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## Nata

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Client: NT  
LumCAT: 2-3212-A  
Luminaire: 92.70.121.00  
Report No: 20260403-B009  
Ballast type: DC  
Test No: 20260403-C009  
LampCAT: CITIZEN CLU038  
Lamp flux(lm): 3670.0  
Number of Lamps: 1  
Length(mm): 65  
Phm Type: C

Voltage(V): 35.680  
Current(A): 0.711  
Power (W): 25.360  
PF: 0.000  
Width(mm): 65  
Height(mm): 34

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## Photometric Results

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Lumens(lm): 3349.86, Efficiency(%): 91.28% , Luminous Efficacy(lm/W): 132.09  
Central intensity(cd): 6468.786, Maximum intensity(cd): 6468.786  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=37.4  
[C90/270]Total=37.4  
Field angle(10%Imax): [C0/180]Total=77.8  
[C90/270]Total=77.8  
Maximum s/h(1/2): C0\_180=0.59 C90\_270=0.59  
Maximum s/h(1/4): C0\_180=0.64 C90\_270=0.64  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 91.28%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 99.356%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2026/4/3  
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	6468.786	0.000	0	0.00%	0.00%
1.0	6446.761	6.180	6.18	0.17%	0.18%
2.0	6385.195	18.418	24.597	0.50%	0.73%
3.0	6297.409	30.333	54.93	0.83%	1.64%
4.0	6188.332	41.794	96.724	1.14%	2.89%
5.0	6048.209	52.641	149.365	1.43%	4.46%
6.0	5887.950	62.728	212.093	1.71%	6.33%
7.0	5697.589	71.911	284.004	1.96%	8.48%
8.0	5511.004	80.218	364.221	2.19%	10.87%
9.0	5316.762	87.753	451.975	2.39%	13.49%
10.0	5083.714	94.120	546.095	2.56%	16.30%
11.0	4867.658	99.435	645.53	2.71%	19.27%
12.0	4653.069	104.075	749.605	2.84%	22.38%
13.0	4434.075	107.841	857.446	2.94%	25.60%
14.0	4220.640	110.780	968.226	3.02%	28.90%
15.0	4004.269	112.915	1081.141	3.08%	32.27%
16.0	3788.107	114.180	1195.321	3.11%	35.68%
17.0	3579.707	114.737	1310.058	3.13%	39.11%
18.0	3376.760	114.697	1424.755	3.13%	42.53%
19.0	3162.381	113.768	1538.523	3.10%	45.93%
20.0	2964.679	112.142	1650.665	3.06%	49.28%
21.0	2761.942	109.963	1760.628	3.00%	52.56%
22.0	2574.937	107.247	1867.874	2.92%	55.76%
23.0	2386.674	104.108	1971.982	2.84%	58.87%
24.0	2173.449	99.701	2071.683	2.72%	61.84%
25.0	1988.689	94.638	2166.321	2.58%	64.67%
26.0	1818.507	89.869	2256.19	2.45%	67.35%
27.0	1705.413	86.213	2342.404	2.35%	69.93%
28.0	1580.310	83.188	2425.591	2.27%	72.41%
29.0	1464.300	79.656	2505.247	2.17%	74.79%
30.0	1372.811	76.601	2581.848	2.09%	77.07%
31.0	1294.831	74.237	2656.085	2.02%	79.29%
32.0	1230.161	72.338	2728.423	1.97%	81.45%
33.0	1173.262	70.806	2799.229	1.93%	83.56%
34.0	1108.750	69.060	2868.289	1.88%	85.62%
35.0	1035.762	66.601	2934.889	1.81%	87.61%
36.0	947.630	63.152	2998.041	1.72%	89.50%
37.0	847.226	58.538	3056.579	1.60%	91.25%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	741.463	53.028	3109.608	1.44%	92.83%
39.0	634.788	46.975	3156.583	1.28%	94.23%
40.0	519.155	40.245	3196.828	1.10%	95.43%
41.0	413.403	33.208	3230.036	0.90%	96.42%
42.0	343.258	27.491	3257.527	0.75%	97.24%
43.0	245.917	21.825	3279.352	0.59%	97.90%
44.0	158.246	15.254	3294.606	0.42%	98.35%
45.0	81.850	9.227	3303.833	0.25%	98.63%
46.0	50.501	5.176	3309.009	0.14%	98.78%
47.0	35.429	3.418	3312.427	0.09%	98.88%
48.0	27.532	2.545	3314.972	0.07%	98.96%
49.0	22.036	2.036	3317.007	0.06%	99.02%
50.0	17.306	1.640	3318.648	0.04%	99.07%
51.0	14.149	1.331	3319.978	0.04%	99.11%
52.0	12.334	1.136	3321.115	0.03%	99.14%
53.0	11.254	1.026	3322.141	0.03%	99.17%
54.0	10.635	0.965	3323.106	0.03%	99.20%
55.0	10.090	0.925	3324.031	0.03%	99.23%
56.0	9.649	0.892	3324.923	0.02%	99.26%
57.0	9.293	0.866	3325.789	0.02%	99.28%
58.0	8.978	0.845	3326.634	0.02%	99.31%
59.0	8.737	0.828	3327.462	0.02%	99.33%
60.0	8.474	0.813	3328.275	0.02%	99.36%
61.0	8.265	0.799	3329.074	0.02%	99.38%
62.0	8.086	0.788	3329.862	0.02%	99.40%
63.0	7.940	0.779	3330.641	0.02%	99.43%
64.0	7.824	0.774	3331.415	0.02%	99.45%
65.0	7.698	0.768	3332.183	0.02%	99.47%
66.0	7.593	0.763	3332.946	0.02%	99.50%
67.0	7.489	0.758	3333.704	0.02%	99.52%
68.0	7.415	0.755	3334.459	0.02%	99.54%
69.0	7.310	0.751	3335.21	0.02%	99.56%
70.0	7.226	0.747	3335.957	0.02%	99.58%
71.0	7.163	0.744	3336.701	0.02%	99.61%
72.0	7.101	0.742	3337.442	0.02%	99.63%
73.0	7.027	0.739	3338.181	0.02%	99.65%
74.0	6.943	0.734	3338.916	0.02%	99.67%
75.0	6.891	0.731	3339.647	0.02%	99.70%

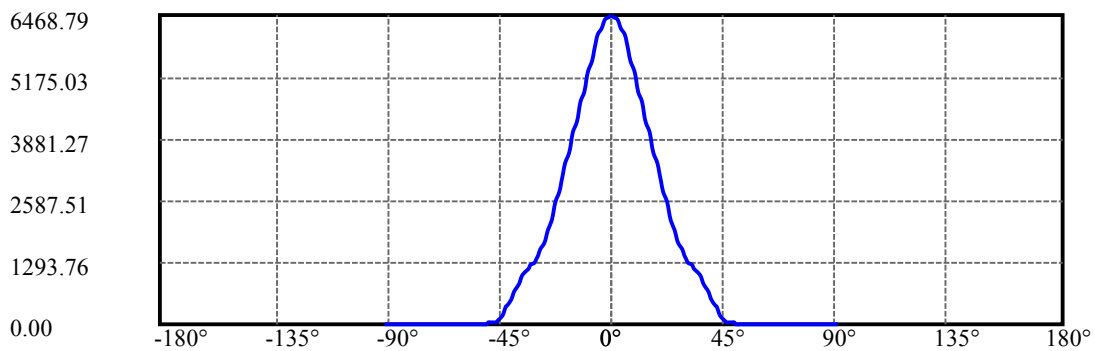
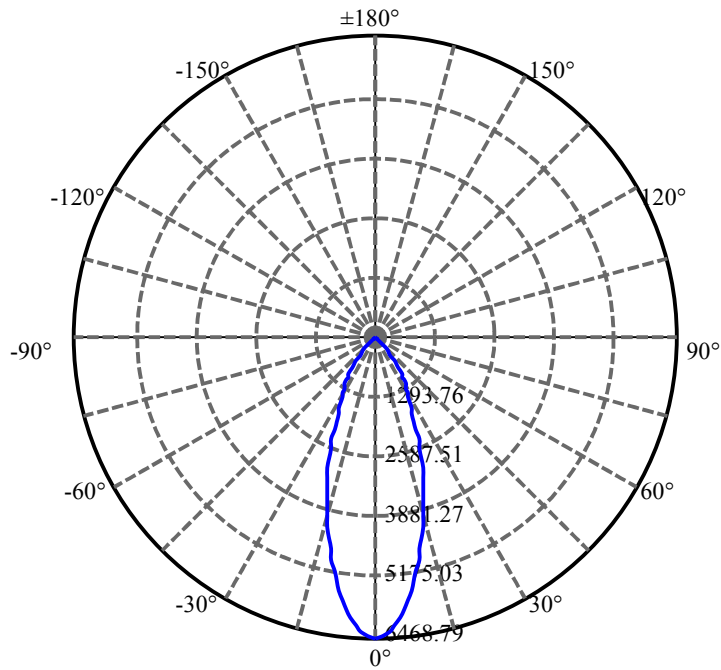
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.817	0.728	3340.374	0.02%	99.72%
77.0	6.754	0.724	3341.098	0.02%	99.74%
78.0	6.660	0.718	3341.816	0.02%	99.76%
79.0	6.597	0.712	3342.528	0.02%	99.78%
80.0	6.513	0.707	3343.235	0.02%	99.80%
81.0	6.440	0.700	3343.935	0.02%	99.82%
82.0	6.345	0.693	3344.629	0.02%	99.84%
83.0	6.293	0.687	3345.316	0.02%	99.86%
84.0	6.178	0.679	3345.995	0.02%	99.88%
85.0	6.062	0.668	3346.663	0.02%	99.90%
86.0	5.957	0.657	3347.32	0.02%	99.92%
87.0	5.894	0.649	3347.969	0.02%	99.94%
88.0	5.779	0.639	3348.608	0.02%	99.96%
89.0	5.706	0.629	3349.238	0.02%	99.98%
90.0	5.632	0.622	3349.859	0.02%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2581.85	70.35%	77.07%
0-40	3196.83	87.11%	95.43%
0-60	3328.27	90.69%	99.36%
0-90	3349.24	91.26%	99.98%
0-120	3349.24	91.26%	99.98%
0-180	3349.86	91.28%	100.00%
60-90	20.96	0.57%	0.63%
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%
0-31.33	2679.89	73.02%	80.00%

ZONAL LUMEN SUMMARY

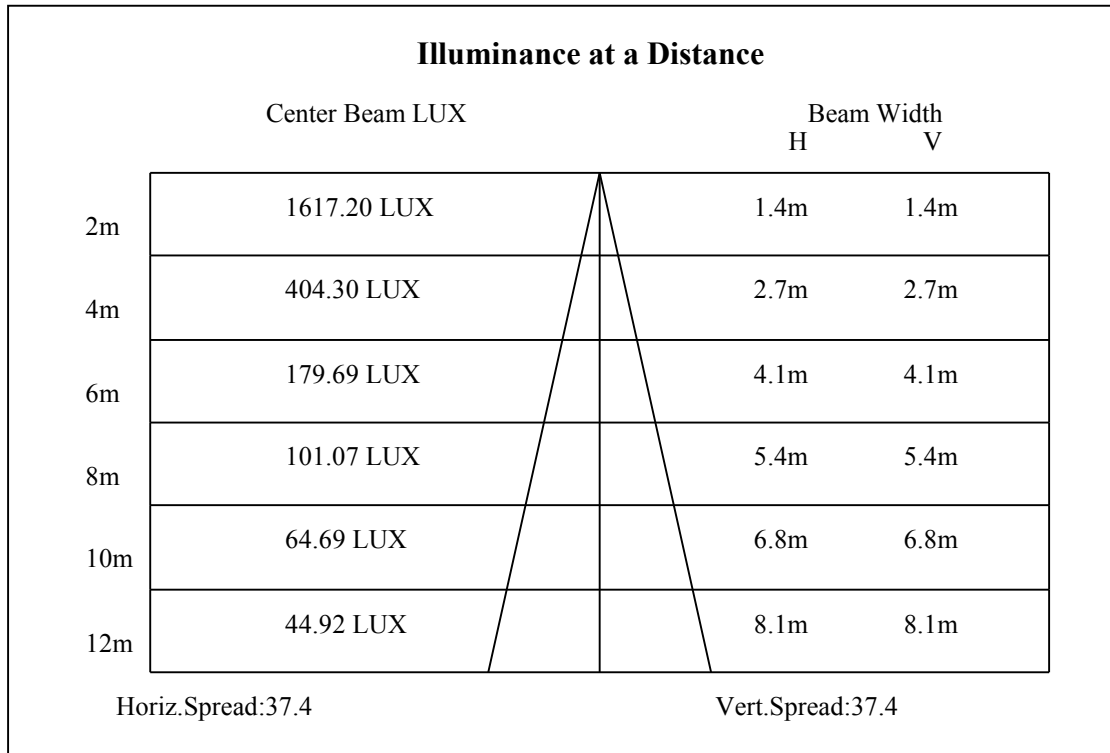
0-10	546.10
10-20	1104.57
20-30	931.18
30-40	614.98
40-50	121.82
50-60	9.63
60-70	7.68
70-80	7.28
80-90	6.00
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

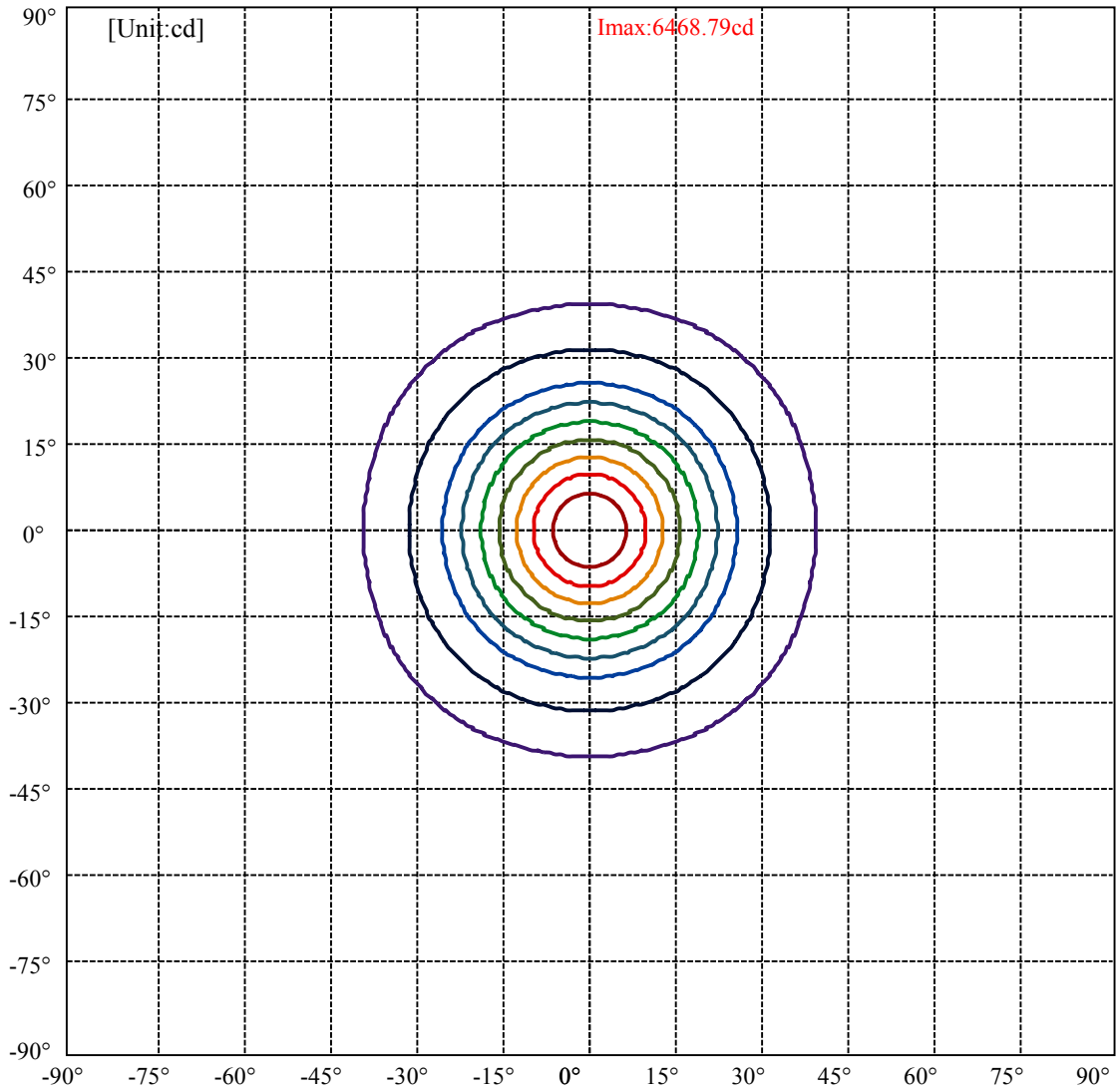


C90/C270: —————

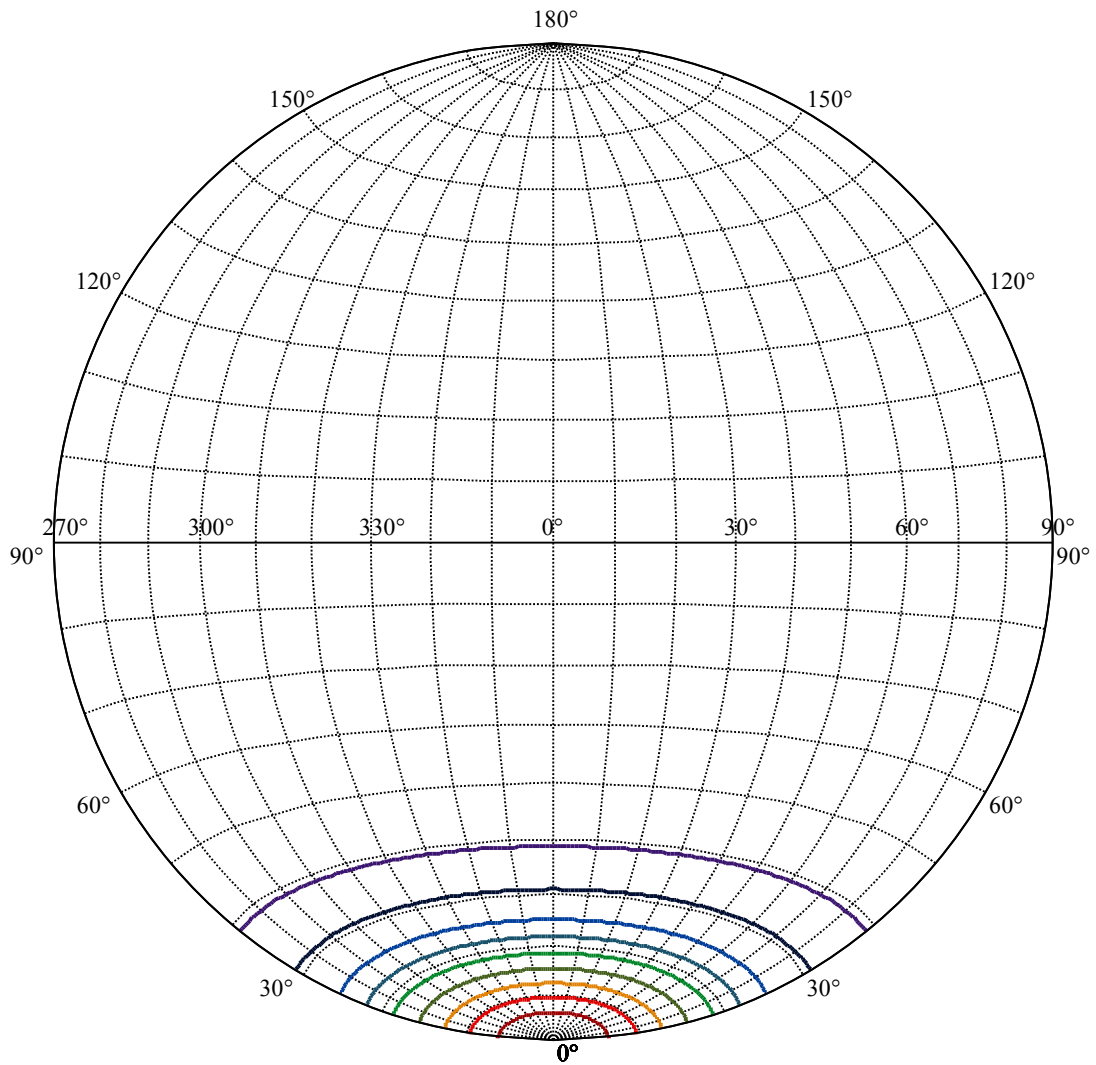
Field angle(10%Imax):C90/270Left:38.9 Right:38.9

Beam Angle(50%Imax):C90/270Left:18.7 Right:18.7





(10%Imax) 646.879	—
(20%Imax) 1293.76	—
(30%Imax) 1940.64	—
(40%Imax) 2587.51	—
(50%Imax) 3234.39	—
(60%Imax) 3881.27	—
(70%Imax) 4528.15	—
(80%Imax) 5175.03	—
(90%Imax) 5821.91	—



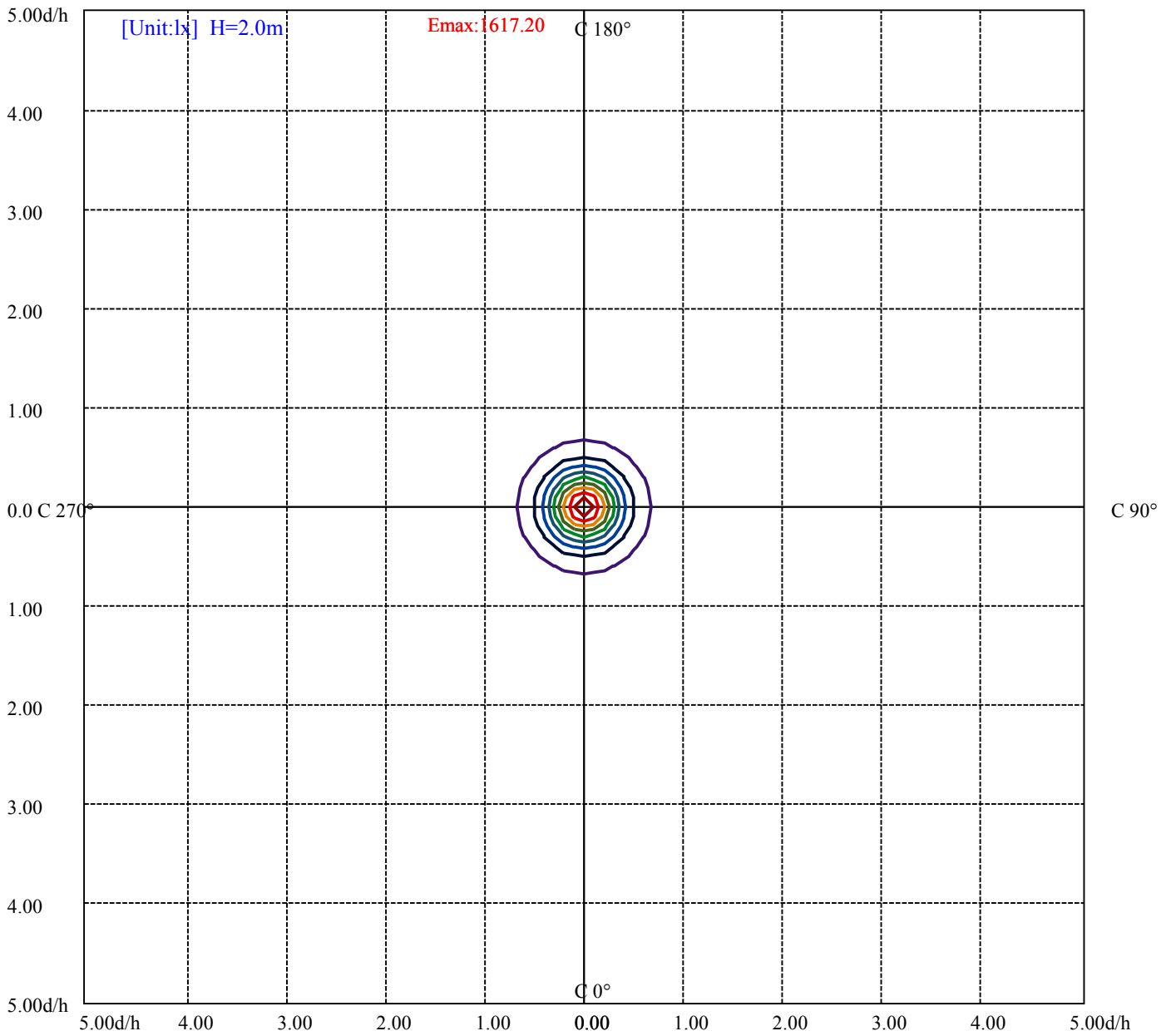
House

[Unit:cd]

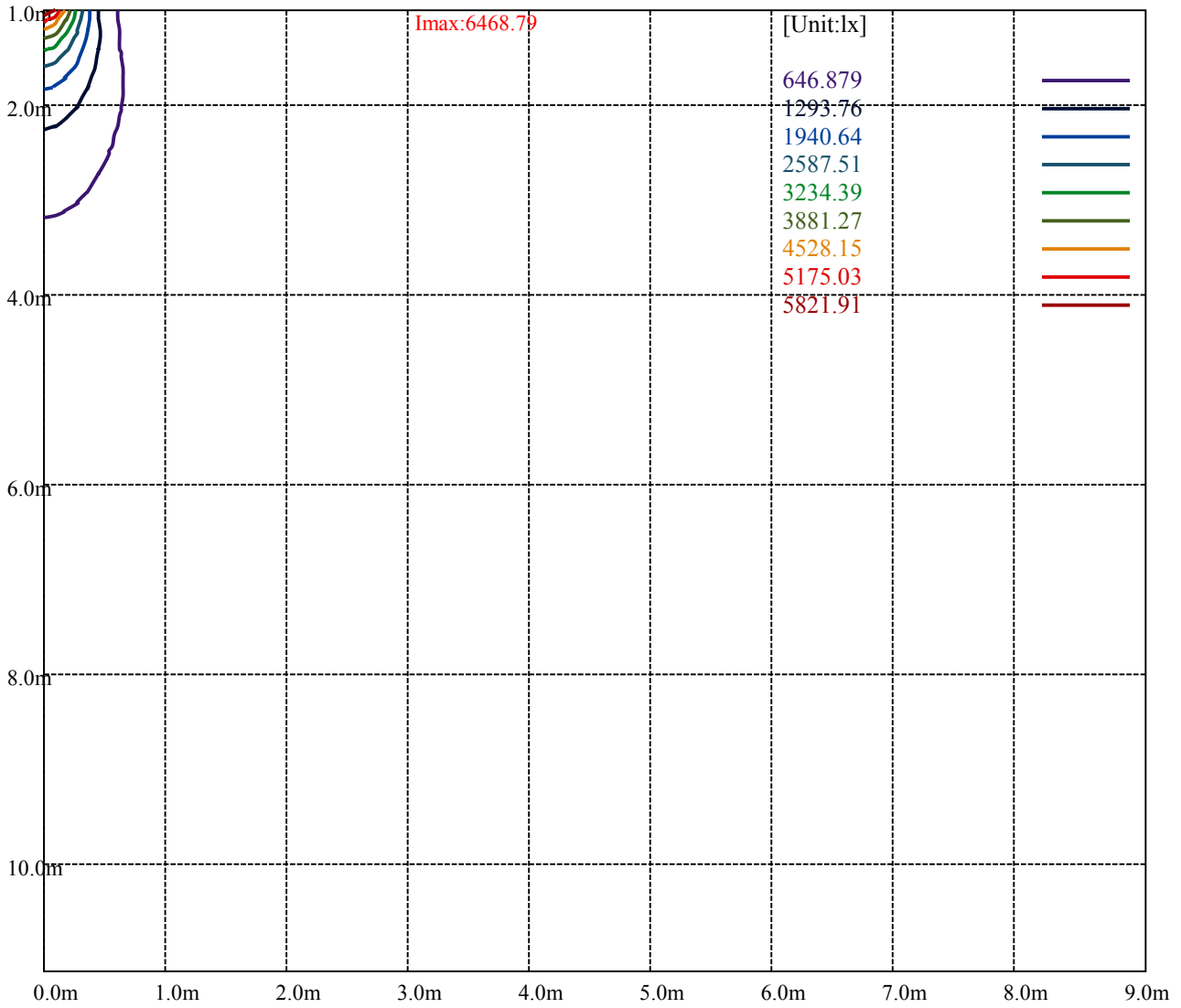
Road

**Imax:6468.79**

(10%Imax) 646.879	—
(20%Imax) 1293.76	—
(30%Imax) 1940.64	—
(40%Imax) 2587.51	—
(50%Imax) 3234.39	—
(60%Imax) 3881.27	—
(70%Imax) 4528.15	—
(80%Imax) 5175.03	—
(90%Imax) 5821.91	—



- (10%Emax) 161.7195
- (20%Emax) 323.44
- (30%Emax) 485.1575
- (40%Emax) 646.8775
- (50%Emax) 808.5975
- (60%Emax) 970.3175
- (70%Emax) 1132.037
- (80%Emax) 1293.757
- (90%Emax) 1455.475



Luminance Table

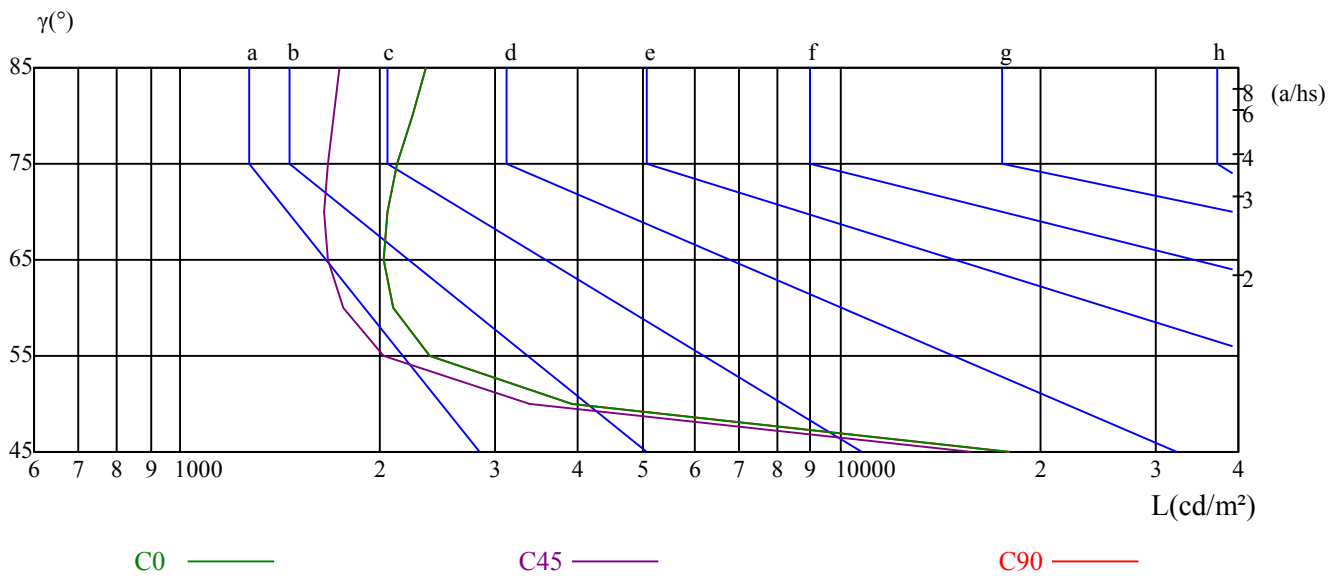
$\gamma$	45	50	55	60	65	70	75	80	85
C0	17988	3925	2383	2105	2032	2052	2135	2238	2359
C45	15748	3387	2025	1758	1667	1649	1676	1709	1741
C90	17988	3925	2383	2105	2032	2052	2135	2238	2359

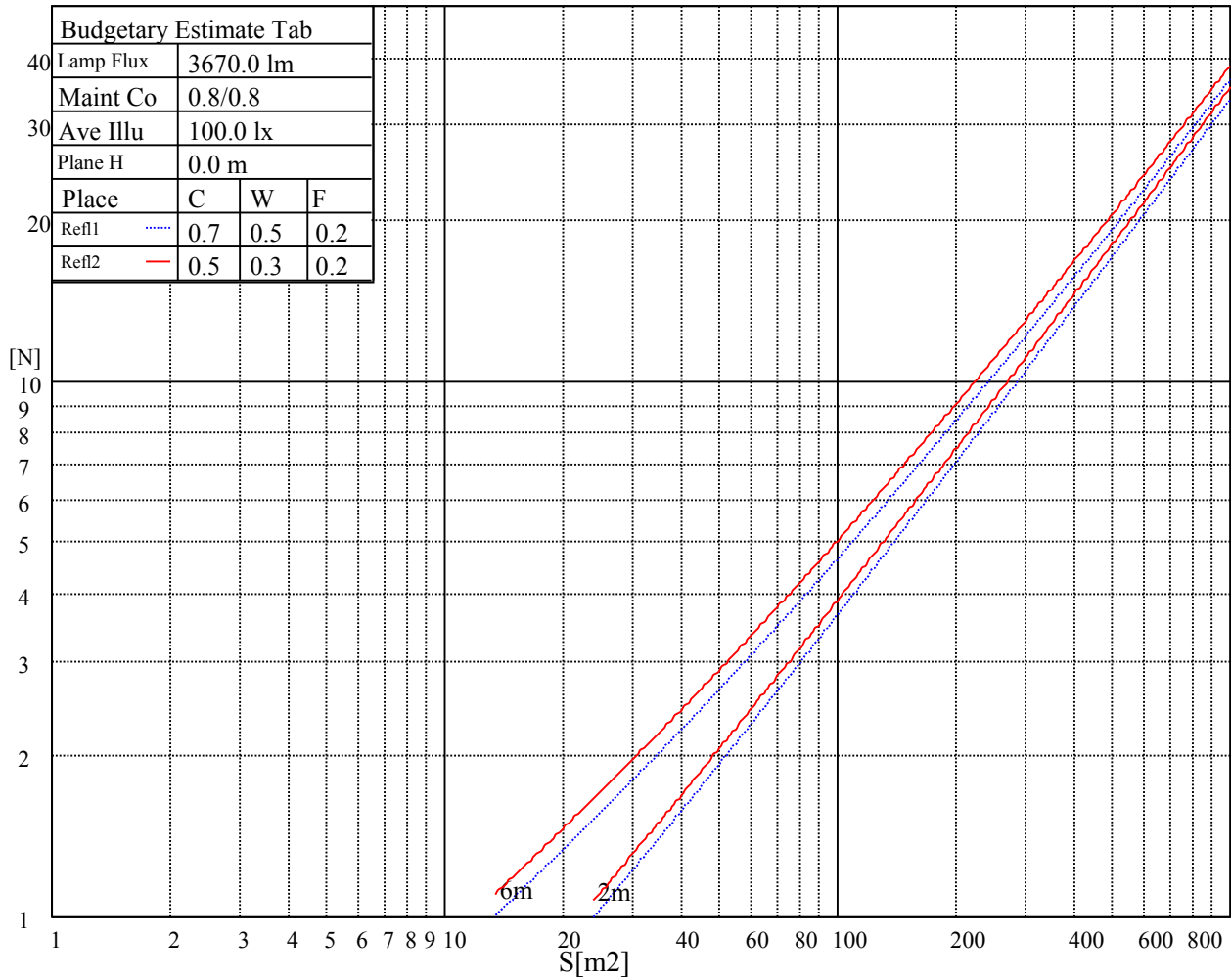
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4311	4311	4311	6301	6301	6301	16463	16463	16463

Glare Table

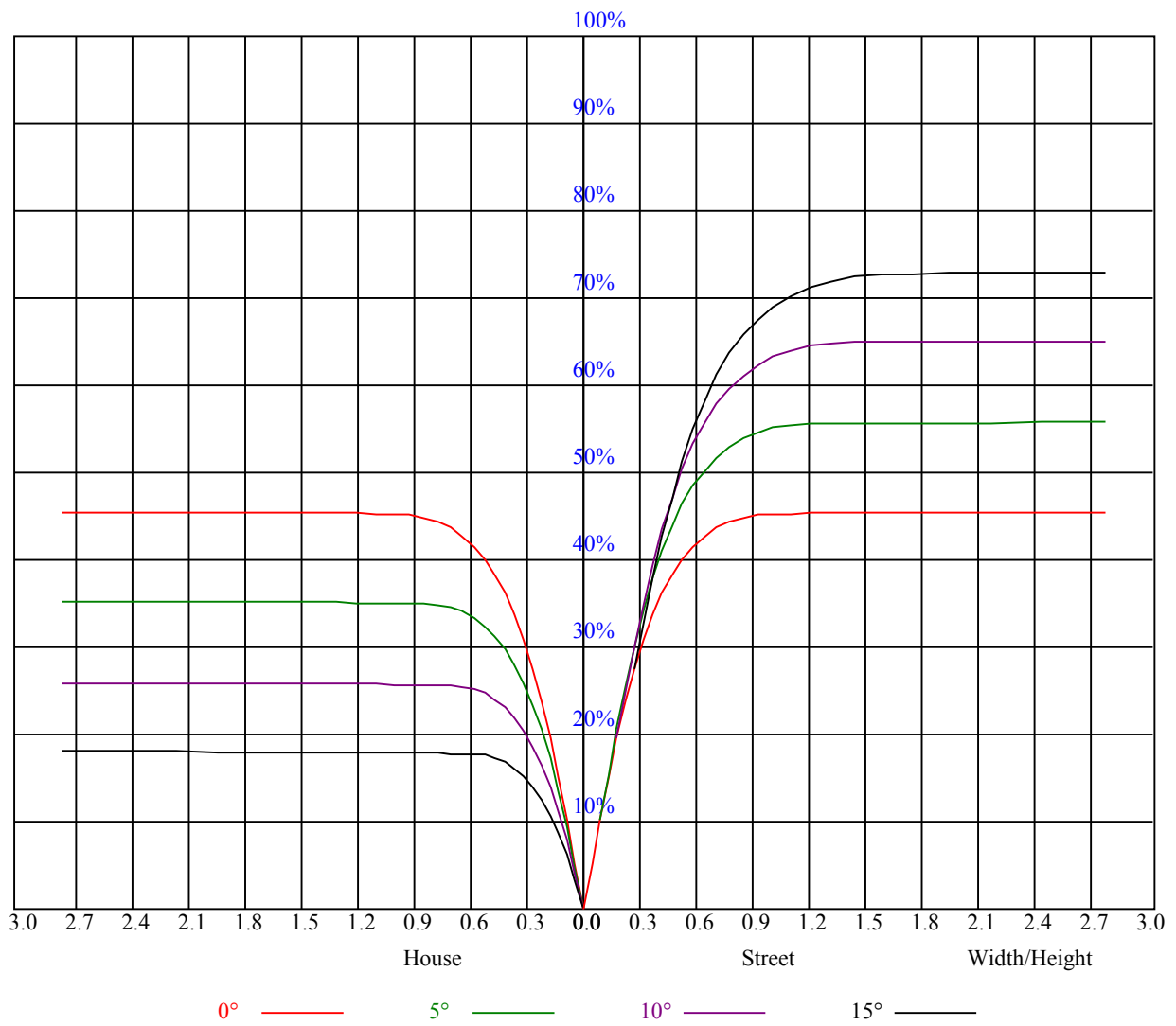
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

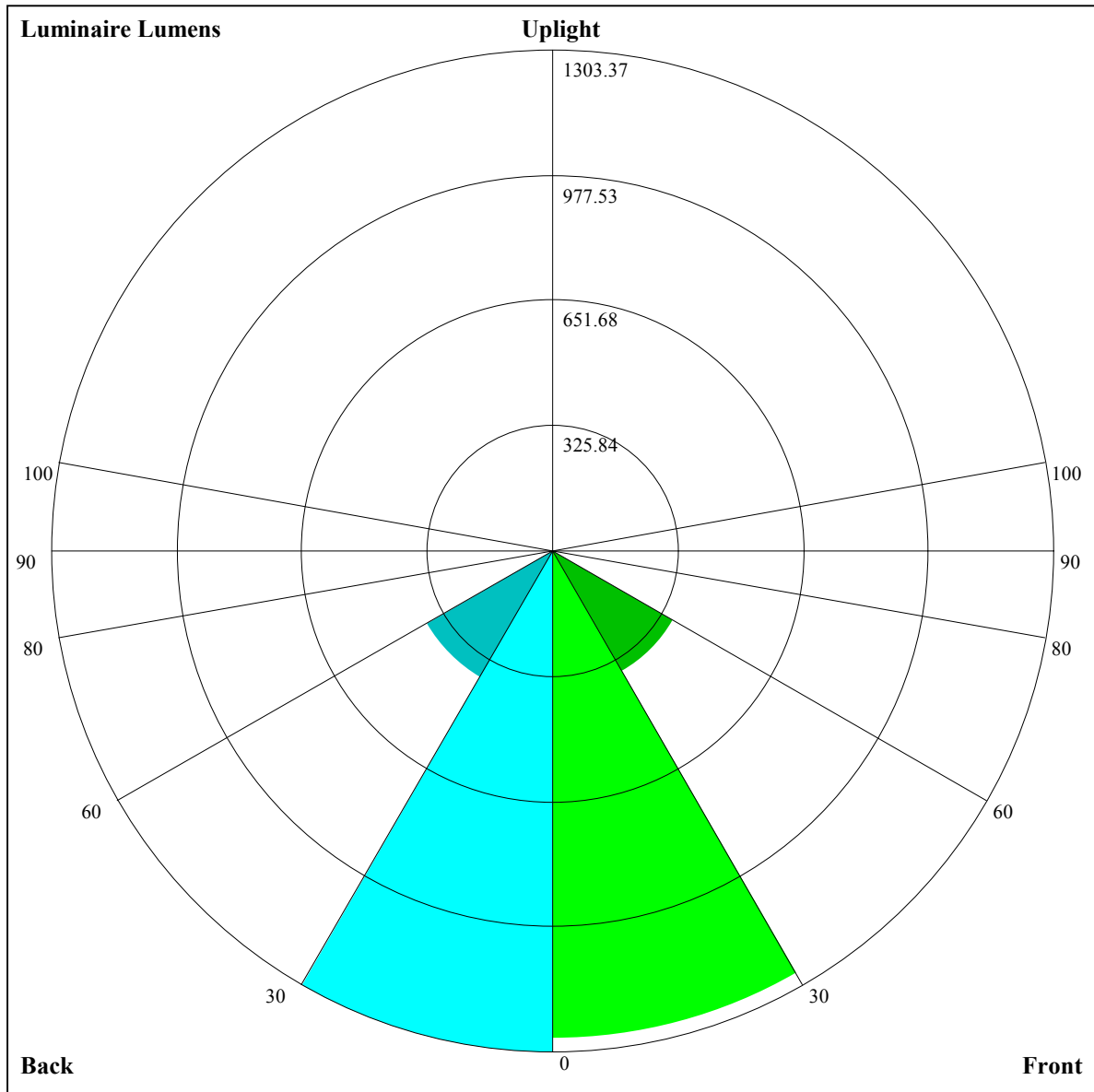
Luminance Limiting Curve





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	1.09	1.09	1.09	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.02	0.99	0.97	1.00	0.98	0.96	0.96	0.94	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.86
2	0.95	0.92	0.89	0.94	0.90	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.85	0.84	0.82	0.81
3	0.89	0.85	0.82	0.88	0.84	0.81	0.86	0.82	0.80	0.84	0.81	0.79	0.82	0.79	0.77	0.76
4	0.84	0.79	0.76	0.83	0.79	0.75	0.81	0.78	0.75	0.79	0.76	0.74	0.78	0.75	0.73	0.72
5	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.69	0.74	0.71	0.69	0.68
6	0.75	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.64
7	0.71	0.66	0.63	0.71	0.66	0.63	0.70	0.65	0.62	0.68	0.65	0.62	0.67	0.64	0.62	0.60
8	0.68	0.63	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57
9	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.62	0.58	0.55	0.54
10	0.61	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.52





Luminaire Lumens:

FL=1269.24,FM=363.2,FH=7.51,FVH=3.32

BL=1303.37,BM=381.32,BH=7.53,BVH=3.31

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	6485.99	6428.93	6355.93	6251.05	6144.49	5971.65	5815.58	5588.20	5398.57
45.0	6460.82	6490.18	6460.82	6407.95	6321.53	6215.81	6064.78	5920.46	5723.28
90.0	6491.02	6467.53	6423.90	6324.89	6217.49	6090.79	5908.72	5743.42	5580.65
135.0	6437.32	6480.95	6491.86	6454.10	6384.46	6283.77	6171.34	5986.75	5828.17
180.0	6485.99	6490.18	6455.78	6390.33	6269.51	6157.08	6024.51	5873.48	5670.42
225.0	6460.82	6412.99	6295.52	6194.00	6079.04	5922.98	5716.57	5546.24	5350.74
270.0	6491.02	6443.19	6376.07	6250.21	6131.07	5986.75	5829.84	5606.66	5421.22
315.0	6437.32	6360.13	6221.68	6106.73	5959.06	5756.85	5572.25	5315.50	5114.97
360.0	6485.99	6428.93	6355.93	6251.05	6144.49	5971.65	5815.58	5588.20	5398.57
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	5207.27	4953.87	4750.82	4540.22	4337.16	4092.16	3901.69	3707.87	3521.60
45.0	5542.89	5357.46	5114.97	4898.49	4683.69	4477.29	4265.84	4015.81	3815.27
90.0	5389.34	5130.07	4926.18	4710.54	4499.94	4237.32	4028.39	3827.02	3576.14
135.0	5667.91	5432.97	5244.18	5047.84	4792.77	4588.88	4392.54	4145.02	3957.07
180.0	5492.54	5255.09	5056.24	4852.34	4595.59	4394.22	4198.72	3954.55	3757.38
225.0	5096.51	4876.68	4661.04	4397.58	4190.33	3990.63	3741.43	3540.06	3339.53
270.0	5227.40	5011.77	4735.72	4515.04	4306.12	4108.10	3863.94	3660.89	3404.97
315.0	4910.24	4651.81	4452.12	4262.49	4066.99	3876.52	3641.59	3453.64	3265.69
360.0	5207.27	4953.87	4750.82	4540.22	4337.16	4092.16	3901.69	3707.87	3521.60
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3284.15	3101.23	2919.16	2689.26	2513.90	2338.53	2131.29	1977.74	1660.91
45.0	3615.58	3376.45	3181.78	2990.48	2760.58	2577.66	2360.35	2191.70	2033.12
90.0	3375.61	3133.96	2947.69	2767.29	2580.18	2355.31	2180.79	2013.82	1646.31
135.0	3765.77	3576.98	3342.88	3149.90	2961.11	2774.84	2544.94	2367.06	2193.38
180.0	3558.52	3362.18	3170.04	2923.36	2729.53	2536.55	2308.33	2136.32	1934.11
225.0	3129.76	2886.44	2696.81	2513.06	2338.53	2128.77	1976.06	1666.70	1666.70
270.0	3204.44	3013.13	2793.30	2616.26	2439.22	2263.86	2054.09	1905.58	1762.94
315.0	3080.26	2848.68	2665.76	2445.93	2276.44	2117.86	1831.74	1650.59	1650.59
360.0	3284.15	3101.23	2919.16	2689.26	2513.90	2338.53	2131.29	1977.74	1660.91
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1660.91	1543.95	1443.68	1343.58	1276.12	1222.67	1170.48	1090.02	1007.04
45.0	1885.44	1718.47	1601.84	1498.64	1412.22	1323.28	1262.02	1213.36	1158.82
90.0	1646.31	1549.65	1441.25	1345.43	1254.14	1192.30	1144.05	1086.83	1029.44
135.0	1985.29	1832.58	1658.90	1538.91	1437.39	1334.18	1267.90	1213.36	1165.53
180.0	1781.40	1656.38	1504.51	1406.34	1331.67	1268.74	1210.00	1162.18	1093.37
225.0	1551.16	1450.56	1347.78	1283.92	1221.67	1178.29	1122.57	1047.65	962.98
270.0	1626.17	1482.70	1388.72	1305.66	1229.30	1181.47	1135.33	1060.65	984.30
315.0	1506.61	1408.19	1327.72	1260.01	1196.16	1140.36	1073.74	995.96	884.62
360.0	1660.91	1543.95	1443.68	1343.58	1276.12	1222.67	1170.48	1090.02	1007.04
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	914.40	815.48	684.92	578.70	477.26	351.06	256.58	152.71	88.27
45.0	1068.20	983.46	858.44	759.43	656.23	519.46	443.94	443.94	225.37
90.0	934.46	849.29	757.42	658.32	535.07	436.39	341.75	252.05	154.22
135.0	1105.12	1014.50	923.05	824.88	697.34	582.39	476.67	424.65	424.65
180.0	1017.86	898.71	801.38	699.86	568.96	461.56	435.55	307.26	149.35
225.0	846.86	745.50	637.68	531.29	400.31	303.40	215.72	124.35	72.07
270.0	905.43	786.28	691.47	584.07	480.86	432.20	432.20	175.45	106.56
315.0	788.71	684.59	577.35	441.76	337.22	220.76	143.65	86.93	45.48
360.0	914.40	815.48	684.92	578.70	477.26	351.06	256.58	152.71	88.27

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	50.93	34.82	28.70	23.07	18.04	13.93	11.75	11.08	10.74
45.0	128.96	73.33	43.21	34.07	27.52	21.90	16.87	13.59	12.00
90.0	93.55	58.31	39.27	33.98	27.94	20.81	16.78	14.43	12.92
135.0	159.84	86.51	51.52	35.74	29.62	23.75	18.04	13.93	11.50
180.0	87.85	47.83	35.49	30.12	24.00	17.37	13.59	12.08	11.41
225.0	40.53	33.90	27.52	19.97	15.27	12.59	11.75	10.99	10.49
270.0	59.15	40.44	34.82	26.77	20.98	16.87	13.76	12.42	11.33
315.0	33.98	28.86	22.91	16.53	12.92	11.24	10.66	10.15	9.65
360.0	50.93	34.82	28.70	23.07	18.04	13.93	11.75	11.08	10.74
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	10.07	9.48	9.06	8.81	8.47	8.22	8.05	7.89	7.72
45.0	11.41	10.66	10.24	9.82	9.40	9.15	8.89	8.56	8.31
90.0	12.08	11.24	10.57	10.15	9.73	9.48	9.06	8.81	8.73
135.0	10.91	10.24	9.90	9.40	9.15	8.81	8.56	8.31	8.14
180.0	10.74	10.24	9.73	9.31	9.06	8.81	8.47	8.22	7.97
225.0	9.98	9.65	9.23	8.98	8.73	8.39	8.22	8.14	7.97
270.0	10.57	10.24	9.82	9.48	9.15	8.98	8.73	8.56	8.31
315.0	9.31	8.98	8.64	8.39	8.14	8.05	7.80	7.64	7.55
360.0	10.07	9.48	9.06	8.81	8.47	8.22	8.05	7.89	7.72
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	7.64	7.55	7.47	7.47	7.38	7.30	7.30	7.30	7.22
45.0	8.22	8.05	7.89	7.72	7.64	7.55	7.38	7.30	7.22
90.0	8.47	8.31	8.14	7.97	7.80	7.72	7.55	7.38	7.30
135.0	7.97	7.80	7.72	7.64	7.47	7.38	7.30	7.22	7.13
180.0	7.80	7.72	7.64	7.55	7.38	7.38	7.30	7.30	7.22
225.0	7.80	7.72	7.55	7.38	7.38	7.22	7.13	6.96	6.96
270.0	8.14	8.05	7.89	7.80	7.72	7.64	7.47	7.30	7.30
315.0	7.47	7.38	7.30	7.22	7.13	7.13	7.05	7.05	6.96
360.0	7.64	7.55	7.47	7.47	7.38	7.30	7.30	7.30	7.22
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	7.22	7.13	7.05	7.05	6.88	6.88	6.71	6.63	6.54
45.0	7.13	7.05	6.88	6.88	6.80	6.80	6.63	6.63	6.54
90.0	7.22	7.13	6.96	6.96	6.88	6.80	6.71	6.71	6.63
135.0	7.05	7.05	6.96	6.88	6.88	6.71	6.71	6.63	6.54
180.0	7.22	7.13	7.05	6.96	6.96	6.88	6.71	6.63	6.54
225.0	6.96	6.80	6.80	6.71	6.63	6.54	6.54	6.46	6.38
270.0	7.13	7.13	7.05	6.96	6.88	6.88	6.80	6.71	6.63
315.0	6.88	6.80	6.80	6.71	6.63	6.54	6.46	6.38	6.29
360.0	7.22	7.13	7.05	7.05	6.88	6.88	6.71	6.63	6.54
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.46	6.38	6.38	6.21	6.21	6.04	6.04	5.96	5.71
45.0	6.46	6.46	6.38	6.29	6.21	6.04	6.04	5.87	5.79
90.0	6.54	6.46	6.38	6.29	6.13	5.96	5.87	5.79	5.71
135.0	6.46	6.38	6.29	6.21	6.04	6.04	5.96	5.79	5.79
180.0	6.46	6.29	6.29	6.21	6.04	5.96	5.87	5.87	5.87
225.0	6.29	6.21	6.13	6.04	5.96	5.87	5.87	5.71	5.62
270.0	6.63	6.46	6.38	6.21	6.04	5.87	5.87	5.71	5.62
315.0	6.21	6.13	6.13	5.96	5.87	5.87	5.79	5.54	5.54
360.0	6.46	6.38	6.38	6.21	6.21	6.04	6.04	5.96	5.71

Intensity data(cd)

C/ $\gamma$ ( $^{\circ}$ )	90.0
0.0	5.71
45.0	5.62
90.0	5.62
135.0	5.79
180.0	5.62
225.0	5.62
270.0	5.54
315.0	5.54
360.0	5.71