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Nata

Client: NT

LumCAT: 2-2968-LM2

Luminaire: 92.70.121.00

Report No: 20260630-B004

Ballast type: DC

Test No: 20260630-C004

LampCAT: CITIZEN CLU038

Lamp flux(lm): 3547.0

Number of Lamps: 1

Length(mm): 75

Phm Type: C

Voltage(V): 36.890

Current(A): 0.723

Power (W): 26.671

PF: 0.000

Width(mm): 75

Height(mm): 43

Photometric Results

Lumens(lm): 3488.83, Efficiency(%): 98.36% , Luminous Efficacy(lm/W): 130.81

Central intensity(cd): 17282.500, Maximum intensity(cd): 17339.230

Angle of maximum intensity: C=0.0 γ =1.0

Beam Angle(50%Imax): [C0/180]Total=18.0

[C90/270]Total=18.0

Field angle(10%Imax): [C0/180]Total=49.4

[C90/270]Total=49.4

Maximum s/h(1/2): C0_180=0.31 C90_270=0.31

Maximum s/h(1/4): C0_180=0.33 C90_270=0.33

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 98.36%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 99.166%

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	17282.498	0.000	0	0.00%	0.00%
1.0	17339.229	16.566	16.566	0.47%	0.47%
2.0	16852.691	49.075	65.641	1.38%	1.88%
3.0	16334.994	79.374	145.015	2.24%	4.16%
4.0	15527.088	106.653	251.668	3.01%	7.21%
5.0	14438.098	128.909	380.577	3.63%	10.91%
6.0	13152.455	144.996	525.572	4.09%	15.06%
7.0	11660.928	154.016	679.588	4.34%	19.48%
8.0	10171.289	156.249	835.837	4.41%	23.96%
9.0	8712.904	153.046	988.884	4.31%	28.34%
10.0	7337.482	145.250	1134.134	4.10%	32.51%
11.0	6276.391	136.031	1270.164	3.84%	36.41%
12.0	5330.460	126.879	1397.044	3.58%	40.04%
13.0	4679.352	118.791	1515.835	3.35%	43.45%
14.0	4252.588	114.328	1630.163	3.22%	46.73%
15.0	3714.983	109.382	1739.545	3.08%	49.86%
16.0	3423.516	104.599	1844.144	2.95%	52.86%
17.0	3240.497	103.777	1947.921	2.93%	55.83%
18.0	2853.608	100.479	2048.399	2.83%	58.71%
19.0	2627.902	95.367	2143.767	2.69%	61.45%
20.0	2420.131	92.393	2236.16	2.60%	64.09%
21.0	2248.544	89.648	2325.808	2.53%	66.66%
22.0	2063.323	86.649	2412.456	2.44%	69.15%
23.0	1931.601	83.824	2496.281	2.36%	71.55%
24.0	1830.789	82.259	2578.54	2.32%	73.91%
25.0	1695.418	80.178	2658.718	2.26%	76.21%
26.0	1628.492	78.461	2737.179	2.21%	78.46%
27.0	1540.968	77.542	2814.721	2.19%	80.68%
28.0	1451.032	75.751	2890.472	2.14%	82.85%
29.0	1360.823	73.566	2964.038	2.07%	84.96%
30.0	1254.336	70.609	3034.647	1.99%	86.98%
31.0	1132.463	66.421	3101.068	1.87%	88.89%
32.0	998.445	61.048	3162.116	1.72%	90.64%
33.0	871.035	55.076	3217.192	1.55%	92.21%
34.0	737.992	48.694	3265.886	1.37%	93.61%
35.0	604.729	41.700	3307.585	1.18%	94.81%
36.0	485.499	34.713	3342.299	0.98%	95.80%
37.0	377.900	28.159	3370.458	0.79%	96.61%

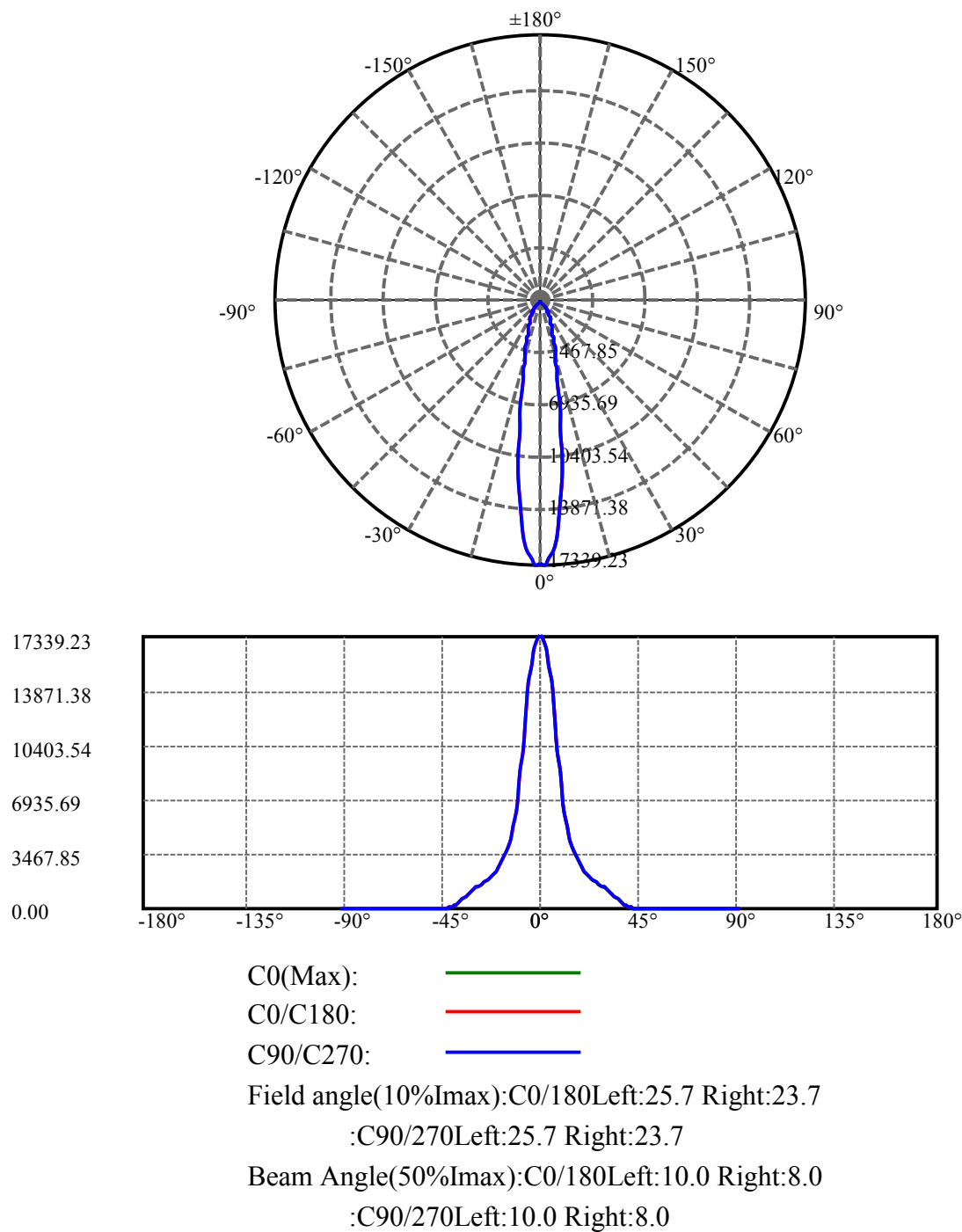
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
38.0	252.587	21.045	3391.503	0.59%	97.21%
39.0	195.437	15.292	3406.795	0.43%	97.65%
40.0	147.296	11.953	3418.748	0.34%	97.99%
41.0	74.498	7.898	3426.646	0.22%	98.22%
42.0	53.353	4.645	3431.291	0.13%	98.35%
43.0	41.554	3.516	3434.807	0.10%	98.45%
44.0	33.583	2.836	3437.643	0.08%	98.53%
45.0	27.112	2.333	3439.975	0.07%	98.60%
46.0	22.822	1.953	3441.928	0.06%	98.66%
47.0	19.854	1.697	3443.626	0.05%	98.70%
48.0	17.767	1.521	3445.146	0.04%	98.75%
49.0	16.183	1.394	3446.541	0.04%	98.79%
50.0	15.103	1.304	3447.845	0.04%	98.83%
51.0	14.191	1.239	3449.084	0.03%	98.86%
52.0	13.635	1.194	3450.278	0.03%	98.90%
53.0	13.215	1.168	3451.446	0.03%	98.93%
54.0	12.995	1.155	3452.602	0.03%	98.96%
55.0	12.838	1.153	3453.755	0.03%	98.99%
56.0	12.806	1.159	3454.913	0.03%	99.03%
57.0	12.827	1.172	3456.085	0.03%	99.06%
58.0	12.848	1.187	3457.273	0.03%	99.10%
59.0	13.110	1.214	3458.486	0.03%	99.13%
60.0	13.383	1.252	3459.738	0.04%	99.17%
61.0	13.792	1.297	3461.035	0.04%	99.20%
62.0	14.138	1.346	3462.381	0.04%	99.24%
63.0	14.138	1.375	3463.756	0.04%	99.28%
64.0	13.740	1.368	3465.124	0.04%	99.32%
65.0	12.859	1.316	3466.44	0.04%	99.36%
66.0	11.694	1.225	3467.665	0.03%	99.39%
67.0	10.792	1.131	3468.796	0.03%	99.43%
68.0	10.079	1.057	3469.853	0.03%	99.46%
69.0	9.681	1.008	3470.861	0.03%	99.48%
70.0	9.376	0.979	3471.84	0.03%	99.51%
71.0	9.156	0.958	3472.798	0.03%	99.54%
72.0	8.957	0.942	3473.74	0.03%	99.57%
73.0	8.821	0.930	3474.669	0.03%	99.59%
74.0	8.726	0.922	3475.592	0.03%	99.62%
75.0	8.632	0.917	3476.509	0.03%	99.65%

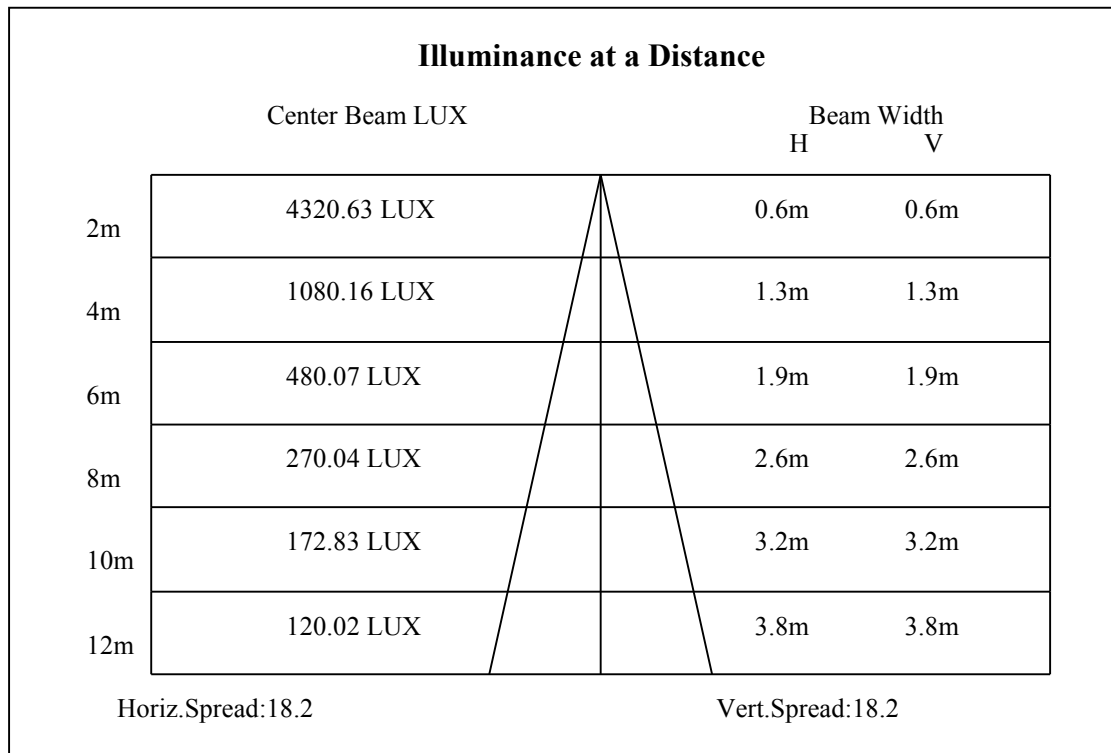
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
76.0	8.485	0.909	3477.418	0.03%	99.67%
77.0	8.338	0.897	3478.314	0.03%	99.70%
78.0	8.170	0.884	3479.198	0.02%	99.72%
79.0	8.086	0.873	3480.072	0.02%	99.75%
80.0	7.971	0.866	3480.937	0.02%	99.77%
81.0	7.877	0.857	3481.794	0.02%	99.80%
82.0	7.772	0.849	3482.643	0.02%	99.82%
83.0	7.667	0.839	3483.482	0.02%	99.85%
84.0	7.457	0.824	3484.306	0.02%	99.87%
85.0	7.216	0.801	3485.107	0.02%	99.89%
86.0	7.027	0.779	3485.885	0.02%	99.92%
87.0	6.828	0.758	3486.644	0.02%	99.94%
88.0	6.702	0.741	3487.385	0.02%	99.96%
89.0	6.587	0.728	3488.113	0.02%	99.98%
90.0	6.482	0.717	3488.83	0.02%	100.00%

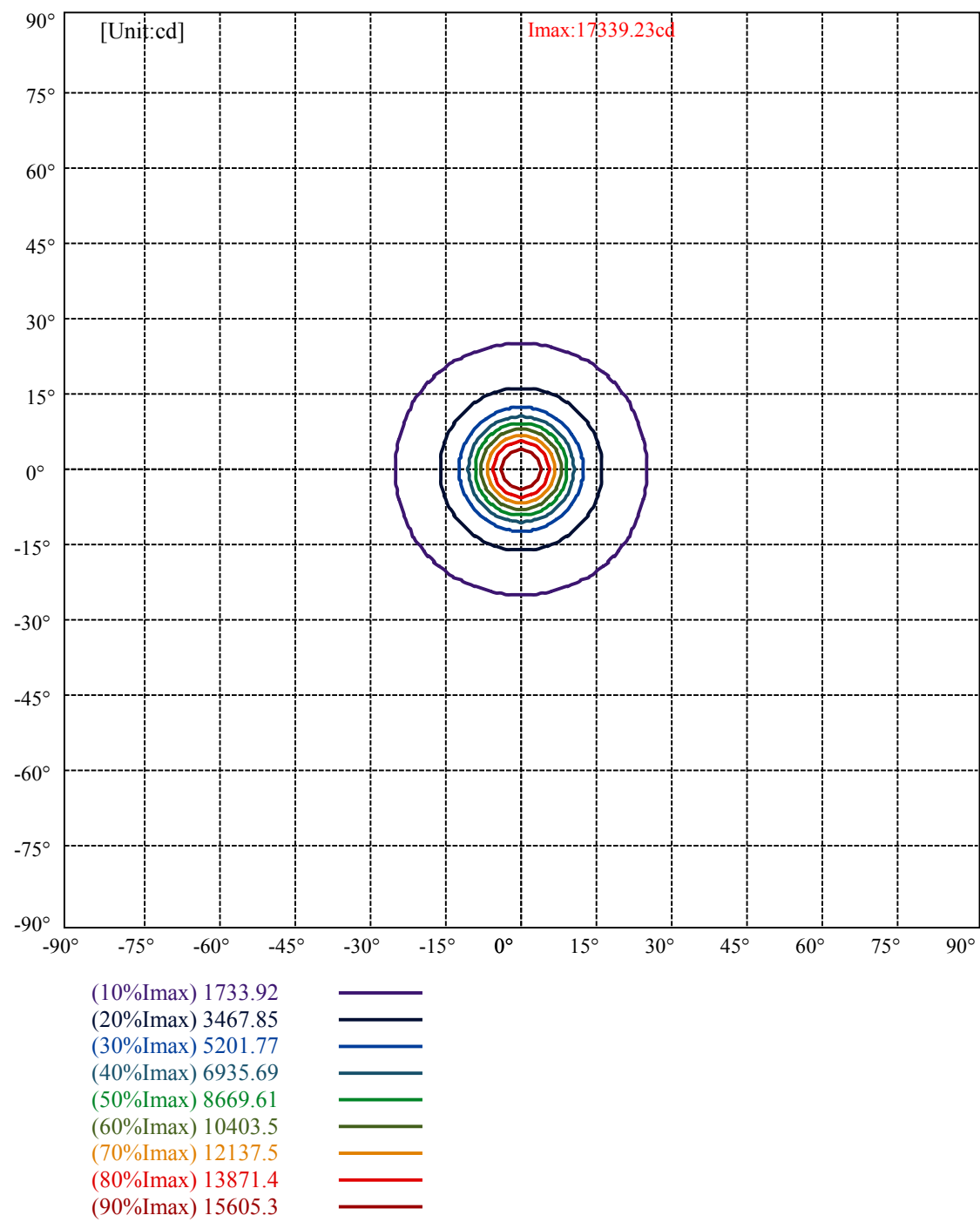
ZONAL LUMEN SUMMARY			
Zone	Lumens	%Lamp	%Fixt
0-30	3034.65	85.56%	86.98%
0-40	3418.75	96.38%	97.99%
0-60	3459.74	97.54%	99.17%
0-90	3488.11	98.34%	99.98%
0-120	3488.11	98.34%	99.98%
0-180	3488.83	98.36%	100.00%
60-90	28.38	0.80%	0.81%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.69	2791.06	78.69%	80.00%

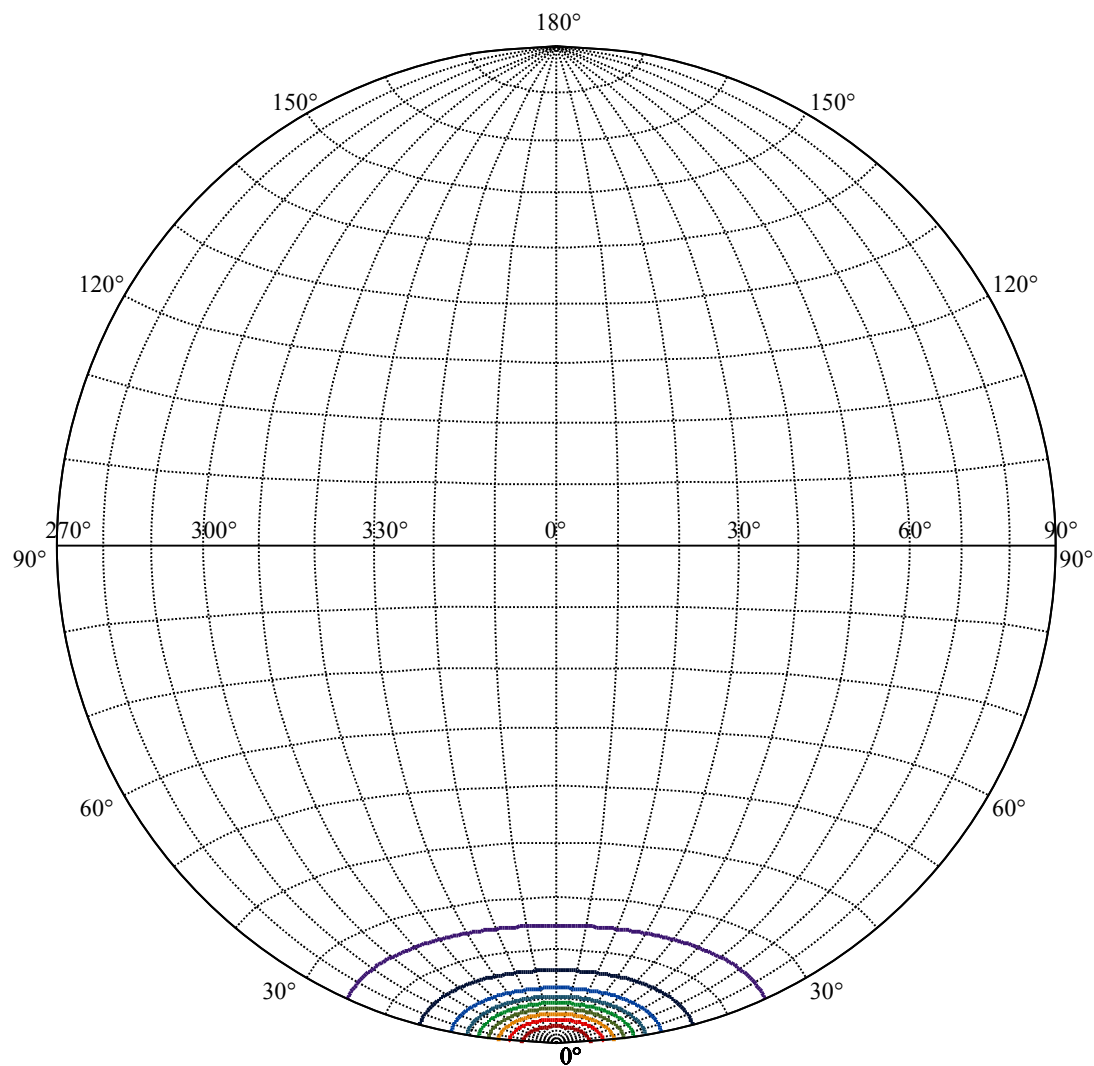
ZONAL LUMEN SUMMARY

0-10	1134.13
10-20	1102.03
20-30	798.49
30-40	384.10
40-50	29.10
50-60	11.89
60-70	12.10
70-80	9.10
80-90	7.18
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







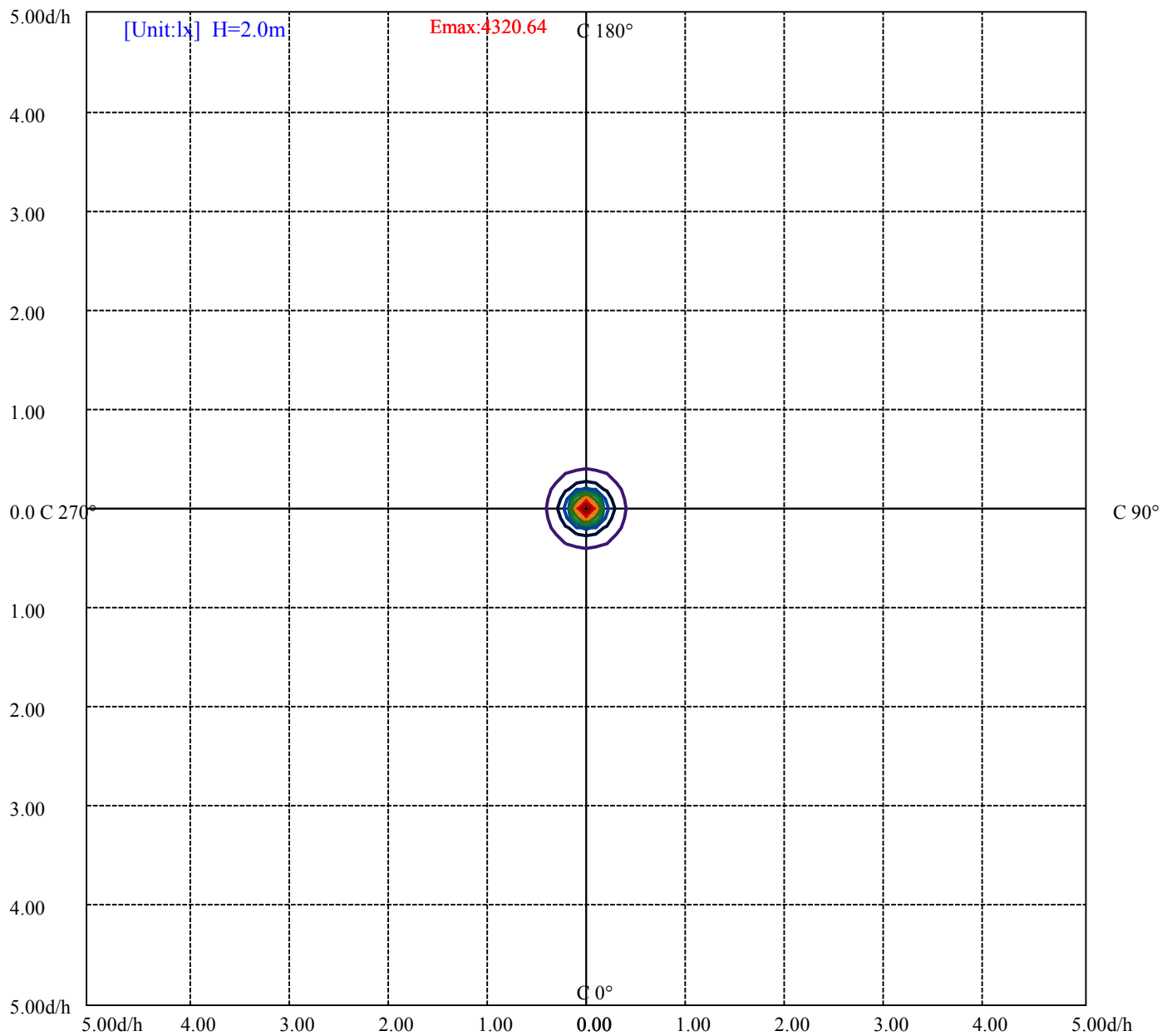


House

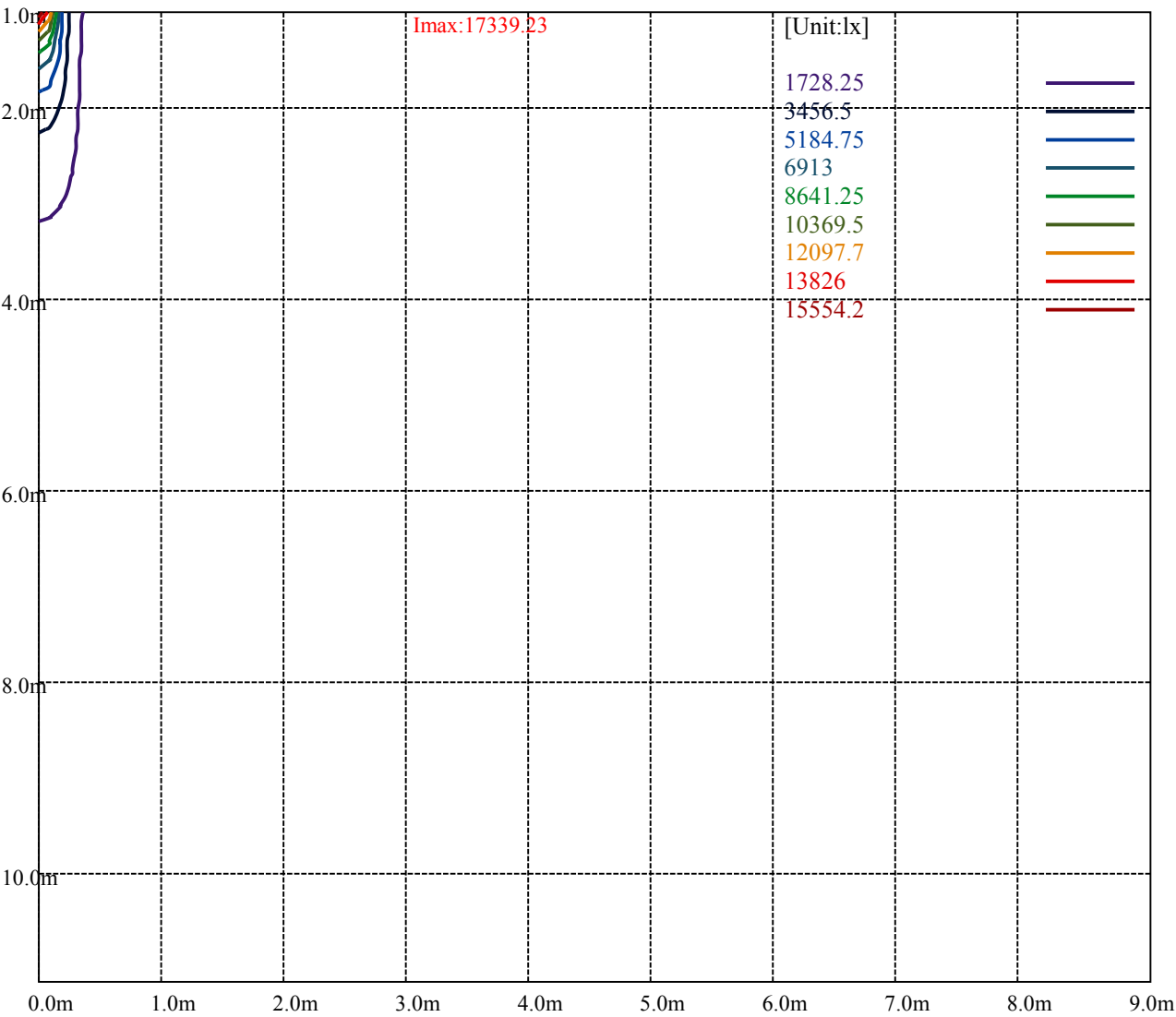
[Unit:cd]

Road

Imax:17339.23	
(10%Imax)	1733.92
(20%Imax)	3467.85
(30%Imax)	5201.77
(40%Imax)	6935.69
(50%Imax)	8669.61
(60%Imax)	10403.5
(70%Imax)	12137.5
(80%Imax)	13871.4
(90%Imax)	15605.3



(10%Emax)	432.0625	—
(20%Emax)	864.125	—
(30%Emax)	1296.188	—
(40%Emax)	1728.25	—
(50%Emax)	2160.313	—
(60%Emax)	2592.375	—
(70%Emax)	3024.45	—
(80%Emax)	3456.5	—
(90%Emax)	3888.575	—



Luminance Table

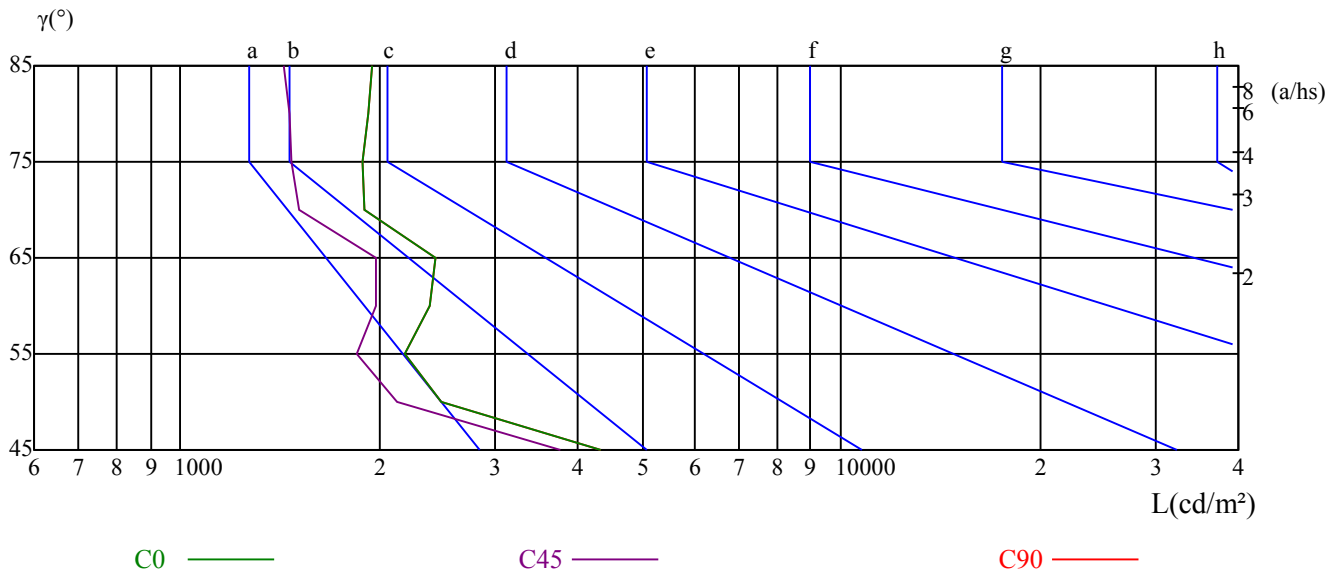
γ	45	50	55	60	65	70	75	80	85
C0	4332	2482	2188	2387	2426	1893	1888	1919	1949
C45	3764	2124	1844	1979	1975	1510	1473	1458	1434
C90	4332	2482	2188	2387	2426	1893	1888	1919	1949

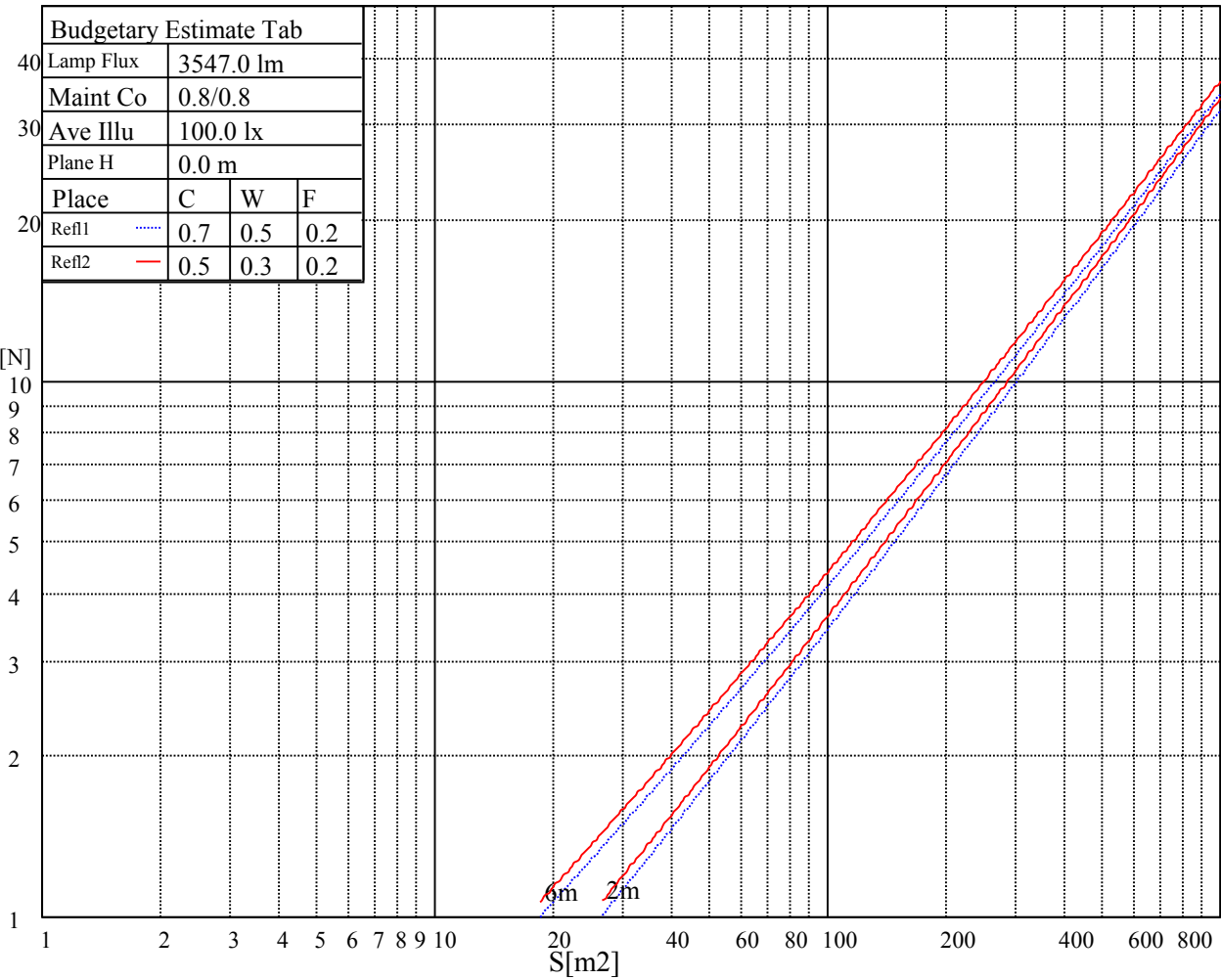
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5409	5409	5409	5929	5929	5929	14719	14719	14719

Glare Table

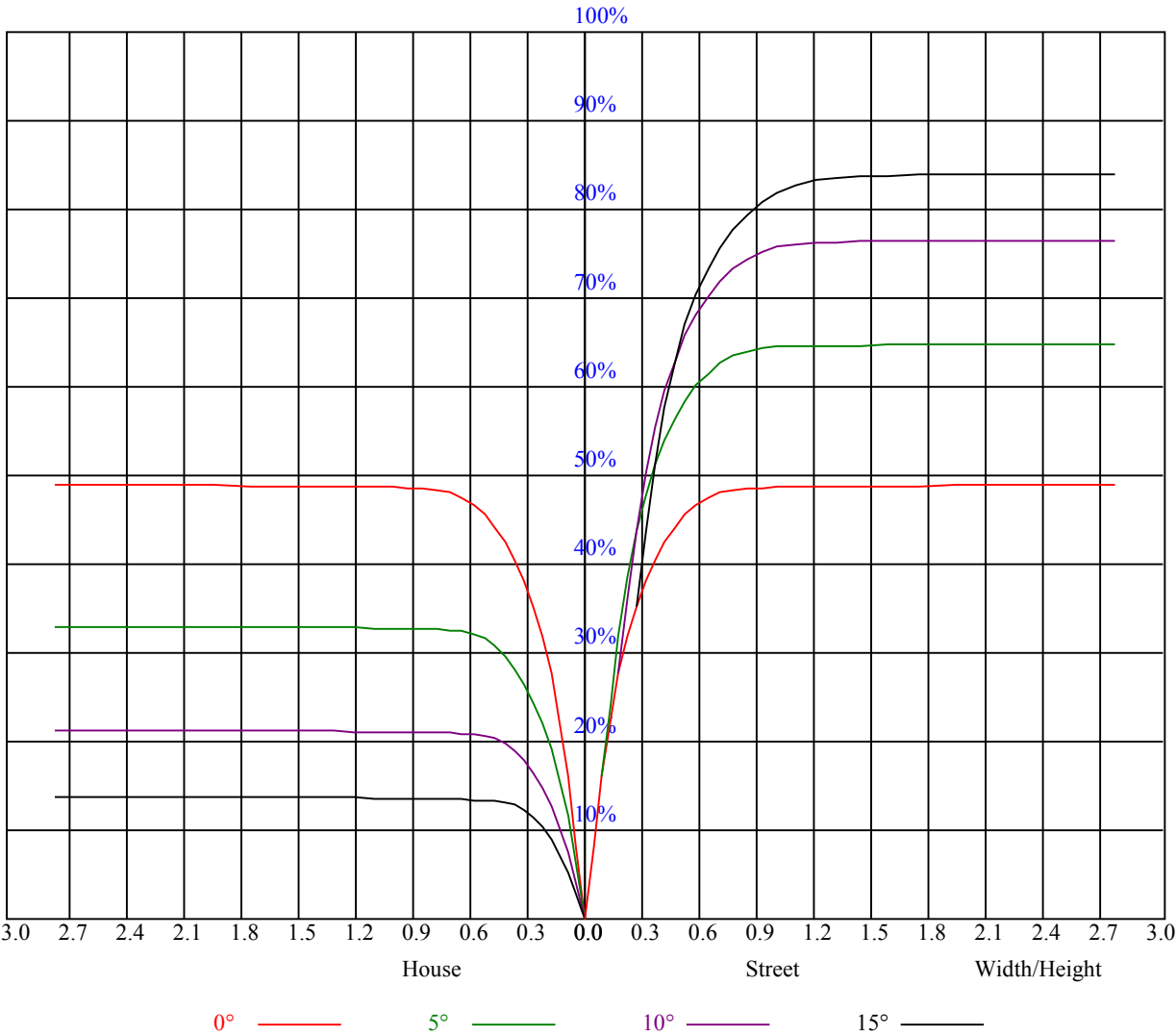
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

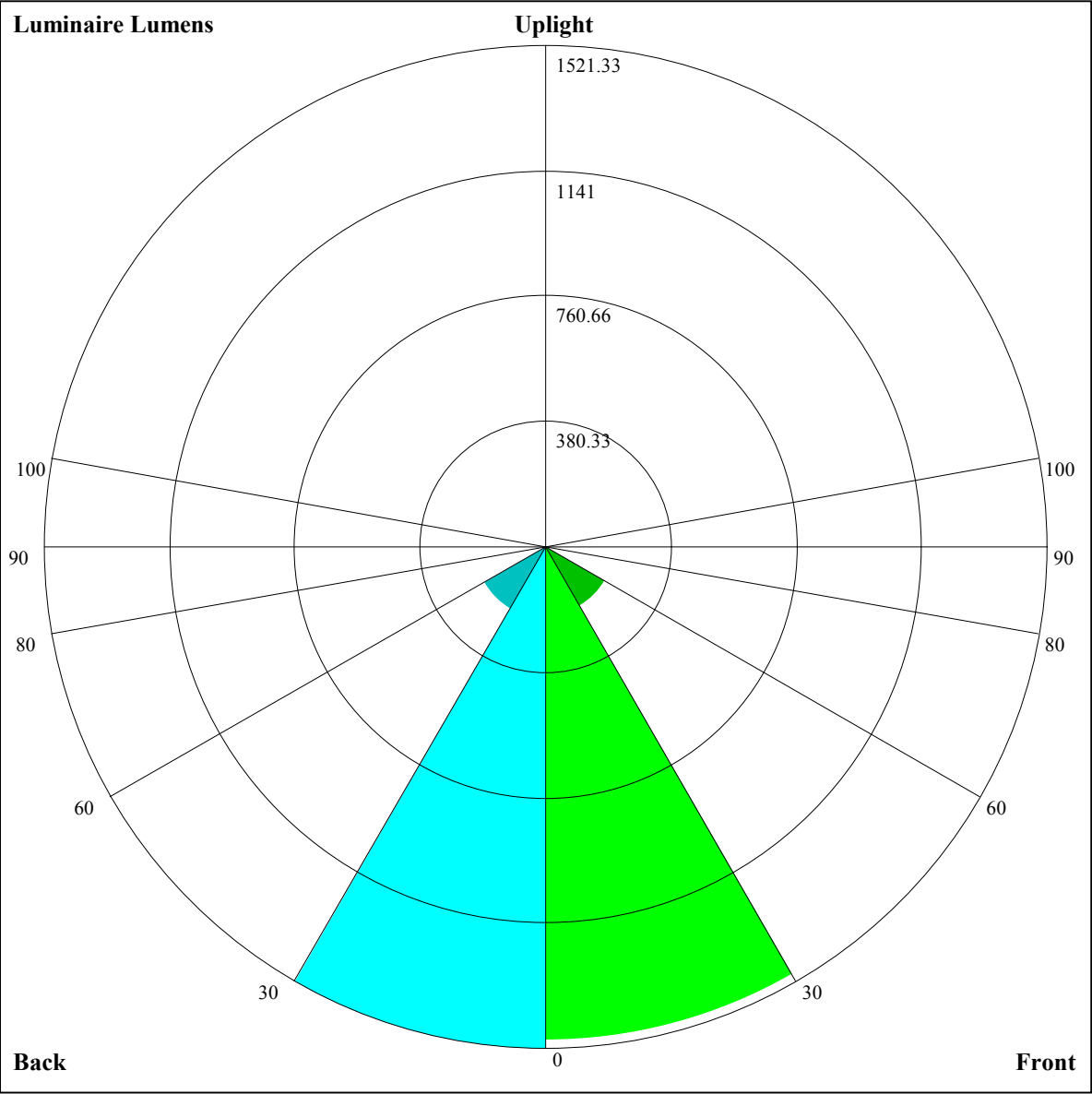
Luminance Limiting Curve





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	1.17	1.17	1.17	1.14	1.14	1.14	1.09	1.09	1.09	1.05	1.05	1.05	1.00	1.00	1.00	0.98
1	1.10	1.08	1.06	1.08	1.06	1.05	1.04	1.03	1.02	1.01	1.00	0.99	0.97	0.96	0.96	0.94
2	1.04	1.01	0.98	1.03	1.00	0.97	1.00	0.97	0.95	0.97	0.95	0.93	0.94	0.93	0.91	0.90
3	0.99	0.95	0.92	0.98	0.94	0.92	0.96	0.93	0.90	0.93	0.91	0.89	0.91	0.89	0.87	0.86
4	0.95	0.90	0.87	0.94	0.90	0.87	0.92	0.88	0.86	0.90	0.87	0.85	0.88	0.86	0.84	0.82
5	0.91	0.86	0.83	0.90	0.86	0.82	0.88	0.85	0.82	0.87	0.84	0.81	0.85	0.83	0.80	0.79
6	0.87	0.82	0.79	0.86	0.82	0.79	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.80	0.77	0.76
7	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.75	0.80	0.77	0.75	0.73
8	0.81	0.76	0.73	0.80	0.76	0.73	0.79	0.75	0.72	0.78	0.75	0.72	0.77	0.74	0.72	0.71
9	0.78	0.73	0.70	0.77	0.73	0.70	0.76	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.68
10	0.75	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.68	0.73	0.70	0.67	0.73	0.70	0.67	0.66





Luminaire Lumens:
FL=1498.37,FM=208.24,FH=11.03,FVH=3.92
BL=1521.33,BM=216.76,BH=11.47,BVH=3.98
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	17960.83	17784.63	16613.39	16613.39	15645.12	14662.59	13480.36	11745.19	10298.66
45.0	16704.85	17843.36	17851.76	17566.48	16987.53	16148.47	15158.39	13723.60	12523.75
90.0	17751.07	17918.88	16724.15	16724.15	16539.56	15640.09	14438.56	13080.97	11706.59
135.0	16713.24	16713.24	17885.32	17843.36	17616.82	16819.72	16022.61	14906.67	13497.05
180.0	17960.83	17751.07	17348.32	16609.95	15586.30	14512.31	13144.65	11810.55	9947.85
225.0	16704.85	16704.85	16240.01	15371.59	14247.25	12623.68	11170.44	9586.30	7686.68
270.0	17751.07	17507.74	16878.45	15930.32	14822.76	13664.87	12305.60	10468.06	8982.93
315.0	16713.24	16490.05	15280.13	14020.71	12771.36	11433.06	9499.04	7966.08	6726.80
360.0	17960.83	17784.63	16613.39	16613.39	15645.12	14662.59	13480.36	11745.19	10298.66
C/γ(°)	9.0	10.0	11.0	12.0	13.0	14.0	15.0	16.0	17.0
0.0	8801.78	7107.73	6129.39	5358.30	4773.47	4156.77	3777.51	3455.32	3184.30
45.0	11097.35	9201.09	7850.21	6683.92	5601.54	4972.25	4460.42	4225.49	4225.49
90.0	9855.64	8345.33	6995.29	5758.53	5055.40	4352.27	3913.44	3559.36	3274.08
135.0	12162.96	10711.39	9175.92	7254.48	6096.58	5274.31	4636.62	4233.88	4233.88
180.0	8345.25	6910.47	5593.15	4879.95	4292.61	4292.61	3405.81	3132.28	2860.43
225.0	6423.90	5383.47	4774.31	4234.80	3816.11	3440.21	3184.30	2959.43	2748.83
270.0	7229.31	6121.75	5324.65	4544.33	4275.83	4275.83	3368.05	3058.44	2838.61
315.0	5787.05	4918.63	4368.21	3929.38	3523.28	3256.46	2973.70	2763.93	2558.37
360.0	8801.78	7107.73	6129.39	5358.30	4773.47	4156.77	3777.51	3455.32	3184.30
C/γ(°)	18.0	19.0	20.0	21.0	22.0	23.0	24.0	25.0	26.0
0.0	2901.54	2683.38	2445.93	2283.16	2134.64	1976.06	1866.98	1652.35	1652.35
45.0	3345.40	3110.46	2841.97	2636.40	2452.64	2285.67	2105.28	1978.58	1863.63
90.0	3041.66	2763.93	2563.40	2365.38	2194.22	2007.11	1890.48	1663.68	1663.68
135.0	3337.01	3098.72	2841.97	2643.11	2392.23	2228.62	2080.94	1929.07	1825.03
180.0	2662.41	2468.59	2307.49	2112.83	1976.06	1866.14	1767.97	1670.64	1590.10
225.0	2546.62	2311.68	2143.03	2006.27	1793.99	1669.05	1669.05	1564.34	1495.20
270.0	2628.01	2427.47	2201.77	2044.02	1911.45	1768.81	1670.64	1586.74	1485.21
315.0	2366.22	2158.97	2015.50	1897.19	1651.35	1651.35	1594.96	1517.94	1452.74
360.0	2901.54	2683.38	2445.93	2283.16	2134.64	1976.06	1866.98	1652.35	1652.35
C/γ(°)	27.0	28.0	29.0	30.0	31.0	32.0	33.0	34.0	35.0
0.0	1574.24	1495.03	1427.32	1322.69	1208.24	1084.06	953.67	777.64	638.61
45.0	1740.29	1653.86	1560.73	1456.69	1371.10	1227.62	1105.96	971.71	842.50
90.0	1570.80	1468.77	1378.74	1285.85	1157.73	1044.79	927.41	806.42	652.11
135.0	1732.73	1626.17	1548.98	1477.66	1407.18	1294.75	1191.54	1070.72	937.31
180.0	1522.13	1451.65	1374.46	1274.61	1120.22	1001.08	839.98	707.41	572.32
225.0	1409.28	1322.35	1208.91	1091.95	933.03	803.40	675.78	547.40	398.47
270.0	1413.05	1318.24	1223.43	1115.19	988.49	833.27	710.76	590.78	479.18
315.0	1365.23	1272.18	1164.02	1010.06	873.71	698.60	563.17	431.86	317.33
360.0	1574.24	1495.03	1427.32	1322.69	1208.24	1084.06	953.67	777.64	638.61
C/γ(°)	36.0	37.0	38.0	39.0	40.0	41.0	42.0	43.0	44.0
0.0	505.11	356.26	250.88	163.45	90.11	63.01	52.36	39.77	30.88
45.0	705.73	543.79	422.97	422.97	285.36	108.57	72.66	57.56	45.23
90.0	531.12	415.67	310.12	196.67	125.44	84.58	62.34	52.36	41.87
135.0	769.50	631.89	497.64	433.04	433.04	146.16	84.16	61.08	51.69
180.0	438.07	438.07	196.26	119.15	75.18	56.89	45.73	36.00	27.94
225.0	289.39	196.26	105.30	70.15	56.05	43.55	34.23	26.93	21.90
270.0	448.98	314.81	156.99	100.69	65.11	54.62	44.81	33.73	27.69
315.0	196.09	126.45	80.55	57.39	48.08	38.60	30.54	25.00	21.48
360.0	505.11	356.26	250.88	163.45	90.11	63.01	52.36	39.77	30.88

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	24.08	20.22	17.54	15.86	14.35	13.01	11.83	11.33	10.91
45.0	35.41	27.44	21.90	19.47	17.28	15.77	14.43	13.34	12.59
90.0	32.14	26.93	24.08	20.81	18.46	17.03	15.52	15.02	14.68
135.0	39.94	31.21	25.00	21.56	19.13	17.79	16.36	15.27	14.10
180.0	21.90	18.96	17.28	15.69	14.43	12.92	12.25	11.83	11.50
225.0	19.47	17.96	16.45	14.94	13.93	13.42	13.01	12.59	12.33
270.0	24.00	21.56	19.55	17.96	16.61	16.03	15.61	15.52	15.69
315.0	19.97	18.29	17.03	15.86	15.27	14.85	14.52	14.18	13.93
360.0	24.08	20.22	17.54	15.86	14.35	13.01	11.83	11.33	10.91
C/ γ (°)	54.0	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0
0.0	10.57	10.40	10.24	10.15	10.07	9.98	9.90	9.82	9.73
45.0	12.17	11.75	11.50	11.08	10.82	10.66	10.49	10.57	10.49
90.0	14.43	14.35	14.43	14.68	15.02	16.03	17.28	19.30	20.47
135.0	13.51	12.92	12.50	12.25	11.91	11.66	11.58	11.50	11.33
180.0	11.33	11.33	11.33	11.33	11.33	11.33	11.24	11.24	11.16
225.0	12.33	12.33	12.42	12.42	12.42	12.33	12.17	11.91	11.66
270.0	15.94	16.28	16.95	17.70	18.29	20.05	21.82	23.75	26.51
315.0	13.68	13.34	13.09	13.01	12.92	12.84	12.59	12.25	11.75
360.0	10.57	10.40	10.24	10.15	10.07	9.98	9.90	9.82	9.73
C/ γ (°)	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0
0.0	9.65	9.57	9.48	9.40	9.31	9.06	8.98	8.81	8.73
45.0	9.98	9.82	9.73	9.48	9.31	8.98	8.47	8.31	8.22
90.0	21.82	22.32	20.64	17.62	14.35	11.33	10.15	9.90	9.73
135.0	11.33	11.16	10.91	10.49	10.15	9.90	9.65	9.40	9.23
180.0	11.08	10.99	10.74	10.57	10.32	10.15	9.90	9.65	9.40
225.0	11.58	11.41	11.08	10.74	10.40	10.07	9.73	9.40	8.98
270.0	26.26	23.58	19.72	15.02	12.59	11.58	11.33	10.74	10.57
315.0	11.41	11.08	10.57	10.24	9.90	9.57	9.23	8.81	8.39
360.0	9.65	9.57	9.48	9.40	9.31	9.06	8.98	8.81	8.73
C/ γ (°)	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0
0.0	8.56	8.31	8.22	8.14	7.97	7.97	7.80	7.80	7.72
45.0	8.05	7.97	7.89	7.80	7.72	7.64	7.64	7.55	7.47
90.0	9.65	9.82	9.90	9.90	9.73	9.40	8.98	8.64	8.39
135.0	8.98	8.81	8.56	8.39	8.22	8.14	8.05	8.05	7.97
180.0	9.15	8.89	8.73	8.56	8.47	8.39	8.31	8.22	8.14
225.0	8.64	8.56	8.47	8.39	8.39	8.31	8.14	8.14	8.05
270.0	10.40	10.15	10.07	9.98	9.57	9.15	8.81	8.64	8.47
315.0	8.22	8.05	7.97	7.89	7.80	7.72	7.64	7.64	7.55
360.0	8.56	8.31	8.22	8.14	7.97	7.97	7.80	7.80	7.72
C/ γ (°)	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0
0.0	7.64	7.64	7.55	7.55	7.38	7.22	7.13	6.96	6.71
45.0	7.47	7.38	7.38	7.38	7.22	7.05	6.88	6.80	6.80
90.0	8.22	8.05	7.89	7.55	7.38	7.05	6.88	6.71	6.63
135.0	7.80	7.72	7.72	7.64	7.64	7.47	7.13	7.05	6.88
180.0	8.14	8.05	7.89	7.89	7.22	7.05	6.88	6.71	6.38
225.0	7.97	7.89	7.72	7.05	6.96	6.80	6.63	6.46	6.38
270.0	8.22	7.97	7.80	7.55	6.96	6.80	6.63	6.46	6.46
315.0	7.55	7.47	7.38	7.05	6.96	6.80	6.46	6.46	6.46
360.0	7.64	7.64	7.55	7.55	7.38	7.22	7.13	6.96	6.71

Intensity data(cd)

C/ $\gamma(^{\circ})$	90.0
0.0	6.46
45.0	6.54
90.0	6.46
135.0	6.71
180.0	6.38
225.0	6.46
270.0	6.46
315.0	6.38
360.0	6.46