
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): 0.248

Lamp flux(lm): 2542.6

Power (W): 29.540

Number of Lamps: 1

PF: 0.993

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2542.61, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 86.07

Central intensity(cd): 6015.195, Maximum intensity(cd): 6015.195

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 : 95.239%

乐达凯 LCD-RDD-LS-15-CCT-UNV-WT

Zonal flux distribution table

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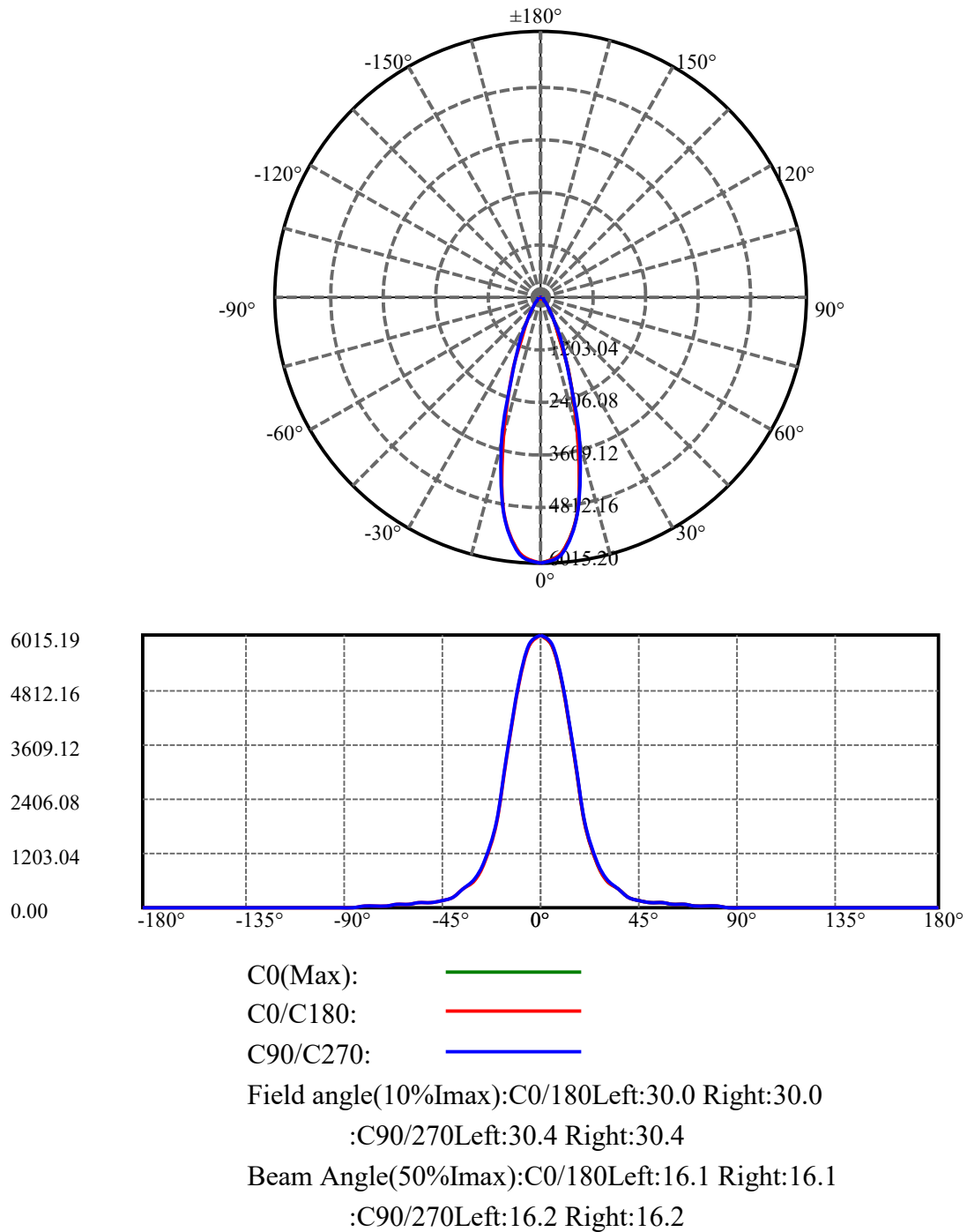
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6015.195	0.000	0	0.00%	0.00%
5.0	5798.402	141.228	141.228	5.55%	5.55%
10.0	4875.104	381.825	523.053	15.02%	20.57%
15.0	3293.765	484.572	1007.625	19.06%	39.63%
20.0	1877.084	426.151	1433.775	16.76%	56.39%
25.0	1037.648	305.702	1739.477	12.02%	68.41%
30.0	615.307	209.183	1948.66	8.23%	76.64%
35.0	399.048	149.371	2098.031	5.87%	82.51%
40.0	237.411	106.188	2204.219	4.18%	86.69%
45.0	158.852	73.371	2277.59	2.89%	89.58%
50.0	120.271	56.401	2333.991	2.22%	91.80%
55.0	96.333	47.097	2381.088	1.85%	93.65%
60.0	78.769	40.474	2421.562	1.59%	95.24%
65.0	62.822	34.421	2455.984	1.35%	96.59%
70.0	47.801	28.010	2483.994	1.10%	97.69%
75.0	33.553	21.264	2505.258	0.84%	98.53%
80.0	19.532	14.204	2519.462	0.56%	99.09%
85.0	7.603	7.373	2526.835	0.29%	99.38%
90.0	1.275	2.431	2529.266	0.10%	99.48%
95.0	0.000	0.349	2529.615	0.01%	99.49%
100.0	0.000	0.000	2529.615	0.00%	99.49%
105.0	0.000	0.000	2529.615	0.00%	99.49%
110.0	0.000	0.000	2529.615	0.00%	99.49%
115.0	0.000	0.000	2529.615	0.00%	99.49%
120.0	0.000	0.000	2529.615	0.00%	99.49%
125.0	0.000	0.000	2529.615	0.00%	99.49%
130.0	0.000	0.000	2529.615	0.00%	99.49%
135.0	0.464	0.094	2529.709	0.00%	99.49%
140.0	1.234	0.314	2530.023	0.01%	99.50%
145.0	4.133	0.895	2530.919	0.04%	99.54%
150.0	6.873	1.621	2532.539	0.06%	99.60%
155.0	10.731	2.228	2534.767	0.09%	99.69%
160.0	13.051	2.494	2537.261	0.10%	99.79%
165.0	14.477	2.269	2539.53	0.09%	99.88%
170.0	14.980	1.747	2541.277	0.07%	99.95%
175.0	14.862	1.068	2542.345	0.04%	99.99%
180.0	7.414	0.266	2542.611	0.01%	100.00%

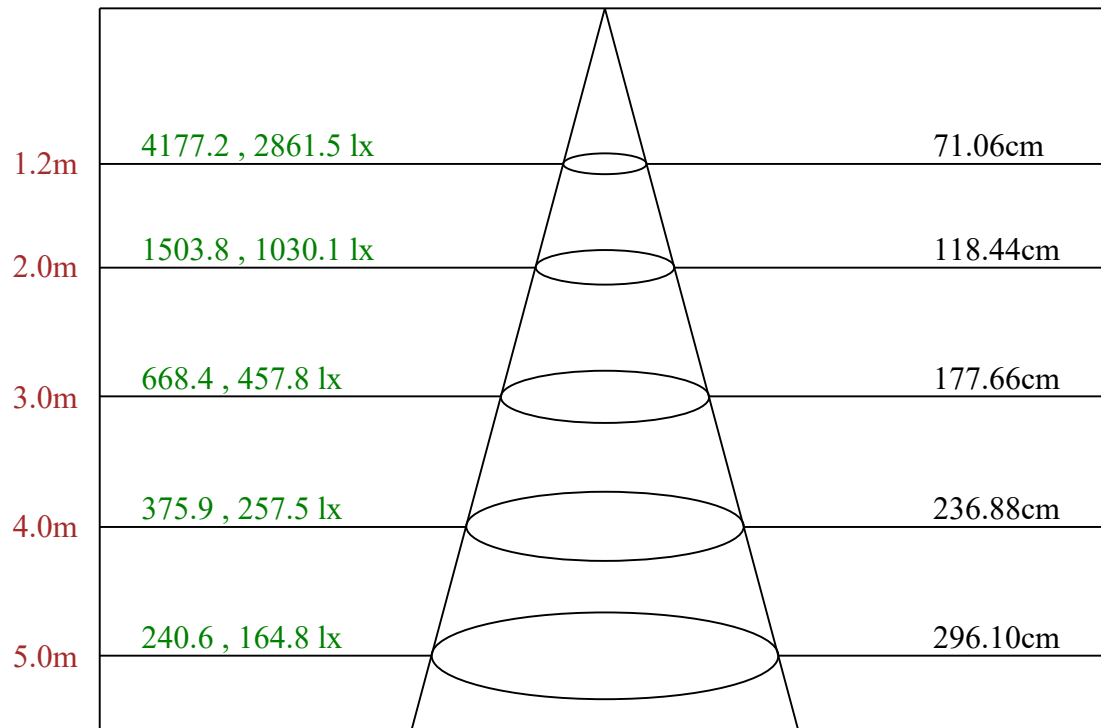
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1948.66	76.64%	76.64%
0-40	2204.22	86.69%	86.69%
0-60	2421.56	95.24%	95.24%
0-90	2529.27	99.48%	99.48%
0-120	2529.62	99.49%	99.49%
0-180	2542.61	100.00%	100.00%
60-90	107.70	4.24%	4.24%
90-120	0.35	0.01%	0.01%
90-130	0.35	0.01%	0.01%
90-150	3.27	0.13%	0.13%
90-180	13.08	0.51%	0.51%
0-32.86	2034.09	80.00%	80.00%

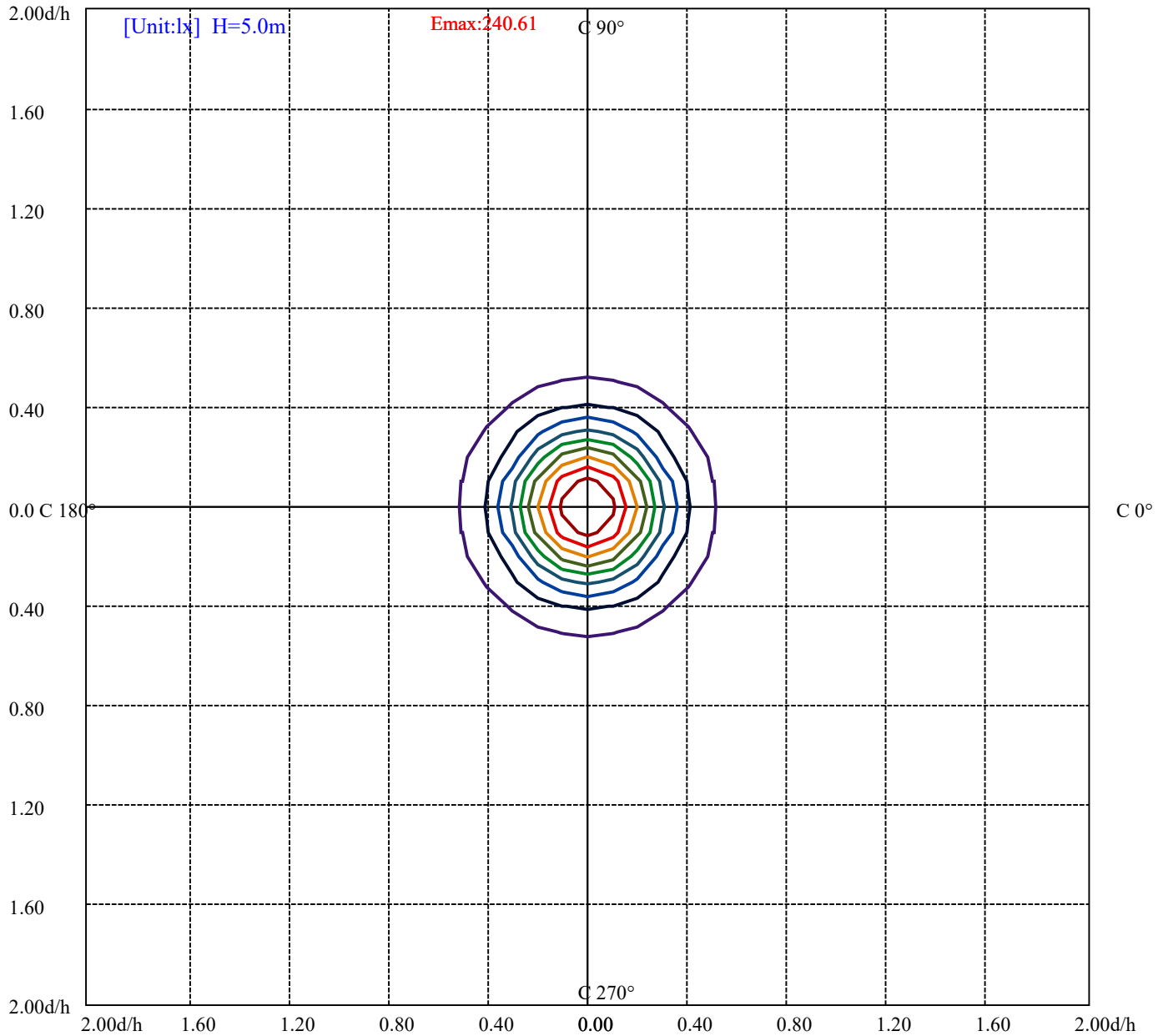
ZONAL LUMEN SUMMARY

0-10	523.05
10-20	910.72
20-30	514.88
30-40	255.56
40-50	129.77
50-60	87.57
60-70	62.43
70-80	35.47
80-90	9.80
90-100	0.35
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.41
140-150	2.52
150-160	4.72
160-170	4.02
170-180	1.07

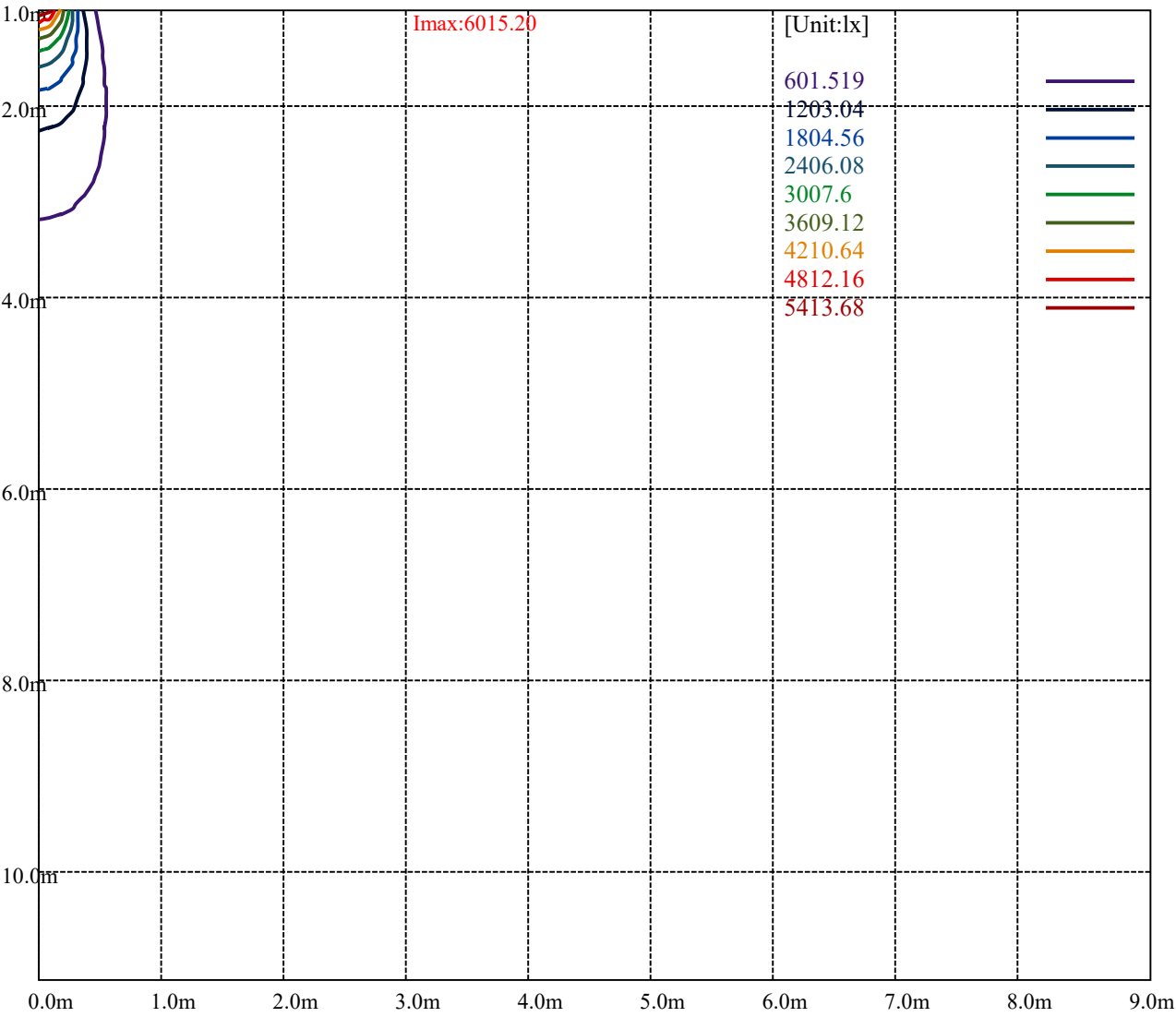




Max , Ave Beam angle of C0 plane 32.99



(10%E _{max}) 24.06076	—
(20%E _{max}) 48.1216	—
(30%E _{max}) 72.1824	—
(40%E _{max}) 96.2432	—
(50%E _{max}) 120.3036	—
(60%E _{max}) 144.3644	—
(70%E _{max}) 168.4252	—
(80%E _{max}) 192.486	—
(90%E _{max}) 216.5468	—



Luminance Table

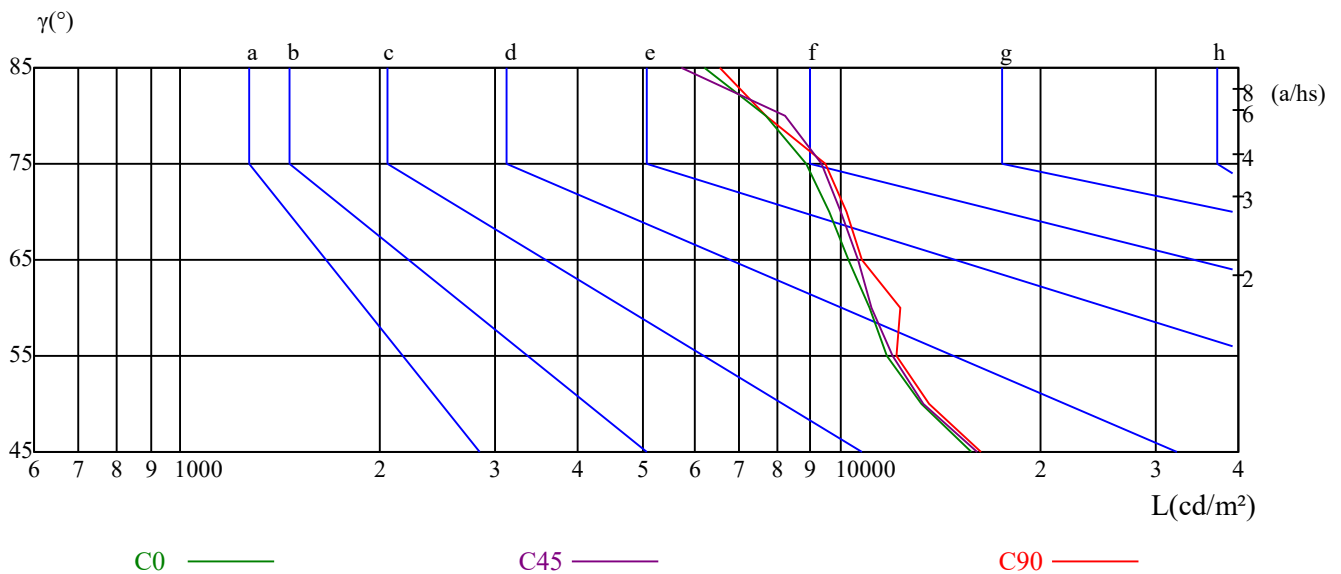
γ	45	50	55	60	65	70	75	80	85
C0	15725	13234	11776	11023	10252	9595	8863	7706	6214
C45	16098	13339	11993	11132	10615	10007	9372	8227	5720
C90	16304	13608	12154	12266	10785	10191	9453	7720	6537

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10252	10785	10615	8863	9453	9372	6214	6537	5720

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	0.70	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	6015.19	6004.49	5504.04	3917.06	2176.64	1144.52	652.99	475.47	246.21	
15.0	6015.20	5999.81	5501.11	3855.66	2225.60	1171.18	663.43	478.79	242.56	
30.0	6015.20	5980.61	5452.72	3879.98	2197.11	1189.57	679.88	476.92	246.65	
45.0	6015.20	5979.42	5466.69	3952.34	2268.31	1187.81	685.17	487.97	255.91	
60.0	6015.20	5957.11	5410.36	3994.15	2255.24	1229.96	702.57	487.74	264.62	
75.0	6015.20	5987.23	5448.36	3952.95	2321.43	1236.23	735.58	498.78	272.23	
90.0	6015.20	5950.44	5416.49	3992.93	2371.36	1273.42	733.84	501.11	274.02	
105.0	6015.20	5949.00	5352.30	3914.94	2420.83	1304.03	751.78	502.13	283.69	
120.0	6015.19	5949.88	5342.21	3928.10	2371.06	1320.41	743.03	496.93	285.85	
135.0	6015.19	5971.78	5384.70	4025.55	2463.46	1338.39	779.63	497.41	301.09	
150.0	6015.20	5972.10	5351.94	3972.97	1553.21	1358.36	794.41	495.57	300.71	
165.0	6015.19	5977.01	5310.21	3983.12	2425.08	1344.78	785.08	489.86	291.49	
180.0	6015.19	5533.48	4255.15	2726.15	1540.60	875.12	547.73	337.20	215.88	
195.0	6015.20	5578.94	4314.54	2711.63	1525.97	869.79	554.82	340.31	214.51	
210.0	6015.20	5554.66	4309.57	2763.22	1495.38	872.84	543.36	334.03	211.16	
225.0	6015.20	5562.08	4381.61	2660.88	1525.35	858.53	531.99	327.45	205.46	
240.0	6015.20	5598.45	4340.82	2695.96	1498.27	839.95	532.00	324.55	204.69	
255.0	6015.20	5630.16	4351.04	2681.29	1525.24	849.32	523.95	316.98	200.44	
270.0	6015.20	5658.60	4417.09	2696.05	1475.18	822.05	503.93	304.98	198.00	
285.0	6015.20	5662.47	4413.29	2655.35	1431.69	816.08	489.84	303.55	265.72	
300.0	6015.19	5662.14	4357.82	2588.76	1908.20	765.74	466.64	278.28	183.63	
315.0	6015.19	5690.51	4313.42	2526.70	1391.24	745.65	464.38	280.33	180.28	
330.0	6015.20	5664.83	4281.18	2477.84	1355.55	751.31	454.35	271.67	176.12	
345.0	6015.19	5686.45	4325.84	2496.79	1328.02	738.51	447.02	269.14	176.94	
360.0	6015.19	6004.49	5504.04	3917.06	2176.64	1144.52	652.99	475.47	246.21	
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0	
0.0	162.36	122.21	98.13	81.18	66.01	52.63	39.25	24.98	12.49	
15.0	162.92	121.28	98.65	81.46	66.98	53.40	39.82	26.25	12.67	
30.0	161.10	121.05	98.30	81.91	67.35	53.70	40.05	26.39	12.74	
45.0	166.02	122.91	99.06	81.63	66.96	54.12	40.36	25.68	10.09	
60.0	167.81	126.32	100.50	82.06	67.31	53.48	38.72	23.05	11.06	
75.0	175.27	128.66	101.62	82.97	68.06	53.14	38.22	21.44	11.19	
90.0	180.17	132.32	104.16	84.46	67.57	52.55	37.54	21.58	11.26	
105.0	181.56	133.33	105.91	85.11	68.09	52.01	37.83	20.80	11.35	
120.0	183.63	134.41	106.01	86.13	69.10	53.01	36.91	21.77	9.47	
135.0	190.66	137.80	107.60	85.89	68.90	52.86	37.75	23.60	9.44	
150.0	192.04	138.65	108.67	87.12	69.32	52.46	38.41	22.48	10.30	
165.0	194.64	139.69	108.96	86.61	68.92	52.15	37.25	22.35	9.31	
180.0	148.97	115.97	90.99	73.15	55.31	39.25	24.98	12.49	2.68	
195.0	149.34	115.85	92.32	73.31	57.02	41.63	26.25	13.58	3.62	
210.0	148.35	113.77	91.02	72.81	58.25	41.87	27.30	13.65	3.64	
225.0	147.67	113.74	91.72	73.38	57.79	41.28	27.52	14.68	3.67	
240.0	145.68	113.41	91.28	73.76	58.09	42.41	28.58	14.75	4.61	
255.0	142.64	112.81	91.37	75.52	58.73	43.82	29.83	26.10	4.66	
270.0	142.64	112.61	91.03	87.27	60.06	45.04	30.97	15.95	4.69	
285.0	139.01	109.69	90.78	73.76	60.52	45.39	30.26	16.08	4.73	
300.0	134.41	106.96	88.03	71.94	58.68	43.54	29.34	16.09	4.73	
315.0	133.08	105.71	86.83	70.79	57.58	43.42	30.20	16.05	4.72	
330.0	132.09	103.98	85.25	69.32	56.21	42.16	29.04	14.99	4.68	
345.0	130.38	103.37	83.82	68.92	54.95	41.91	28.87	13.97	4.66	
360.0	162.36	122.21	98.13	81.18	66.01	52.63	39.25	24.98	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	2.72	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	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	12.49	14.27	16.06	16.06	15.17		
15.0	0.91	1.81	4.53	8.15	12.67	14.48	16.29	16.29	15.39		
30.0	0.91	1.82	4.55	8.19	11.83	14.56	15.47	16.38	15.47		
45.0	0.92	1.83	4.59	8.26	11.92	14.68	15.59	16.51	15.59		
60.0	0.92	1.84	4.61	8.30	11.99	13.83	15.67	15.67	15.67		
75.0	0.93	1.86	4.66	8.39	12.12	13.98	15.85	15.85	15.85		
90.0	0.94	1.88	4.69	8.45	12.20	14.08	15.95	15.95	15.95		
105.0	0.95	0.95	4.73	8.51	12.29	14.18	16.08	16.08	15.13		
120.0	0.95	1.89	4.73	8.52	12.30	14.20	16.09	16.09	15.14		
135.0	0.94	0.94	4.72	7.55	12.27	14.16	16.05	16.05	15.10		
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	7.45	11.18	13.97	15.83	15.83	14.90		
180.0	0.00	0.89	3.57	5.35	9.81	11.60	13.38	13.38	14.27		
195.0	0.00	0.91	2.72	5.43	9.05	9.96	12.67	13.58	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	14.68		
240.0	0.00	0.92	3.69	5.53	9.22	11.99	12.91	13.83	13.83		
255.0	0.00	0.93	3.73	5.59	9.32	12.12	13.05	13.98	13.98		
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	14.18		
300.0	0.95	0.95	3.79	5.68	9.47	12.30	13.25	14.20	15.14		
315.0	0.00	0.94	3.78	5.66	9.44	12.27	13.21	14.16	14.16		
330.0	0.94	0.94	3.75	5.62	9.37	12.18	13.12	14.05	14.05		
345.0	0.00	0.93	3.73	5.59	9.31	12.11	13.04	13.97	13.97		
360.0	0.89	1.78	4.46	8.03	12.49	14.27	16.06	16.06	15.17		

Intensity data(cd)

C/ γ (°)	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	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