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Nata

Client: NT

LumCAT: 2-2062-LM3

Luminaire: 92.70.121.00

Report No: 20260630-B001

Ballast type: DC

Test No: 20260630-C001

LampCAT: CITIZEN CLU038

Lamp flux(lm): 3547.0

Number of Lamps: 1

Length(mm): 75

Phm Type: C

Voltage(V): 36.910

Current(A): 0.723

Power (W): 26.685

PF: 0.000

Width(mm): 75

Height(mm): 43

Photometric Results

Lumens(lm): 3470.58, Efficiency(%): 97.85% , Luminous Efficacy(lm/W): 130.06

Central intensity(cd): 6988.371, Maximum intensity(cd): 6988.371

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=38.6

[C90/270]Total=38.6

Field angle(10%Imax): [C0/180]Total=70.0

[C90/270]Total=70.0

Maximum s/h(1/2): C0_180=0.63 C90_270=0.63

Maximum s/h(1/4): C0_180=0.62 C90_270=0.62

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 97.85%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.010%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6988.372	0.000	0	0.00%	0.00%
1.0	6986.798	6.687	6.687	0.19%	0.19%
2.0	6969.283	20.031	26.718	0.56%	0.77%
3.0	6938.972	33.264	59.982	0.94%	1.73%
4.0	6895.236	46.308	106.289	1.31%	3.06%
5.0	6829.895	59.045	165.334	1.66%	4.76%
6.0	6748.821	71.360	236.694	2.01%	6.82%
7.0	6646.561	83.145	319.839	2.34%	9.22%
8.0	6524.793	94.265	414.104	2.66%	11.93%
9.0	6363.065	104.449	518.553	2.94%	14.94%
10.0	6190.220	113.603	632.155	3.20%	18.21%
11.0	5970.282	121.508	753.664	3.43%	21.72%
12.0	5741.115	128.022	881.686	3.61%	25.40%
13.0	5461.499	132.947	1014.633	3.75%	29.24%
14.0	5164.683	136.014	1150.647	3.83%	33.15%
15.0	4881.397	137.917	1288.564	3.89%	37.13%
16.0	4546.089	138.139	1426.703	3.89%	41.11%
17.0	4208.999	136.340	1563.043	3.84%	45.04%
18.0	3873.062	133.256	1696.299	3.76%	48.88%
19.0	3572.365	129.535	1825.834	3.65%	52.61%
20.0	3266.739	125.175	1951.009	3.53%	56.22%
21.0	2958.595	119.539	2070.548	3.37%	59.66%
22.0	2698.698	113.686	2184.234	3.21%	62.94%
23.0	2461.979	108.285	2292.518	3.05%	66.06%
24.0	2232.613	102.641	2395.159	2.89%	69.01%
25.0	2065.536	97.730	2492.89	2.76%	71.83%
26.0	1850.307	92.434	2585.323	2.61%	74.49%
27.0	1746.799	88.004	2673.327	2.48%	77.03%
28.0	1649.794	85.995	2759.322	2.42%	79.51%
29.0	1528.078	83.142	2842.464	2.34%	81.90%
30.0	1399.336	79.040	2921.504	2.23%	84.18%
31.0	1273.288	74.375	2995.879	2.10%	86.32%
32.0	1138.043	69.082	3064.961	1.95%	88.31%
33.0	994.491	62.825	3127.786	1.77%	90.12%
34.0	844.751	55.661	3183.447	1.57%	91.73%
35.0	697.853	47.908	3231.354	1.35%	93.11%
36.0	569.195	40.343	3271.697	1.14%	94.27%
37.0	454.642	33.392	3305.089	0.94%	95.23%

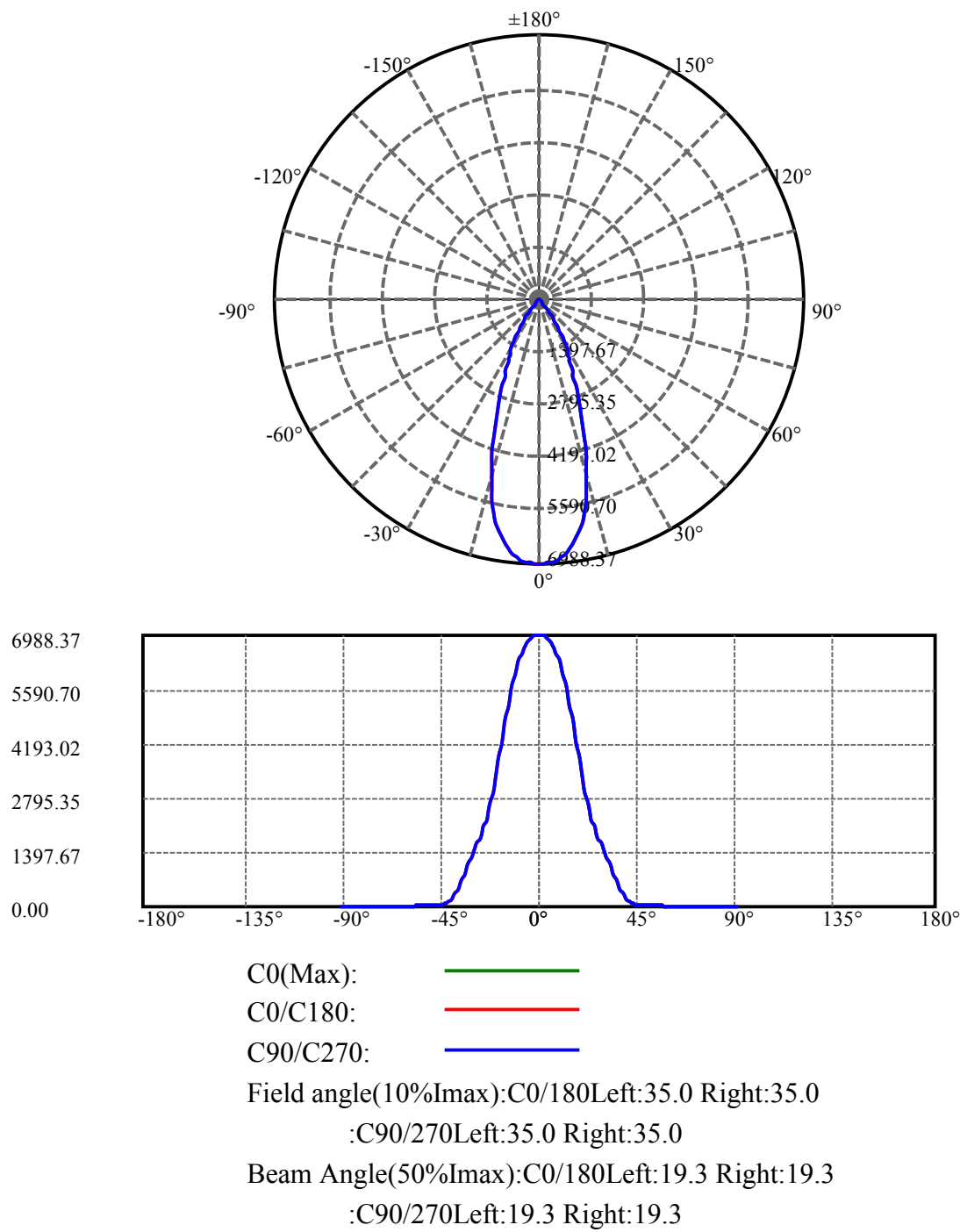
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	341.496	26.574	3331.663	0.75%	96.00%
39.0	242.613	19.937	3351.601	0.56%	96.57%
40.0	165.263	14.225	3365.826	0.40%	96.98%
41.0	134.385	10.670	3376.496	0.30%	97.29%
42.0	83.675	7.923	3384.419	0.22%	97.52%
43.0	69.044	5.657	3390.076	0.16%	97.68%
44.0	58.136	4.800	3394.876	0.14%	97.82%
45.0	50.721	4.184	3399.059	0.12%	97.94%
46.0	44.187	3.712	3402.771	0.10%	98.05%
47.0	39.687	3.336	3406.107	0.09%	98.14%
48.0	36.457	3.078	3409.185	0.09%	98.23%
49.0	33.751	2.883	3412.068	0.08%	98.31%
50.0	31.496	2.720	3414.789	0.08%	98.39%
51.0	29.482	2.580	3417.368	0.07%	98.47%
52.0	27.689	2.453	3419.822	0.07%	98.54%
53.0	26.147	2.342	3422.164	0.07%	98.60%
54.0	24.742	2.243	3424.407	0.06%	98.67%
55.0	23.483	2.153	3426.559	0.06%	98.73%
56.0	22.298	2.069	3428.628	0.06%	98.79%
57.0	21.312	1.994	3430.622	0.06%	98.85%
58.0	20.389	1.928	3432.55	0.05%	98.90%
59.0	19.508	1.865	3434.416	0.05%	98.96%
60.0	18.805	1.810	3436.226	0.05%	99.01%
61.0	18.155	1.764	3437.989	0.05%	99.06%
62.0	17.557	1.721	3439.71	0.05%	99.11%
63.0	17.001	1.681	3441.391	0.05%	99.16%
64.0	16.456	1.642	3443.033	0.05%	99.21%
65.0	15.963	1.604	3444.637	0.05%	99.25%
66.0	15.502	1.570	3446.207	0.04%	99.30%
67.0	14.998	1.534	3447.741	0.04%	99.34%
68.0	14.421	1.490	3449.231	0.04%	99.38%
69.0	13.823	1.441	3450.672	0.04%	99.43%
70.0	13.110	1.383	3452.055	0.04%	99.47%
71.0	12.303	1.313	3453.369	0.04%	99.50%
72.0	11.558	1.241	3454.609	0.03%	99.54%
73.0	10.782	1.168	3455.777	0.03%	99.57%
74.0	10.174	1.102	3456.879	0.03%	99.61%
75.0	9.586	1.044	3457.923	0.03%	99.64%

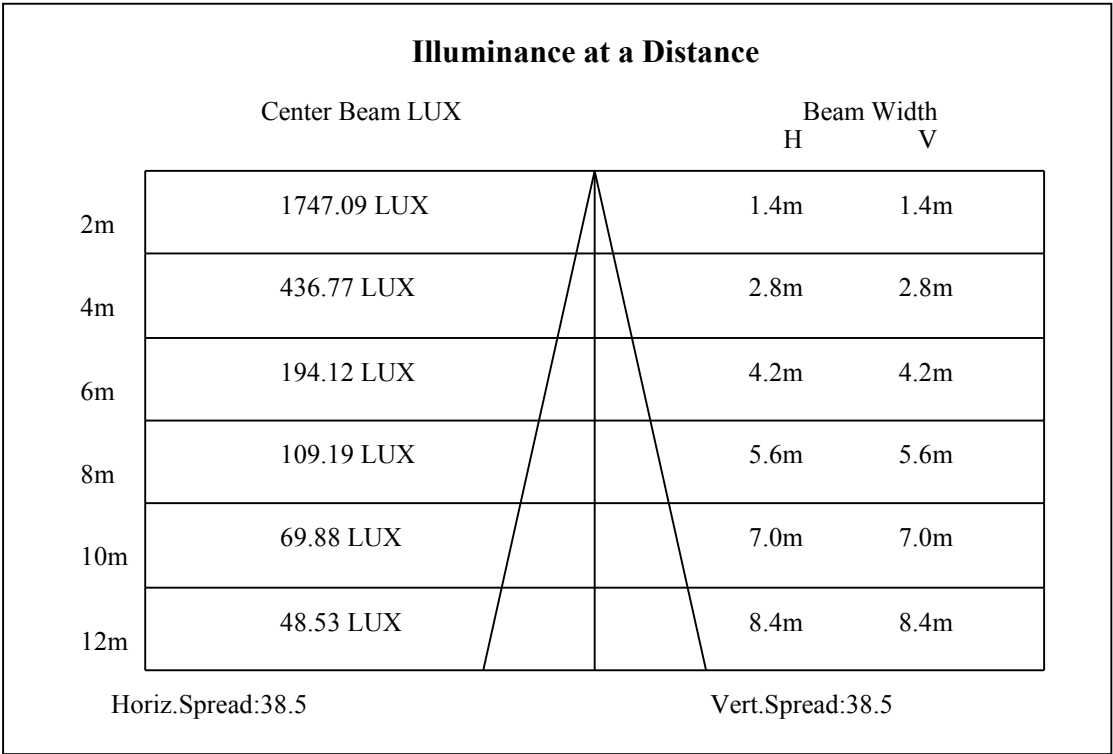
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	9.188	0.997	3458.92	0.03%	99.66%
77.0	8.904	0.965	3459.884	0.03%	99.69%
78.0	8.663	0.940	3460.825	0.03%	99.72%
79.0	8.443	0.919	3461.744	0.03%	99.75%
80.0	8.233	0.899	3462.643	0.03%	99.77%
81.0	8.023	0.879	3463.522	0.02%	99.80%
82.0	7.824	0.859	3464.381	0.02%	99.82%
83.0	7.625	0.840	3465.221	0.02%	99.85%
84.0	7.436	0.820	3466.042	0.02%	99.87%
85.0	7.279	0.803	3466.845	0.02%	99.89%
86.0	7.090	0.785	3467.63	0.02%	99.92%
87.0	6.880	0.765	3468.395	0.02%	99.94%
88.0	6.702	0.744	3469.139	0.02%	99.96%
89.0	6.566	0.727	3469.866	0.02%	99.98%
90.0	6.450	0.714	3470.58	0.02%	100.00%

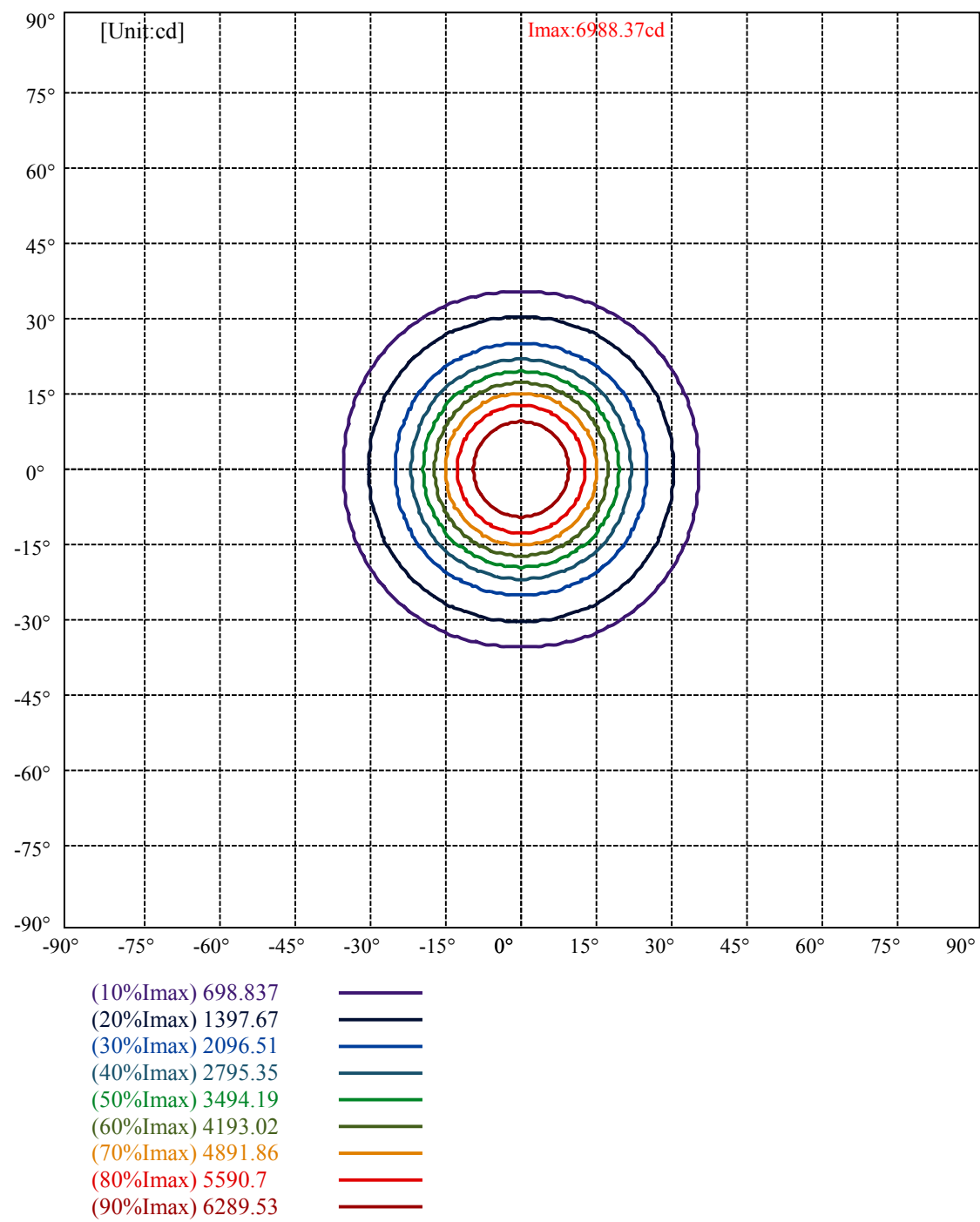
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	2921.50	82.37%	84.18%
0-40	3365.83	94.89%	96.98%
0-60	3436.23	96.88%	99.01%
0-90	3469.87	97.83%	99.98%
0-120	3469.87	97.83%	99.98%
0-180	3470.58	97.85%	100.00%
60-90	33.64	0.95%	0.97%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-28.21	2776.46	78.28%	80.00%

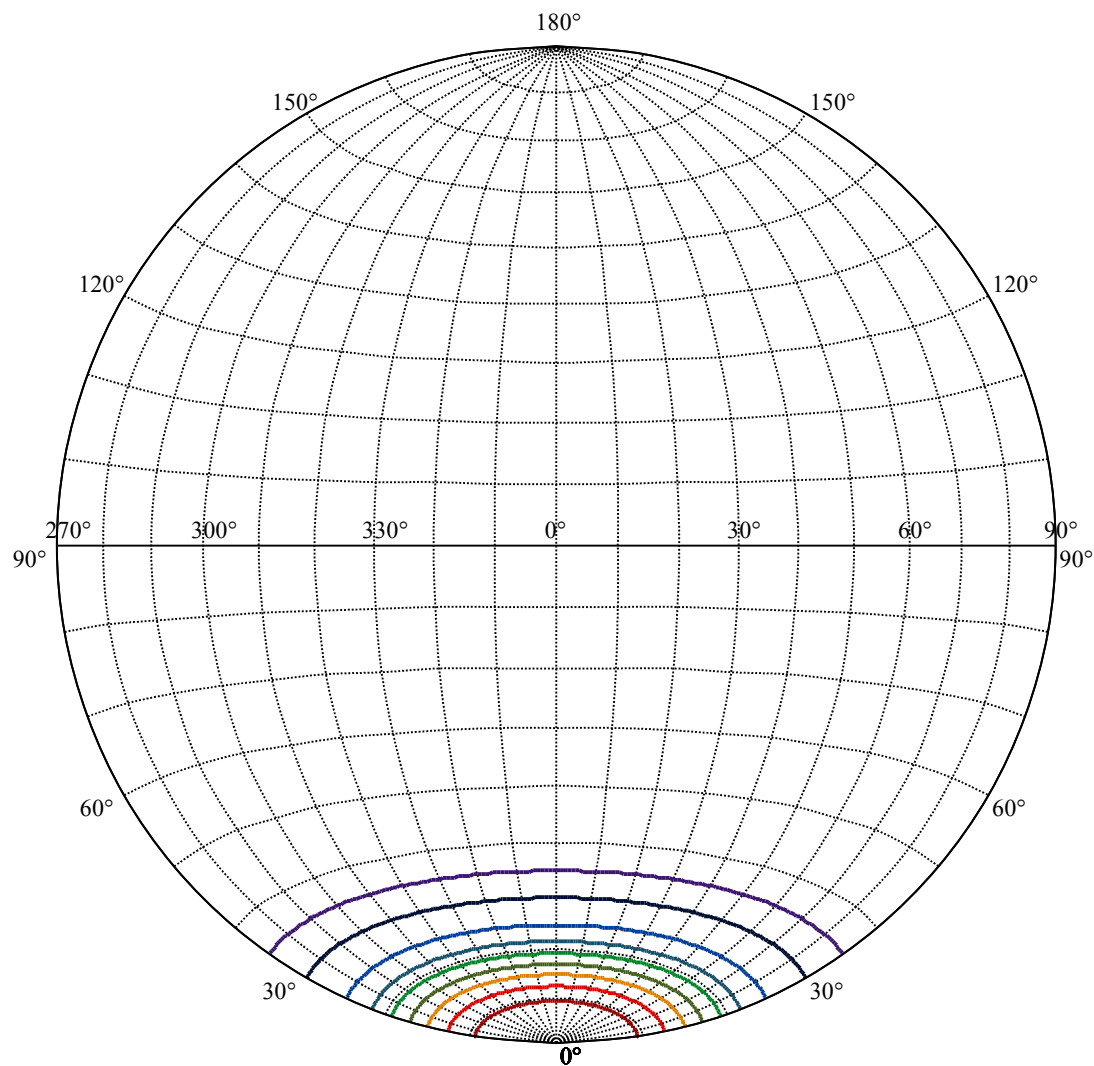
ZONAL LUMEN SUMMARY

0-10	632.16
10-20	1318.85
20-30	970.49
30-40	444.32
40-50	48.96
50-60	21.44
60-70	15.83
70-80	10.59
80-90	7.22
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







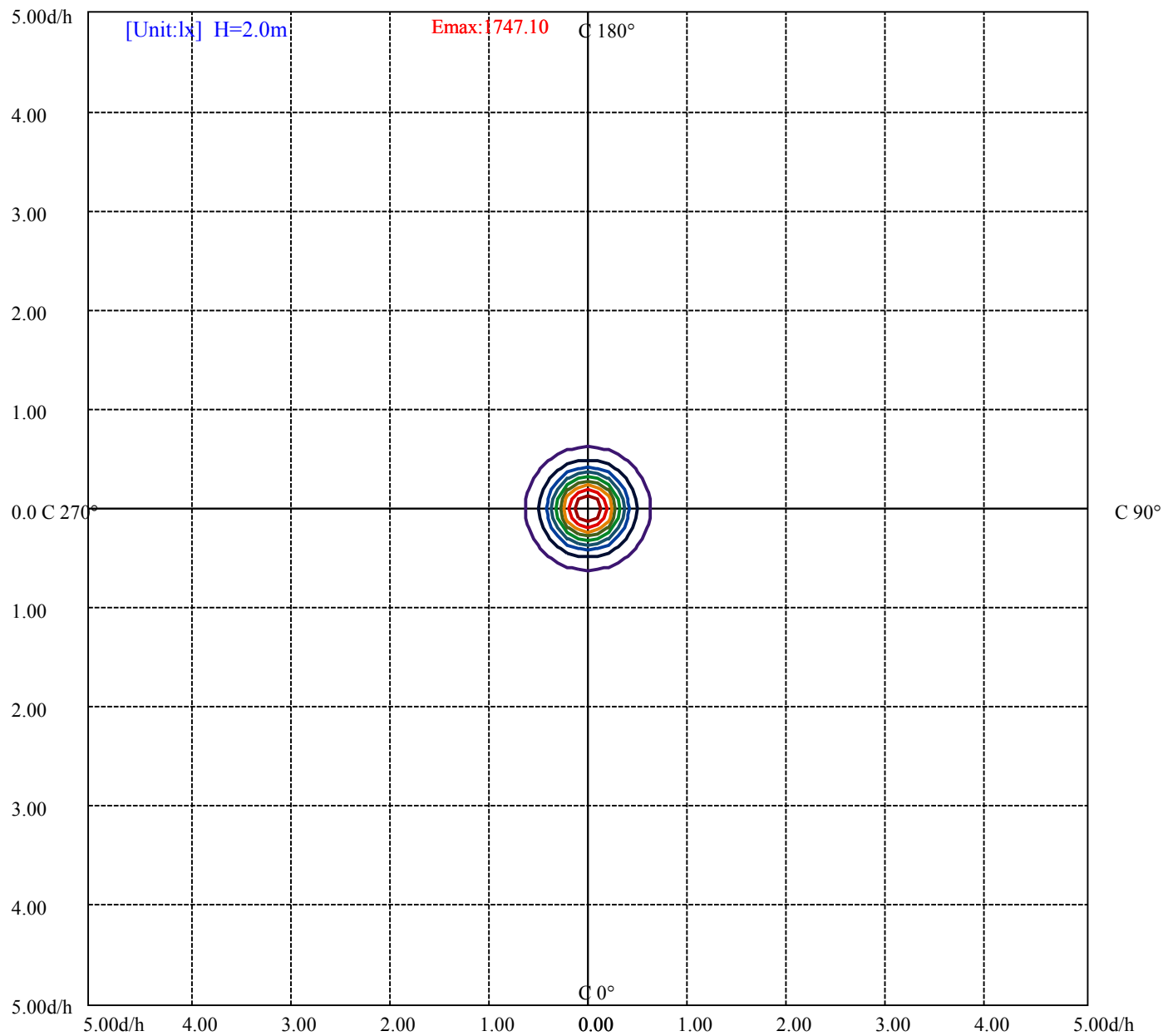


House

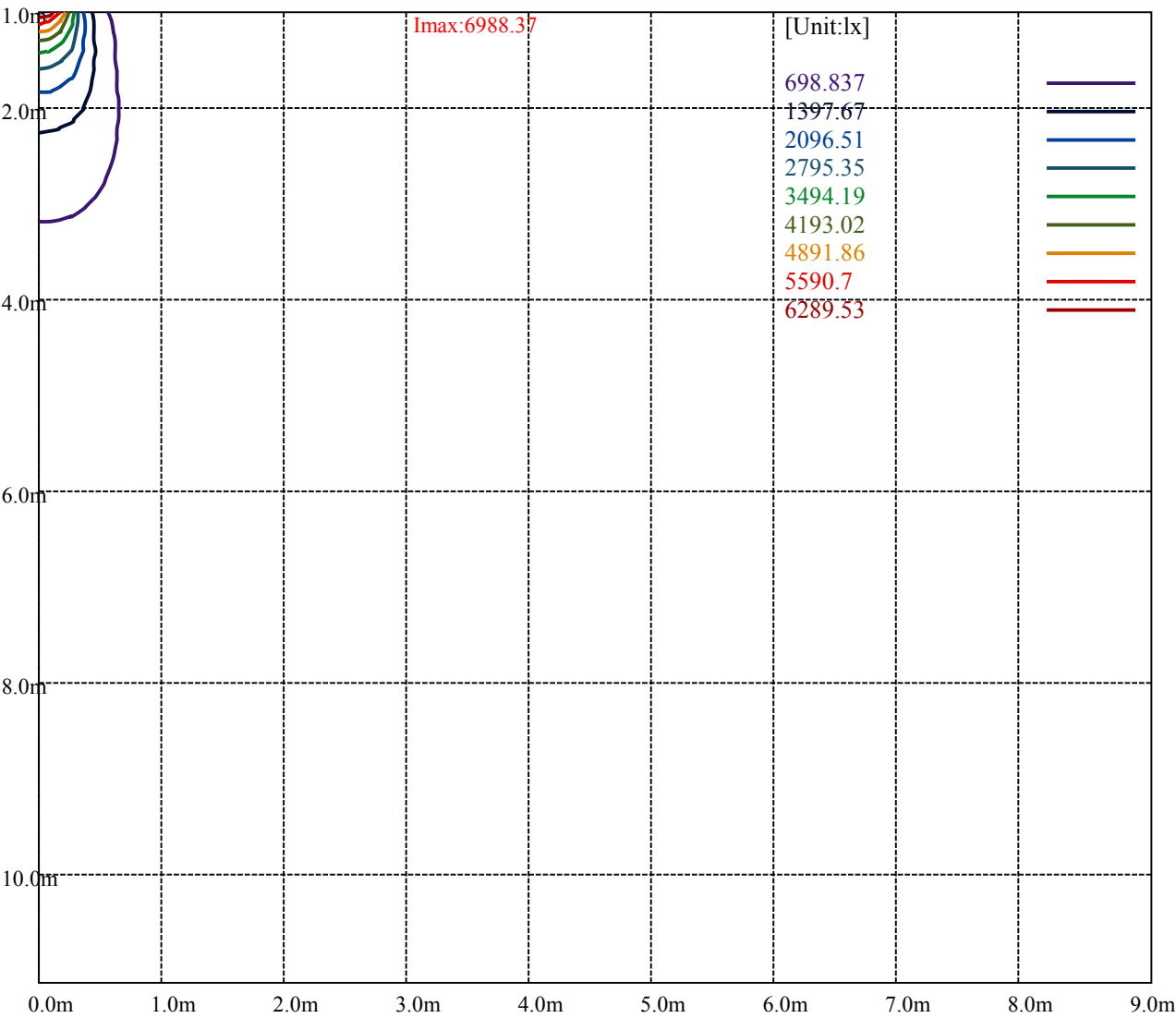
[Unit:cd]

Road

Imax:6988.37	
(10%Imax) 698.837	
(20%Imax) 1397.67	
(30%Imax) 2096.51	
(40%Imax) 2795.35	
(50%Imax) 3494.19	
(60%Imax) 4193.02	
(70%Imax) 4891.86	
(80%Imax) 5590.7	
(90%Imax) 6289.53	



(10%Emax)	174.7092	—
(20%Emax)	349.4175	—
(30%Emax)	524.1275	—
(40%Emax)	698.8375	—
(50%Emax)	873.5475	—
(60%Emax)	1048.255	—
(70%Emax)	1222.965	—
(80%Emax)	1397.675	—
(90%Emax)	1572.382	—



Luminance Table

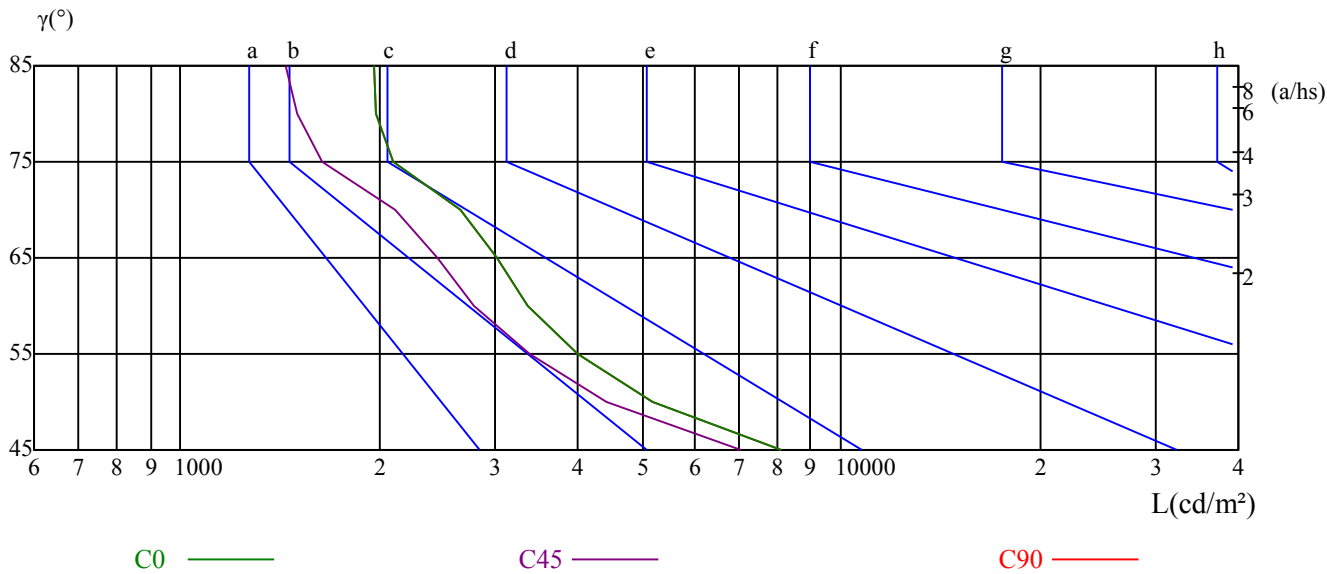
γ	45	50	55	60	65	70	75	80	85
C0	8105	5175	4002	3355	3012	2646	2097	1983	1966
C45	7042	4430	3373	2781	2452	2111	1636	1506	1446
C90	8105	5175	4002	3355	3012	2646	2097	1983	1966

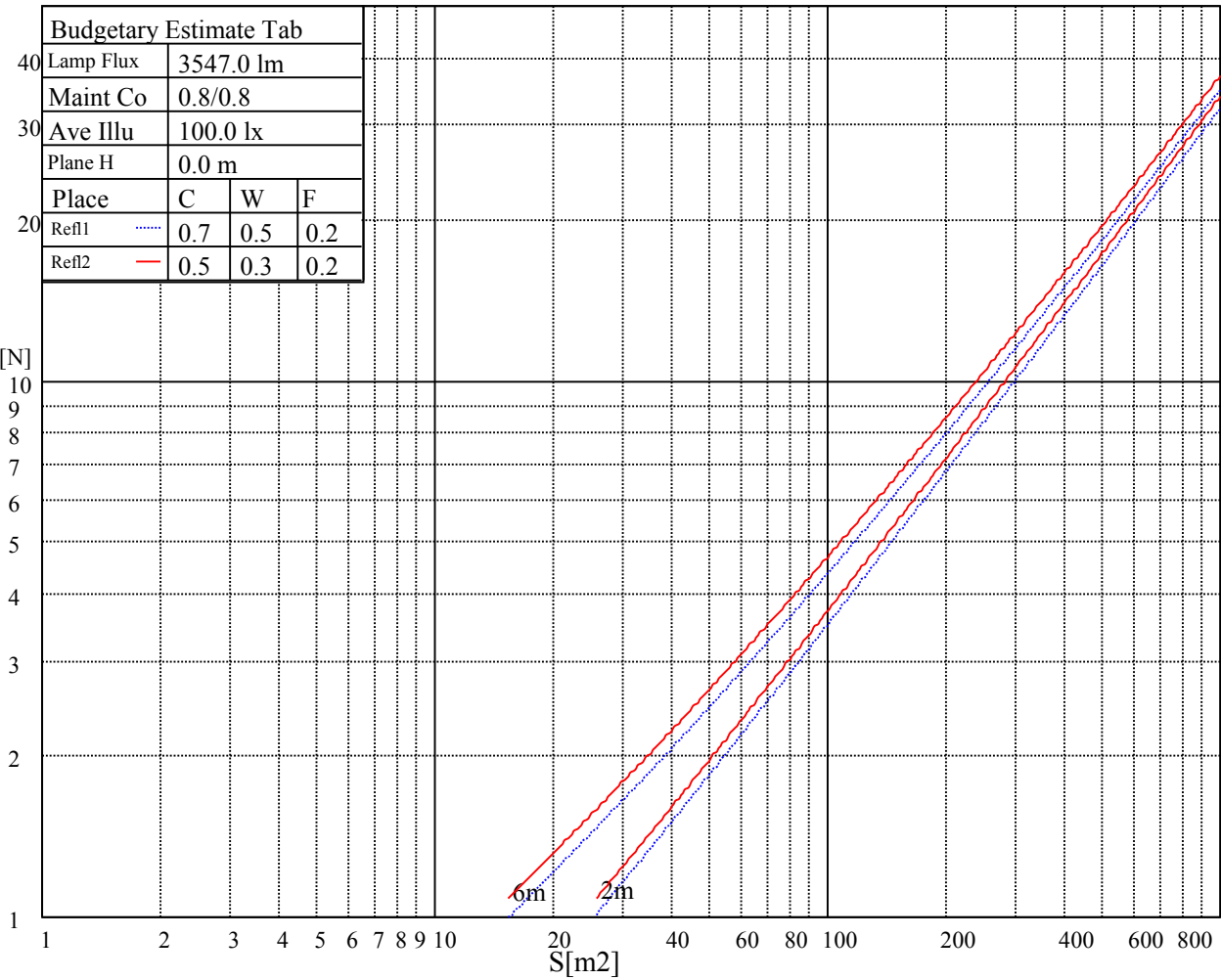
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6715	6715	6715	6585	6585	6585	14847	14847	14847

Glare Table

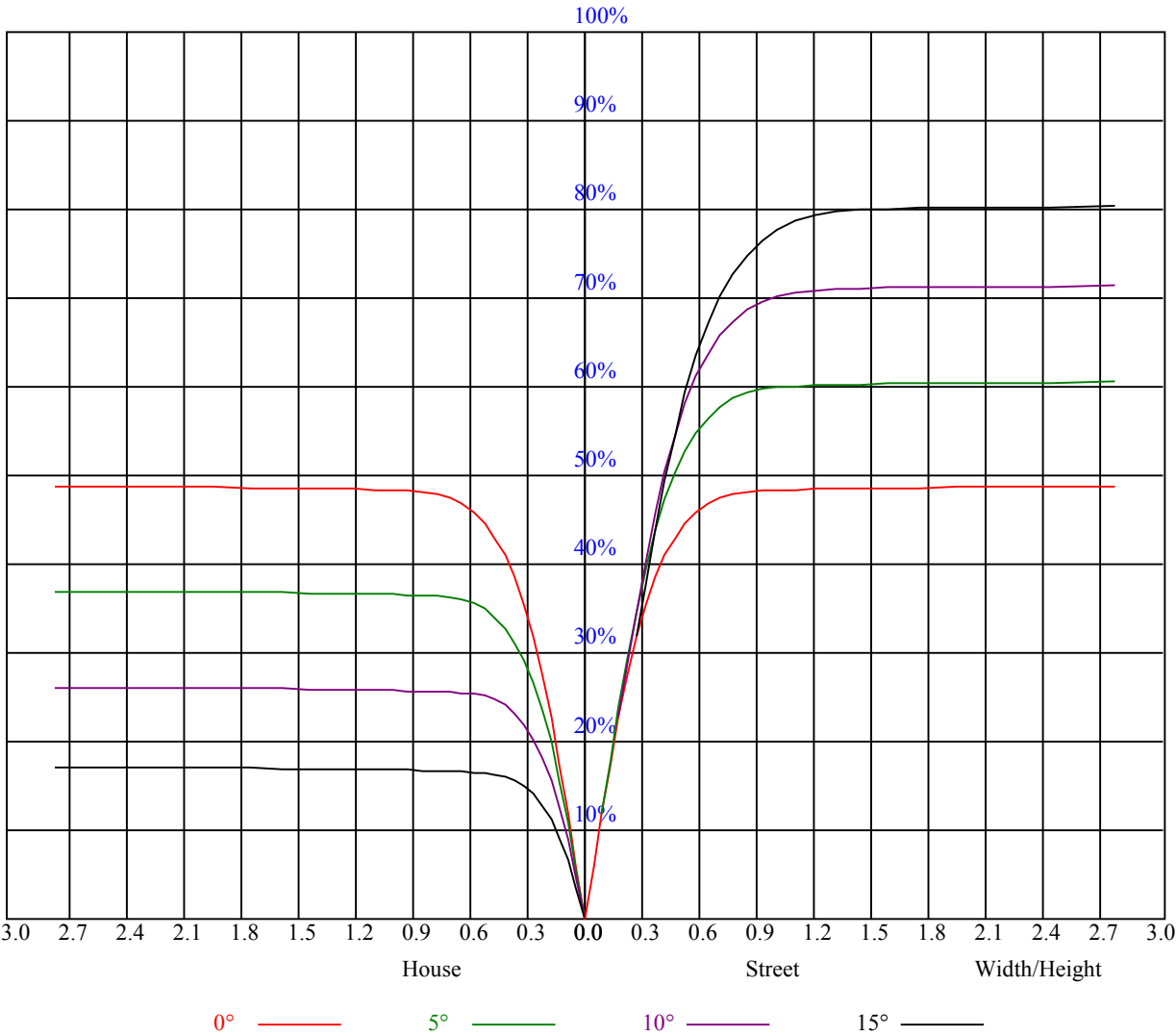
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

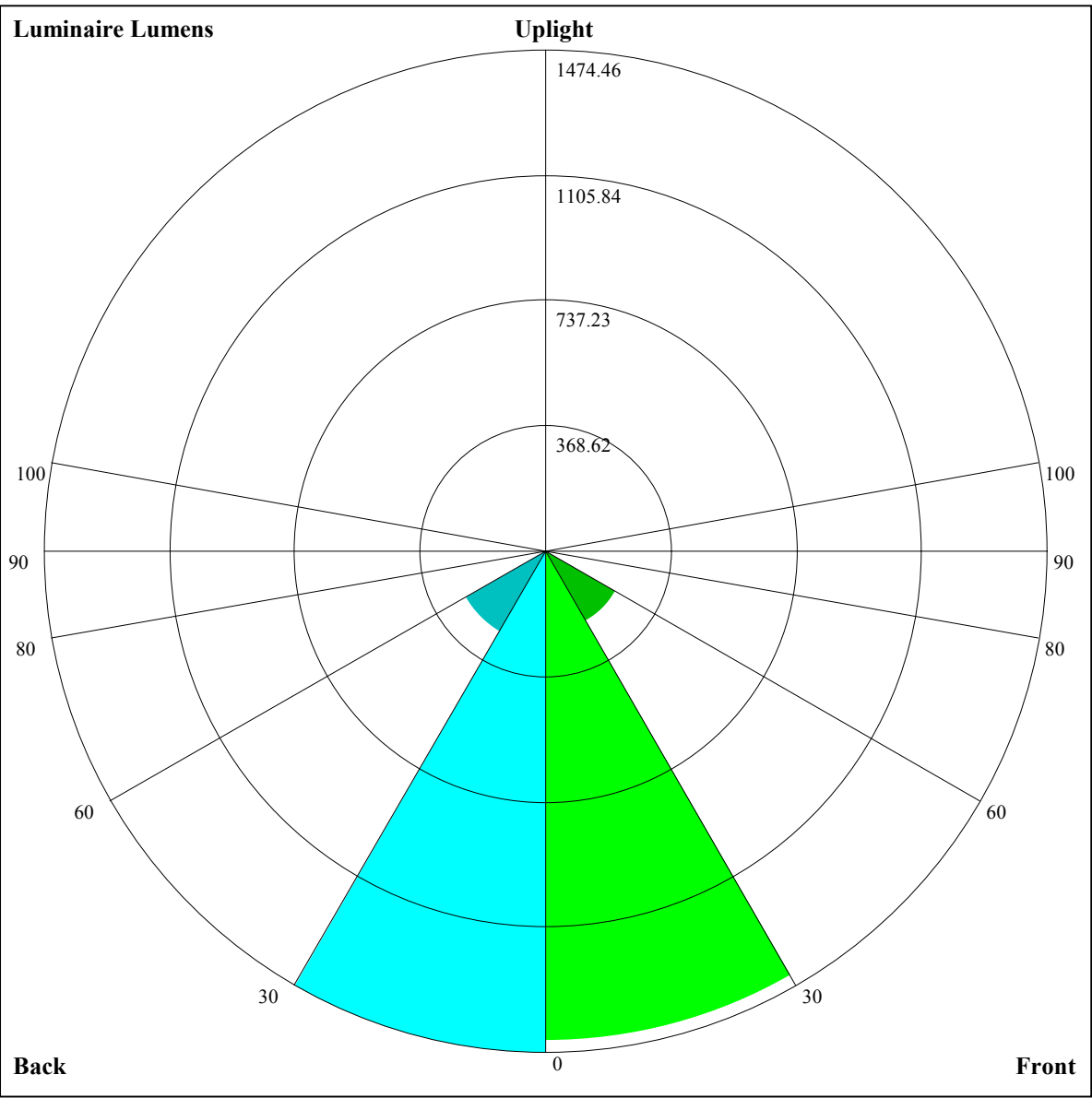
Luminance Limiting Curve





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	1.09	1.09	1.09	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	1.01	1.00	0.99	0.98	0.97	0.96	0.95	0.94	0.93
2	1.03	0.99	0.96	1.01	0.98	0.95	0.98	0.95	0.93	0.95	0.93	0.91	0.92	0.91	0.89	0.88
3	0.97	0.92	0.89	0.95	0.92	0.88	0.93	0.90	0.87	0.91	0.88	0.86	0.89	0.86	0.84	0.83
4	0.92	0.87	0.83	0.91	0.86	0.83	0.88	0.85	0.82	0.87	0.83	0.81	0.85	0.82	0.80	0.79
5	0.87	0.82	0.78	0.86	0.81	0.78	0.84	0.80	0.77	0.83	0.79	0.77	0.81	0.78	0.76	0.75
6	0.83	0.78	0.74	0.82	0.77	0.74	0.81	0.76	0.73	0.79	0.76	0.73	0.78	0.75	0.72	0.71
7	0.79	0.74	0.70	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.72	0.69	0.75	0.71	0.69	0.68
8	0.75	0.70	0.67	0.75	0.70	0.66	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.66	0.65
9	0.72	0.67	0.63	0.71	0.67	0.63	0.71	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.62
10	0.69	0.64	0.61	0.68	0.64	0.61	0.68	0.63	0.60	0.67	0.63	0.60	0.66	0.63	0.60	0.59





Luminaire Lumens:

FL=1442.11,FM=239.54,FH=12.8,FVH=3.97

BL=1474.46,BM=271.09,BH=13.57,BVH=3.99

UL=0,UH=0

BUG Rating:B3-U0-G0

Intensity data(cd)

Appendix Page: 17 Total:19

C/γ(°)	0.0	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0
0.0	6997.81	7012.91	7012.07	6990.26	6959.21	6894.61	6834.20	6723.44	6620.24
45.0	6976.00	6991.94	7012.91	7012.07	7012.07	7002.85	6979.35	6948.31	6882.02
90.0	7000.33	7019.63	7015.43	7010.40	6978.51	6934.88	6872.79	6803.15	6730.15
135.0	6979.35	6996.13	7010.40	6996.97	6979.35	6952.50	6875.31	6807.35	6722.60
180.0	6997.81	6983.55	6963.41	6923.13	6861.88	6793.92	6705.82	6585.00	6465.85
225.0	6976.00	6963.41	6931.53	6892.09	6834.20	6762.04	6652.96	6531.30	6372.71
270.0	7000.33	6978.51	6941.59	6901.32	6841.75	6762.04	6673.10	6546.40	6366.00
315.0	6979.35	6948.31	6866.92	6785.53	6694.91	6536.33	6397.05	6227.56	6038.77
360.0	6997.81	7012.91	7012.07	6990.26	6959.21	6894.61	6834.20	6723.44	6620.24
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	6493.54	6289.65	6104.22	5873.48	5624.28	5270.19	4973.17	4651.81	4242.35
45.0	6811.54	6711.69	6576.60	6409.63	6137.78	5881.87	5567.22	5146.85	4782.70
90.0	6574.93	6426.41	6247.69	6035.41	5736.71	5460.66	5181.25	4869.96	4463.86
135.0	6585.00	6466.69	6326.57	6118.48	5945.63	5739.23	5513.52	5211.46	4956.39
180.0	6325.73	6165.47	5920.46	5708.18	5413.67	5149.37	4884.23	4540.22	4251.58
225.0	6145.33	5928.85	5667.07	5384.31	5002.54	4686.21	4366.53	3962.95	3639.07
270.0	6192.32	5994.30	5696.44	5435.49	5141.82	4781.86	4491.55	4193.69	3821.14
315.0	5776.15	5538.69	5223.21	4963.94	4689.57	4348.07	4073.70	3791.78	3514.89
360.0	6493.54	6289.65	6104.22	5873.48	5624.28	5270.19	4973.17	4651.81	4242.35
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	3922.67	3602.99	3292.54	2930.07	2672.48	2441.74	2192.54	2021.37	1653.53
45.0	4320.38	3952.04	3592.92	3161.65	2841.97	2555.01	2309.17	2045.70	1872.86
90.0	4150.89	3827.86	3436.86	3134.80	2857.07	2546.62	2331.82	2130.45	1826.71
135.0	4695.44	4426.10	4096.36	3822.82	3553.49	3224.58	2983.77	2770.65	2526.48
180.0	3957.07	3666.76	3372.25	3015.65	2756.38	2529.00	2282.32	2109.47	1923.20
225.0	3239.68	2937.62	2656.54	2417.40	2160.65	1989.49	1658.98	1658.98	1583.47
270.0	3526.64	3231.29	2966.15	2655.70	2429.15	2236.17	2061.64	1888.80	1761.26
315.0	3171.72	2934.26	2720.30	2530.68	2318.40	2173.24	2040.67	1898.87	1654.95
360.0	3922.67	3602.99	3292.54	2930.07	2672.48	2441.74	2192.54	2021.37	1653.53
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1653.53	1600.92	1505.69	1378.82	1252.63	1119.89	982.62	803.90	660.34
45.0	1729.38	1606.88	1481.86	1402.99	1324.95	1194.06	1079.95	954.09	798.87
90.0	1653.19	1653.19	1543.61	1416.16	1305.40	1178.79	1048.15	876.31	746.26
135.0	2351.12	2190.02	2023.89	1898.87	1791.47	1679.03	1515.42	1376.97	1222.59
180.0	1793.99	1686.59	1548.14	1431.51	1298.94	1168.05	989.33	845.85	699.02
225.0	1489.41	1398.96	1295.50	1147.74	1022.14	862.30	733.50	601.94	453.01
270.0	1648.83	1530.52	1430.67	1269.58	1139.52	1007.79	865.99	703.21	570.64
315.0	1654.95	1531.28	1395.27	1249.02	1051.25	894.43	740.97	595.73	432.11
360.0	1653.53	1600.92	1505.69	1378.82	1252.63	1119.89	982.62	803.90	660.34
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	524.49	398.47	263.72	173.35	109.50	71.74	60.24	50.76	39.94
45.0	673.01	547.99	429.68	429.68	186.10	112.85	67.80	55.04	47.15
90.0	620.82	470.37	359.20	260.02	162.86	110.67	85.25	70.90	60.33
135.0	1064.01	862.63	707.41	522.82	454.85	454.85	183.59	141.46	120.40
180.0	558.90	432.20	432.20	191.30	119.90	76.94	66.37	56.72	44.72
225.0	340.57	239.05	154.55	84.74	64.02	56.13	45.31	38.09	32.97
270.0	451.50	451.50	212.28	143.56	104.21	86.34	71.99	60.92	49.92
315.0	320.27	234.94	172.93	135.42	120.66	105.55	88.86	78.45	69.64
360.0	524.49	398.47	263.72	173.35	109.50	71.74	60.24	50.76	39.94

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	33.39	29.79	27.02	25.17	23.66	22.32	20.98	20.22	19.47
45.0	39.27	31.72	28.61	27.19	25.59	24.58	23.58	22.57	21.73
90.0	51.27	44.22	38.68	35.58	33.14	31.05	28.70	26.93	25.59
135.0	106.39	88.77	77.19	68.80	61.84	56.80	52.19	48.08	43.71
180.0	37.51	33.23	30.63	28.61	26.77	24.84	23.66	22.49	21.65
225.0	30.54	28.36	26.85	25.59	24.08	22.99	21.90	21.06	20.31
270.0	43.63	39.02	34.74	32.30	30.21	27.86	26.26	24.84	23.75
315.0	63.77	58.40	53.78	48.41	44.72	41.53	38.60	35.32	32.97
360.0	33.39	29.79	27.02	25.17	23.66	22.32	20.98	20.22	19.47
C/γ(°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	18.71	18.12	17.70	17.12	16.70	16.19	15.77	15.44	15.10
45.0	20.98	20.05	19.47	18.88	18.29	17.62	17.12	16.70	16.19
90.0	24.08	22.82	21.40	20.31	19.38	18.46	17.96	17.28	17.12
135.0	40.53	37.67	34.57	32.47	30.46	28.28	26.77	25.42	23.75
180.0	20.72	20.05	19.63	18.88	18.46	18.04	17.54	17.12	16.78
225.0	19.63	18.79	18.21	17.70	17.20	16.70	16.28	16.03	15.77
270.0	22.40	21.40	20.56	19.80	19.05	18.38	17.79	17.28	16.78
315.0	30.88	28.95	26.85	25.34	23.58	22.40	21.23	19.97	18.96
360.0	18.71	18.12	17.70	17.12	16.70	16.19	15.77	15.44	15.10
C/γ(°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	14.85	14.52	14.26	14.01	13.76	13.34	12.92	12.42	11.66
45.0	15.69	15.44	15.02	14.77	14.35	13.93	13.51	13.09	12.50
90.0	16.53	15.94	15.61	15.61	15.52	15.19	14.43	13.59	12.84
135.0	22.57	21.56	20.72	19.55	18.71	17.96	17.20	16.03	15.19
180.0	16.36	16.03	15.69	15.35	14.94	14.43	13.93	13.34	12.42
225.0	15.44	15.10	14.60	14.18	13.76	13.26	12.84	12.25	11.41
270.0	16.45	15.86	15.52	15.02	14.35	13.76	13.26	12.67	11.75
315.0	18.12	17.20	16.28	15.52	14.60	13.51	12.50	11.50	10.66
360.0	14.85	14.52	14.26	14.01	13.76	13.34	12.92	12.42	11.66
C/γ(°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	10.99	10.24	9.65	9.15	8.89	8.73	8.56	8.39	8.14
45.0	12.00	11.41	10.74	9.98	9.57	9.23	9.06	8.81	8.56
90.0	12.08	11.16	10.66	9.98	9.40	9.15	8.89	8.73	8.56
135.0	14.18	13.17	12.17	10.99	10.24	9.57	9.06	8.81	8.64
180.0	11.66	10.66	9.98	9.40	9.06	8.81	8.64	8.31	8.05
225.0	10.74	10.07	9.65	9.31	8.98	8.81	8.56	8.31	8.05
270.0	11.08	10.32	9.57	9.23	8.98	8.81	8.56	8.47	8.22
315.0	9.73	9.23	8.98	8.64	8.39	8.14	7.97	7.72	7.64
360.0	10.99	10.24	9.65	9.15	8.89	8.73	8.56	8.39	8.14
C/γ(°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.89	7.72	7.55	7.38	7.22	7.13	7.05	6.88	6.71
45.0	8.39	8.14	7.89	7.72	7.55	7.30	7.13	6.96	6.80
90.0	8.39	8.14	8.05	7.80	7.64	7.38	7.13	6.80	6.63
135.0	8.39	8.14	7.80	7.64	7.38	7.30	7.13	6.96	6.80
180.0	7.89	7.64	7.47	7.30	7.22	7.05	6.80	6.63	6.46
225.0	7.80	7.72	7.47	7.30	7.13	6.96	6.71	6.63	6.46
270.0	8.05	7.89	7.64	7.47	7.22	6.96	6.71	6.46	6.38
315.0	7.38	7.22	7.13	6.88	6.88	6.63	6.38	6.29	6.29
360.0	7.89	7.72	7.55	7.38	7.22	7.13	7.05	6.88	6.71

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	6.46
45.0	6.54
90.0	6.54
135.0	6.63
180.0	6.29
225.0	6.46
270.0	6.38
315.0	6.29
360.0	6.46