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Nata

LumCAT: LN01D02836DA-N
Luminaire: 92.70.307.00
Report No: 211112-B005
Test No: 211112-C005
LampCAT: CITIZEN CLU7A2 LES4.5
Lamp flux(lm): 573.2
Number of Lamps: 1
Length(mm): 111
Phm Type: C

Voltage(V): 36.4800
Current(A): 0.1560
Power (W): 5.6900
PF: 0.0000
Ballast type: DC
Width(mm): 111
Height(mm): 0

Photometric Results

Lumens(lm): 374.01
Efficiency(%): 65.25%
Lumens(lm)/Power(W): 65.73
Central intensity(cd): 700.185
Maximum intensity(cd): 700.185
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=36.7
 [C90/270]Total=36.7
Field angle(10%Imax): [C0/180]Total=69.1
 [C90/270]Total=69.1
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
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(%): 65.25%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.799%

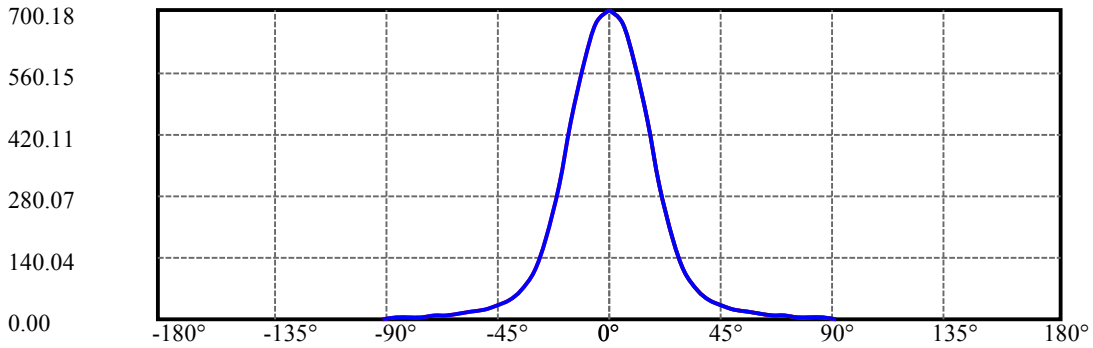
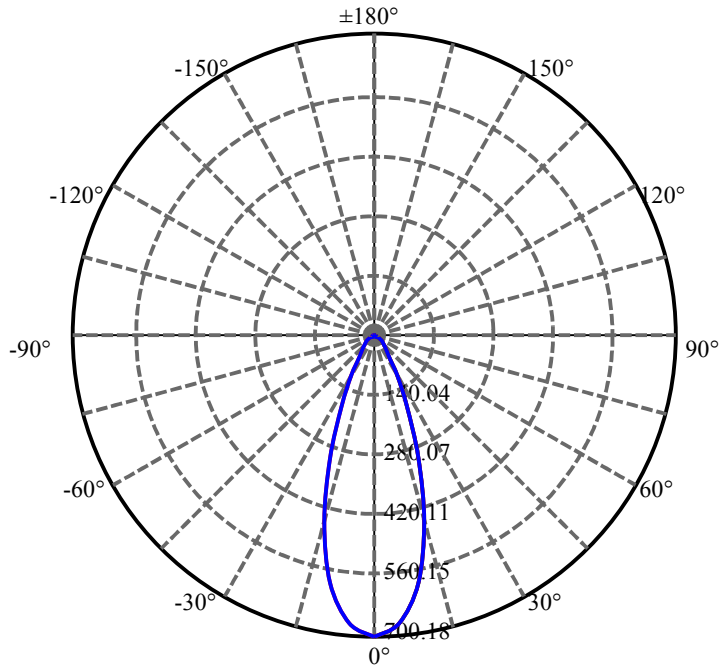
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	700.184	0.000	0	.000%	.000%
5.0	670.032	16.381	16.381	2.858%	4.380%
10.0	583.786	44.853	61.234	7.826%	16.372%
15.0	447.930	61.201	122.434	10.678%	32.736%
20.0	302.544	61.850	184.284	10.791%	49.273%
25.0	183.949	51.024	235.308	8.902%	62.916%
30.0	110.640	37.281	272.589	6.504%	72.884%
35.0	65.930	26.001	298.59	4.537%	79.836%
40.0	42.783	18.138	316.728	3.165%	84.685%
45.0	29.174	13.324	330.051	2.325%	88.248%
50.0	21.197	10.178	340.229	1.776%	90.969%
55.0	15.498	7.979	348.208	1.392%	93.102%
60.0	11.958	6.346	354.555	1.107%	94.799%
65.0	9.038	5.104	359.659	.891%	96.164%
70.0	7.028	4.068	363.727	.710%	97.252%
75.0	5.908	3.381	367.108	.590%	98.156%
80.0	5.624	3.086	370.194	.538%	98.981%
85.0	3.398	2.452	372.646	.428%	99.636%
90.0	1.569	1.360	374.006	.237%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	272.59	47.56%	72.88%
0-40	316.73	55.26%	84.69%
0-60	354.55	61.86%	94.80%
0-90	372.65	65.02%	99.64%
0-120	372.65	65.02%	99.64%
0-180	374.01	65.25%	100.00%
60-90	24.44	4.26%	6.53%
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%
0-35.17	299.20	52.20%	80.00%

ZONAL LUMEN SUMMARY

0-10	61.23
10-20	123.05
20-30	88.30
30-40	44.14
40-50	23.50
50-60	14.33
60-70	9.17
70-80	6.47
80-90	2.45
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: —————

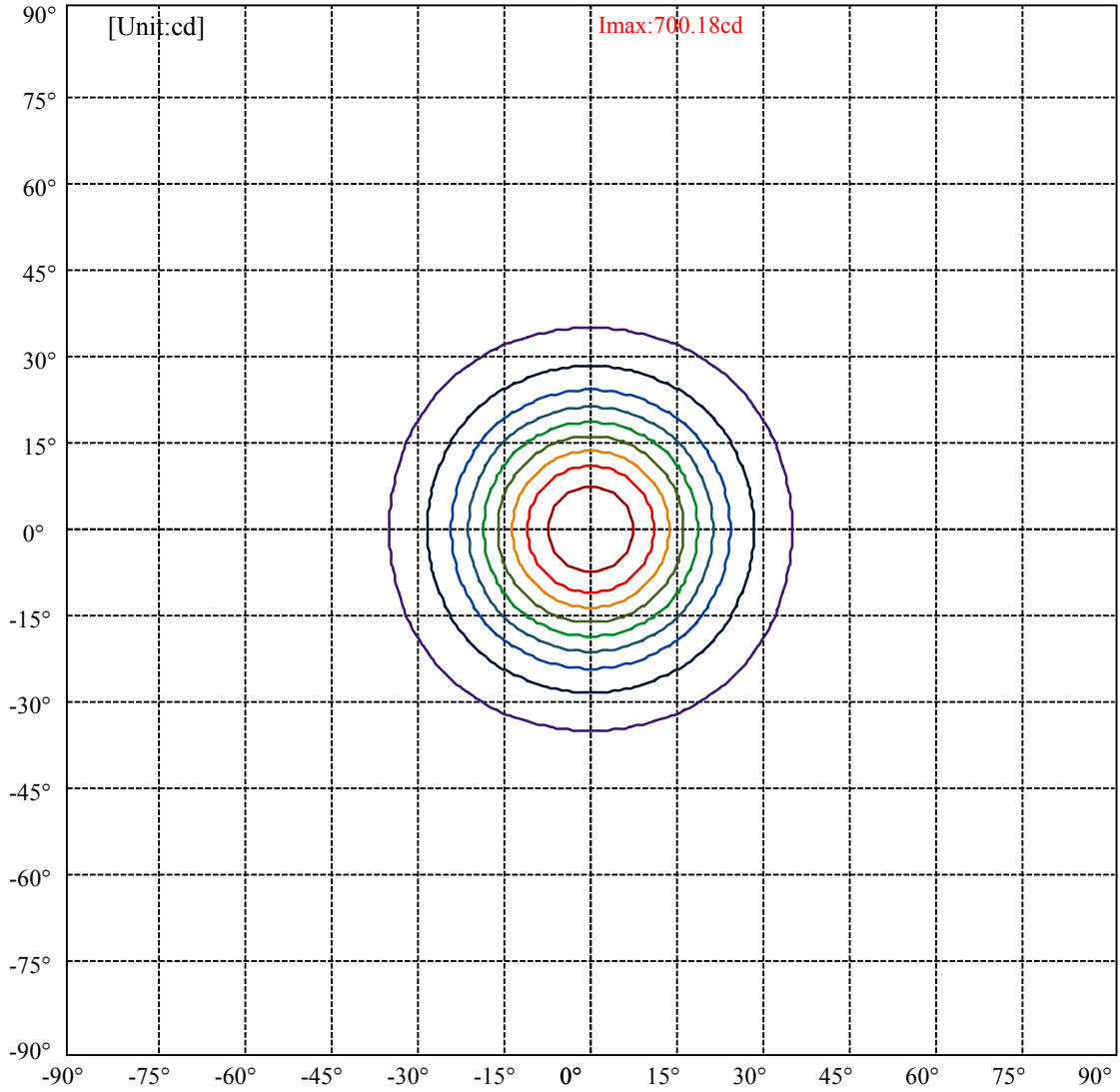
C90/C270: —————

Field angle(10%Imax):C0/180Left:34.5 Right:34.5

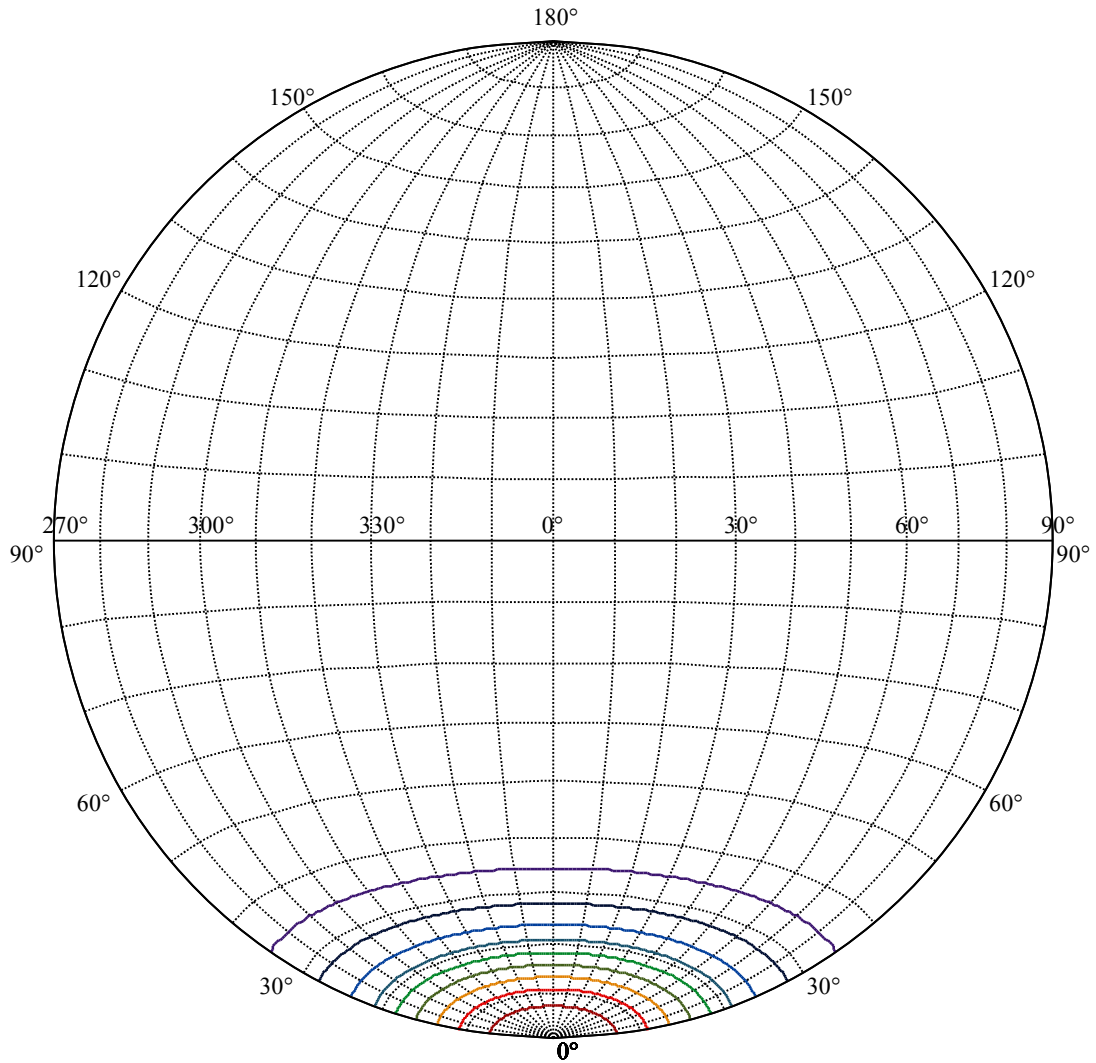
:C90/270Left:34.5 Right:34.5

Beam Angle(50%Imax):C0/180Left:18.4 Right:18.4

:C90/270Left:18.4 Right:18.4



(10%Imax) 70.0184	—
(20%Imax) 140.037	—
(30%Imax) 210.055	—
(40%Imax) 280.074	—
(50%Imax) 350.092	—
(60%Imax) 420.111	—
(70%Imax) 490.129	—
(80%Imax) 560.148	—
(90%Imax) 630.166	—



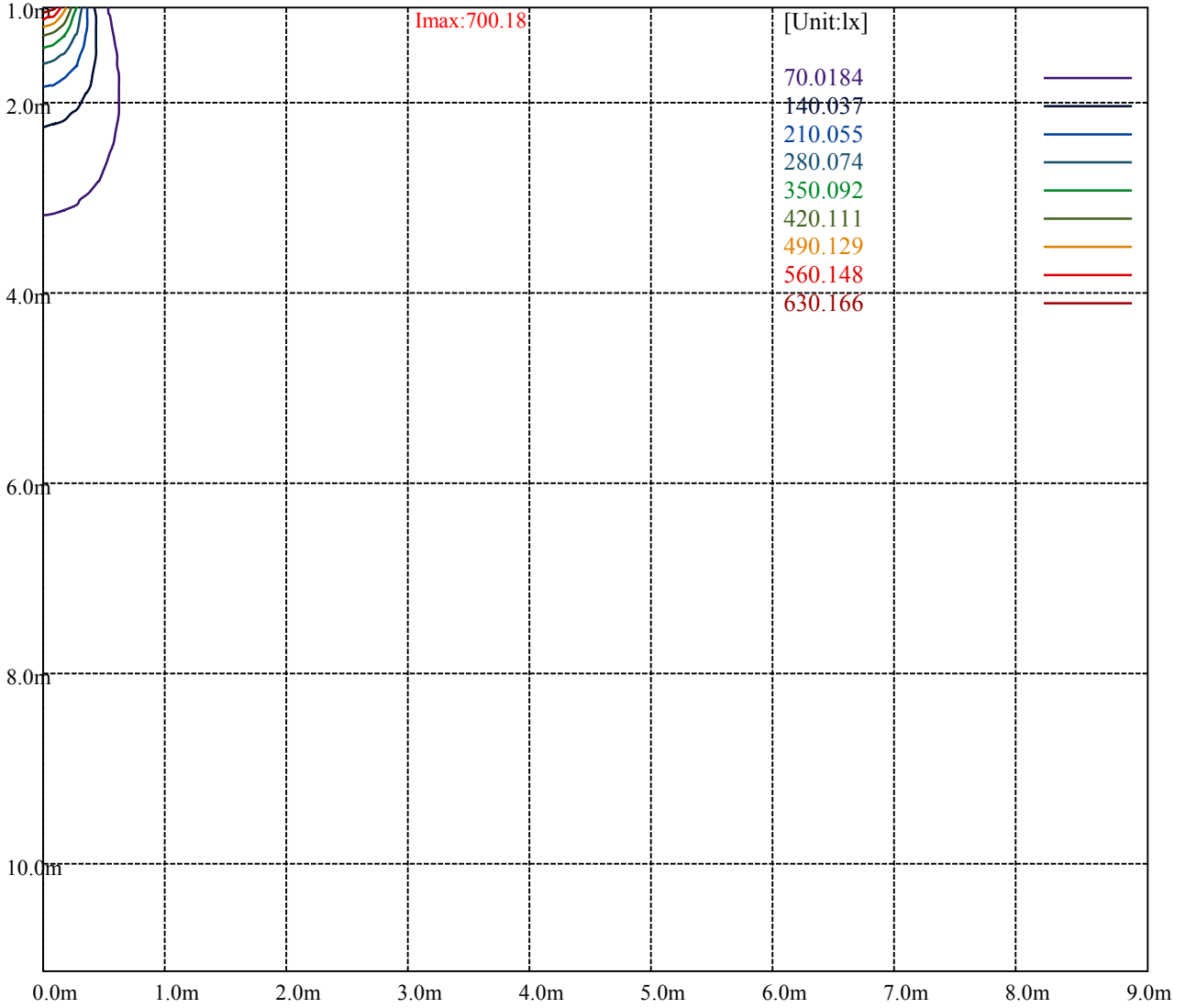
House

[Unit:cd]

Road

Imax:700.18

(10%Imax) 70.0184	—
(20%Imax) 140.037	—
(30%Imax) 210.055	—
(40%Imax) 280.074	—
(50%Imax) 350.092	—
(60%Imax) 420.111	—
(70%Imax) 490.129	—
(80%Imax) 560.148	—
(90%Imax) 630.166	—



Luminance Table

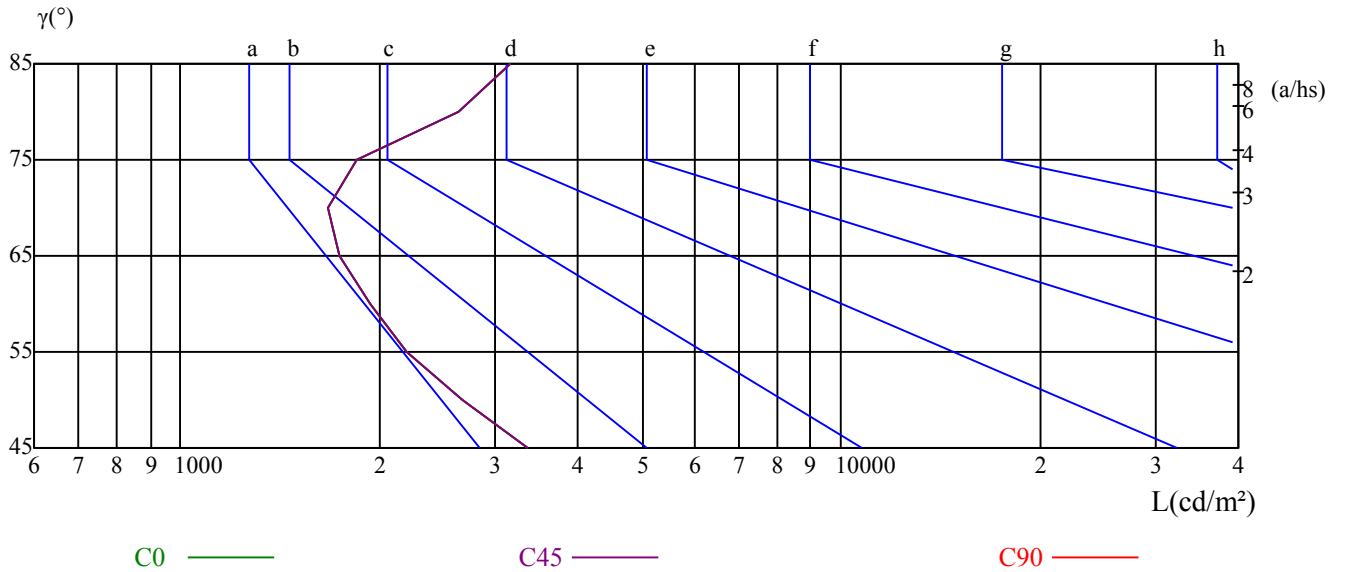
γ	45	50	55	60	65	70	75	80	85
C0	3349	2677	2193	1941	1736	1668	1853	2629	3165
C45	3349	2677	2193	1941	1736	1668	1853	2629	3165
C90	3349	2677	2193	1941	1736	1668	1853	2629	3165

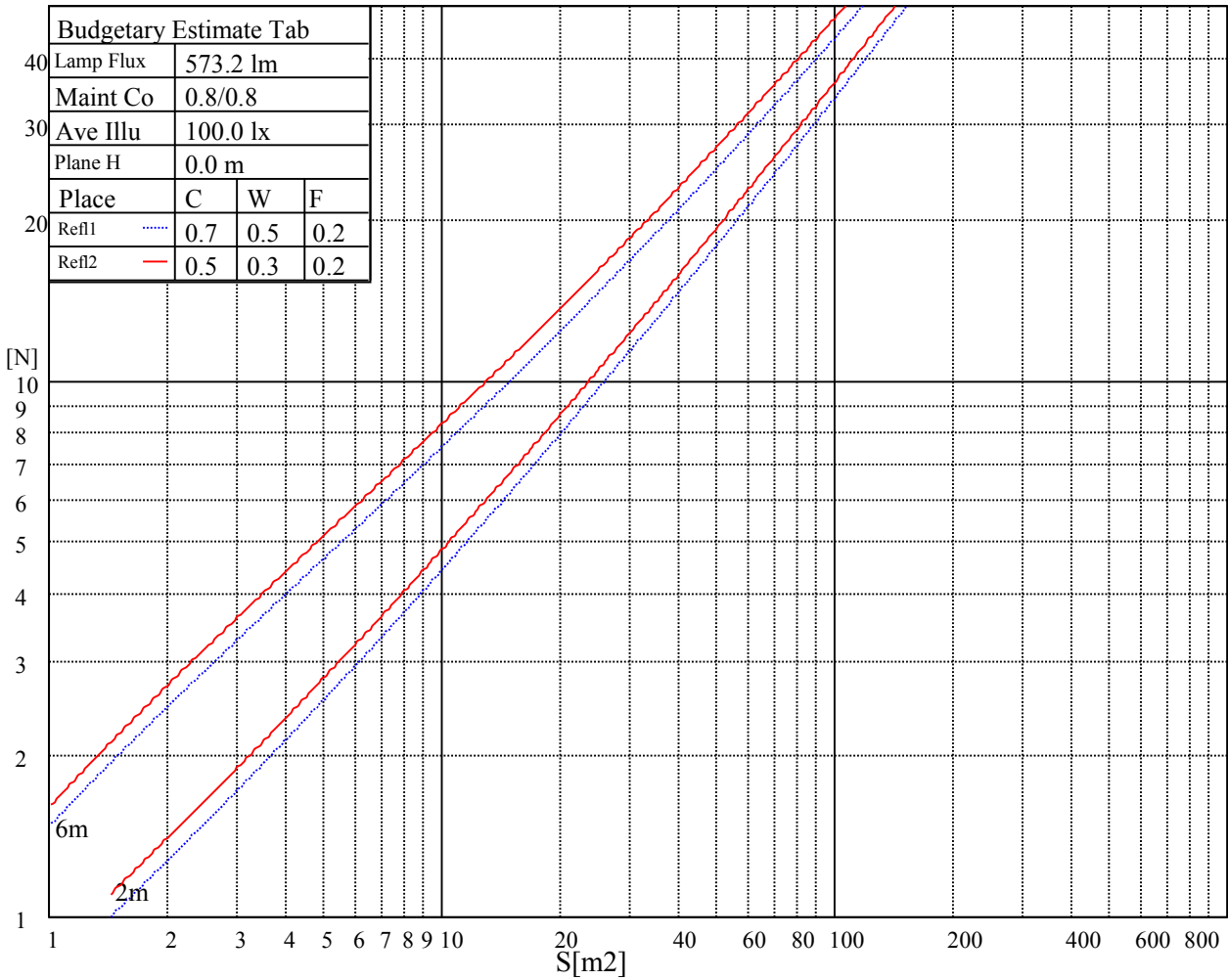
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1736	1736	1736	1853	1853	1853	3165	3165	3165

Glare Table

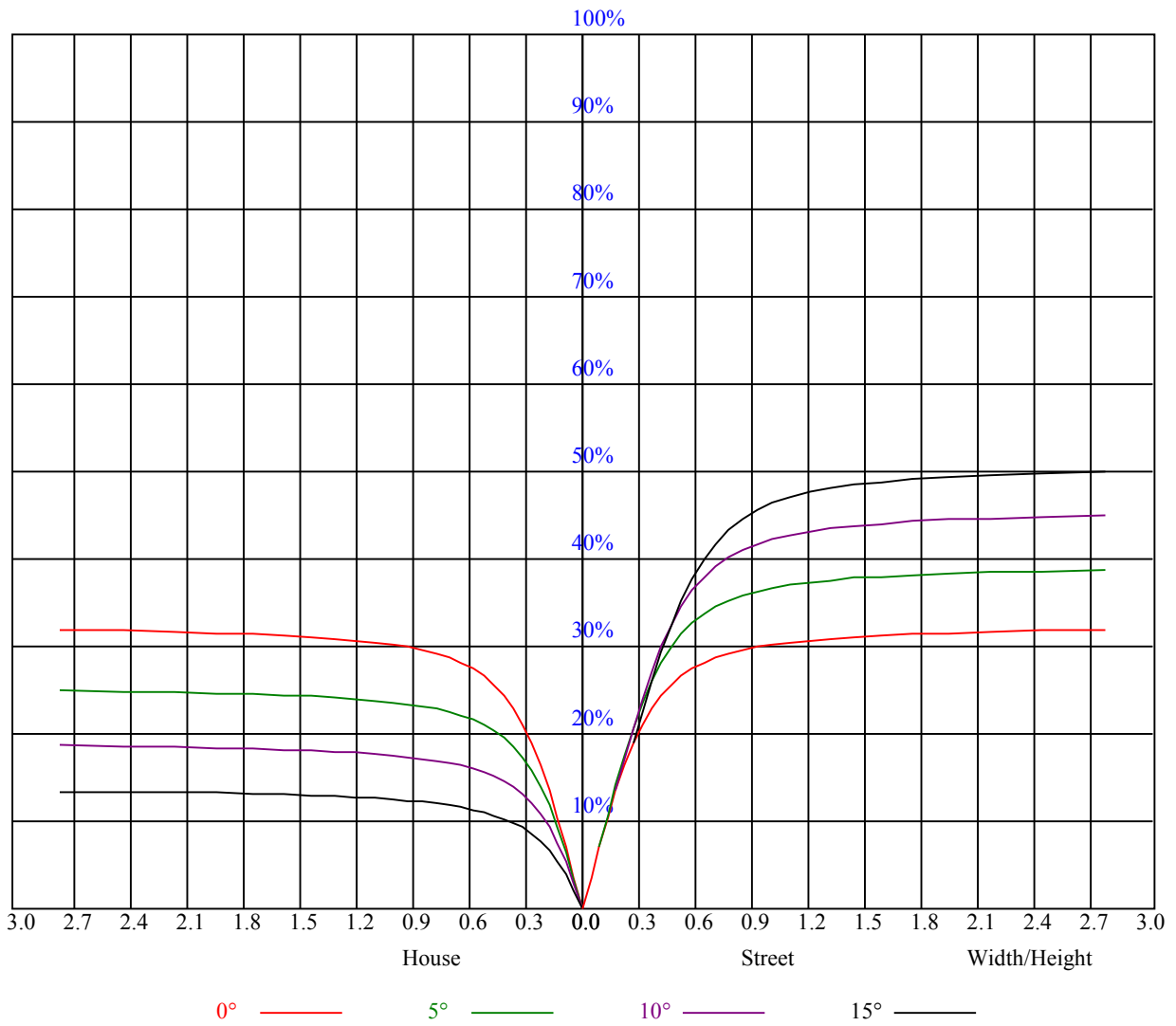
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.78	0.78	0.78	0.76	0.76	0.76	0.73	0.73	0.73	0.69	0.69	0.69	0.67	0.67	0.67	0.65
1	0.72	0.70	0.68	0.70	0.69	0.67	0.68	0.66	0.65	0.65	0.64	0.63	0.63	0.62	0.61	0.60
2	0.66	0.64	0.61	0.65	0.63	0.61	0.63	0.61	0.59	0.61	0.59	0.58	0.59	0.58	0.57	0.56
3	0.62	0.59	0.56	0.61	0.58	0.55	0.59	0.57	0.55	0.58	0.56	0.54	0.56	0.54	0.53	0.52
4	0.58	0.54	0.52	0.57	0.54	0.51	0.56	0.53	0.51	0.55	0.52	0.50	0.53	0.51	0.49	0.48
5	0.55	0.51	0.48	0.54	0.50	0.48	0.53	0.50	0.47	0.52	0.49	0.47	0.51	0.48	0.46	0.45
6	0.52	0.48	0.45	0.51	0.47	0.45	0.50	0.47	0.44	0.49	0.46	0.44	0.48	0.46	0.44	0.43
7	0.49	0.45	0.42	0.48	0.45	0.42	0.48	0.44	0.42	0.47	0.44	0.42	0.46	0.43	0.41	0.41
8	0.46	0.43	0.40	0.46	0.42	0.40	0.45	0.42	0.40	0.45	0.42	0.40	0.44	0.41	0.39	0.39
9	0.44	0.40	0.38	0.44	0.40	0.38	0.43	0.40	0.38	0.43	0.40	0.38	0.42	0.39	0.37	0.37
10	0.42	0.39	0.36	0.42	0.38	0.36	0.41	0.38	0.36	0.41	0.38	0.36	0.40	0.38	0.36	0.35



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	700.96	678.97	603.56	476.23	335.69	213.38	127.93	76.42	50.19
45.0	701.68	654.89	564.01	421.50	279.64	166.35	101.82	60.35	39.08
90.0	697.08	645.03	538.61	390.13	250.48	145.02	88.14	53.18	34.66
135.0	701.02	663.62	564.61	420.24	263.87	157.63	92.80	55.57	37.23
180.0	700.96	662.54	553.37	406.56	259.03	148.96	90.41	54.91	37.05
225.0	701.68	686.38	612.17	475.81	325.29	198.50	117.24	69.43	44.46
270.0	697.08	691.88	633.50	513.64	367.84	234.11	138.69	81.74	51.33
315.0	701.02	676.94	600.46	479.34	338.50	207.64	128.11	75.83	48.28
360.0	700.96	678.97	603.56	476.23	335.69	213.38	127.93	76.42	50.19
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	34.00	26.77	20.38	16.73	13.50	10.64	8.66	10.64	11.11
45.0	26.53	18.82	13.50	10.16	7.47	5.86	4.54	3.53	1.91
90.0	23.72	16.91	12.01	9.02	6.57	5.02	3.70	2.57	1.55
135.0	25.04	18.05	13.15	9.98	7.47	5.92	4.66	3.70	2.03
180.0	27.96	21.99	17.27	14.46	11.47	9.14	10.70	12.13	2.39
225.0	29.88	21.03	15.12	11.29	8.31	6.33	4.84	4.66	2.75
270.0	34.06	23.48	16.49	12.19	8.66	6.45	4.84	3.53	2.33
315.0	32.21	22.53	16.07	11.83	8.84	6.87	5.32	4.24	3.11
360.0	34.00	26.77	20.38	16.73	13.50	10.64	8.66	10.64	11.11
C/ γ (°)	90.0								
0.0	1.61								
45.0	1.49								
90.0	1.49								
135.0	1.49								
180.0	1.97								
225.0	1.49								
270.0	1.49								
315.0	1.49								
360.0	1.61								