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## Nata

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LumCAT: LN01D02836DA-N  
Luminaire: 92.70.307.00  
Report No: 211111-B009 Voltage(V): 35.7700  
Test No: 211111-C009 Current(A): 0.2510  
LampCAT: CITIZEN CLU702-1002C9303H5.3 Power (W): 8.9780  
Lamp flux(lm): 1012.5 PF: 0.0000  
Number of Lamps: 1 Ballast type: DC  
Length(mm): 111 Width(mm): 111  
Phm Type: C Height(mm): 0

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## Photometric Results

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Lumens(lm): 652.54  
Efficiency(%): 64.45%  
Lumens(lm)/Power(W): 72.68  
Central intensity(cd): 1141.385  
Maximum intensity(cd): 1141.385  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=38.6  
[C90/270]Total=38.6  
Field angle(10%Imax): [C0/180]Total=71.8  
[C90/270]Total=71.8  
Maximum s/h(1/2): C0\_180=0.63 C90\_270=0.63  
Maximum s/h(1/4): C0\_180=0.63 C90\_270=0.63  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 64.45%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 94.872%

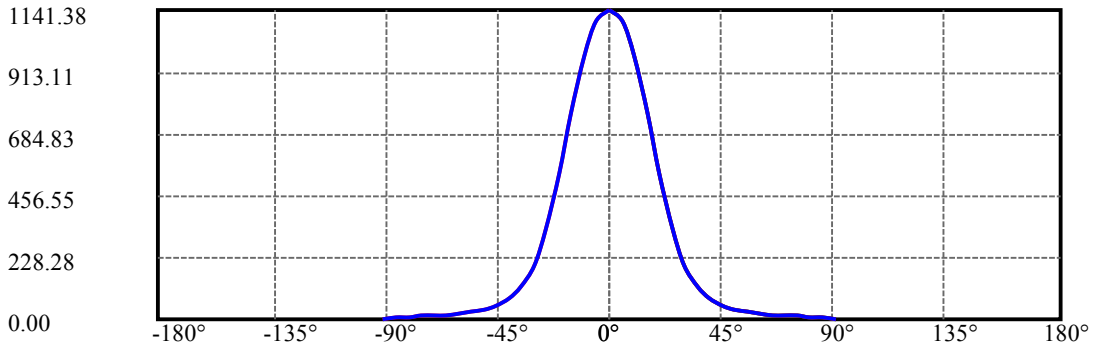
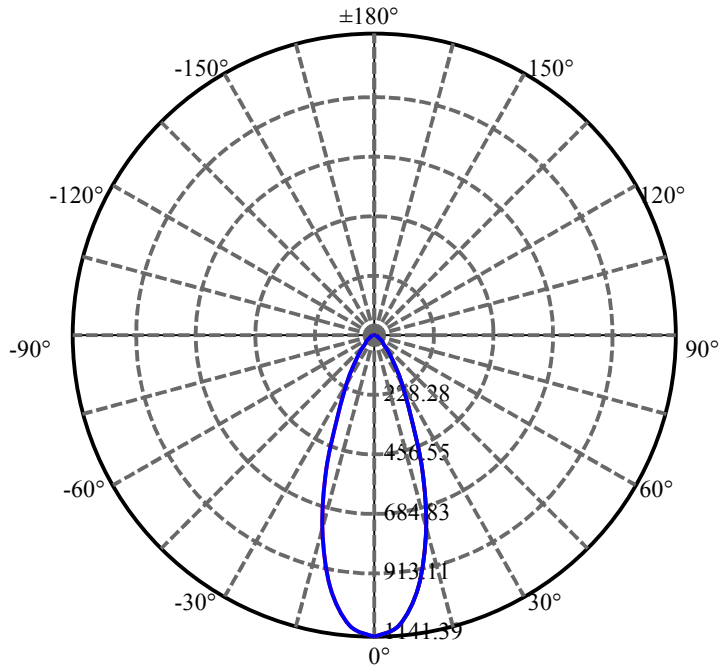
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1141.385	0.000	0	.000%	.000%
5.0	1098.759	26.780	26.78	2.645%	4.104%
10.0	967.930	73.932	100.712	7.302%	15.434%
15.0	761.327	102.578	203.291	10.131%	31.154%
20.0	539.098	107.173	310.464	10.585%	47.578%
25.0	334.758	91.651	402.115	9.052%	61.623%
30.0	202.032	67.931	470.046	6.709%	72.034%
35.0	121.851	47.694	517.741	4.711%	79.343%
40.0	78.822	33.481	551.221	3.307%	84.473%
45.0	52.202	24.260	575.481	2.396%	88.191%
50.0	37.741	18.174	593.656	1.795%	90.976%
55.0	27.688	14.227	607.882	1.405%	93.157%
60.0	20.749	11.196	619.078	1.106%	94.872%
65.0	15.521	8.817	627.896	.871%	96.224%
70.0	12.219	7.024	634.92	.694%	97.300%
75.0	10.718	5.996	640.915	.592%	98.219%
80.0	9.874	5.510	646.425	.544%	99.063%
85.0	4.915	4.018	650.444	.397%	99.679%
90.0	2.734	2.094	652.538	.207%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	470.05	46.43%	72.03%
0-40	551.22	54.44%	84.47%
0-60	619.08	61.14%	94.87%
0-90	650.44	64.24%	99.68%
0-120	650.44	64.24%	99.68%
0-180	652.54	64.45%	100.00%
60-90	42.56	4.20%	6.52%
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%
0-35.64	522.03	51.56%	80.00%

ZONAL LUMEN SUMMARY

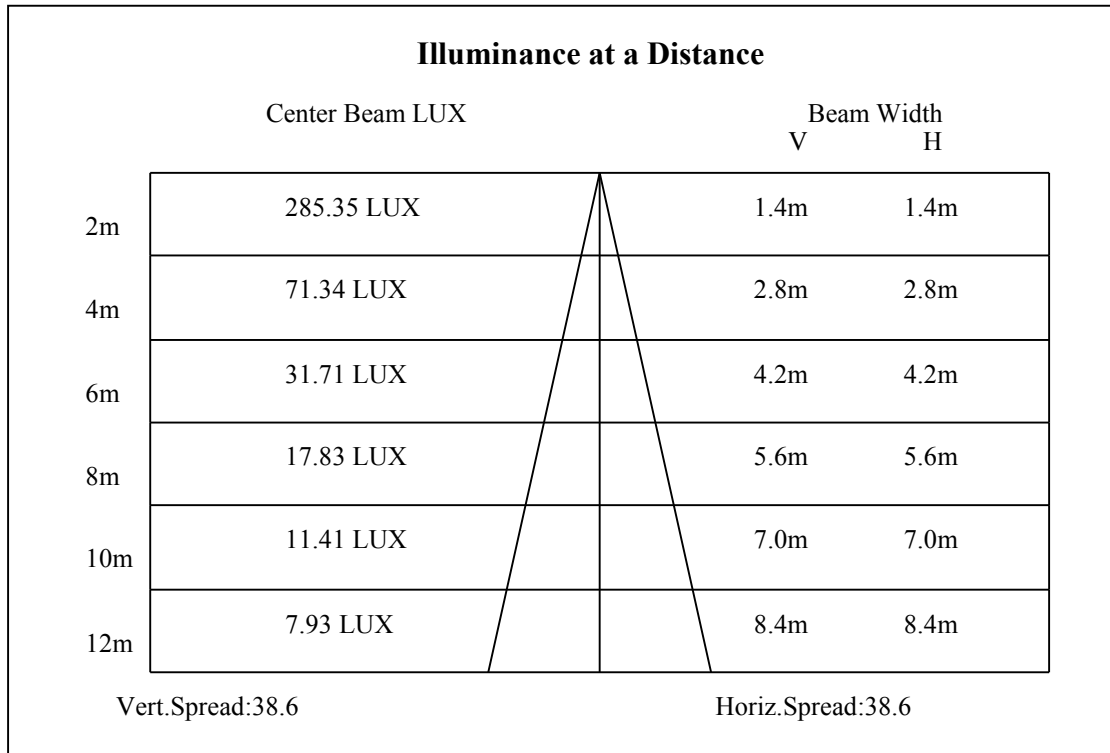
0-10	100.71
10-20	209.75
20-30	159.58
30-40	81.17
40-50	42.43
50-60	25.42
60-70	15.84
70-80	11.51
80-90	4.02
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

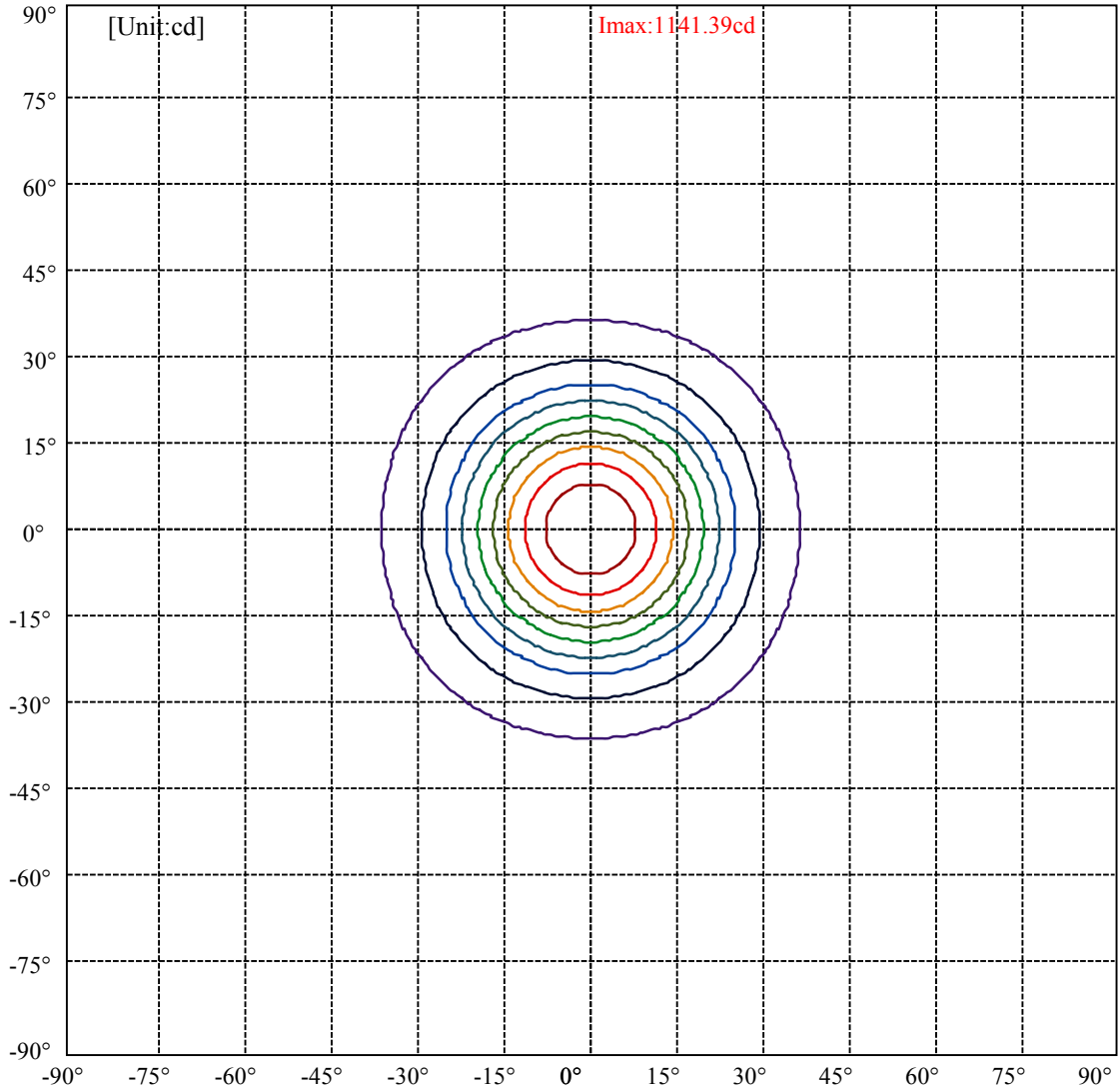


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

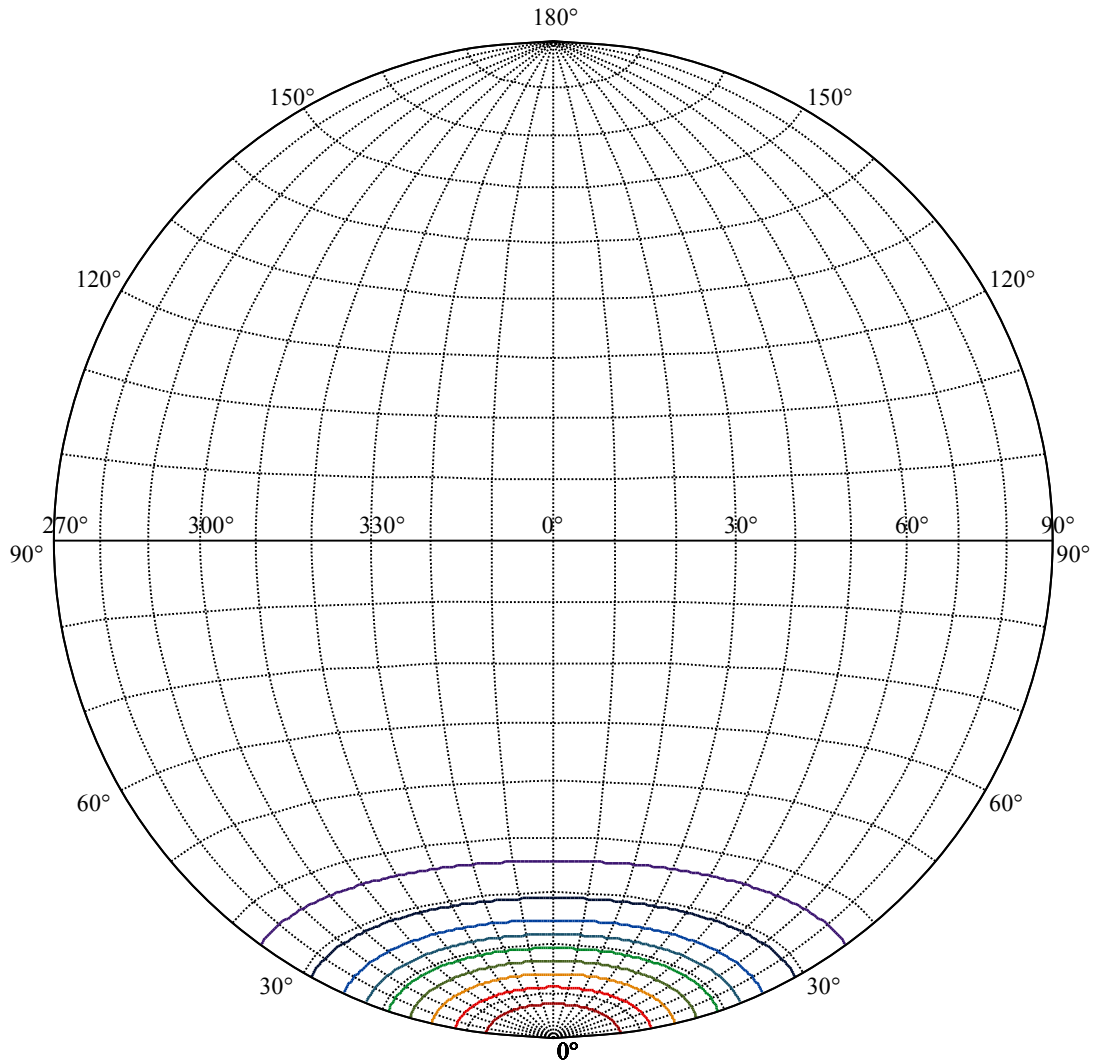
Field angle(10%Imax):C0/180Left:35.9 Right:35.9  
:C90/270Left:35.9 Right:35.9

Beam Angle(50%Imax):C0/180Left:19.3 Right:19.3  
:C90/270Left:19.3 Right:19.3





(10%Imax) 114.138	—
(20%Imax) 228.277	—
(30%Imax) 342.415	—
(40%Imax) 456.554	—
(50%Imax) 570.692	—
(60%Imax) 684.831	—
(70%Imax) 798.969	—
(80%Imax) 913.108	—
(90%Imax) 1027.25	—



House

[Unit:cd]

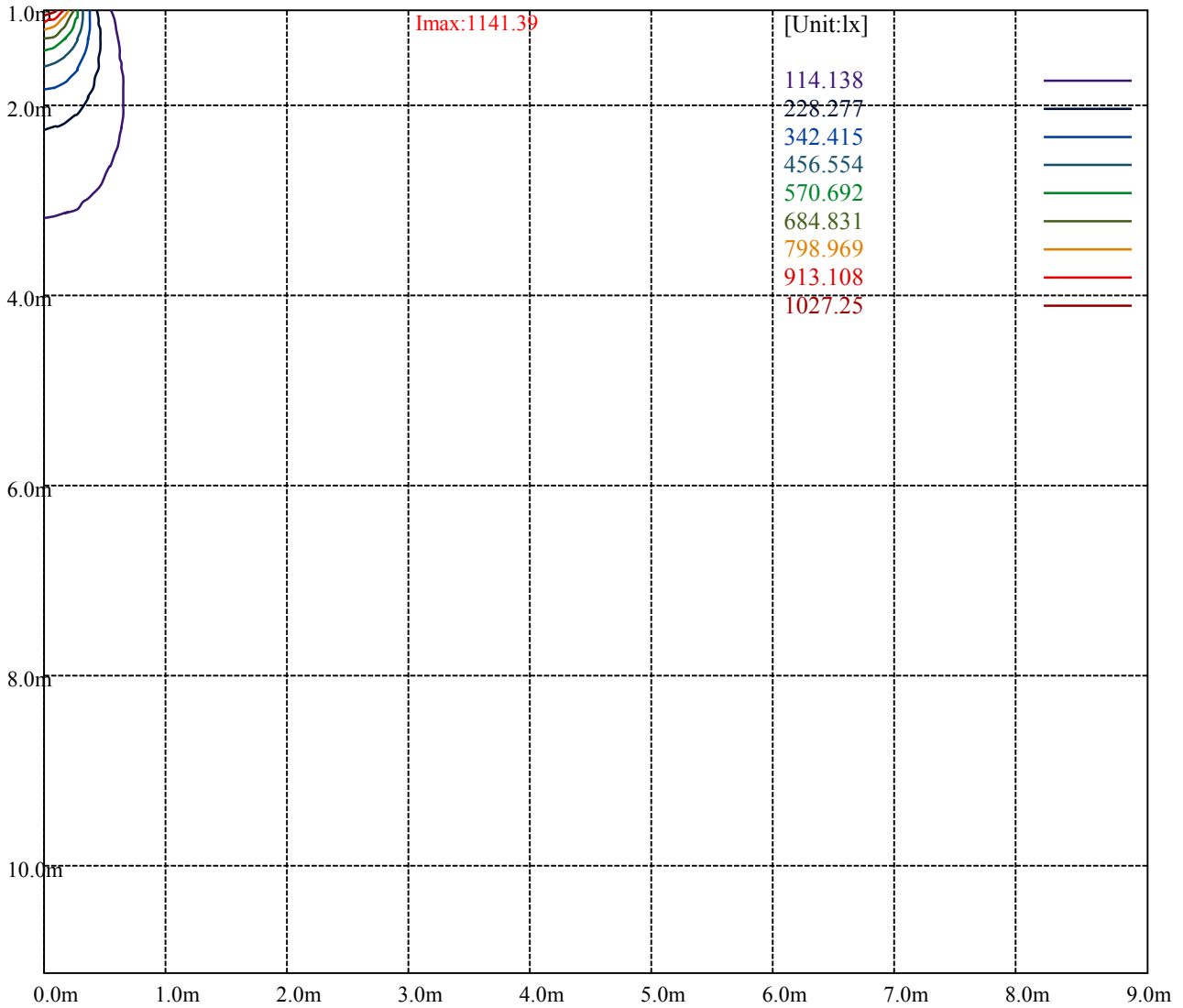
Road

**Imax:1141.39**

(10%Imax) 114.138	—
(20%Imax) 228.277	—
(30%Imax) 342.415	—
(40%Imax) 456.554	—
(50%Imax) 570.692	—
(60%Imax) 684.831	—
(70%Imax) 798.969	—
(80%Imax) 913.108	—
(90%Imax) 1027.25	—







Luminance Table

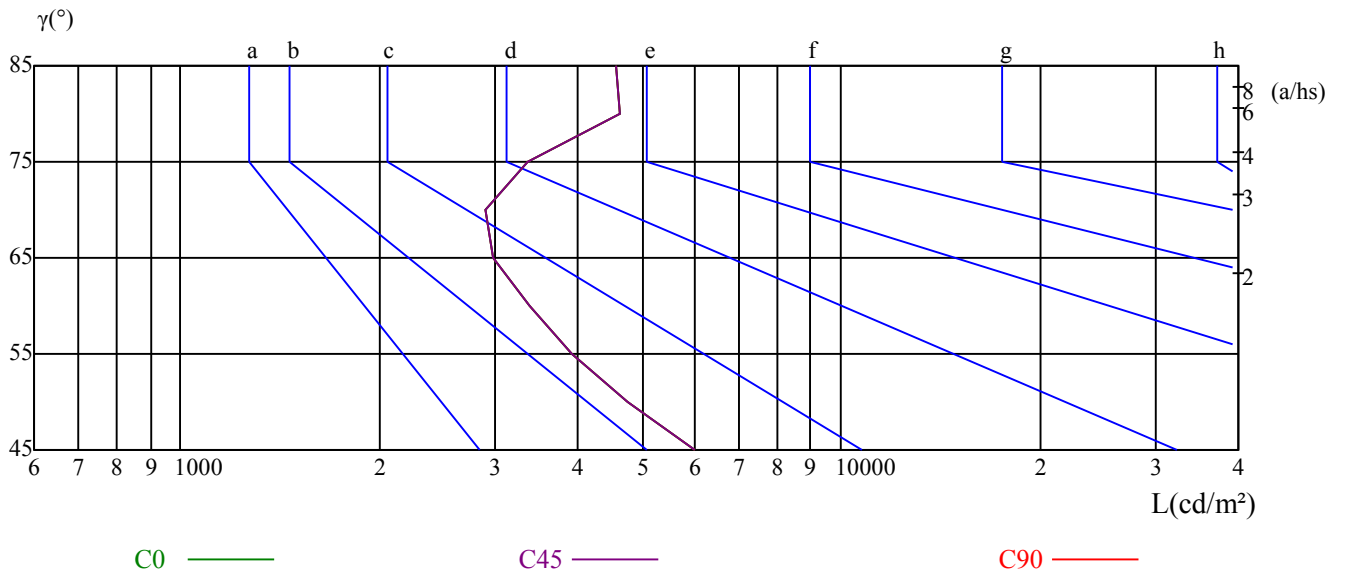
$\gamma$	45	50	55	60	65	70	75	80	85
C0	5992	4765	3918	3368	2981	2900	3361	4615	4577
C45	5992	4765	3918	3368	2981	2900	3361	4615	4577
C90	5992	4765	3918	3368	2981	2900	3361	4615	4577

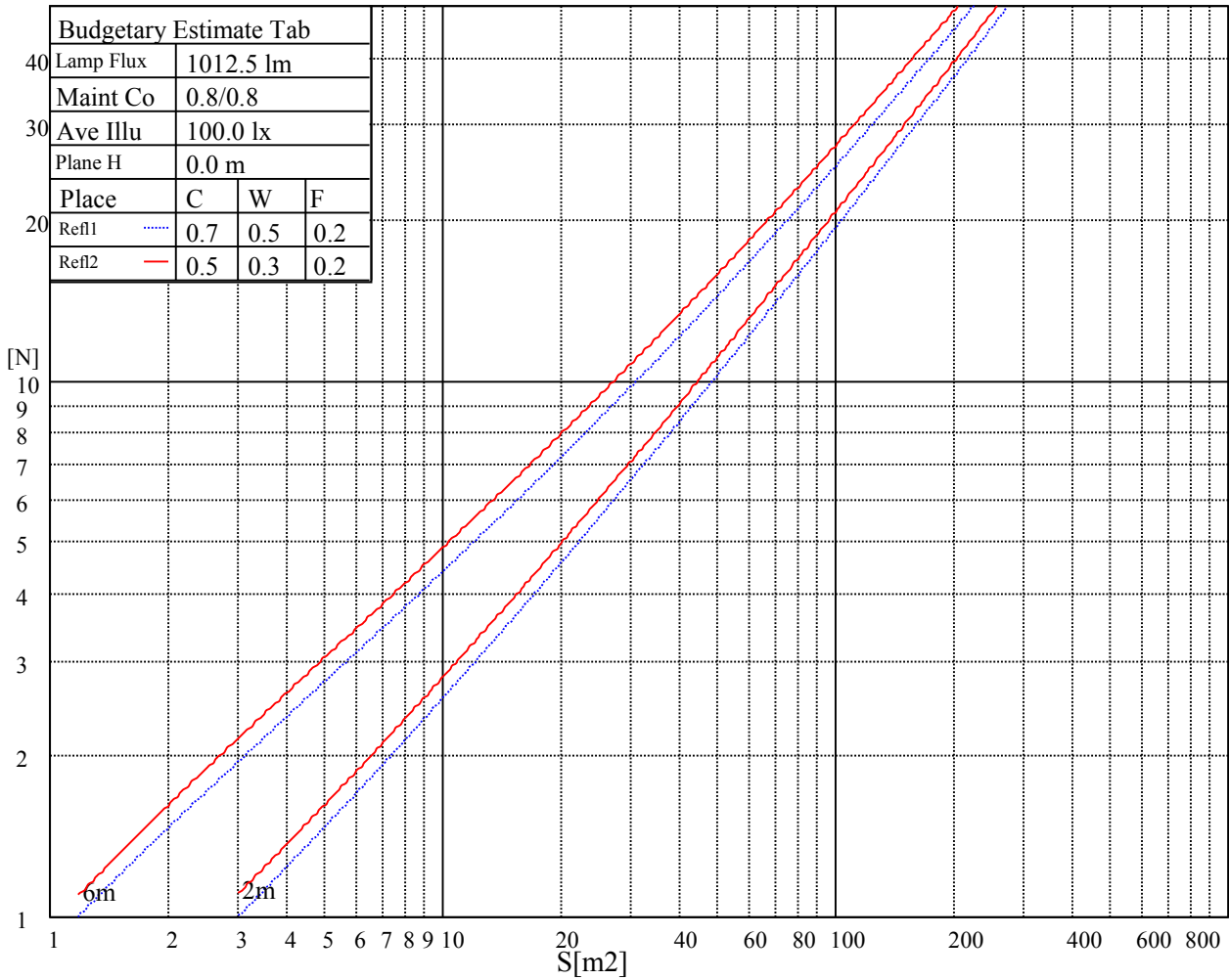
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2981	2981	2981	3361	3361	3361	4577	4577	4577

Glare Table

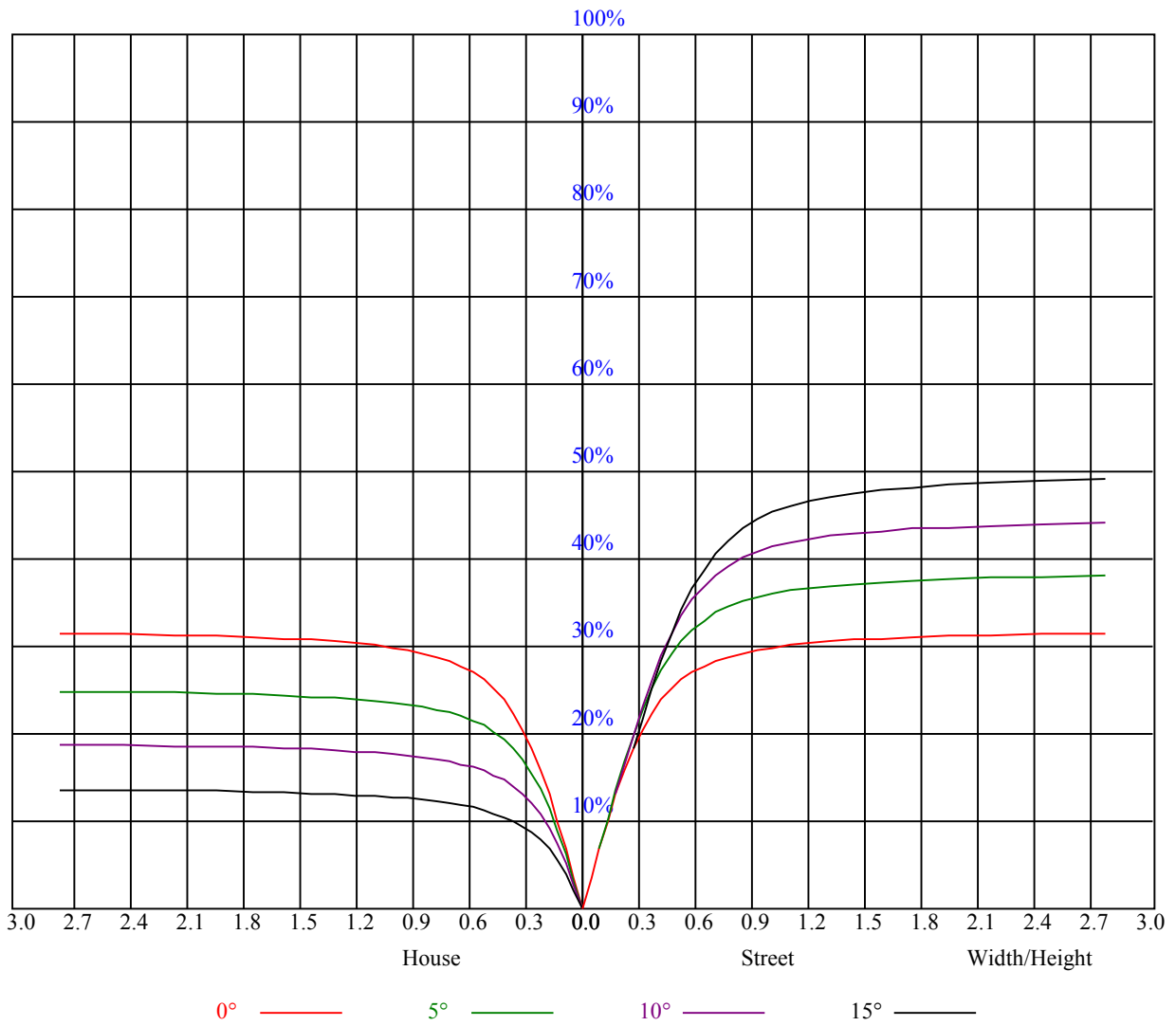
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.77	0.77	0.77	0.75	0.75	0.75	0.72	0.72	0.72	0.69	0.69	0.69	0.66	0.66	0.66	0.64
1	0.71	0.69	0.67	0.69	0.68	0.66	0.67	0.65	0.64	0.64	0.63	0.62	0.62	0.61	0.61	0.59
2	0.66	0.63	0.60	0.64	0.62	0.60	0.62	0.60	0.58	0.60	0.59	0.57	0.59	0.57	0.56	0.55
3	0.61	0.58	0.55	0.60	0.57	0.55	0.58	0.56	0.54	0.57	0.55	0.53	0.55	0.54	0.52	0.51
4	0.57	0.53	0.51	0.56	0.53	0.50	0.55	0.52	0.50	0.54	0.51	0.49	0.52	0.50	0.49	0.48
5	0.54	0.50	0.47	0.53	0.49	0.47	0.52	0.49	0.46	0.51	0.48	0.46	0.50	0.47	0.46	0.45
6	0.51	0.47	0.44	0.50	0.46	0.44	0.49	0.46	0.43	0.48	0.45	0.43	0.47	0.45	0.43	0.42
7	0.48	0.44	0.41	0.47	0.44	0.41	0.47	0.43	0.41	0.46	0.43	0.41	0.45	0.43	0.41	0.40
8	0.45	0.42	0.39	0.45	0.41	0.39	0.44	0.41	0.39	0.44	0.41	0.39	0.43	0.40	0.38	0.38
9	0.43	0.39	0.37	0.43	0.39	0.37	0.42	0.39	0.37	0.42	0.39	0.37	0.41	0.38	0.37	0.36
10	0.41	0.38	0.35	0.41	0.37	0.35	0.40	0.37	0.35	0.40	0.37	0.35	0.39	0.37	0.35	0.34



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	1137.87	1128.49	1032.65	841.32	621.91	392.04	234.53	142.51	90.11
45.0	1143.97	1109.31	986.82	772.90	539.39	337.60	200.65	119.15	78.04
90.0	1141.88	1083.56	929.99	719.78	489.73	304.56	182.78	109.95	71.05
135.0	1141.82	1089.95	946.43	741.06	527.38	316.45	191.33	114.55	75.83
180.0	1137.87	1062.71	896.95	656.98	458.84	277.85	168.14	105.28	70.09
225.0	1143.97	1093.12	956.17	756.41	531.62	327.86	204.35	122.08	78.04
270.0	1141.88	1114.27	1005.70	810.97	585.28	379.07	228.67	135.82	87.48
315.0	1141.82	1108.66	988.73	791.19	558.63	342.62	205.79	125.48	79.95
360.0	1137.87	1128.49	1032.65	841.32	621.91	392.04	234.53	142.51	90.11
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	60.17	44.34	34.00	26.95	20.73	16.49	15.60	18.28	10.82
45.0	51.15	36.09	26.59	19.24	14.04	10.64	8.07	5.98	3.23
90.0	47.09	33.94	24.08	17.63	13.09	9.92	7.29	5.20	2.99
135.0	50.19	35.85	26.23	19.60	14.64	11.77	9.08	8.31	3.94
180.0	49.30	37.82	29.04	22.53	17.27	15.06	19.90	21.21	4.30
225.0	50.25	36.63	26.05	19.06	14.16	10.76	8.07	6.45	4.18
270.0	56.77	39.26	28.08	20.55	14.76	11.11	8.37	6.04	3.76
315.0	52.70	38.00	27.43	20.44	15.48	12.01	9.38	7.53	6.09
360.0	60.17	44.34	34.00	26.95	20.73	16.49	15.60	18.28	10.82
C/γ(°)	90.0								
0.0	2.75								
45.0	2.63								
90.0	2.57								
135.0	2.57								
180.0	3.53								
225.0	2.63								
270.0	2.57								
315.0	2.63								
360.0	2.75								