



NATA LIGHTING CO.,LTD.
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Nata

Client: NT

LumCAT: 2-3213-A

Luminaire: 92.70.121.00

Report No: 20260403-B011

Ballast type: DC

Test No: 20260403-C011

Voltage(V): 35.640

LampCAT: CITIZEN CLU038

Current(A): 0.710

Lamp flux(lm): 3670.0

Power (W): 25.300

Number of Lamps: 1

PF: 0.000

Length(mm): 65

Width(mm): 65

Phm Type: C

Height(mm): 34

Photometric Results

Lumens(lm): 3347.75, Efficiency(%): 91.22% , Luminous Efficacy(lm/W): 132.32

Central intensity(cd): 3885.123, Maximum intensity(cd): 3885.123

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=58.8

[C90/270]Total=58.8

Field angle(10%Imax): [C0/180]Total=82.8

[C90/270]Total=82.8

Maximum s/h(1/2): C0_180=0.93 C90_270=0.93

Maximum s/h(1/4): C0_180=0.89 C90_270=0.89

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.22%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.410%

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	3885.123	0.000	0	0.00%	0.00%
1.0	3883.340	3.717	3.717	0.10%	0.11%
2.0	3869.496	11.128	14.845	0.30%	0.44%
3.0	3853.973	18.472	33.317	0.50%	1.00%
4.0	3830.165	25.721	59.038	0.70%	1.76%
5.0	3798.071	32.816	91.854	0.89%	2.74%
6.0	3763.460	39.738	131.592	1.08%	3.93%
7.0	3734.617	46.540	178.132	1.27%	5.32%
8.0	3703.992	53.237	231.369	1.45%	6.91%
9.0	3667.807	59.744	291.114	1.63%	8.70%
10.0	3622.603	65.976	357.089	1.80%	10.67%
11.0	3565.443	71.823	428.912	1.96%	12.81%
12.0	3505.765	77.298	506.211	2.11%	15.12%
13.0	3446.297	82.503	588.714	2.25%	17.59%
14.0	3381.794	87.399	676.113	2.38%	20.20%
15.0	3321.382	92.024	768.137	2.51%	22.94%
16.0	3255.831	96.375	864.512	2.63%	25.82%
17.0	3201.817	100.563	965.075	2.74%	28.83%
18.0	3140.146	104.565	1069.64	2.85%	31.95%
19.0	3081.517	108.244	1177.884	2.95%	35.18%
20.0	3016.176	111.605	1289.489	3.04%	38.52%
21.0	2950.519	114.573	1404.062	3.12%	41.94%
22.0	2874.480	117.056	1521.117	3.19%	45.44%
23.0	2785.016	118.751	1639.869	3.24%	48.98%
24.0	2689.573	119.694	1759.563	3.26%	52.56%
25.0	2586.789	119.973	1879.536	3.27%	56.14%
26.0	2471.628	119.404	1998.941	3.25%	59.71%
27.0	2340.316	117.725	2116.666	3.21%	63.23%
28.0	2206.172	115.107	2231.773	3.14%	66.66%
29.0	2003.813	110.145	2341.918	3.00%	69.95%
30.0	1837.554	103.716	2445.634	2.83%	73.05%
31.0	1750.124	99.840	2545.474	2.72%	76.04%
32.0	1627.150	96.755	2642.229	2.64%	78.93%
33.0	1495.324	91.989	2734.218	2.51%	81.67%
34.0	1368.301	86.662	2820.88	2.36%	84.26%
35.0	1229.836	80.689	2901.569	2.20%	86.67%
36.0	1089.965	73.863	2975.432	2.01%	88.88%
37.0	941.977	66.271	3041.702	1.81%	90.86%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	811.944	58.544	3100.246	1.60%	92.61%
39.0	674.842	50.748	3150.994	1.38%	94.12%
40.0	551.050	42.755	3193.748	1.16%	95.40%
41.0	433.351	35.054	3228.803	0.96%	96.45%
42.0	332.791	27.835	3256.638	0.76%	97.28%
43.0	261.785	22.025	3278.663	0.60%	97.94%
44.0	173.003	16.410	3295.073	0.45%	98.43%
45.0	82.658	9.825	3304.898	0.27%	98.72%
46.0	51.392	5.242	3310.14	0.14%	98.88%
47.0	34.684	3.423	3313.564	0.09%	98.98%
48.0	26.619	2.478	3316.042	0.07%	99.05%
49.0	20.400	1.931	3317.973	0.05%	99.11%
50.0	15.869	1.512	3319.485	0.04%	99.16%
51.0	12.586	1.204	3320.689	0.03%	99.19%
52.0	10.782	1.003	3321.692	0.03%	99.22%
53.0	9.848	0.897	3322.589	0.02%	99.25%
54.0	9.303	0.844	3323.433	0.02%	99.27%
55.0	8.873	0.811	3324.245	0.02%	99.30%
56.0	8.537	0.787	3325.031	0.02%	99.32%
57.0	8.223	0.766	3325.798	0.02%	99.34%
58.0	7.992	0.750	3326.548	0.02%	99.37%
59.0	7.803	0.738	3327.286	0.02%	99.39%
60.0	7.604	0.728	3328.014	0.02%	99.41%
61.0	7.468	0.719	3328.733	0.02%	99.43%
62.0	7.321	0.713	3329.446	0.02%	99.45%
63.0	7.226	0.708	3330.153	0.02%	99.47%
64.0	7.121	0.704	3330.857	0.02%	99.50%
65.0	7.006	0.699	3331.556	0.02%	99.52%
66.0	6.933	0.695	3332.252	0.02%	99.54%
67.0	6.849	0.693	3332.945	0.02%	99.56%
68.0	6.775	0.690	3333.635	0.02%	99.58%
69.0	6.691	0.687	3334.322	0.02%	99.60%
70.0	6.629	0.684	3335.006	0.02%	99.62%
71.0	6.566	0.682	3335.688	0.02%	99.64%
72.0	6.503	0.680	3336.368	0.02%	99.66%
73.0	6.419	0.676	3337.043	0.02%	99.68%
74.0	6.377	0.673	3337.716	0.02%	99.70%
75.0	6.314	0.671	3338.386	0.02%	99.72%

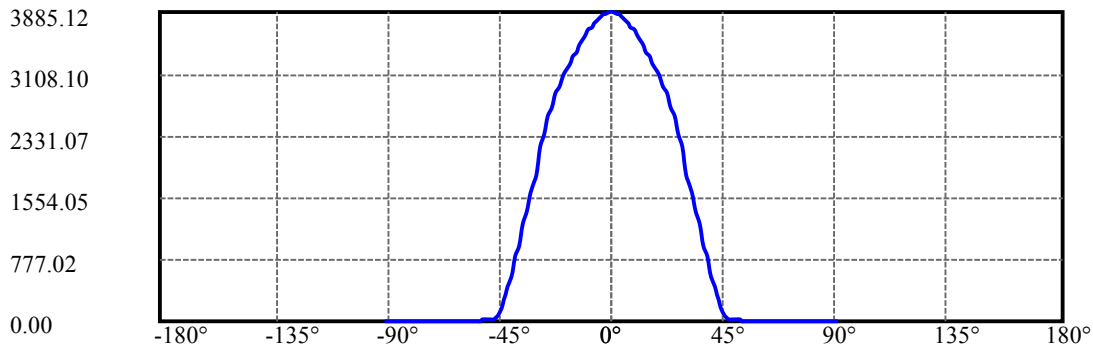
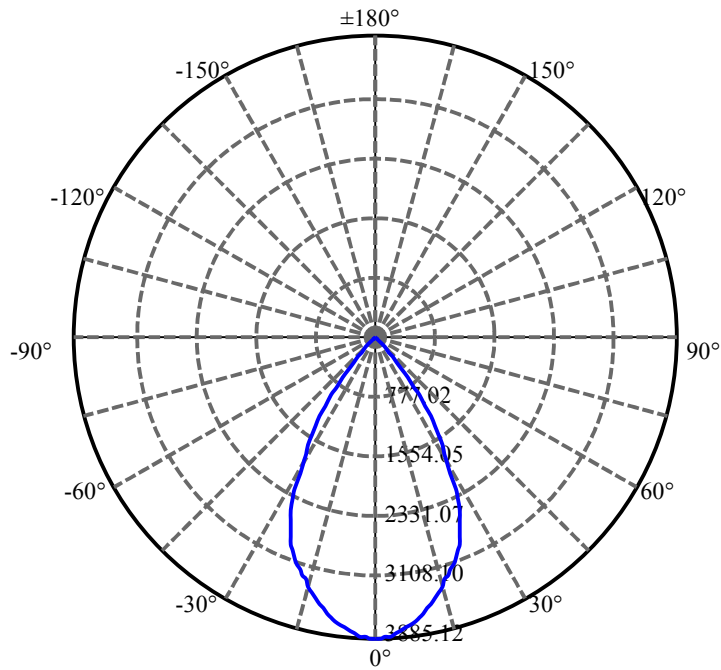
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	6.261	0.668	3339.054	0.02%	99.74%
77.0	6.209	0.665	3339.719	0.02%	99.76%
78.0	6.136	0.661	3340.38	0.02%	99.78%
79.0	6.062	0.655	3341.035	0.02%	99.80%
80.0	5.978	0.649	3341.684	0.02%	99.82%
81.0	5.936	0.644	3342.329	0.02%	99.84%
82.0	5.842	0.639	3342.967	0.02%	99.86%
83.0	5.748	0.630	3343.597	0.02%	99.88%
84.0	5.653	0.621	3344.218	0.02%	99.89%
85.0	5.569	0.612	3344.831	0.02%	99.91%
86.0	5.454	0.603	3345.433	0.02%	99.93%
87.0	5.370	0.592	3346.026	0.02%	99.95%
88.0	5.265	0.583	3346.608	0.02%	99.97%
89.0	5.223	0.575	3347.183	0.02%	99.98%
90.0	5.139	0.568	3347.751	0.02%	100.00%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	2445.63	66.64%	73.05%
0-40	3193.75	87.02%	95.40%
0-60	3328.01	90.68%	99.41%
0-90	3347.18	91.20%	99.98%
0-120	3347.18	91.20%	99.98%
0-180	3347.75	91.22%	100.00%
60-90	19.17	0.52%	0.57%
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%
0-32.39	2678.20	72.98%	80.00%

ZONAL LUMEN SUMMARY

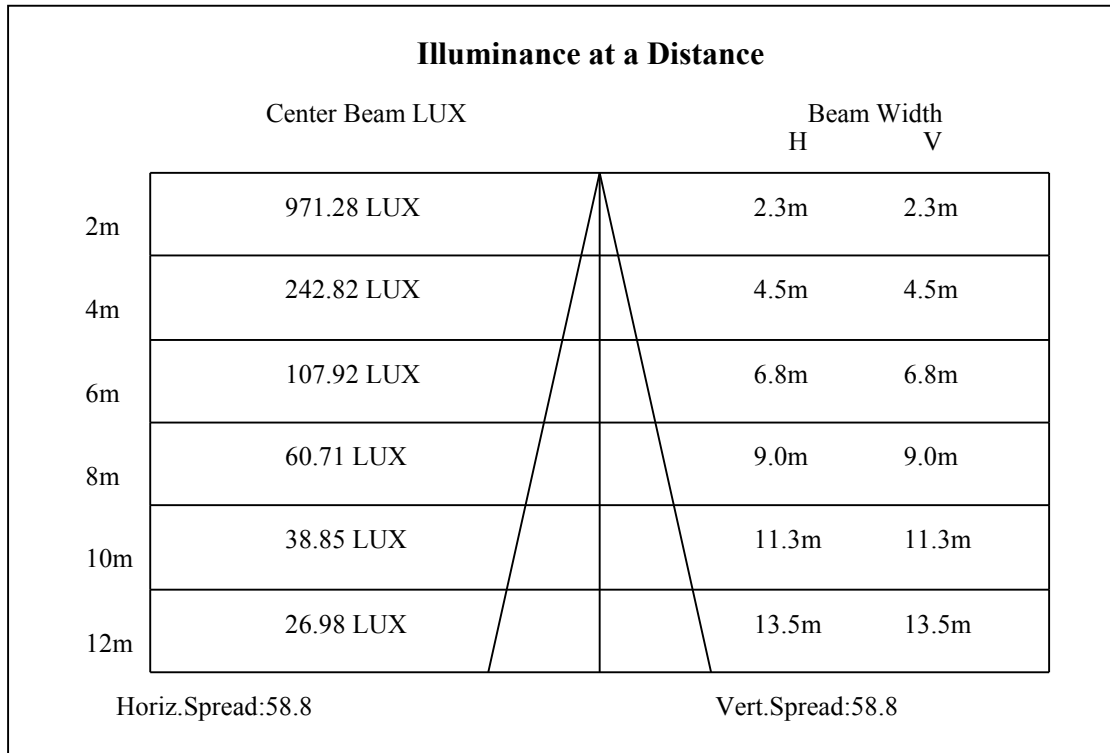
0-10	357.09
10-20	932.40
20-30	1156.15
30-40	748.11
40-50	125.74
50-60	8.53
60-70	6.99
70-80	6.68
80-90	5.50
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

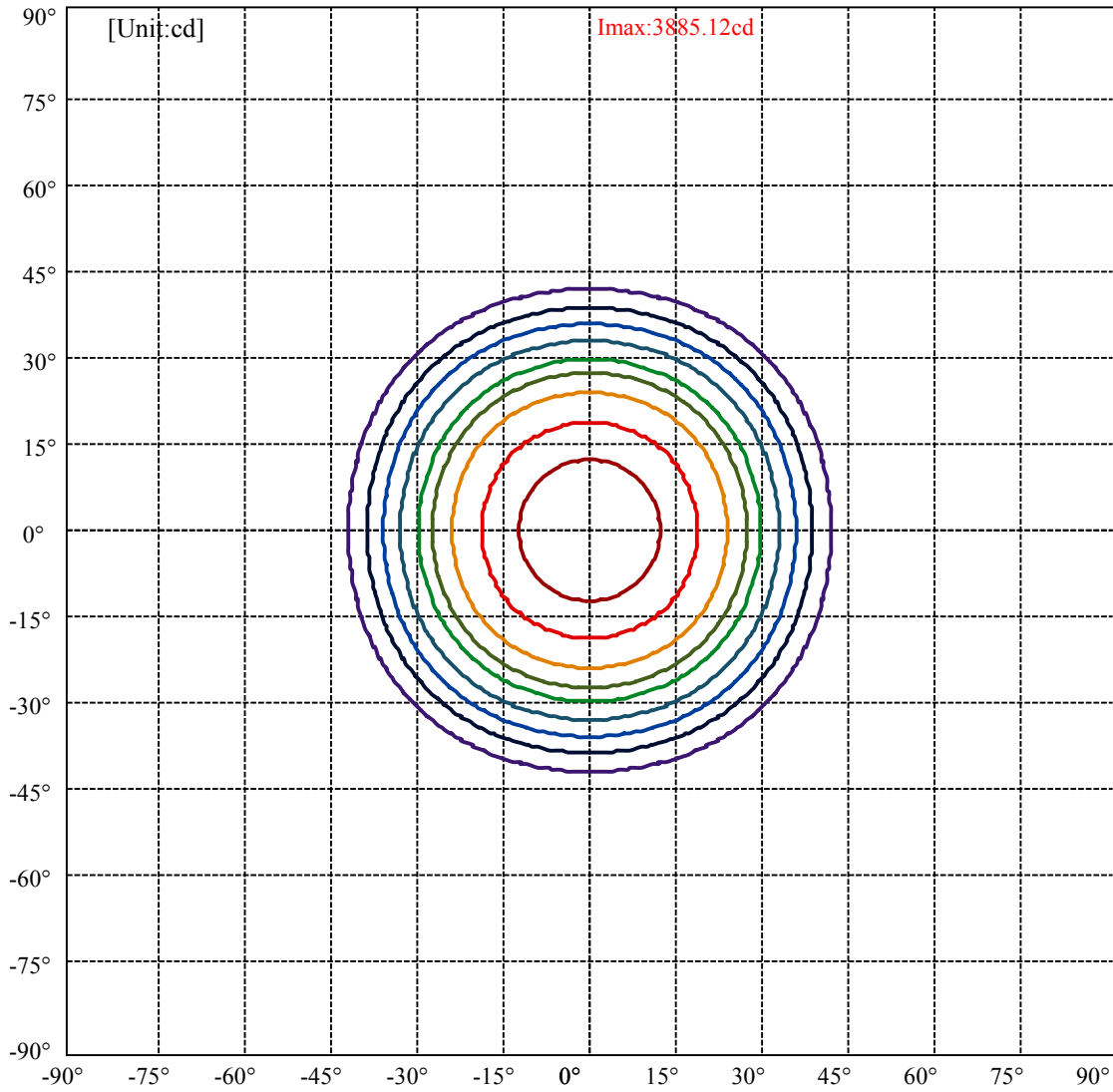


C90/C270: —————

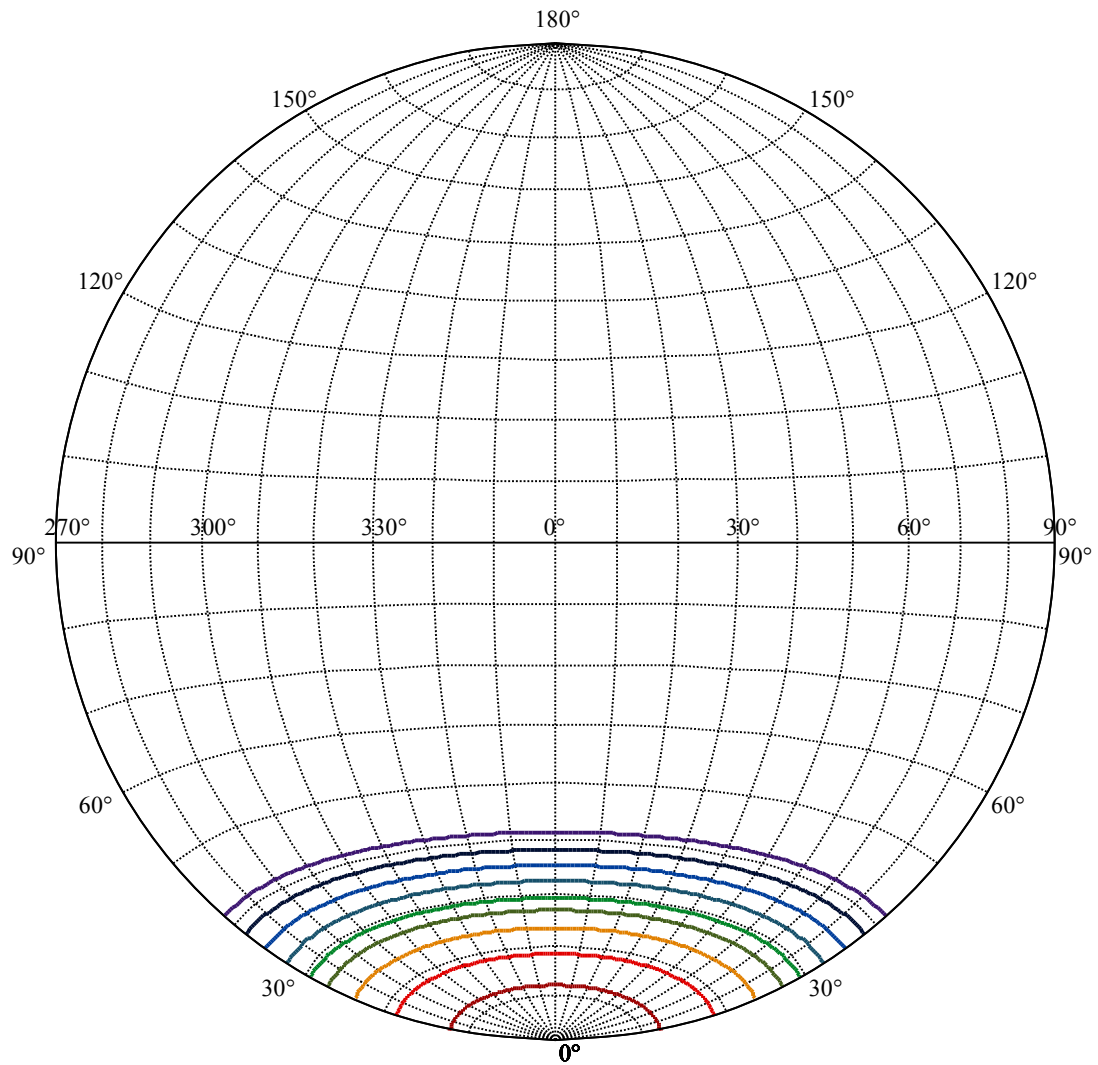
Field angle(10%Imax):C90/270Left:41.4 Right:41.4

Beam Angle(50%Imax):C90/270Left:29.4 Right:29.4





(10%Imax) 388.512	—
(20%Imax) 777.025	—
(30%Imax) 1165.54	—
(40%Imax) 1554.05	—
(50%Imax) 1942.56	—
(60%Imax) 2331.07	—
(70%Imax) 2719.59	—
(80%Imax) 3108.1	—
(90%Imax) 3496.61	—



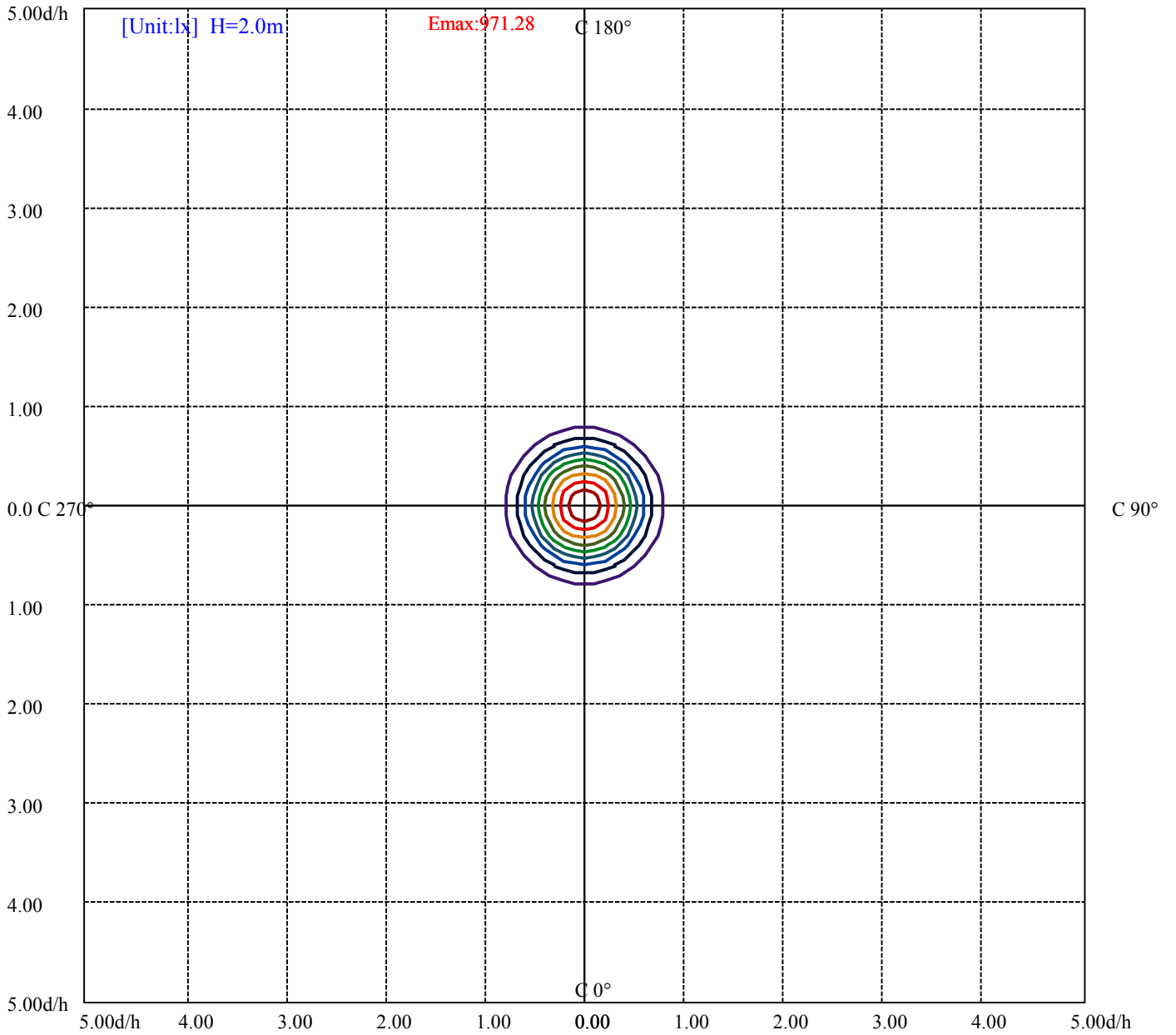
House

[Unit:cd]

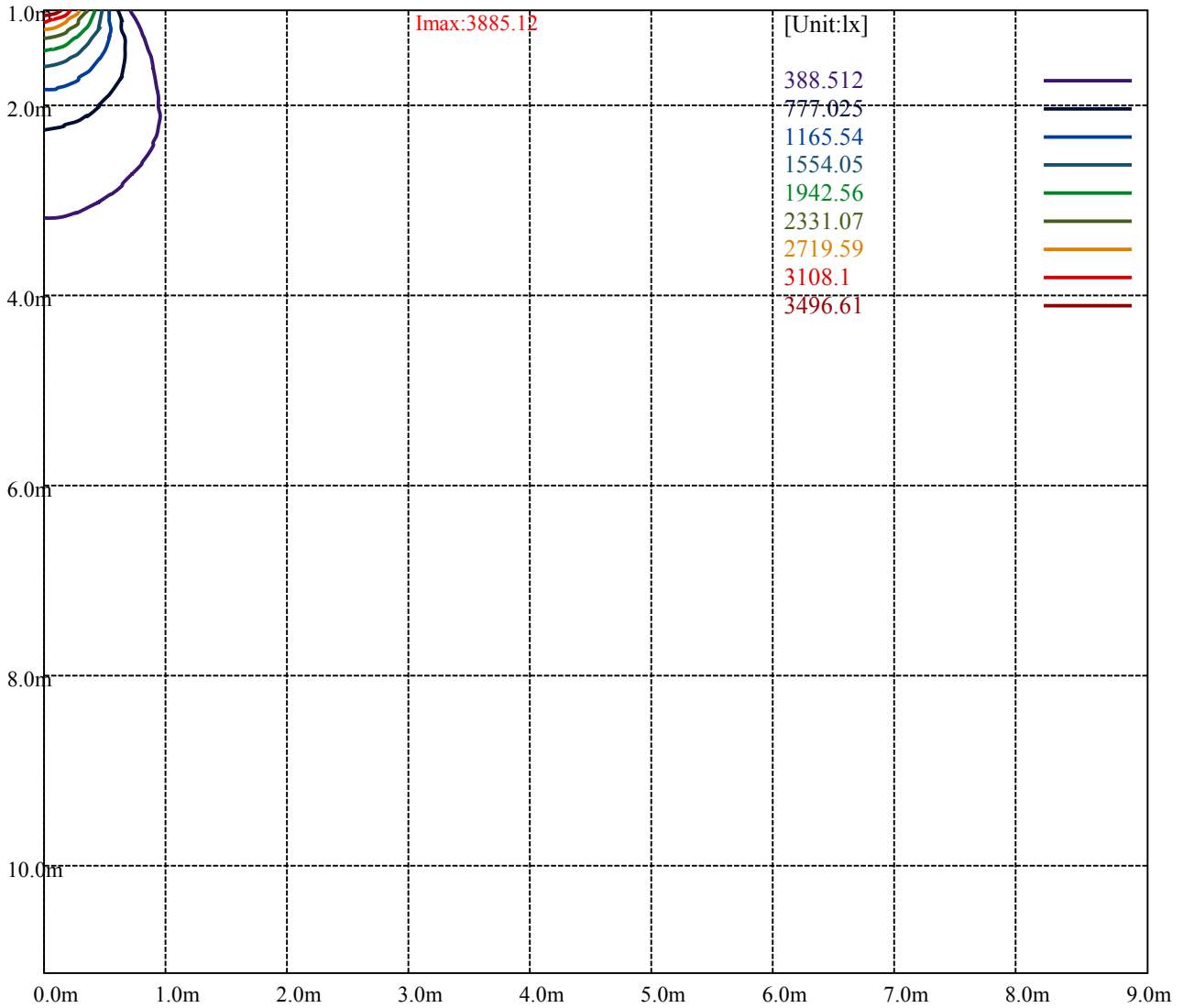
Road

Imax:3885.12

(10%Imax)	388.512	—
(20%Imax)	777.025	—
(30%Imax)	1165.54	—
(40%Imax)	1554.05	—
(50%Imax)	1942.56	—
(60%Imax)	2331.07	—
(70%Imax)	2719.59	—
(80%Imax)	3108.1	—
(90%Imax)	3496.61	—



- (10%Emax) 97.128
- (20%Emax) 194.256
- (30%Emax) 291.385
- (40%Emax) 388.5125
- (50%Emax) 485.64
- (60%Emax) 582.7675
- (70%Emax) 679.8975
- (80%Emax) 777.025
- (90%Emax) 874.1525



Luminance Table

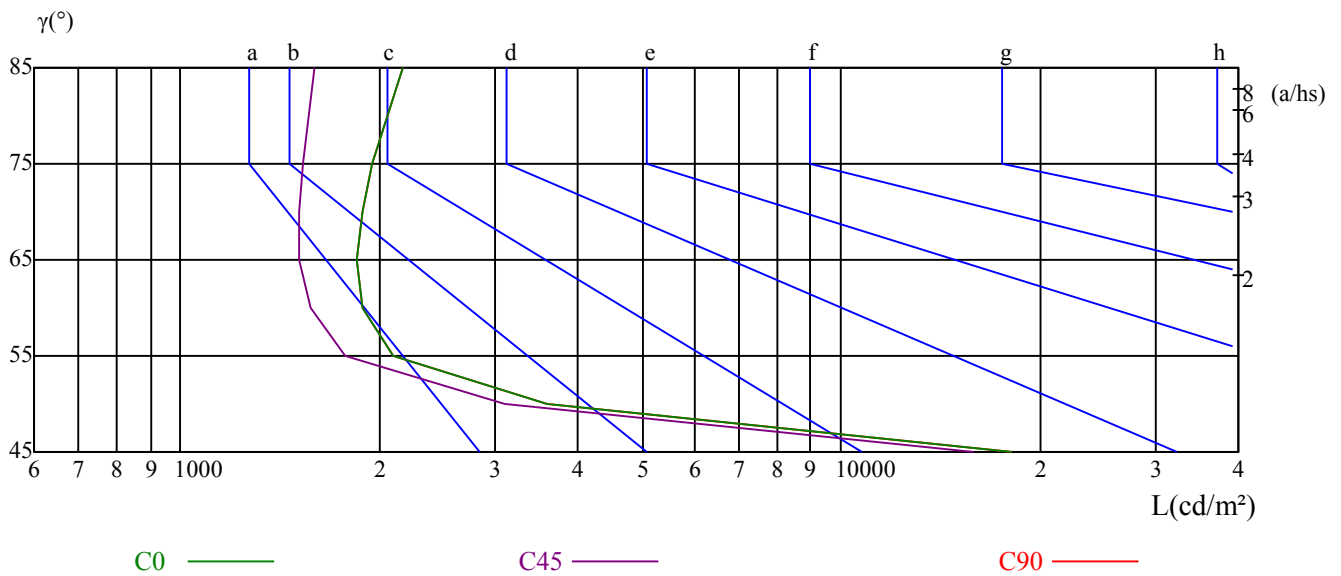
γ	45	50	55	60	65	70	75	80	85
C0	18166	3599	2096	1889	1849	1882	1956	2054	2167
C45	15903	3105	1780	1578	1517	1513	1535	1568	1600
C90	18166	3599	2096	1889	1849	1882	1956	2054	2167

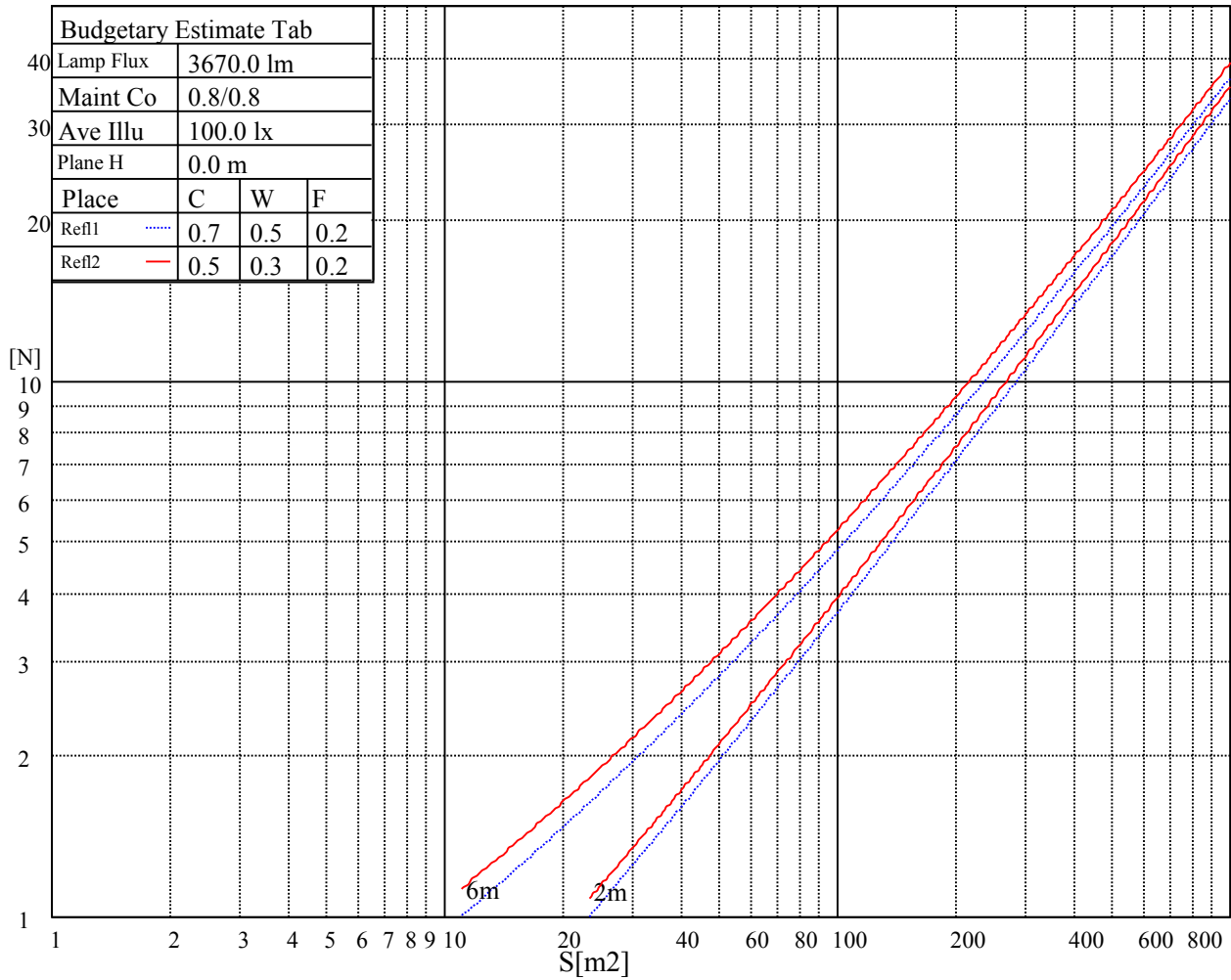
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
3924	3924	3924	5774	5774	5774	15124	15124	15124

Glare Table

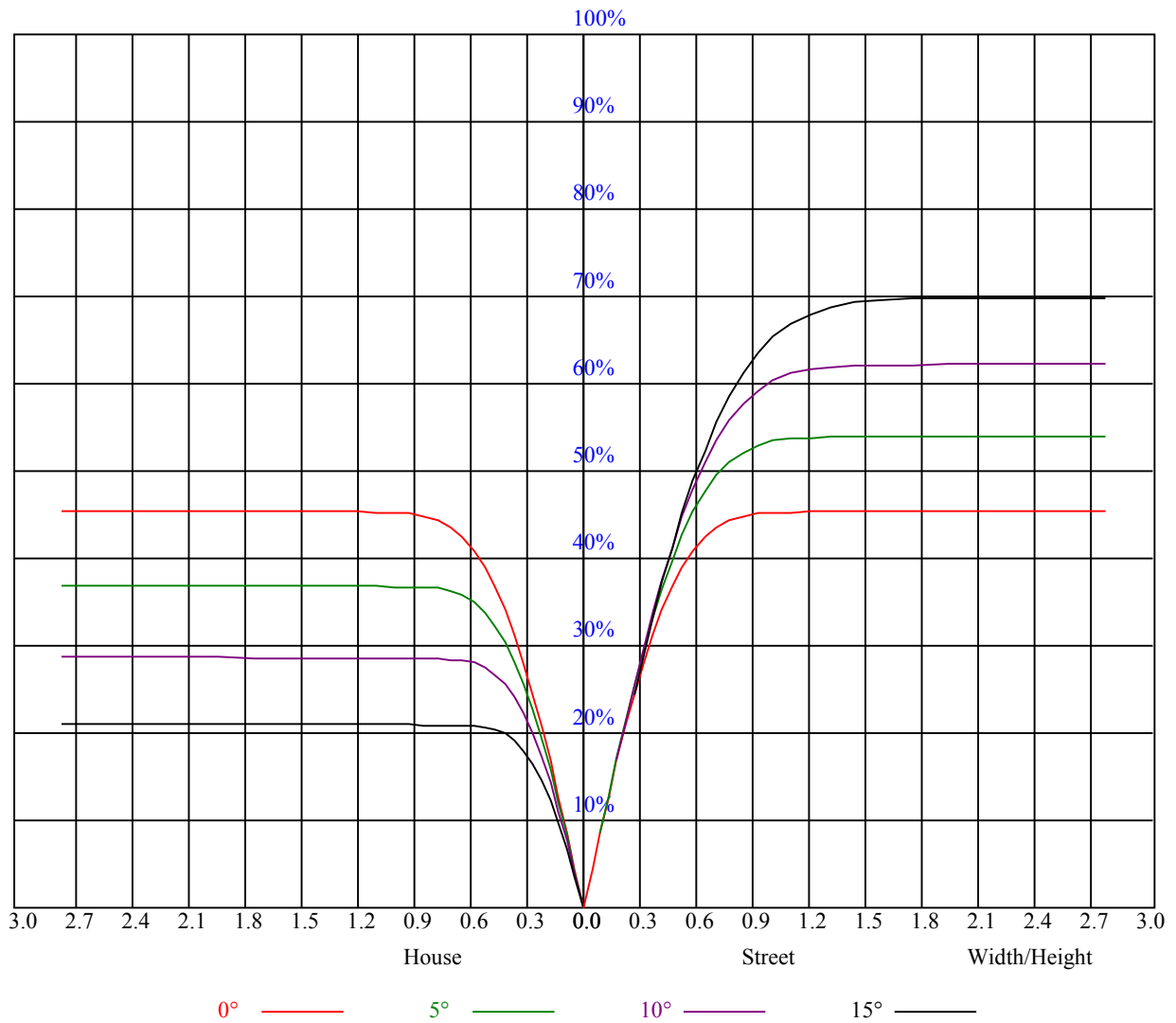
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

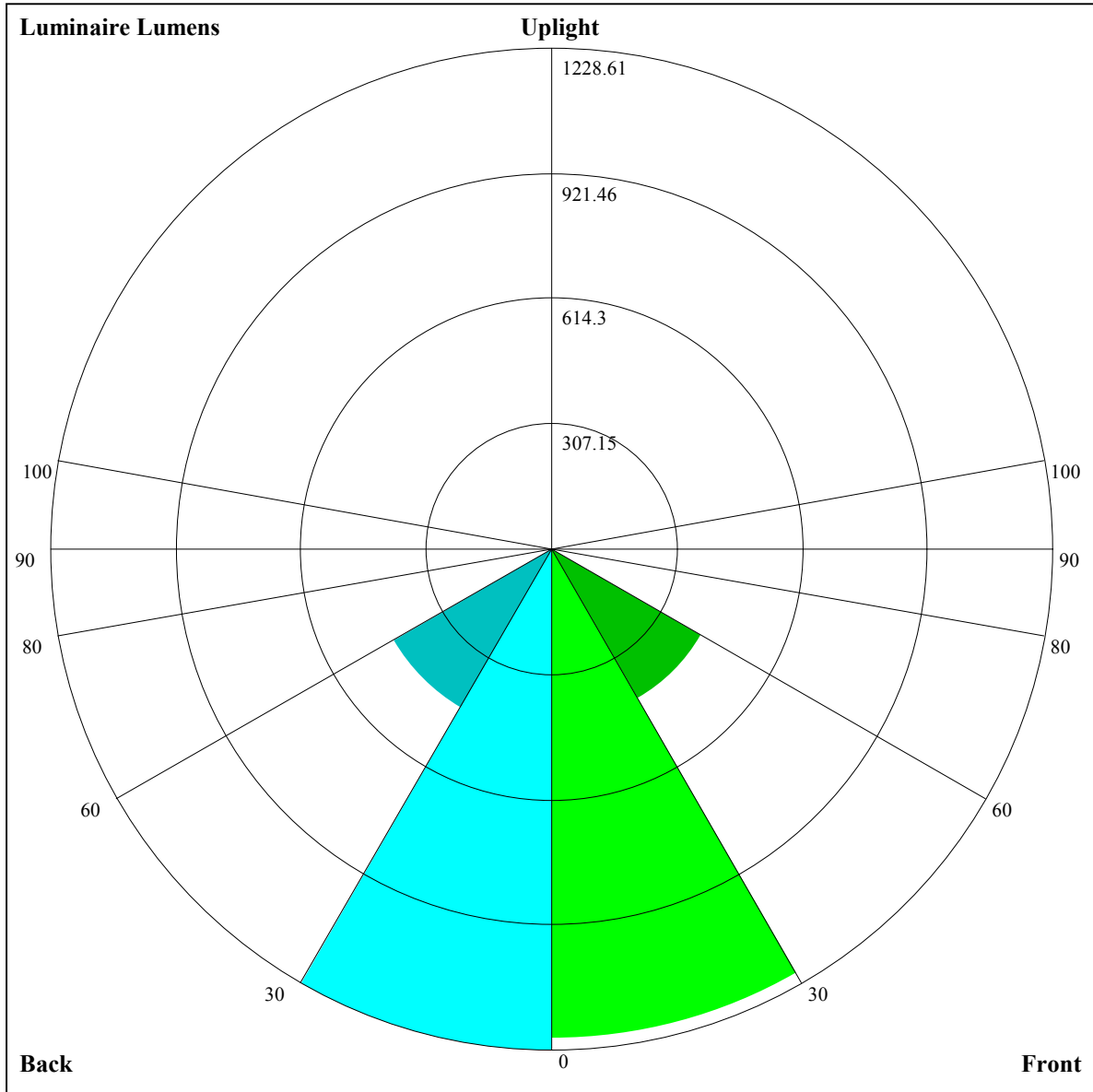
Luminance Limiting Curve





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	1.01	0.99	0.97	0.99	0.97	0.95	0.95	0.94	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.85
2	0.94	0.91	0.88	0.93	0.89	0.87	0.90	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	0.79	0.84	0.81	0.78	0.82	0.79	0.77	0.80	0.78	0.76	0.74
4	0.82	0.77	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.78	0.74	0.71	0.76	0.73	0.71	0.69
5	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.66	0.65
6	0.73	0.67	0.63	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
7	0.68	0.63	0.59	0.68	0.63	0.59	0.67	0.62	0.59	0.65	0.61	0.58	0.64	0.61	0.58	0.57
8	0.64	0.59	0.55	0.64	0.59	0.55	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.53
9	0.61	0.56	0.52	0.60	0.55	0.52	0.60	0.55	0.52	0.59	0.54	0.51	0.58	0.54	0.51	0.50
10	0.58	0.52	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.56	0.51	0.49	0.55	0.51	0.48	0.47





Luminaire Lumens:

FL=1199.45,FM=422.26,FH=6.88,FVH=3.03

BL=1228.61,BM=451,BH=6.89,BVH=3.04

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	3891.63	3873.17	3847.16	3838.77	3804.36	3760.73	3720.46	3690.25	3658.37
45.0	3887.43	3898.34	3887.43	3864.78	3855.55	3821.14	3784.23	3750.66	3713.75
90.0	3895.82	3898.34	3879.04	3868.13	3840.44	3801.01	3756.54	3724.65	3689.41
135.0	3865.61	3891.63	3901.69	3892.46	3878.20	3854.71	3818.63	3787.58	3762.41
180.0	3891.63	3903.37	3894.98	3896.66	3881.56	3846.32	3833.73	3813.59	3796.81
225.0	3887.43	3882.40	3870.65	3847.16	3824.50	3810.24	3783.39	3764.93	3735.56
270.0	3895.82	3879.04	3858.90	3840.44	3813.59	3778.35	3741.43	3712.07	3681.86
315.0	3865.61	3840.44	3816.11	3783.39	3743.11	3712.07	3669.28	3633.20	3593.76
360.0	3891.63	3873.17	3847.16	3838.77	3804.36	3760.73	3720.46	3690.25	3658.37
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	3622.29	3561.88	3501.46	3439.37	3367.22	3308.48	3245.55	3199.40	3151.58
45.0	3686.06	3656.69	3598.80	3556.84	3505.66	3425.11	3363.86	3278.28	3228.77
90.0	3656.69	3607.19	3539.22	3475.45	3405.81	3316.03	3244.71	3178.43	3119.69
135.0	3733.04	3708.71	3660.05	3613.90	3566.07	3507.34	3445.25	3371.41	3320.23
180.0	3765.77	3724.65	3684.38	3634.87	3582.85	3528.31	3469.58	3403.30	3361.34
225.0	3696.13	3655.01	3588.73	3530.83	3467.90	3410.85	3347.08	3288.34	3211.15
270.0	3634.87	3584.53	3525.80	3441.89	3380.64	3311.00	3244.71	3171.72	3114.66
315.0	3547.61	3482.17	3425.11	3352.95	3294.22	3247.23	3210.31	3155.77	3107.11
360.0	3622.29	3561.88	3501.46	3439.37	3367.22	3308.48	3245.55	3199.40	3151.58
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3087.81	3039.14	2986.28	2928.39	2838.61	2752.19	2664.09	2568.43	2432.51
45.0	3182.62	3128.08	3061.80	3013.13	2953.56	2889.79	2794.14	2706.88	2617.94
90.0	3041.66	2982.09	2921.68	2868.82	2789.11	2713.59	2612.90	2519.77	2421.60
135.0	3263.17	3217.86	3166.68	3098.72	3042.50	2986.28	2895.67	2813.44	2717.79
180.0	3289.18	3226.25	3163.33	3081.94	3007.26	2924.19	2830.22	2696.81	2583.54
225.0	3150.74	3086.13	2998.03	2920.00	2827.70	2699.33	2592.77	2479.49	2358.67
270.0	3050.89	2984.61	2907.41	2836.93	2758.90	2650.66	2560.04	2458.52	2317.56
315.0	3055.09	2987.96	2924.19	2856.23	2778.20	2664.09	2566.76	2450.97	2323.43
360.0	3087.81	3039.14	2986.28	2928.39	2838.61	2752.19	2664.09	2568.43	2432.51
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	2312.52	2181.63	2016.34	1646.31	1646.31	1587.66	1468.60	1345.17	1170.48
45.0	2514.73	2376.29	2253.79	2091.01	1955.08	1823.35	1662.25	1545.63	1423.12
90.0	2284.83	2164.85	2039.83	1667.12	1667.12	1601.25	1478.75	1360.86	1242.98
135.0	2613.74	2471.10	2345.25	2214.35	2074.23	1894.67	1753.71	1618.62	1465.91
180.0	2458.52	2325.95	2158.97	2006.27	1865.31	1701.69	1571.64	1454.17	1303.14
225.0	2195.89	2055.77	1673.50	1673.50	1611.57	1499.90	1386.29	1230.64	1100.42
270.0	2187.50	2060.81	1885.44	1744.48	1618.62	1501.16	1363.55	1244.40	1118.55
315.0	2154.78	2012.98	1657.39	1657.39	1562.74	1407.52	1277.80	1146.91	1014.08
360.0	2312.52	2181.63	2016.34	1646.31	1646.31	1587.66	1468.60	1345.17	1170.48
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	1029.94	895.44	762.11	604.46	490.43	380.51	279.24	168.40	98.25
45.0	1254.47	1115.19	972.55	833.27	708.25	558.90	441.43	441.43	312.38
90.0	1082.97	953.92	828.99	675.36	562.59	428.09	327.06	238.04	142.64
135.0	1340.90	1176.44	1035.48	901.23	775.37	608.40	489.25	429.68	429.68
180.0	1183.15	1009.47	884.45	748.52	632.73	481.70	422.13	422.13	180.23
225.0	972.63	811.37	685.76	565.10	421.96	318.17	225.12	146.50	73.59
270.0	1003.59	849.21	725.87	589.94	476.67	448.98	318.84	163.62	98.17
315.0	852.06	724.78	600.34	480.86	340.41	242.07	159.25	84.49	49.08
360.0	1029.94	895.44	762.11	604.46	490.43	380.51	279.24	168.40	98.25

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	54.62	32.64	27.60	21.98	15.61	11.75	9.82	9.40	9.06
45.0	136.93	76.10	38.76	31.55	26.09	19.05	14.35	11.41	10.24
90.0	86.34	54.04	39.02	31.72	25.68	20.22	15.86	13.09	11.91
135.0	160.09	97.08	56.97	36.92	29.79	24.08	16.87	12.50	10.40
180.0	90.03	52.27	34.90	29.28	21.65	16.11	11.91	9.82	9.40
225.0	44.05	33.14	26.93	19.38	14.35	11.08	9.90	9.48	8.98
270.0	55.55	38.93	32.22	26.18	18.88	14.85	12.67	11.66	10.24
315.0	33.65	26.93	21.06	15.94	11.16	9.82	9.31	8.89	8.56
360.0	54.62	32.64	27.60	21.98	15.61	11.75	9.82	9.40	9.06
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	8.73	8.39	7.97	7.72	7.55	7.38	7.22	7.13	6.96
45.0	9.73	9.31	8.98	8.56	8.31	8.05	7.80	7.72	7.55
90.0	10.82	10.07	9.57	9.15	8.81	8.56	8.31	8.14	7.97
135.0	9.65	9.15	8.89	8.47	8.22	7.97	7.72	7.47	7.38
180.0	8.89	8.56	8.31	7.97	7.72	7.55	7.38	7.22	7.05
225.0	8.73	8.39	8.05	7.89	7.72	7.55	7.38	7.30	7.13
270.0	9.57	9.15	8.73	8.47	8.22	8.05	7.89	7.72	7.55
315.0	8.31	7.97	7.80	7.55	7.38	7.30	7.13	7.05	6.96
360.0	8.73	8.39	7.97	7.72	7.55	7.38	7.22	7.13	6.96
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	6.88	6.80	6.71	6.71	6.63	6.54	6.54	6.46	6.46
45.0	7.38	7.30	7.13	7.05	6.96	6.88	6.80	6.71	6.71
90.0	7.89	7.64	7.55	7.47	7.38	7.22	7.13	7.05	6.96
135.0	7.30	7.13	7.05	6.88	6.88	6.80	6.71	6.54	6.54
180.0	7.05	6.96	6.88	6.80	6.63	6.63	6.54	6.54	6.46
225.0	7.05	6.96	6.88	6.80	6.71	6.63	6.54	6.54	6.38
270.0	7.47	7.38	7.22	7.13	7.05	7.05	6.88	6.80	6.71
315.0	6.80	6.80	6.63	6.63	6.54	6.46	6.38	6.38	6.29
360.0	6.88	6.80	6.71	6.71	6.63	6.54	6.54	6.46	6.46
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	6.38	6.38	6.38	6.38	6.29	6.38	6.29	6.21	6.04
45.0	6.63	6.54	6.46	6.38	6.29	6.29	6.21	6.13	6.04
90.0	6.88	6.71	6.63	6.54	6.46	6.29	6.21	6.13	6.04
135.0	6.54	6.38	6.38	6.29	6.21	6.21	6.13	6.13	6.04
180.0	6.38	6.38	6.38	6.29	6.29	6.29	6.29	6.13	6.13
225.0	6.38	6.29	6.21	6.21	6.13	6.04	5.96	5.96	5.87
270.0	6.54	6.46	6.46	6.29	6.29	6.21	6.04	5.96	5.87
315.0	6.29	6.21	6.13	6.13	6.13	5.96	5.96	5.87	5.79
360.0	6.38	6.38	6.38	6.38	6.29	6.38	6.29	6.21	6.04
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	6.04	5.96	5.79	5.71	5.62	5.54	5.45	5.37	5.29
45.0	5.96	5.87	5.79	5.71	5.62	5.45	5.45	5.37	5.29
90.0	6.04	5.96	5.87	5.87	5.71	5.62	5.45	5.29	5.20
135.0	6.04	5.87	5.79	5.71	5.62	5.45	5.45	5.29	5.29
180.0	6.04	5.96	5.87	5.71	5.62	5.54	5.45	5.45	5.45
225.0	5.79	5.71	5.62	5.45	5.45	5.37	5.29	5.29	5.12
270.0	5.87	5.79	5.79	5.62	5.62	5.37	5.20	5.12	5.12
315.0	5.71	5.62	5.45	5.45	5.29	5.29	5.20	4.95	5.03
360.0	6.04	5.96	5.79	5.71	5.62	5.54	5.45	5.37	5.29

Intensity data(cd)

C/ γ (°)	90.0
0.0	5.20
45.0	5.20
90.0	5.12
135.0	5.20
180.0	5.12
225.0	5.12
270.0	5.12
315.0	5.03
360.0	5.20