
乐达凯

Client:

LumCAT: LCD-SQD-12-CCT-UNV-WT

Luminaire: LED LAMP

Report No:

Ballast type:

Test No:

Voltage(V): 119.990

LampCAT:

Current(A): 0.242

Lamp flux(lm): 2418.7

Power (W): 28.790

Number of Lamps: 1

PF: 0.992

Length(mm): 200

Width(mm): 70

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 2418.68, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 84.01

Central intensity(cd): 1030.854, Maximum intensity(cd): 1030.854

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=94.0

[C90/270]Total=93.0

Field angle(10%Imax): [C0/180]Total=154.0

[C90/270]Total=153.8

Maximum s/h(1/2): C0_180=1.20 C90_270=1.19

Maximum s/h(1/4): C0_180=1.27 C90_270=1.26

Up flux rate of lamp(%): 0.43%

Down flux rate of lamp(%): 99.57%

Up flux rate of LUM(%): 0.43%

Down flux rate of LUM(%): 99.57%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 83.208%

乐达凯 LCD-SQD-12-CCT-UNV-WT

Zonal flux distribution table

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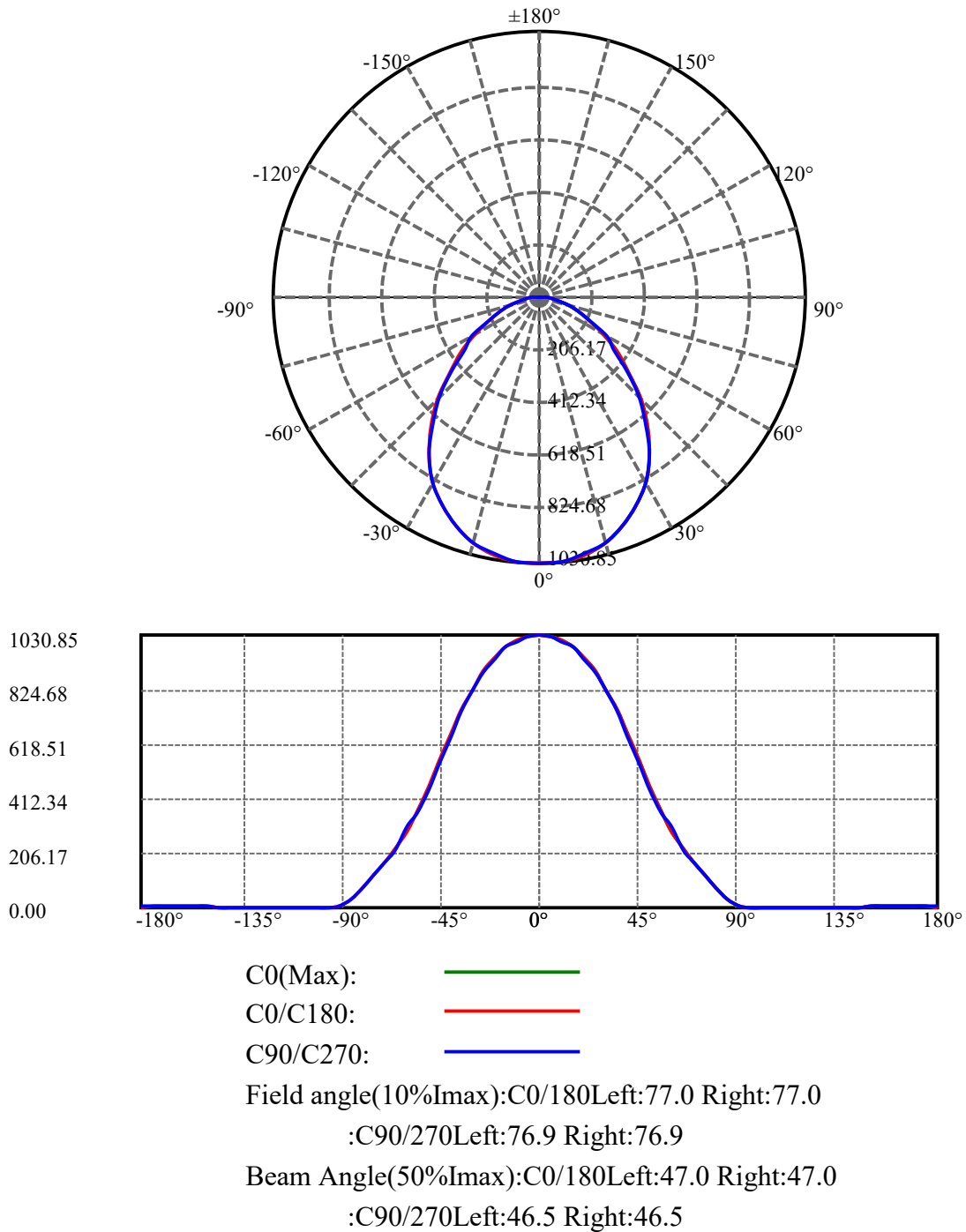
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1030.854	0.000	0	0.00%	0.00%
5.0	1024.989	24.577	24.577	1.02%	1.02%
10.0	1008.849	72.757	97.334	3.01%	4.02%
15.0	982.642	118.134	215.468	4.88%	8.91%
20.0	944.167	158.796	374.264	6.57%	15.47%
25.0	892.032	192.583	566.847	7.96%	23.44%
30.0	828.057	217.679	784.526	9.00%	32.44%
35.0	749.371	232.287	1016.813	9.60%	42.04%
40.0	659.847	235.117	1251.931	9.72%	51.76%
45.0	556.278	225.176	1477.106	9.31%	61.07%
50.0	456.205	204.587	1681.693	8.46%	69.53%
55.0	366.422	178.866	1860.559	7.40%	76.92%
60.0	291.116	151.988	2012.547	6.28%	83.21%
65.0	225.851	125.676	2138.223	5.20%	88.40%
70.0	171.589	100.634	2238.858	4.16%	92.57%
75.0	122.253	76.806	2315.663	3.18%	95.74%
80.0	76.719	53.240	2368.903	2.20%	97.94%
85.0	31.542	29.417	2398.32	1.22%	99.16%
90.0	4.625	9.903	2408.223	0.41%	99.57%
95.0	0.732	1.467	2409.69	0.06%	99.63%
100.0	0.463	0.325	2410.014	0.01%	99.64%
105.0	0.463	0.248	2410.262	0.01%	99.65%
110.0	0.463	0.242	2410.504	0.01%	99.66%
115.0	0.463	0.235	2410.739	0.01%	99.67%
120.0	0.887	0.328	2411.067	0.01%	99.69%
125.0	0.927	0.419	2411.487	0.02%	99.70%
130.0	0.965	0.411	2411.898	0.02%	99.72%
135.0	1.120	0.421	2412.319	0.02%	99.74%
140.0	1.816	0.544	2412.863	0.02%	99.76%
145.0	2.393	0.702	2413.565	0.03%	99.79%
150.0	3.707	0.898	2414.464	0.04%	99.83%
155.0	4.671	1.060	2415.524	0.04%	99.87%
160.0	5.134	1.028	2416.552	0.04%	99.91%
165.0	5.560	0.881	2417.434	0.04%	99.95%
170.0	6.024	0.687	2418.121	0.03%	99.98%
175.0	6.487	0.448	2418.568	0.02%	100.00%
180.0	3.243	0.116	2418.685	0.00%	100.00%

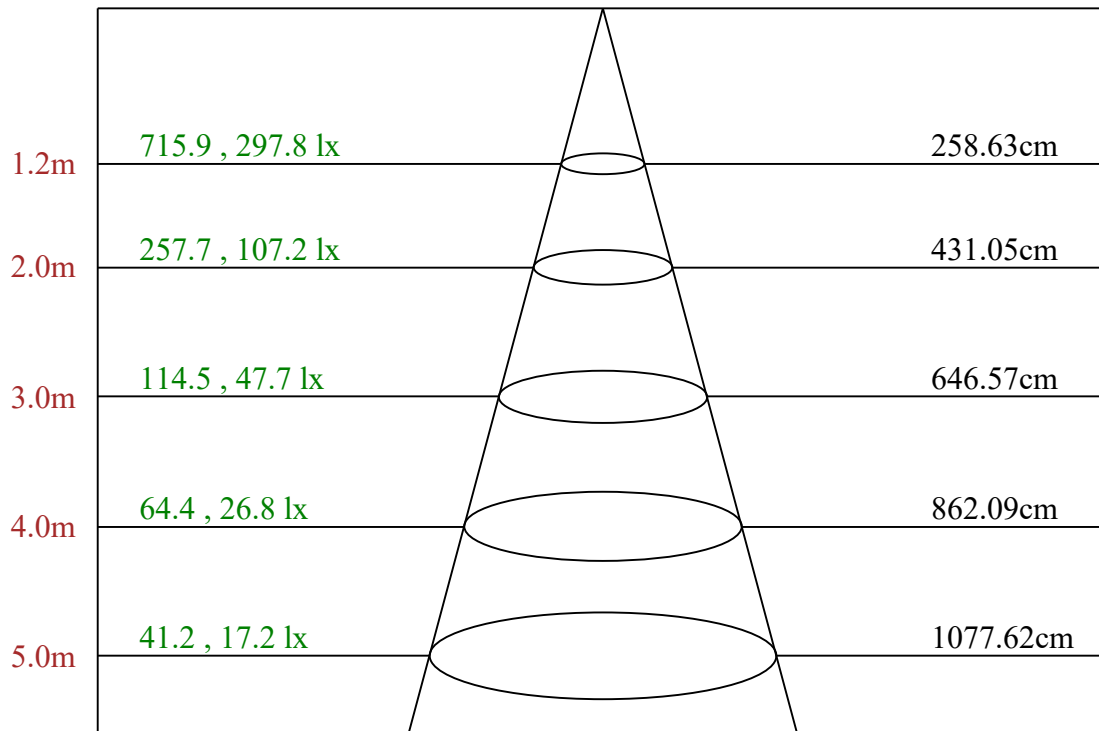
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	784.53	32.44%	32.44%
0-40	1251.93	51.76%	51.76%
0-60	2012.55	83.21%	83.21%
0-90	2408.22	99.57%	99.57%
0-120	2411.07	99.69%	99.69%
0-180	2418.68	100.00%	100.00%
60-90	395.68	16.36%	16.36%
90-120	2.84	0.12%	0.12%
90-130	3.68	0.15%	0.15%
90-150	6.24	0.26%	0.26%
90-180	10.35	0.43%	0.43%
0-57.45	1934.95	80.00%	80.00%

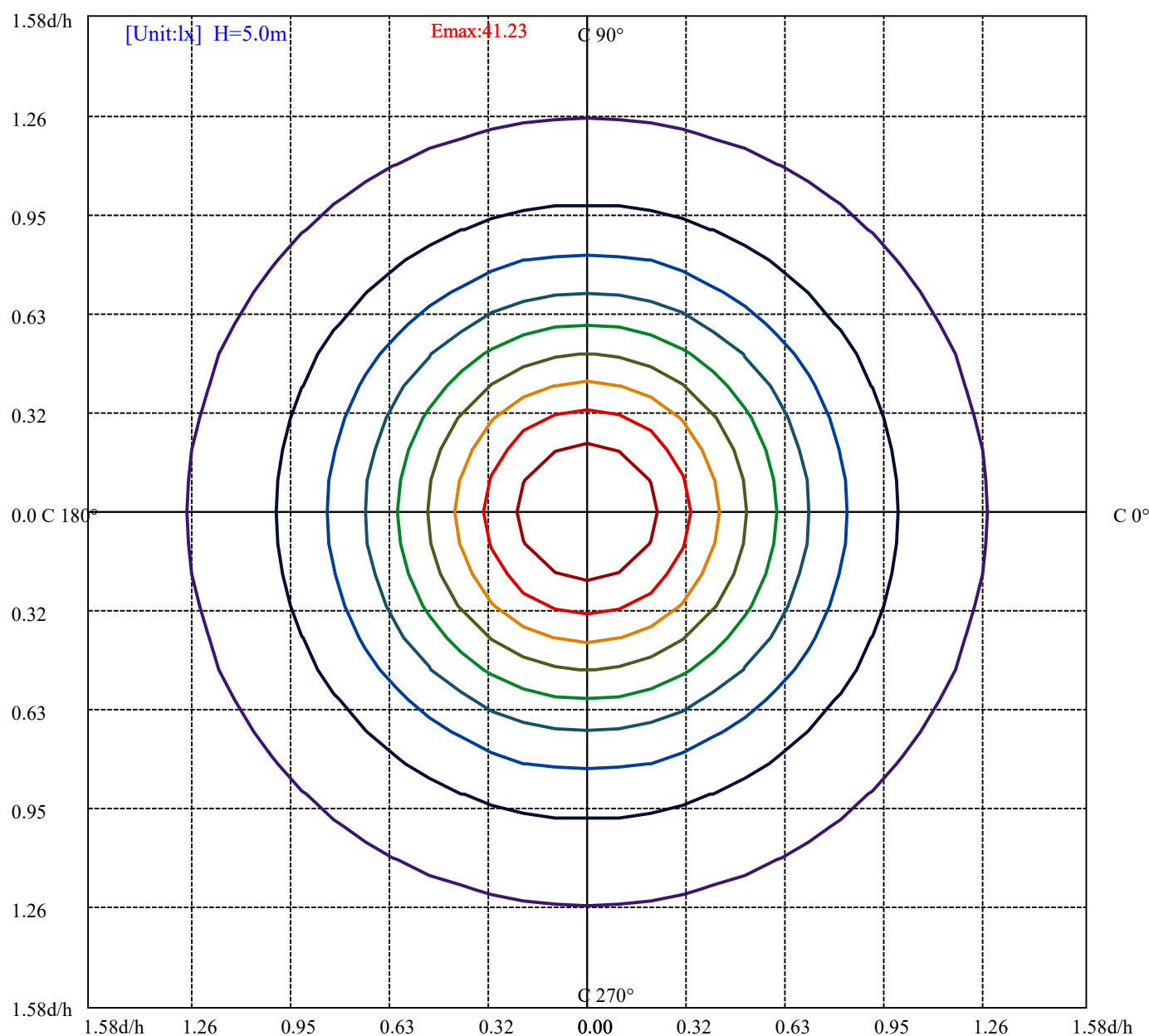
ZONAL LUMEN SUMMARY

0-10	97.33
10-20	276.93
20-30	410.26
30-40	467.40
40-50	429.76
50-60	330.85
60-70	226.31
70-80	130.05
80-90	39.32
90-100	1.79
100-110	0.49
110-120	0.56
120-130	0.83
130-140	0.97
140-150	1.60
150-160	2.09
160-170	1.57
170-180	0.45

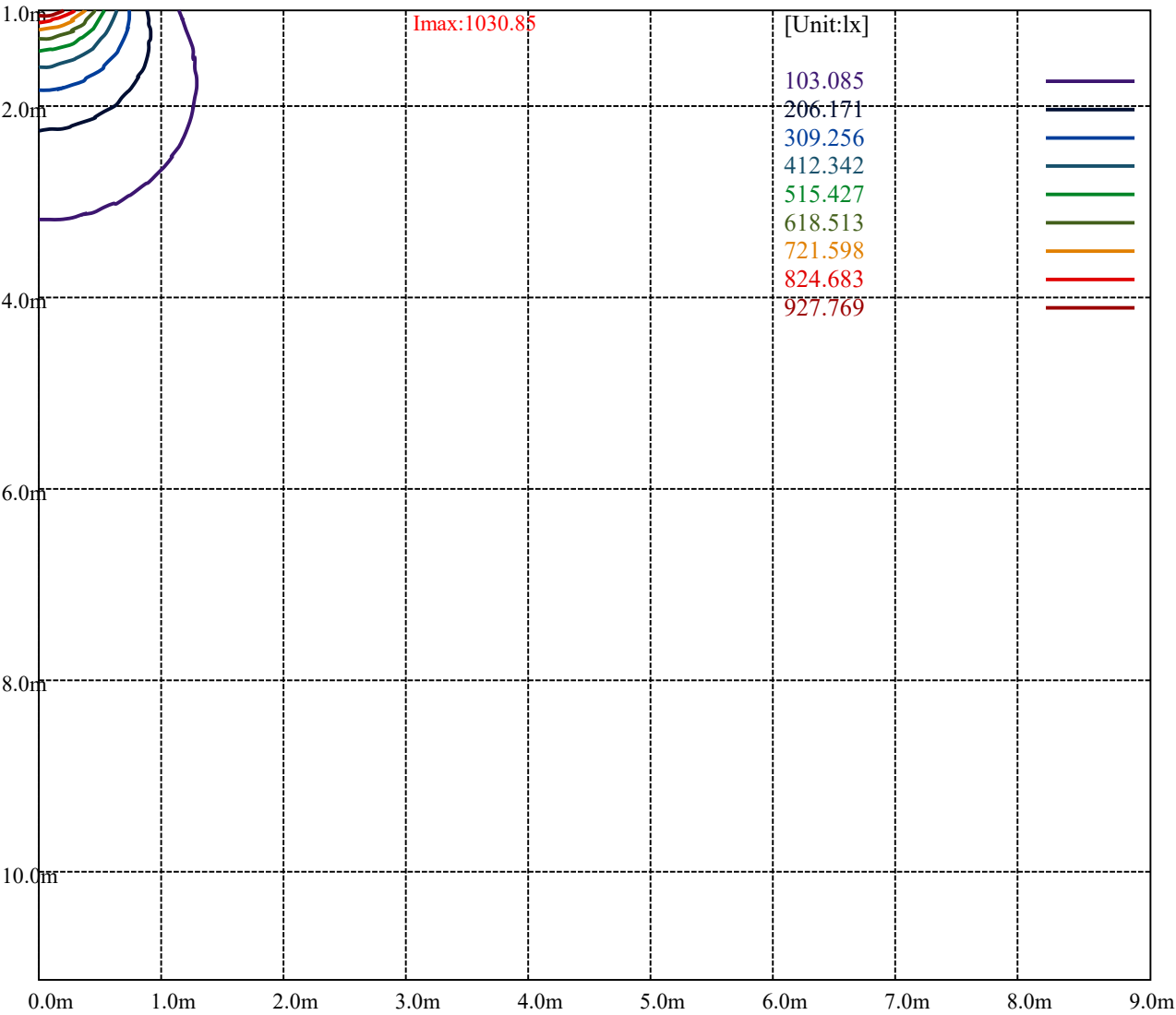




Max , Ave Beam angle of C0 plane 94.28



(10%Emax) 4.1234	—
(20%Emax) 8.24684	—
(30%Emax) 12.37024	—
(40%Emax) 16.49368	—
(50%Emax) 20.61708	—
(60%Emax) 24.74048	—
(70%Emax) 28.86392	—
(80%Emax) 32.98732	—
(90%Emax) 37.11076	—



Luminance Table

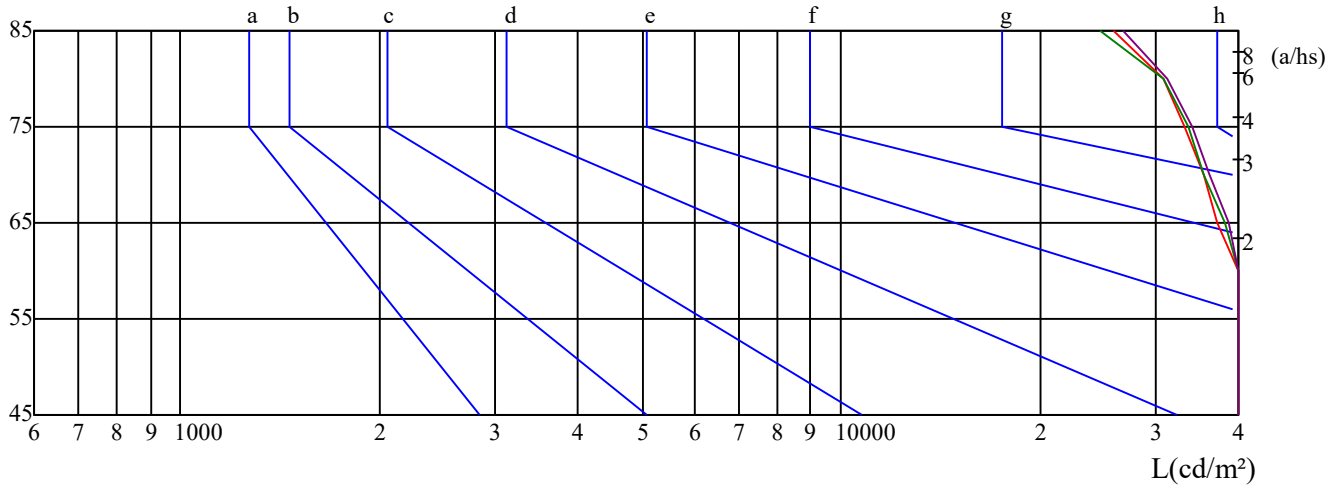
γ	45	50	55	60	65	70	75	80	85
C0	56064	50929	45760	41378	38084	35505	33638	30711	24696
C45	56918	51146	46346	41802	38603	36173	34109	31285	26785
C90	55014	49587	44257	43574	37153	35488	33126	30786	25847

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
38084	37153	38603	33638	33126	34109	24696	25847	26785

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	1.00
1	1.05	1.01	0.97	1.03	0.99	0.96	0.98	0.95	0.93	0.94	0.92	0.90	0.91	0.89	0.87	0.85
2	0.93	0.86	0.81	0.91	0.85	0.80	0.87	0.82	0.78	0.84	0.80	0.76	0.81	0.77	0.74	0.72
3	0.82	0.74	0.68	0.81	0.73	0.68	0.78	0.71	0.66	0.75	0.70	0.65	0.72	0.68	0.64	0.62
4	0.73	0.65	0.59	0.72	0.64	0.58	0.70	0.63	0.57	0.67	0.61	0.57	0.65	0.60	0.56	0.54
5	0.66	0.58	0.51	0.65	0.57	0.51	0.63	0.56	0.50	0.61	0.55	0.50	0.59	0.54	0.49	0.47
6	0.60	0.51	0.45	0.59	0.51	0.45	0.57	0.50	0.45	0.55	0.49	0.44	0.54	0.48	0.44	0.42
7	0.55	0.46	0.40	0.54	0.46	0.40	0.52	0.45	0.40	0.51	0.44	0.39	0.49	0.44	0.39	0.37
8	0.50	0.42	0.36	0.49	0.41	0.36	0.48	0.41	0.36	0.47	0.40	0.36	0.46	0.40	0.35	0.34
9	0.46	0.38	0.33	0.45	0.38	0.33	0.44	0.37	0.32	0.43	0.37	0.32	0.42	0.36	0.32	0.30
10	0.43	0.35	0.30	0.42	0.35	0.30	0.41	0.34	0.30	0.40	0.34	0.29	0.39	0.33	0.29	0.28

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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	1030.85	1033.55	1020.96	1001.17	970.59	924.71	867.14	797.88	713.32		
15.0	1030.85	1030.85	1020.88	1001.84	972.83	929.31	872.19	799.66	715.34		
30.0	1030.85	1031.77	1021.74	999.86	970.70	926.95	870.44	804.81	720.96		
45.0	1030.85	1030.85	1019.87	996.98	969.52	923.74	872.47	800.15	715.92		
60.0	1030.85	1030.85	1019.71	997.42	966.77	924.98	869.26	798.68	709.52		
75.0	1030.85	1029.92	1016.82	999.05	970.05	921.41	861.54	789.51	696.90		
90.0	1030.85	1030.85	1020.50	997.90	964.95	916.94	859.52	780.44	691.00		
105.0	1030.85	1029.91	1017.66	994.11	961.13	914.01	850.88	773.61	680.33		
120.0	1030.85	1032.75	1019.51	994.92	958.98	912.64	849.27	776.45	685.66		
135.0	1030.85	1032.73	1019.58	993.27	957.56	910.57	851.37	773.38	682.22		
150.0	1030.85	1028.06	1015.04	991.78	916.42	901.53	839.20	767.56	676.38		
165.0	1030.85	1025.31	1011.46	987.44	946.80	893.22	834.11	754.67	653.98		
180.0	1030.85	1020.96	1000.27	969.69	922.01	861.74	788.88	701.63	603.58		
195.0	1030.85	1018.16	997.31	962.86	921.15	856.78	789.69	703.56	602.01		
210.0	1030.85	1018.09	996.22	962.50	915.10	856.77	786.58	701.82	608.85		
225.0	1030.85	1015.29	994.23	960.36	914.59	856.91	782.75	700.36	606.06		
240.0	1030.85	1016.92	995.56	962.13	914.77	857.19	788.46	702.10	605.51		
255.0	1030.85	1016.82	994.37	960.70	913.92	856.86	789.51	697.84	602.42		
270.0	1030.85	1020.50	995.08	967.78	921.65	861.40	789.85	701.36	603.45		
285.0	1030.85	1015.78	995.99	965.84	920.61	860.30	791.52	707.65	681.27		
300.0	1030.85	1022.34	1003.43	974.11	962.76	871.97	802.93	722.54	629.86		
315.0	1030.85	1023.34	1003.60	980.11	941.58	888.02	817.54	737.67	645.58		
330.0	1030.85	1023.41	1006.66	983.41	943.40	890.37	824.31	748.02	654.98		
345.0	1030.85	1020.69	1005.91	978.20	942.18	890.45	823.94	743.58	651.21		
360.0	1030.85	1033.55	1020.96	1001.17	970.59	924.71	867.14	797.88	713.32		
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0		
0.0	613.48	513.63	413.78	327.43	256.36	196.10	146.62	98.95	52.17		
15.0	615.61	512.25	417.96	327.30	260.21	199.46	146.88	98.82	52.59		
30.0	623.43	518.62	418.36	330.86	258.85	201.43	148.57	100.26	55.60		
45.0	617.96	510.85	418.38	331.41	259.09	198.66	148.31	97.96	54.93		
60.0	613.87	508.00	408.63	324.12	254.46	197.81	145.81	97.51	52.01		
75.0	594.94	491.11	399.43	316.18	248.83	191.77	141.25	96.35	47.71		
90.0	587.45	482.95	387.86	305.96	241.94	189.23	139.33	92.26	47.07		
105.0	585.16	476.79	385.39	305.30	240.28	186.57	135.69	88.57	45.23		
120.0	585.41	480.43	386.81	309.26	240.22	187.26	137.13	87.95	42.56		
135.0	586.37	478.31	388.10	306.34	240.56	183.24	135.32	85.51	41.35		
150.0	574.04	473.56	378.66	302.37	234.45	180.49	130.25	82.80	37.21		
165.0	557.92	464.62	370.41	292.81	229.08	174.58	125.62	78.51	34.18		
180.0	496.54	402.99	321.13	251.87	194.30	143.92	97.15	50.37	8.10		
195.0	499.56	402.55	320.05	251.14	196.74	145.97	97.92	51.68	8.16		
210.0	501.30	407.42	322.65	253.38	195.96	144.01	97.53	51.04	10.94		
225.0	503.53	406.48	322.26	252.68	195.00	146.48	97.04	53.10	11.90		
240.0	503.35	407.70	326.90	254.46	198.74	146.73	99.37	52.94	12.07		
255.0	500.46	405.98	322.73	255.37	200.18	145.93	101.03	87.93	14.97		
270.0	501.78	409.52	322.91	304.08	197.70	150.63	100.73	57.43	16.00		
285.0	508.83	412.72	332.62	260.07	204.47	152.65	105.54	59.36	17.90		
300.0	530.56	433.15	345.19	273.32	211.85	159.83	108.76	64.31	21.75		
315.0	545.97	445.42	359.91	280.03	218.95	164.45	113.70	67.66	22.55		
330.0	552.64	454.02	360.99	284.69	220.50	164.68	117.23	68.85	26.05		
345.0	550.53	449.84	363.02	286.35	221.69	166.27	117.31	71.13	24.02		
360.0	613.48	513.63	413.78	327.43	256.36	196.10	146.62	98.95	52.17		

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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	7.20	0.90	0.00	0.00	0.00	0.00	0.90	0.90	0.90
15.0	10.88	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91
30.0	11.85	0.91	0.00	0.00	0.00	0.00	0.91	0.91	0.91
45.0	11.90	0.92	0.00	0.00	0.00	0.00	0.92	0.92	0.92
60.0	12.07	0.93	0.00	0.00	0.00	0.00	0.00	0.93	0.93
75.0	12.16	0.94	0.00	0.00	0.00	0.00	0.00	0.94	0.94
90.0	8.47	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.94
105.0	7.54	0.94	0.00	0.00	0.00	0.00	0.94	0.94	0.94
120.0	5.67	0.00	0.00	0.00	0.00	0.00	0.95	0.95	0.95
135.0	4.70	0.00	0.00	0.00	0.00	0.00	0.94	0.94	0.94
150.0	2.79	0.00	0.00	0.00	0.00	0.00	0.93	0.93	1.86
165.0	1.85	0.00	0.00	0.00	0.00	0.00	0.92	0.92	0.92
180.0	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
195.0	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
210.0	0.91	0.91	0.91	0.91	0.91	0.91	1.82	0.91	0.91
225.0	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
240.0	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
255.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
270.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
285.0	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
300.0	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
315.0	1.88	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
330.0	1.86	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
345.0	1.85	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
360.0	7.20	0.90	0.00	0.00	0.00	0.00	0.90	0.90	0.90

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.90	1.80	2.70	4.50	6.30	6.30	6.30	6.30	6.30
15.0	0.91	1.81	2.72	4.53	6.35	6.35	6.35	6.35	6.35
30.0	1.82	1.82	2.73	4.56	6.38	6.38	6.38	6.38	6.38
45.0	0.92	1.83	2.75	4.58	6.41	6.41	6.41	6.41	6.41
60.0	0.93	1.86	2.79	4.64	6.50	6.50	6.50	6.50	6.50
75.0	0.94	1.87	2.81	4.68	6.55	6.55	6.55	6.55	6.55
90.0	0.94	1.88	2.82	4.71	6.59	6.59	6.59	6.59	6.59
105.0	1.88	1.88	2.83	4.71	6.60	6.60	6.60	6.60	6.60
120.0	0.95	2.84	2.84	4.73	6.62	6.62	6.62	6.62	6.62
135.0	1.88	1.88	2.82	4.70	6.58	6.58	6.58	6.58	6.58
150.0	1.86	1.86	2.79	4.65	6.51	6.51	6.51	6.51	6.51
165.0	1.85	2.77	2.77	4.62	6.47	6.47	6.47	6.47	6.47
180.0	0.90	1.80	1.80	2.70	3.60	4.50	4.50	5.40	6.30
195.0	0.91	1.81	2.72	2.72	2.72	3.63	4.53	5.44	6.35
210.0	0.91	0.91	1.82	2.73	2.73	3.65	4.56	5.47	6.38
225.0	0.92	1.83	2.75	2.75	2.75	3.66	4.58	5.49	6.41
240.0	0.93	1.86	1.86	2.79	2.79	3.71	4.64	5.57	6.50
255.0	0.94	1.87	1.87	2.81	2.81	3.74	4.68	5.61	6.55
270.0	0.94	1.88	1.88	2.82	2.82	3.77	4.71	5.65	6.59
285.0	0.94	1.88	1.88	2.83	2.83	3.77	4.71	5.65	6.60
300.0	0.95	1.89	1.89	2.84	2.84	3.78	4.73	5.67	6.62
315.0	0.94	1.88	1.88	2.82	2.82	3.76	4.70	5.64	6.58
330.0	0.93	0.93	1.86	2.79	2.79	3.72	4.65	5.58	6.51
345.0	0.92	0.92	1.85	2.77	2.77	3.69	4.62	5.54	6.47
360.0	0.90	1.80	2.70	4.50	6.30	6.30	6.30	6.30	6.30

Intensity data(cd)

C/ $\gamma(^{\circ})$	180.0
0.0	6.30
15.0	6.35
30.0	6.38
45.0	6.41
60.0	6.50
75.0	6.55
90.0	6.59
105.0	6.60
120.0	6.62
135.0	6.58
150.0	6.51
165.0	6.47
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	6.30