
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.090

LampCAT:

Current(A): 0.246

Lamp flux(lm): 2365.7

Power (W): 29.310

Number of Lamps: 1

PF: 0.991

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2365.71, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 80.71

Central intensity(cd): 5598.360, Maximum intensity(cd): 5598.361

Angle of maximum intensity: C=30.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=32.2

[C90/270]Total=32.4

Field angle(10%Imax): [C0/180]Total=60.0

[C90/270]Total=60.8

Maximum s/h(1/2): C0_180=0.53 C90_270=0.54

Maximum s/h(1/4): C0_180=0.52 C90_270=0.53

Up flux rate of lamp(%): 0.51%

Down flux rate of lamp(%): 99.49%

Up flux rate of LUM(%): 0.51%

Down flux rate of LUM(%): 99.49%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.265%

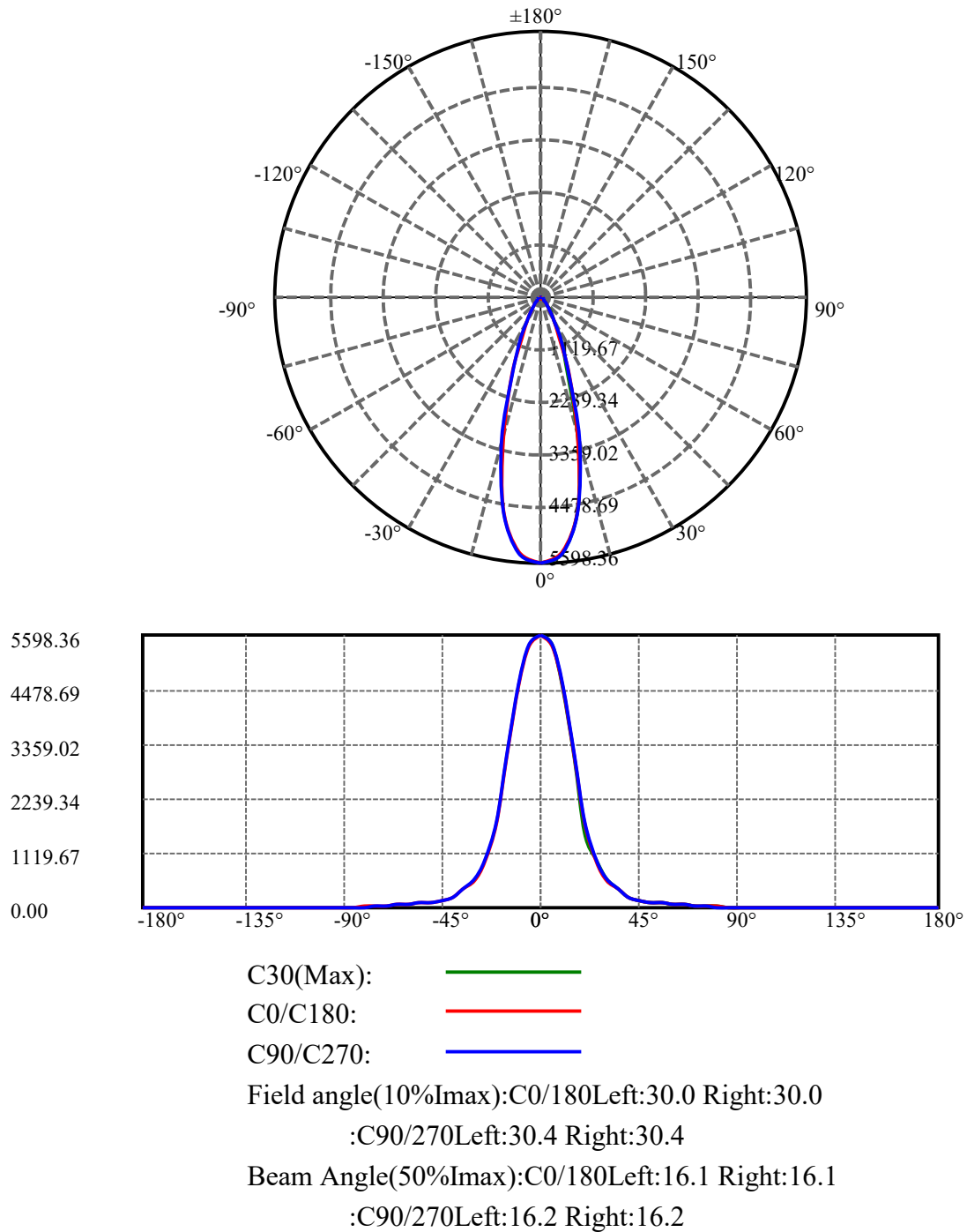
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5598.361	0.000	0	0.00%	0.00%
5.0	5396.718	131.443	131.443	5.56%	5.56%
10.0	4537.461	355.377	486.82	15.02%	20.58%
15.0	3065.563	451.006	937.826	19.06%	39.64%
20.0	1747.118	396.633	1334.459	16.77%	56.41%
25.0	965.600	284.514	1618.973	12.03%	68.44%
30.0	572.647	194.666	1813.639	8.23%	76.66%
35.0	371.415	139.020	1952.659	5.88%	82.54%
40.0	220.994	98.839	2051.498	4.18%	86.72%
45.0	147.693	68.266	2119.763	2.89%	89.60%
50.0	111.929	52.460	2172.224	2.22%	91.82%
55.0	89.651	43.830	2216.054	1.85%	93.67%
60.0	73.135	37.627	2253.681	1.59%	95.26%
65.0	58.342	31.962	2285.643	1.35%	96.62%
70.0	44.556	26.054	2311.698	1.10%	97.72%
75.0	31.158	19.790	2331.488	0.84%	98.55%
80.0	18.103	13.181	2344.669	0.56%	99.11%
85.0	6.791	6.764	2351.433	0.29%	99.40%
90.0	1.042	2.145	2353.578	0.09%	99.49%
95.0	0.000	0.285	2353.863	0.01%	99.50%
100.0	0.000	0.000	2353.863	0.00%	99.50%
105.0	0.000	0.000	2353.863	0.00%	99.50%
110.0	0.000	0.000	2353.863	0.00%	99.50%
115.0	0.000	0.000	2353.863	0.00%	99.50%
120.0	0.000	0.000	2353.863	0.00%	99.50%
125.0	0.000	0.000	2353.863	0.00%	99.50%
130.0	0.000	0.000	2353.863	0.00%	99.50%
135.0	0.077	0.015	2353.879	0.00%	99.50%
140.0	0.889	0.179	2354.057	0.01%	99.51%
145.0	3.590	0.747	2354.805	0.03%	99.54%
150.0	6.794	1.529	2356.334	0.06%	99.60%
155.0	9.728	2.091	2358.425	0.09%	99.69%
160.0	12.201	2.300	2360.725	0.10%	99.79%
165.0	13.513	2.119	2362.844	0.09%	99.88%
170.0	13.664	1.612	2364.456	0.07%	99.95%
175.0	14.208	0.997	2365.453	0.04%	99.99%
180.0	6.989	0.253	2365.707	0.01%	100.00%

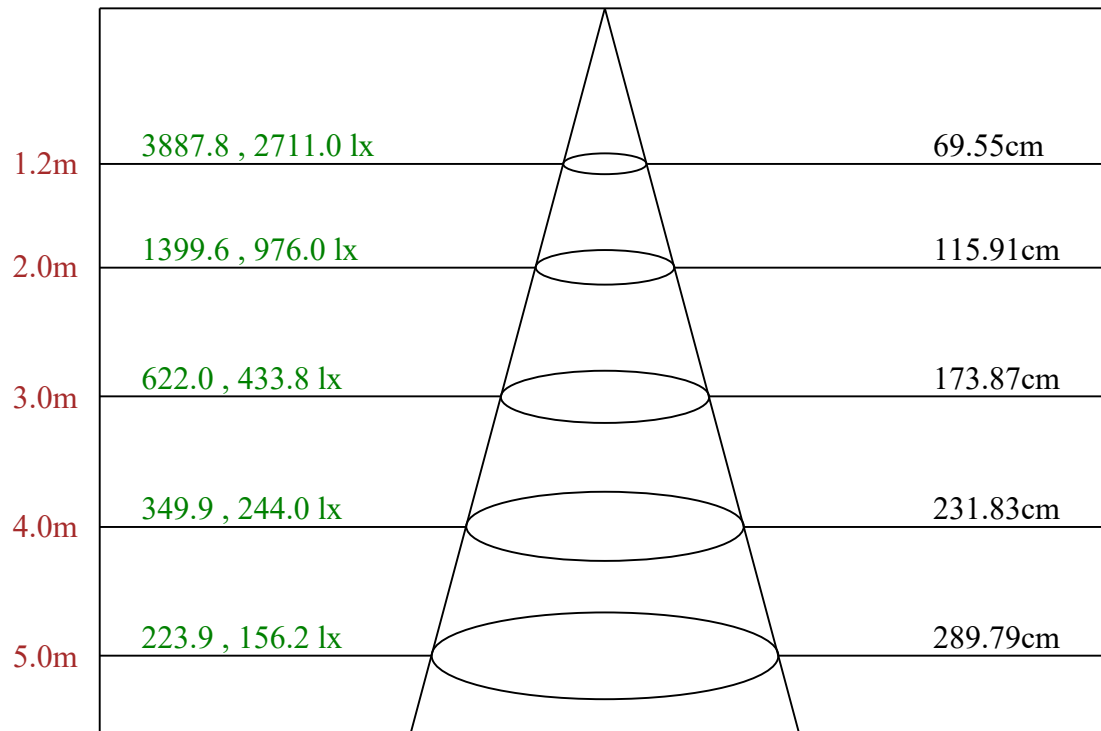
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1813.64	76.66%	76.66%
0-40	2051.50	86.72%	86.72%
0-60	2253.68	95.26%	95.26%
0-90	2353.58	99.49%	99.49%
0-120	2353.86	99.50%	99.50%
0-180	2365.71	100.00%	100.00%
60-90	99.90	4.22%	4.22%
90-120	0.29	0.01%	0.01%
90-130	0.29	0.01%	0.01%
90-150	2.76	0.12%	0.12%
90-180	11.88	0.50%	0.50%
0-32.84	1892.57	80.00%	80.00%

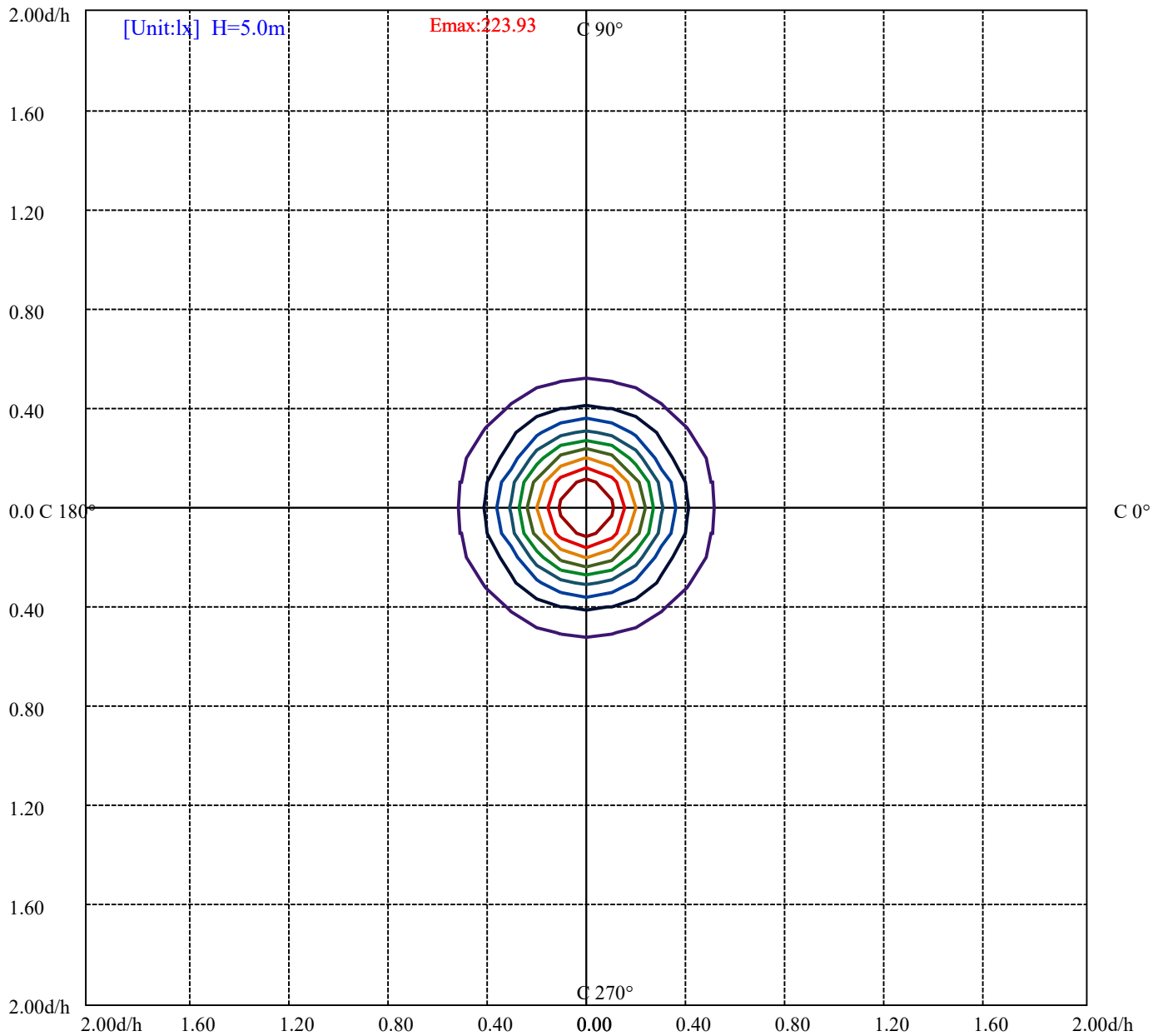
ZONAL LUMEN SUMMARY

0-10	486.82
10-20	847.64
20-30	479.18
30-40	237.86
40-50	120.73
50-60	81.46
60-70	58.02
70-80	32.97
80-90	8.91
90-100	0.29
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.19
140-150	2.28
150-160	4.39
160-170	3.73
170-180	1.00

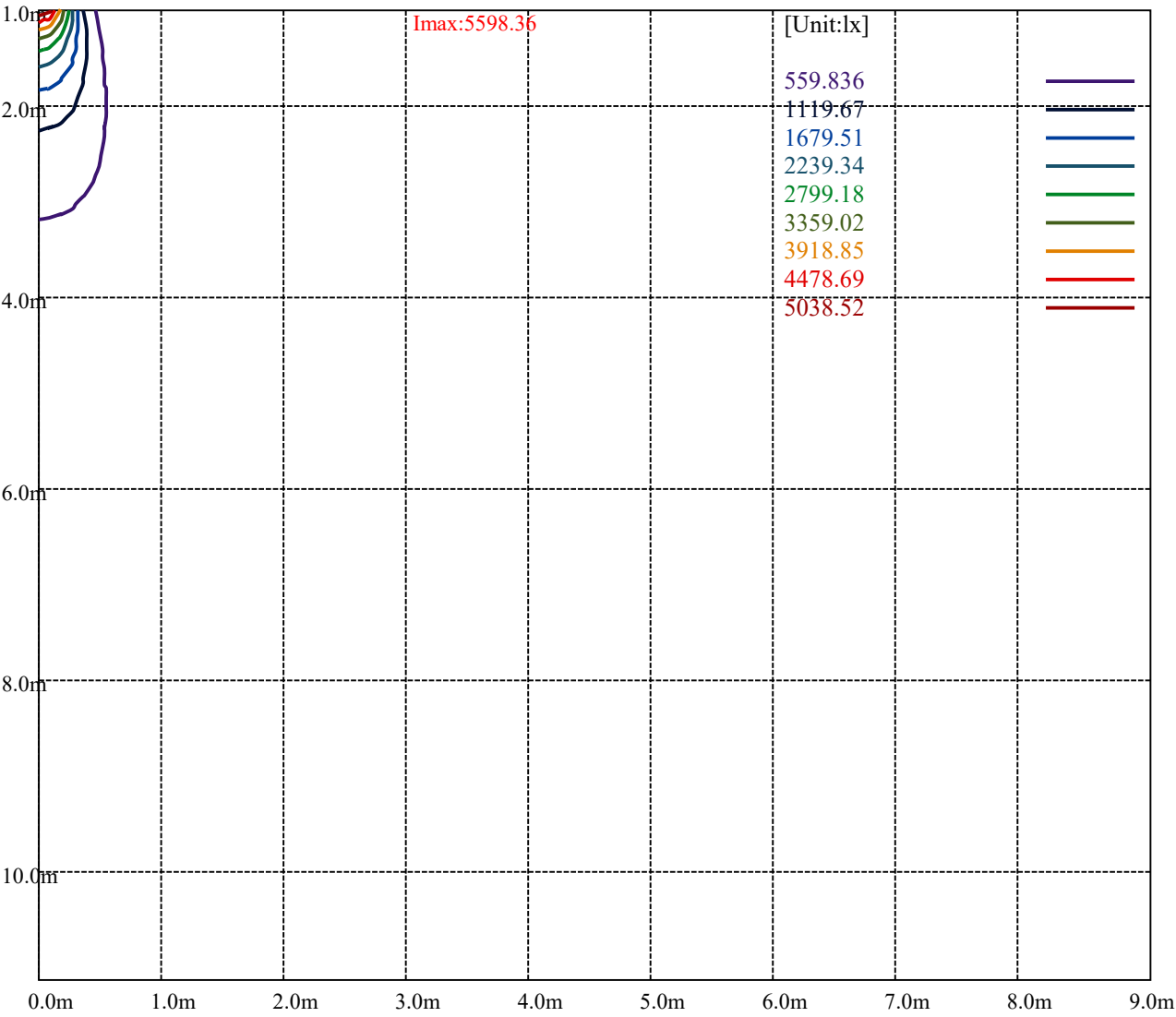




Max , Ave Beam angle of C30 plane 32.32



(10%E _{max}) 22.39344	—
(20%E _{max}) 44.7868	—
(30%E _{max}) 67.1804	—
(40%E _{max}) 89.5736	—
(50%E _{max}) 111.9672	—
(60%E _{max}) 134.3604	—
(70%E _{max}) 156.754	—
(80%E _{max}) 179.1472	—
(90%E _{max}) 201.5408	—



Luminance Table

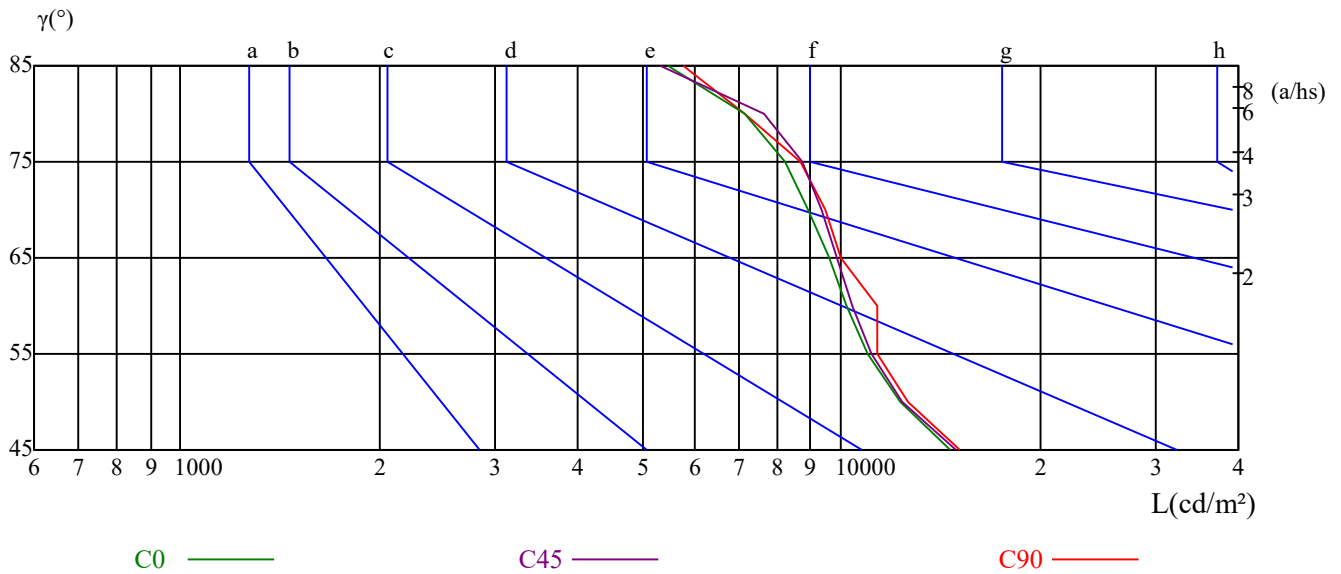
γ	45	50	55	60	65	70	75	80	85
C0	14598	12341	10997	10195	9574	8942	8247	7155	5483
C45	14970	12409	11152	10401	9868	9375	8730	7653	5333
C90	15166	12617	11335	11328	9992	9505	8676	7141	5768

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9574	9992	9868	8247	8676	8730	5483	5768	5333

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	1.19	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	0.99
1	1.10	1.08	1.06	1.08	1.06	1.04	1.04	1.02	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.93
2	1.03	0.99	0.96	1.01	0.98	0.94	0.98	0.95	0.92	0.95	0.92	0.90	0.92	0.90	0.88	0.87
3	0.97	0.92	0.88	0.95	0.91	0.87	0.92	0.89	0.86	0.90	0.87	0.84	0.88	0.85	0.83	0.81
4	0.91	0.86	0.82	0.90	0.85	0.81	0.88	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.77
5	0.86	0.80	0.76	0.85	0.80	0.76	0.83	0.79	0.75	0.82	0.78	0.75	0.80	0.77	0.74	0.72
6	0.82	0.76	0.72	0.81	0.76	0.72	0.79	0.75	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.69
7	0.78	0.72	0.68	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.70	0.67	0.73	0.70	0.67	0.66
8	0.74	0.69	0.65	0.74	0.68	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.71	0.67	0.64	0.63
9	0.71	0.66	0.62	0.70	0.65	0.62	0.70	0.65	0.62	0.69	0.64	0.61	0.68	0.64	0.61	0.60
10	0.68	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.58

乐达凯 LCD-RDD-LS-15-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	5598.36	5588.55	5122.02	3645.71	2026.69	1065.08	607.47	442.45	229.25	
15.0	5598.36	5583.88	5119.61	3588.34	2070.65	1089.63	617.21	446.17	225.35	
30.0	5598.36	5567.41	5075.85	3611.17	2045.45	1107.84	632.66	443.32	230.31	
45.0	5598.36	5564.43	5088.42	3677.82	2110.39	1105.18	637.43	454.00	238.46	
60.0	5598.36	5543.96	5035.94	3716.57	2099.39	1144.20	653.70	454.54	246.17	
75.0	5598.36	5572.26	5071.62	3678.79	2161.03	1150.44	685.23	464.28	253.58	
90.0	5598.36	5537.37	5041.90	3716.91	2207.06	1185.17	683.14	466.37	255.24	
105.0	5598.36	5536.89	4981.78	3643.66	2253.53	1214.24	699.80	467.16	263.84	
120.0	5598.36	5536.84	4971.80	3655.26	2206.22	1228.52	691.87	461.88	265.96	
135.0	5598.36	5558.72	5012.19	3746.40	2292.77	1245.97	725.87	463.46	279.40	
150.0	5598.36	5559.02	4981.01	3697.58	1445.49	1264.69	739.14	461.85	280.11	
165.0	5598.36	5563.90	4942.69	3707.71	2257.60	1250.81	730.18	455.43	271.95	
180.0	5598.36	5149.67	3959.71	2536.92	1433.49	814.42	509.35	313.99	201.60	
195.0	5598.36	5192.01	4015.51	2524.06	1419.95	809.07	515.85	316.75	199.10	
210.0	5598.36	5170.52	4011.70	2572.52	1391.85	811.99	506.13	311.32	196.63	
225.0	5598.36	5176.47	4077.71	2476.34	1419.77	798.85	495.27	304.50	191.69	
240.0	5598.36	5211.12	4040.19	2509.67	1394.98	781.85	496.03	302.41	190.85	
255.0	5598.36	5240.36	4049.84	2495.72	1418.94	790.58	487.58	295.53	186.46	
270.0	5598.36	5267.11	4110.09	2509.22	1372.85	764.78	469.19	283.39	183.92	
285.0	5598.36	5269.27	4107.04	2471.98	1333.39	759.37	454.87	282.76	246.82	
300.0	5598.36	5269.94	4055.62	2409.71	1775.57	712.69	434.43	259.33	171.31	
315.0	5598.36	5297.25	4015.42	2351.29	1295.05	693.78	432.31	260.52	168.02	
330.0	5598.36	5272.35	3985.18	2306.42	1261.88	698.86	422.50	252.94	163.94	
345.0	5598.36	5291.95	4026.24	2323.72	1236.84	686.41	416.31	249.60	163.92	
360.0	5598.36	5588.55	5122.02	3645.71	2026.69	1065.08	607.47	442.45	229.25	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	150.75	114.18	91.88	74.93	61.55	49.06	36.57	24.08	10.70	
15.0	151.14	113.13	92.31	75.12	62.45	49.78	37.11	24.44	11.77	
30.0	150.20	112.88	91.03	75.56	62.81	50.07	37.32	24.58	11.83	
45.0	154.08	114.65	92.63	76.12	62.37	50.44	37.60	23.85	10.09	
60.0	155.82	118.02	93.12	76.53	62.70	49.79	35.96	21.21	10.14	
75.0	163.15	120.26	95.09	77.38	63.40	49.41	35.43	19.58	10.26	
90.0	167.97	122.93	96.65	77.89	62.87	48.80	34.72	19.71	10.32	
105.0	168.33	123.88	98.35	79.44	63.36	48.23	34.99	18.91	10.40	
120.0	171.31	124.93	98.43	79.50	63.41	49.22	34.07	19.88	8.52	
135.0	177.46	128.37	100.06	80.23	64.19	49.08	35.87	21.71	8.50	
150.0	178.93	128.34	101.18	80.57	64.64	48.71	35.60	20.61	9.37	
165.0	180.68	130.39	101.52	80.10	64.26	48.43	34.46	20.49	9.31	
180.0	138.26	107.94	84.74	67.79	51.74	36.57	23.19	10.70	2.68	
195.0	139.37	107.70	85.98	67.88	52.49	38.92	24.44	12.67	2.72	
210.0	137.46	106.51	84.66	67.36	53.71	39.14	25.49	12.74	2.73	
225.0	137.57	105.47	85.30	68.79	53.20	39.44	25.68	13.76	3.67	
240.0	135.53	105.11	84.82	68.23	53.48	39.65	26.74	13.83	3.69	
255.0	133.32	104.42	84.84	69.92	55.00	41.02	27.04	24.24	3.73	
270.0	132.31	104.16	85.39	80.70	55.36	42.23	28.15	15.01	3.75	
285.0	129.56	102.13	84.16	69.03	55.79	41.61	28.37	15.13	3.78	
300.0	123.99	100.33	81.40	67.20	53.95	40.70	27.45	15.14	3.79	
315.0	123.65	98.17	80.23	66.07	53.80	40.59	27.37	15.10	3.78	
330.0	122.72	96.49	79.63	64.64	52.46	39.35	27.17	14.05	3.75	
345.0	121.08	95.93	78.23	64.26	51.22	39.12	27.01	13.04	3.73	
360.0	150.75	114.18	91.88	74.93	61.55	49.06	36.57	24.08	10.70	

乐达凯 LCD-RDD-LS-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	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
15.0	1.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
30.0	1.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
45.0	2.75	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
60.0	2.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
75.0	2.80	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
90.0	1.88	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105.0	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120.0	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
135.0	1.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
150.0	1.87	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
165.0	1.86	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
180.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
195.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
210.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
225.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
240.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
255.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
270.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
285.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
300.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
315.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
330.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
345.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
360.0	1.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
C/ γ (°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0		
0.0	0.89	0.89	4.46	8.03	10.70	13.38	15.16	15.16	14.27		
15.0	0.00	0.91	4.53	8.15	10.86	13.58	15.39	15.39	14.48		
30.0	0.00	0.91	4.55	8.19	10.92	13.65	14.56	15.48	14.56		
45.0	0.00	0.92	4.59	8.25	11.01	13.76	14.67	15.59	14.67		
60.0	0.00	0.92	4.61	8.30	11.06	13.83	14.75	14.75	14.75		
75.0	0.00	0.93	4.66	8.39	11.19	13.98	14.92	14.92	14.92		
90.0	0.00	0.94	4.69	8.45	11.26	14.08	15.01	15.01	15.01		
105.0	0.95	0.95	4.73	8.51	11.35	13.24	15.13	15.13	15.13		
120.0	0.00	0.95	4.73	7.57	11.36	13.25	15.14	15.14	14.20		
135.0	0.00	0.94	3.78	7.55	10.38	13.21	15.10	15.10	14.16		
150.0	0.00	0.94	3.75	7.49	10.30	13.12	14.99	14.99	14.05		
165.0	0.00	0.93	3.73	7.45	10.24	13.04	14.90	14.90	13.97		
180.0	0.00	0.89	2.68	5.35	8.92	10.70	11.60	12.49	13.38		
195.0	0.00	0.91	2.72	5.43	9.05	9.05	11.77	12.67	13.58		
210.0	0.00	0.00	2.73	5.46	8.19	10.92	11.83	11.83	13.65		
225.0	0.00	0.92	2.75	5.50	8.25	11.01	11.92	11.92	13.76		
240.0	0.00	0.92	2.77	5.53	8.30	11.06	11.99	11.99	13.83		
255.0	0.00	0.93	2.80	5.59	8.39	11.19	12.12	12.12	13.98		
270.0	0.00	0.94	2.82	5.63	8.45	10.32	12.20	12.20	14.08		
285.0	0.00	0.95	2.84	5.67	8.51	11.35	12.29	12.29	14.19		
300.0	0.00	0.95	2.84	5.68	8.52	11.36	12.30	12.30	14.20		
315.0	0.00	0.94	2.83	5.66	9.44	11.33	12.27	12.27	14.16		
330.0	0.00	0.94	2.81	5.62	8.43	11.24	12.18	12.18	14.05		
345.0	0.00	0.93	2.79	5.59	8.38	11.18	12.11	12.11	13.97		
360.0	0.89	0.89	4.46	8.03	10.70	13.38	15.16	15.16	14.27		

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	13.38
15.0	14.48
30.0	13.65
45.0	13.76
60.0	13.83
75.0	13.98
90.0	14.08
105.0	14.19
120.0	14.20
135.0	14.16
150.0	14.05
165.0	13.97
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	13.38