
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.020

LampCAT:

Current(A): 0.249

Lamp flux(lm): 2460.3

Power (W): 29.650

Number of Lamps: 1

PF: 0.992

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2460.28, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 82.98

Central intensity(cd): 5822.025, Maximum intensity(cd): 5822.025

Angle of maximum intensity: C=0.0 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(%): 0.52%

Down flux rate of lamp(%): 99.48%

Up flux rate of LUM(%): 0.52%

Down flux rate of LUM(%): 99.48%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.256%

乐达凯 LCD-RDD-LS-15-CCT-UNV-WT

Zonal flux distribution table

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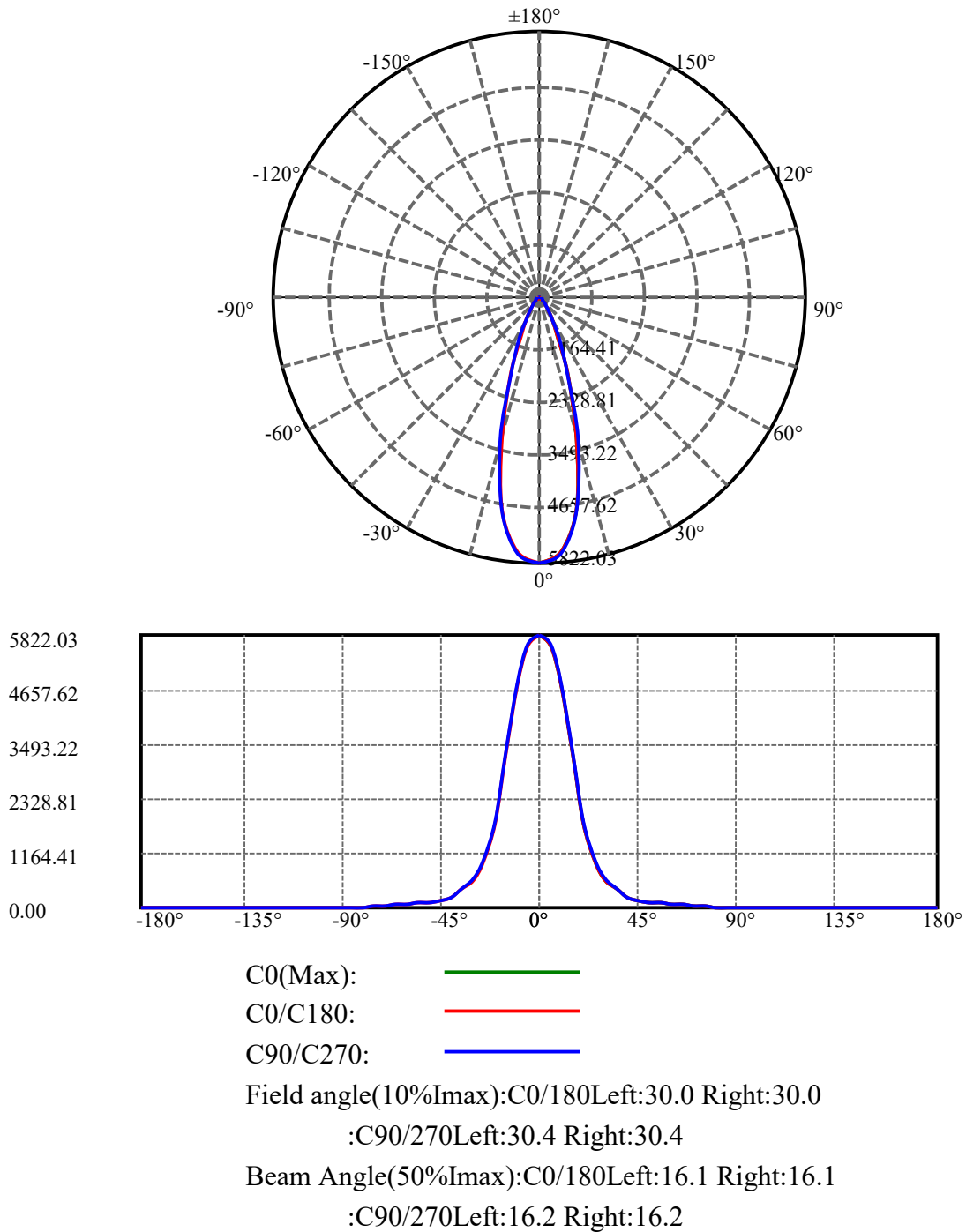
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	5822.026	0.000	0	0.00%	0.00%
5.0	5612.209	136.693	136.693	5.56%	5.56%
10.0	4718.575	369.565	506.258	15.02%	20.58%
15.0	3188.043	469.015	975.273	19.06%	39.64%
20.0	1816.696	412.461	1387.734	16.76%	56.41%
25.0	1004.292	295.869	1683.603	12.03%	68.43%
30.0	595.541	202.460	1886.063	8.23%	76.66%
35.0	385.929	144.528	2030.591	5.87%	82.54%
40.0	229.723	102.717	2133.308	4.18%	86.71%
45.0	153.599	70.975	2204.283	2.88%	89.59%
50.0	116.367	54.551	2258.834	2.22%	91.81%
55.0	93.245	45.577	2304.411	1.85%	93.66%
60.0	76.147	39.154	2343.565	1.59%	95.26%
65.0	60.735	33.276	2376.841	1.35%	96.61%
70.0	46.371	27.120	2403.961	1.10%	97.71%
75.0	32.392	20.588	2424.549	0.84%	98.55%
80.0	18.797	13.697	2438.245	0.56%	99.10%
85.0	6.988	7.006	2445.252	0.28%	99.39%
90.0	1.160	2.231	2447.483	0.09%	99.48%
95.0	0.000	0.318	2447.8	0.01%	99.49%
100.0	0.000	0.000	2447.8	0.00%	99.49%
105.0	0.000	0.000	2447.8	0.00%	99.49%
110.0	0.000	0.000	2447.8	0.00%	99.49%
115.0	0.000	0.000	2447.8	0.00%	99.49%
120.0	0.000	0.000	2447.8	0.00%	99.49%
125.0	0.000	0.000	2447.8	0.00%	99.49%
130.0	0.000	0.000	2447.8	0.00%	99.49%
135.0	0.464	0.094	2447.894	0.00%	99.50%
140.0	1.078	0.285	2448.179	0.01%	99.51%
145.0	3.707	0.798	2448.978	0.03%	99.54%
150.0	7.452	1.643	2450.621	0.07%	99.61%
155.0	10.115	2.223	2452.844	0.09%	99.70%
160.0	12.356	2.357	2455.201	0.10%	99.79%
165.0	13.589	2.138	2457.339	0.09%	99.88%
170.0	14.246	1.651	2458.99	0.07%	99.95%
175.0	14.478	1.028	2460.018	0.04%	99.99%
180.0	7.258	0.260	2460.278	0.01%	100.00%

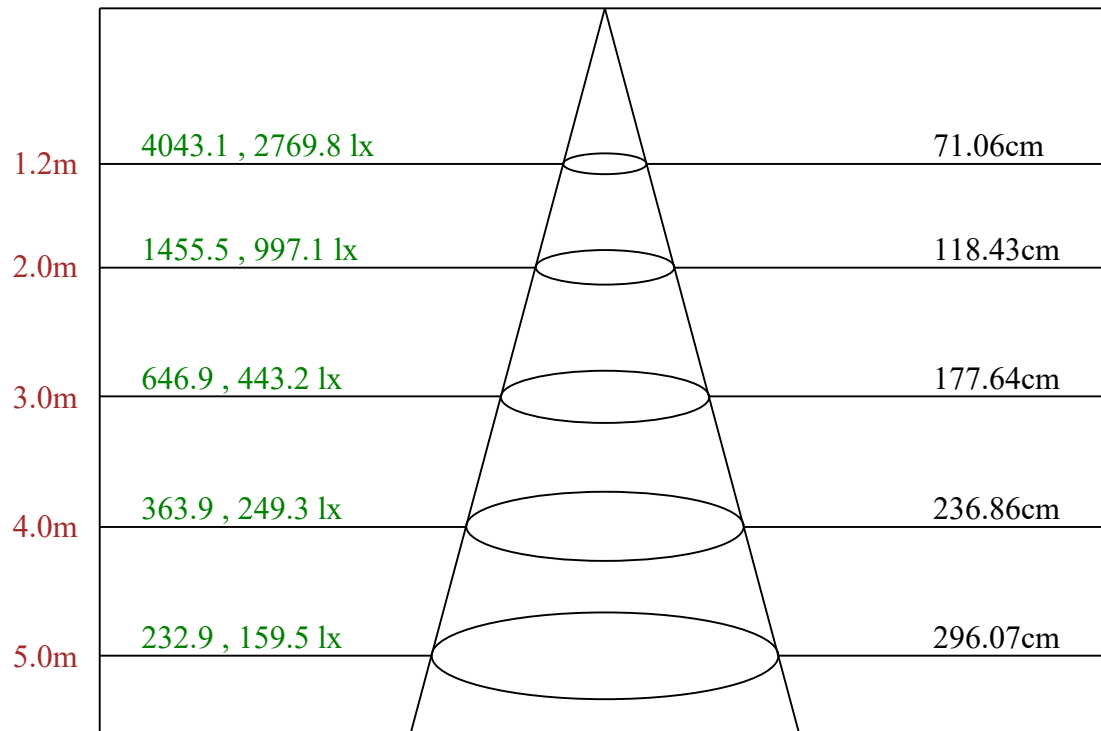
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1886.06	76.66%	76.66%
0-40	2133.31	86.71%	86.71%
0-60	2343.56	95.26%	95.26%
0-90	2447.48	99.48%	99.48%
0-120	2447.80	99.49%	99.49%
0-180	2460.28	100.00%	100.00%
60-90	103.92	4.22%	4.22%
90-120	0.32	0.01%	0.01%
90-130	0.32	0.01%	0.01%
90-150	3.14	0.13%	0.13%
90-180	12.54	0.51%	0.51%
0-32.84	1968.22	80.00%	80.00%

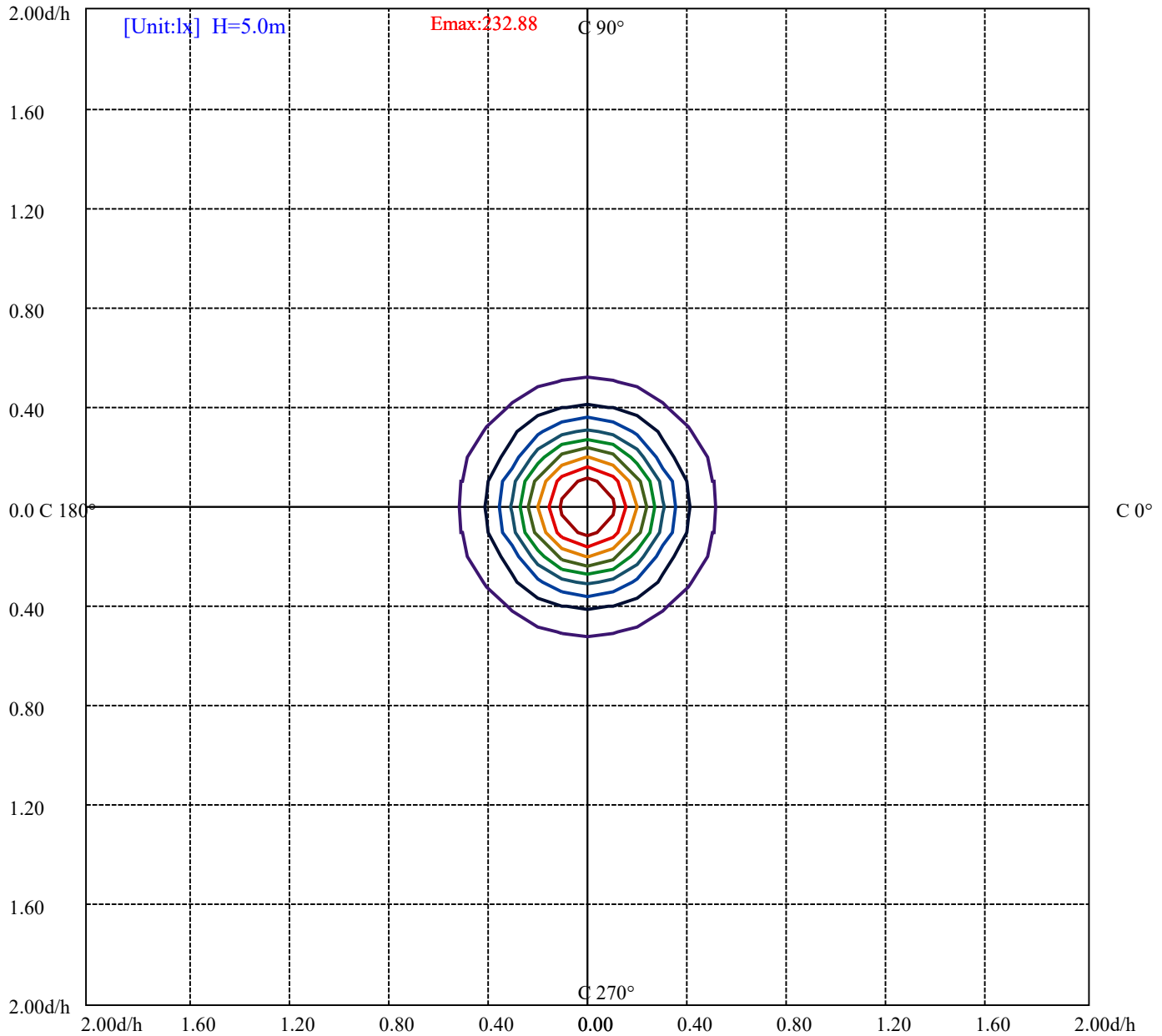
ZONAL LUMEN SUMMARY

0-10	506.26
10-20	881.48
20-30	498.33
30-40	247.25
40-50	125.53
50-60	84.73
60-70	60.40
70-80	34.28
80-90	9.24
90-100	0.32
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.38
140-150	2.44
150-160	4.58
160-170	3.79
170-180	1.03

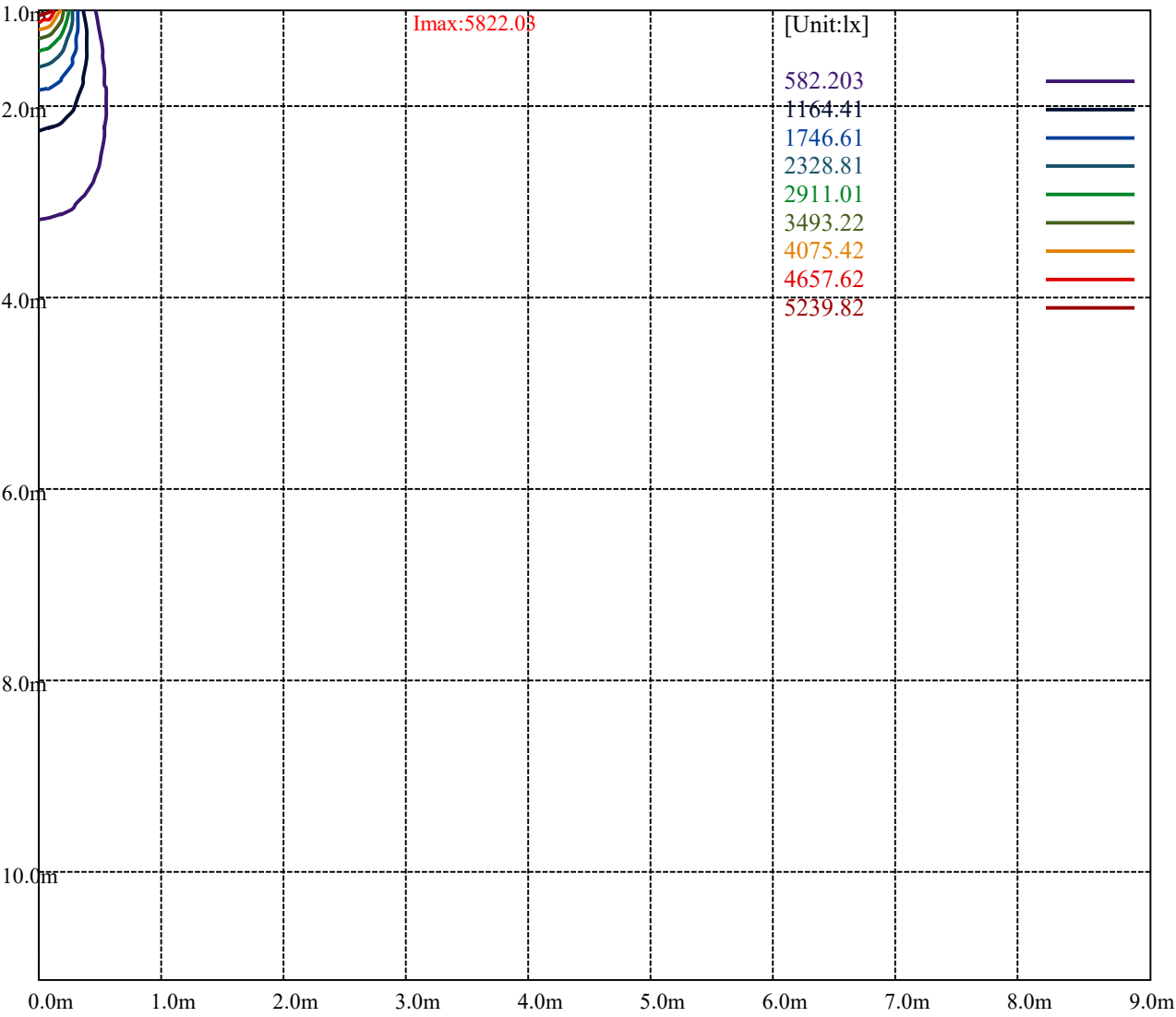




Max , Ave Beam angle of C0 plane 32.99



(10%Emax) 23.28808	—
(20%Emax) 46.576	—
(30%Emax) 69.8644	—
(40%Emax) 93.1524	—
(50%Emax) 116.4404	—
(60%Emax) 139.7284	—
(70%Emax) 163.0164	—
(80%Emax) 186.3048	—
(90%Emax) 209.5928	—



Luminance Table

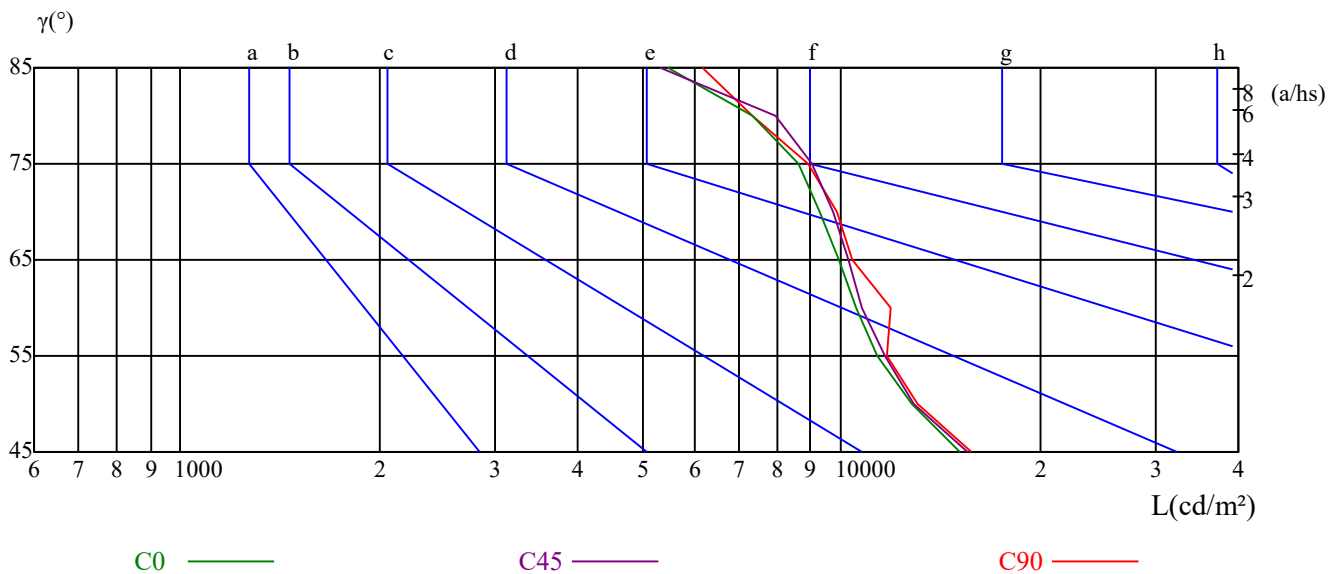
γ	45	50	55	60	65	70	75	80	85
C0	15183	12836	11386	10576	9950	9314	8616	7338	5483
C45	15605	12926	11646	10767	10262	9716	9052	7939	5339
C90	15784	13087	11745	11864	10389	9897	8935	7334	6153

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
9950	10389	10262	8616	8935	9052	5483	6153	5339

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	0.81	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	5822.03	5811.32	5326.08	3790.96	2106.88	1107.85	631.53	459.38	238.16
15.0	5822.03	5807.55	5325.17	3731.42	2153.05	1133.09	642.57	463.37	234.40
30.0	5822.03	5790.17	5278.60	3755.73	2126.37	1152.39	658.12	461.50	239.40
45.0	5822.03	5787.17	5291.83	3826.01	2195.99	1149.36	663.20	471.49	247.67
60.0	5822.03	5764.87	5235.67	3864.76	2182.22	1190.22	679.47	472.03	256.30
75.0	5822.03	5794.99	5272.92	3826.04	2246.77	1196.10	712.25	482.92	262.90
90.0	5822.03	5758.21	5243.01	3865.40	2295.40	1233.10	710.39	484.23	264.64
105.0	5822.03	5758.66	5180.81	3789.61	2343.56	1263.52	728.23	485.17	274.27
120.0	5822.03	5757.67	5169.98	3800.59	2293.98	1277.59	719.24	480.75	276.34
135.0	5822.03	5780.49	5212.26	3896.45	2384.31	1295.99	754.18	481.39	290.72
150.0	5822.03	5780.81	5180.34	3845.44	1503.52	1314.29	768.15	479.63	291.34
165.0	5822.03	5785.70	5140.26	3855.89	2348.00	1301.13	760.00	473.14	282.21
180.0	5822.03	5355.51	4118.32	2637.62	1490.52	846.50	529.84	325.58	209.62
195.0	5822.03	5399.38	4176.69	2624.57	1477.00	840.77	536.68	328.52	207.25
210.0	5822.03	5376.91	4171.72	2674.35	1447.31	843.81	526.13	323.14	203.90
225.0	5822.03	5383.56	4240.62	2575.74	1475.92	831.06	514.60	316.46	199.97
240.0	5822.03	5419.14	4201.26	2610.00	1450.21	813.15	515.36	314.38	198.22
255.0	5822.03	5449.12	4211.06	2595.44	1475.78	822.26	507.15	306.72	193.91
270.0	5822.03	5477.62	4275.49	2609.78	1427.35	795.79	487.98	294.67	191.44
285.0	5822.03	5480.61	4271.00	2570.54	1386.47	789.70	473.82	294.13	257.24
300.0	5822.03	5479.44	4216.05	2505.02	1846.35	741.00	451.42	269.71	177.92
315.0	5822.03	5508.65	4175.85	2445.67	1346.01	722.09	449.30	270.90	174.62
330.0	5822.03	5481.98	4144.27	2399.07	1312.41	727.87	439.35	262.30	170.49
345.0	5822.03	5503.50	4186.53	2416.92	1285.30	714.36	434.02	260.79	170.44
360.0	5822.03	5811.32	5326.08	3790.96	2106.88	1107.85	631.53	459.38	238.16
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	156.99	118.63	95.44	78.50	64.22	50.84	38.36	24.98	10.70
15.0	157.47	117.65	95.93	78.74	65.16	51.59	38.92	26.25	11.77
30.0	156.56	118.33	94.67	79.19	65.54	51.88	39.14	25.49	11.83
45.0	161.44	120.16	96.32	78.89	65.13	52.29	38.53	24.77	9.17
60.0	162.26	122.62	97.73	80.21	65.46	51.63	36.88	22.13	10.14
75.0	169.67	124.92	98.82	80.18	66.19	51.27	36.36	20.51	10.25
90.0	174.55	127.63	100.41	81.64	65.69	50.68	35.66	20.65	10.32
105.0	174.96	128.62	102.14	82.28	66.20	50.12	35.94	19.86	10.40
120.0	177.92	128.71	102.21	83.28	66.25	51.10	35.96	20.82	9.46
135.0	185.01	133.09	104.77	83.06	67.02	50.97	36.81	22.65	9.44
150.0	185.48	133.96	105.86	84.31	67.45	50.59	36.53	21.55	9.37
165.0	188.14	135.05	105.25	83.82	67.06	50.29	35.39	21.42	9.31
180.0	143.61	112.39	87.42	69.58	53.52	38.36	24.08	10.70	2.68
195.0	144.80	112.22	88.69	70.59	55.21	40.73	25.34	12.67	2.72
210.0	142.91	110.14	88.30	70.09	55.53	40.96	27.31	13.65	3.64
225.0	143.10	110.07	88.98	70.63	55.04	40.36	26.60	14.68	3.67
240.0	141.06	108.79	88.51	70.99	56.24	41.49	27.66	13.83	3.69
255.0	138.91	108.14	87.63	72.72	56.87	42.88	28.90	25.17	3.73
270.0	137.95	107.92	88.21	84.46	57.24	44.11	29.09	15.01	4.69
285.0	134.30	106.87	87.95	70.93	57.69	43.50	29.32	16.08	4.73
300.0	128.71	105.05	85.17	70.03	55.84	42.59	29.34	15.14	4.73
315.0	128.37	101.94	84.01	68.91	55.69	42.48	29.26	15.10	3.78
330.0	126.46	100.23	82.44	67.45	54.33	41.22	28.10	14.05	3.75
345.0	125.74	99.66	81.03	67.06	53.09	40.98	27.94	13.97	3.73
360.0	156.99	118.63	95.44	78.50	64.22	50.84	38.36	24.98	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	2.82	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
105.0	2.84	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
120.0	2.84	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	1.78	4.46	8.03	11.60	14.27	15.16	16.06	15.16		
15.0	0.91	1.81	4.53	9.05	10.86	13.58	15.39	15.39	15.39		
30.0	0.91	1.82	4.55	8.19	10.92	13.65	15.47	15.47	15.47		
45.0	0.92	1.83	4.59	8.26	11.01	13.76	15.59	15.59	14.68		
60.0	0.92	0.92	4.61	8.30	11.06	13.83	14.75	15.67	14.75		
75.0	0.93	0.93	4.66	8.39	11.19	13.98	14.92	15.85	14.92		
90.0	0.94	0.94	4.69	8.45	11.26	14.08	15.01	15.95	15.01		
105.0	0.95	0.95	4.73	8.51	11.35	14.19	15.13	16.08	15.13		
120.0	0.95	0.95	4.73	8.52	11.36	14.20	15.14	15.14	15.14		
135.0	0.94	0.94	4.72	8.50	10.38	14.16	15.10	15.10	15.10		
150.0	0.00	0.94	4.68	8.43	10.30	13.11	14.99	14.99	14.99		
165.0	0.00	0.93	4.66	8.38	10.25	13.04	14.90	14.90	14.90		
180.0	0.00	0.89	2.68	6.24	8.92	10.70	11.60	12.49	13.38		
195.0	0.00	0.91	2.72	6.34	9.05	9.05	11.77	12.67	13.58		
210.0	0.00	0.91	2.73	6.37	9.10	10.92	11.83	12.74	13.65		
225.0	0.00	0.92	2.75	6.42	9.17	11.01	11.92	12.84	13.76		
240.0	0.00	0.92	2.77	6.45	9.22	11.06	11.99	12.91	13.83		
255.0	0.00	0.93	2.80	6.53	9.32	11.19	12.12	13.05	13.98		
270.0	0.00	0.94	2.82	6.57	9.38	10.32	12.20	13.14	14.08		
285.0	0.00	0.95	2.84	6.62	9.46	11.35	12.29	13.24	14.19		
300.0	0.95	0.95	2.84	6.62	9.46	11.36	12.30	13.25	14.20		
315.0	0.00	0.94	2.83	6.61	9.44	11.33	12.27	13.21	14.16		
330.0	0.94	0.94	2.81	6.56	9.37	11.24	12.18	13.11	14.05		
345.0	0.00	0.93	2.79	6.52	9.31	11.18	12.11	13.04	13.97		
360.0	0.89	1.78	4.46	8.03	11.60	14.27	15.16	16.06	15.16		

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	14.27
15.0	14.48
30.0	14.56
45.0	14.68
60.0	14.75
75.0	14.92
90.0	15.01
105.0	15.13
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	14.27