
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.100

Lamp flux(lm): 831.0

Power (W): 11.770

Number of Lamps: 1

PF: 0.978

Length(mm): -70

Width(mm): -70

Phm Type: C

Height(mm): 40

Photometric Results

Lumens(lm): 831.03, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 70.61

Central intensity(cd): 170.316, Maximum intensity(cd): 209.480

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=181.0

[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(%): 7.13%

Down flux rate of lamp(%): 92.87%

Up flux rate of LUM(%): 7.13%

Down flux rate of LUM(%): 92.87%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 69.456%

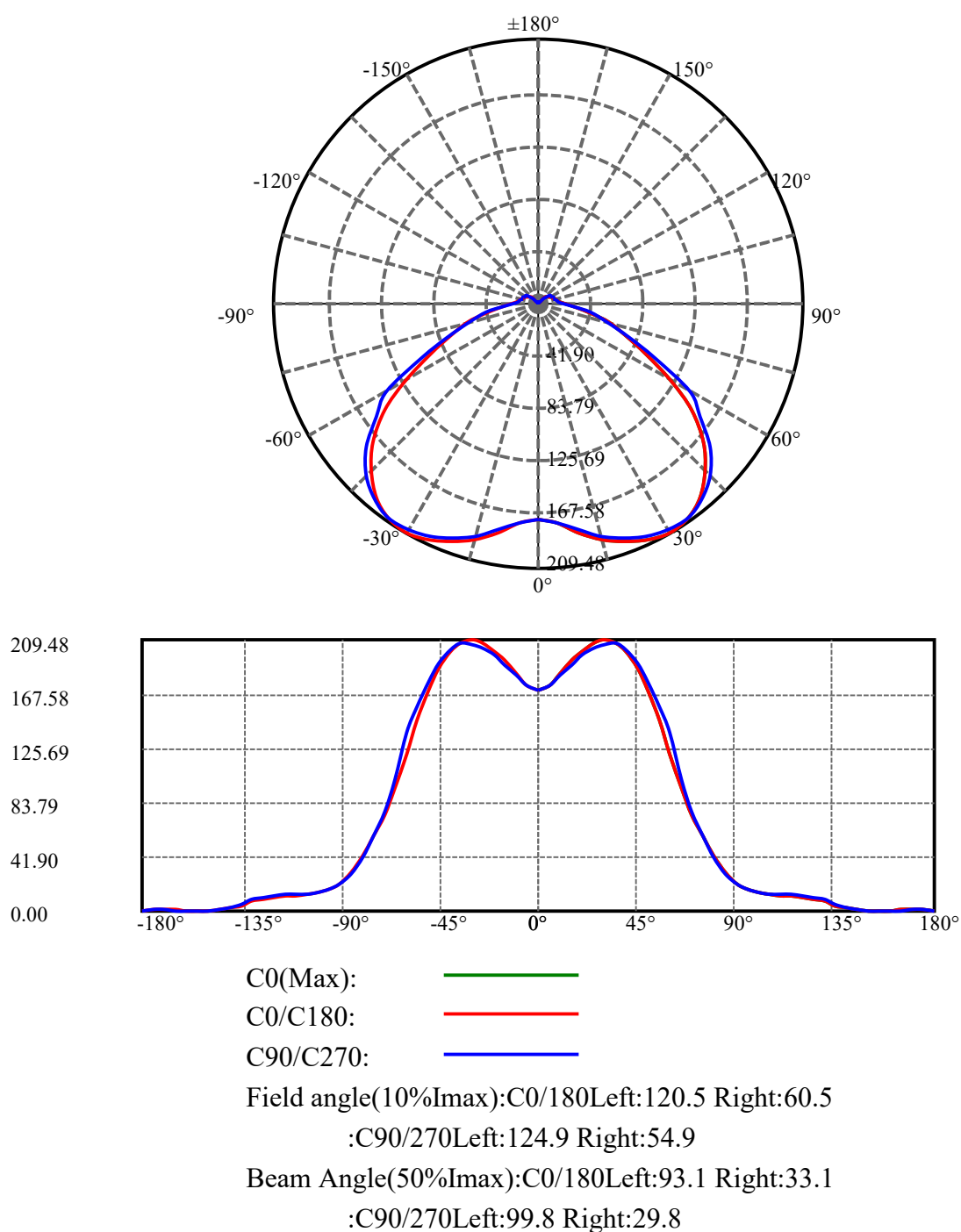
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	170.316	0.000	0	0.00%	0.00%
5.0	174.137	4.118	4.118	0.50%	0.50%
10.0	182.159	12.746	16.864	1.53%	2.03%
15.0	190.571	22.110	38.974	2.66%	4.69%
20.0	198.176	32.038	71.012	3.86%	8.55%
25.0	203.081	42.084	113.096	5.06%	13.61%
30.0	206.368	51.816	164.913	6.24%	19.84%
35.0	206.767	60.837	225.749	7.32%	27.17%
40.0	201.413	68.102	293.851	8.19%	35.36%
45.0	190.454	72.557	366.409	8.73%	44.09%
50.0	175.133	73.872	440.281	8.89%	52.98%
55.0	154.098	71.586	511.866	8.61%	61.59%
60.0	128.542	65.331	577.198	7.86%	69.46%
65.0	100.120	55.588	632.786	6.69%	76.15%
70.0	75.863	44.560	677.346	5.36%	81.51%
75.0	57.132	34.763	712.109	4.18%	85.69%
80.0	42.465	26.649	738.758	3.21%	88.90%
85.0	29.069	19.437	758.195	2.34%	91.24%
90.0	20.612	13.603	771.798	1.64%	92.87%
95.0	16.367	10.125	781.923	1.22%	94.09%
100.0	14.514	8.391	790.314	1.01%	95.10%
105.0	13.086	7.385	797.7	0.89%	95.99%
110.0	12.586	6.710	804.41	0.81%	96.80%
115.0	12.239	6.286	810.696	0.76%	97.55%
120.0	11.467	5.763	816.459	0.69%	98.25%
125.0	10.311	5.034	821.493	0.61%	98.85%
130.0	8.303	4.047	825.54	0.49%	99.34%
135.0	5.292	2.747	828.287	0.33%	99.67%
140.0	2.588	1.459	829.746	0.18%	99.85%
145.0	0.888	0.580	830.326	0.07%	99.92%
150.0	0.463	0.199	830.525	0.02%	99.94%
155.0	0.463	0.117	830.642	0.01%	99.95%
160.0	0.502	0.101	830.743	0.01%	99.97%
165.0	0.734	0.102	830.845	0.01%	99.98%
170.0	0.927	0.099	830.944	0.01%	99.99%
175.0	0.927	0.066	831.01	0.01%	100.00%
180.0	0.463	0.017	831.027	0.00%	100.00%

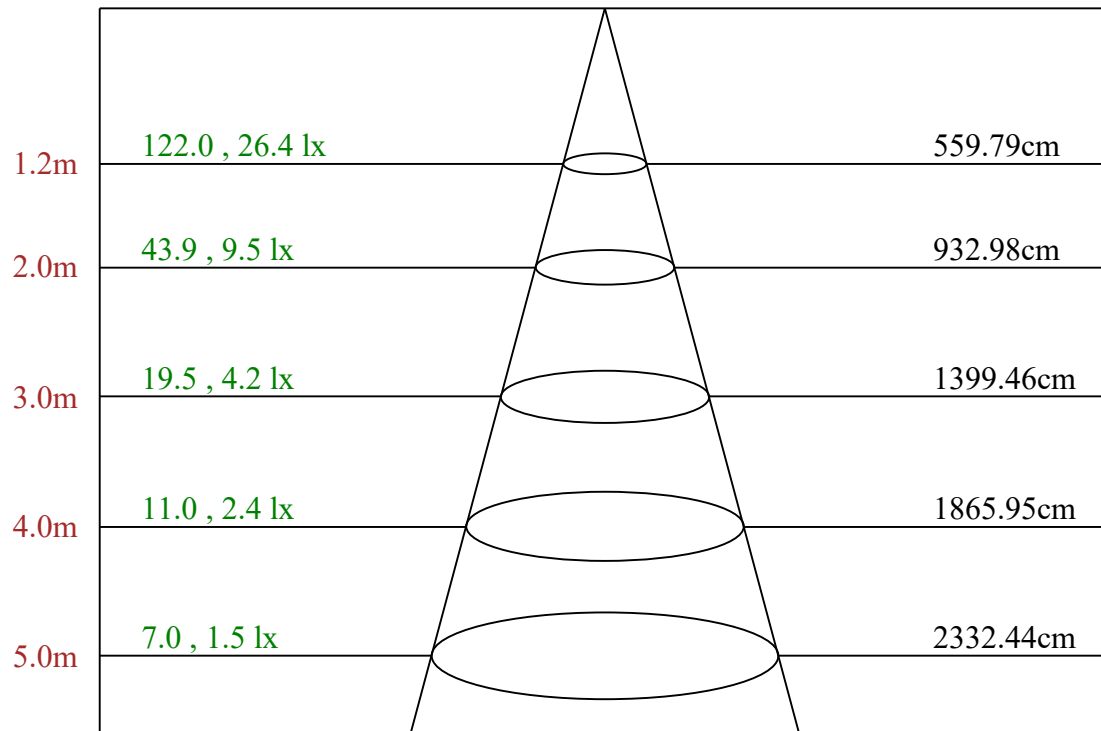
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	164.91	19.84%	19.84%
0-40	293.85	35.36%	35.36%
0-60	577.20	69.46%	69.46%
0-90	771.80	92.87%	92.87%
0-120	816.46	98.25%	98.25%
0-180	831.03	100.00%	100.00%
60-90	194.60	23.42%	23.42%
90-120	44.66	5.37%	5.37%
90-130	53.74	6.47%	6.47%
90-150	58.73	7.07%	7.07%
90-180	59.21	7.13%	7.13%
0-68.59	664.82	80.00%	80.00%

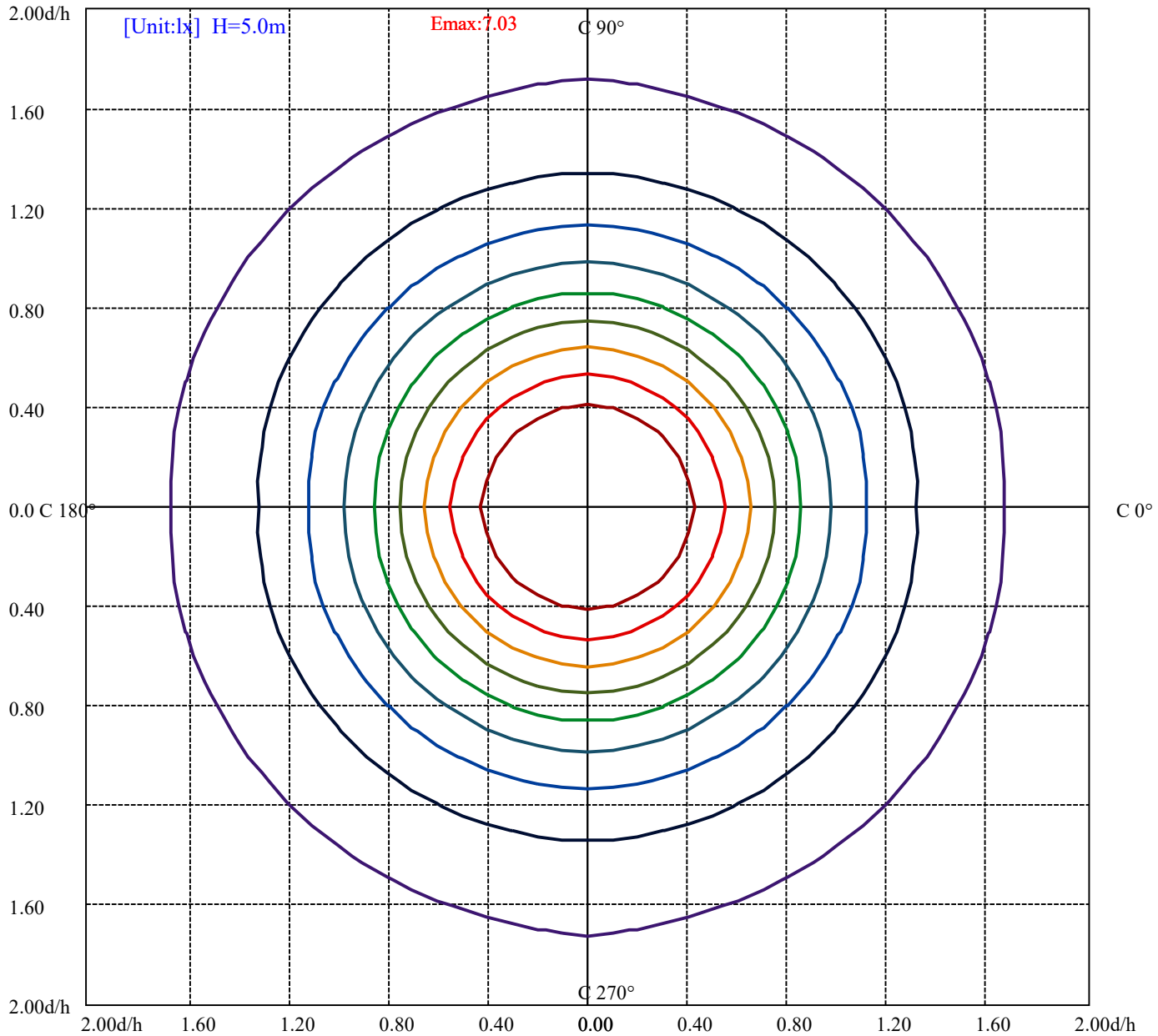
ZONAL LUMEN SUMMARY

0-10	16.86
10-20	54.15
20-30	93.90
30-40	128.94
40-50	146.43
50-60	136.92
60-70	100.15
70-80	61.41
80-90	33.04
90-100	18.52
100-110	14.10
110-120	12.05
120-130	9.08
130-140	4.21
140-150	0.78
150-160	0.22
160-170	0.20
170-180	0.07

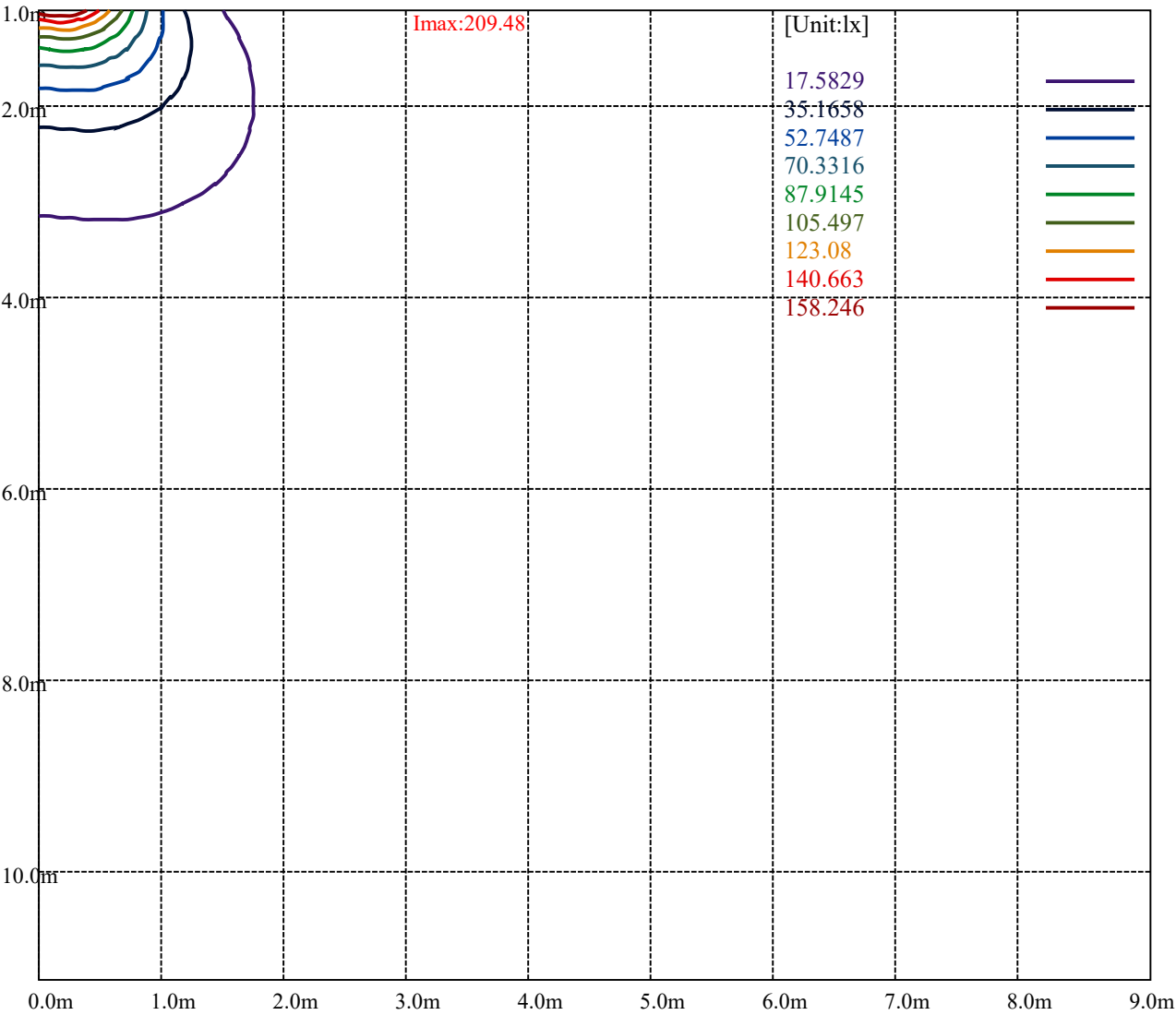




Max , Ave Beam angle of C0 plane 133.59



(10%Emax) 0.703316	
(20%Emax) 1.406632	
(30%Emax) 2.109948	
(40%Emax) 2.813264	
(50%Emax) 3.51658	
(60%Emax) 4.21988	
(70%Emax) 4.9232	
(80%Emax) 5.62652	
(90%Emax) 6.32984	



Luminance Table

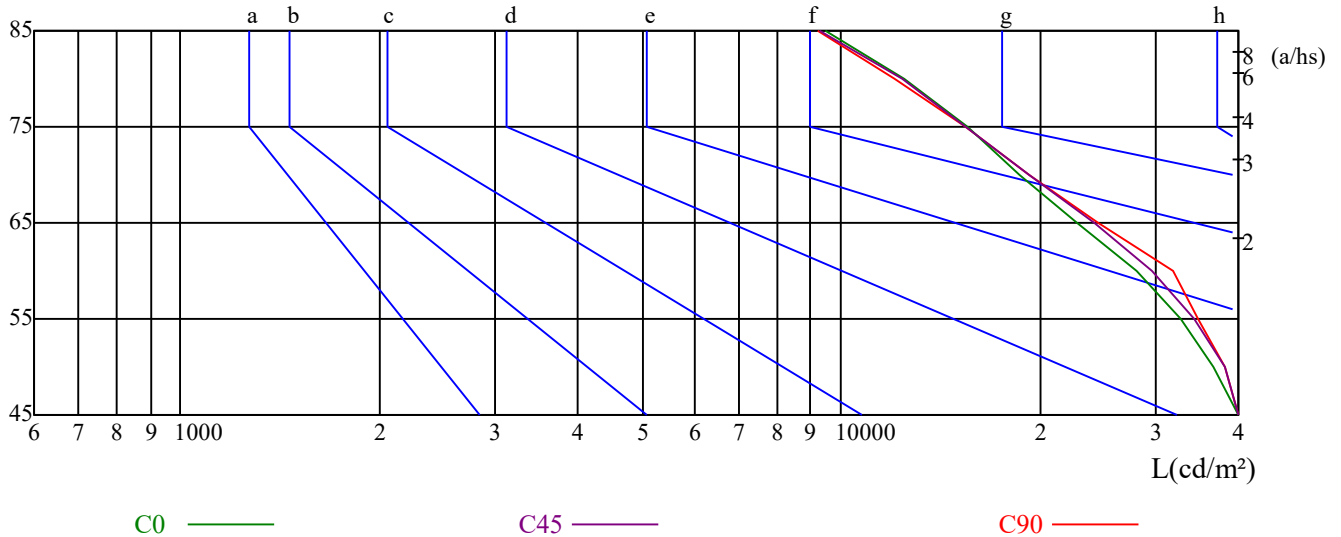
γ	45	50	55	60	65	70	75	80	85
C0	39910	36777	32781	27957	22747	18689	15505	12496	9473
C45	40694	38046	34388	29540	24200	19218	15467	12363	9310
C90	40782	38286	34841	31778	24474	19333	15467	12090	9233

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
58239	62659	61959	57607	57464	57466	88250	86017	86729

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	0.47	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	0.49	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	170.32	169.41	174.87	180.34	182.16	183.07	181.25	178.51	175.78		
15.0	170.32	169.40	175.81	182.22	185.88	185.88	184.97	183.14	177.64		
30.0	170.32	170.32	176.76	183.21	188.73	190.57	190.57	188.73	185.05		
45.0	170.32	169.40	176.76	185.05	192.41	195.17	197.01	197.94	195.17		
60.0	170.32	169.39	177.72	187.90	196.23	201.79	206.42	209.19	206.42		
75.0	170.32	170.32	179.62	190.79	201.03	210.34	216.85	221.50	220.57		
90.0	170.32	170.32	179.62	191.72	204.75	216.85	225.23	231.74	231.74		
105.0	170.32	170.32	179.62	192.65	206.61	220.57	231.74	238.26	239.19		
120.0	170.32	170.32	180.55	192.65	208.47	222.44	234.53	242.91	242.91		
135.0	170.32	172.20	181.61	195.72	210.78	225.83	238.07	247.48	247.48		
150.0	170.32	170.32	179.62	193.58	219.64	223.37	235.46	244.77	244.77		
165.0	170.32	170.32	179.62	192.65	207.54	221.50	233.60	241.98	241.98		
180.0	170.32	179.42	193.09	206.75	219.50	230.43	237.71	235.89	224.05		
195.0	170.32	180.39	192.29	204.20	216.10	225.26	231.67	229.84	217.93		
210.0	170.32	179.52	191.49	201.62	211.74	218.19	222.79	220.95	210.82		
225.0	170.32	178.60	188.73	197.94	204.38	209.90	211.74	209.90	198.86		
240.0	170.32	178.65	186.98	194.38	199.01	201.79	201.79	199.01	188.83		
255.0	170.32	178.69	186.14	191.72	194.51	194.51	192.65	188.00	178.69		
270.0	170.32	177.76	184.28	188.93	189.86	188.93	187.07	182.42	172.18		
285.0	170.32	176.83	182.42	186.14	186.14	185.21	181.48	176.83	174.97		
300.0	170.32	176.83	180.55	184.28	184.28	181.48	177.76	173.11	164.73		
315.0	170.32	177.84	182.55	184.43	183.49	181.61	178.79	175.02	165.61		
330.0	170.32	175.90	180.55	182.42	181.48	179.62	176.83	172.18	163.80		
345.0	170.32	176.83	180.55	182.42	181.48	179.62	176.83	173.11	164.73		
360.0	170.32	169.41	174.87	180.34	182.16	183.07	181.25	178.51	175.78		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	166.67	155.74	142.99	127.51	107.47	88.35	70.13	53.74	39.16		
15.0	169.40	159.33	145.59	129.11	108.05	87.91	69.59	52.19	37.54		
30.0	175.84	165.71	150.98	131.65	109.55	87.46	67.21	51.56	36.83		
45.0	185.97	174.00	157.43	137.17	111.40	85.62	66.29	49.71	34.98		
60.0	198.09	186.05	168.47	143.47	113.85	86.08	63.87	48.13	33.32		
75.0	213.13	199.17	178.69	149.84	116.34	86.55	63.29	47.47	32.57		
90.0	222.44	207.54	186.14	153.56	118.20	84.69	62.36	45.60	32.57		
105.0	229.88	213.13	188.93	154.49	117.27	84.69	61.43	45.60	31.64		
120.0	233.60	216.85	190.79	156.36	117.27	82.83	60.49	44.67	31.64		
135.0	237.13	219.25	193.84	157.14	117.62	82.81	61.16	46.11	31.99		
150.0	234.53	216.85	193.58	156.36	119.13	83.76	60.49	45.60	31.64		
165.0	230.81	214.99	191.72	157.29	119.13	85.62	60.49	46.53	32.57		
180.0	208.57	183.98	152.10	115.67	81.97	59.20	44.63	31.88	20.04		
195.0	203.28	182.22	150.17	115.38	83.33	61.35	45.78	32.05	20.14		
210.0	196.09	175.84	148.22	115.08	84.70	62.60	46.03	32.22	21.17		
225.0	186.89	167.55	142.70	113.24	85.62	64.44	47.87	34.06	22.10		
240.0	175.87	159.21	136.07	111.08	87.01	65.72	49.98	36.10	24.07		
255.0	167.52	151.70	130.30	108.89	86.55	67.94	51.19	47.47	25.13		
270.0	161.01	146.12	127.50	122.85	85.62	67.94	52.12	37.23	25.13		
285.0	156.36	142.40	124.71	105.17	85.62	67.94	53.05	37.23	26.06		
300.0	154.49	141.47	124.71	105.17	86.55	68.87	53.05	38.16	26.99		
315.0	155.26	142.09	125.15	106.33	88.45	70.57	53.64	39.52	27.29		
330.0	153.56	141.47	123.78	105.17	86.55	68.87	53.98	38.16	26.99		
345.0	154.49	140.53	123.78	107.03	85.62	68.87	53.05	38.16	26.06		
360.0	166.67	155.74	142.99	127.51	107.47	88.35	70.13	53.74	39.16		

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	27.32	20.04	16.39	14.57	12.75	12.75	11.84	10.93	10.02		
15.0	26.55	19.23	16.48	14.65	12.82	12.82	11.90	10.99	9.16		
30.0	24.86	18.41	15.65	13.81	12.89	12.89	11.97	11.05	9.21		
45.0	23.94	17.49	15.65	13.81	12.89	12.89	11.97	11.05	10.13		
60.0	23.14	16.66	14.81	12.96	12.96	12.96	12.03	11.11	10.18		
75.0	22.34	16.75	14.89	13.03	13.03	13.03	12.10	11.17	10.24		
90.0	21.41	15.82	13.96	13.03	12.10	13.03	12.10	11.17	10.24		
105.0	21.41	15.82	13.96	13.03	12.10	13.03	12.10	11.17	10.24		
120.0	21.41	15.82	13.96	13.03	12.10	12.10	12.10	11.17	9.31		
135.0	20.70	16.00	14.11	13.17	12.23	13.17	12.23	11.29	9.41		
150.0	21.41	15.82	13.96	13.03	12.10	12.10	12.10	11.17	9.31		
165.0	21.41	15.82	13.96	13.03	12.10	12.10	12.10	11.17	9.31		
180.0	15.48	13.66	12.75	11.84	11.84	10.93	10.02	8.20	5.46		
195.0	15.57	13.74	12.82	11.90	11.90	10.99	10.07	8.24	5.49		
210.0	16.57	14.73	12.89	11.97	11.97	11.05	10.13	8.29	5.52		
225.0	16.57	14.73	13.81	11.97	11.97	11.05	11.05	9.21	6.44		
240.0	17.59	15.74	14.81	12.96	12.96	12.03	11.11	9.26	7.41		
255.0	18.61	15.82	13.96	13.03	13.03	12.10	11.17	9.31	7.45		
270.0	19.54	16.75	14.89	13.03	13.03	12.10	11.17	10.24	7.45		
285.0	19.54	16.75	14.89	13.03	13.03	12.10	11.17	10.24	7.45		
300.0	19.54	16.75	14.89	13.03	13.03	12.10	11.17	10.24	7.45		
315.0	19.76	16.94	15.06	13.17	13.17	12.23	11.29	10.35	7.53		
330.0	20.48	16.75	14.89	13.03	13.03	12.10	11.17	10.24	7.45		
345.0	19.54	16.75	14.89	13.96	13.03	12.10	11.17	10.24	7.45		
360.0	27.32	20.04	16.39	14.57	12.75	12.75	11.84	10.93	10.02		
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	6.38	3.64	1.82	0.91	0.91	0.91	0.91	0.91	0.91		
15.0	6.41	2.75	0.92	0.92	0.92	0.92	0.92	0.92	0.92		
30.0	6.44	3.68	1.84	0.92	0.92	0.92	0.92	0.92	0.92		
45.0	7.37	4.60	1.84	0.92	0.92	0.92	0.92	0.92	0.92		
60.0	7.41	4.63	1.85	0.93	0.93	0.93	0.93	0.93	0.93		
75.0	7.45	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
90.0	7.45	3.72	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
105.0	7.45	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
120.0	7.45	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
135.0	7.53	4.70	1.88	0.94	0.94	0.94	0.94	0.94	0.94		
150.0	7.45	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
165.0	7.45	4.65	1.86	0.93	0.93	0.93	0.93	0.93	0.93		
180.0	2.73	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91		
195.0	2.75	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92		
210.0	2.76	1.84	0.00	0.00	0.00	0.00	0.00	0.92	0.92		
225.0	3.68	0.92	0.00	0.00	0.00	0.00	0.00	0.92	0.92		
240.0	2.78	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93		
255.0	3.72	0.93	0.00	0.00	0.00	0.00	0.00	0.93	0.93		
270.0	3.72	0.93	0.00	0.00	0.00	0.00	0.00	0.93	0.93		
285.0	3.72	0.93	0.00	0.00	0.00	0.00	0.93	0.93	0.93		
300.0	3.72	0.93	0.00	0.00	0.00	0.00	0.93	0.93	0.93		
315.0	3.76	0.94	0.00	0.00	0.00	0.94	0.94	0.94	0.94		
330.0	3.72	0.93	0.00	0.00	0.00	0.00	0.93	0.93	0.93		
345.0	3.72	0.93	0.00	0.00	0.00	0.00	0.93	0.93	0.93		
360.0	6.38	3.64	1.82	0.91	0.91	0.91	0.91	0.91	0.91		

Intensity data(cd)

Appendix Page: 12 Total:12

C/γ(°)	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