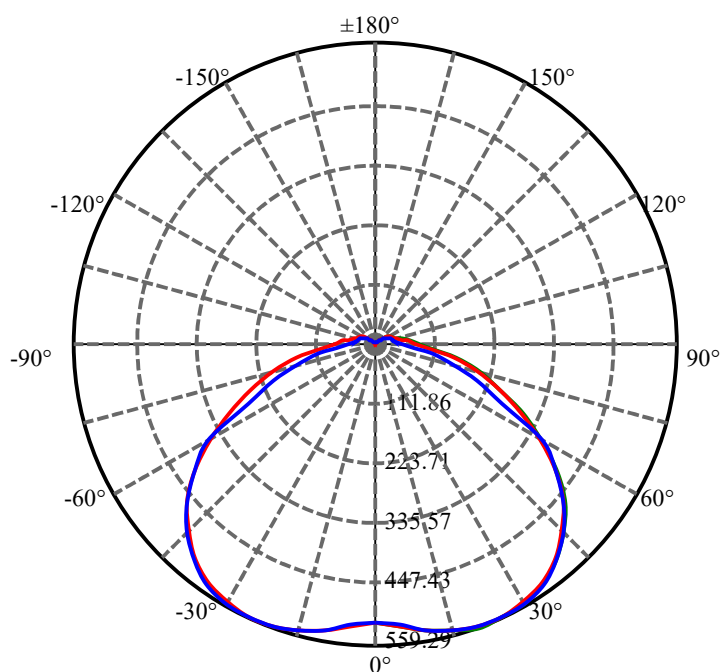
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	517.049	0.000	0	0.00%	0.00%
5.0	524.535	12.452	12.452	0.54%	0.54%
10.0	538.316	38.022	50.473	1.64%	2.17%
15.0	549.586	64.534	115.007	2.78%	4.95%
20.0	557.035	91.201	206.208	3.93%	8.88%
25.0	558.546	117.004	323.212	5.04%	13.92%
30.0	554.150	140.813	464.025	6.06%	19.98%
35.0	543.223	161.596	625.62	6.96%	26.94%
40.0	523.279	177.938	803.558	7.66%	34.60%
45.0	494.354	188.423	991.981	8.11%	42.71%
50.0	457.987	192.435	1184.416	8.29%	50.99%
55.0	411.615	189.081	1373.496	8.14%	59.13%
60.0	356.206	177.480	1550.976	7.64%	66.78%
65.0	293.887	158.039	1709.015	6.80%	73.58%
70.0	237.626	134.583	1843.597	5.79%	79.37%
75.0	187.944	111.237	1954.835	4.79%	84.16%
80.0	143.071	88.570	2043.405	3.81%	87.98%
85.0	101.926	66.571	2109.976	2.87%	90.84%
90.0	73.330	47.986	2157.963	2.07%	92.91%
95.0	57.583	35.845	2193.808	1.54%	94.45%
100.0	46.123	28.179	2221.987	1.21%	95.67%
105.0	37.449	22.362	2244.349	0.96%	96.63%
110.0	33.215	18.470	2262.819	0.80%	97.42%
115.0	30.211	16.060	2278.879	0.69%	98.12%
120.0	24.557	13.314	2292.193	0.57%	98.69%
125.0	20.624	10.444	2302.637	0.45%	99.14%
130.0	15.658	7.889	2310.526	0.34%	99.48%
135.0	9.571	5.098	2315.624	0.22%	99.70%
140.0	4.900	2.679	2318.303	0.12%	99.81%
145.0	2.394	1.217	2319.52	0.05%	99.86%
150.0	2.316	0.694	2320.214	0.03%	99.89%
155.0	2.780	0.645	2320.859	0.03%	99.92%
160.0	2.818	0.587	2321.446	0.03%	99.95%
165.0	3.243	0.500	2321.945	0.02%	99.97%
170.0	3.358	0.392	2322.337	0.02%	99.99%
175.0	3.706	0.253	2322.59	0.01%	100.00%
180.0	1.853	0.066	2322.656	0.00%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	464.02	19.98%	19.98%
0-40	803.56	34.60%	34.60%
0-60	1550.98	66.78%	66.78%
0-90	2157.96	92.91%	92.91%
0-120	2292.19	98.69%	98.69%
0-180	2322.66	100.00%	100.00%
60-90	606.99	26.13%	26.13%
90-120	134.23	5.78%	5.78%
90-130	152.56	6.57%	6.57%
90-150	162.25	6.99%	6.99%
90-180	164.63	7.09%	7.09%
0-70.65	1858.13	80.00%	80.00%

ZONAL LUMEN SUMMARY

0-10	50.47
10-20	155.73
20-30	257.82
30-40	339.53
40-50	380.86
50-60	366.56
60-70	292.62
70-80	199.81
80-90	114.56
90-100	64.02
100-110	40.83
110-120	29.37
120-130	18.33
130-140	7.78
140-150	1.91
150-160	1.23
160-170	0.89
170-180	0.25



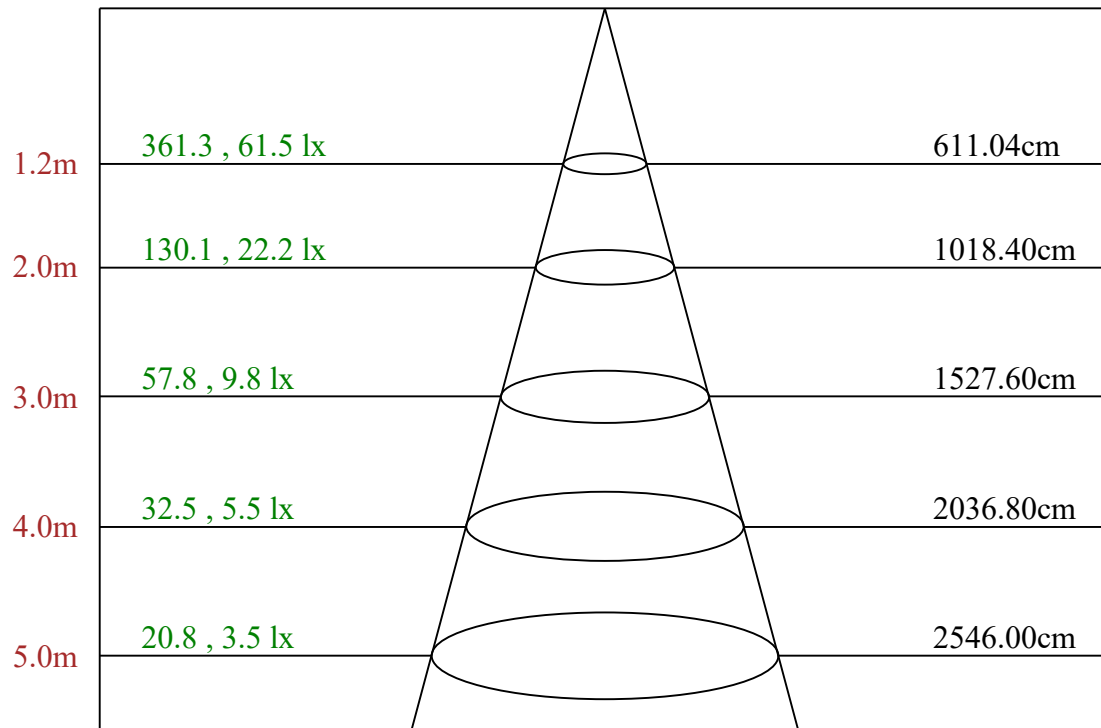
C30(Max): —————

C0/C180: —————

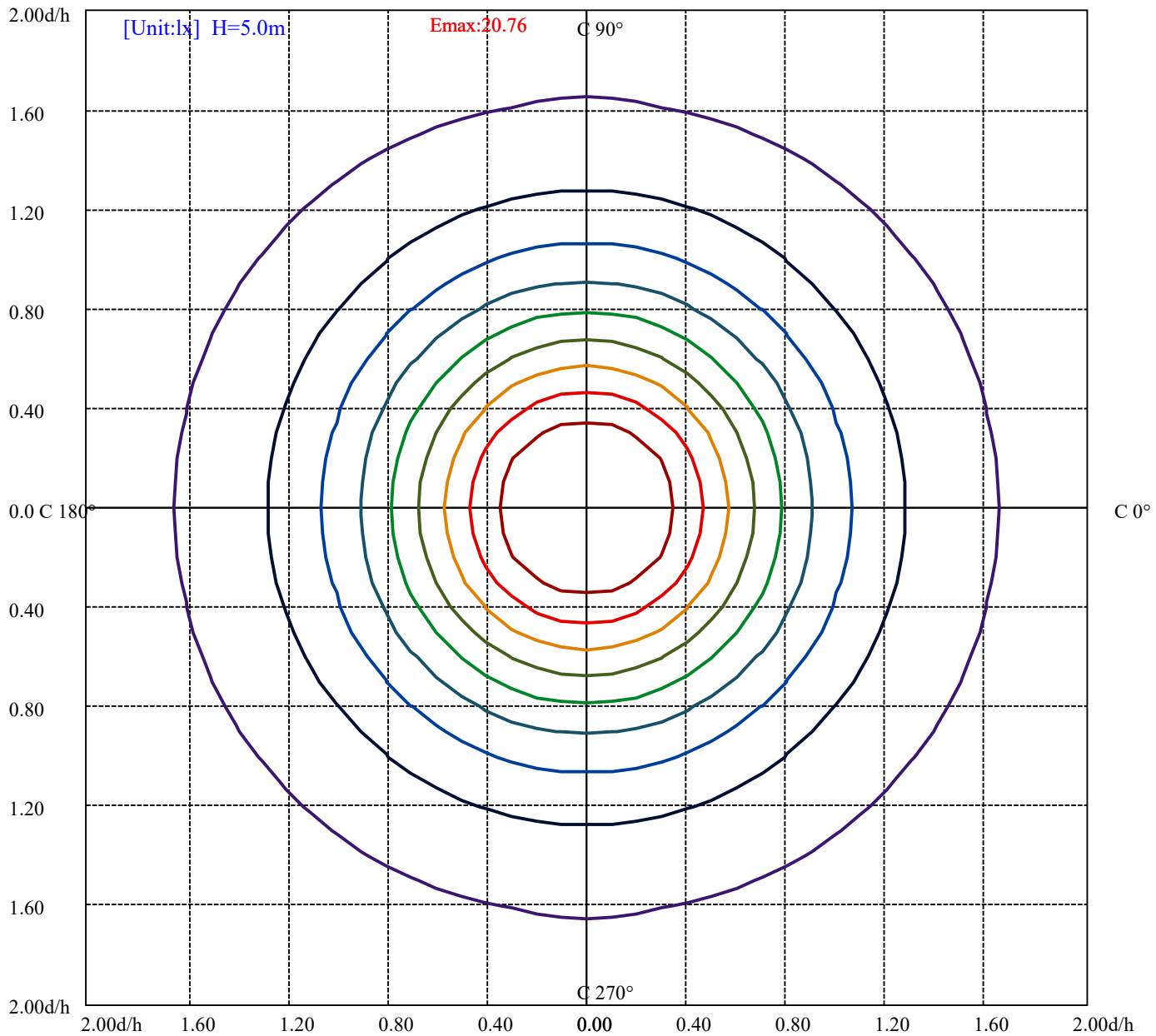
C90/C270: —————

Field angle(10%Imax):C0/180Left:122.8 Right:72.8
:C90/270Left:113.7 Right:63.7

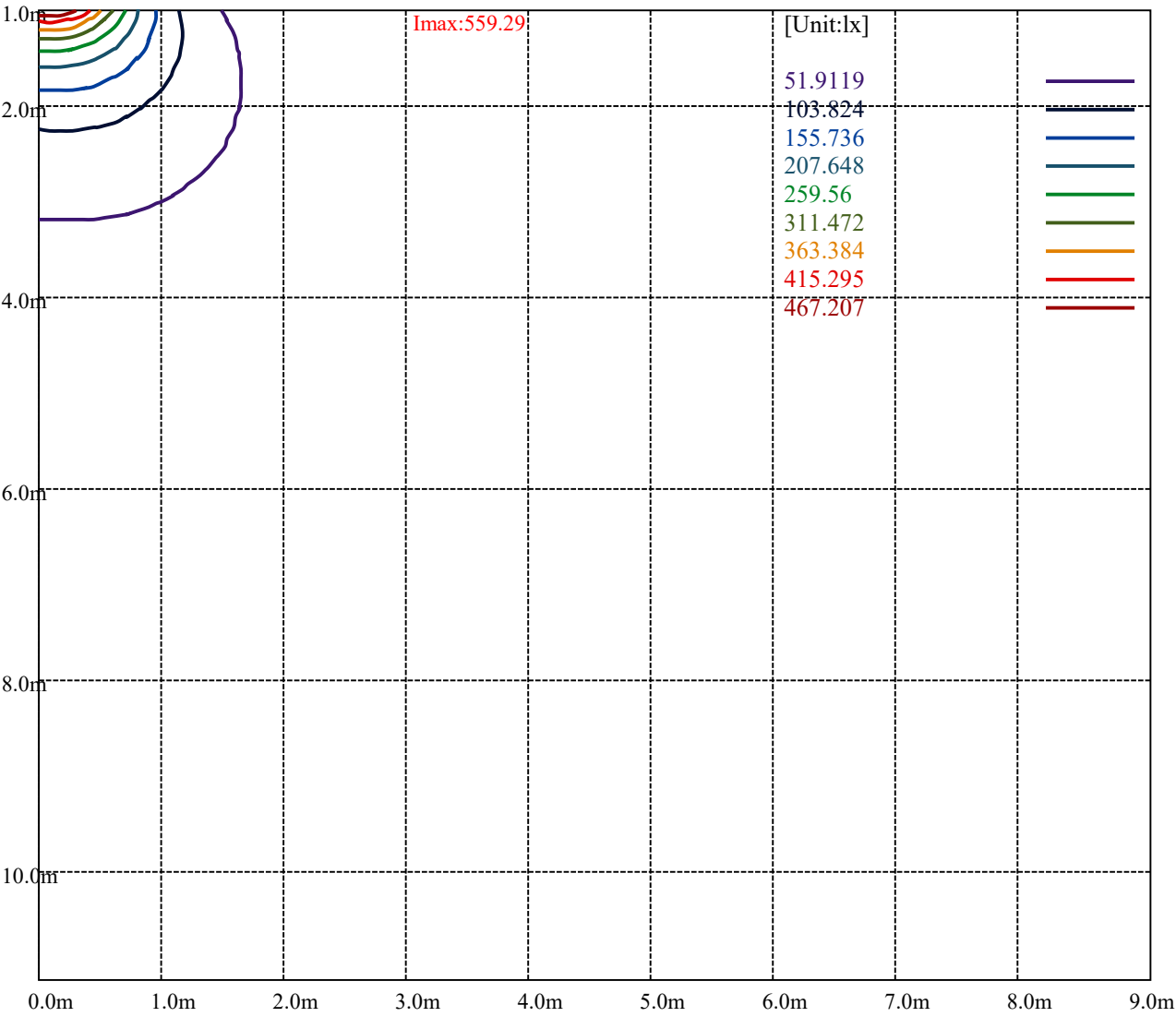
Beam Angle(50%Imax):C0/180Left:92.0 Right:42.0
:C90/270Left:89.0 Right:39.0



Max , Ave Beam angle of C30 plane 137.11



(10%Emax) 2.076476	—
(20%Emax) 4.15296	—
(30%Emax) 6.22944	—
(40%Emax) 8.30592	—
(50%Emax) 10.3824	—
(60%Emax) 12.45888	—
(70%Emax) 14.53532	—
(80%Emax) 16.6118	—
(90%Emax) 18.68828	—



Luminance Table

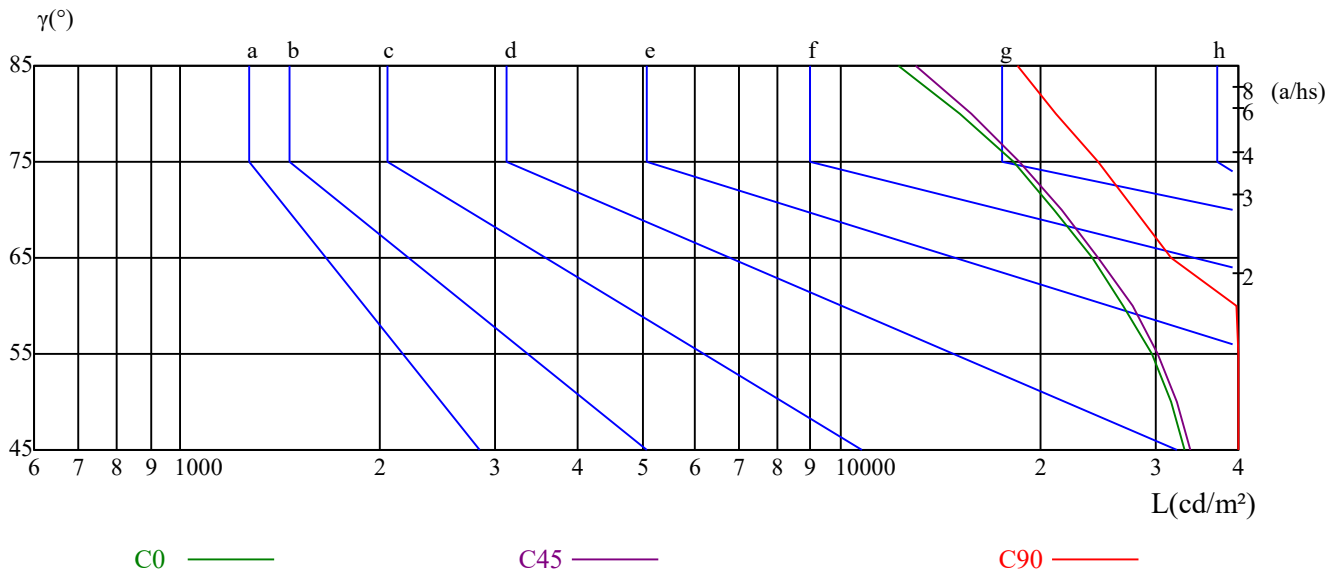
γ	45	50	55	60	65	70	75	80	85
C0	33156	31641	29579	26848	23965	21095	18236	15164	12234
C45	33850	32330	30215	27584	24581	21592	18682	15760	12945
C90	43528	42798	41132	39615	31745	27867	24565	21128	18470

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
53333	46077	53727	57126	43866	57233	92136	62915	94760

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	0.96	0.96	0.96	0.93
1	1.00	0.95	0.90	0.97	0.92	0.88	0.91	0.87	0.84	0.86	0.83	0.80	0.81	0.79	0.77	0.74
2	0.86	0.78	0.72	0.83	0.76	0.70	0.78	0.73	0.68	0.74	0.69	0.65	0.70	0.66	0.63	0.60
3	0.74	0.66	0.59	0.72	0.64	0.58	0.68	0.61	0.56	0.64	0.59	0.54	0.61	0.56	0.52	0.49
4	0.65	0.56	0.49	0.64	0.55	0.48	0.60	0.53	0.47	0.57	0.50	0.45	0.54	0.48	0.44	0.41
5	0.58	0.48	0.41	0.56	0.47	0.41	0.53	0.46	0.40	0.51	0.44	0.39	0.48	0.42	0.38	0.35
6	0.52	0.42	0.36	0.50	0.42	0.35	0.48	0.40	0.34	0.45	0.39	0.33	0.43	0.37	0.33	0.30
7	0.47	0.38	0.31	0.46	0.37	0.31	0.43	0.36	0.30	0.41	0.34	0.29	0.39	0.33	0.29	0.26
8	0.42	0.34	0.27	0.41	0.33	0.27	0.39	0.32	0.27	0.38	0.31	0.26	0.36	0.30	0.25	0.23
9	0.39	0.30	0.24	0.38	0.30	0.24	0.36	0.29	0.24	0.34	0.28	0.23	0.33	0.27	0.23	0.21
10	0.36	0.27	0.22	0.35	0.27	0.22	0.33	0.26	0.21	0.32	0.25	0.21	0.30	0.25	0.20	0.19

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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	517.05	528.05	541.80	553.72	561.05	561.97	556.47	545.47	522.55		
15.0	517.05	528.07	544.60	557.46	567.56	567.56	563.89	554.70	531.74		
30.0	517.05	529.95	546.54	559.44	570.50	573.27	570.50	560.37	540.09		
45.0	517.05	528.09	545.57	560.29	569.49	574.09	570.41	563.05	543.73		
60.0	517.05	526.31	543.92	556.89	568.94	575.42	573.57	567.09	548.55		
75.0	517.05	526.38	544.11	557.18	567.45	573.98	572.11	564.65	546.91		
90.0	517.05	524.53	541.36	555.38	564.73	571.28	569.41	560.06	542.29		
105.0	517.05	523.62	540.51	553.65	563.97	566.78	566.78	556.46	538.63		
120.0	517.05	521.73	537.66	548.90	561.07	563.88	562.95	552.64	534.85		
135.0	517.05	519.84	533.79	547.74	557.97	560.76	557.97	550.53	531.93		
150.0	517.05	521.67	533.70	546.65	558.67	558.67	554.97	546.65	529.07		
165.0	517.05	517.97	529.88	543.63	550.97	552.80	550.97	539.97	521.63		
180.0	517.05	521.63	537.22	547.30	552.80	553.72	547.30	537.22	514.30		
195.0	517.05	521.64	534.50	546.44	551.95	552.87	546.44	535.42	513.37		
210.0	517.05	523.50	534.56	543.78	551.15	550.23	546.54	534.56	515.21		
225.0	517.05	521.65	532.69	540.97	548.33	547.41	542.81	530.85	509.69		
240.0	517.05	522.61	532.80	542.07	546.70	548.55	542.07	530.02	507.78		
255.0	517.05	523.58	533.85	544.11	547.85	547.85	543.18	530.11	507.72		
270.0	517.05	522.66	534.81	542.29	546.03	546.03	541.36	527.33	504.89		
285.0	517.05	526.43	536.75	544.26	549.89	548.02	541.45	528.31	524.56		
300.0	517.05	524.54	536.72	546.09	546.09	548.90	542.34	528.29	504.87		
315.0	517.05	526.35	538.44	548.67	552.39	552.39	543.09	529.14	506.82		
330.0	517.05	530.00	542.02	552.20	556.82	554.97	546.65	531.85	508.72		
345.0	517.05	528.05	541.80	550.97	556.47	553.72	546.38	532.63	508.80		
360.0	517.05	528.05	541.80	553.72	561.05	561.97	556.47	545.47	522.55		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	494.13	458.38	414.37	358.45	303.45	248.44	197.10	148.51	108.18		
15.0	505.11	469.29	421.54	366.43	306.74	251.64	200.21	150.61	108.37		
30.0	512.44	474.65	428.57	374.19	311.52	253.46	200.92	153.92	111.52		
45.0	514.29	479.33	430.57	373.53	312.81	254.84	203.32	154.56	111.32		
60.0	521.68	485.54	440.14	382.69	319.68	259.45	206.63	160.30	115.83		
75.0	519.85	483.45	435.85	377.99	307.06	246.39	192.26	143.73	101.73		
90.0	514.24	478.71	433.83	356.23	278.63	215.05	163.62	117.81	80.41		
105.0	511.42	475.76	429.78	361.28	289.02	223.33	171.72	128.56	90.08		
120.0	508.62	474.90	430.87	377.48	317.54	255.71	203.26	157.36	115.21		
135.0	505.89	471.48	428.70	376.63	318.97	264.10	212.96	164.60	121.82		
150.0	502.25	469.88	429.18	377.38	319.11	262.69	214.59	162.79	122.09		
165.0	496.88	462.96	420.79	370.37	313.53	261.27	209.94	162.27	117.34		
180.0	485.88	451.04	405.20	352.03	296.11	244.77	196.19	148.51	105.43		
195.0	486.74	449.09	405.92	349.90	296.64	243.37	193.78	147.86	104.70		
210.0	486.63	448.85	403.68	349.31	294.01	241.47	194.47	148.39	106.91		
225.0	482.09	447.13	401.13	348.69	293.48	239.20	191.36	145.36	106.72		
240.0	479.98	442.92	394.74	339.14	287.25	230.73	186.25	141.77	103.78		
255.0	477.85	442.38	391.99	332.25	269.72	214.66	167.06	155.86	87.73		
270.0	476.84	436.64	382.41	362.78	239.36	185.13	138.38	96.30	65.45		
285.0	475.76	436.35	384.74	311.54	250.55	193.31	149.20	106.98	73.19		
300.0	474.90	437.43	387.79	336.27	278.19	222.93	174.22	130.20	93.67		
315.0	475.20	436.14	389.65	337.57	282.70	231.56	180.41	137.63	99.50		
330.0	478.20	439.35	394.95	338.53	284.89	231.24	181.29	135.97	98.04		
345.0	477.63	440.04	392.37	338.28	282.36	228.27	181.52	133.85	97.18		
360.0	494.13	458.38	414.37	358.45	303.45	248.44	197.10	148.51	108.18		

乐达凯 LCD-RDD-DP-15-CCT-UNV-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	77.92	63.26	51.34	41.25	37.59	33.92	29.34	25.67	18.34
15.0	78.06	63.37	51.43	41.33	36.74	33.06	29.39	26.63	19.29
30.0	81.11	64.52	51.61	41.47	36.87	33.18	29.49	24.88	18.43
45.0	81.88	64.40	51.52	42.32	36.80	32.20	27.60	22.08	18.40
60.0	85.25	64.86	48.18	37.06	31.50	28.72	21.31	18.53	14.83
75.0	71.86	54.13	40.13	30.80	28.93	28.93	19.60	16.80	14.93
90.0	54.23	41.14	34.59	31.79	29.92	29.92	20.57	16.83	14.96
105.0	61.93	45.98	35.66	30.97	29.09	29.09	19.71	16.89	15.01
120.0	81.49	59.01	44.02	32.78	29.04	28.10	20.61	16.86	14.99
135.0	87.41	66.96	52.08	39.99	33.48	30.69	24.18	20.46	16.74
150.0	87.87	68.45	54.57	44.40	37.00	33.30	28.67	24.97	19.42
165.0	84.34	65.09	52.25	42.17	34.84	31.17	28.42	25.67	19.25
180.0	75.17	61.42	49.50	41.25	34.84	32.09	28.42	24.75	18.34
195.0	76.23	61.53	49.59	41.33	34.90	32.14	28.47	24.80	17.45
210.0	77.42	61.75	50.69	40.55	35.02	32.26	28.57	23.96	16.59
225.0	78.20	63.48	50.60	41.40	35.88	31.28	30.36	21.16	15.64
240.0	74.13	57.45	54.67	35.21	31.50	26.87	21.31	16.68	12.97
255.0	62.53	47.60	36.40	30.80	28.93	26.13	18.67	15.87	12.13
270.0	45.81	38.33	33.66	31.79	30.85	28.98	18.70	15.89	12.15
285.0	51.61	42.23	33.78	30.97	30.03	28.15	18.77	15.95	12.20
300.0	65.57	50.58	38.40	31.85	29.04	24.35	18.73	15.92	12.18
315.0	72.54	57.66	45.57	36.27	32.55	27.90	22.32	18.60	12.09
330.0	74.92	60.12	49.02	40.70	36.07	31.45	27.75	22.20	14.80
345.0	72.42	58.67	47.67	40.34	35.75	31.17	28.42	22.92	14.67
360.0	77.92	63.26	51.34	41.25	37.59	33.92	29.34	25.67	18.34
C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	9.17	4.58	1.83	2.75	3.67	3.67	3.67	3.67	3.67
15.0	10.10	4.59	2.76	2.76	3.67	3.67	3.67	3.67	3.67
30.0	11.98	5.53	2.76	2.76	3.69	3.69	3.69	3.69	3.69
45.0	11.96	5.52	2.76	2.76	3.68	3.68	3.68	3.68	3.68
60.0	10.19	5.56	2.78	2.78	3.71	3.71	3.71	3.71	3.71
75.0	10.27	5.60	2.80	2.80	3.73	3.73	3.73	3.73	3.73
90.0	10.28	5.61	2.80	2.80	3.74	3.74	3.74	3.74	3.74
105.0	10.32	5.63	2.82	2.82	3.75	3.75	3.75	3.75	3.75
120.0	10.30	5.62	2.81	2.81	3.75	3.75	3.75	3.75	3.75
135.0	11.16	5.58	3.72	2.79	3.72	3.72	3.72	3.72	3.72
150.0	12.95	7.40	3.70	2.77	3.70	4.62	3.70	3.70	3.70
165.0	11.92	7.33	3.67	2.75	3.67	3.67	3.67	3.67	3.67
180.0	9.17	3.67	1.83	1.83	1.83	1.83	2.75	3.67	3.67
195.0	8.27	4.59	1.84	1.84	1.84	1.84	2.76	3.67	3.67
210.0	10.14	9.22	1.84	1.84	1.84	1.84	2.76	2.76	3.69
225.0	8.28	4.60	1.84	1.84	1.84	1.84	2.76	2.76	3.68
240.0	8.34	4.63	1.85	1.85	1.85	1.85	2.78	2.78	3.71
255.0	8.40	3.73	1.87	1.87	1.87	1.87	2.80	2.80	3.73
270.0	8.41	3.74	1.87	1.87	1.87	1.87	2.80	2.80	3.74
285.0	7.51	2.82	1.88	1.88	1.88	1.88	2.82	3.75	3.75
300.0	7.49	2.81	1.87	1.87	1.87	1.87	2.81	2.81	3.75
315.0	7.44	2.79	1.86	1.86	1.86	1.86	2.79	2.79	3.72
330.0	8.32	2.77	1.85	1.85	1.85	1.85	2.77	2.77	3.70
345.0	7.33	3.67	1.83	1.83	1.83	1.83	2.75	2.75	3.67
360.0	9.17	4.58	1.83	2.75	3.67	3.67	3.67	3.67	3.67

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	3.67
15.0	3.67
30.0	3.69
45.0	3.68
60.0	3.71
75.0	3.73
90.0	3.74
105.0	3.75
120.0	3.75
135.0	3.72
150.0	3.70
165.0	3.67
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	3.67