
乐达凯

Client:

LumCAT: LCD-SQD-12-CCT-UNV-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 119.980

LampCAT:

Current(A): 0.244

Lamp flux(lm): 2396.4

Power (W): 29.000

Number of Lamps: 1

PF: 0.992

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2396.44, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 82.64

Central intensity(cd): 1021.281, Maximum intensity(cd): 1021.281

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=94.2

[C90/270]Total=92.8

Field angle(10%Imax): [C0/180]Total=154.0

[C90/270]Total=153.6

Maximum s/h(1/2): C0_180=1.20 C90_270=1.19

Maximum s/h(1/4): C0_180=1.27 C90_270=1.26

Up flux rate of lamp(%): 0.43%

Down flux rate of lamp(%): 99.57%

Up flux rate of LUM(%): 0.43%

Down flux rate of LUM(%): 99.57%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 83.212%

乐达凯 LCD-SQD-12-CCT-UNV-WT

Zonal flux distribution table

Appendix Page: 2 Total:12

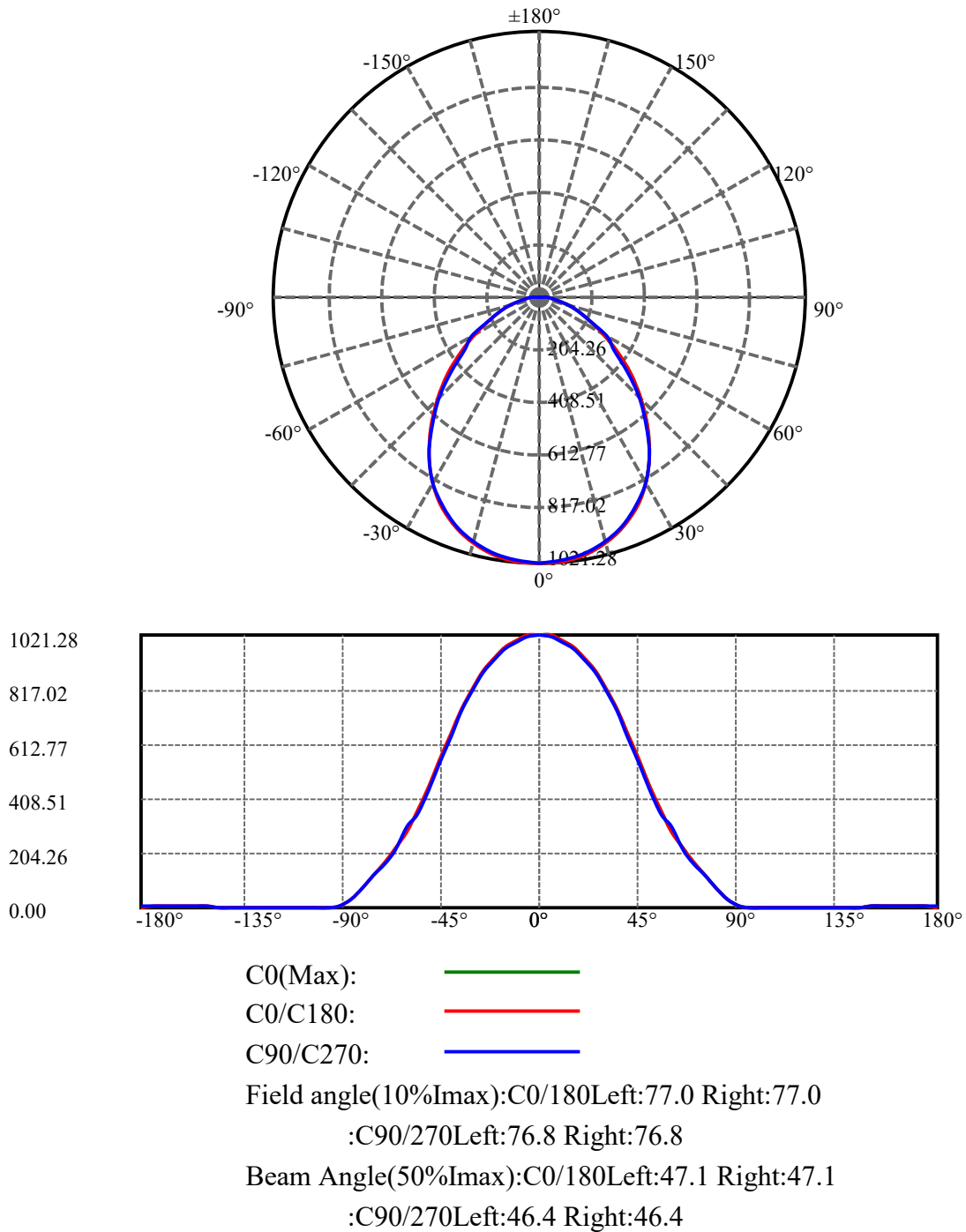
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1021.281	0.000	0	0.00%	0.00%
5.0	1015.408	24.348	24.348	1.02%	1.02%
10.0	999.889	72.094	96.442	3.01%	4.02%
15.0	973.757	117.075	213.517	4.89%	8.91%
20.0	935.667	157.363	370.88	6.57%	15.48%
25.0	883.881	190.837	561.717	7.96%	23.44%
30.0	820.368	215.674	777.391	9.00%	32.44%
35.0	742.495	230.143	1007.534	9.60%	42.04%
40.0	653.786	232.959	1240.493	9.72%	51.76%
45.0	551.182	223.109	1463.602	9.31%	61.07%
50.0	451.918	202.691	1666.293	8.46%	69.53%
55.0	363.140	177.221	1843.514	7.40%	76.93%
60.0	288.412	150.604	1994.118	6.28%	83.21%
65.0	223.727	124.502	2118.62	5.20%	88.41%
70.0	170.006	99.696	2218.316	4.16%	92.57%
75.0	121.016	76.068	2294.385	3.17%	95.74%
80.0	76.103	52.744	2347.128	2.20%	97.94%
85.0	31.270	29.176	2376.304	1.22%	99.16%
90.0	4.702	9.849	2386.153	0.41%	99.57%
95.0	0.732	1.488	2387.641	0.06%	99.63%
100.0	0.463	0.325	2387.966	0.01%	99.65%
105.0	0.463	0.248	2388.214	0.01%	99.66%
110.0	0.463	0.242	2388.456	0.01%	99.67%
115.0	0.463	0.235	2388.691	0.01%	99.68%
120.0	0.849	0.319	2389.01	0.01%	99.69%
125.0	0.927	0.410	2389.42	0.02%	99.71%
130.0	0.927	0.403	2389.823	0.02%	99.72%
135.0	1.043	0.398	2390.221	0.02%	99.74%
140.0	1.620	0.493	2390.715	0.02%	99.76%
145.0	2.317	0.657	2391.371	0.03%	99.79%
150.0	3.707	0.887	2392.258	0.04%	99.83%
155.0	4.517	1.041	2393.299	0.04%	99.87%
160.0	5.097	1.008	2394.307	0.04%	99.91%
165.0	5.560	0.878	2395.186	0.04%	99.95%
170.0	6.024	0.687	2395.873	0.03%	99.98%
175.0	6.487	0.448	2396.32	0.02%	100.00%
180.0	3.243	0.116	2396.437	0.00%	100.00%

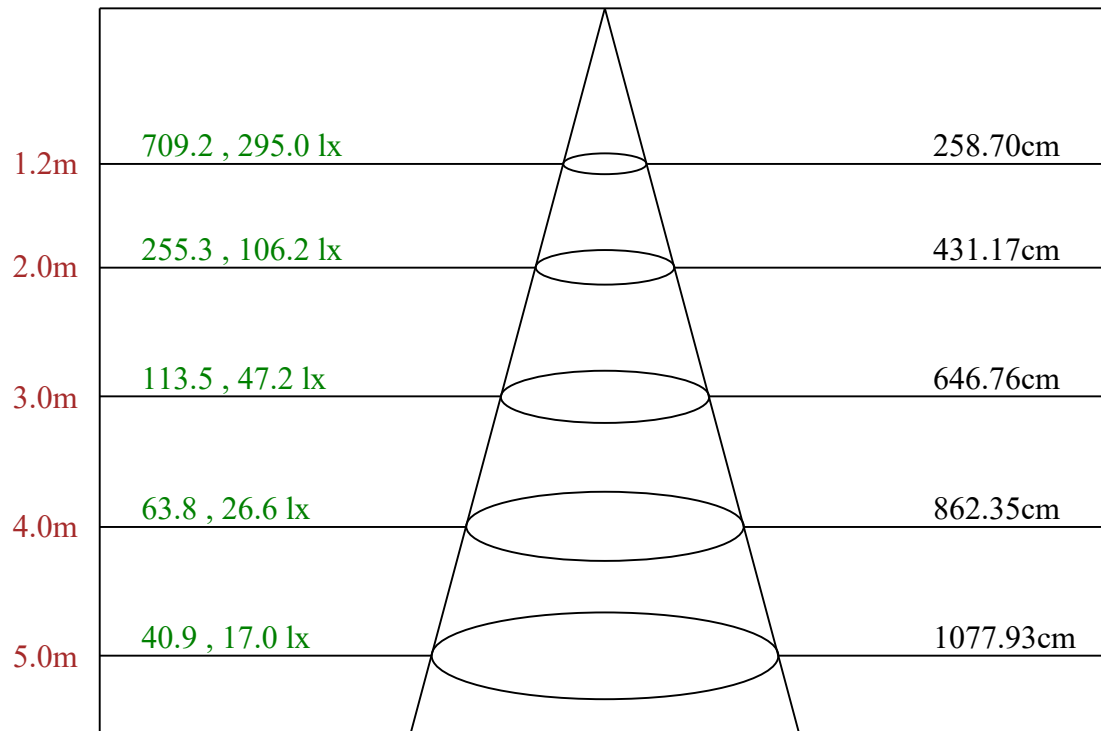
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	777.39	32.44%	32.44%
0-40	1240.49	51.76%	51.76%
0-60	1994.12	83.21%	83.21%
0-90	2386.15	99.57%	99.57%
0-120	2389.01	99.69%	99.69%
0-180	2396.44	100.00%	100.00%
60-90	392.03	16.36%	16.36%
90-120	2.86	0.12%	0.12%
90-130	3.67	0.15%	0.15%
90-150	6.10	0.25%	0.25%
90-180	10.17	0.42%	0.42%
0-57.44	1917.15	80.00%	80.00%

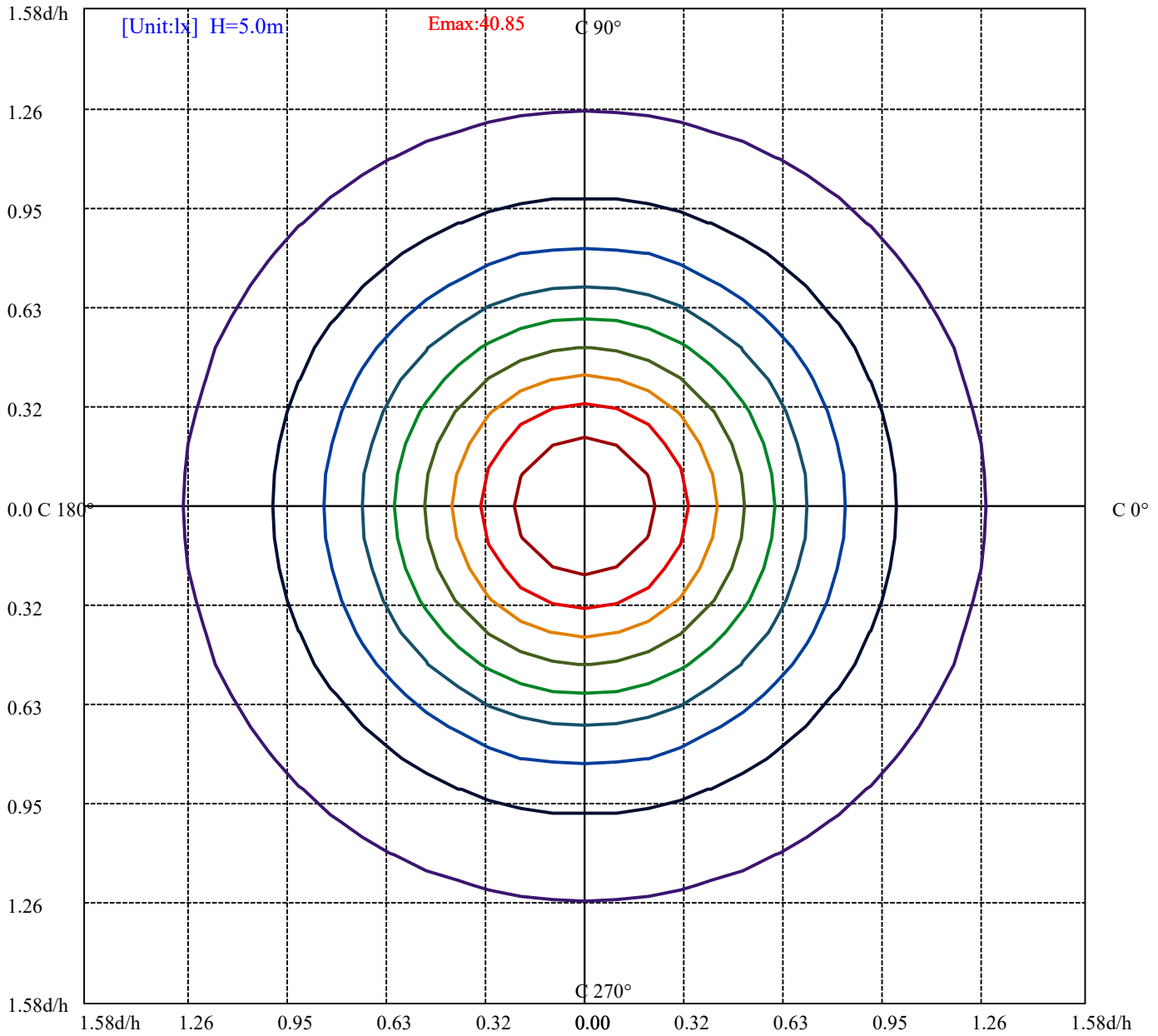
ZONAL LUMEN SUMMARY

0-10	96.44
10-20	274.44
20-30	406.51
30-40	463.10
40-50	425.80
50-60	327.83
60-70	224.20
70-80	128.81
80-90	39.03
90-100	1.81
100-110	0.49
110-120	0.55
120-130	0.81
130-140	0.89
140-150	1.54
150-160	2.05
160-170	1.57
170-180	0.45

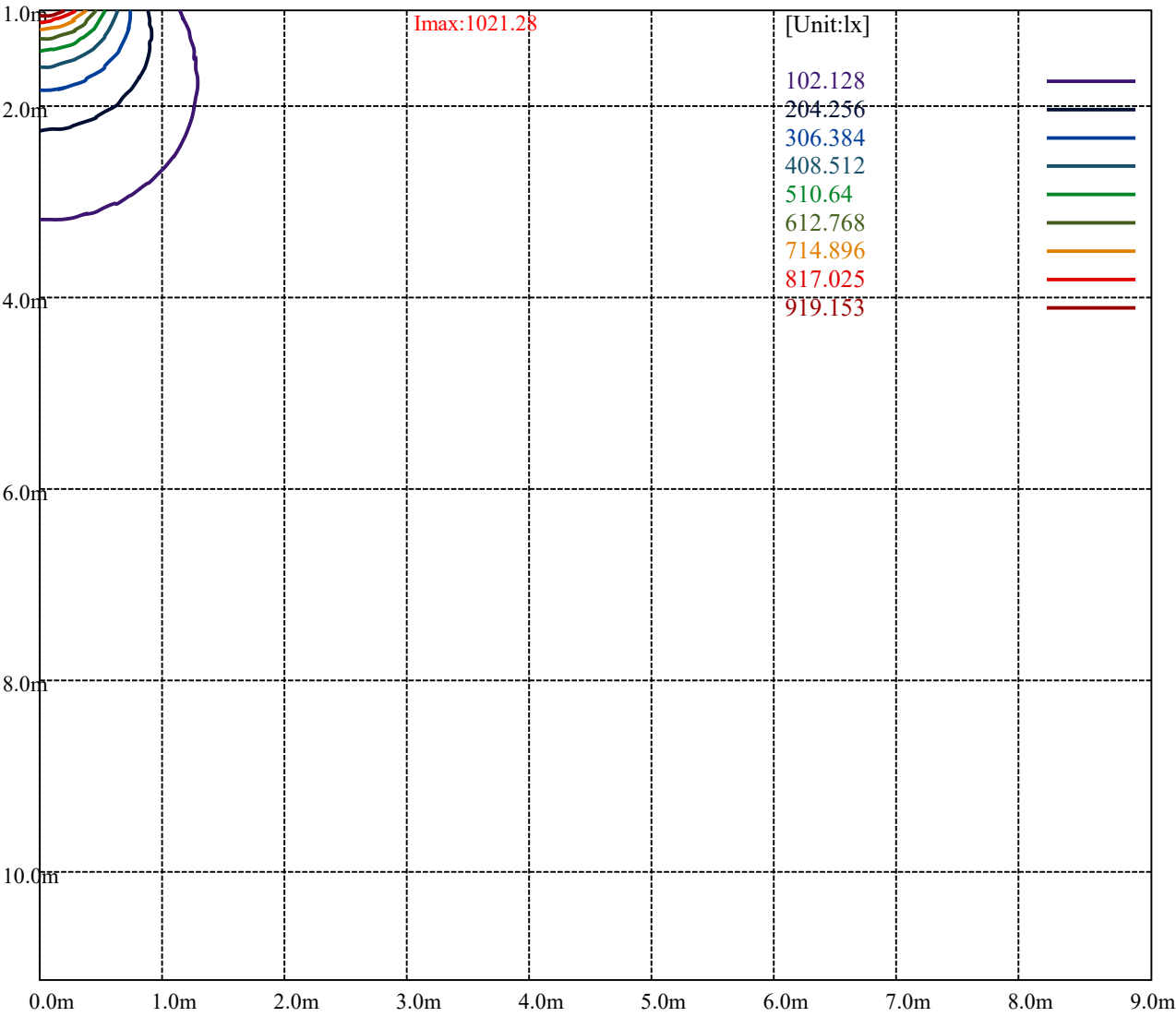




Max , Ave Beam angle of C0 plane 94.30



(10%Emax) 4.08512	
(20%Emax) 8.170239	
(30%Emax) 12.25536	
(40%Emax) 16.34048	
(50%Emax) 20.4256	
(60%Emax) 24.51072	
(70%Emax) 28.59584	
(80%Emax) 32.68096	
(90%Emax) 36.76608	



Luminance Table

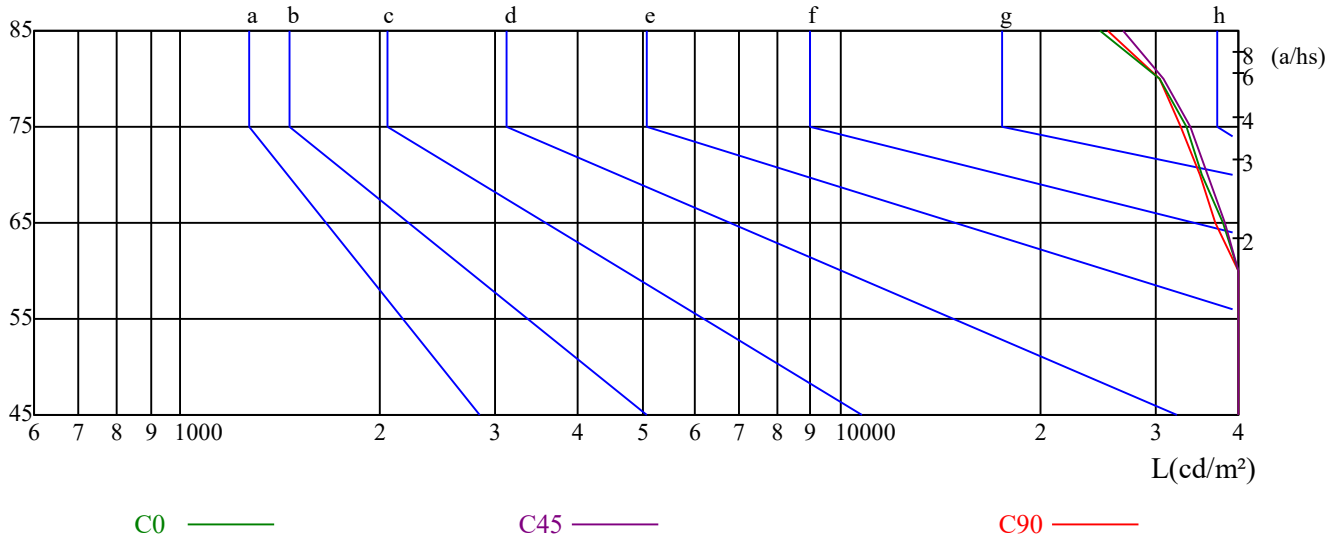
γ	45	50	55	60	65	70	75	80	85
C0	55582	50495	45326	41005	37868	35141	33400	30350	24704
C45	56388	50690	45978	41478	38257	35841	33794	30906	26790
C90	54432	49063	43799	43124	36795	35057	32701	30366	25433

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
37868	36795	38257	33400	32701	33794	24704	25433	26790

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	1.19	1.19	1.19	1.16	1.16	1.16	1.11	1.11	1.11	1.06	1.06	1.06	1.02	1.02	1.02	1.00
1	1.05	1.01	0.97	1.03	0.99	0.96	0.98	0.95	0.93	0.94	0.92	0.90	0.91	0.89	0.87	0.85
2	0.93	0.86	0.81	0.91	0.85	0.80	0.87	0.82	0.78	0.84	0.80	0.76	0.81	0.77	0.74	0.72
3	0.82	0.74	0.68	0.81	0.73	0.68	0.78	0.71	0.66	0.75	0.70	0.65	0.72	0.68	0.64	0.62
4	0.73	0.65	0.59	0.72	0.64	0.58	0.70	0.63	0.57	0.67	0.61	0.57	0.65	0.60	0.56	0.54
5	0.66	0.58	0.51	0.65	0.57	0.51	0.63	0.56	0.50	0.61	0.55	0.50	0.59	0.54	0.49	0.47
6	0.60	0.51	0.45	0.59	0.51	0.45	0.57	0.50	0.45	0.55	0.49	0.44	0.54	0.48	0.44	0.42
7	0.55	0.46	0.40	0.54	0.46	0.40	0.52	0.45	0.40	0.51	0.44	0.39	0.49	0.44	0.39	0.37
8	0.50	0.42	0.36	0.49	0.41	0.36	0.48	0.41	0.36	0.47	0.40	0.36	0.46	0.40	0.35	0.34
9	0.46	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.30
10	0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.40	0.34	0.30	0.39	0.33	0.29	0.28

乐达凯 LCD-SQD-12-CCT-UNV-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	1021.28	1024.88	1011.38	992.49	962.79	916.90	860.22	790.03	707.25		
15.0	1021.28	1021.28	1012.21	992.26	964.14	920.60	864.37	793.62	708.37		
30.0	1021.28	1023.10	1013.07	991.19	962.01	919.15	862.62	797.88	714.90		
45.0	1021.28	1022.20	1011.21	989.22	961.74	915.95	864.65	793.21	709.86		
60.0	1021.28	1022.21	1011.06	989.69	958.09	916.27	862.37	791.75	703.47		
75.0	1021.28	1021.28	1007.25	989.48	961.43	912.79	852.94	782.79	690.21		
90.0	1021.28	1020.34	1010.94	987.43	955.45	907.49	851.07	772.07	683.68		
105.0	1021.28	1020.34	1009.03	984.54	952.50	905.40	842.27	765.96	674.57		
120.0	1021.28	1022.23	1009.94	984.44	950.42	903.19	840.83	768.09	678.33		
135.0	1021.28	1022.22	1010.95	984.64	948.94	901.96	842.77	766.67	675.53		
150.0	1021.28	1017.56	1005.47	982.22	907.81	892.92	830.60	760.84	670.62		
165.0	1021.28	1016.66	1002.80	979.69	938.10	884.49	826.27	748.63	647.89		
180.0	1021.28	1011.38	991.59	960.99	913.30	854.82	782.83	695.55	597.47		
195.0	1021.28	1008.58	988.63	955.07	913.35	848.95	782.74	697.48	596.81		
210.0	1021.28	1008.51	987.54	953.80	907.30	849.85	779.64	695.75	603.65		
225.0	1021.28	1006.63	986.47	952.58	907.70	850.00	775.81	694.29	599.95		
240.0	1021.28	1008.27	986.90	953.44	906.98	850.29	781.53	696.96	600.32		
255.0	1021.28	1007.25	985.74	952.07	906.25	848.26	782.79	691.14	597.62		
270.0	1021.28	1009.06	985.55	958.27	912.19	852.95	780.54	694.02	597.16		
285.0	1021.28	1006.21	987.36	956.27	911.99	852.64	784.80	700.95	675.52		
300.0	1021.28	1011.83	992.94	964.60	952.31	863.51	794.54	714.24	623.54		
315.0	1021.28	1012.82	994.03	971.49	932.96	879.41	809.88	730.96	639.83		
330.0	1021.28	1012.91	997.10	974.77	933.85	882.69	815.72	740.38	649.23		
345.0	1021.28	1012.04	998.17	969.52	934.40	882.65	817.02	736.62	645.12		
360.0	1021.28	1024.88	1011.38	992.49	962.79	916.90	860.22	790.03	707.25		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	607.37	509.29	410.31	323.93	254.65	194.36	145.77	98.08	52.19		
15.0	610.41	507.92	414.50	324.71	257.59	197.73	145.12	97.05	52.61		
30.0	617.33	514.29	414.90	327.36	256.23	199.70	147.72	99.39	54.71		
45.0	612.77	507.43	414.92	328.82	256.47	196.93	147.47	97.09	54.96		
60.0	608.68	504.60	405.17	320.60	251.84	196.08	144.97	97.57	51.11		
75.0	589.20	486.32	394.67	313.30	246.90	189.85	140.29	95.39	47.70		
90.0	581.17	477.73	383.69	302.81	239.80	187.14	137.30	91.22	46.08		
105.0	580.36	472.95	381.57	302.43	238.36	184.66	133.78	88.56	45.22		
120.0	579.14	475.21	382.63	307.05	238.08	185.17	135.10	87.86	41.57		
135.0	580.64	473.53	385.21	304.41	237.70	182.27	133.41	83.62	40.40		
150.0	569.24	467.85	374.84	299.50	232.53	178.58	128.36	81.85	36.27		
165.0	553.62	459.35	366.92	289.29	226.44	172.83	123.85	77.64	34.20		
180.0	493.09	399.51	317.63	250.15	193.46	142.17	96.28	49.49	8.10		
195.0	495.22	398.17	317.45	248.52	195.00	144.21	96.14	50.79	8.16		
210.0	496.05	403.95	320.06	251.67	193.31	144.07	96.66	51.06	10.94		
225.0	498.28	402.10	319.67	250.05	193.26	144.72	96.17	53.12	11.91		
240.0	499.02	403.31	324.32	251.84	197.01	145.90	98.50	52.97	12.08		
255.0	495.68	401.22	319.85	252.51	198.27	144.03	100.07	87.91	14.96		
270.0	496.53	405.31	319.74	300.93	195.60	148.58	99.68	56.42	15.99		
285.0	504.99	408.89	329.75	257.20	202.56	151.68	104.58	59.35	17.90		
300.0	524.34	428.92	342.00	270.20	208.79	158.72	107.70	64.24	20.78		
315.0	541.18	441.58	357.03	278.10	217.97	162.54	112.74	66.71	23.49		
330.0	547.85	450.18	358.10	282.76	217.65	162.77	116.27	67.90	25.11		
345.0	546.22	446.41	360.45	283.74	219.97	165.44	116.45	71.17	24.03		
360.0	607.37	509.29	410.31	323.93	254.65	194.36	145.77	98.08	52.19		

乐达凯 LCD-SQD-12-CCT-UNV-WT

Appendix Page: 11 Total:12

Intensity data(cd)

C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	8.10	0.90	0.00	0.00	0.00	0.00	0.90	0.90	0.90
15.0	9.98	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91
30.0	11.85	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91
45.0	12.82	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92
60.0	13.01	0.93	0.00	0.00	0.00	0.00	0.00	0.93	0.93
75.0	11.22	0.94	0.00	0.00	0.00	0.00	0.00	0.94	0.94
90.0	8.46	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.94
105.0	8.48	0.94	0.00	0.00	0.00	0.00	0.94	0.94	0.94
120.0	5.67	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.94
135.0	4.70	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.94
150.0	2.79	0.00	0.00	0.00	0.00	0.00	0.93	0.93	0.93
165.0	1.85	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92
180.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
195.0	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
210.0	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
225.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
240.0	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
255.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
270.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
285.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
300.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
315.0	1.88	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
330.0	1.86	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
345.0	1.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
360.0	8.10	0.90	0.00	0.00	0.00	0.00	0.90	0.90	0.90
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.90	1.80	2.70	4.50	6.30	6.30	6.30	6.30	6.30
15.0	0.91	1.81	2.72	4.53	6.35	6.35	6.35	6.35	6.35
30.0	0.91	1.82	2.74	4.56	6.38	6.38	6.38	6.38	6.38
45.0	0.92	1.83	2.75	4.58	6.41	6.41	6.41	6.41	6.41
60.0	0.93	1.86	2.79	4.65	5.58	6.50	6.50	6.50	6.50
75.0	0.94	1.87	2.81	4.68	5.61	6.55	6.55	6.55	6.55
90.0	0.94	1.88	2.82	4.70	6.58	6.58	6.58	6.58	6.58
105.0	0.94	1.88	2.83	4.71	5.65	6.59	6.59	6.59	6.59
120.0	0.94	1.89	2.83	4.72	6.61	6.61	6.61	6.61	6.61
135.0	1.88	1.88	2.82	4.70	6.58	6.58	6.58	6.58	6.58
150.0	1.86	1.86	2.79	4.65	6.51	6.51	6.51	6.51	6.51
165.0	1.85	1.85	2.77	4.62	6.47	6.47	6.47	6.47	6.47
180.0	0.90	1.80	1.80	2.70	2.70	3.60	4.50	5.40	6.30
195.0	0.91	1.81	1.81	2.72	2.72	3.63	4.53	5.44	6.35
210.0	0.91	0.91	1.82	2.74	2.74	3.65	4.56	5.47	6.38
225.0	0.92	1.83	1.83	2.75	2.75	3.66	4.58	5.50	6.41
240.0	0.93	1.86	1.86	2.79	2.79	3.72	4.65	5.58	6.50
255.0	0.94	1.87	1.87	2.81	2.81	3.74	4.68	5.61	6.55
270.0	0.94	1.88	1.88	2.82	2.82	3.76	4.70	5.64	6.58
285.0	0.94	0.94	1.88	2.83	2.83	3.77	4.71	5.65	6.59
300.0	0.94	0.94	1.89	2.83	2.83	3.78	4.72	5.67	6.61
315.0	0.94	0.94	1.88	2.82	2.82	3.76	4.70	5.64	6.58
330.0	0.93	0.93	1.86	2.79	2.79	3.72	4.65	5.58	6.51
345.0	0.92	0.92	1.85	2.77	2.77	3.70	4.62	5.55	6.47
360.0	0.90	1.80	2.70	4.50	6.30	6.30	6.30	6.30	6.30

Intensity data(cd)

C/ γ (°)	180.0
0.0	6.30
15.0	6.35
30.0	6.38
45.0	6.41
60.0	6.50
75.0	6.55
90.0	6.58
105.0	6.59
120.0	6.61
135.0	6.58
150.0	6.51
165.0	6.47
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	6.30