



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86 571 85021543 Fax:+86 571 87977635
Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

Client: NT

LumCAT: 2-2873-L2

Luminaire: 92.70.412.00

Report No: 20260629-B003

Ballast type: DC

Test No: 20260629-C003

LampCAT: CITIZEN CLU038

Lamp flux(lm): 3154.5

Number of Lamps: 1

Length(mm): 75

Phm Type: C

Voltage(V): 35.830

Current(A): 0.723

Power (W): 25.905

PF: 0.000

Width(mm): 75

Height(mm): 43

Photometric Results

Lumens(lm): 3079.34, Efficiency(%): 97.62% , Luminous Efficacy(lm/W): 118.87

Central intensity(cd): 7249.527, Maximum intensity(cd): 7249.527

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.8

[C90/270]Total=35.8

Field angle(10%Imax): [C0/180]Total=66.8

[C90/270]Total=66.8

Maximum s/h(1/2): C0_180=0.60 C90_270=0.60

Maximum s/h(1/4): C0_180=0.56 C90_270=0.56

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 97.62%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.363%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7249.528	0.000	0	0.00%	0.00%
1.0	7242.396	6.934	6.934	0.22%	0.23%
2.0	7209.148	20.742	27.676	0.66%	0.90%
3.0	7153.666	34.351	62.027	1.09%	2.01%
4.0	7092.834	47.688	109.715	1.51%	3.56%
5.0	6999.804	60.626	170.341	1.92%	5.53%
6.0	6896.390	73.028	243.369	2.32%	7.90%
7.0	6768.119	84.815	328.184	2.69%	10.66%
8.0	6617.404	95.798	423.982	3.04%	13.77%
9.0	6454.522	105.941	529.923	3.36%	17.21%
10.0	6224.411	114.740	644.663	3.64%	20.94%
11.0	5986.958	122.017	766.679	3.87%	24.90%
12.0	5689.513	127.641	894.32	4.05%	29.04%
13.0	5400.039	131.605	1025.925	4.17%	33.32%
14.0	5076.897	134.104	1160.029	4.25%	37.67%
15.0	4697.329	134.185	1294.214	4.25%	42.03%
16.0	4326.991	132.232	1426.445	4.19%	46.32%
17.0	3968.819	129.188	1555.633	4.10%	50.52%
18.0	3605.088	124.877	1680.51	3.96%	54.57%
19.0	3228.457	118.890	1799.4	3.77%	58.43%
20.0	2882.975	111.856	1911.256	3.55%	62.07%
21.0	2529.418	103.929	2015.185	3.29%	65.44%
22.0	2182.804	94.694	2109.879	3.00%	68.52%
23.0	2006.414	87.901	2197.78	2.79%	71.37%
24.0	1769.632	82.558	2280.338	2.62%	74.05%
25.0	1606.803	76.773	2357.111	2.43%	76.55%
26.0	1492.628	73.162	2430.273	2.32%	78.92%
27.0	1381.789	70.323	2500.597	2.23%	81.21%
28.0	1286.430	67.554	2568.15	2.14%	83.40%
29.0	1197.060	64.975	2633.125	2.06%	85.51%
30.0	1110.774	62.311	2695.436	1.98%	87.53%
31.0	1008.031	58.963	2754.4	1.87%	89.45%
32.0	889.987	54.376	2808.776	1.72%	91.21%
33.0	774.071	49.024	2857.799	1.55%	92.81%
34.0	656.771	43.301	2901.101	1.37%	94.21%
35.0	528.584	36.813	2937.914	1.17%	95.41%
36.0	419.864	30.199	2968.112	0.96%	96.39%
37.0	350.998	25.141	2993.254	0.80%	97.20%

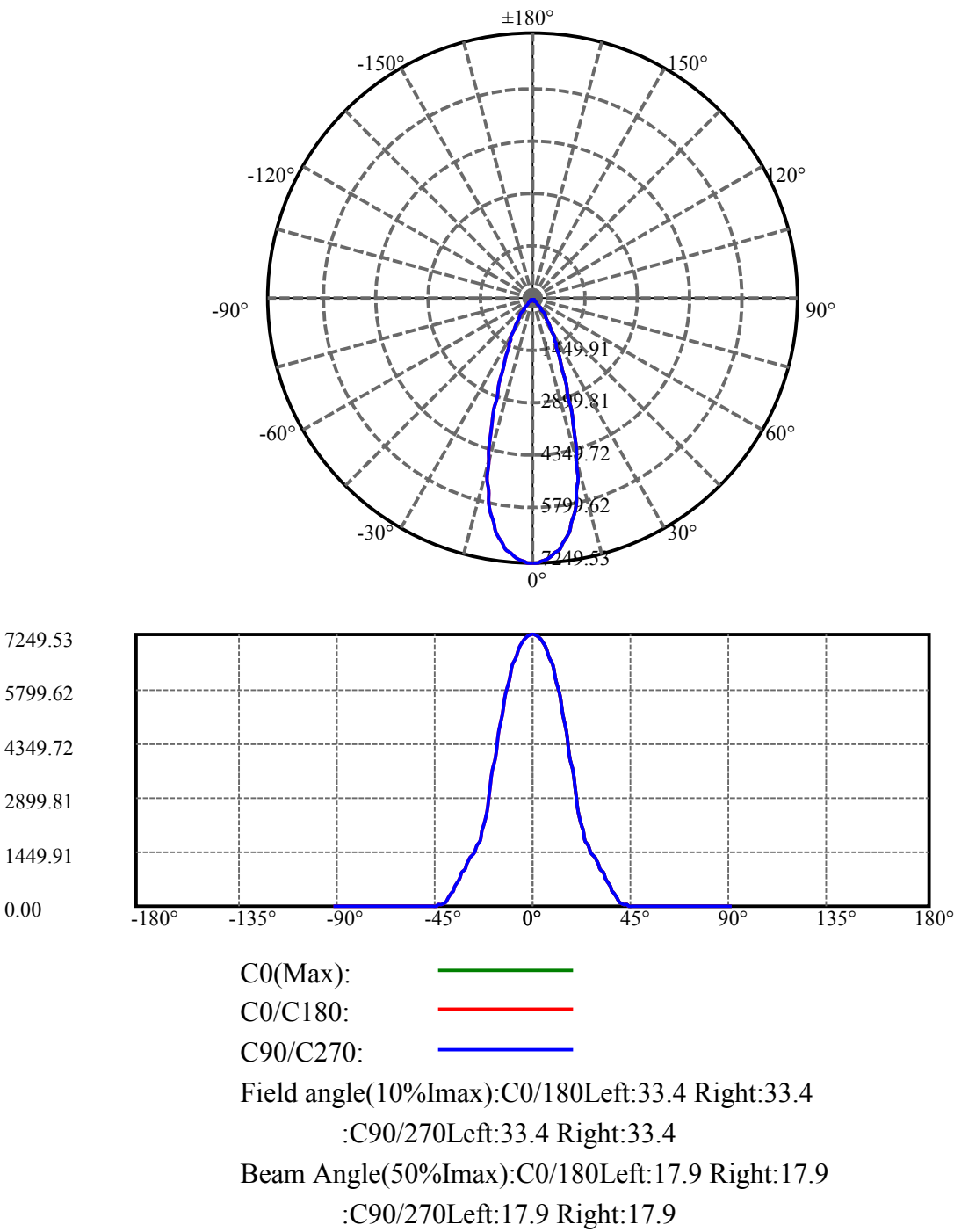
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	227.185	19.299	3012.553	0.61%	97.83%
39.0	141.297	12.577	3025.13	0.40%	98.24%
40.0	101.494	8.468	3033.598	0.27%	98.51%
41.0	44.795	5.209	3038.807	0.17%	98.68%
42.0	31.853	2.785	3041.592	0.09%	98.77%
43.0	25.140	2.111	3043.703	0.07%	98.84%
44.0	21.165	1.748	3045.451	0.06%	98.90%
45.0	17.977	1.504	3046.955	0.05%	98.95%
46.0	15.376	1.304	3048.259	0.04%	98.99%
47.0	13.509	1.149	3049.408	0.04%	99.03%
48.0	12.030	1.032	3050.44	0.03%	99.06%
49.0	10.971	0.945	3051.385	0.03%	99.09%
50.0	10.299	0.887	3052.272	0.03%	99.12%
51.0	9.723	0.847	3053.119	0.03%	99.15%
52.0	9.198	0.812	3053.931	0.03%	99.17%
53.0	8.789	0.782	3054.713	0.02%	99.20%
54.0	8.443	0.760	3055.473	0.02%	99.22%
55.0	8.107	0.739	3056.211	0.02%	99.25%
56.0	7.866	0.722	3056.933	0.02%	99.27%
57.0	7.646	0.709	3057.643	0.02%	99.30%
58.0	7.499	0.700	3058.343	0.02%	99.32%
59.0	7.342	0.694	3059.037	0.02%	99.34%
60.0	7.195	0.687	3059.723	0.02%	99.36%
61.0	7.080	0.681	3060.405	0.02%	99.39%
62.0	6.964	0.677	3061.081	0.02%	99.41%
63.0	6.870	0.673	3061.754	0.02%	99.43%
64.0	6.807	0.671	3062.425	0.02%	99.45%
65.0	6.723	0.670	3063.095	0.02%	99.47%
66.0	6.639	0.667	3063.762	0.02%	99.49%
67.0	6.608	0.666	3064.428	0.02%	99.52%
68.0	6.524	0.665	3065.093	0.02%	99.54%
69.0	6.461	0.662	3065.755	0.02%	99.56%
70.0	6.419	0.661	3066.417	0.02%	99.58%
71.0	6.377	0.661	3067.078	0.02%	99.60%
72.0	6.314	0.660	3067.738	0.02%	99.62%
73.0	6.293	0.659	3068.397	0.02%	99.64%
74.0	6.230	0.658	3069.056	0.02%	99.67%
75.0	6.188	0.656	3069.712	0.02%	99.69%

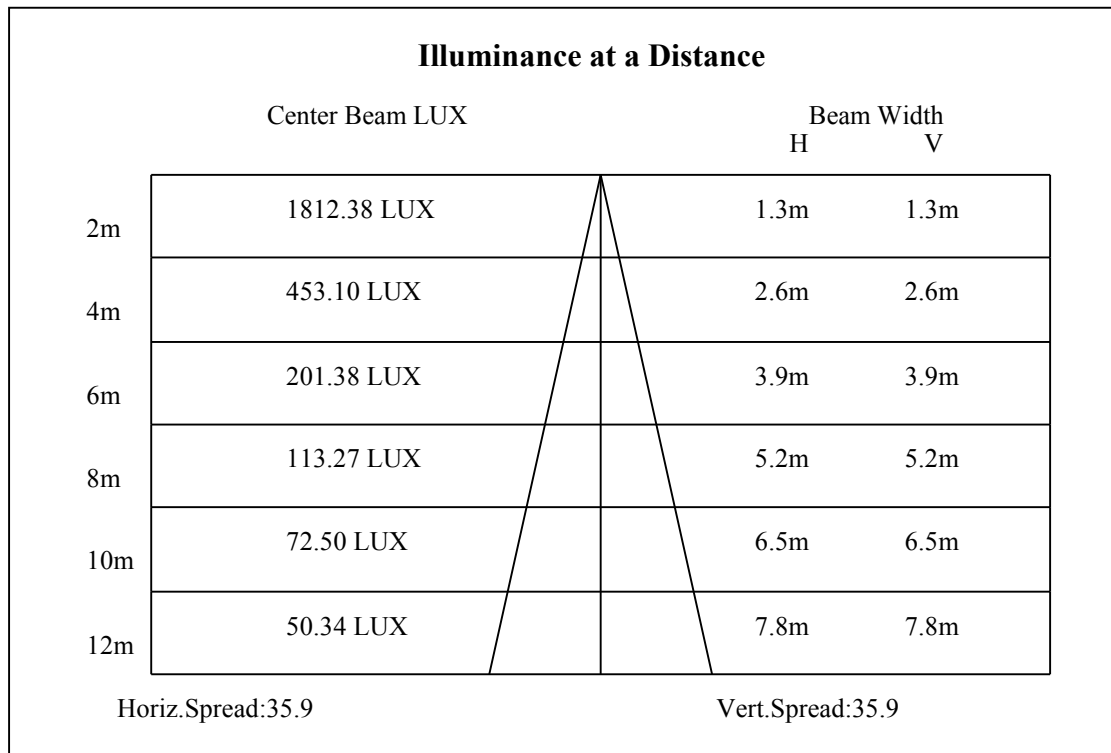
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.146	0.655	3070.366	0.02%	99.71%
77.0	6.115	0.654	3071.02	0.02%	99.73%
78.0	6.073	0.652	3071.672	0.02%	99.75%
79.0	6.041	0.651	3072.323	0.02%	99.77%
80.0	5.978	0.648	3072.971	0.02%	99.79%
81.0	5.947	0.645	3073.616	0.02%	99.81%
82.0	5.926	0.644	3074.26	0.02%	99.84%
83.0	5.894	0.643	3074.903	0.02%	99.86%
84.0	5.863	0.641	3075.543	0.02%	99.88%
85.0	5.821	0.638	3076.181	0.02%	99.90%
86.0	5.789	0.635	3076.815	0.02%	99.92%
87.0	5.769	0.633	3077.448	0.02%	99.94%
88.0	5.769	0.632	3078.08	0.02%	99.96%
89.0	5.748	0.631	3078.711	0.02%	99.98%
90.0	5.727	0.629	3079.34	0.02%	100.00%

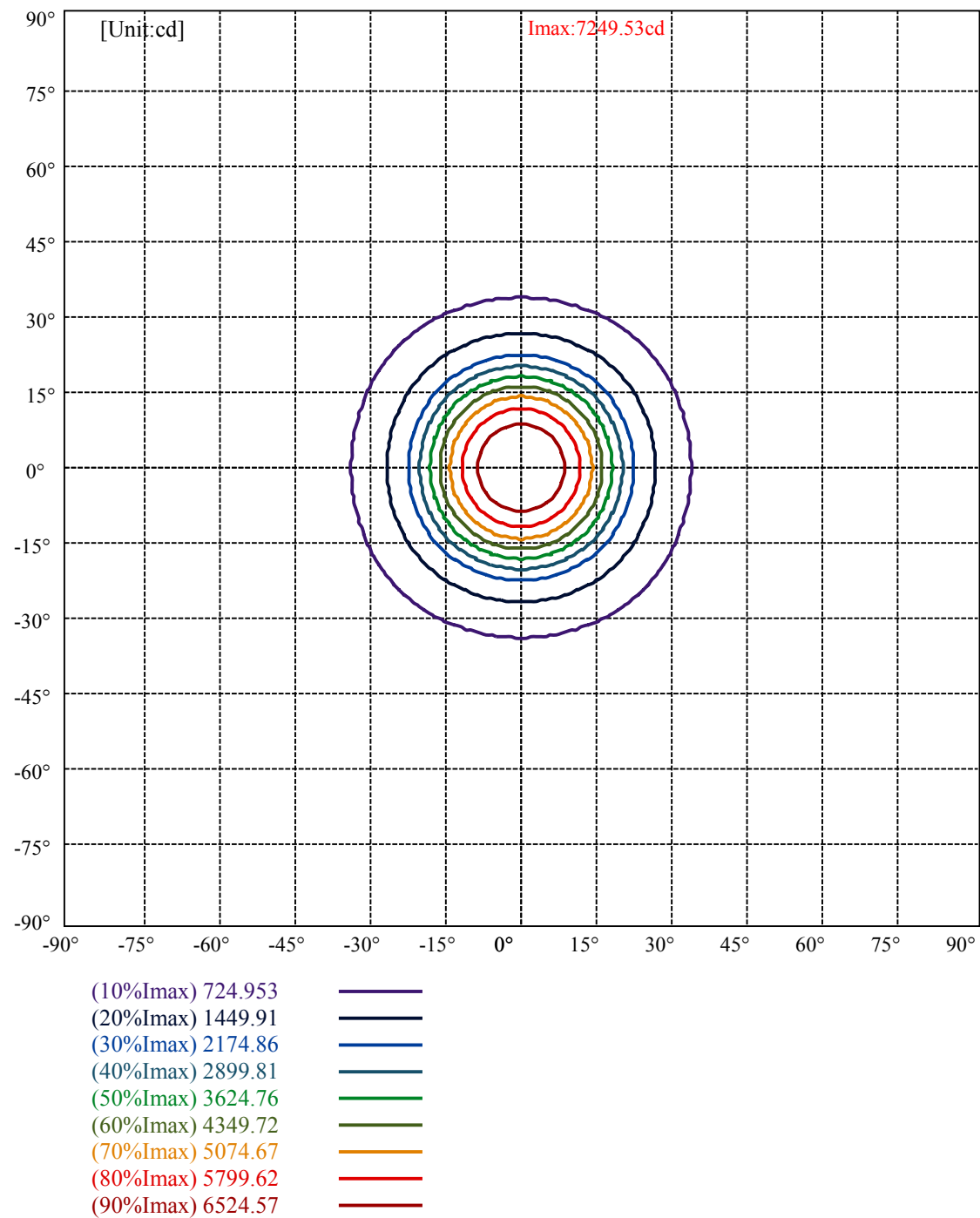
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	2695.44	85.45%	87.53%
0-40	3033.60	96.17%	98.51%
0-60	3059.72	97.00%	99.36%
0-90	3078.71	97.60%	99.98%
0-120	3078.71	97.60%	99.98%
0-180	3079.34	97.62%	100.00%
60-90	18.99	0.60%	0.62%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.47	2463.47	78.09%	80.00%

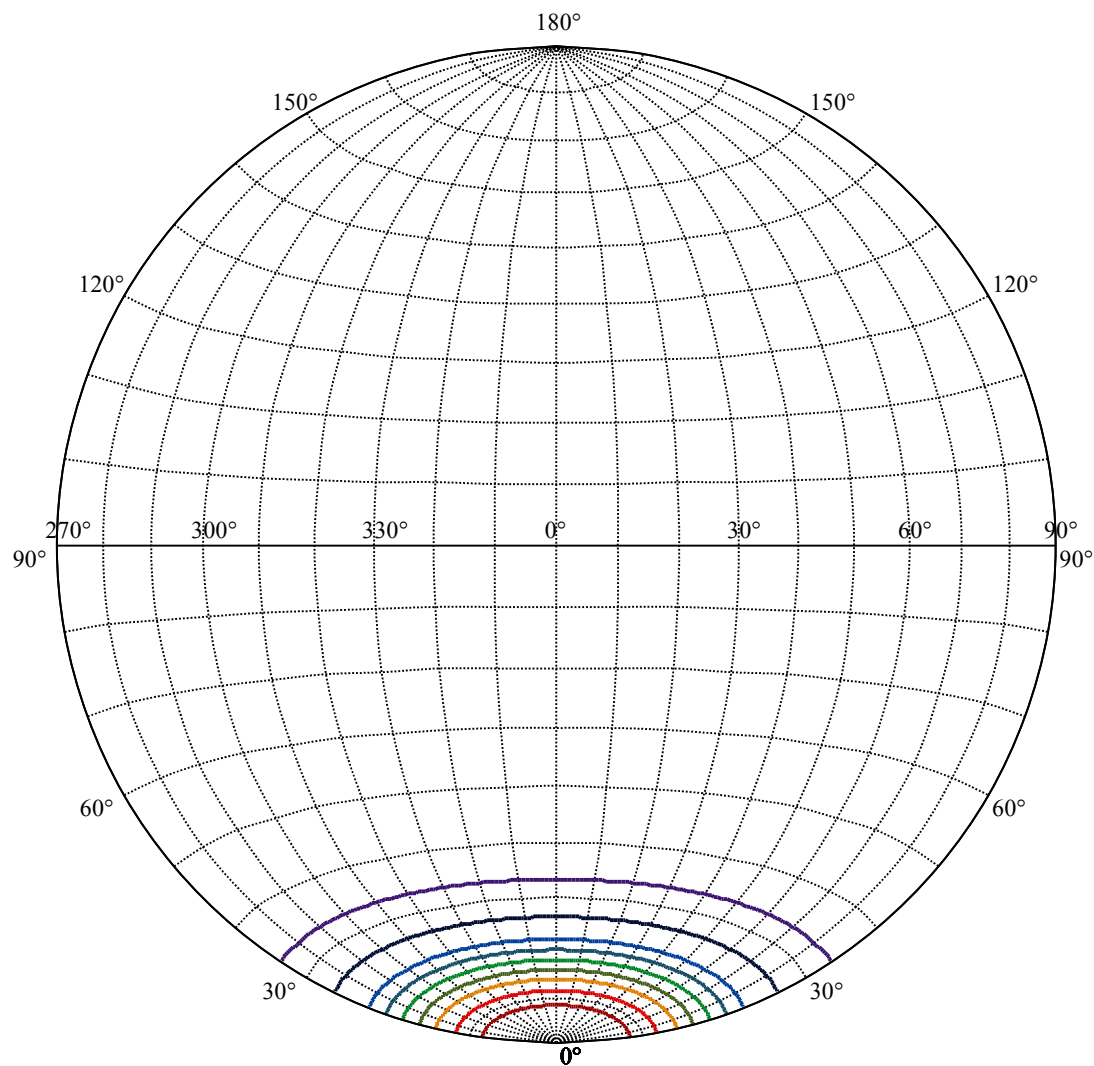
ZONAL LUMEN SUMMARY

0-10	644.66
10-20	1266.59
20-30	784.18
30-40	338.16
40-50	18.67
50-60	7.45
60-70	6.69
70-80	6.55
80-90	5.74
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







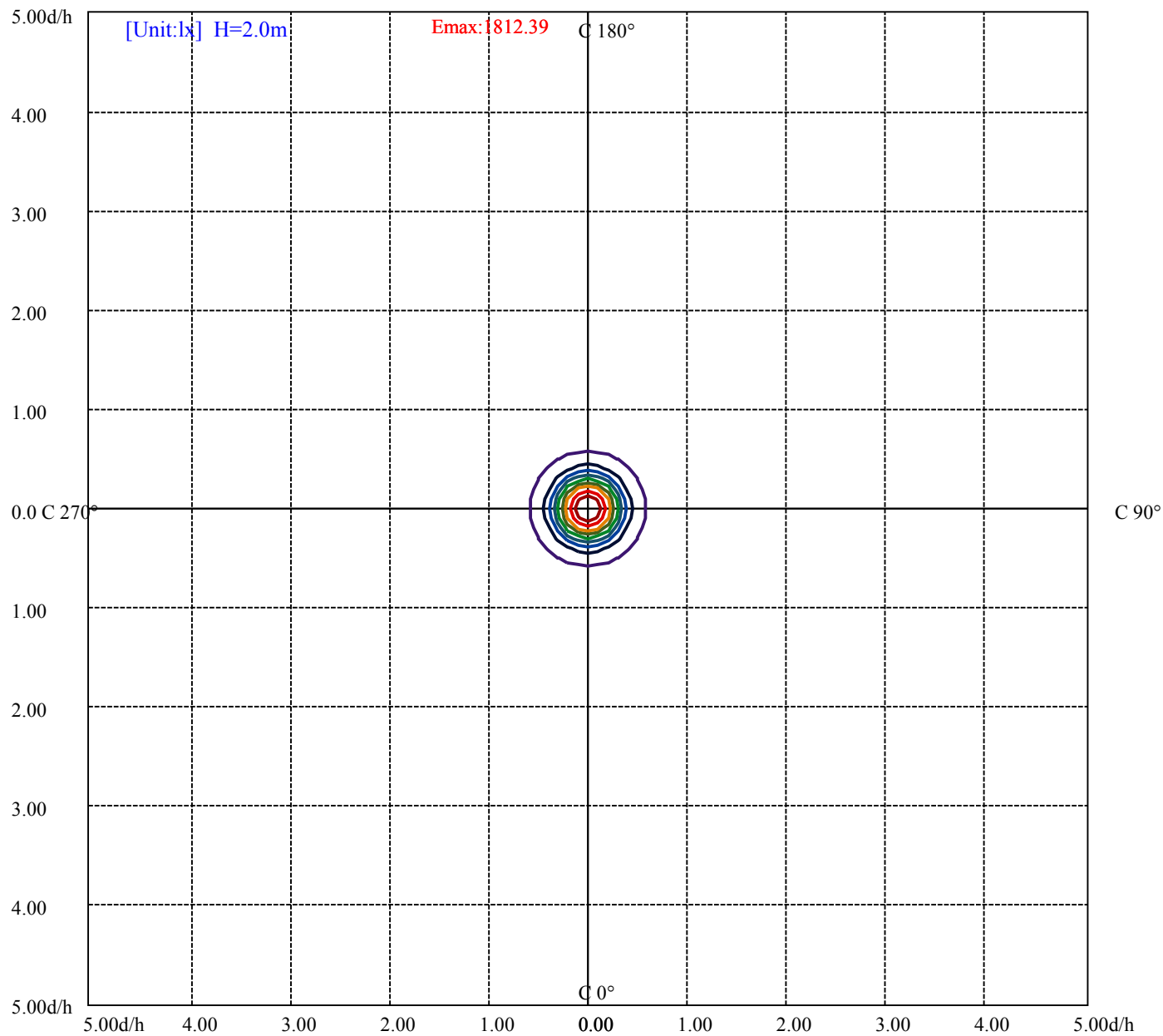


House

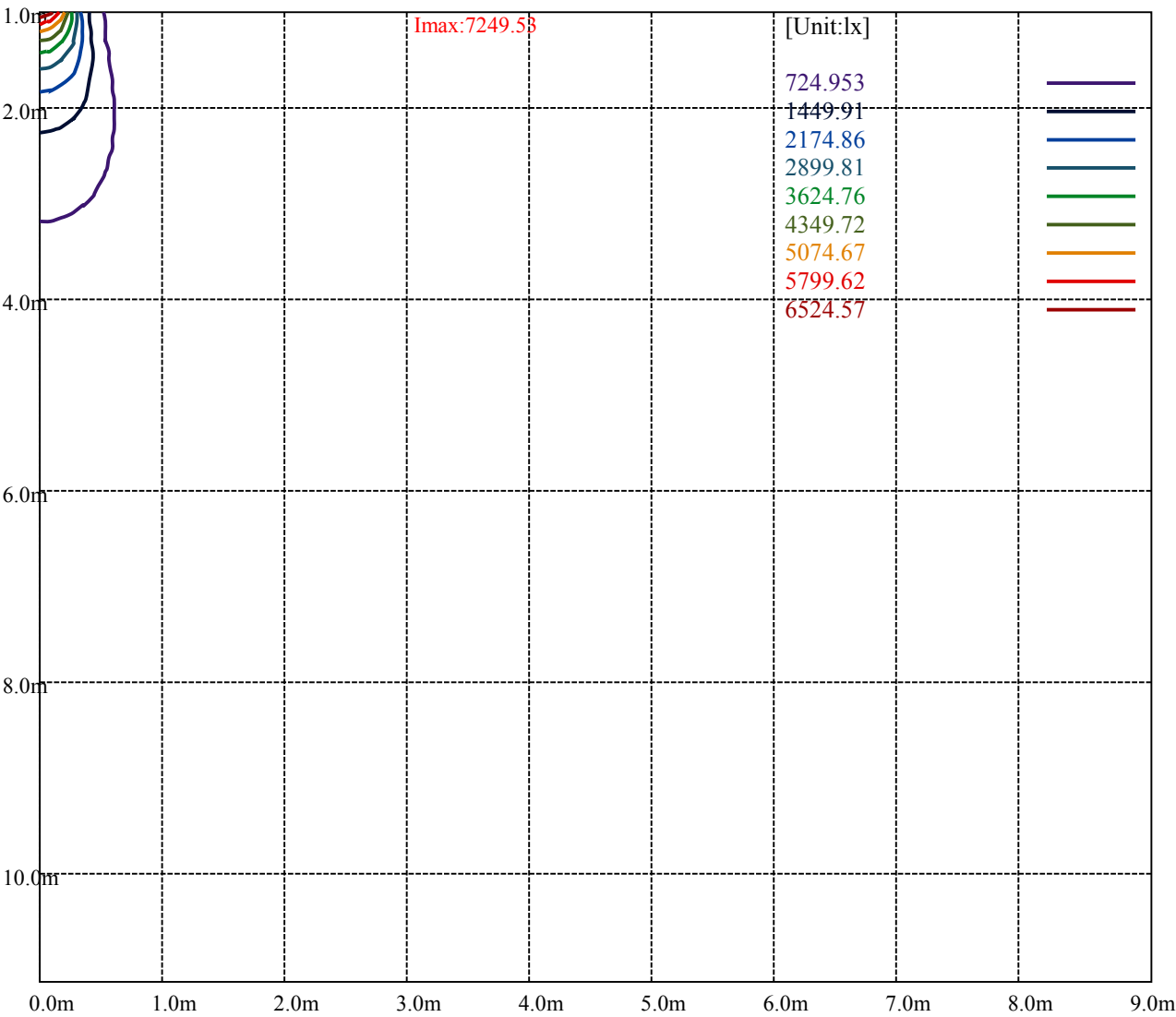
[Unit:cd]

Road

Imax:7249.53	
(10%Imax) 724.953	
(20%Imax) 1449.91	
(30%Imax) 2174.86	
(40%Imax) 2899.81	
(50%Imax) 3624.76	
(60%Imax) 4349.72	
(70%Imax) 5074.67	
(80%Imax) 5799.62	
(90%Imax) 6524.57	



(10%Emax)	181.2383	
(20%Emax)	362.4775	
(30%Emax)	543.715	
(40%Emax)	724.9525	
(50%Emax)	906.19	
(60%Emax)	1087.43	
(70%Emax)	1268.667	
(80%Emax)	1449.905	
(90%Emax)	1631.142	



Luminance Table

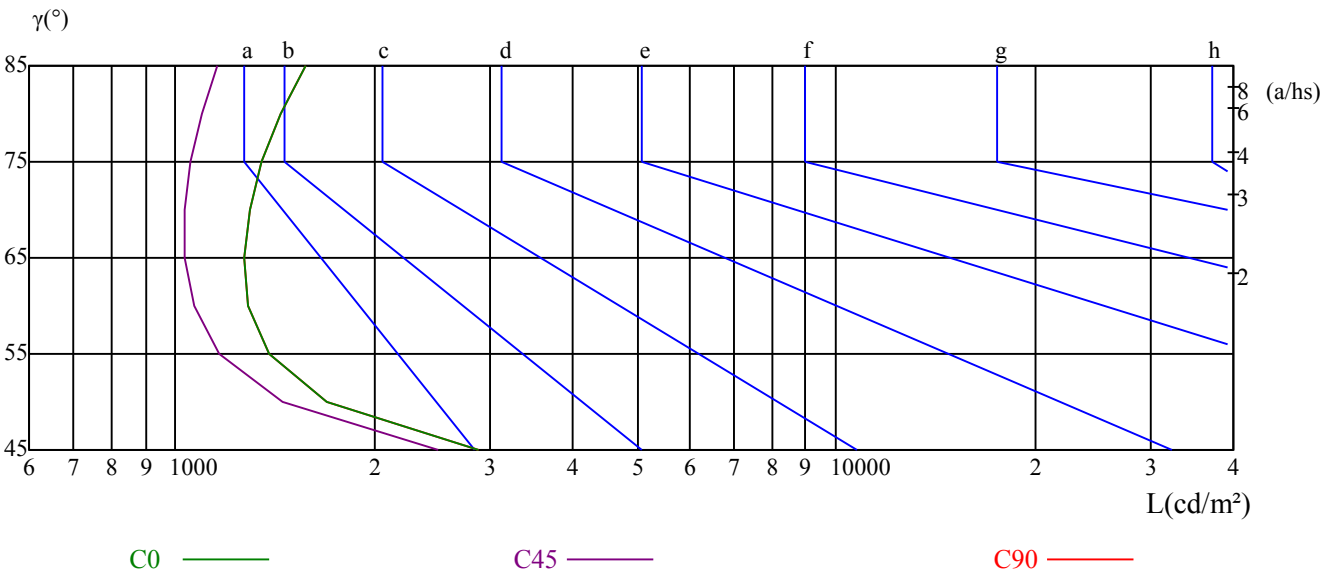
γ	45	50	55	60	65	70	75	80	85
C0	2873	1692	1382	1284	1268	1296	1354	1440	1572
C45	2496	1449	1164	1064	1033	1034	1056	1093	1156
C90	2873	1692	1382	1284	1268	1296	1354	1440	1572

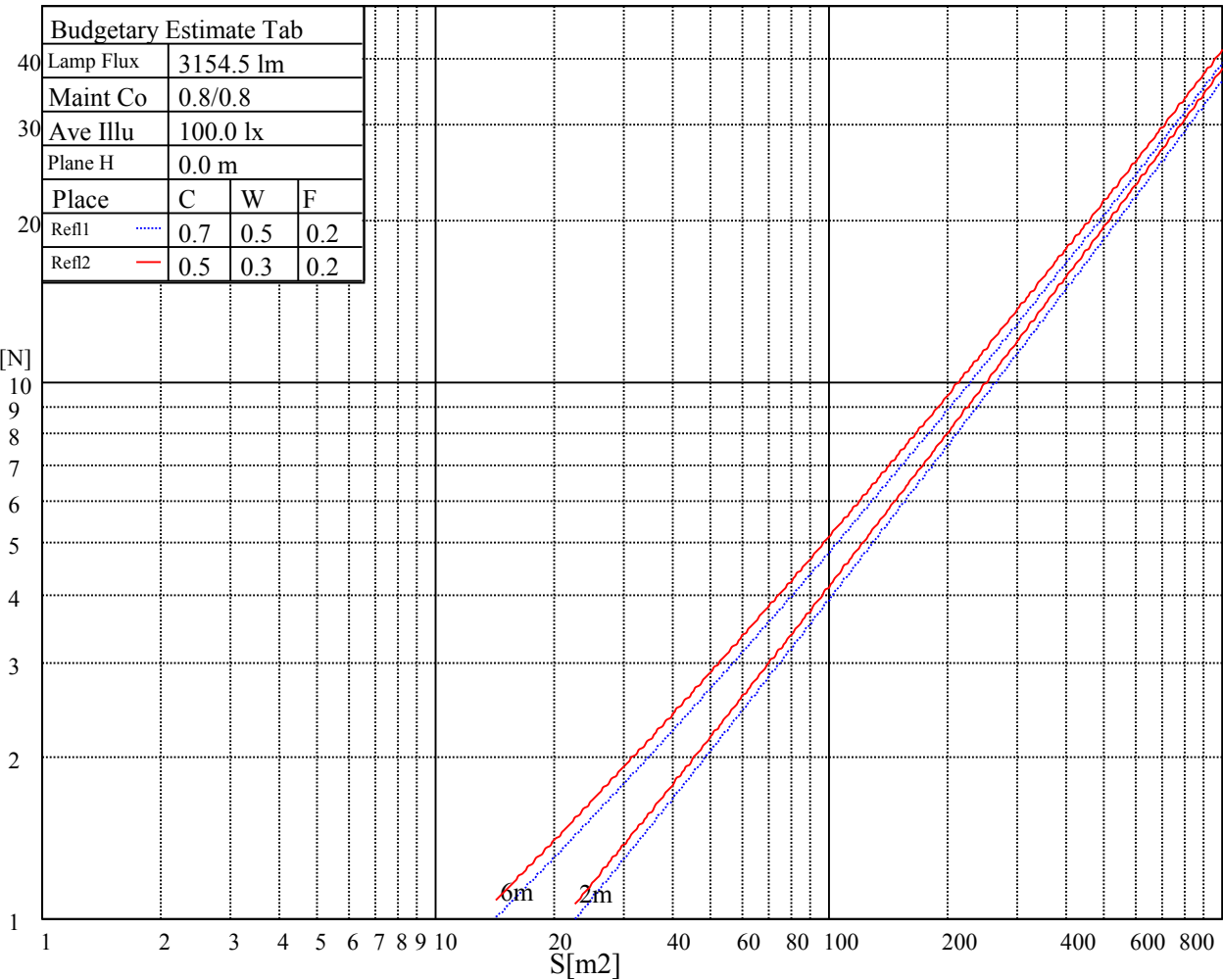
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2828	2828	2828	4250	4250	4250	11873	11873	11873

Glare Table

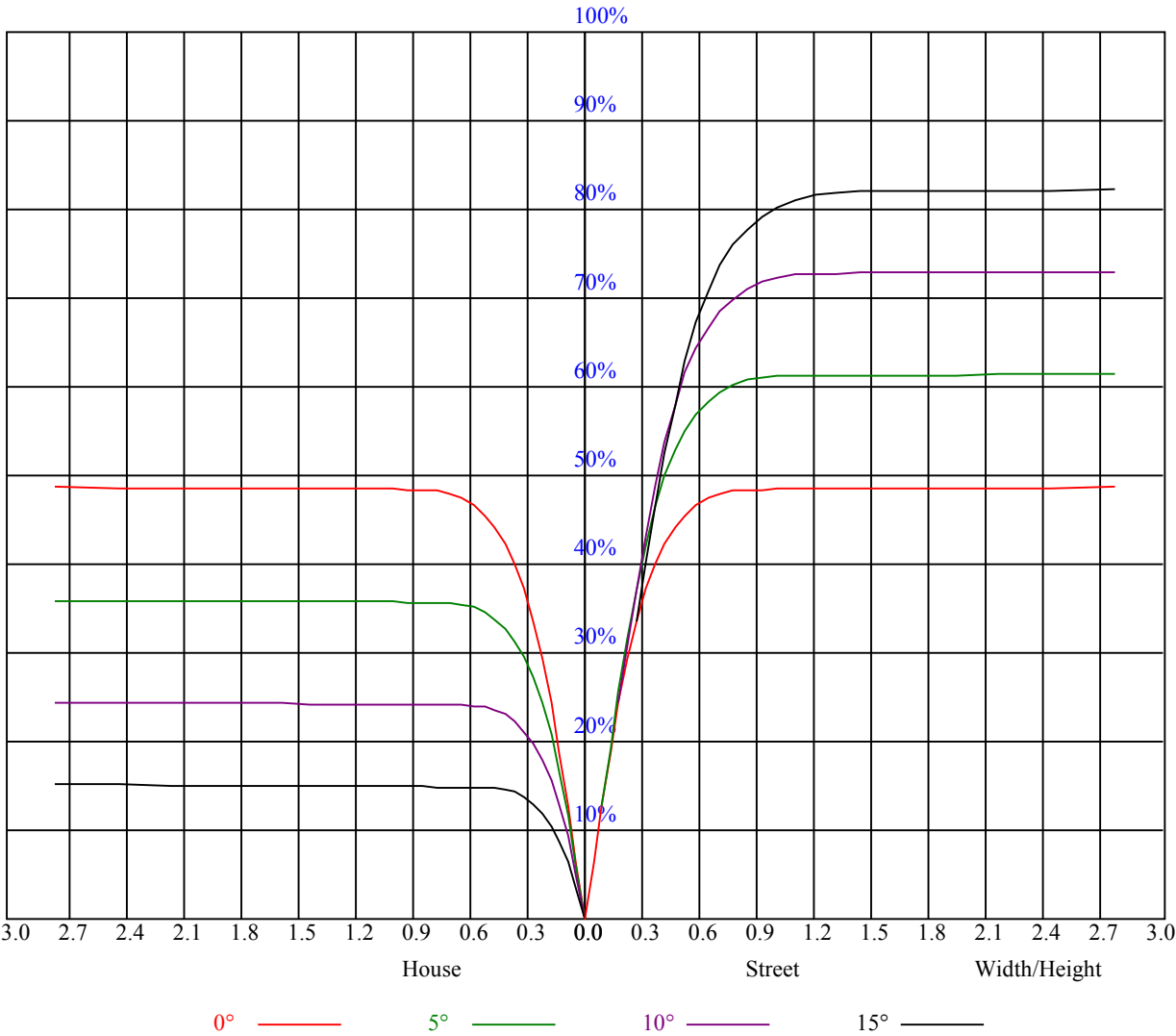
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

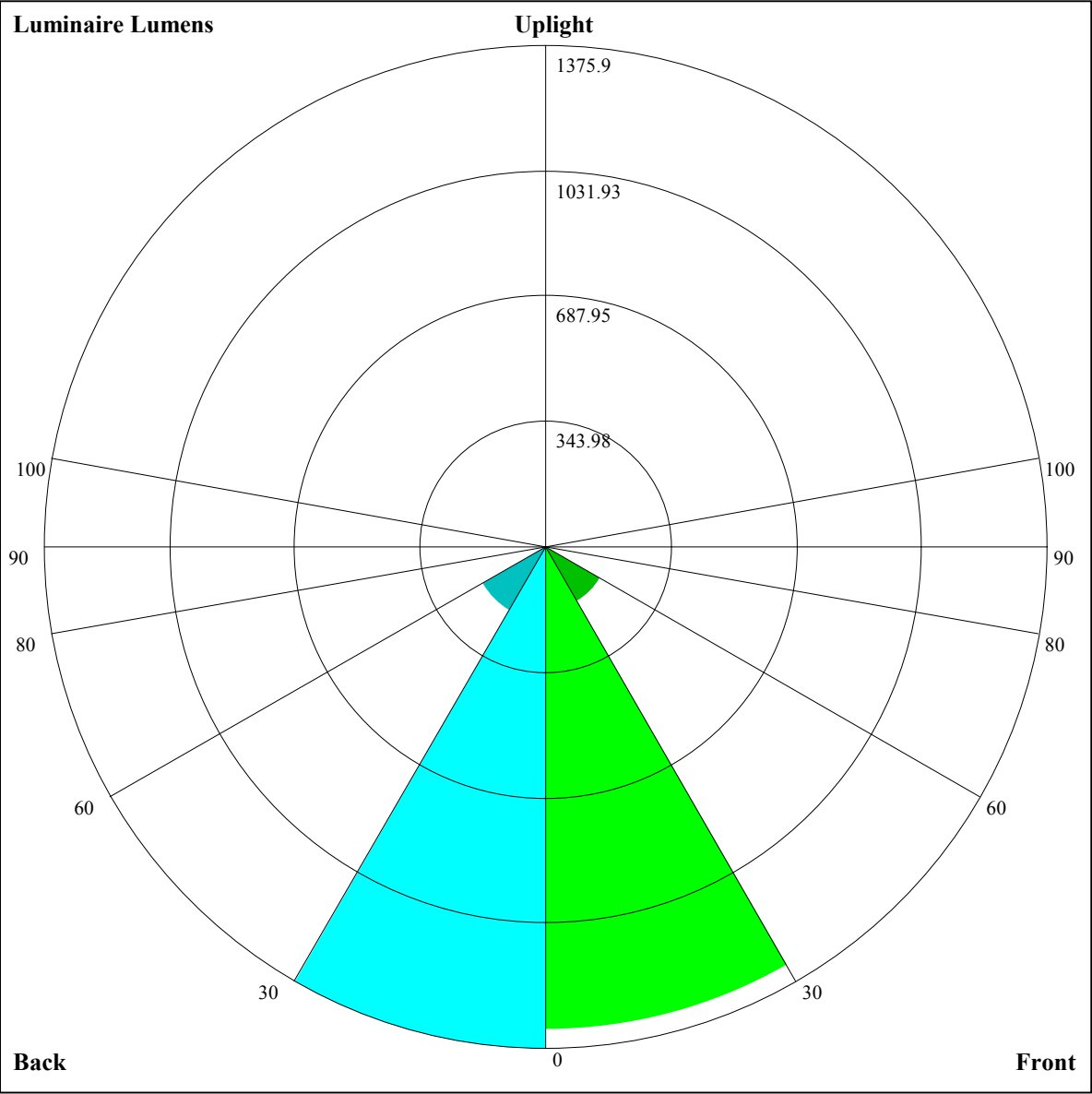
Luminance Limiting Curve





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	1.16	1.16	1.16	1.14	1.14	1.14	1.08	1.08	1.08	1.04	1.04	1.04	1.00	1.00	1.00	0.98
1	1.09	1.07	1.05	1.07	1.05	1.03	1.03	1.02	1.00	1.00	0.98	0.97	0.96	0.95	0.95	0.93
2	1.03	1.00	0.97	1.01	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.92	0.93	0.91	0.90	0.88
3	0.98	0.94	0.90	0.96	0.93	0.90	0.94	0.91	0.88	0.92	0.89	0.87	0.89	0.87	0.85	0.84
4	0.93	0.88	0.85	0.92	0.88	0.84	0.90	0.86	0.83	0.88	0.85	0.82	0.86	0.84	0.81	0.80
5	0.88	0.84	0.80	0.87	0.83	0.80	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.77
6	0.84	0.80	0.76	0.84	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.74	0.73
7	0.81	0.76	0.72	0.80	0.75	0.72	0.79	0.75	0.72	0.78	0.74	0.72	0.77	0.74	0.71	0.70
8	0.77	0.72	0.69	0.77	0.72	0.69	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.71	0.68	0.67
9	0.74	0.69	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.71	0.68	0.65	0.64
10	0.71	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.66	0.63	0.69	0.65	0.63	0.62





Luminaire Lumens:

FL=1326.21,FM=173.09,FH=6.63,FVH=3.18

BL=1375.9,BM=200.26,BH=6.64,BVH=3.19

UL=0,UH=0

BUG Rating:B3-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	7252.88	7244.49	7218.48	7168.14	7148.84	7075.84	7007.04	6934.04	6833.36
45.0	7253.72	7271.34	7262.95	7238.62	7215.13	7161.43	7117.80	7040.60	6962.57
90.0	7261.27	7279.73	7254.56	7211.77	7152.20	7064.10	6964.25	6851.82	6686.52
135.0	7233.59	7266.31	7277.22	7273.86	7255.40	7179.89	7120.31	7032.21	6890.41
180.0	7252.88	7247.01	7223.52	7165.62	7109.41	7004.52	6918.10	6813.22	6662.19
225.0	7247.01	7208.41	7165.62	7063.26	6979.35	6864.40	6751.13	6564.02	6402.08
270.0	7261.27	7248.69	7189.12	7116.96	7012.07	6903.84	6762.88	6574.09	6385.30
315.0	7233.59	7173.17	7081.72	6991.10	6870.27	6744.42	6529.62	6334.96	6116.80
360.0	7252.88	7244.49	7218.48	7168.14	7148.84	7075.84	7007.04	6934.04	6833.36
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6699.11	6467.53	6240.14	5875.15	5544.57	5163.63	4676.98	4279.27	3874.01
45.0	6866.92	6760.36	6543.88	6338.31	6066.46	5688.04	5337.32	4965.62	4473.93
90.0	6535.49	6299.72	6079.88	5850.82	5580.65	5298.72	4913.60	4590.56	4275.07
135.0	6761.20	6621.91	6416.35	6221.68	6002.69	5764.40	5422.06	5139.30	4828.85
180.0	6514.51	6320.69	6110.93	5778.66	5474.09	5143.50	4796.97	4358.14	3989.80
225.0	6195.67	5907.04	5640.22	5338.16	5018.48	4671.95	4247.39	3806.88	3457.83
270.0	6193.16	5902.00	5636.02	5288.65	5000.86	4701.31	4400.09	4017.48	3722.98
315.0	5870.12	5516.04	5228.24	4824.66	4512.53	4183.62	3784.23	3458.67	3128.08
360.0	6699.11	6467.53	6240.14	5875.15	5544.57	5163.63	4676.98	4279.27	3874.01
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3387.35	3008.94	2643.95	2299.94	1654.28	1654.28	1524.90	1397.20	1272.76
45.0	4077.06	3691.09	3213.67	2848.68	2489.56	2169.88	1836.78	1634.56	1484.37
90.0	3870.65	3547.61	3222.06	2836.09	2537.39	2271.41	1859.43	1665.61	1665.61
135.0	4531.83	4137.47	3820.31	3518.25	3126.41	2826.02	2467.75	2214.35	1999.55
180.0	3629.84	3186.82	2847.84	2507.18	2109.47	1861.95	1658.06	1473.47	1356.84
225.0	3111.30	2685.90	2358.67	1883.76	1648.07	1610.57	1466.67	1356.84	1274.69
270.0	3422.59	3122.21	2764.77	2485.37	2238.69	2029.76	1824.19	1688.26	1545.63
315.0	2810.08	2447.61	2192.54	1856.08	1658.56	1627.43	1519.28	1424.13	1341.57
360.0	3387.35	3008.94	2643.95	2299.94	1654.28	1654.28	1524.90	1397.20	1272.76
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1198.00	1139.19	1078.61	1004.94	923.88	798.36	697.59	590.02	452.75
45.0	1361.87	1248.60	1181.47	1126.10	1048.90	964.16	845.01	740.13	636.09
90.0	1513.82	1412.63	1331.16	1245.58	1126.60	1020.29	902.40	780.99	620.90
135.0	1823.35	1637.08	1520.45	1420.61	1334.18	1229.30	1126.94	1013.66	895.36
180.0	1272.93	1201.61	1126.94	1058.97	973.39	876.06	748.52	643.64	503.52
225.0	1186.01	1125.43	1052.43	962.65	836.29	726.71	618.38	480.61	375.98
270.0	1455.01	1368.58	1263.70	1161.34	1043.03	885.29	757.75	626.86	496.81
315.0	1243.31	1158.32	1021.72	906.01	777.97	619.73	495.97	378.25	247.27
360.0	1198.00	1139.19	1078.61	1004.94	923.88	798.36	697.59	590.02	452.75
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	350.89	255.07	167.98	81.22	40.19	25.26	21.90	18.04	16.19
45.0	498.48	445.62	445.62	189.54	91.71	44.47	26.60	22.82	19.63
90.0	494.62	375.65	243.49	153.97	87.51	47.32	36.16	31.05	25.26
135.0	741.81	614.27	455.69	423.81	423.81	120.66	66.96	42.88	34.23
180.0	426.32	426.32	199.19	101.27	49.25	25.51	21.82	18.54	16.36
225.0	252.47	163.45	91.96	45.56	25.93	22.49	18.96	16.78	14.35
270.0	433.88	433.88	157.83	94.73	60.58	44.97	38.34	31.30	26.93
315.0	160.43	93.72	55.71	40.27	32.97	27.69	24.08	19.72	16.36
360.0	350.89	255.07	167.98	81.22	40.19	25.26	21.90	18.04	16.19

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	13.93	10.82	10.32	9.73	9.31	8.98	8.56	8.31	8.05
45.0	17.03	15.44	12.92	10.32	9.82	9.40	8.98	8.64	8.39
90.0	22.32	19.21	14.85	13.17	12.17	11.24	10.49	9.73	9.23
135.0	27.69	23.58	20.47	17.20	13.76	12.59	11.58	10.57	9.98
180.0	14.18	11.33	10.24	9.82	9.40	8.98	8.64	8.31	8.05
225.0	11.41	10.66	10.15	9.57	9.15	8.73	8.47	8.22	7.97
270.0	22.65	18.63	16.78	15.19	13.59	12.50	11.58	10.82	9.98
315.0	14.60	13.34	12.33	11.24	10.57	9.98	9.48	8.98	8.64
360.0	13.93	10.82	10.32	9.73	9.31	8.98	8.56	8.31	8.05
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	7.89	7.64	7.47	7.30	7.22	7.13	6.96	6.88	6.80
45.0	8.05	7.97	7.72	7.55	7.38	7.22	7.13	7.05	6.96
90.0	8.81	8.31	8.05	7.72	7.55	7.38	7.22	7.13	6.96
135.0	9.40	8.81	8.47	8.05	7.80	7.64	7.47	7.30	7.13
180.0	7.89	7.55	7.47	7.30	7.22	7.05	7.05	6.88	6.88
225.0	7.72	7.55	7.38	7.30	7.22	7.13	6.96	6.88	6.80
270.0	9.48	8.98	8.56	8.31	8.05	7.80	7.55	7.38	7.22
315.0	8.31	8.05	7.80	7.64	7.55	7.38	7.22	7.13	6.96
360.0	7.89	7.64	7.47	7.30	7.22	7.13	6.96	6.88	6.80
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.71	6.71	6.63	6.54	6.54	6.46	6.38	6.38	6.29
45.0	6.88	6.80	6.71	6.63	6.63	6.54	6.46	6.46	6.38
90.0	6.88	6.80	6.71	6.63	6.54	6.46	6.46	6.38	6.29
135.0	7.05	6.96	6.88	6.80	6.71	6.63	6.54	6.54	6.46
180.0	6.80	6.71	6.63	6.54	6.54	6.46	6.46	6.38	6.38
225.0	6.71	6.71	6.63	6.54	6.54	6.46	6.38	6.38	6.38
270.0	7.05	6.96	6.88	6.71	6.71	6.63	6.54	6.46	6.46
315.0	6.88	6.80	6.71	6.71	6.63	6.54	6.46	6.38	6.38
360.0	6.71	6.71	6.63	6.54	6.54	6.46	6.38	6.38	6.29
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.21	6.21	6.21	6.13	6.13	6.13	6.04	5.96	5.96
45.0	6.38	6.29	6.21	6.21	6.13	6.13	6.13	6.04	5.96
90.0	6.29	6.29	6.21	6.13	6.13	6.13	6.04	6.04	5.96
135.0	6.38	6.38	6.29	6.29	6.21	6.21	6.13	6.13	6.13
180.0	6.29	6.29	6.21	6.13	6.13	6.04	6.04	6.04	5.96
225.0	6.29	6.21	6.21	6.21	6.13	6.04	6.04	6.04	5.96
270.0	6.38	6.38	6.29	6.21	6.21	6.13	6.13	6.04	5.96
315.0	6.29	6.29	6.21	6.21	6.13	6.13	6.04	6.04	5.96
360.0	6.21	6.21	6.21	6.13	6.13	6.13	6.04	5.96	5.96
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	5.87	5.87	5.87	5.87	5.79	5.79	5.71	5.71	5.71
45.0	5.96	5.96	5.87	5.87	5.87	5.79	5.79	5.79	5.79
90.0	5.96	5.87	5.96	5.87	5.79	5.79	5.79	5.79	5.71
135.0	6.04	6.04	6.04	5.96	5.96	5.87	5.87	5.87	5.79
180.0	5.87	5.87	5.87	5.87	5.79	5.71	5.71	5.71	5.71
225.0	5.96	5.87	5.87	5.79	5.79	5.79	5.79	5.71	5.79
270.0	5.96	5.96	5.87	5.87	5.79	5.79	5.79	5.79	5.79
315.0	5.96	5.96	5.79	5.79	5.79	5.79	5.71	5.79	5.71
360.0	5.87	5.87	5.87	5.87	5.79	5.79	5.71	5.71	5.71

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	5.71
45.0	5.71
90.0	5.71
135.0	5.79
180.0	5.71
225.0	5.71
270.0	5.79
315.0	5.71
360.0	5.71