



NATA LIGHTING CO.,LTD.
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Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NT

Client: NT

LumCAT: 61-0210-1

Luminaire: 92.70.427.00

Report No: 20250519-B003

Ballast type: AC

Test No: 20250519-C003

LampCAT: CITIZEN CLU701

Lamp flux(lm): 1347.9

Number of Lamps: 1

Length(mm): 45

Phm Type: C

Voltage(V): 36.800

Current(A): 0.352

Power (W): 12.950

PF: 0.000

Width(mm): 45

Height(mm): 21

Photometric Results

Lumens(lm): 1153.53, Efficiency(%): 85.58% , Luminous Efficacy(lm/W): 89.08

Central intensity(cd): 2408.735, Maximum intensity(cd): 2408.735

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.4

[C90/270]Total=40.4

Field angle(10%Imax): [C0/180]Total=61.4

[C90/270]Total=61.4

Maximum s/h(1/2): C0_180=0.66 C90_270=0.66

Maximum s/h(1/4): C0_180=0.63 C90_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.58%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.667%

Equipment: GMS 1800
Temperature(°C): 25.0

Date: 2025/5/19
Humidity(%): 60.0%

Operator: NT
Distance(m): 7.30

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2408.735	0.000	0	0.00%	0.00%
1.0	2405.870	2.304	2.304	0.17%	0.20%
2.0	2396.078	6.892	9.196	0.51%	0.80%
3.0	2380.558	11.424	20.62	0.85%	1.79%
4.0	2356.244	15.856	36.476	1.18%	3.16%
5.0	2329.999	20.160	56.636	1.50%	4.91%
6.0	2294.028	24.300	80.936	1.80%	7.02%
7.0	2248.265	28.194	109.13	2.09%	9.46%
8.0	2202.769	31.855	140.985	2.36%	12.22%
9.0	2146.814	35.251	176.236	2.62%	15.28%
10.0	2085.864	38.304	214.54	2.84%	18.60%
11.0	2017.719	41.003	255.544	3.04%	22.15%
12.0	1949.108	43.363	298.907	3.22%	25.91%
13.0	1872.038	45.347	344.254	3.36%	29.84%
14.0	1793.368	46.917	391.171	3.48%	33.91%
15.0	1712.900	48.136	439.307	3.57%	38.08%
16.0	1623.640	48.890	488.196	3.63%	42.32%
17.0	1538.242	49.239	537.435	3.65%	46.59%
18.0	1434.061	49.007	586.442	3.64%	50.84%
19.0	1307.450	47.697	634.139	3.54%	54.97%
20.0	1224.684	46.345	680.484	3.44%	58.99%
21.0	1095.369	44.550	725.034	3.31%	62.85%
22.0	994.418	41.995	767.029	3.12%	66.49%
23.0	890.216	39.545	806.573	2.93%	69.92%
24.0	785.435	36.636	843.209	2.72%	73.10%
25.0	678.721	33.292	876.501	2.47%	75.98%
26.0	577.917	29.663	906.164	2.20%	78.56%
27.0	491.853	26.172	932.336	1.94%	80.82%
28.0	401.120	22.608	954.944	1.68%	82.78%
29.0	340.403	19.400	974.345	1.44%	84.47%
30.0	279.906	16.748	991.093	1.24%	85.92%
31.0	223.805	14.018	1005.11	1.04%	87.13%
32.0	183.671	11.674	1016.784	0.87%	88.15%
33.0	156.006	10.007	1026.791	0.74%	89.01%
34.0	108.006	7.990	1034.781	0.59%	89.71%
35.0	87.882	6.084	1040.864	0.45%	90.23%
36.0	73.220	5.130	1045.994	0.38%	90.68%
37.0	63.022	4.443	1050.437	0.33%	91.06%

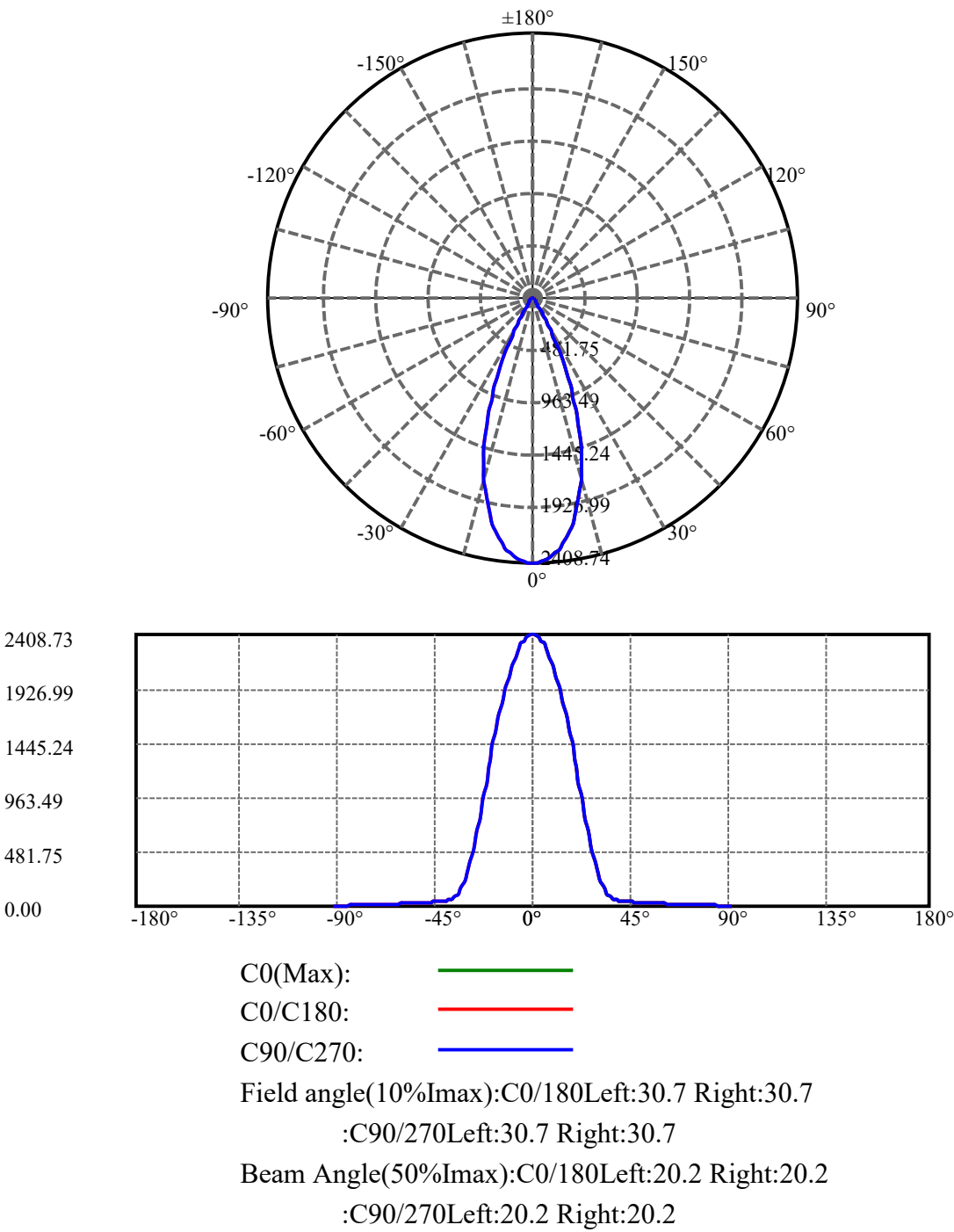
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	56.168	3.978	1054.416	0.30%	91.41%
39.0	51.491	3.675	1058.091	0.27%	91.73%
40.0	48.054	3.472	1061.562	0.26%	92.03%
41.0	45.576	3.334	1064.897	0.25%	92.32%
42.0	43.058	3.220	1068.117	0.24%	92.60%
43.0	41.100	3.117	1071.234	0.23%	92.87%
44.0	39.361	3.037	1074.271	0.23%	93.13%
45.0	37.629	2.959	1077.23	0.22%	93.39%
46.0	36.344	2.893	1080.123	0.21%	93.64%
47.0	34.792	2.829	1082.952	0.21%	93.88%
48.0	33.586	2.764	1085.716	0.21%	94.12%
49.0	32.427	2.711	1088.427	0.20%	94.36%
50.0	31.301	2.657	1091.084	0.20%	94.59%
51.0	30.195	2.602	1093.686	0.19%	94.81%
52.0	29.116	2.545	1096.231	0.19%	95.03%
53.0	28.310	2.498	1098.729	0.19%	95.25%
54.0	27.398	2.455	1101.185	0.18%	95.46%
55.0	26.665	2.413	1103.598	0.18%	95.67%
56.0	25.966	2.378	1105.976	0.18%	95.88%
57.0	25.226	2.341	1108.317	0.17%	96.08%
58.0	24.520	2.300	1110.617	0.17%	96.28%
59.0	23.814	2.260	1112.877	0.17%	96.48%
60.0	23.001	2.212	1115.088	0.16%	96.67%
61.0	22.129	2.154	1117.242	0.16%	96.85%
62.0	21.343	2.095	1119.337	0.16%	97.04%
63.0	20.403	2.030	1121.367	0.15%	97.21%
64.0	19.551	1.961	1123.328	0.15%	97.38%
65.0	18.851	1.900	1125.228	0.14%	97.55%
66.0	18.139	1.846	1127.074	0.14%	97.71%
67.0	17.472	1.791	1128.864	0.13%	97.86%
68.0	16.733	1.733	1130.597	0.13%	98.01%
69.0	16.054	1.673	1132.27	0.12%	98.16%
70.0	15.334	1.612	1133.882	0.12%	98.30%
71.0	14.508	1.542	1135.424	0.11%	98.43%
72.0	13.722	1.468	1136.892	0.11%	98.56%
73.0	12.830	1.388	1138.281	0.10%	98.68%
74.0	12.057	1.308	1139.589	0.10%	98.79%
75.0	11.271	1.233	1140.821	0.09%	98.90%

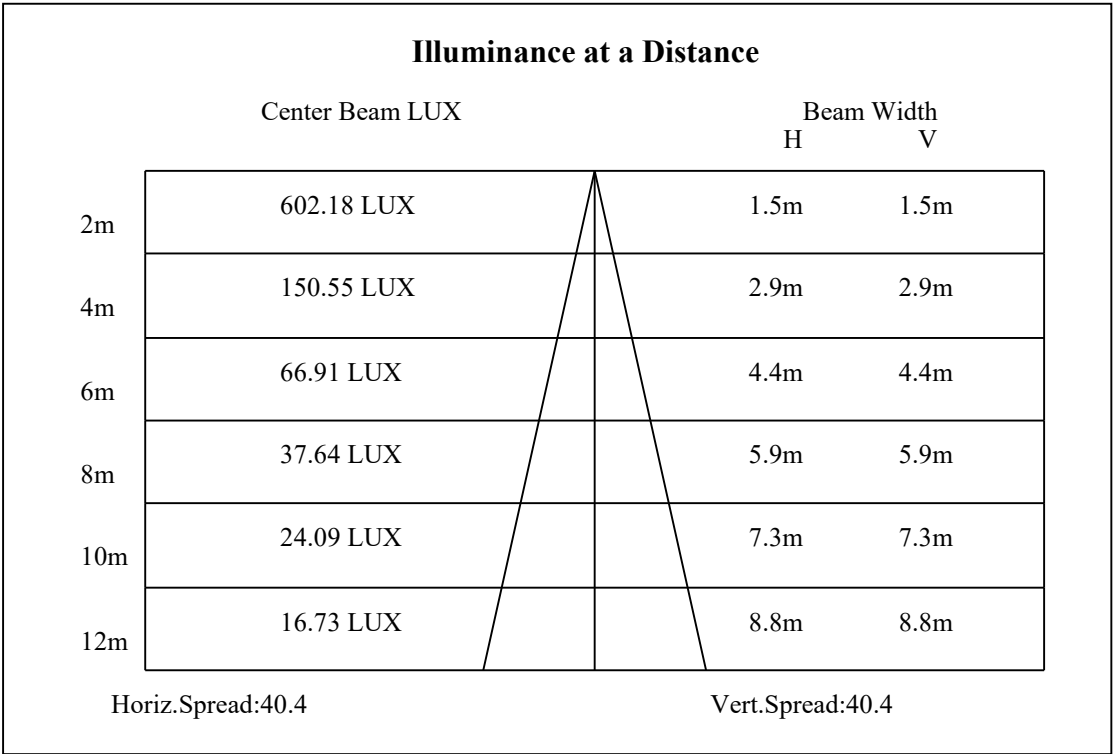
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	10.545	1.158	1141.979	0.09%	99.00%
77.0	10.032	1.097	1143.077	0.08%	99.09%
78.0	9.552	1.048	1144.125	0.08%	99.18%
79.0	9.159	1.005	1145.13	0.07%	99.27%
80.0	8.746	0.965	1146.096	0.07%	99.36%
81.0	8.340	0.924	1147.02	0.07%	99.44%
82.0	7.960	0.884	1147.903	0.07%	99.51%
83.0	7.567	0.844	1148.748	0.06%	99.59%
84.0	7.174	0.803	1149.551	0.06%	99.65%
85.0	6.794	0.762	1150.313	0.06%	99.72%
86.0	6.408	0.722	1151.035	0.05%	99.78%
87.0	5.988	0.678	1151.713	0.05%	99.84%
88.0	5.629	0.636	1152.35	0.05%	99.90%
89.0	5.382	0.604	1152.953	0.04%	99.95%
90.0	5.209	0.581	1153.534	0.04%	100.00%

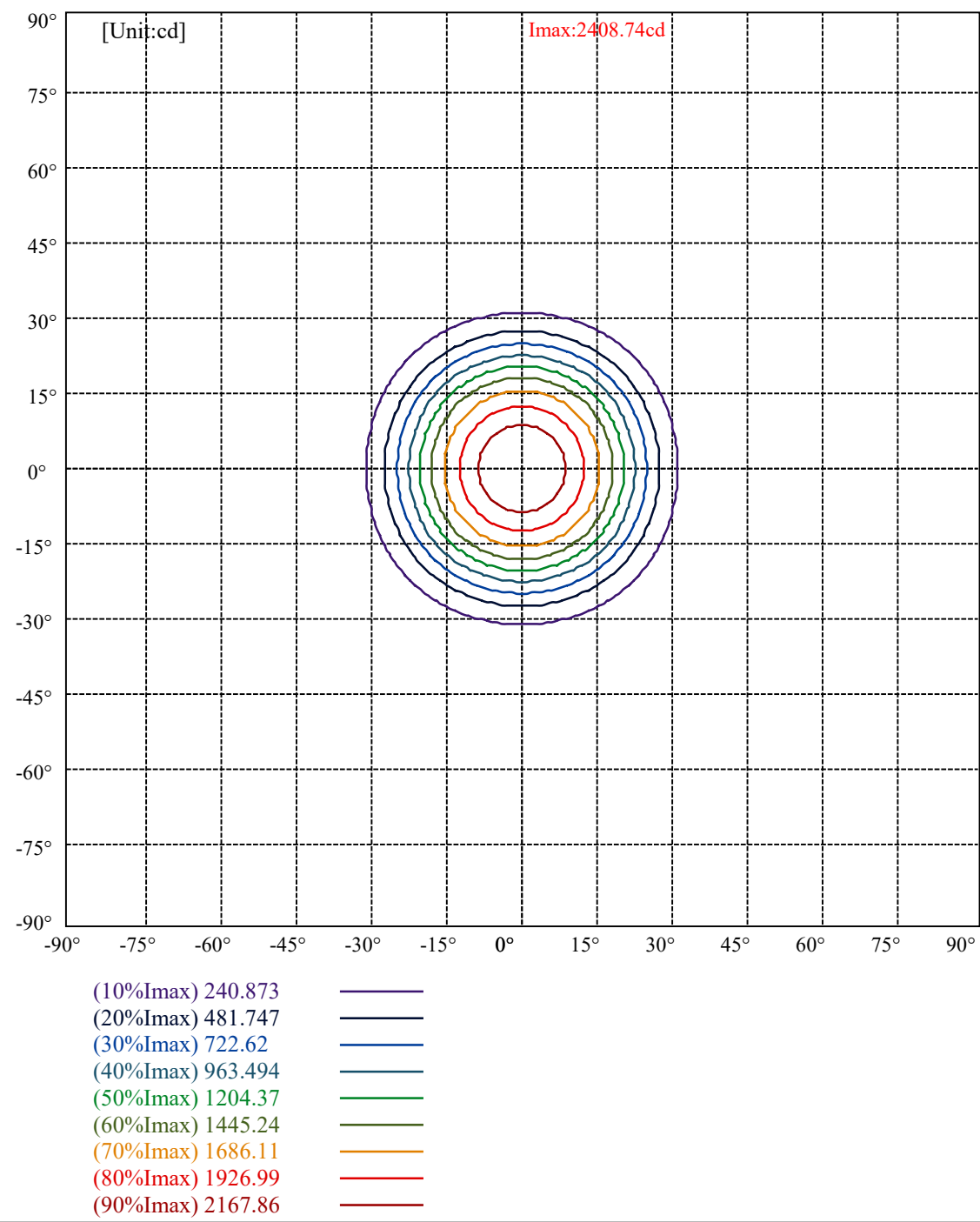
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	991.09	73.53%	85.92%
0-40	1061.56	78.76%	92.03%
0-60	1115.09	82.73%	96.67%
0-90	1152.95	85.54%	99.95%
0-120	1152.95	85.54%	99.95%
0-180	1153.53	85.58%	100.00%
60-90	37.86	2.81%	3.28%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.64	922.83	68.46%	80.00%

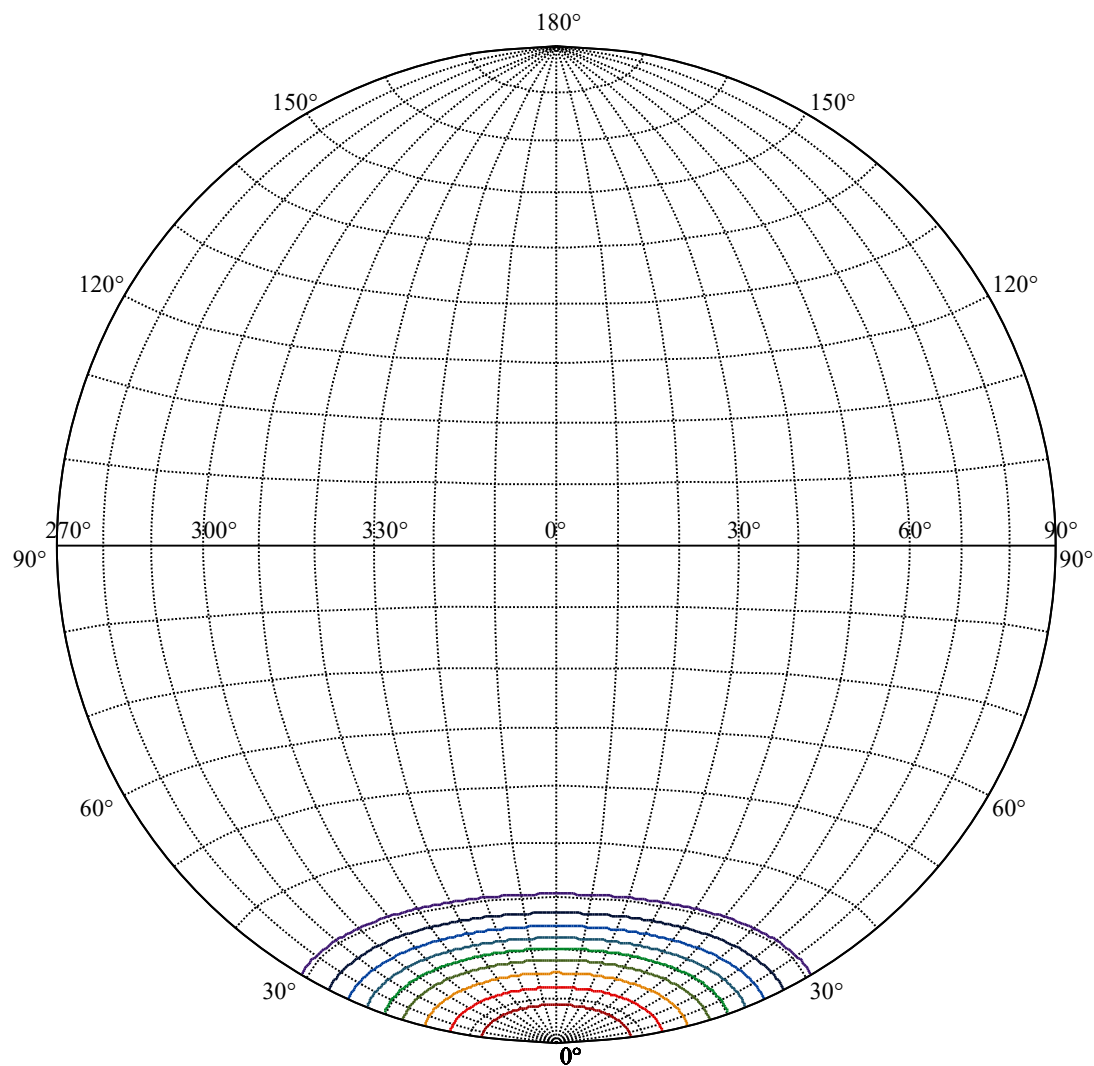
ZONAL LUMEN SUMMARY

0-10	214.54
10-20	465.94
20-30	310.61
30-40	70.47
40-50	29.52
50-60	24.00
60-70	18.79
70-80	12.21
80-90	6.86
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







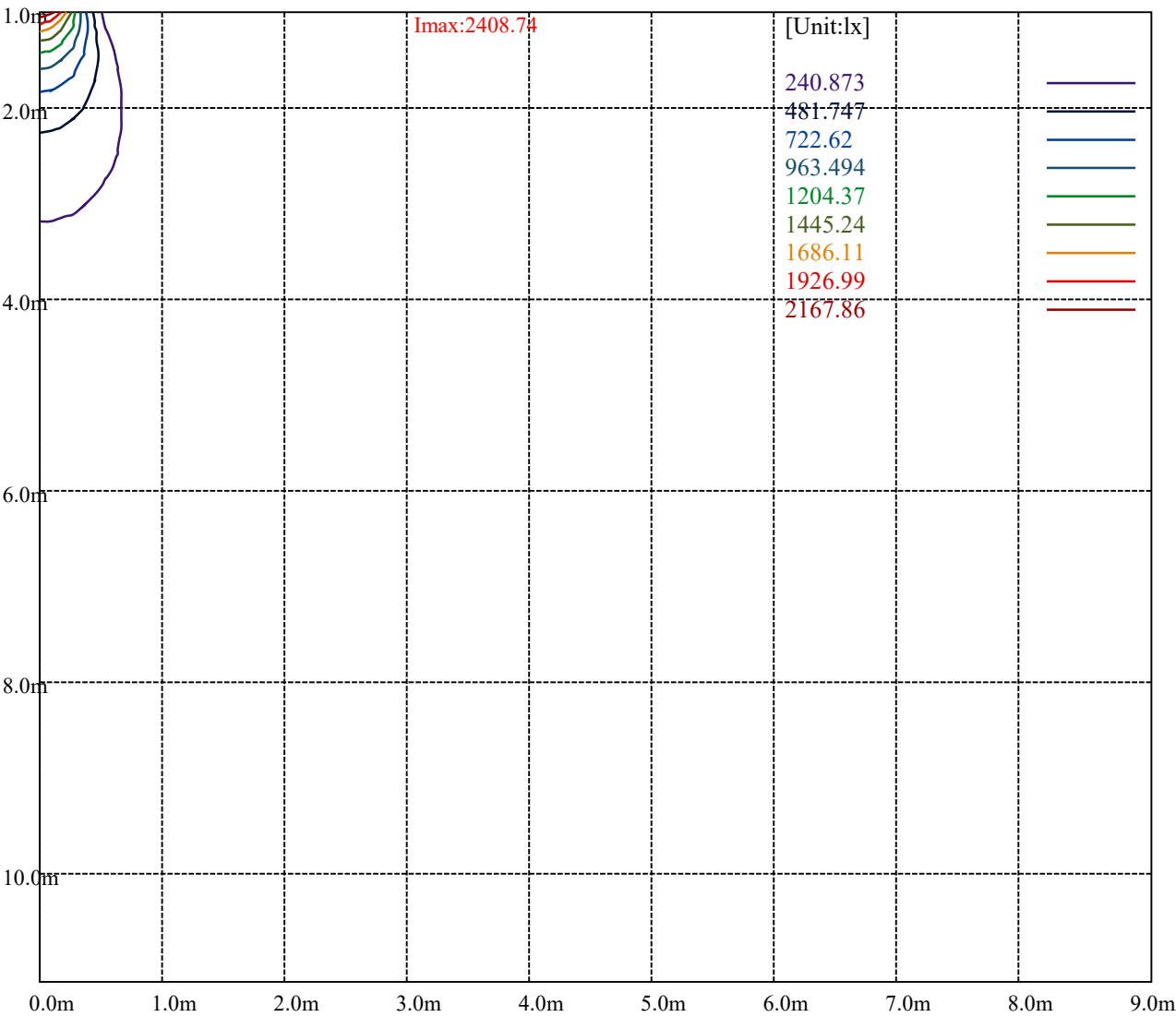


House

[Unit:cd]

Road

Imax:2408.74	
(10%Imax) 240.873	
(20%Imax) 481.747	
(30%Imax) 722.62	
(40%Imax) 963.494	
(50%Imax) 1204.37	
(60%Imax) 1445.24	
(70%Imax) 1686.11	
(80%Imax) 1926.99	
(90%Imax) 2167.86	



Luminance Table

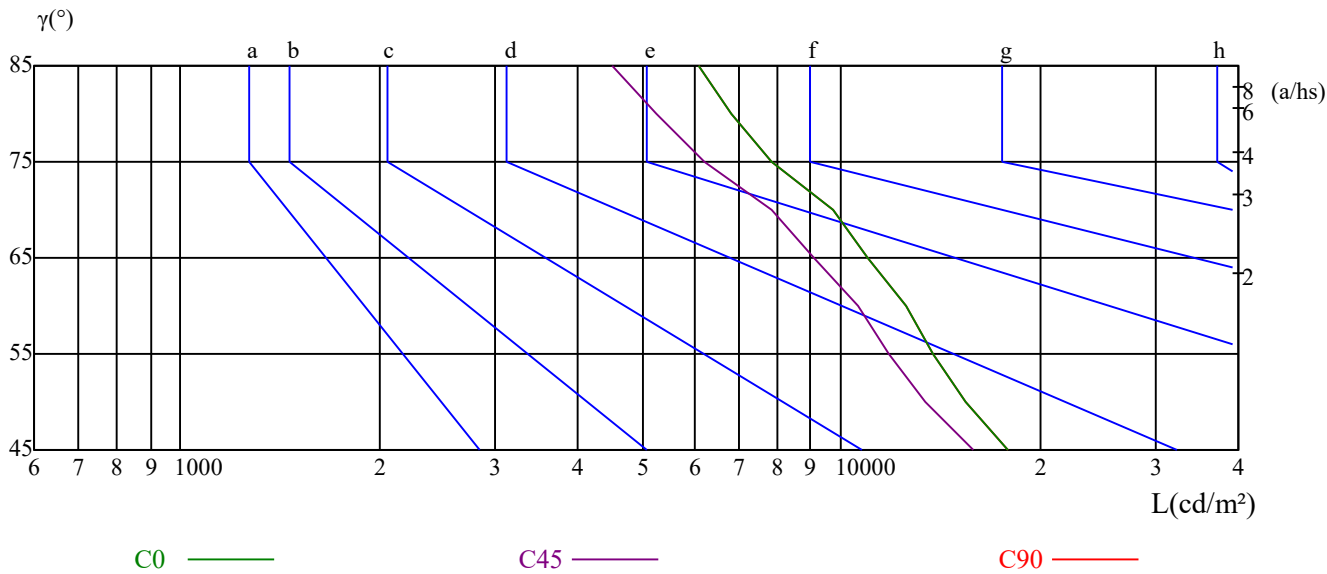
γ	45	50	55	60	65	70	75	80	85
C0	17918	15453	13776	12563	11010	9702	7844	6821	6078
C45	15831	13461	11818	10600	9120	7870	6210	5244	4506
C90	17918	15453	13776	12563	11010	9702	7844	6821	6078

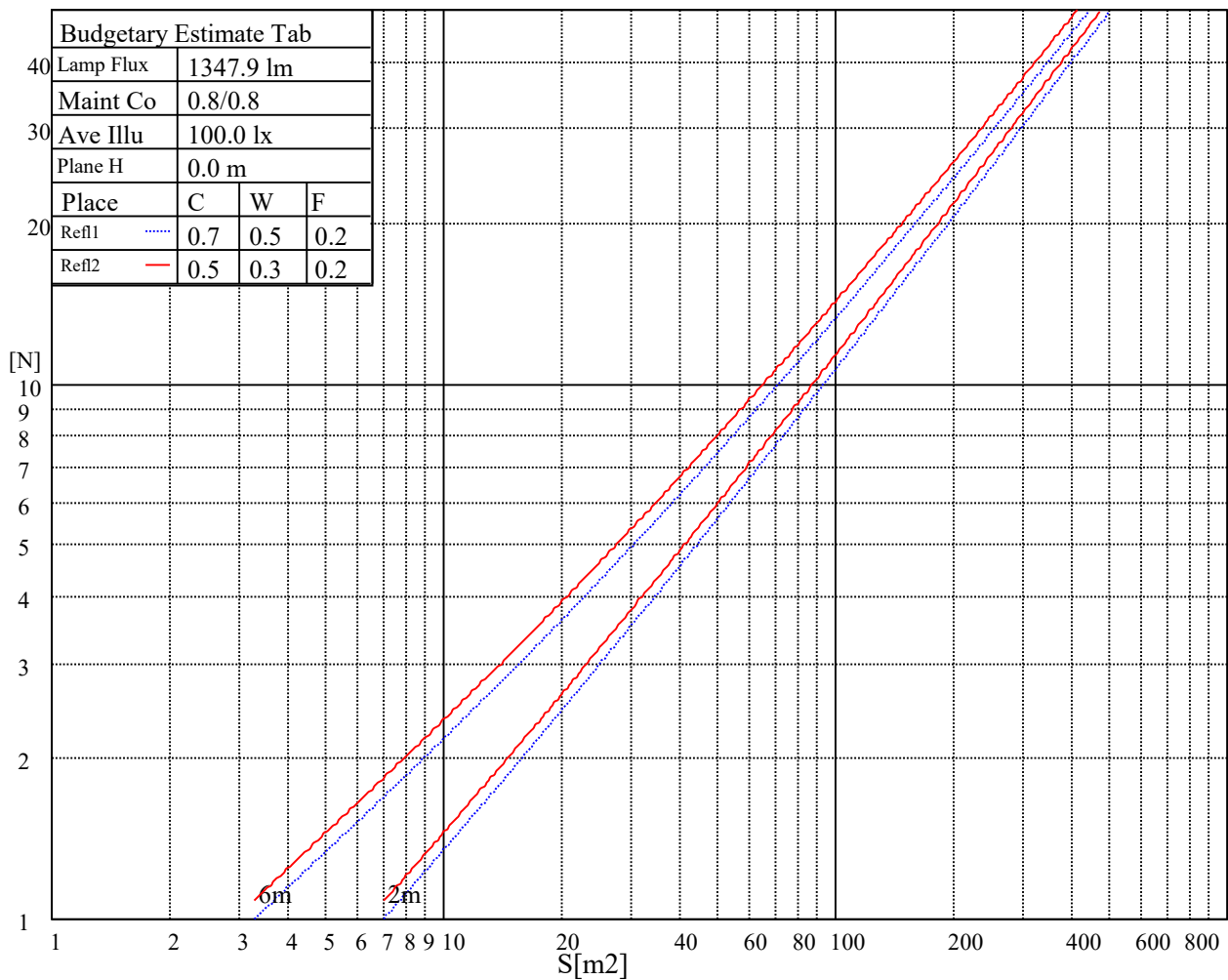
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
22028	22028	22028	21505	21505	21505	38498	38498	38498

Glare Table

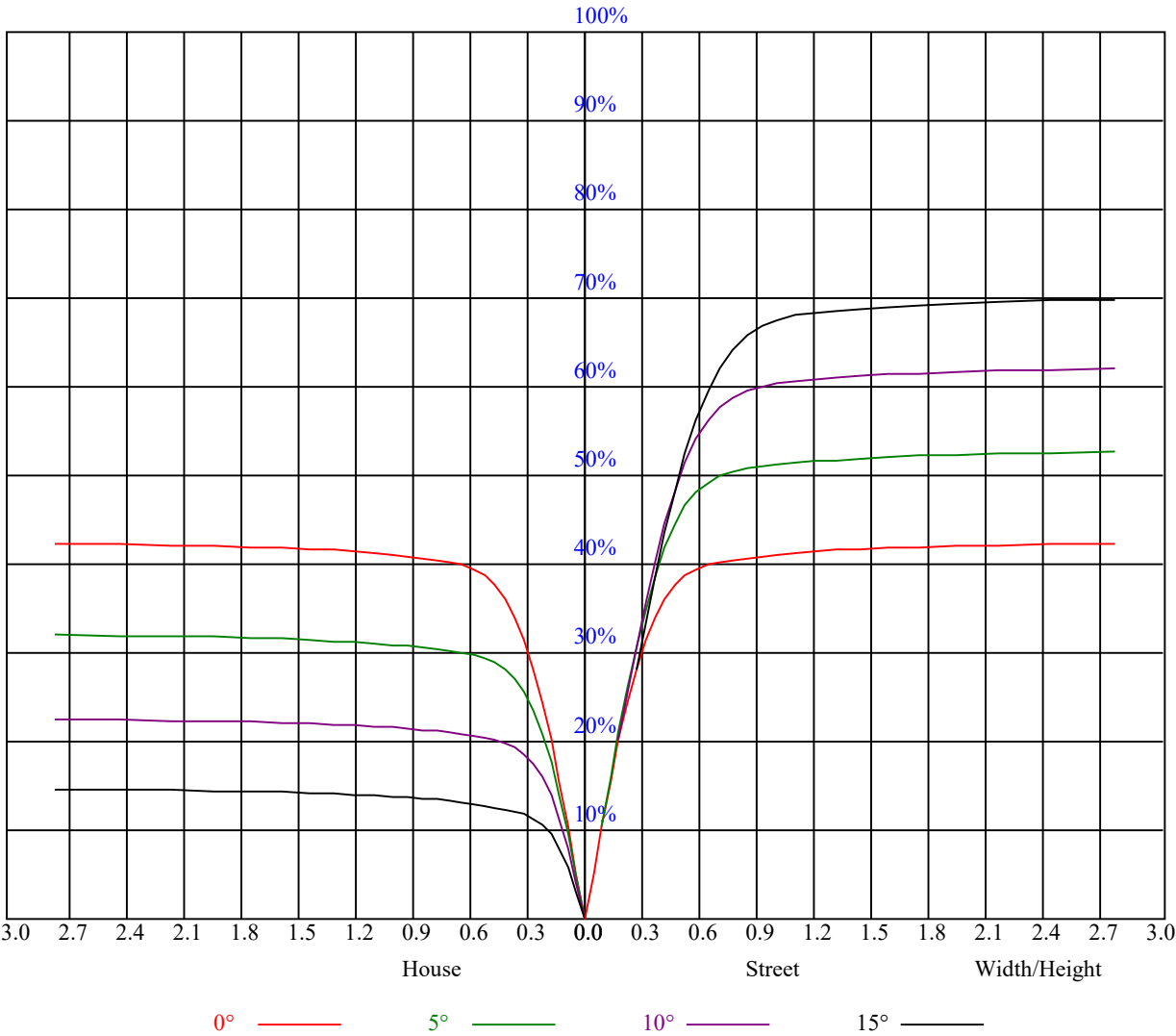
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

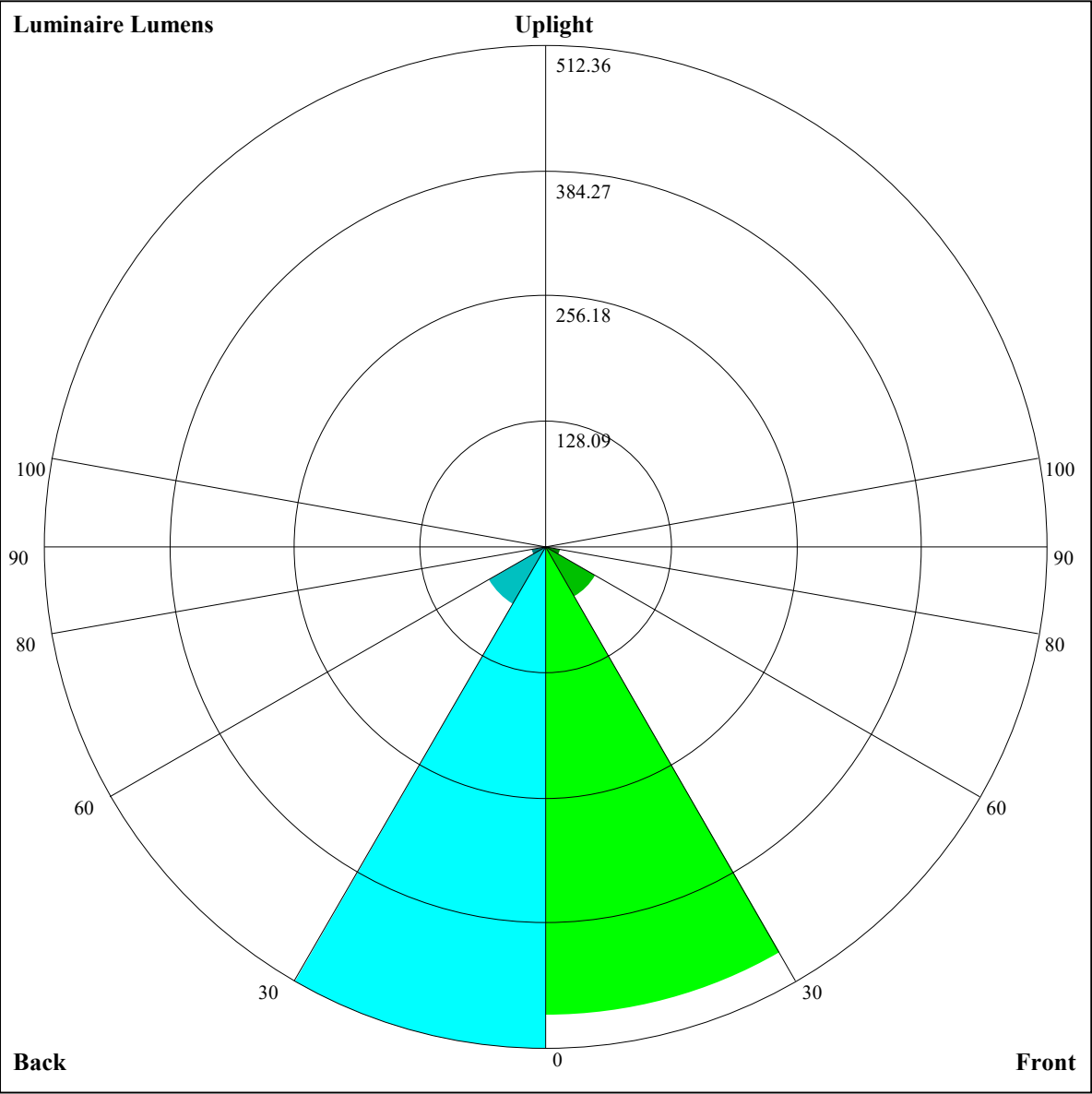
Luminance Limiting Curve





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	COEFFCIENTS OF UTILIZATION RHOFC=20 CU															
0	1.02	1.02	1.02	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.87	0.87	0.87	0.86
1	0.95	0.93	0.91	0.93	0.91	0.90	0.90	0.88	0.87	0.86	0.85	0.84	0.84	0.83	0.82	0.80
2	0.89	0.86	0.83	0.88	0.85	0.82	0.85	0.82	0.80	0.82	0.80	0.79	0.80	0.78	0.77	0.76
3	0.84	0.80	0.77	0.83	0.79	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.77	0.74	0.73	0.71
4	0.79	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.70	0.73	0.71	0.69	0.68
5	0.75	0.71	0.68	0.75	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.70	0.68	0.66	0.64
6	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.62	0.61
7	0.68	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.59
8	0.65	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.62	0.59	0.57	0.56
9	0.63	0.58	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54
10	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52





Luminaire Lumens:

FL=478.4,FM=58.9,FH=15.11,FVH=3.67

BL=512.36,BM=67.54,BH=15.8,BVH=3.71

UL=0,UH=0

BUG Rating:B2-U0-G0

Intensity data(cd)

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C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	2403.01	2388.62	2366.77	2339.59	2302.82	2260.19	2209.56	2158.40	2094.99
45.0	2415.26	2401.94	2385.95	2360.91	2326.80	2302.29	2264.98	2196.77	2164.80
90.0	2401.41	2385.42	2362.51	2333.20	2298.02	2256.99	2206.90	2152.01	2087.00
135.0	2415.26	2414.20	2402.47	2388.62	2367.30	2339.59	2303.89	2259.12	2206.37
180.0	2403.01	2412.60	2414.20	2411.53	2397.14	2390.75	2369.43	2324.67	2301.22
225.0	2415.26	2418.99	2418.99	2409.93	2393.41	2373.16	2343.32	2306.55	2266.58
270.0	2401.41	2413.13	2417.39	2416.33	2405.14	2388.62	2364.64	2342.79	2307.08
315.0	2415.26	2412.07	2400.34	2384.35	2359.31	2328.40	2289.50	2245.80	2194.11
360.0	2403.01	2388.62	2366.77	2339.59	2302.82	2260.19	2209.56	2158.40	2094.99
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	2025.71	1953.24	1880.23	1800.83	1720.36	1632.43	1543.97	1450.71	1394.76
45.0	2100.85	2036.90	1962.83	1891.95	1812.02	1726.76	1643.09	1550.90	1454.98
90.0	2019.85	1946.31	1870.11	1823.74	1704.91	1611.65	1553.03	1450.71	1344.13
135.0	2170.13	2079.00	2008.66	1964.96	1889.82	1812.55	1728.89	1640.96	1548.23
180.0	2253.26	2199.44	2138.15	2066.21	1991.07	1917.53	1840.26	1755.53	1669.20
225.0	2214.36	2158.40	2090.19	2021.98	1948.98	1887.16	1791.77	1704.91	1632.43
270.0	2255.39	2216.49	2162.14	2097.12	2029.44	1956.44	1879.70	1799.76	1716.63
315.0	2134.96	2097.12	2029.44	1926.06	1879.70	1802.43	1722.49	1635.63	1545.57
360.0	2025.71	1953.24	1880.23	1800.83	1720.36	1632.43	1543.97	1450.71	1394.76
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	1295.64	1046.14	1046.14	956.02	847.42	738.07	632.71	533.59	443.37
45.0	1350.53	1243.95	1132.57	1019.60	904.49	791.52	724.90	579.42	523.47
90.0	1187.99	1026.26	1002.01	884.13	771.27	663.03	559.55	466.13	383.53
135.0	1448.58	1341.47	1230.63	1116.59	999.88	883.71	770.20	661.49	559.17
180.0	1572.75	1479.49	1375.04	1271.13	1158.68	1049.97	939.66	829.35	723.31
225.0	1535.44	1433.66	1328.68	1178.93	1046.30	998.97	886.96	773.88	664.85
270.0	1626.57	1531.71	1431.00	1327.08	1217.84	1104.33	989.22	873.05	760.61
315.0	1454.98	1356.92	1251.41	1009.47	1009.47	892.13	780.27	712.86	565.03
360.0	1295.64	1046.14	1046.14	956.02	847.42	738.07	632.71	533.59	443.37
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	360.51	287.39	225.90	176.34	137.65	118.68	86.01	71.30	64.91
45.0	433.41	323.63	283.13	283.13	164.03	128.16	101.62	82.33	68.42
90.0	310.25	247.59	195.79	160.99	119.16	98.05	78.60	65.17	56.65
135.0	465.91	381.72	308.71	282.06	282.06	158.00	123.85	98.16	79.30
180.0	642.30	528.80	457.92	377.45	293.25	293.25	267.68	148.25	116.12
225.0	564.93	472.63	420.46	313.88	250.78	217.74	170.79	133.33	105.83
270.0	651.90	551.71	495.22	376.92	332.69	291.66	291.66	164.61	129.33
315.0	505.62	415.50	336.10	268.48	210.82	163.81	127.84	100.88	82.49
360.0	360.51	287.39	225.90	176.34	137.65	118.68	86.01	71.30	64.91
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	57.71	52.92	49.29	46.42	43.96	41.57	39.22	37.36	35.65
45.0	59.31	53.72	50.20	48.01	46.20	45.14	42.90	41.62	40.77
90.0	51.05	46.95	44.02	41.78	39.65	37.68	35.92	34.21	32.67
135.0	66.03	57.55	52.12	48.23	45.08	42.63	40.39	38.26	36.34
180.0	93.26	76.84	65.92	58.83	54.25	52.49	49.40	47.59	46.68
225.0	86.28	71.94	62.35	55.85	51.53	48.23	45.56	43.22	41.09
270.0	102.37	83.03	70.02	61.55	55.69	51.53	48.23	45.94	43.06
315.0	69.76	61.23	55.42	51.26	48.07	45.35	42.85	40.61	38.64
360.0	57.71	52.92	49.29	46.42	43.96	41.57	39.22	37.36	35.65

Intensity data(cd)

Appendix Page: 18 Total:19

C/γ(°)	45.0	46.0	47.0	48.0	49.0	50.0	51.0	52.0	53.0
0.0	34.11	32.83	31.65	30.70	29.90	29.04	28.24	27.44	27.02
45.0	39.43	38.00	36.13	34.11	32.29	30.54	28.94	27.76	27.07
90.0	31.39	30.32	29.36	28.56	27.82	27.18	26.80	25.85	25.47
135.0	34.69	33.20	32.03	31.39	30.43	29.74	29.04	28.24	27.44
180.0	44.60	43.70	42.26	40.87	39.17	37.14	35.06	32.93	31.07
225.0	39.22	37.52	35.86	34.59	33.36	32.61	31.33	30.43	29.79
270.0	40.82	39.33	37.20	35.92	34.53	33.20	32.08	31.07	30.16
315.0	36.77	35.86	33.84	32.56	31.92	30.96	30.06	29.20	28.46
360.0	34.11	32.83	31.65	30.70	29.90	29.04	28.24	27.44	27.02
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	26.01	25.53	24.83	24.09	23.34	22.59	21.64	20.46	19.72
45.0	26.33	25.63	24.89	24.19	23.61	23.02	22.33	21.16	20.78
90.0	24.89	23.98	23.61	22.91	22.28	21.64	20.41	19.56	18.81
135.0	26.75	26.01	25.31	24.67	23.98	23.23	22.49	21.69	20.57
180.0	29.47	28.46	27.71	26.91	26.17	25.47	24.83	24.19	23.66
225.0	28.78	28.19	27.39	26.59	25.79	24.99	24.14	23.29	22.49
270.0	29.26	28.56	27.82	27.07	26.33	25.69	24.94	24.14	23.39
315.0	27.71	26.96	26.17	25.37	24.67	23.87	23.23	22.54	21.32
360.0	26.01	25.53	24.83	24.09	23.34	22.59	21.64	20.46	19.72
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	19.02	18.23	17.43	16.84	16.09	15.24	14.44	13.64	12.79
45.0	19.72	19.08	18.65	18.07	17.37	16.79	16.09	15.45	14.71
90.0	18.07	17.37	16.73	16.04	15.29	14.55	13.64	12.79	11.99
135.0	19.82	19.02	18.23	17.48	17.00	16.25	15.61	14.76	13.86
180.0	22.49	21.69	21.16	20.25	19.56	19.02	18.54	17.80	17.00
225.0	21.00	20.09	19.34	18.54	17.80	17.11	16.52	15.72	14.81
270.0	22.70	21.26	20.36	19.66	19.13	18.01	17.43	17.00	16.20
315.0	20.41	19.66	18.92	18.23	17.53	16.89	16.15	15.51	14.71
360.0	19.02	18.23	17.43	16.84	16.09	15.24	14.44	13.64	12.79
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	11.94	11.03	10.34	9.65	9.43	9.17	8.69	8.42	8.05
45.0	13.96	13.16	12.31	11.40	10.92	10.55	10.07	9.70	9.22
90.0	11.46	10.18	9.49	9.22	8.69	8.47	8.10	7.67	7.30
135.0	13.11	12.26	11.35	10.39	9.70	9.33	8.90	8.47	8.10
180.0	16.20	15.45	14.65	13.86	12.90	11.99	11.40	10.98	10.44
225.0	13.91	13.11	12.58	11.67	10.39	9.86	9.49	9.11	8.69
270.0	15.40	14.55	13.70	12.79	11.99	11.08	10.23	9.81	9.49
315.0	13.80	12.90	12.04	11.19	10.34	9.81	9.54	9.11	8.69
360.0	11.94	11.03	10.34	9.65	9.43	9.17	8.69	8.42	8.05
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.67	7.19	6.87	6.39	5.97	5.54	5.17	4.90	4.74
45.0	8.90	8.63	8.26	7.94	7.73	7.35	7.03	6.93	6.82
90.0	6.93	6.50	6.13	5.76	5.33	4.96	4.64	4.42	4.37
135.0	7.73	7.35	6.93	6.50	6.08	5.60	5.22	4.74	4.58
180.0	9.91	9.54	8.95	8.47	8.15	7.78	7.14	6.71	6.23
225.0	8.21	7.83	7.57	7.25	6.82	6.45	5.97	5.54	5.17
270.0	9.06	8.63	8.21	7.83	7.46	7.09	6.77	6.29	5.92
315.0	8.31	7.99	7.62	7.25	6.82	6.50	5.97	5.49	5.22
360.0	7.67	7.19	6.87	6.39	5.97	5.54	5.17	4.90	4.74

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	4.69
45.0	6.77
90.0	4.37
135.0	4.42
180.0	5.86
225.0	4.96
270.0	5.54
315.0	5.06
360.0	4.69