



NATA LIGHTING CO.,LTD.
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Nata

Client: NT
LumCAT: 1-1890-A
Luminaire: 92.70.481.00
Report No: 20260323-B006
Ballast type: DC
Test No: 20260323-C006
LampCAT: CITIZEN CLU703
Lamp flux(lm): 1170.4
Number of Lamps: 1
Length(mm): 35
Phm Type: C

Voltage(V): 31.410
Current(A): 0.353
Power (W): 11.080
PF: 0.000
Width(mm): 35
Height(mm): 14

Photometric Results

Lumens(lm): 1060.24, Efficiency(%): 90.59% , Luminous Efficacy(lm/W): 95.69
Central intensity(cd): 2955.868, Maximum intensity(cd): 2955.868
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=19.6
 [C90/270]Total=19.6
Field angle(10%Imax): [C0/180]Total=76.2
 [C90/270]Total=76.2
Maximum s/h(1/2): C0_180=0.33 C90_270=0.33
Maximum s/h(1/4): C0_180=0.47 C90_270=0.47
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.212%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/3/23
Humidity(%): 60.0%

Operator: 杨泽全
Distance(m): 9.16

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2955.868	0.000	0	0.00%	0.00%
1.0	2939.402	2.821	2.821	0.24%	0.27%
2.0	2874.375	8.344	11.165	0.71%	1.05%
3.0	2756.802	13.468	24.633	1.15%	2.32%
4.0	2610.702	17.967	42.6	1.54%	4.02%
5.0	2393.995	21.530	64.13	1.84%	6.05%
6.0	2159.625	23.930	88.06	2.04%	8.31%
7.0	1975.148	25.664	113.725	2.19%	10.73%
8.0	1763.056	26.754	140.478	2.29%	13.25%
9.0	1597.626	27.236	167.715	2.33%	15.82%
10.0	1442.453	27.512	195.227	2.35%	18.41%
11.0	1315.661	27.559	222.786	2.35%	21.01%
12.0	1200.553	27.506	250.292	2.35%	23.61%
13.0	1117.759	27.513	277.804	2.35%	26.20%
14.0	1057.001	27.837	305.641	2.38%	28.83%
15.0	1002.483	28.274	333.914	2.42%	31.49%
16.0	960.572	28.764	362.679	2.46%	34.21%
17.0	918.976	29.270	391.948	2.50%	36.97%
18.0	883.725	29.723	421.671	2.54%	39.77%
19.0	844.699	30.071	451.742	2.57%	42.61%
20.0	805.829	30.209	481.951	2.58%	45.46%
21.0	768.691	30.234	512.185	2.58%	48.31%
22.0	728.836	30.093	542.278	2.57%	51.15%
23.0	689.830	29.767	572.046	2.54%	53.95%
24.0	648.443	29.259	601.305	2.50%	56.71%
25.0	609.889	28.612	629.917	2.44%	59.41%
26.0	566.342	27.765	657.682	2.37%	62.03%
27.0	523.581	26.665	684.347	2.28%	64.55%
28.0	483.999	25.510	709.857	2.18%	66.95%
29.0	450.762	24.456	734.313	2.09%	69.26%
30.0	429.513	23.767	758.08	2.03%	71.50%
31.0	407.079	23.281	781.361	1.99%	73.70%
32.0	393.454	22.934	804.296	1.96%	75.86%
33.0	384.078	22.906	827.202	1.96%	78.02%
34.0	373.579	22.929	850.131	1.96%	80.18%
35.0	359.546	22.768	872.899	1.95%	82.33%
36.0	344.086	22.404	895.303	1.91%	84.44%
37.0	325.763	21.847	917.15	1.87%	86.50%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	300.025	20.888	938.038	1.78%	88.47%
39.0	267.606	19.375	957.413	1.66%	90.30%
40.0	235.523	17.547	974.96	1.50%	91.96%
41.0	198.374	15.451	990.411	1.32%	93.41%
42.0	163.175	13.136	1003.547	1.12%	94.65%
43.0	127.453	10.766	1014.312	0.92%	95.67%
44.0	96.502	8.453	1022.765	0.72%	96.47%
45.0	67.429	6.300	1029.065	0.54%	97.06%
46.0	46.578	4.459	1033.524	0.38%	97.48%
47.0	32.786	3.157	1036.68	0.27%	97.78%
48.0	23.598	2.279	1038.959	0.19%	97.99%
49.0	19.435	1.767	1040.727	0.15%	98.16%
50.0	17.222	1.528	1042.255	0.13%	98.30%
51.0	15.732	1.394	1043.649	0.12%	98.44%
52.0	14.201	1.284	1044.934	0.11%	98.56%
53.0	12.722	1.171	1046.105	0.10%	98.67%
54.0	11.369	1.062	1047.167	0.09%	98.77%
55.0	10.142	0.960	1048.127	0.08%	98.86%
56.0	9.135	0.871	1048.998	0.07%	98.94%
57.0	8.254	0.795	1049.793	0.07%	99.01%
58.0	7.646	0.735	1050.528	0.06%	99.08%
59.0	7.174	0.693	1051.221	0.06%	99.15%
60.0	6.838	0.662	1051.883	0.06%	99.21%
61.0	6.408	0.632	1052.515	0.05%	99.27%
62.0	5.737	0.585	1053.101	0.05%	99.33%
63.0	5.034	0.524	1053.624	0.04%	99.38%
64.0	4.290	0.458	1054.082	0.04%	99.42%
65.0	3.702	0.396	1054.477	0.03%	99.46%
66.0	3.220	0.345	1054.823	0.03%	99.49%
67.0	2.958	0.311	1055.133	0.03%	99.52%
68.0	2.800	0.292	1055.425	0.02%	99.55%
69.0	2.685	0.280	1055.705	0.02%	99.57%
70.0	2.622	0.273	1055.977	0.02%	99.60%
71.0	2.559	0.268	1056.245	0.02%	99.62%
72.0	2.517	0.264	1056.509	0.02%	99.65%
73.0	2.475	0.261	1056.77	0.02%	99.67%
74.0	2.402	0.256	1057.027	0.02%	99.70%
75.0	2.360	0.252	1057.278	0.02%	99.72%

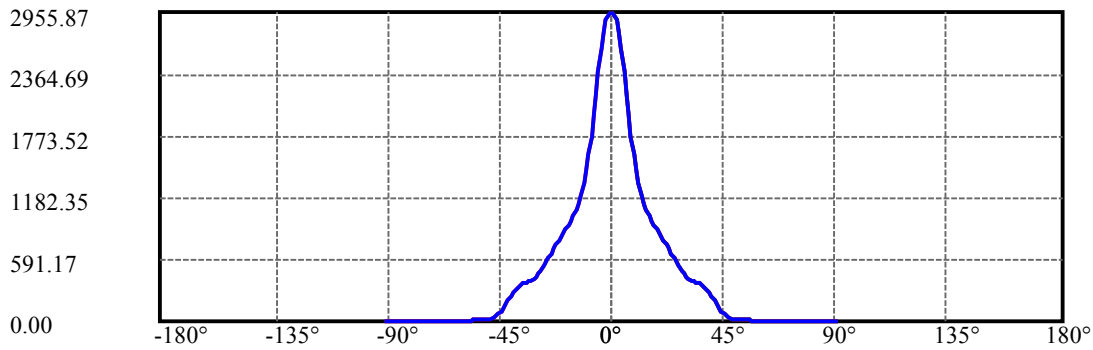
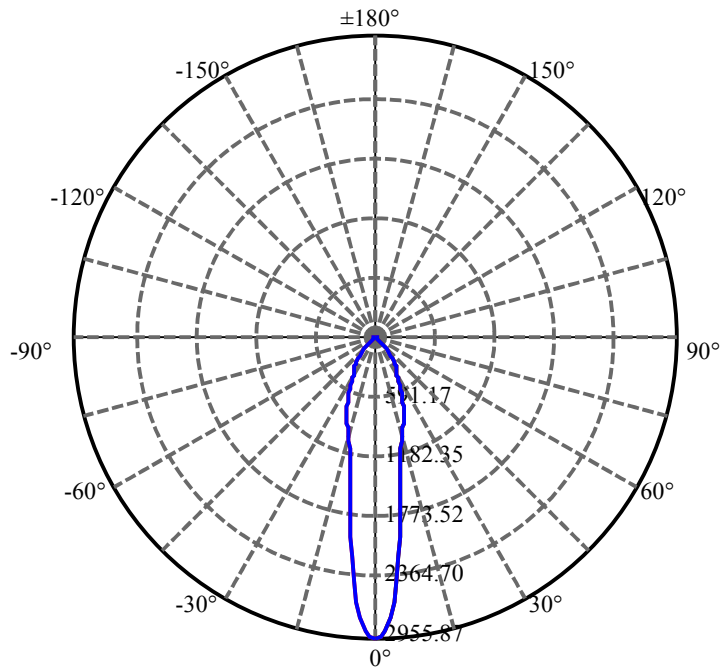
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	2.297	0.247	1057.525	0.02%	99.74%
77.0	2.213	0.240	1057.766	0.02%	99.77%
78.0	2.140	0.233	1057.999	0.02%	99.79%
79.0	2.056	0.225	1058.224	0.02%	99.81%
80.0	2.003	0.219	1058.443	0.02%	99.83%
81.0	1.951	0.214	1058.657	0.02%	99.85%
82.0	1.888	0.208	1058.865	0.02%	99.87%
83.0	1.825	0.202	1059.067	0.02%	99.89%
84.0	1.762	0.195	1059.262	0.02%	99.91%
85.0	1.626	0.185	1059.447	0.02%	99.93%
86.0	1.552	0.174	1059.621	0.01%	99.94%
87.0	1.468	0.165	1059.786	0.01%	99.96%
88.0	1.416	0.158	1059.944	0.01%	99.97%
89.0	1.353	0.152	1060.096	0.01%	99.99%
90.0	1.280	0.144	1060.24	0.01%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	758.08	64.77%	71.50%
0-40	974.96	83.30%	91.96%
0-60	1051.88	89.88%	99.21%
0-90	1060.10	90.58%	99.99%
0-120	1060.10	90.58%	99.99%
0-180	1060.24	90.59%	100.00%
60-90	8.21	0.70%	0.77%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-33.92	848.19	72.47%	80.00%

ZONAL LUMEN SUMMARY

0-10	195.23
10-20	286.72
20-30	276.13
30-40	216.88
40-50	67.29
50-60	9.63
60-70	4.09
70-80	2.47
80-90	1.65
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00



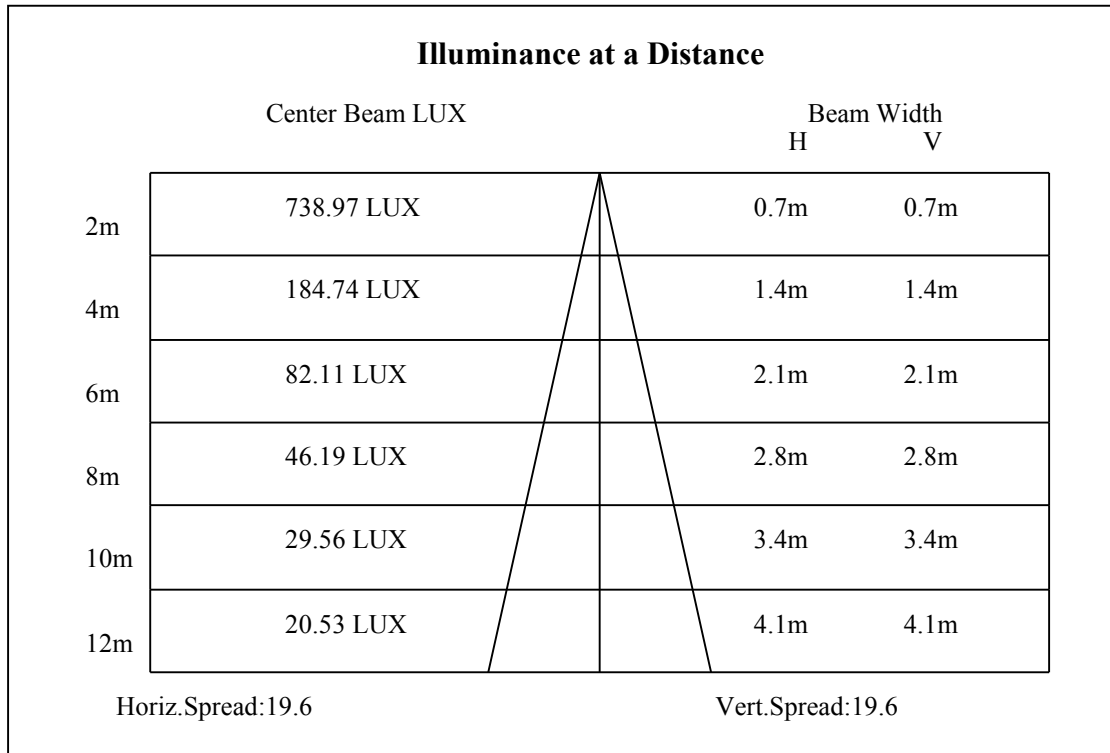
C0(Max): —————

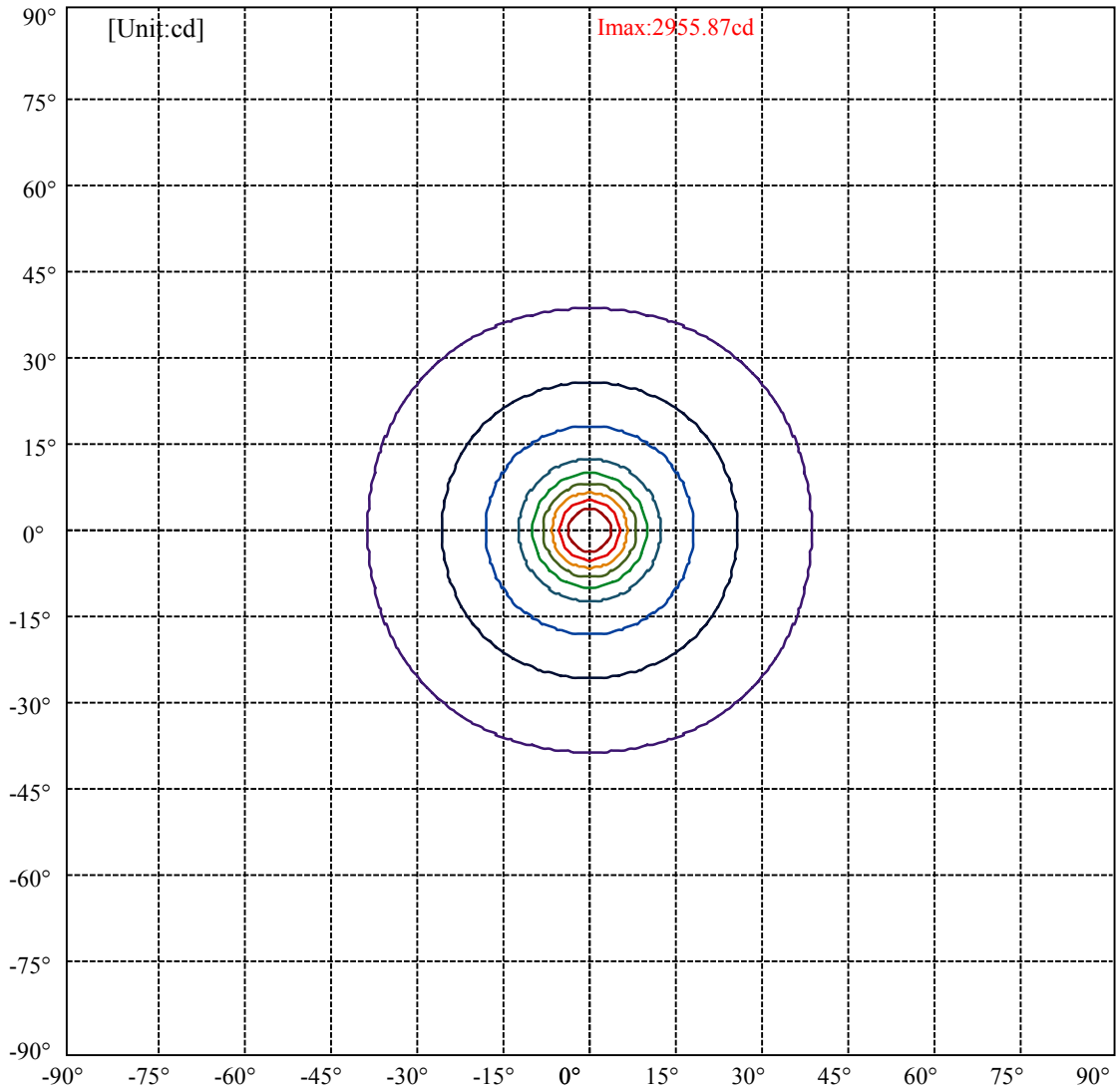
C0/C180: —————

C90/C270: —————

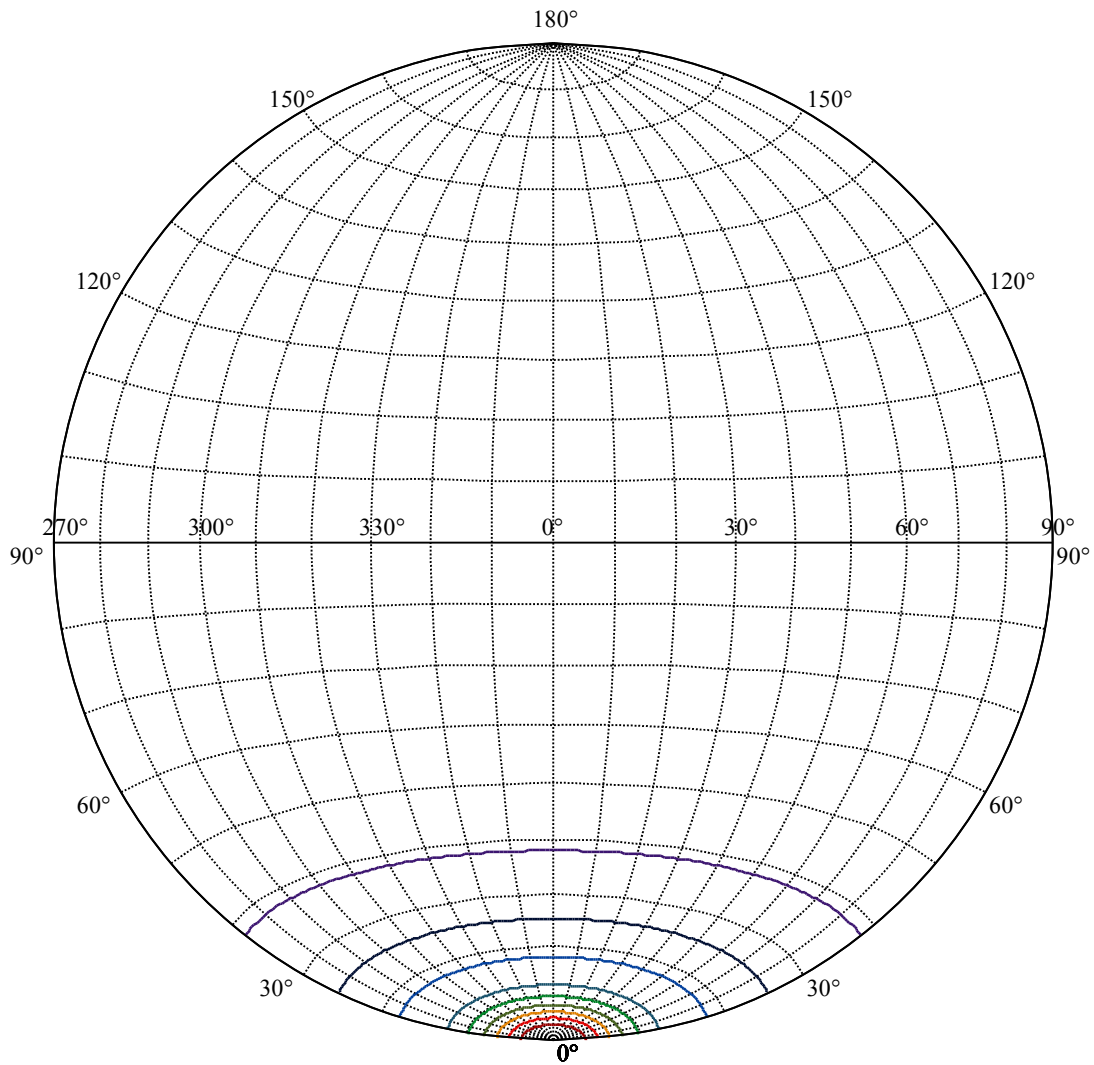
Field angle(10%Imax):C0/180Left:38.1 Right:38.1
:C90/270Left:38.1 Right:38.1

Beam Angle(50%Imax):C0/180Left:9.8 Right:9.8
:C90/270Left:9.8 Right:9.8





(10%Imax) 295.587	—
(20%Imax) 591.174	—
(30%Imax) 886.76	—
(40%Imax) 1182.35	—
(50%Imax) 1477.93	—
(60%Imax) 1773.52	—
(70%Imax) 2069.11	—
(80%Imax) 2364.69	—
(90%Imax) 2660.28	—



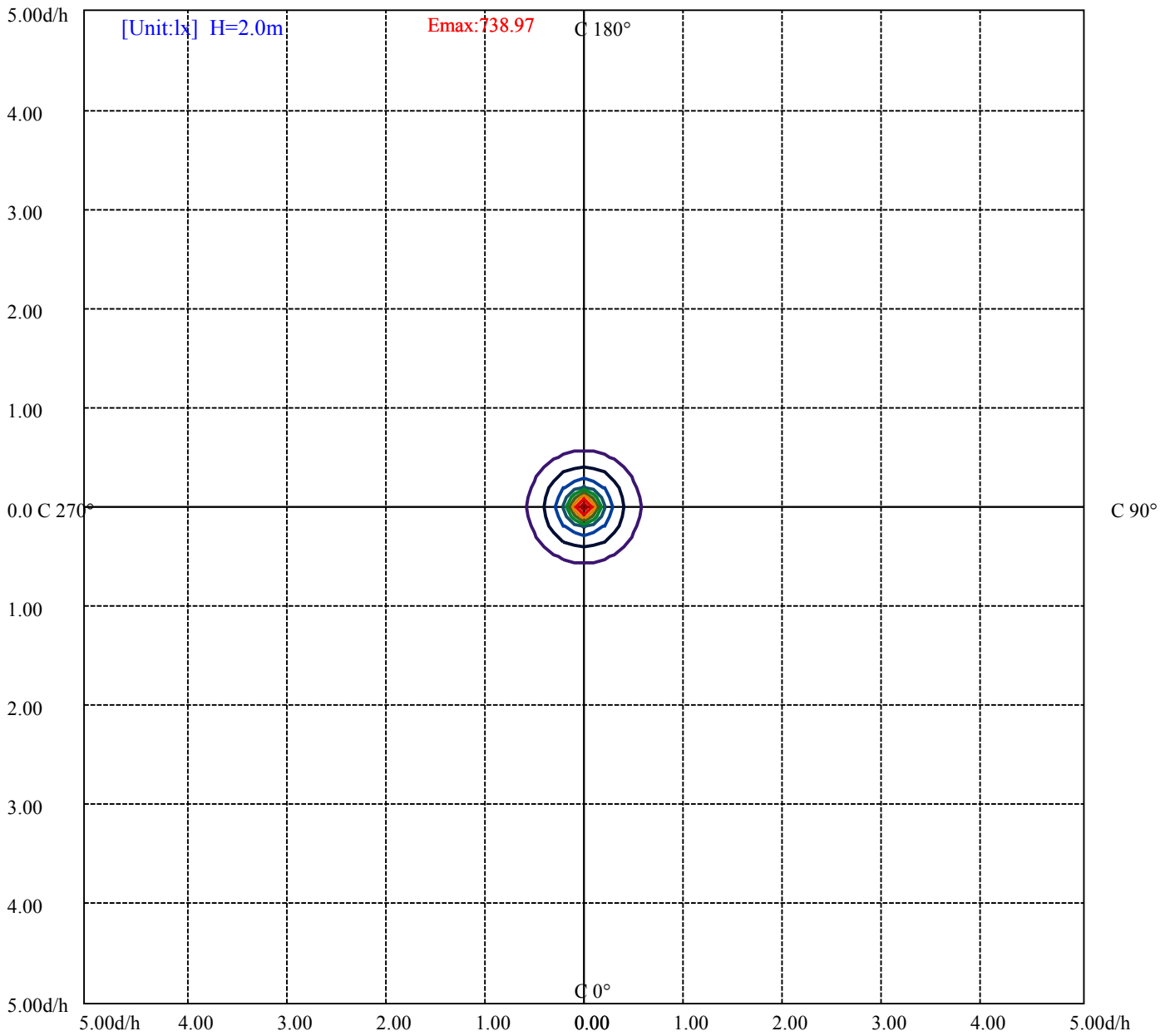
House

[Unit:cd]

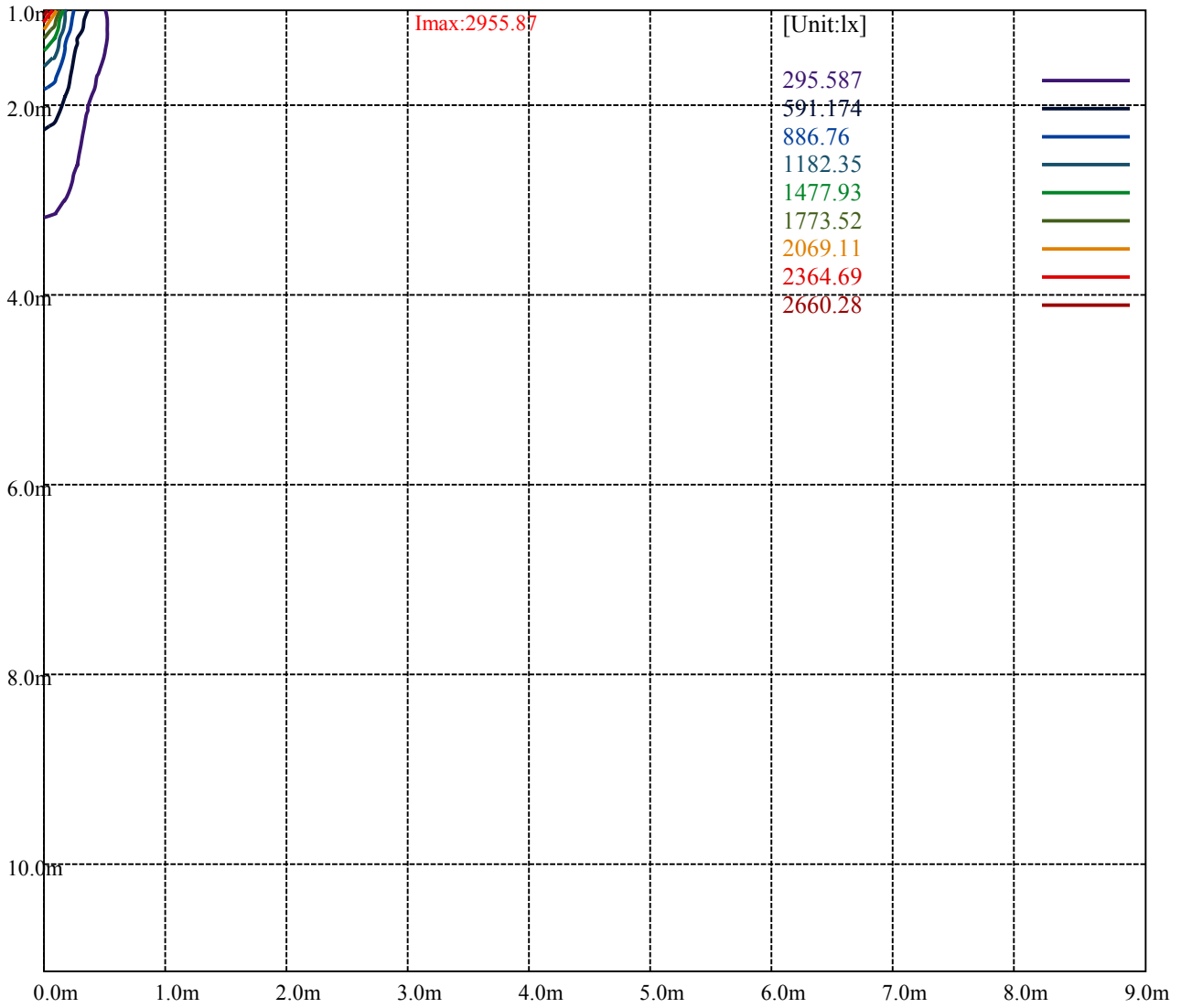
Road

Imax:2955.87

(10%Imax) 295.587	—
(20%Imax) 591.174	—
(30%Imax) 886.76	—
(40%Imax) 1182.35	—
(50%Imax) 1477.93	—
(60%Imax) 1773.52	—
(70%Imax) 2069.11	—
(80%Imax) 2364.69	—
(90%Imax) 2660.28	—



(10%Emax) 73.89675	—
(20%Emax) 147.7932	—
(30%Emax) 221.69	—
(40%Emax) 295.5875	—
(50%Emax) 369.4825	—
(60%Emax) 443.38	—
(70%Emax) 517.2775	—
(80%Emax) 591.1725	—
(90%Emax) 665.07	—



Luminance Table

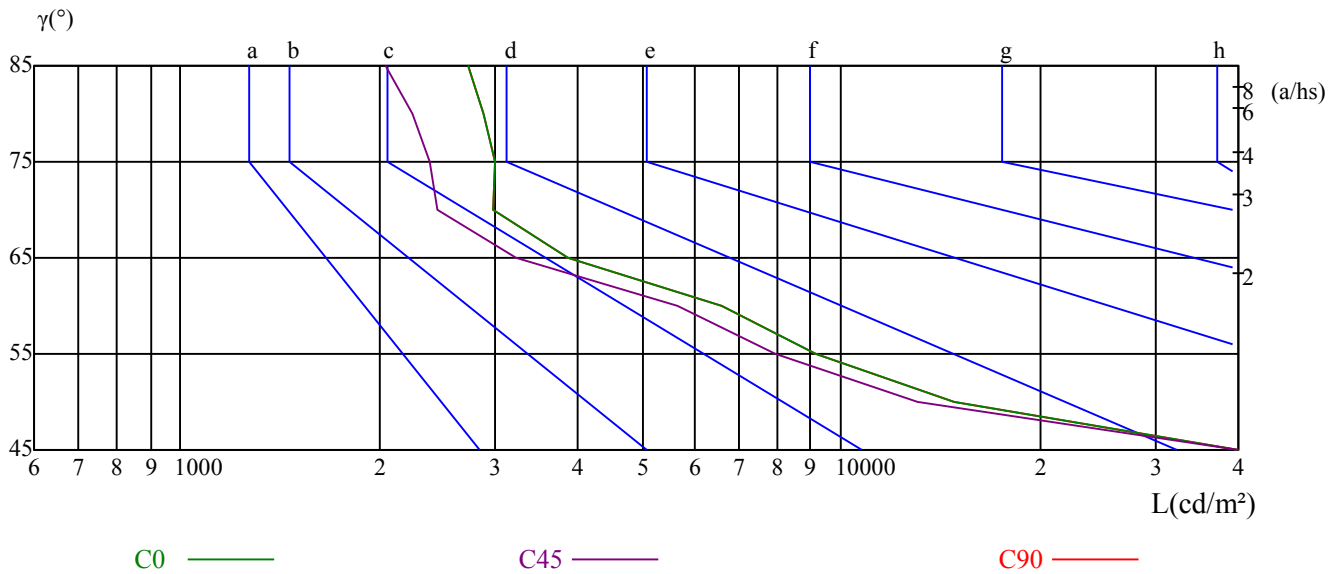
γ	45	50	55	60	65	70	75	80	85
C0	55603	14811	9187	6595	3849	2982	2986	2881	2733
C45	49719	13064	7984	5639	3231	2450	2392	2238	2039
C90	55603	14811	9187	6595	3849	2982	2986	2881	2733

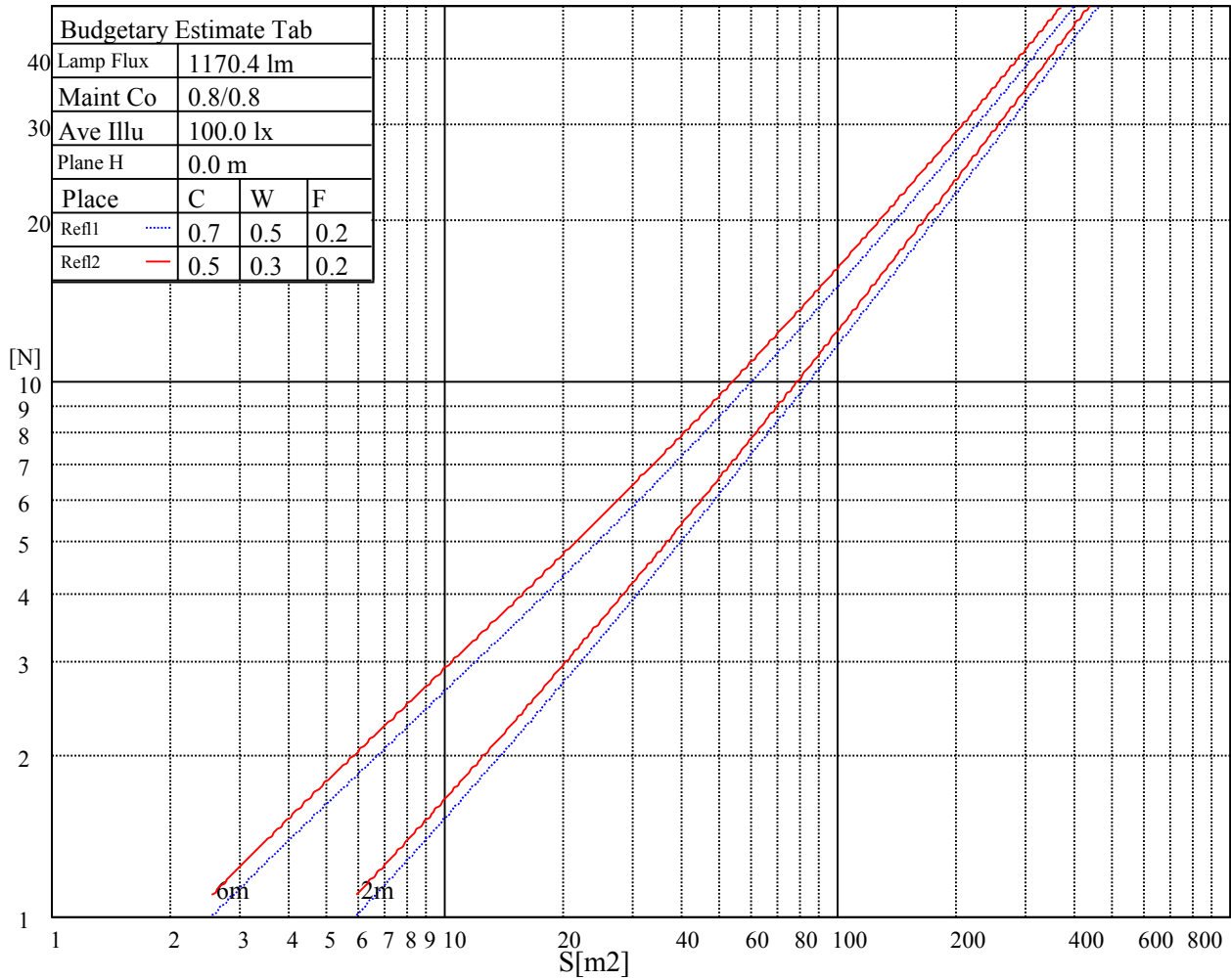
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
7151	7151	7151	7443	7443	7443	15227	15227	15227

Glare Table

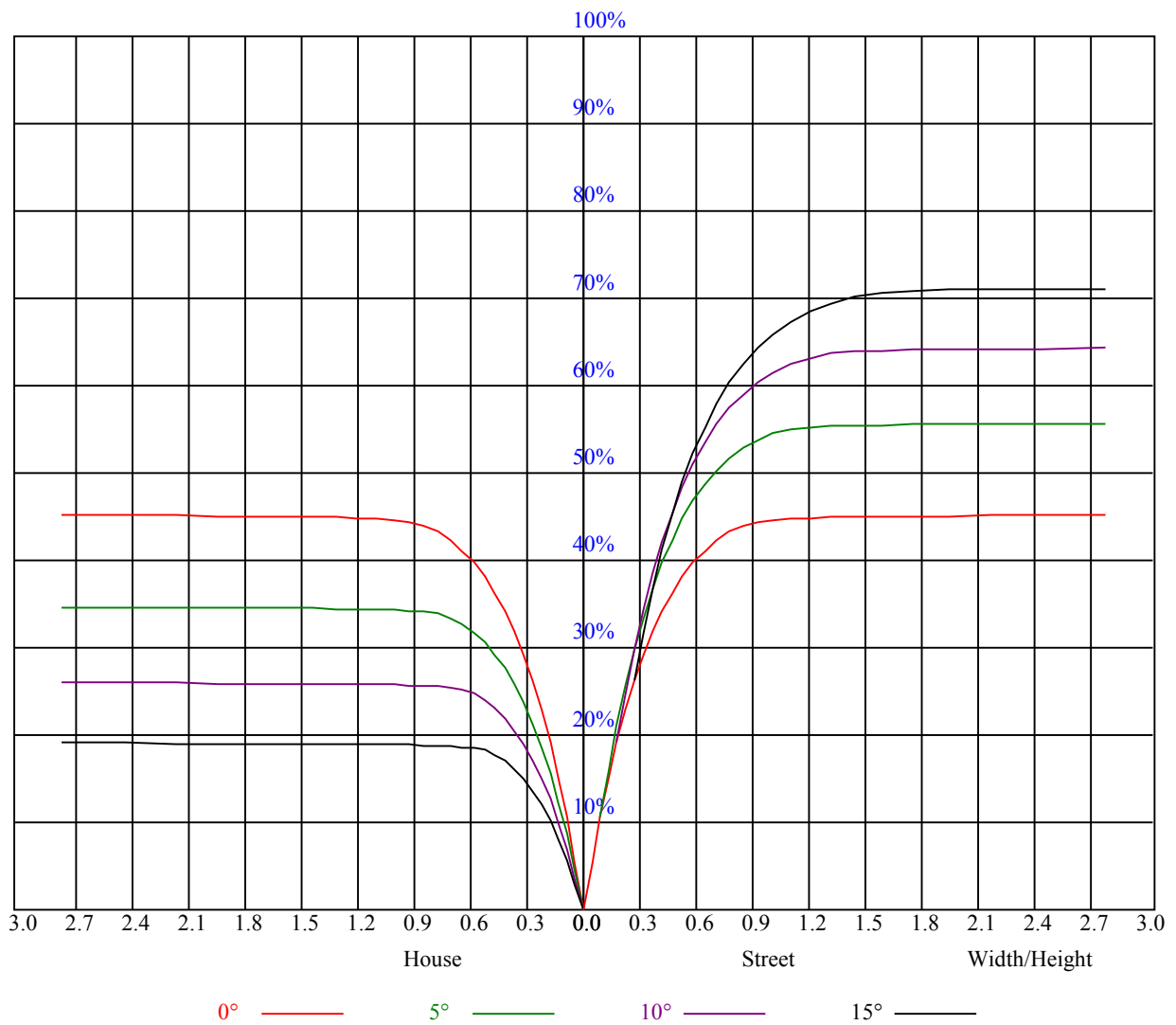
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

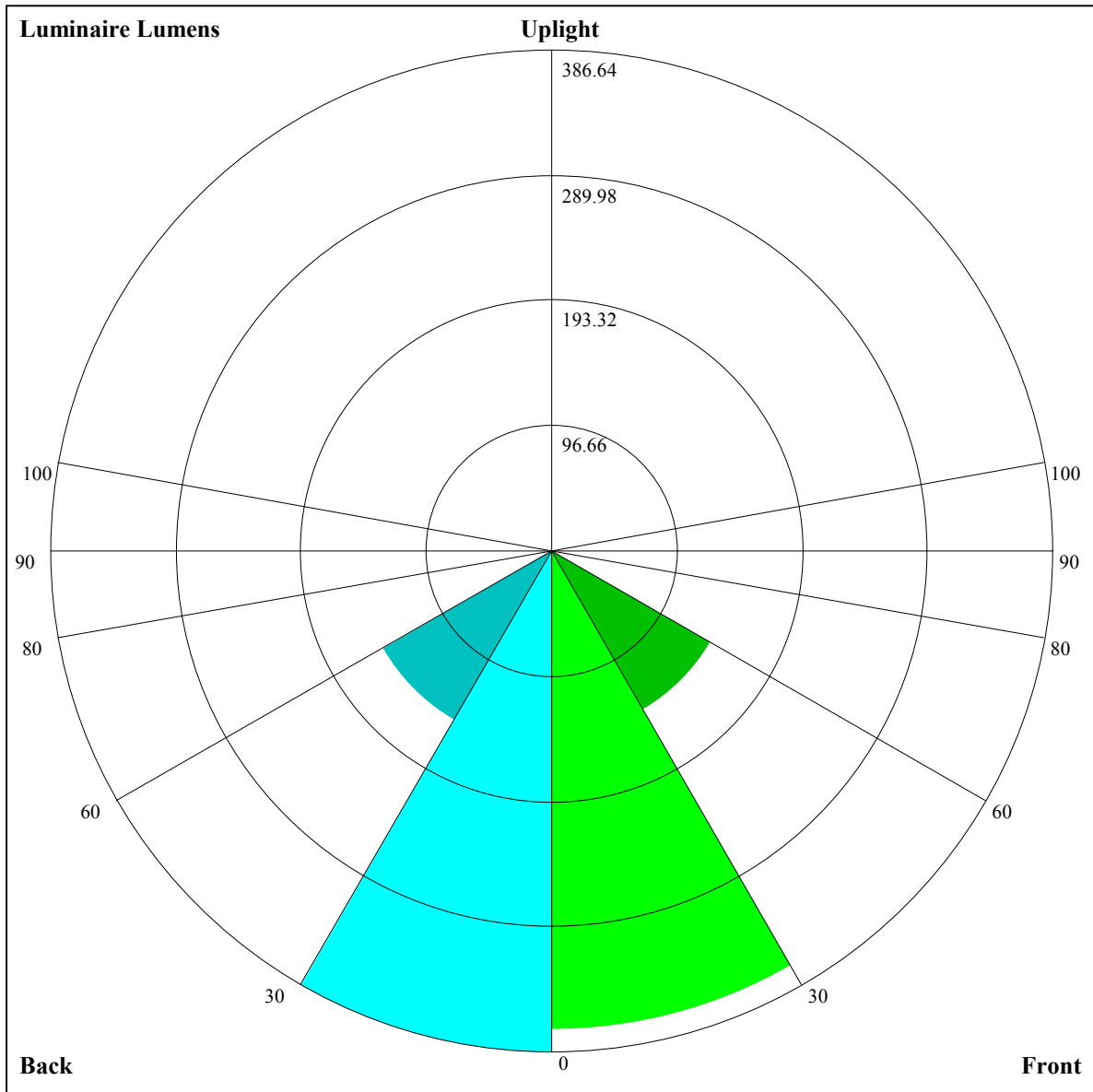
Luminance Limiting Curve





RHOCC	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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.91
1	1.01	0.98	0.96	0.99	0.97	0.95	0.95	0.93	0.92	0.92	0.90	0.89	0.88	0.88	0.87	0.85
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.87	0.85	0.87	0.85	0.83	0.84	0.83	0.81	0.80
3	0.88	0.84	0.80	0.87	0.83	0.80	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.75
4	0.83	0.78	0.74	0.82	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.70
5	0.78	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.66
6	0.73	0.68	0.65	0.73	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
7	0.69	0.64	0.61	0.69	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.58
8	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.56	0.55
9	0.63	0.58	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.52
10	0.60	0.55	0.51	0.59	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.54	0.51	0.50





Luminaire Lumens:

FL=369.61,FM=141.58,FH=3.44,FVH=0.89

BL=386.64,BM=150.81,BH=3.43,BVH=0.9

UL=0,UH=0

BUG Rating:B1-U0-G0

Intensity data(cd)

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	2973.70	2926.71	2840.29	2683.38	2519.77	2273.09	1900.55	1643.38	1643.38
45.0	2966.99	2989.64	2974.54	2906.57	2817.63	2693.45	2537.39	2308.33	2108.63
90.0	2980.41	2980.41	2931.75	2858.75	2754.70	2617.94	2406.50	2213.51	1673.08
135.0	2902.38	2977.05	2993.84	2961.11	2896.51	2796.66	2662.41	2454.32	2263.02
180.0	2973.70	2983.77	2949.37	2875.53	2737.92	2587.73	2407.34	2202.61	1995.36
225.0	2966.99	2910.77	2779.04	2630.52	2402.30	2191.70	1651.68	1651.68	1515.92
270.0	2980.41	2945.17	2867.14	2709.40	2539.07	2338.53	2058.29	1820.84	1561.57
315.0	2902.38	2801.69	2659.05	2429.15	2217.71	1652.86	1652.86	1506.53	1343.50
360.0	2973.70	2926.71	2840.29	2683.38	2519.77	2273.09	1900.55	1643.38	1643.38
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	1429.08	1289.96	1180.89	1100.17	1028.93	986.81	953.59	923.72	882.94
45.0	1906.42	1672.32	1508.71	1371.94	1234.34	1154.62	1092.53	1031.28	990.17
90.0	1673.08	1587.75	1437.22	1283.00	1188.44	1114.85	1041.94	991.26	946.54
135.0	2063.32	1866.14	1683.23	1488.57	1360.19	1256.15	1155.46	1090.02	1017.86
180.0	1745.32	1568.28	1418.93	1272.09	1182.31	1113.51	1042.19	996.04	944.86
225.0	1362.46	1214.79	1129.62	1065.77	1017.69	979.60	940.41	911.38	881.34
270.0	1389.56	1246.08	1136.17	1040.51	986.81	944.86	912.98	881.93	859.28
315.0	1211.76	1094.30	1030.53	982.37	943.35	905.59	880.76	858.94	828.82
360.0	1429.08	1289.96	1180.89	1100.17	1028.93	986.81	953.59	923.72	882.94
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	851.81	814.05	782.08	749.53	710.26	680.73	649.93	613.10	560.66
45.0	951.57	912.14	862.63	823.20	782.92	743.49	692.31	652.03	599.17
90.0	902.91	853.32	814.98	776.29	736.44	687.19	646.07	608.48	561.58
135.0	969.19	923.88	871.02	829.91	788.80	748.52	701.53	667.13	633.57
180.0	903.75	862.63	824.88	780.41	743.49	708.25	678.04	639.44	605.88
225.0	849.54	805.83	768.58	729.64	682.15	645.32	599.84	560.83	518.79
270.0	837.46	808.93	783.76	753.56	711.60	675.52	631.05	592.46	549.67
315.0	803.56	776.80	738.70	706.99	675.02	629.63	588.77	545.64	501.42
360.0	851.81	814.05	782.08	749.53	710.26	680.73	649.93	613.10	560.66
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	516.27	477.67	448.56	422.30	408.70	399.06	389.41	382.11	371.79
45.0	554.70	510.23	462.40	433.04	427.16	402.16	382.69	375.31	369.52
90.0	522.06	482.04	441.93	418.86	396.12	382.78	371.87	360.54	348.71
135.0	599.17	557.22	523.65	492.61	461.56	439.75	426.32	426.32	390.92
180.0	570.64	534.56	495.13	465.76	436.39	422.13	422.13	389.99	381.43
225.0	468.78	434.30	406.52	388.99	374.47	366.16	360.46	354.59	340.07
270.0	505.20	453.17	424.65	424.65	372.46	362.56	353.83	347.62	338.73
315.0	451.83	422.80	403.25	389.91	379.76	373.04	365.91	352.15	335.20
360.0	516.27	477.67	448.56	422.30	408.70	399.06	389.41	382.11	371.79
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	351.56	328.15	298.37	255.07	219.08	183.59	147.67	104.38	74.00
45.0	362.47	352.24	334.70	312.04	285.95	245.76	212.95	177.96	140.63
90.0	339.31	326.98	309.11	277.98	248.61	216.22	184.09	145.49	114.78
135.0	381.85	371.62	360.04	343.93	321.02	281.08	246.18	207.25	169.99
180.0	373.46	359.20	332.60	304.16	270.68	233.43	187.61	151.87	115.87
225.0	320.27	294.76	256.50	224.11	184.17	151.45	119.06	88.44	57.22
270.0	318.34	297.70	266.90	227.22	195.08	153.30	119.90	90.37	64.10
315.0	305.42	275.46	241.98	196.34	159.59	122.17	87.93	53.87	35.41
360.0	351.56	328.15	298.37	255.07	219.08	183.59	147.67	104.38	74.00

Intensity data(cd)

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	48.58	31.55	20.22	18.04	16.53	14.68	13.34	11.50	10.07
45.0	106.98	69.05	45.98	29.53	20.22	18.71	17.28	16.28	14.85
90.0	79.71	55.71	38.26	26.09	21.98	20.14	18.71	17.12	15.86
135.0	123.51	88.69	60.58	35.16	24.33	17.70	16.19	14.94	13.34
180.0	76.10	50.68	33.65	21.98	18.79	17.20	15.35	13.84	12.25
225.0	38.76	27.35	21.82	19.80	18.38	16.95	15.35	13.42	12.00
270.0	40.95	30.29	24.16	22.23	20.64	19.38	18.04	16.61	14.85
315.0	24.84	19.30	17.62	15.94	14.60	13.01	11.58	9.90	8.56
360.0	48.58	31.55	20.22	18.04	16.53	14.68	13.34	11.50	10.07
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.81	7.30	6.38	5.54	4.87	4.28	3.94	3.69	3.52
45.0	13.76	12.59	11.83	10.91	10.24	9.65	9.06	8.64	8.22
90.0	14.68	13.59	12.42	11.66	10.99	10.15	9.40	8.81	7.55
135.0	12.00	10.66	9.31	7.89	7.05	6.13	5.54	4.95	4.53
180.0	10.32	8.89	7.72	6.71	5.62	4.78	4.28	3.86	3.61
225.0	10.57	9.57	8.64	7.89	7.64	7.55	7.72	7.13	6.21
270.0	13.42	12.08	11.24	10.49	10.24	10.40	10.57	10.15	8.56
315.0	7.38	6.46	5.54	4.95	4.53	4.45	4.20	4.03	3.69
360.0	8.81	7.30	6.38	5.54	4.87	4.28	3.94	3.69	3.52
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	3.36	3.27	3.10	2.94	2.85	2.77	2.68	2.60	2.52
45.0	7.13	6.04	4.95	3.78	3.19	2.85	2.68	2.60	2.52
90.0	6.38	5.03	4.20	3.61	3.36	3.10	3.02	2.94	2.85
135.0	4.45	4.11	3.52	3.19	2.77	2.60	2.52	2.43	2.35
180.0	3.44	3.27	3.19	3.02	2.85	2.77	2.68	2.60	2.52
225.0	5.20	4.11	3.52	3.02	2.85	2.77	2.68	2.60	2.60
270.0	7.05	5.62	4.53	3.69	3.44	3.19	3.02	3.02	3.02
315.0	3.27	2.85	2.60	2.52	2.35	2.35	2.18	2.18	2.10
360.0	3.36	3.27	3.10	2.94	2.85	2.77	2.68	2.60	2.52
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	2.52	2.43	2.35	2.35	2.35	2.27	2.18	2.10	2.01
45.0	2.52	2.43	2.43	2.43	2.35	2.27	2.27	2.10	2.01
90.0	2.85	2.77	2.68	2.60	2.52	2.43	2.35	2.27	2.18
135.0	2.27	2.27	2.27	2.18	2.18	2.10	2.01	2.01	2.01
180.0	2.43	2.43	2.35	2.35	2.27	2.18	2.18	2.10	2.01
225.0	2.52	2.43	2.35	2.27	2.27	2.10	2.01	1.93	1.93
270.0	2.94	2.94	2.77	2.68	2.52	2.43	2.27	2.18	2.10
315.0	2.10	2.10	2.01	2.01	1.93	1.93	1.85	1.76	1.76
360.0	2.52	2.43	2.35	2.35	2.35	2.27	2.18	2.10	2.01
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	2.01	1.93	1.93	1.85	1.76	1.59	1.51	1.51	1.43
45.0	2.01	1.93	1.85	1.85	1.76	1.68	1.51	1.43	1.43
90.0	2.10	2.10	2.01	1.85	1.68	1.59	1.51	1.43	1.34
135.0	1.93	1.85	1.76	1.76	1.68	1.59	1.51	1.51	1.43
180.0	1.93	1.85	1.85	1.85	1.68	1.59	1.59	1.51	1.43
225.0	1.85	1.85	1.76	1.59	1.51	1.43	1.43	1.34	1.26
270.0	2.01	1.93	1.85	1.76	1.51	1.51	1.34	1.34	1.26
315.0	1.76	1.68	1.59	1.59	1.43	1.43	1.34	1.26	1.26
360.0	2.01	1.93	1.93	1.85	1.76	1.59	1.51	1.51	1.43

Intensity data(cd)

C/ γ ($^{\circ}$)	90.0
0.0	1.26
45.0	1.34
90.0	1.26
135.0	1.43
180.0	1.26
225.0	1.26
270.0	1.26
315.0	1.17
360.0	1.26