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Nata

LumCAT: LN01D03536EE-N

Luminaire: 92.70.307.00

Report No: 210519-B011

Test No: 210519-C011

LampCAT: CITIZEN CLU7B2 LES3.3

Lamp flux(lm): 399.2

Number of Lamps: 1

Length(mm): 74

Phm Type: C

Voltage(V): 221.4000

Current(A): 0.0530

Power (W): 5.4000

PF: 0.4580

Ballast type: DC

Width(mm): 74

Height(mm): 56

Photometric Results

Lumens(lm): 273.44

Efficiency(%): 68.50%

Lumens(lm)/Power(W): 50.64

Central intensity(cd): 526.092

Maximum intensity(cd): 526.092

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.3

[C90/270]Total=37.3

Field angle(10%Imax): [C0/180]Total=66.0

[C90/270]Total=66.0

Maximum s/h(1/2): C0_180=0.61 C90_270=0.61

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 68.50%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 93.170%

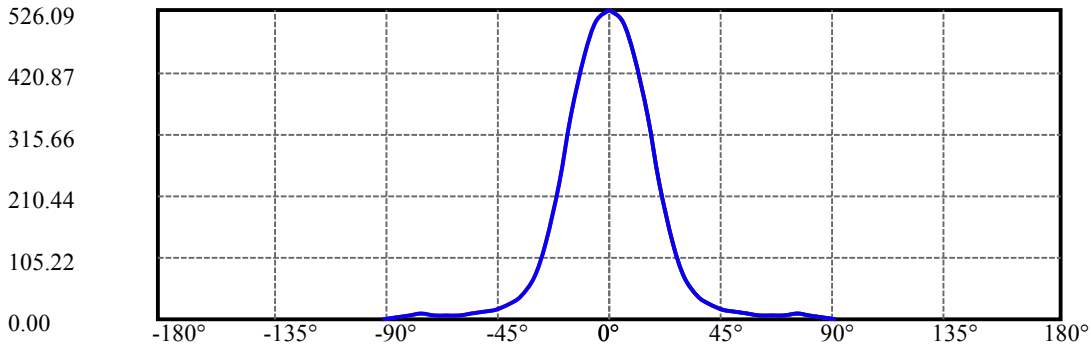
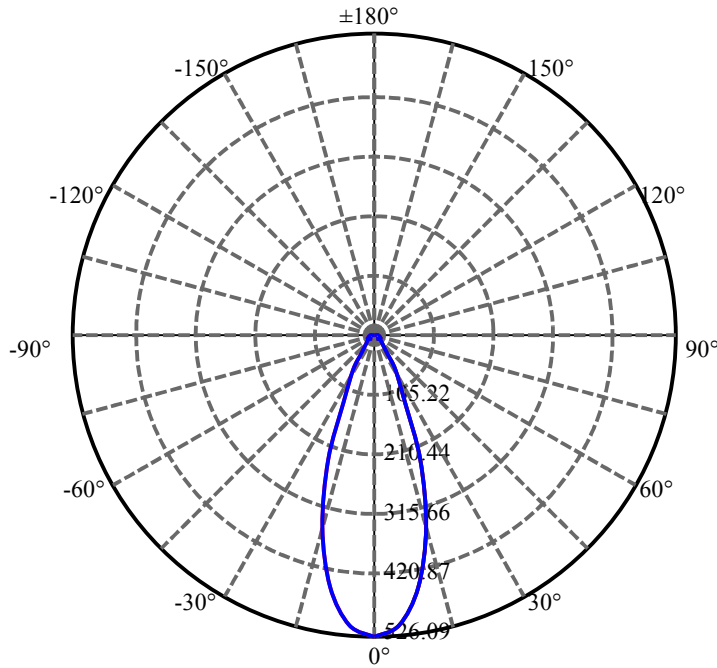
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	526.092	0.000	0	.000%	.000%
5.0	506.623	12.346	12.346	3.093%	4.515%
10.0	447.138	34.119	46.465	8.547%	16.993%
15.0	346.113	47.055	93.52	11.787%	34.201%
20.0	232.109	47.654	141.174	11.937%	51.629%
25.0	129.396	37.915	179.089	9.498%	65.495%
30.0	70.453	25.291	204.38	6.335%	74.744%
35.0	40.472	16.334	220.714	4.092%	80.718%
40.0	25.763	11.051	231.765	2.768%	84.759%
45.0	17.304	7.974	239.739	1.998%	87.676%
50.0	12.741	6.071	245.81	1.521%	89.896%
55.0	9.731	4.886	250.696	1.224%	91.683%
60.0	7.868	4.068	254.764	1.019%	93.170%
65.0	6.469	3.485	258.25	.873%	94.445%
70.0	6.947	3.397	261.646	.851%	95.687%
75.0	9.084	4.190	265.837	1.050%	97.220%
80.0	6.553	4.184	270.021	1.048%	98.750%
85.0	2.341	2.417	272.438	.605%	99.634%
90.0	1.315	1.001	273.439	.251%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	204.38	51.20%	74.74%
0-40	231.77	58.06%	84.76%
0-60	254.76	63.82%	93.17%
0-90	272.44	68.25%	99.63%
0-120	272.44	68.25%	99.63%
0-180	273.44	68.50%	100.00%
60-90	21.74	5.45%	7.95%
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%
0-34.40	218.75	54.80%	80.00%

ZONAL LUMEN SUMMARY

0-10	46.46
10-20	94.71
20-30	63.21
30-40	27.39
40-50	14.05
50-60	8.95
60-70	6.88
70-80	8.37
80-90	2.42
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



C0(Max): —————

C0/C180: —————

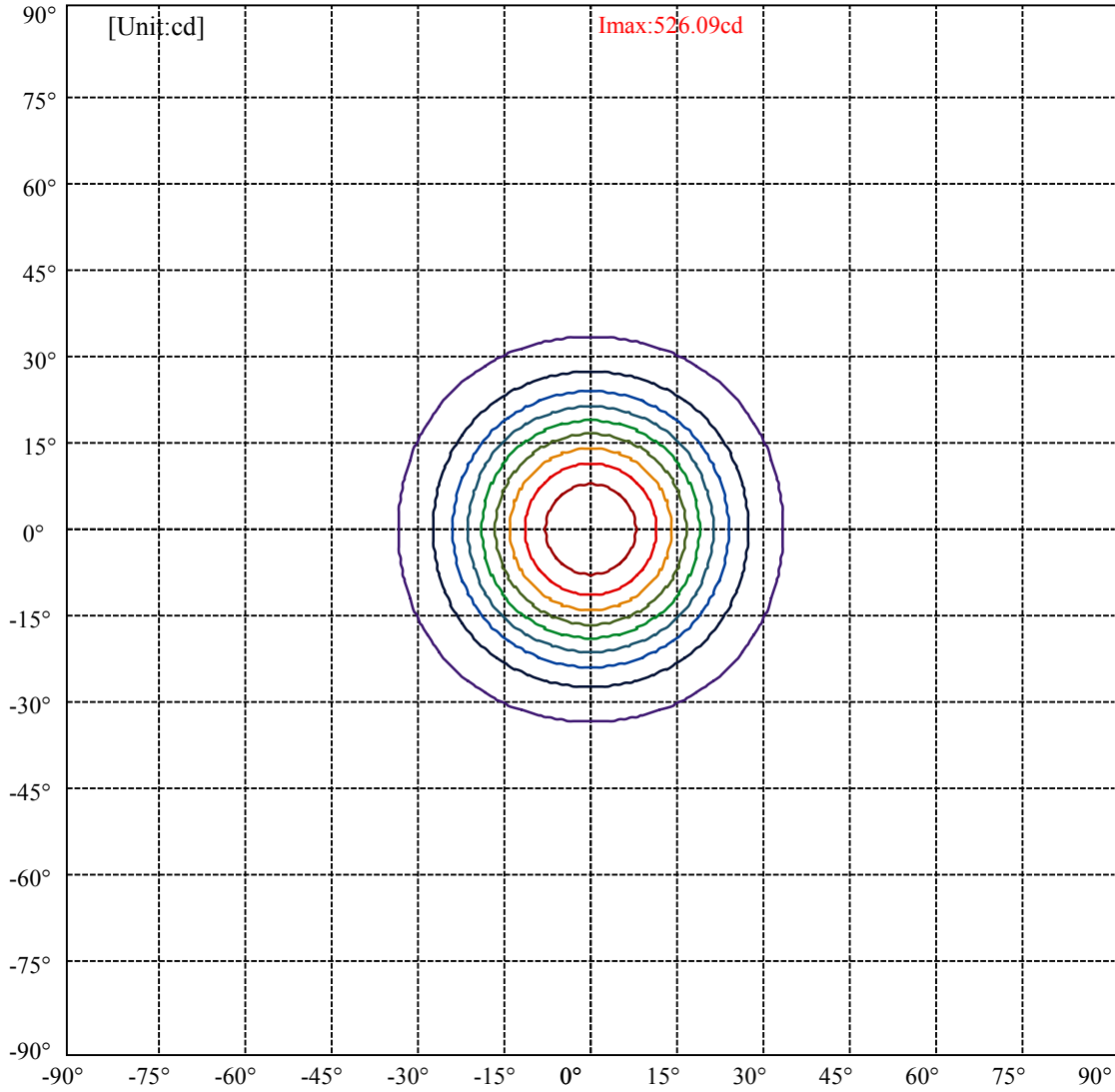
C90/C270: —————

Field angle(10%Imax):C0/180Left:33.0 Right:33.0

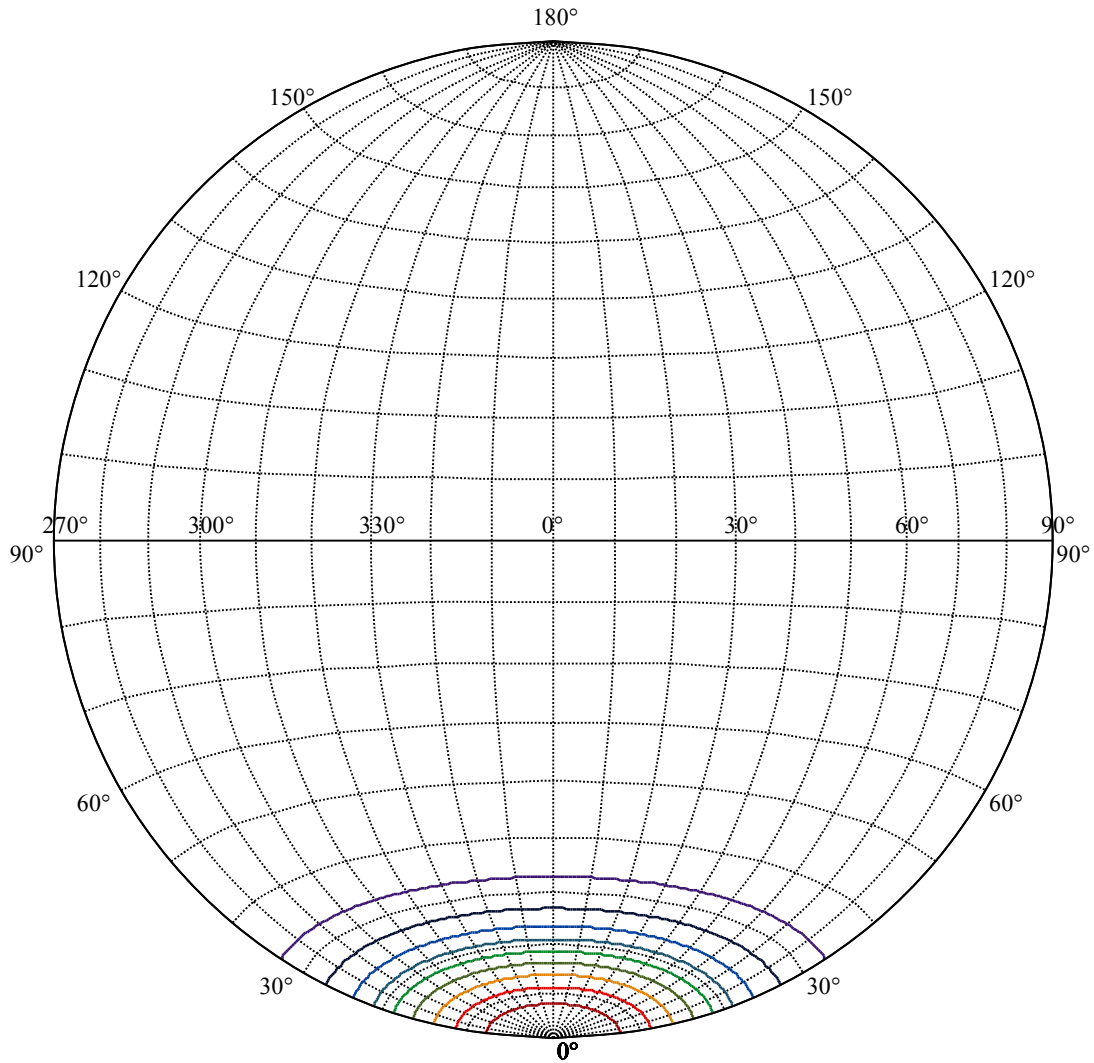
:C90/270Left:33.0 Right:33.0

Beam Angle(50%Imax):C0/180Left:18.6 Right:18.6

:C90/270Left:18.6 Right:18.6



(10%Imax) 52.6092	—
(20%Imax) 105.218	—
(30%Imax) 157.828	—
(40%Imax) 210.437	—
(50%Imax) 263.046	—
(60%Imax) 315.655	—
(70%Imax) 368.265	—
(80%Imax) 420.874	—
(90%Imax) 473.483	—



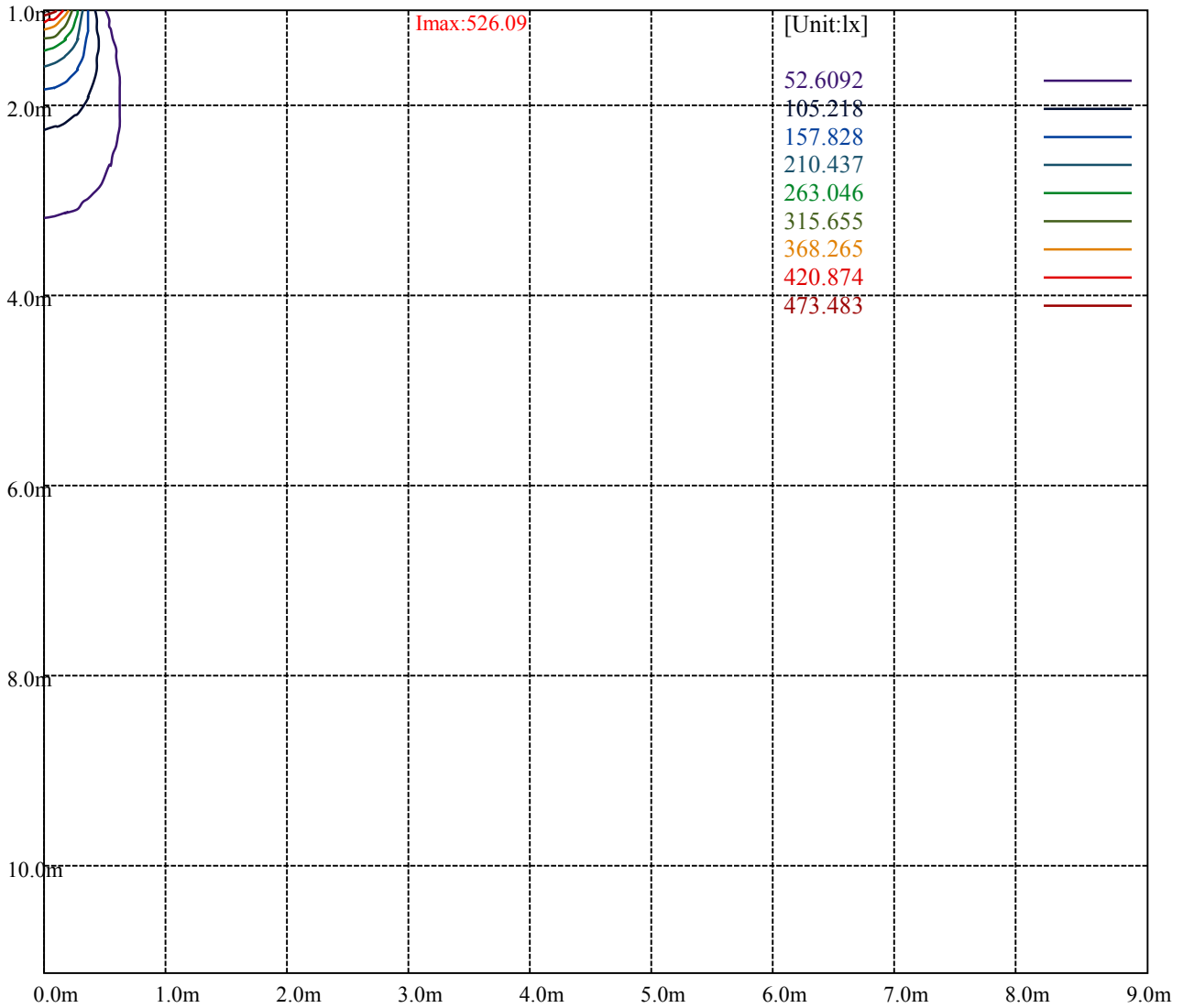
House

[Unit:cd]

Road

Imax:526.09

(10%Imax) 52.6092	—
(20%Imax) 105.218	—
(30%Imax) 157.828	—
(40%Imax) 210.437	—
(50%Imax) 263.046	—
(60%Imax) 315.655	—
(70%Imax) 368.265	—
(80%Imax) 420.874	—
(90%Imax) 473.483	—



Luminance Table

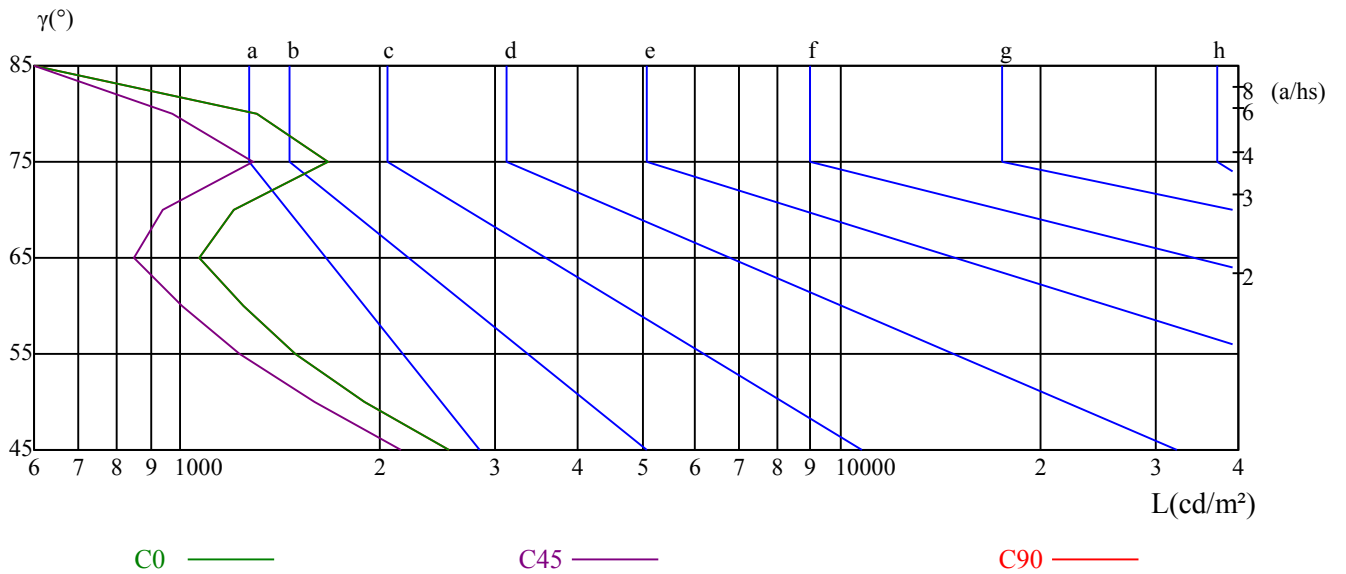
γ	45	50	55	60	65	70	75	80	85
C0	2544	1903	1489	1244	1066	1205	1676	1302	508
C45	2159	1591	1225	1007	848	941	1283	975	371
C90	2544	1903	1489	1244	1066	1205	1676	1302	508

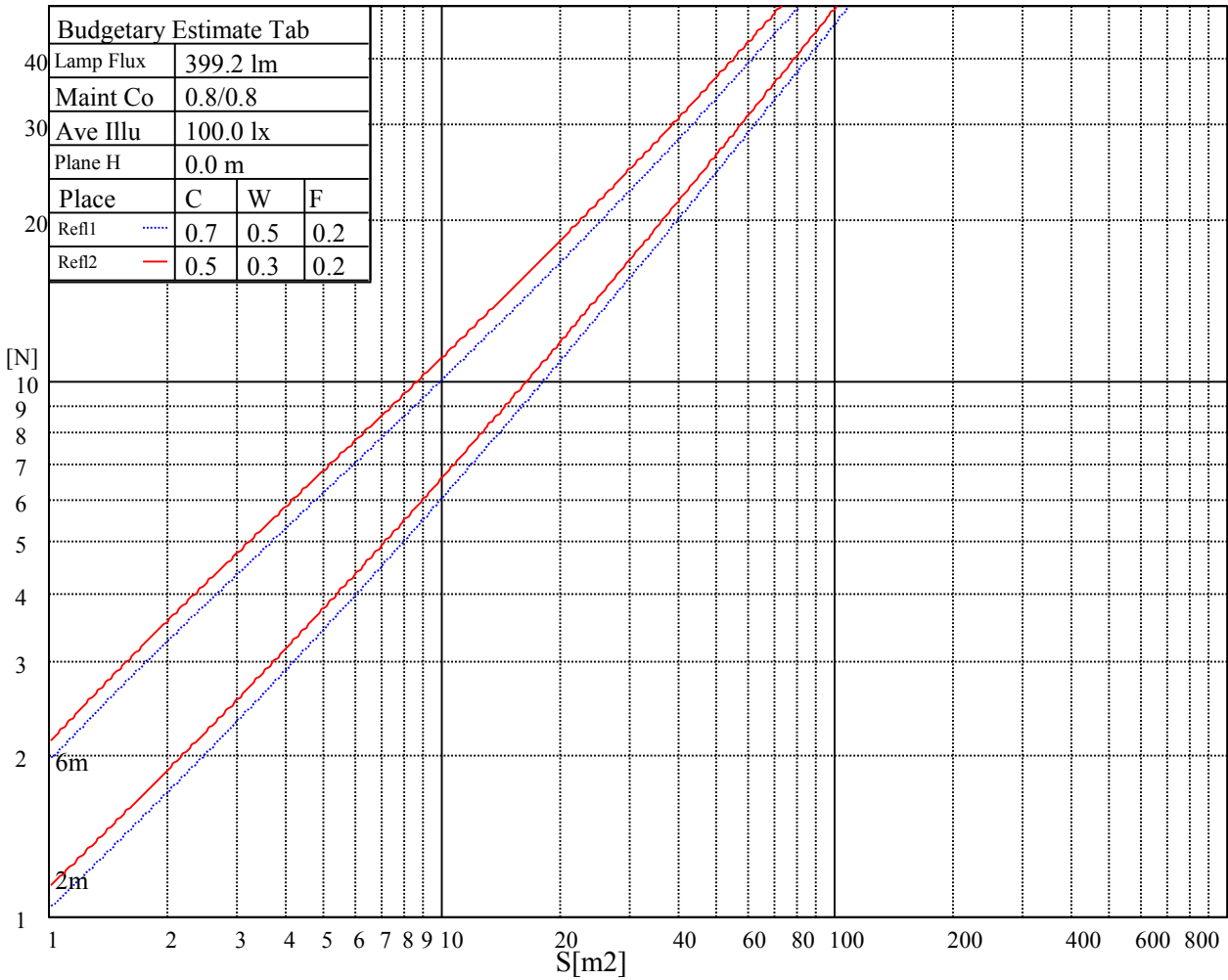
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2795	2795	2795	6410	6410	6410	4906	4906	4906

Glare Table

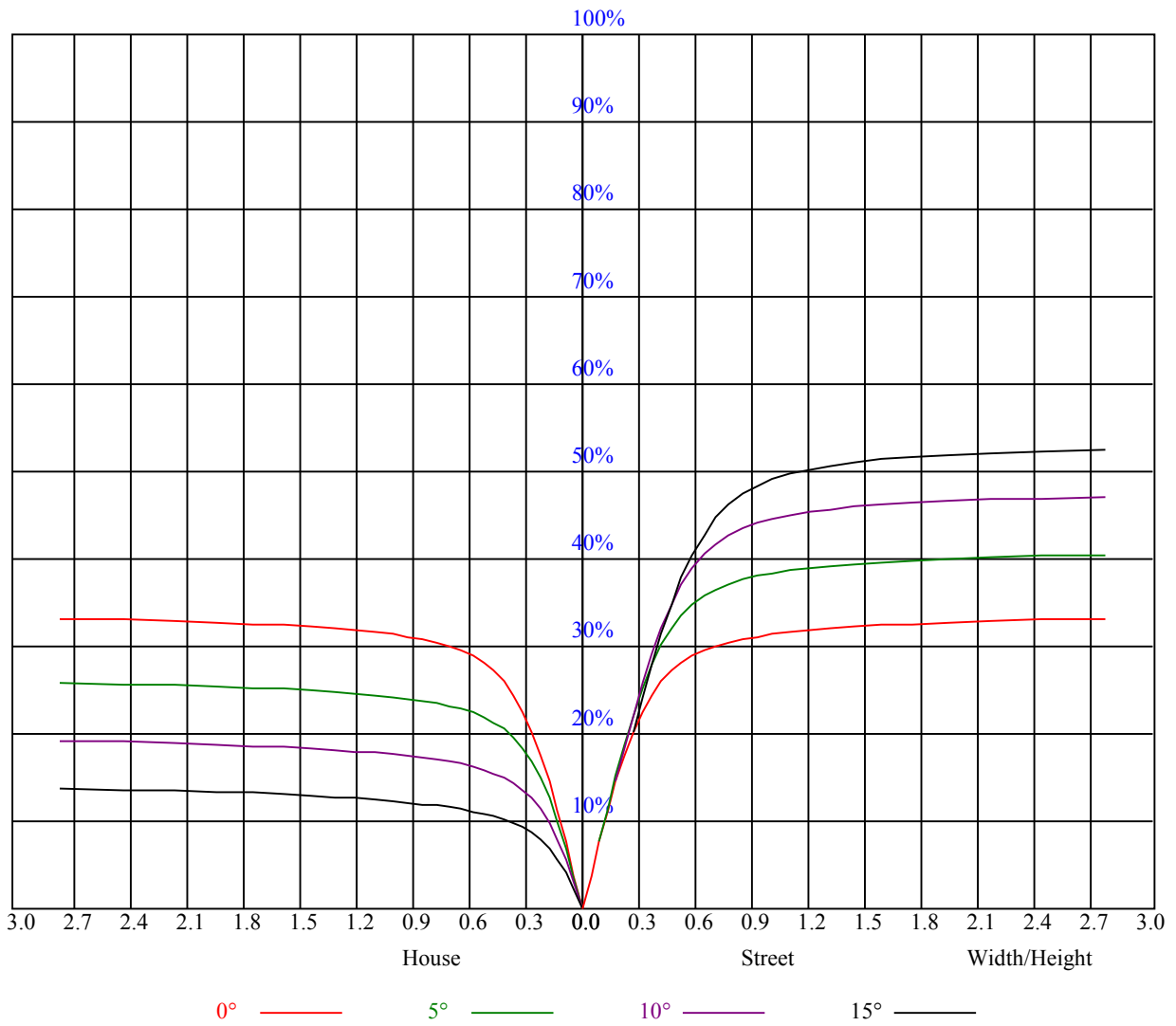
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.82	0.82	0.82	0.80	0.80	0.80	0.76	0.76	0.76	0.73	0.73	0.73	0.70	0.70	0.70	0.68
1	0.75	0.73	0.71	0.73	0.72	0.70	0.71	0.69	0.68	0.68	0.67	0.66	0.66	0.65	0.64	0.63
2	0.69	0.66	0.64	0.68	0.66	0.63	0.66	0.64	0.62	0.64	0.62	0.61	0.62	0.61	0.59	0.58
3	0.65	0.61	0.58	0.64	0.61	0.58	0.62	0.59	0.57	0.60	0.58	0.56	0.59	0.57	0.55	0.54
4	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.53	0.57	0.55	0.52	0.56	0.54	0.52	0.51
5	0.57	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.50	0.54	0.52	0.49	0.53	0.51	0.49	0.48
6	0.54	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.47	0.52	0.49	0.47	0.51	0.48	0.46	0.45
7	0.52	0.48	0.45	0.51	0.47	0.45	0.50	0.47	0.44	0.49	0.46	0.44	0.49	0.46	0.44	0.43
8	0.49	0.45	0.42	0.49	0.45	0.42	0.48	0.45	0.42	0.47	0.44	0.42	0.47	0.44	0.42	0.41
9	0.47	0.43	0.40	0.47	0.43	0.40	0.46	0.43	0.40	0.45	0.42	0.40	0.45	0.42	0.40	0.39
10	0.45	0.41	0.39	0.45	0.41	0.38	0.44	0.41	0.38	0.43	0.40	0.38	0.43	0.40	0.38	0.37



Intensity data(cd)

C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	530.21	512.38	451.80	348.24	226.13	125.16	68.74	40.89	26.16
45.0	525.60	489.88	412.37	298.46	190.86	104.68	58.22	34.20	23.12
90.0	521.33	473.12	399.09	291.38	186.58	101.48	56.14	33.69	22.11
135.0	527.23	497.76	432.51	336.15	228.21	127.69	69.47	40.11	25.59
180.0	530.21	507.66	444.04	342.84	231.13	127.86	69.08	38.87	25.37
225.0	525.60	525.60	484.03	400.11	280.24	160.88	87.41	48.49	29.48
270.0	521.33	530.27	494.10	405.51	287.49	165.99	89.04	49.39	29.81
315.0	527.23	516.32	459.17	346.22	226.24	121.44	65.53	38.14	24.47
360.0	530.21	512.38	451.80	348.24	226.13	125.16	68.74	40.89	26.16
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	17.66	13.16	10.07	8.44	7.03	5.51	4.44	3.26	2.25
45.0	15.98	11.93	9.34	7.54	6.13	5.06	3.77	2.81	1.74
90.0	15.24	11.64	9.00	7.37	6.13	17.94	23.40	13.11	1.69
135.0	17.21	12.83	9.62	7.65	6.19	5.18	4.05	2.98	1.86
180.0	17.04	12.43	9.62	8.04	6.69	5.29	5.06	3.21	2.14
225.0	19.24	13.89	10.29	8.10	6.58	5.51	4.39	3.38	2.53
270.0	19.46	13.84	10.52	8.33	6.86	5.96	23.51	20.64	4.33
315.0	16.59	12.21	9.39	7.48	6.13	5.12	4.05	3.04	2.19
360.0	17.66	13.16	10.07	8.44	7.03	5.51	4.44	3.26	2.25
C/ γ (°)	90.0								
0.0	1.41								
45.0	1.18								
90.0	1.13								
135.0	1.18								
180.0	1.29								
225.0	1.63								
270.0	1.41								
315.0	1.29								
360.0	1.41								