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Nata

LumCAT: 2-1719-A
Luminaire: 92.70.150.00+92.70.152.00
Report No: NT2017072111
Test No: GC2017072111
LampCAT: CITIZEN LCN-C01B
Lamp flux(lm): 1382.0
Number of Lamps: 1
Length(mm): 70
Phm Type: C

Voltage(V): 23.5000
Current(A): 0.5000
Power (W): 11.7500
PF: 0.0000
Ballast type: DC
Width(mm): 70
Height(mm): 0

Photometric Results

Lumens(lm): 1195.52
Efficiency(%): 86.51%
Lumens(lm)/Power(W): 101.75
Central intensity(cd): 9689.222
Maximum intensity(cd): 9689.222
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=13.3
 [C90/270]Total=13.3
Field angle(10%Imax): [C0/180]Total=29.7
 [C90/270]Total=29.7
Maximum s/h(1/2): C0_180=0.23 C90_270=0.23
Maximum s/h(1/4): C0_180=0.24 C90_270=0.24
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 90.62%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 94.239%

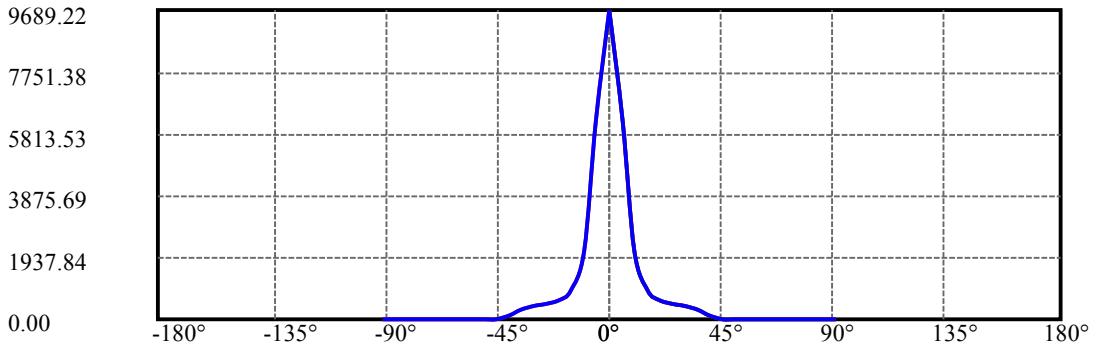
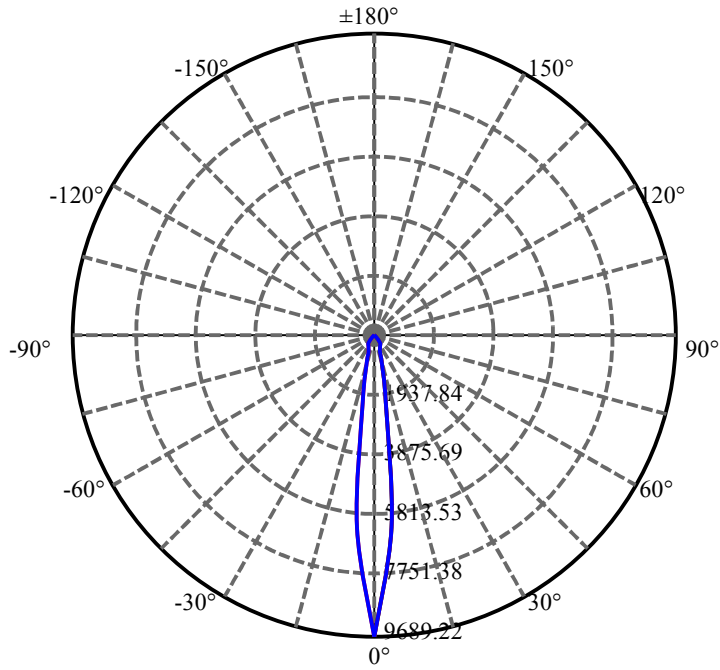
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	9689.222	57.943	57.943	4.193%	4.847%
5.0	6177.884	295.138	353.082	21.356%	29.534%
10.0	2172.611	206.796	559.877	14.964%	46.831%
15.0	928.269	131.692	691.569	9.529%	57.847%
20.0	614.449	115.193	806.763	8.335%	67.482%
25.0	487.285	112.881	919.644	8.168%	76.924%
30.0	420.350	115.205	1034.848	8.336%	86.560%
35.0	301.993	94.946	1129.795	6.870%	94.502%
40.0	98.517	34.711	1164.506	2.512%	97.406%
45.0	20.605	7.986	1172.492	.578%	98.074%
50.0	6.358	2.670	1175.162	.193%	98.297%
55.0	5.565	2.499	1177.661	.181%	98.506%
60.0	5.315	2.523	1180.184	.183%	98.717%
65.0	5.245	2.606	1182.79	.189%	98.935%
70.0	5.203	2.680	1185.47	.194%	99.159%
75.0	5.231	2.770	1188.239	.200%	99.391%
80.0	5.356	2.891	1191.131	.209%	99.633%
85.0	5.718	3.122	1194.253	.226%	99.894%
90.0	4.633	1.270	1195.523	.092%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1034.85	74.88%	86.56%
0-40	1164.51	84.26%	97.41%
0-60	1180.18	85.40%	98.72%
0-90	1194.25	86.41%	99.89%
0-120	1194.25	86.41%	99.89%
0-180	1195.52	86.51%	100.00%
60-90	16.59	1.20%	1.39%
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%
0-26.60	956.42	69.21%	80.00%

ZONAL LUMEN SUMMARY

0-10	559.88
10-20	246.89
20-30	228.09
30-40	129.66
40-50	10.66
50-60	5.02
60-70	5.29
70-80	5.66
80-90	3.12
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: ———

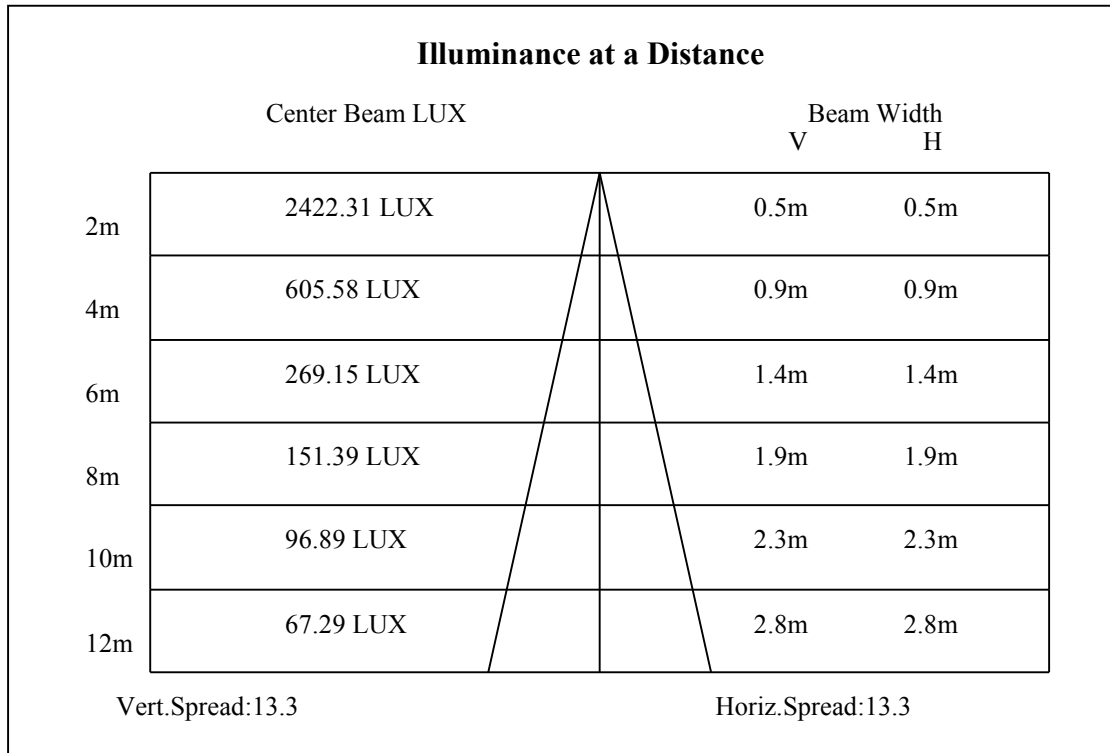
C90/C270: ———

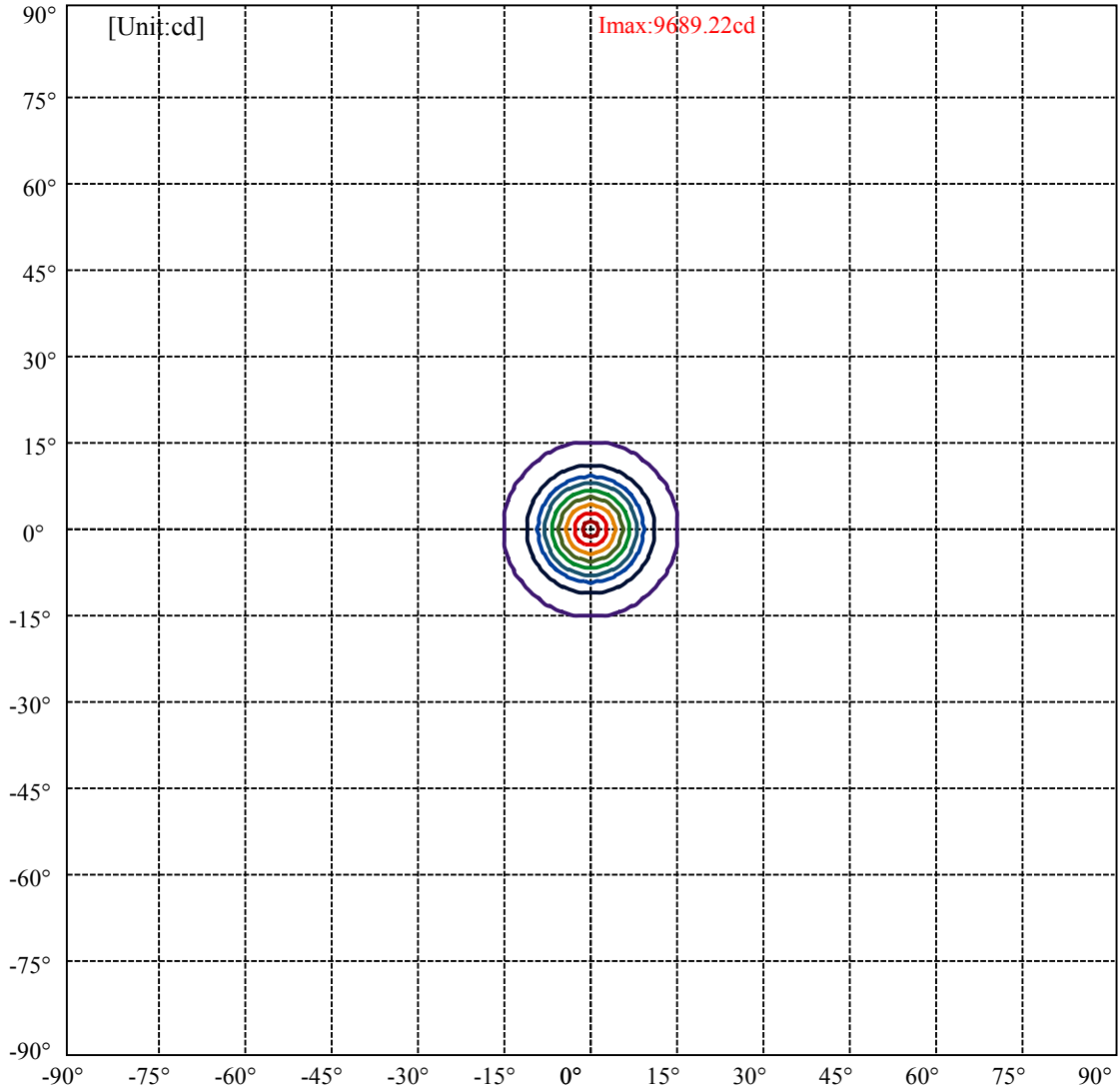
Field angle(10%Imax):C0/180Left:14.8 Right:14.8

:C90/270Left:14.8 Right:14.8

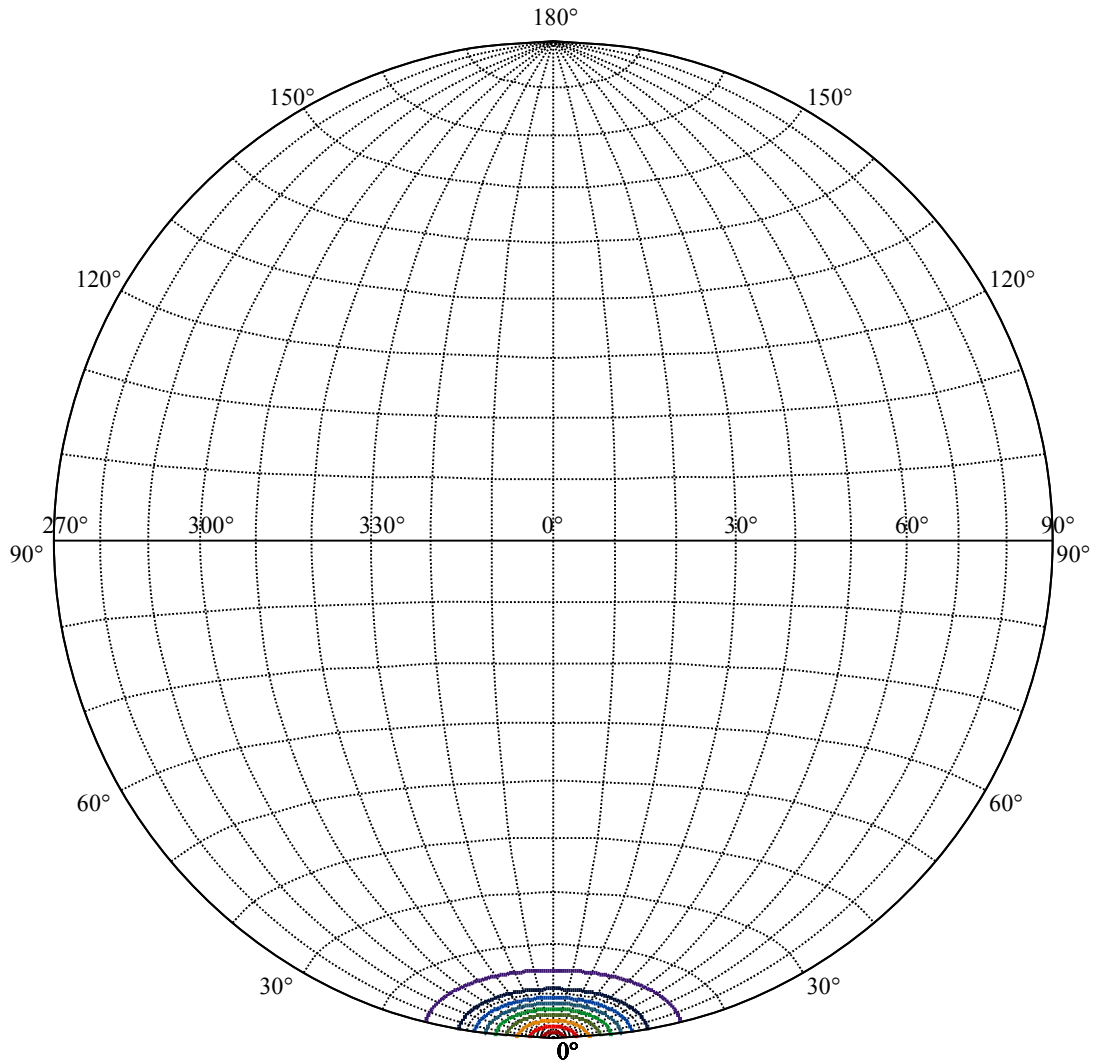
Beam Angle(50%Imax):C0/180Left:6.7 Right:6.7

:C90/270Left:6.7 Right:6.7





(10%I _{max}) 968.922	—
(20%I _{max}) 1937.84	—
(30%I _{max}) 2906.77	—
(40%I _{max}) 3875.69	—
(50%I _{max}) 4844.61	—
(60%I _{max}) 5813.53	—
(70%I _{max}) 6782.46	—
(80%I _{max}) 7751.38	—
(90%I _{max}) 8720.3	—



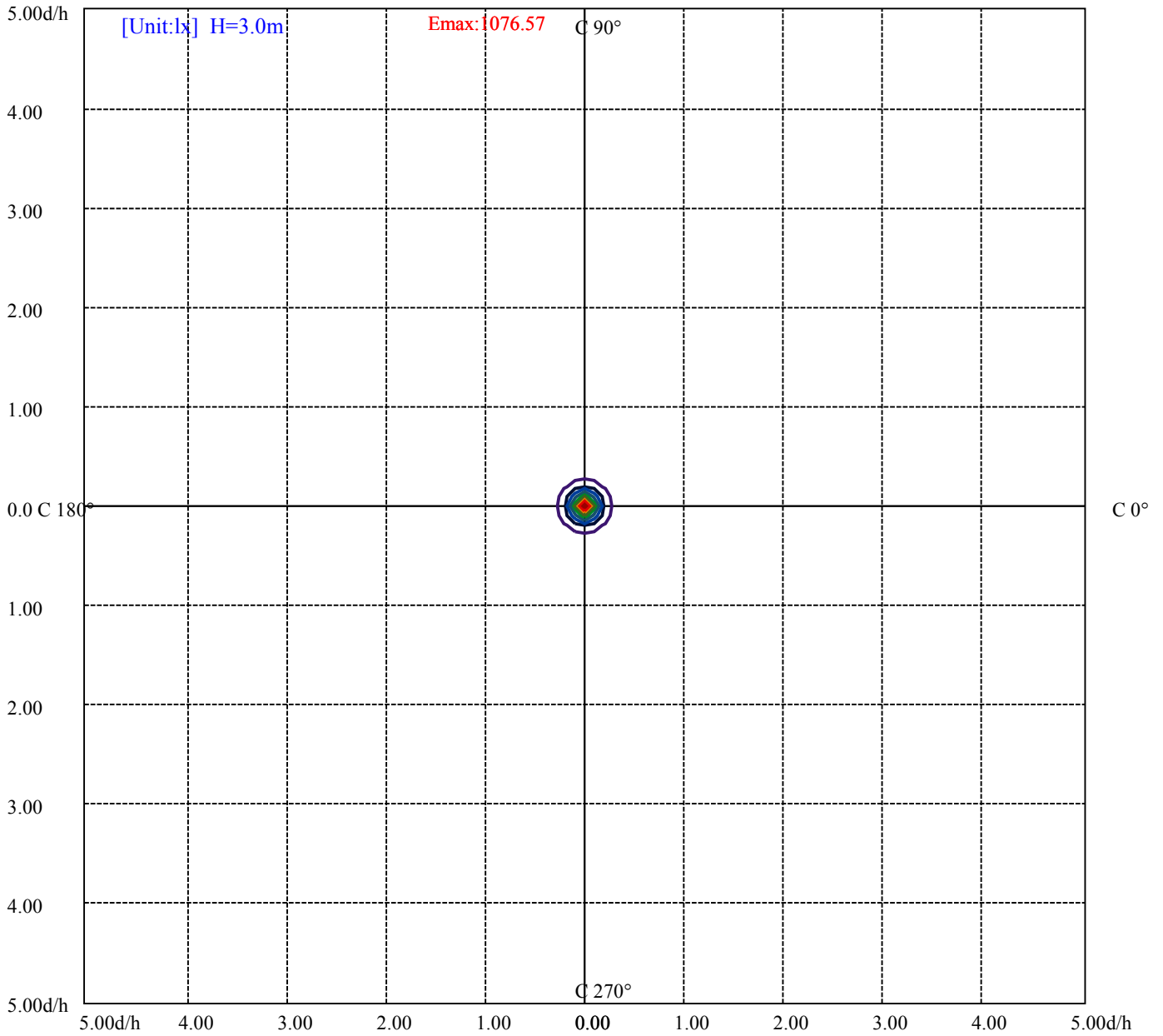
House

[Unit:cd]

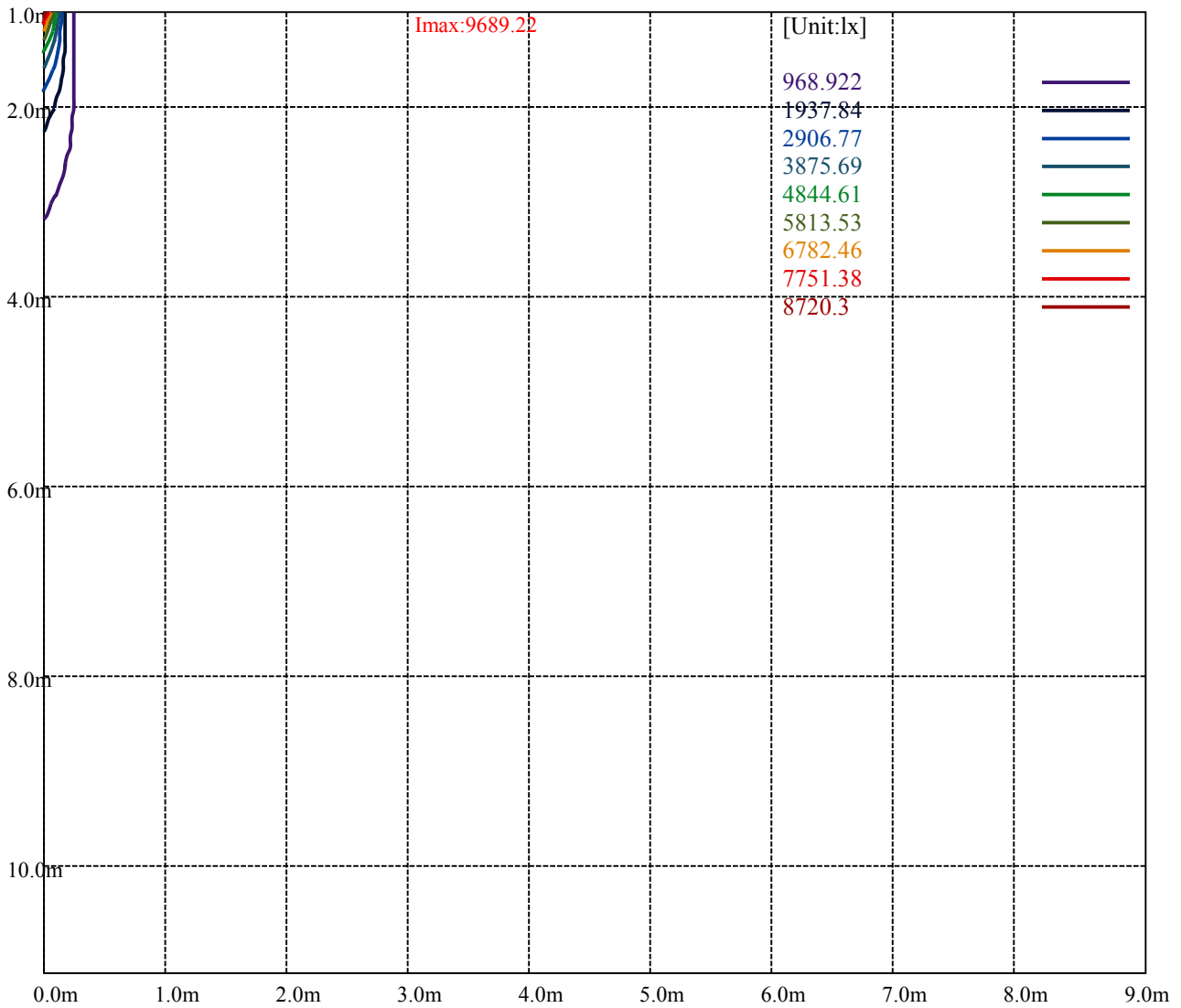
Road

Imax:9689.22

(10%Imax)	968.922	—
(20%Imax)	1937.84	—
(30%Imax)	2906.77	—
(40%Imax)	3875.69	—
(50%Imax)	4844.61	—
(60%Imax)	5813.53	—
(70%Imax)	6782.46	—
(80%Imax)	7751.38	—
(90%Imax)	8720.3	—



(10%Emax) 107.6568	—
(20%Emax) 215.3133	—
(30%Emax) 322.97	—
(40%Emax) 430.6278	—
(50%Emax) 538.2844	—
(60%Emax) 645.9412	—
(70%Emax) 753.5978	—
(80%Emax) 861.2545	—
(90%Emax) 968.9111	—



Luminance Table

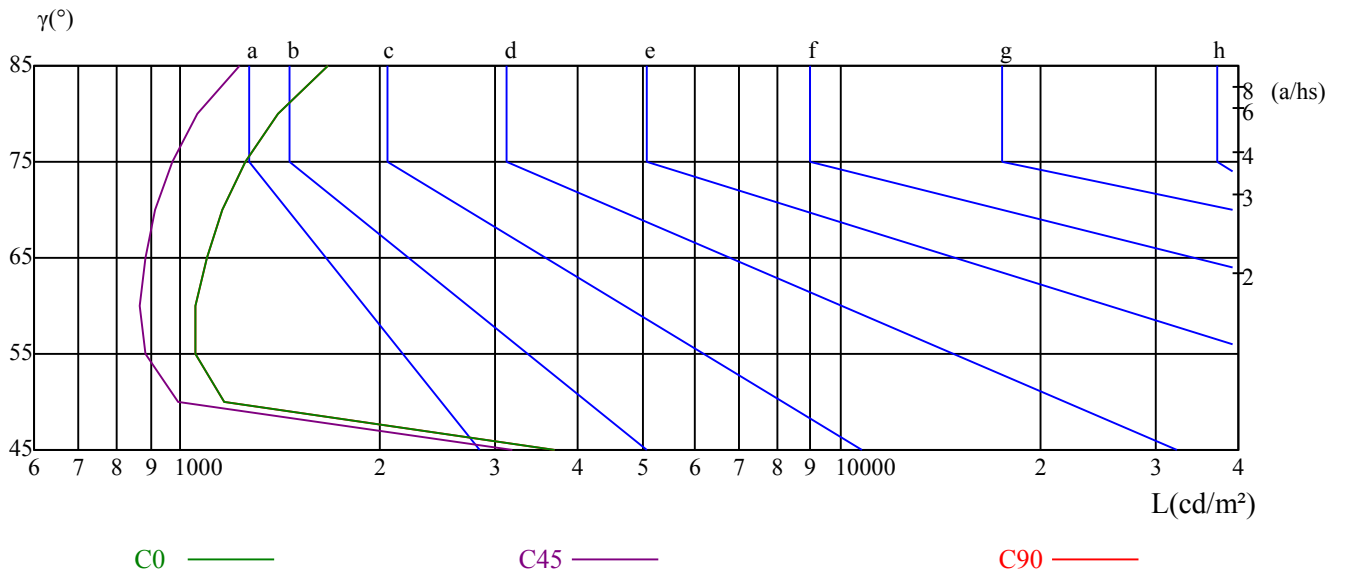
γ	45	50	55	60	65	70	75	80	85
C0	3684	1165	1055	1051	1093	1155	1253	1404	1669
C45	3182	992	884	866	885	917	972	1062	1225
C90	3684	1165	1055	1051	1093	1155	1253	1404	1669

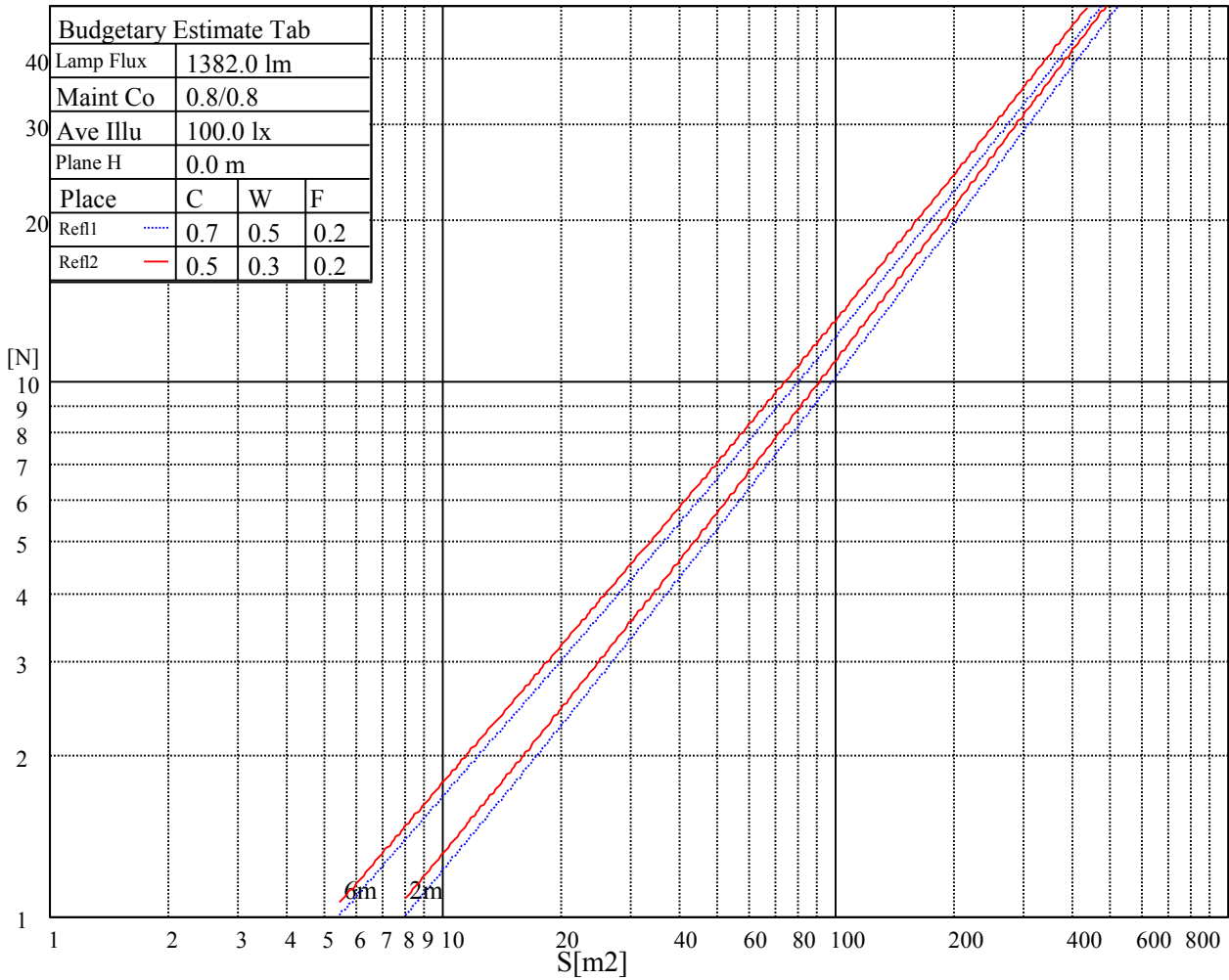
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2533	2533	2533	4125	4125	4125	13390	13390	13390

Glare Table

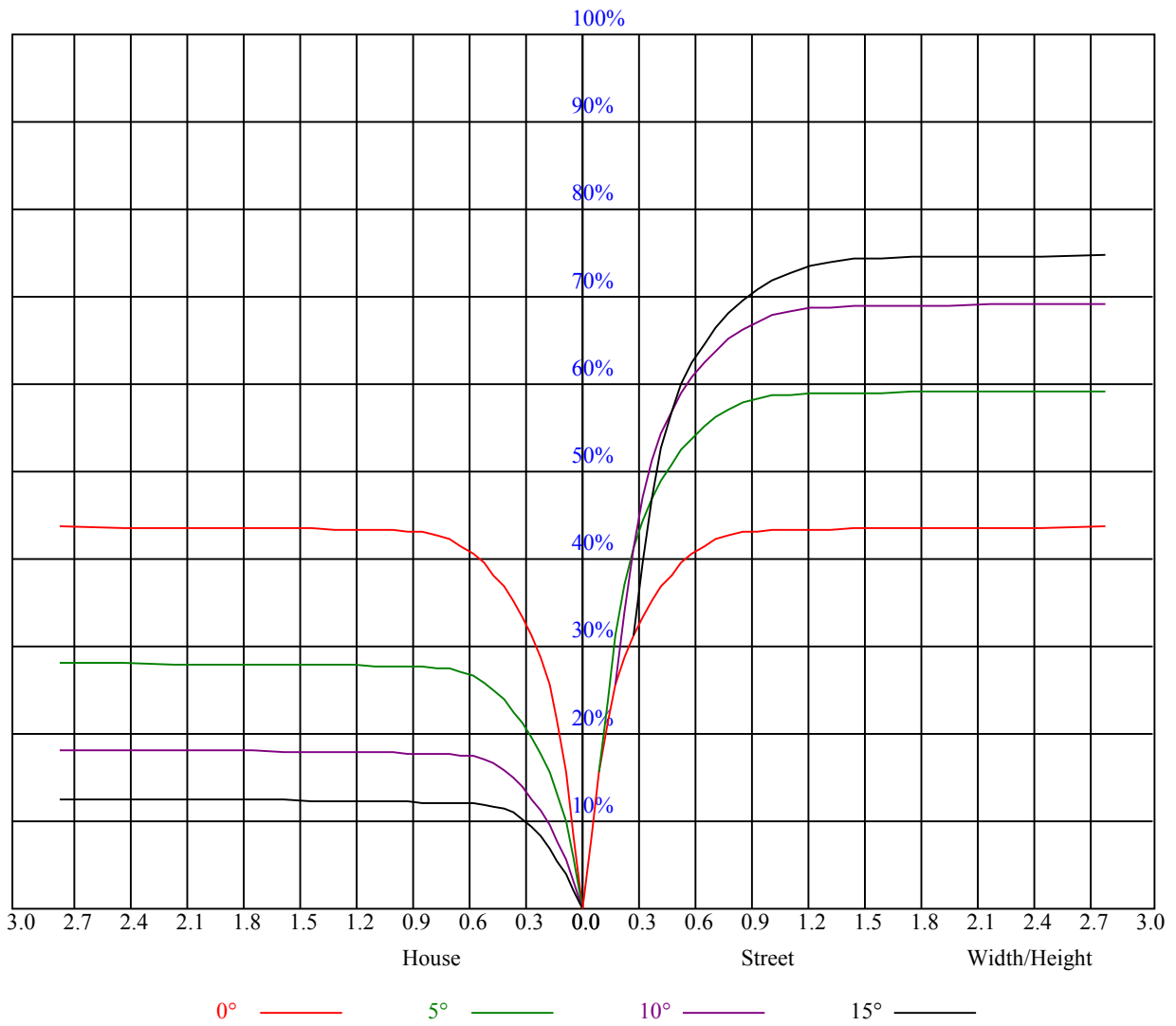
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.08	1.08	1.08	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.92	0.92	0.92	0.91
1	0.96	0.93	0.90	0.94	0.91	0.88	0.90	0.88	0.86	0.87	0.85	0.83	0.84	0.82	0.81	0.79
2	0.91	0.87	0.83	0.90	0.86	0.83	0.87	0.83	0.81	0.84	0.81	0.79	0.81	0.79	0.77	0.76
3	0.87	0.82	0.79	0.85	0.81	0.78	0.83	0.80	0.77	0.81	0.78	0.75	0.79	0.76	0.74	0.73
4	0.83	0.78	0.75	0.82	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.72	0.70
5	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.68
6	0.76	0.72	0.68	0.76	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.66
7	0.74	0.69	0.66	0.73	0.69	0.66	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.64
8	0.71	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.68	0.65	0.63	0.62
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.60	0.65	0.62	0.60	0.59



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	9526.44	6097.19	2212.99	929.66	614.06	485.62	414.66	294.95	93.83
45.0	9893.18	6202.93	2152.49	908.35	612.11	485.67	420.73	312.15	94.94
90.0	9447.97	6208.49	2172.47	966.72	619.51	492.18	425.29	288.72	110.36
135.0	9889.29	6202.93	2152.49	908.35	612.11	485.67	420.73	312.15	94.94
180.0	9526.44	6097.19	2212.99	929.66	614.06	485.62	414.66	294.95	93.83
225.0	9893.18	6202.93	2152.49	908.35	612.11	485.67	420.73	312.15	94.94
270.0	9447.97	6208.49	2172.47	966.72	619.51	492.18	425.29	288.72	110.36
315.0	9889.29	6202.93	2152.49	908.35	612.11	485.67	420.73	312.15	94.94
360.0	9526.44	6097.19	2212.99	929.66	614.06	485.62	414.66	294.95	93.83
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	20.03	6.29	5.57	5.34	5.29	5.34	5.40	5.62	5.79
45.0	19.37	6.12	5.57	5.29	5.23	5.18	5.18	5.29	5.57
90.0	23.65	6.90	5.57	5.34	5.23	5.12	5.18	5.23	5.95
135.0	19.37	6.12	5.57	5.29	5.23	5.18	5.18	5.29	5.57
180.0	20.03	6.29	5.57	5.34	5.29	5.34	5.40	5.62	5.79
225.0	19.37	6.12	5.57	5.29	5.23	5.18	5.18	5.29	5.57
270.0	23.65	6.90	5.57	5.34	5.23	5.12	5.18	5.23	5.95
315.0	19.37	6.12	5.57	5.29	5.23	5.18	5.18	5.29	5.57
360.0	20.03	6.29	5.57	5.34	5.29	5.34	5.40	5.62	5.79
C/γ(°)	90.0								
0.0	4.67								
45.0	4.62								
90.0	4.62								
135.0	4.62								
180.0	4.67								
225.0	4.62								
270.0	4.62								
315.0	4.62								
360.0	4.67								