
乐达凯

Client:

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

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 120.030

LampCAT:

Current(A): 0.247

Lamp flux(lm): 2615.5

Power (W): 29.380

Number of Lamps: 1

PF: 0.993

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2615.54, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 89.02

Central intensity(cd): 6187.904, Maximum intensity(cd): 6187.904

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(%): 0.53%

Down flux rate of lamp(%): 99.47%

Up flux rate of LUM(%): 0.53%

Down flux rate of LUM(%): 99.47%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.243%

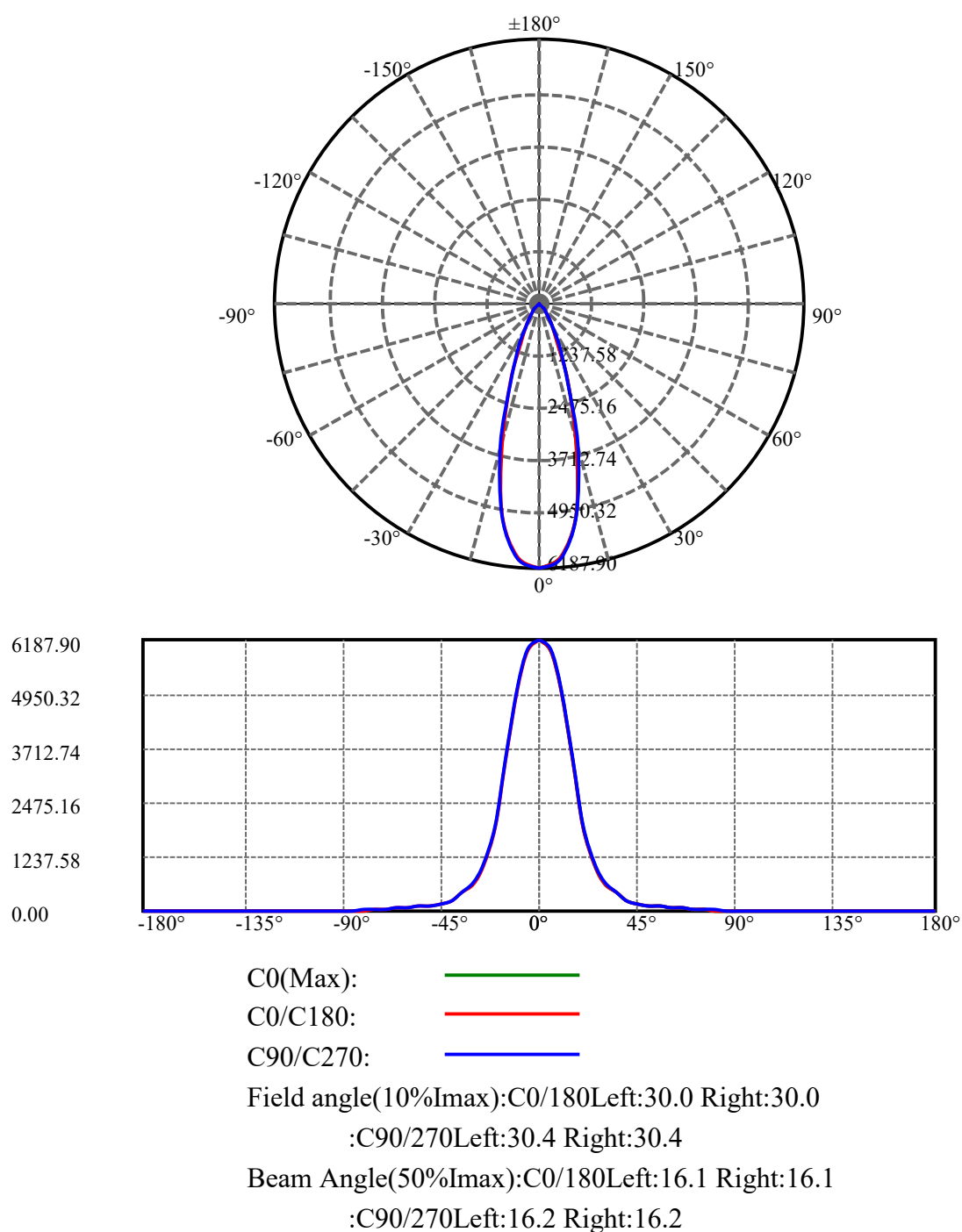
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6187.904	0.000	0	0.00%	0.00%
5.0	5964.948	145.284	145.284	5.55%	5.55%
10.0	5015.380	392.801	538.085	15.02%	20.57%
15.0	3388.491	498.512	1036.597	19.06%	39.63%
20.0	1930.827	438.386	1474.983	16.76%	56.39%
25.0	1067.306	314.449	1789.432	12.02%	68.42%
30.0	633.261	215.208	2004.64	8.23%	76.64%
35.0	410.510	153.703	2158.343	5.88%	82.52%
40.0	244.326	109.254	2267.597	4.18%	86.70%
45.0	163.291	75.474	2343.071	2.89%	89.58%
50.0	123.742	57.999	2401.07	2.22%	91.80%
55.0	99.034	48.439	2449.509	1.85%	93.65%
60.0	81.007	41.616	2491.125	1.59%	95.24%
65.0	64.289	35.322	2526.447	1.35%	96.59%
70.0	49.151	28.724	2555.171	1.10%	97.69%
75.0	34.445	21.851	2577.021	0.84%	98.53%
80.0	19.958	14.557	2591.578	0.56%	99.08%
85.0	7.950	7.583	2599.162	0.29%	99.37%
90.0	1.314	2.537	2601.698	0.10%	99.47%
95.0	0.000	0.360	2602.058	0.01%	99.48%
100.0	0.000	0.000	2602.058	0.00%	99.48%
105.0	0.000	0.000	2602.058	0.00%	99.48%
110.0	0.000	0.000	2602.058	0.00%	99.48%
115.0	0.000	0.000	2602.058	0.00%	99.48%
120.0	0.000	0.000	2602.058	0.00%	99.48%
125.0	0.000	0.000	2602.058	0.00%	99.48%
130.0	0.000	0.000	2602.058	0.00%	99.48%
135.0	0.464	0.094	2602.152	0.00%	99.49%
140.0	1.351	0.336	2602.488	0.01%	99.50%
145.0	4.133	0.915	2603.403	0.03%	99.54%
150.0	7.488	1.711	2605.114	0.07%	99.60%
155.0	11.232	2.369	2607.483	0.09%	99.69%
160.0	13.243	2.567	2610.05	0.10%	99.79%
165.0	14.901	2.320	2612.37	0.09%	99.88%
170.0	15.328	1.793	2614.163	0.07%	99.95%
175.0	15.405	1.099	2615.262	0.04%	99.99%
180.0	7.605	0.275	2615.537	0.01%	100.00%

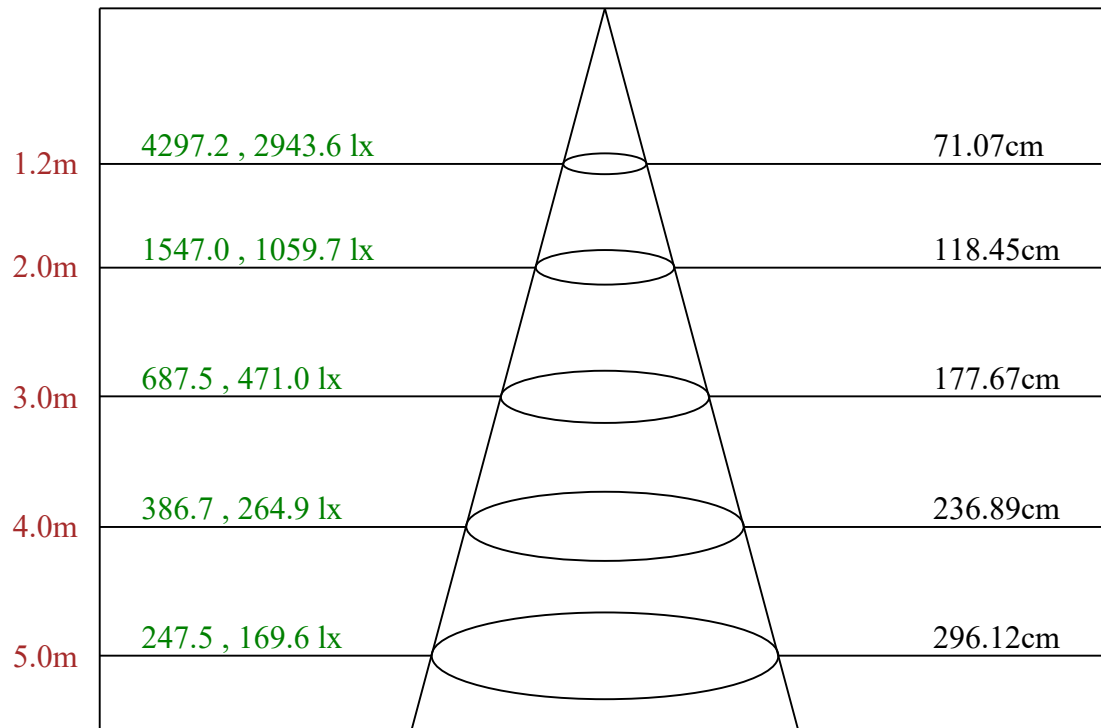
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2004.64	76.64%	76.64%
0-40	2267.60	86.70%	86.70%
0-60	2491.12	95.24%	95.24%
0-90	2601.70	99.47%	99.47%
0-120	2602.06	99.48%	99.48%
0-180	2615.54	100.00%	100.00%
60-90	110.57	4.23%	4.23%
90-120	0.36	0.01%	0.01%
90-130	0.36	0.01%	0.01%
90-150	3.42	0.13%	0.13%
90-180	13.56	0.52%	0.52%
0-32.86	2092.43	80.00%	80.00%

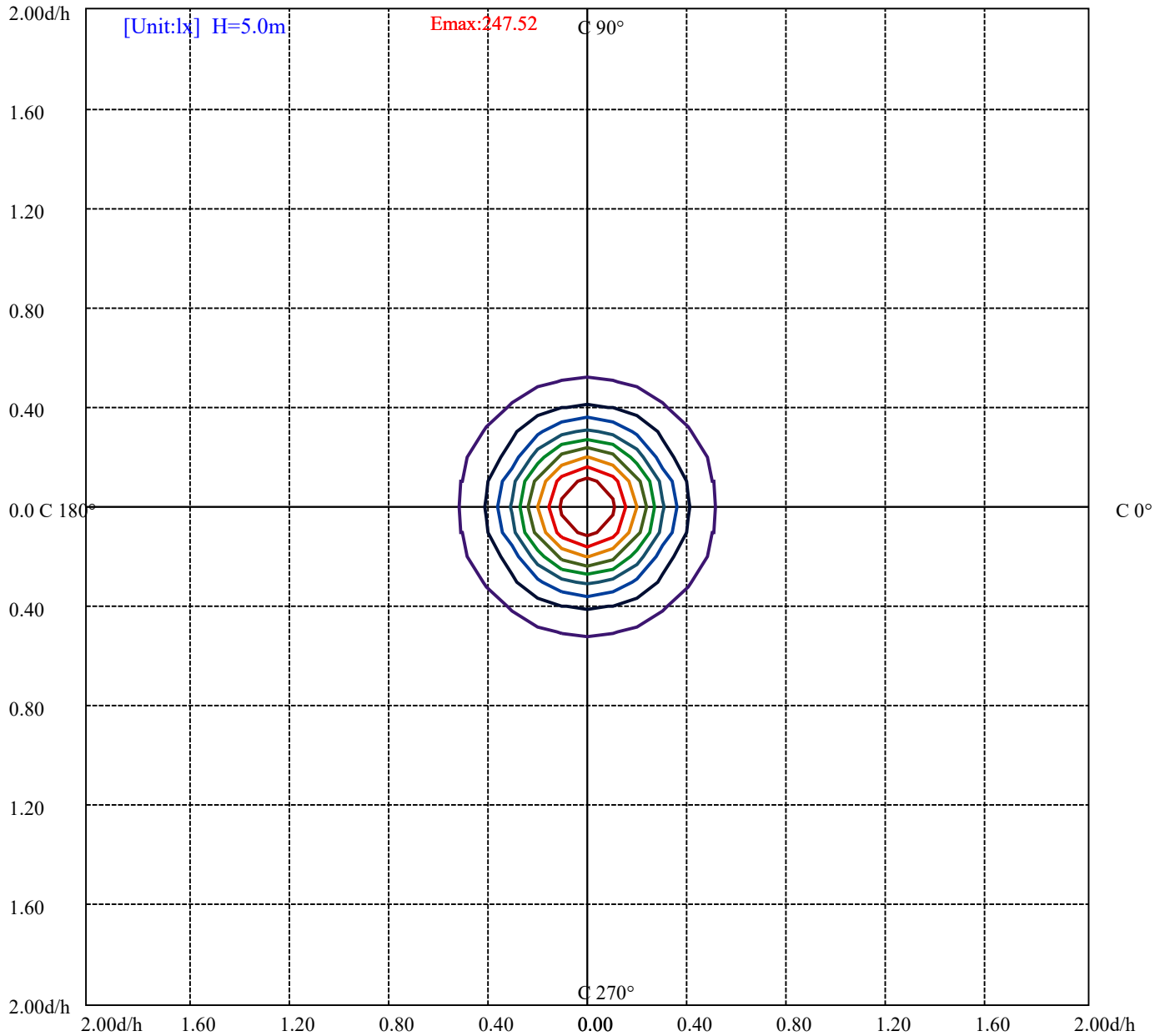
ZONAL LUMEN SUMMARY

0-10	538.08
10-20	936.90
20-30	529.66
30-40	262.96
40-50	133.47
50-60	90.05
60-70	64.05
70-80	36.41
80-90	10.12
90-100	0.36
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.43
140-150	2.63
150-160	4.94
160-170	4.11
170-180	1.10

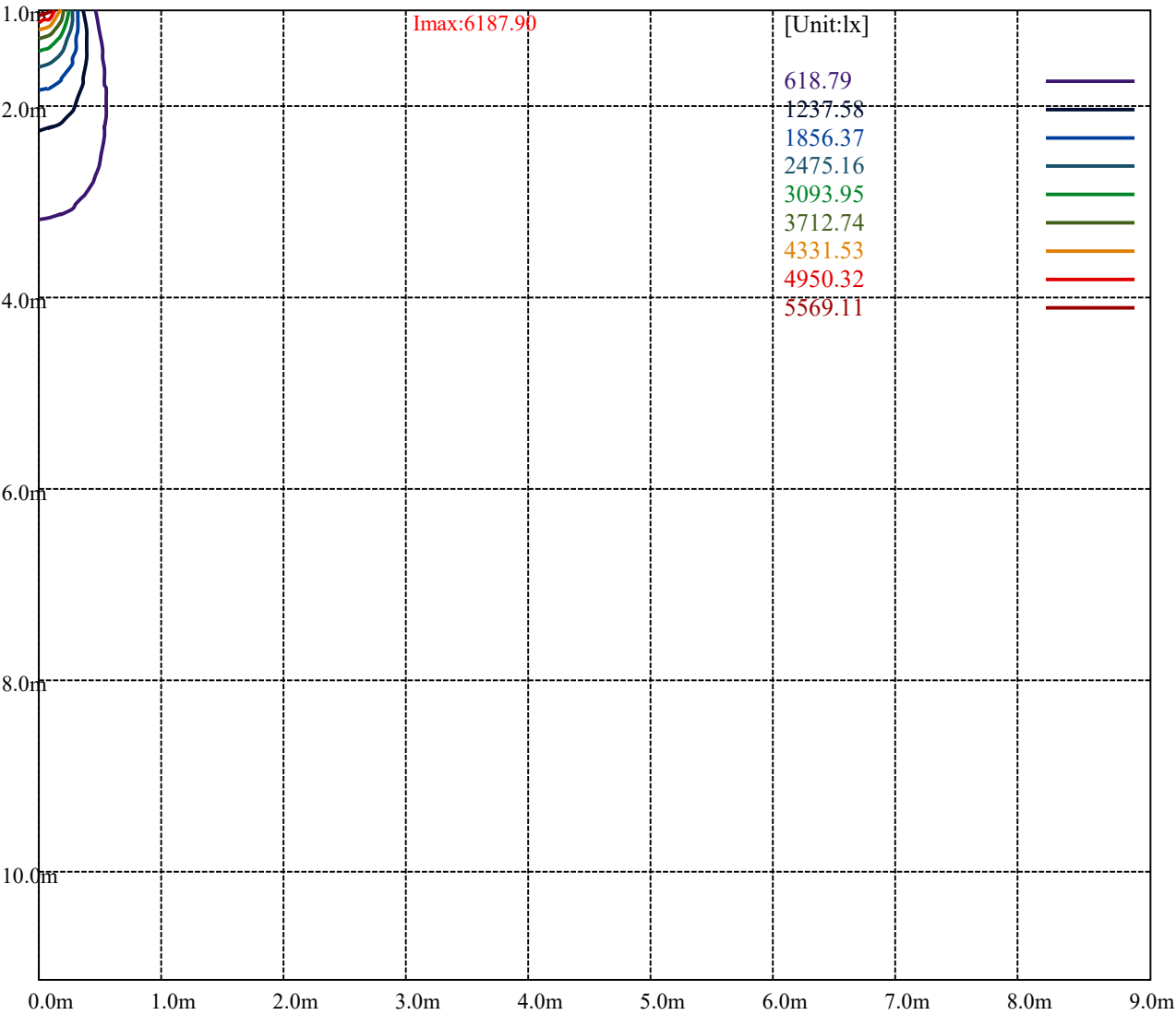




Max , Ave Beam angle of C0 plane 32.99



(10%Emax) 24.7516	—
(20%Emax) 49.5032	—
(30%Emax) 74.2548	—
(40%Emax) 99.00639	—
(50%Emax) 123.758	—
(60%Emax) 148.5096	—
(70%Emax) 173.2612	—
(80%Emax) 198.0128	—
(90%Emax) 222.7644	—



Luminance Table

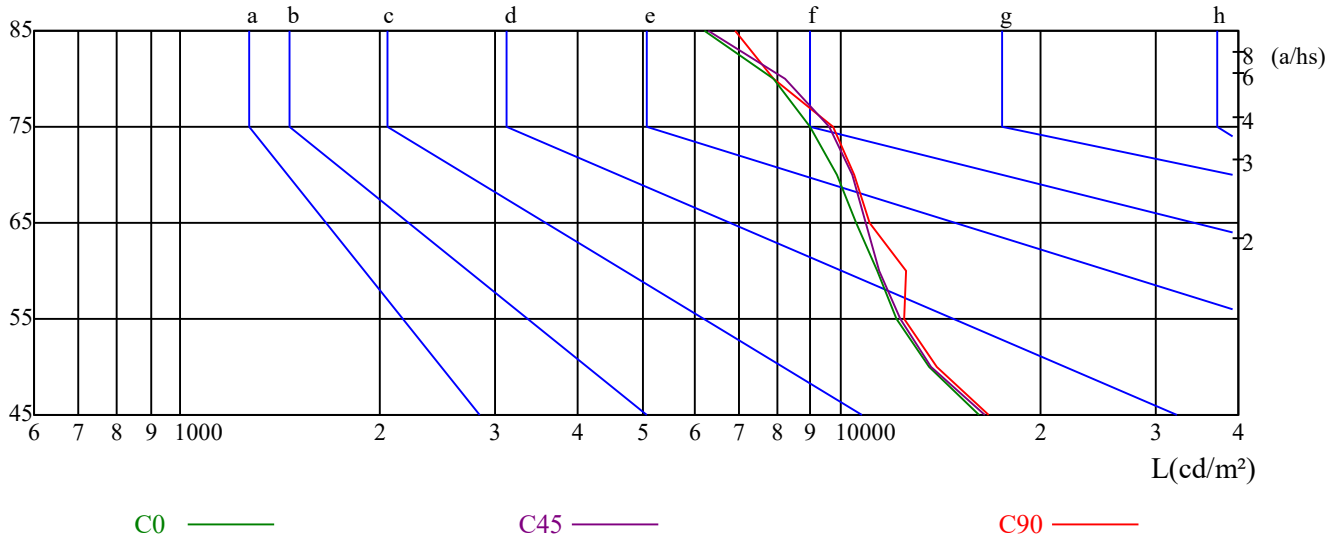
γ	45	50	55	60	65	70	75	80	85
C0	16174	13629	12108	11341	10553	9873	8985	7889	6214
C45	16545	13727	12312	11464	10891	10396	9631	8227	6289
C90	16779	13973	12504	12535	11023	10485	9712	7913	6922

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10553	11023	10891	8985	9712	9631	6214	6922	6289

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	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	0.85	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	0.72	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	6187.90	6177.20	5661.62	4030.12	2239.85	1177.46	671.69	488.82	252.44		
15.0	6187.90	6171.62	5659.43	3965.40	2288.57	1203.56	682.32	493.19	248.86		
30.0	6187.90	6153.31	5610.80	3991.46	2260.16	1224.29	699.99	489.72	254.87		
45.0	6187.90	6150.30	5623.87	4065.66	2332.27	1220.71	705.28	501.67	263.22		
60.0	6187.90	6127.97	5566.44	4108.67	2319.89	1265.06	722.89	502.52	272.01		
75.0	6187.90	6158.07	5604.35	4066.23	2388.28	1271.51	756.94	512.71	280.59		
90.0	6187.90	6120.34	5573.24	4108.38	2439.88	1310.03	755.42	515.19	282.46		
105.0	6187.90	6120.76	5506.03	4027.86	2490.10	1341.99	773.61	516.37	292.23		
120.0	6187.90	6119.76	5496.05	4040.40	2438.06	1358.16	764.73	510.14	294.35		
135.0	6187.90	6144.48	5540.32	4142.26	2534.63	1377.29	802.40	512.59	309.63		
150.0	6187.90	6144.81	5506.81	4087.48	1597.33	1397.78	817.87	510.58	310.10		
165.0	6187.90	6148.79	5463.31	4097.95	2495.09	1383.06	807.48	502.93	299.90		
180.0	6187.90	5691.94	4377.12	2804.49	1584.22	900.04	563.75	346.99	223.00		
195.0	6187.90	5738.15	4438.68	2788.99	1569.15	894.07	570.11	350.21	219.90		
210.0	6187.90	5714.57	4433.85	2843.63	1539.24	897.51	559.81	344.08	217.55		
225.0	6187.90	5721.08	4506.80	2736.73	1569.22	883.20	547.53	336.59	211.86		
240.0	6187.90	5760.07	4465.51	2773.54	1541.67	863.96	548.62	333.78	210.23		
255.0	6187.90	5791.72	4476.40	2757.43	1568.88	873.47	538.81	326.27	206.95		
270.0	6187.90	5821.92	4543.80	2773.95	1516.48	845.51	518.94	313.43	203.64		
285.0	6187.90	5824.74	4539.50	2732.21	1473.45	838.86	503.13	313.04	273.32		
300.0	6187.90	5824.47	4481.45	2663.32	1962.00	788.39	480.80	286.78	189.29		
315.0	6187.90	5855.62	4438.68	2599.77	1431.10	767.47	477.66	287.92	185.02		
330.0	6187.90	5827.22	4405.08	2549.17	1394.04	772.90	467.49	280.12	180.81		
345.0	6187.90	5849.82	4450.00	2568.67	1366.29	759.05	461.02	276.61	181.61		
360.0	6187.90	6177.20	5661.62	4030.12	2239.85	1177.46	671.69	488.82	252.44		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	166.81	126.67	101.69	83.85	67.79	54.41	40.14	25.87	12.49		
15.0	167.41	124.88	102.26	84.16	68.77	55.20	40.72	27.15	13.57		
30.0	166.58	125.62	101.04	84.65	69.18	55.53	40.96	26.40	13.65		
45.0	170.59	127.48	101.80	83.46	68.79	55.95	40.35	25.68	11.01		
60.0	172.42	130.01	103.27	84.83	68.23	54.40	39.65	23.05	11.06		
75.0	179.91	133.30	105.34	85.76	68.98	54.07	39.15	22.37	12.12		
90.0	185.81	136.07	106.98	87.27	69.44	54.43	38.47	22.52	12.20		
105.0	186.31	136.18	107.81	87.95	69.98	52.96	38.77	21.75	11.35		
120.0	189.29	137.24	107.90	88.02	70.04	53.95	37.86	22.71	10.41		
135.0	196.35	141.60	110.45	88.74	70.80	54.75	39.65	23.60	10.38		
150.0	198.61	142.40	112.42	89.00	71.20	54.34	39.35	23.42	10.31		
165.0	199.31	143.43	111.76	88.48	70.78	54.02	38.19	23.28	10.24		
180.0	153.43	118.64	92.77	74.93	57.09	40.14	24.98	12.49	2.68		
195.0	153.84	119.45	94.11	76.01	57.92	42.53	26.24	13.57	3.62		
210.0	152.01	117.42	93.76	74.64	59.17	42.78	28.22	13.65	3.64		
225.0	151.33	116.48	94.46	76.12	58.70	43.11	28.43	14.67	4.59		
240.0	150.29	116.18	94.05	75.61	59.01	43.34	29.51	14.75	4.61		
255.0	147.29	115.59	94.15	77.37	59.66	44.75	30.76	27.03	4.66		
270.0	146.39	115.42	93.84	88.21	61.00	45.98	31.91	15.95	4.69		
285.0	142.81	113.49	93.63	75.66	61.47	46.34	32.15	17.02	4.73		
300.0	137.24	110.73	89.91	74.77	60.57	44.48	30.29	16.09	4.73		
315.0	136.88	108.56	88.74	72.69	59.47	45.31	31.15	16.05	4.72		
330.0	134.91	106.80	88.06	71.20	58.08	44.03	29.98	14.99	4.68		
345.0	133.18	106.17	86.62	70.78	56.81	42.84	29.80	14.90	4.66		
360.0	166.81	126.67	101.69	83.85	67.79	54.41	40.14	25.87	12.49		

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	2.71	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
30.0	2.73	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	2.83	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
150.0	2.81	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	8.92	12.49	14.27	16.06	16.95	16.06
15.0	0.90	1.81	4.52	9.05	12.67	14.48	16.29	17.19	16.29
30.0	0.91	1.82	4.55	9.10	12.74	14.56	16.38	16.38	16.38
45.0	0.92	1.83	4.59	8.25	12.84	14.67	16.51	16.51	15.59
60.0	0.92	1.84	4.61	8.30	12.91	14.75	16.60	16.60	15.67
75.0	0.93	1.86	4.66	8.39	13.05	14.92	16.78	16.78	15.85
90.0	0.94	1.88	4.69	8.45	12.20	15.01	15.95	16.89	15.95
105.0	0.95	1.89	4.73	8.51	12.29	15.13	16.08	17.02	16.08
120.0	0.95	1.89	4.73	8.52	12.30	14.20	16.09	17.04	16.09
135.0	0.94	1.89	4.72	8.50	12.27	14.16	16.05	16.99	16.05
150.0	0.00	0.94	4.68	8.43	12.18	14.05	15.93	16.86	15.93
165.0	0.00	1.86	4.66	8.38	12.11	13.97	15.83	15.83	15.83
180.0	0.00	0.89	3.57	6.24	9.81	12.49	13.38	13.38	14.27
195.0	0.00	0.90	2.71	6.33	9.95	9.95	13.57	13.57	14.48
210.0	0.00	0.91	3.64	6.37	10.01	11.83	13.65	13.65	14.56
225.0	0.00	0.92	3.67	6.42	10.09	11.92	13.76	13.76	14.67
240.0	0.00	0.92	3.69	6.45	10.14	11.99	12.91	13.83	14.75
255.0	0.00	0.93	3.73	6.53	9.32	12.12	13.05	13.98	14.92
270.0	0.00	0.94	3.75	6.57	9.38	12.20	13.14	14.08	15.01
285.0	0.00	0.95	3.78	6.62	9.46	12.29	13.24	14.19	15.13
300.0	0.95	0.95	3.79	5.68	10.41	12.30	14.20	14.20	15.14
315.0	0.00	0.94	3.78	6.61	10.38	12.27	14.16	14.16	15.10
330.0	0.94	0.94	3.75	6.56	10.31	12.18	14.05	14.05	14.99
345.0	0.00	0.93	3.73	6.52	10.24	12.11	13.97	13.97	14.90
360.0	0.89	1.78	4.46	8.92	12.49	14.27	16.06	16.95	16.06

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	14.27
15.0	15.38
30.0	15.47
45.0	15.59
60.0	15.67
75.0	15.85
90.0	15.01
105.0	15.13
120.0	15.14
135.0	15.10
150.0	14.99
165.0	14.90
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