
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): 0.245

Lamp flux(lm): 2588.5

Power (W): 29.130

Number of Lamps: 1

PF: 0.993

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2588.51, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 88.86

Central intensity(cd): 6123.978, Maximum intensity(cd): 6123.979

Angle of maximum intensity: C=90.0 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 : 95.245%

乐达凯 LCD-RDD-LS-15-CCT-UNV-WT

Zonal flux distribution table

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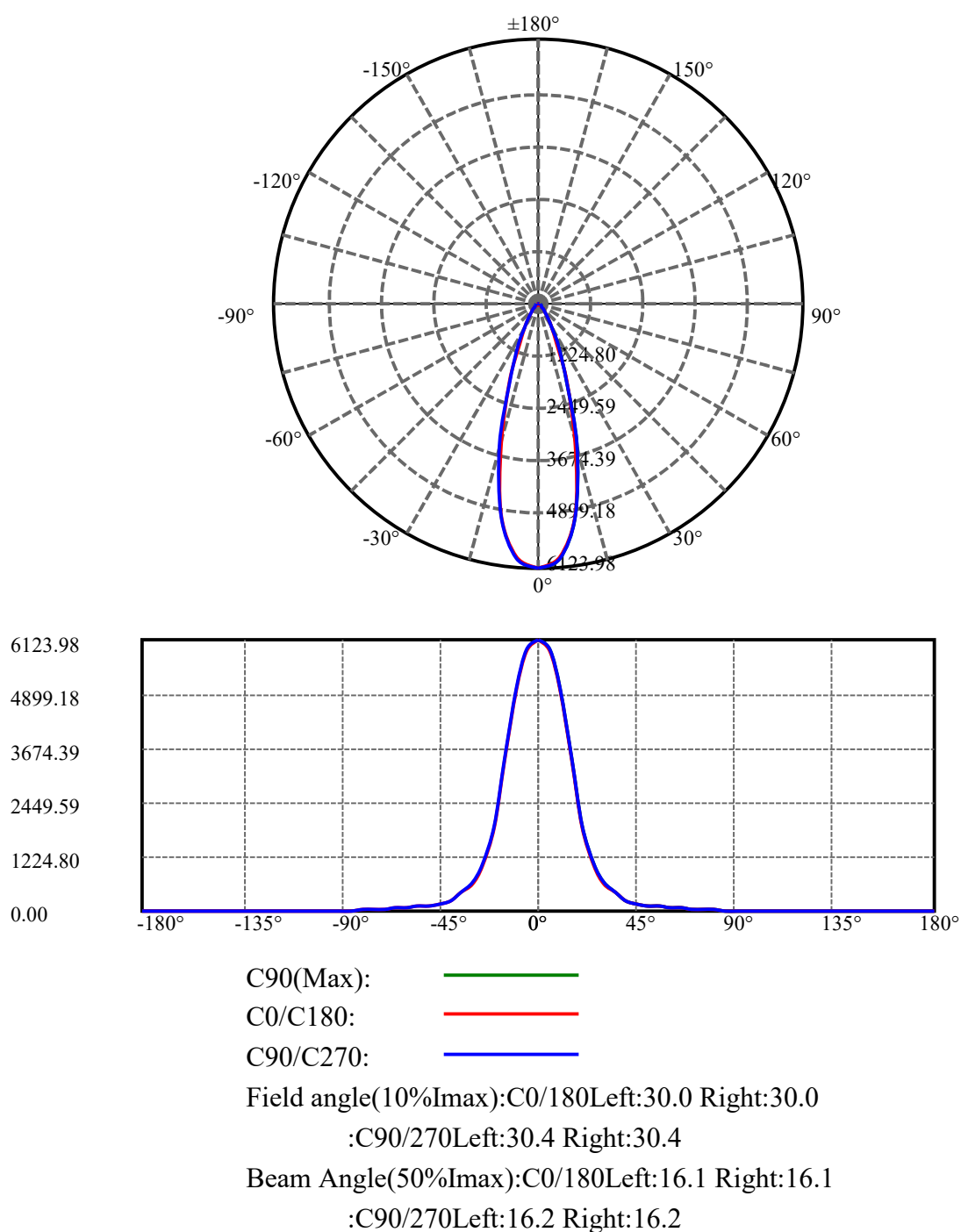
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6123.978	0.000	0	0.00%	0.00%
5.0	5903.566	143.786	143.786	5.55%	5.55%
10.0	4963.459	388.748	532.534	15.02%	20.57%
15.0	3353.597	493.362	1025.896	19.06%	39.63%
20.0	1911.091	433.884	1459.78	16.76%	56.39%
25.0	1056.298	311.224	1771.004	12.02%	68.42%
30.0	626.507	212.960	1983.965	8.23%	76.65%
35.0	406.186	152.071	2136.036	5.87%	82.52%
40.0	241.814	108.114	2244.15	4.18%	86.70%
45.0	161.631	74.701	2318.851	2.89%	89.58%
50.0	122.584	57.430	2376.28	2.22%	91.80%
55.0	98.070	47.978	2424.258	1.85%	93.65%
60.0	80.082	41.179	2465.437	1.59%	95.25%
65.0	63.826	34.984	2500.421	1.35%	96.60%
70.0	48.688	28.489	2528.911	1.10%	97.70%
75.0	34.018	21.618	2550.529	0.84%	98.53%
80.0	19.841	14.411	2564.94	0.56%	99.09%
85.0	7.833	7.520	2572.46	0.29%	99.38%
90.0	1.314	2.505	2574.965	0.10%	99.48%
95.0	0.000	0.360	2575.324	0.01%	99.49%
100.0	0.000	0.000	2575.324	0.00%	99.49%
105.0	0.000	0.000	2575.324	0.00%	99.49%
110.0	0.000	0.000	2575.324	0.00%	99.49%
115.0	0.000	0.000	2575.324	0.00%	99.49%
120.0	0.000	0.000	2575.324	0.00%	99.49%
125.0	0.000	0.000	2575.324	0.00%	99.49%
130.0	0.000	0.000	2575.324	0.00%	99.49%
135.0	0.464	0.094	2575.418	0.00%	99.49%
140.0	1.234	0.314	2575.733	0.01%	99.51%
145.0	4.133	0.895	2576.628	0.03%	99.54%
150.0	7.104	1.655	2578.283	0.06%	99.60%
155.0	10.923	2.281	2580.564	0.09%	99.69%
160.0	13.165	2.526	2583.09	0.10%	99.79%
165.0	14.669	2.294	2585.384	0.09%	99.88%
170.0	15.096	1.766	2587.15	0.07%	99.95%
175.0	15.289	1.087	2588.237	0.04%	99.99%
180.0	7.528	0.273	2588.51	0.01%	100.00%

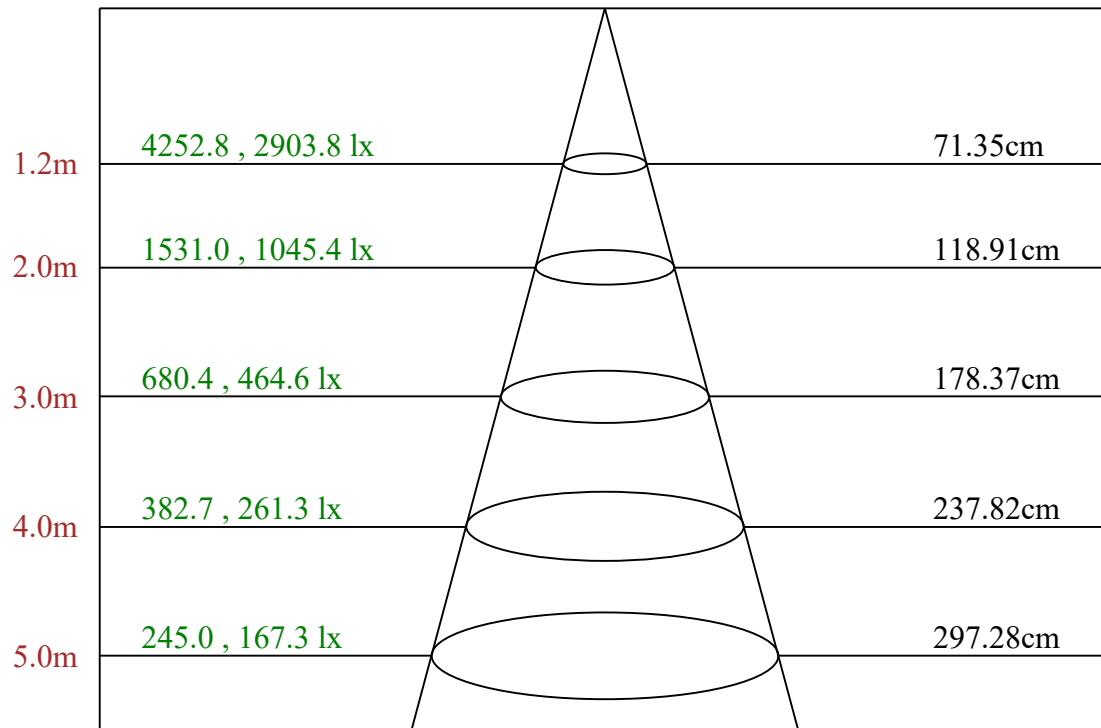
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1983.96	76.65%	76.65%
0-40	2244.15	86.70%	86.70%
0-60	2465.44	95.25%	95.25%
0-90	2574.96	99.48%	99.48%
0-120	2575.32	99.49%	99.49%
0-180	2588.51	100.00%	100.00%
60-90	109.53	4.23%	4.23%
90-120	0.36	0.01%	0.01%
90-130	0.36	0.01%	0.01%
90-150	3.32	0.13%	0.13%
90-180	13.27	0.51%	0.51%
0-32.86	2070.81	80.00%	80.00%

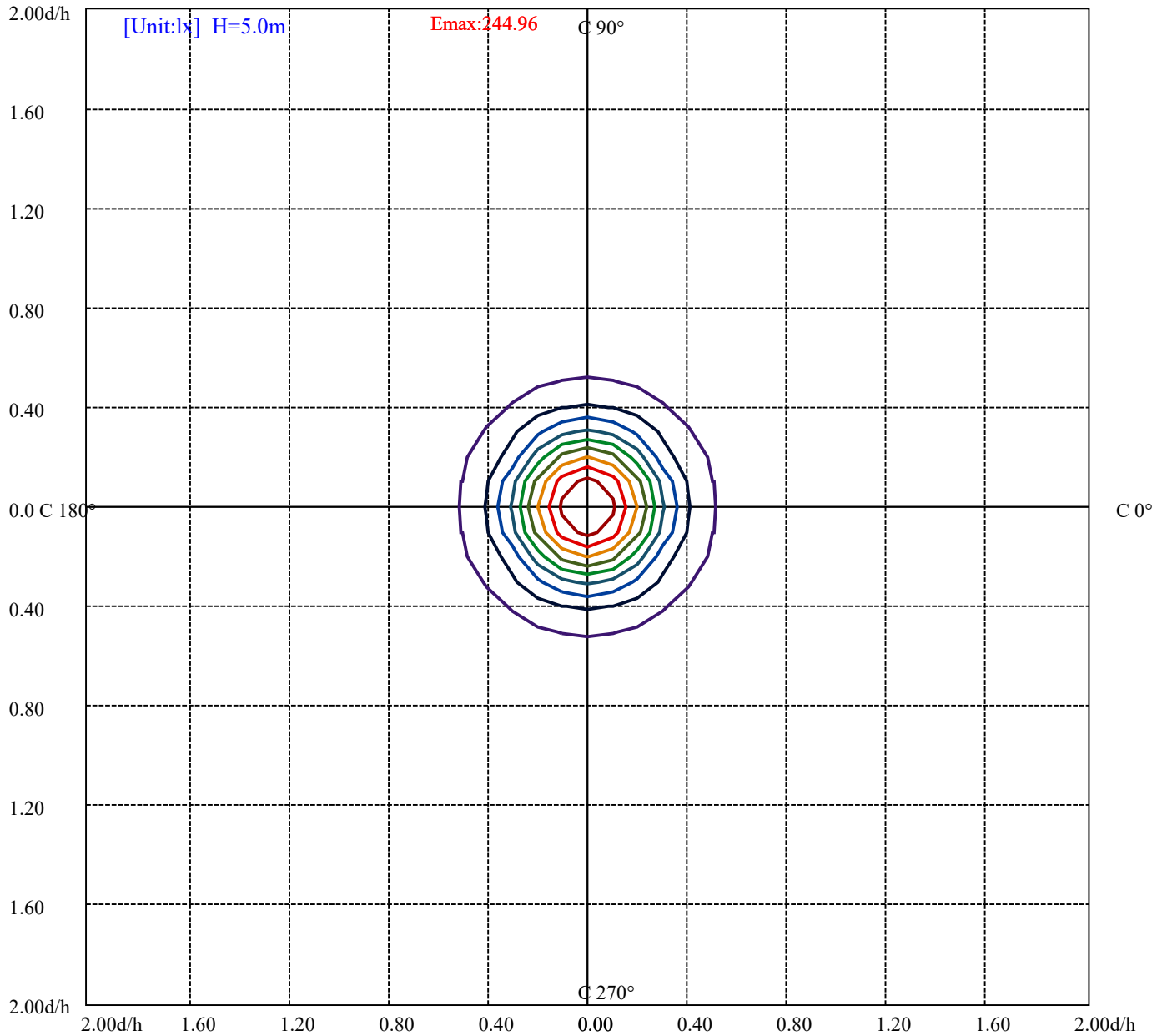
ZONAL LUMEN SUMMARY

0-10	532.53
10-20	927.25
20-30	524.18
30-40	260.19
40-50	132.13
50-60	89.16
60-70	63.47
70-80	36.03
80-90	10.02
90-100	0.36
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.41
140-150	2.55
150-160	4.81
160-170	4.06
170-180	1.09

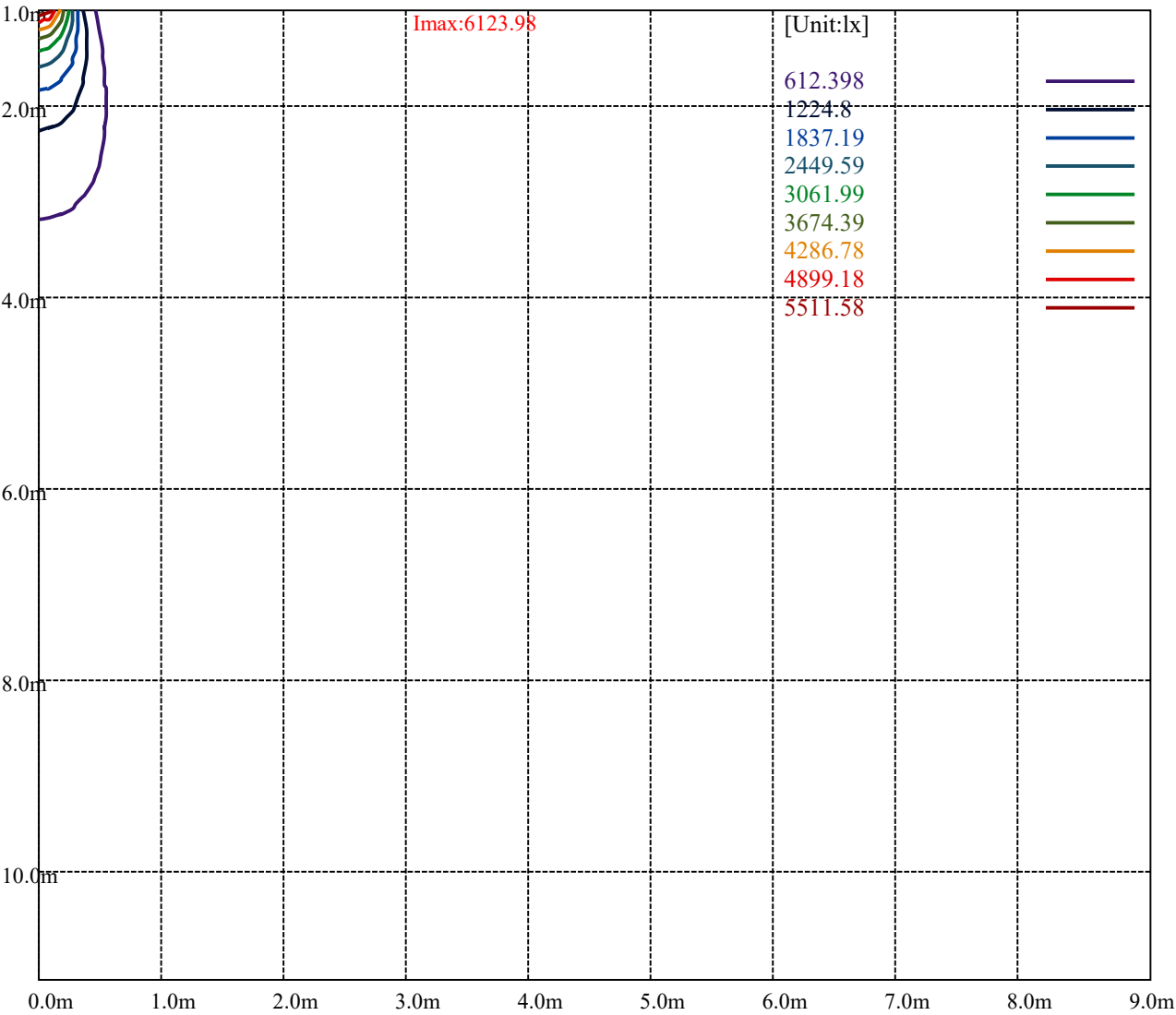




Max , Ave Beam angle of C90 plane 33.11



(10%E _{max}) 24.49588	—
(20%E _{max}) 48.9916	—
(30%E _{max}) 73.48759	—
(40%E _{max}) 97.9836	—
(50%E _{max}) 122.4796	—
(60%E _{max}) 146.9752	—
(70%E _{max}) 171.4712	—
(80%E _{max}) 195.9672	—
(90%E _{max}) 220.4628	—



Luminance Table

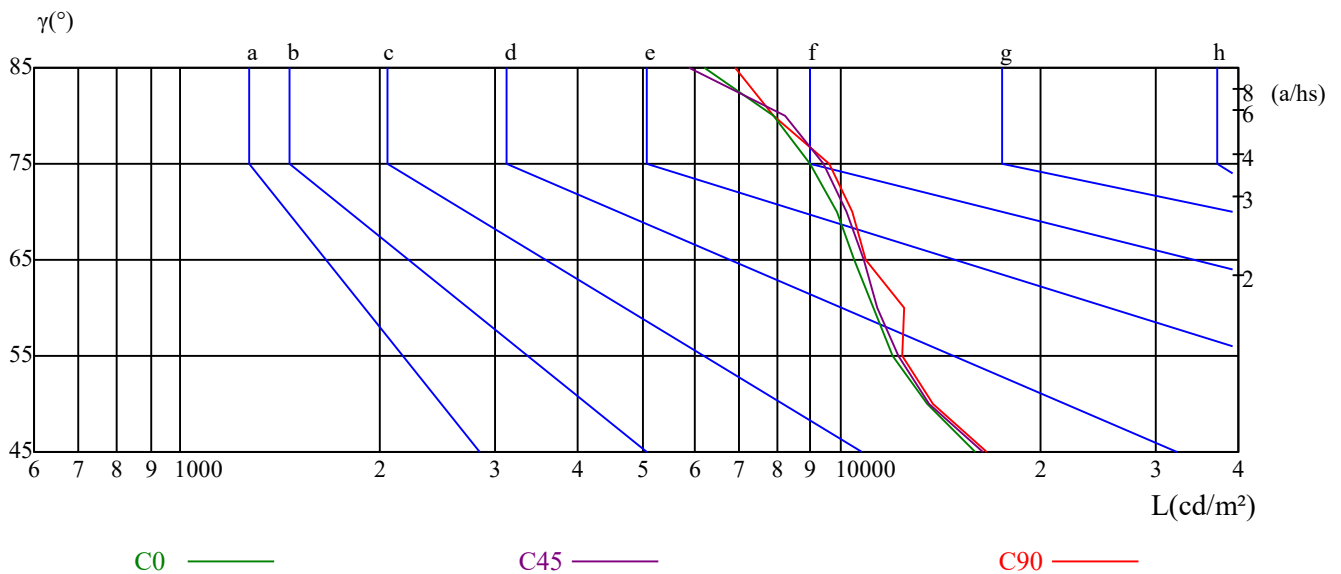
γ	45	50	55	60	65	70	75	80	85
C0	15995	13531	11998	11214	10479	9874	8986	7889	6214
C45	16381	13572	12226	11332	10813	10202	9437	8227	5908
C90	16589	13817	12387	12467	10944	10387	9582	7913	6922

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10479	10944	10813	8986	9582	9437	6214	6922	5908

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	0.85	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	6123.98	6113.27	5603.91	3988.39	2216.76	1165.03	664.58	483.50	250.67	
15.0	6123.98	6108.59	5600.90	3924.88	2265.16	1190.95	675.11	487.78	246.15	
30.0	6123.98	6090.30	5552.36	3950.37	2237.33	1212.42	692.68	485.15	252.13	
45.0	6123.98	6087.29	5566.34	4023.65	2308.53	1208.84	697.97	496.19	260.48	
60.0	6123.98	6063.13	5507.25	4065.44	2295.45	1250.98	714.45	496.89	269.19	
75.0	6123.98	6095.08	5547.85	4024.54	2364.20	1258.54	748.60	508.08	276.88	
90.0	6123.98	6058.29	5514.96	4066.07	2414.50	1296.86	746.96	510.49	279.64	
105.0	6123.98	6056.84	5448.79	3985.88	2464.34	1327.68	765.97	510.65	288.42	
120.0	6123.98	6056.79	5437.86	3998.42	2413.25	1343.85	757.10	505.36	291.48	
135.0	6123.98	6081.50	5482.98	4099.02	2508.31	1363.19	794.88	506.95	305.87	
150.0	6123.98	6081.81	5449.37	4045.80	1581.59	1383.89	808.60	505.02	307.32	
165.0	6123.98	6085.79	5407.73	4056.26	2469.15	1369.16	799.14	498.30	298.05	
180.0	6123.98	5633.35	4331.83	2775.19	1568.24	891.17	557.54	343.44	220.34	
195.0	6123.98	5679.63	4392.76	2760.18	1553.85	885.07	564.71	346.61	218.10	
210.0	6123.98	5656.12	4388.18	2813.50	1522.80	888.38	553.42	340.42	214.81	
225.0	6123.98	5662.64	4460.22	2708.42	1552.78	874.07	541.13	332.93	210.03	
240.0	6123.98	5699.00	4418.52	2745.33	1525.69	855.49	542.06	330.95	208.34	
255.0	6123.98	5732.43	4430.07	2730.57	1552.20	864.20	533.25	323.49	204.16	
270.0	6123.98	5761.76	4495.86	2744.81	1501.44	836.11	513.30	309.67	200.82	
285.0	6123.98	5764.63	4492.75	2704.54	1458.18	830.27	498.35	309.22	270.45	
300.0	6123.98	5764.36	4435.65	2635.65	1941.96	778.86	475.08	283.91	187.38	
315.0	6123.98	5795.45	4392.61	2572.50	1417.00	759.01	472.96	284.16	183.14	
330.0	6123.98	5767.93	4359.68	2524.17	1380.14	765.50	462.86	276.40	179.90	
345.0	6123.98	5789.60	4404.61	2542.73	1353.33	751.64	455.46	272.90	179.76	
360.0	6123.98	6113.27	5603.91	3988.39	2216.76	1165.03	664.58	483.50	250.67	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	165.03	124.89	100.80	82.96	66.90	54.42	40.14	25.87	12.49	
15.0	165.61	123.98	100.45	82.35	67.87	54.30	39.82	27.15	13.57	
30.0	164.75	123.79	100.12	82.83	68.27	54.61	40.05	26.40	13.65	
45.0	168.76	125.65	100.89	82.55	67.87	55.03	40.36	25.68	11.01	
60.0	170.55	129.06	102.33	83.89	68.22	54.39	39.64	23.05	11.06	
75.0	178.99	131.45	103.48	84.84	68.99	54.07	38.22	22.37	12.12	
90.0	183.93	134.19	106.04	86.33	69.44	53.49	38.47	22.52	12.20	
105.0	184.40	135.23	106.86	87.00	69.03	52.96	37.83	21.75	11.35	
120.0	187.38	136.28	106.94	87.07	70.03	53.94	37.85	21.77	9.46	
135.0	194.47	140.66	109.51	87.80	69.86	53.81	38.71	23.60	9.44	
150.0	195.82	141.48	111.50	88.07	70.27	53.41	39.35	23.42	10.31	
165.0	197.46	142.50	110.84	87.55	69.86	53.09	37.26	23.29	10.25	
180.0	151.65	118.64	91.88	74.04	57.09	40.14	24.98	12.49	2.68	
195.0	152.94	117.65	93.21	75.11	57.92	41.63	26.24	13.57	3.62	
210.0	150.19	116.51	92.84	74.64	58.25	42.78	28.22	13.65	3.64	
225.0	150.42	115.56	93.55	75.21	58.70	42.19	27.52	14.67	3.67	
240.0	148.42	115.23	93.11	74.67	59.00	42.41	29.50	14.75	4.61	
255.0	145.43	114.67	93.23	76.44	59.66	44.75	29.83	26.10	4.66	
270.0	144.51	114.48	92.90	88.21	60.06	45.98	30.97	15.95	4.69	
285.0	141.85	112.53	92.67	74.71	60.52	46.34	31.21	17.02	4.73	
300.0	135.33	109.78	88.96	73.82	59.62	44.48	30.28	16.09	4.73	
315.0	135.00	106.68	88.74	71.75	59.47	44.37	30.21	16.05	4.72	
330.0	133.99	105.88	87.14	70.27	58.09	43.10	29.98	14.99	4.68	
345.0	132.26	105.25	85.69	69.86	56.82	42.84	29.80	13.97	4.66	
360.0	165.03	124.89	100.80	82.96	66.90	54.42	40.14	25.87	12.49	

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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	8.03	12.49	14.27	16.06	16.06	16.06
15.0	0.90	1.81	4.52	9.05	12.67	14.48	16.29	16.29	16.29
30.0	0.91	1.82	4.55	8.19	12.74	14.56	16.38	16.38	15.47
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	11.98	14.75	15.67	16.59	15.67
75.0	0.93	1.86	4.66	8.39	12.12	14.92	15.85	16.78	15.85
90.0	0.94	1.88	4.69	8.45	12.20	14.08	15.95	16.89	15.95
105.0	0.95	0.95	4.73	8.51	12.29	14.18	16.08	16.08	16.08
120.0	0.95	1.89	4.73	8.52	12.30	14.20	16.09	16.09	16.09
135.0	0.94	0.94	4.72	8.50	12.27	14.16	16.05	16.05	16.05
150.0	0.00	0.94	4.68	8.43	12.18	14.05	15.93	15.93	14.99
165.0	0.00	0.93	4.66	8.38	12.11	13.97	15.83	15.83	14.90
180.0	0.00	0.89	3.57	5.35	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	5.46	9.10	11.83	12.74	13.65	14.56
225.0	0.00	0.92	3.67	5.50	9.17	11.92	12.84	13.76	14.67
240.0	0.00	0.92	3.69	5.53	9.22	11.98	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	5.63	9.38	12.20	13.14	14.08	15.01
285.0	0.00	0.95	3.78	5.67	9.46	12.29	13.24	14.18	15.13
300.0	0.95	0.95	3.79	5.68	9.46	12.30	13.25	14.20	15.14
315.0	0.00	0.94	3.78	5.66	10.38	12.27	13.22	14.16	15.10
330.0	0.94	0.94	3.75	6.56	9.37	12.18	14.05	14.05	14.99
345.0	0.00	0.93	3.73	5.59	9.31	12.11	13.97	13.97	14.90
360.0	0.89	1.78	4.46	8.03	12.49	14.27	16.06	16.06	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	14.75
75.0	14.92
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