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Nata

LumCAT: 1701-A	
Luminaire: 92.70.150.00+92.70.152.00	
Report No: NT2017072107	Voltage(V): 23.5000
Test No: GC2017072107	Current(A): 0.5000
LampCAT: CITIZEN LCN-C01B	Power (W): 11.7500
Lamp flux(lm): 1382.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 46	Width(mm): 46
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1212.88
Efficiency(%): 87.76%
Lumens(lm)/Power(W): 105.33
Central intensity(cd): 4328.442
Maximum intensity(cd): 4328.442
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=19.4
[C90/270]Total=19.4
Field angle(10%Imax): [C0/180]Total=62.1
[C90/270]Total=62.1
Maximum s/h(1/2): C0_180=0.33 C90_270=0.33
Maximum s/h(1/4): C0_180=0.37 C90_270=0.37
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.55%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 96.490%

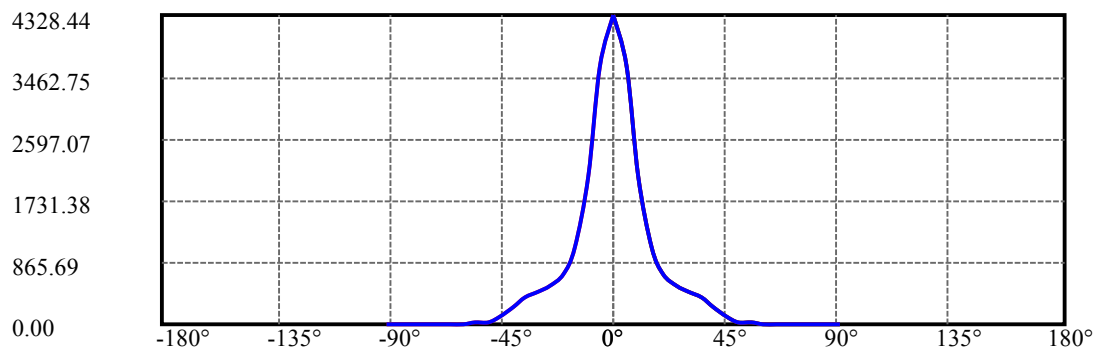
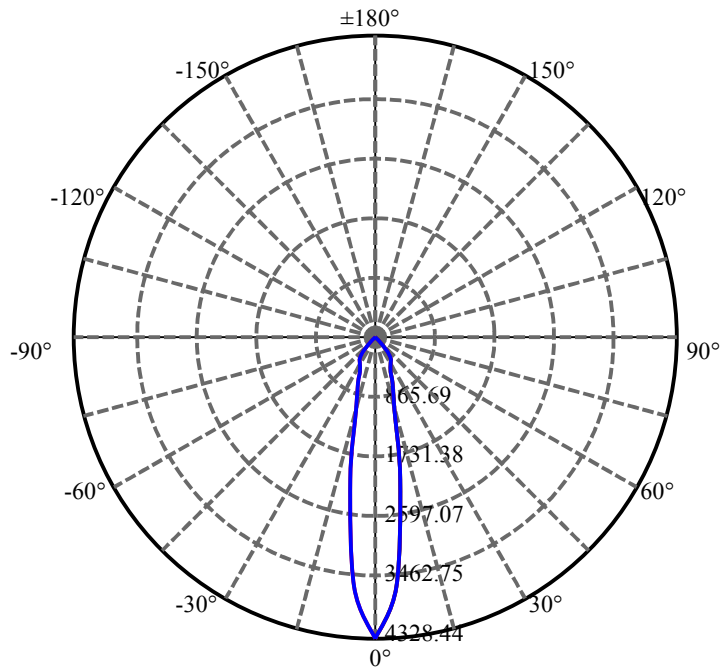
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4328.442	25.885	25.885	1.873%	2.134%
5.0	3592.116	171.607	197.492	12.417%	16.283%
10.0	2066.010	196.649	394.141	14.229%	32.496%
15.0	1086.180	154.095	548.236	11.150%	45.201%
20.0	703.269	131.845	680.081	9.540%	56.071%
25.0	534.617	123.846	803.926	8.961%	66.282%
30.0	451.293	123.685	927.612	8.950%	76.480%
35.0	364.880	114.718	1042.329	8.301%	85.938%
40.0	248.763	87.648	1129.977	6.342%	93.164%
45.0	95.345	36.955	1166.932	2.674%	96.211%
50.0	40.014	16.802	1183.734	1.216%	97.597%
55.0	15.847	7.115	1190.849	.515%	98.183%
60.0	7.012	3.329	1194.178	.241%	98.458%
65.0	6.247	3.103	1197.281	.225%	98.714%
70.0	6.358	3.275	1200.556	.237%	98.984%
75.0	7.221	3.823	1204.379	.277%	99.299%
80.0	6.776	3.658	1208.037	.265%	99.600%
85.0	6.636	3.624	1211.661	.262%	99.899%
90.0	4.466	1.224	1212.885	.089%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	927.61	67.12%	76.48%
0-40	1129.98	81.76%	93.16%
0-60	1194.18	86.41%	98.46%
0-90	1211.66	87.67%	99.90%
0-120	1211.66	87.67%	99.90%
0-180	1212.88	87.76%	100.00%
60-90	20.81	1.51%	1.72%
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%
0-31.86	970.31	70.21%	80.00%

ZONAL LUMEN SUMMARY

0-10	394.14
10-20	285.94
20-30	247.53
30-40	202.37
40-50	53.76
50-60	10.44
60-70	6.38
70-80	7.48
80-90	3.62
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



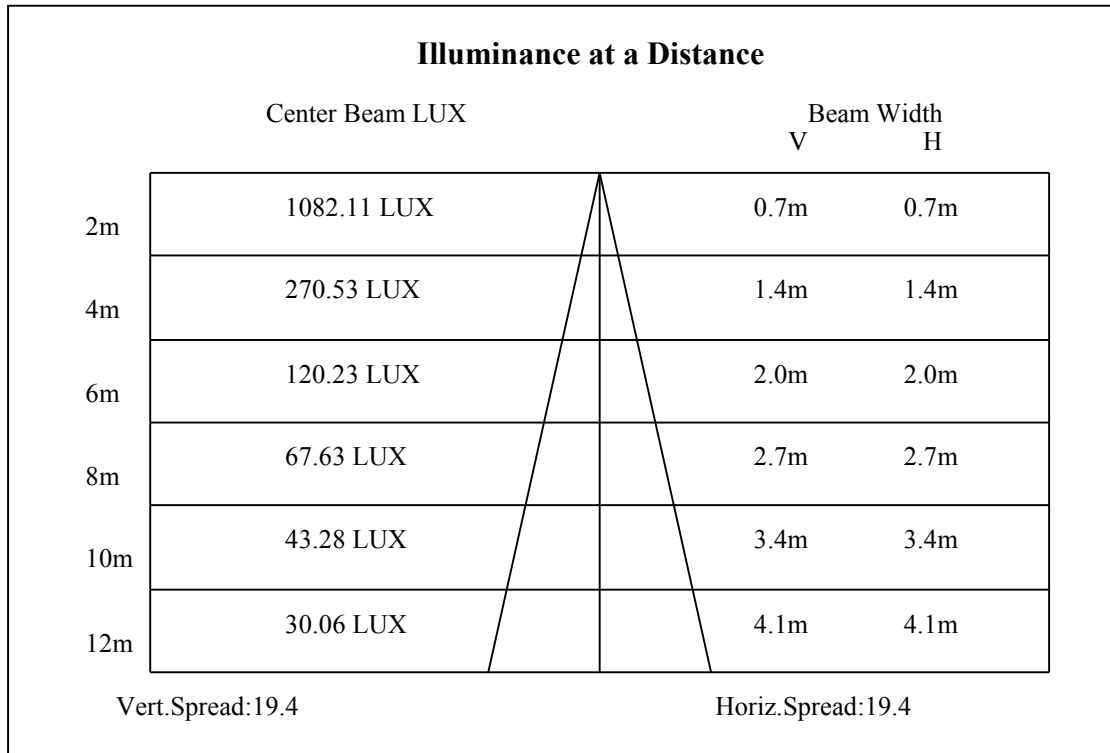
C0(Max): —————

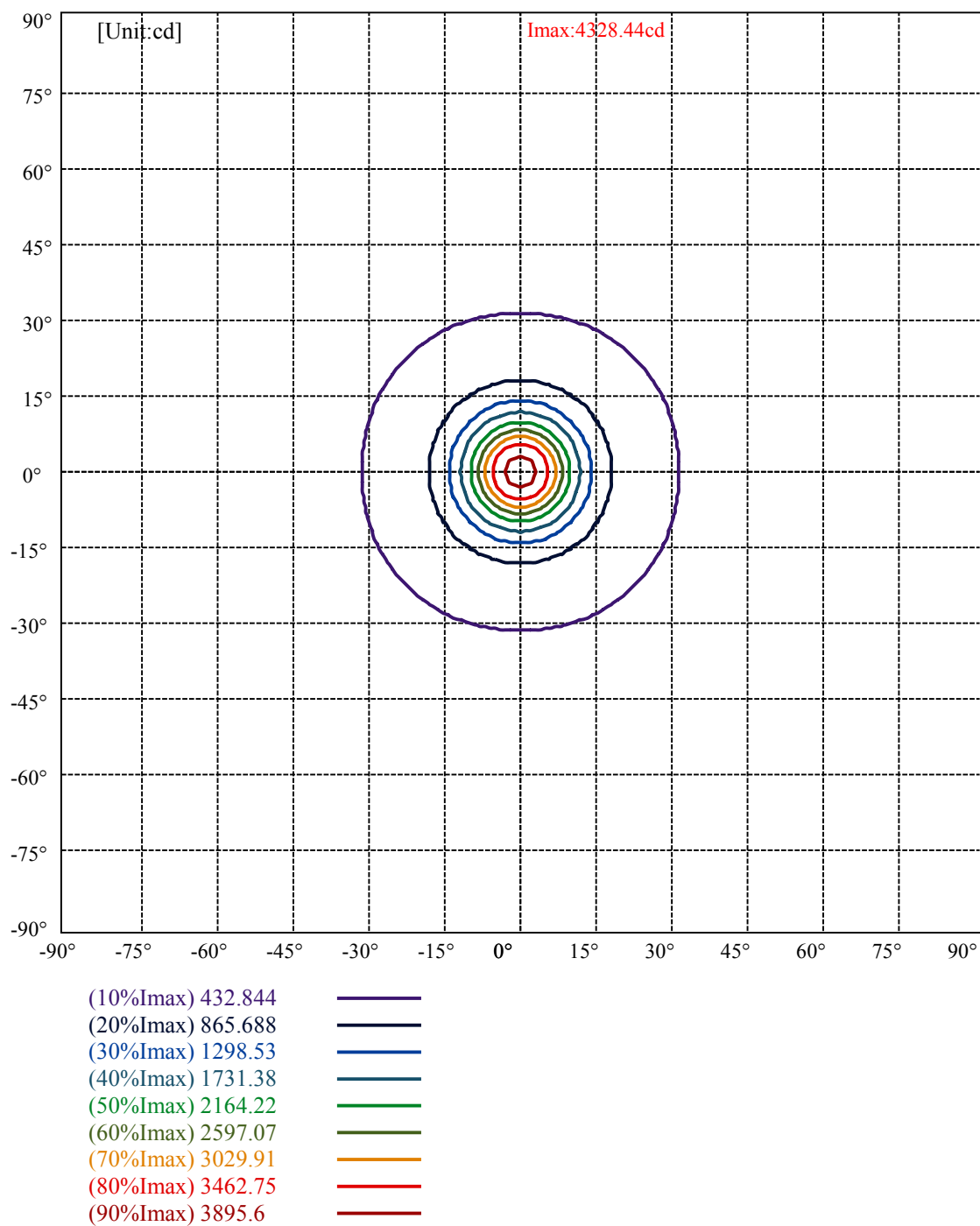
C0/C180: —————

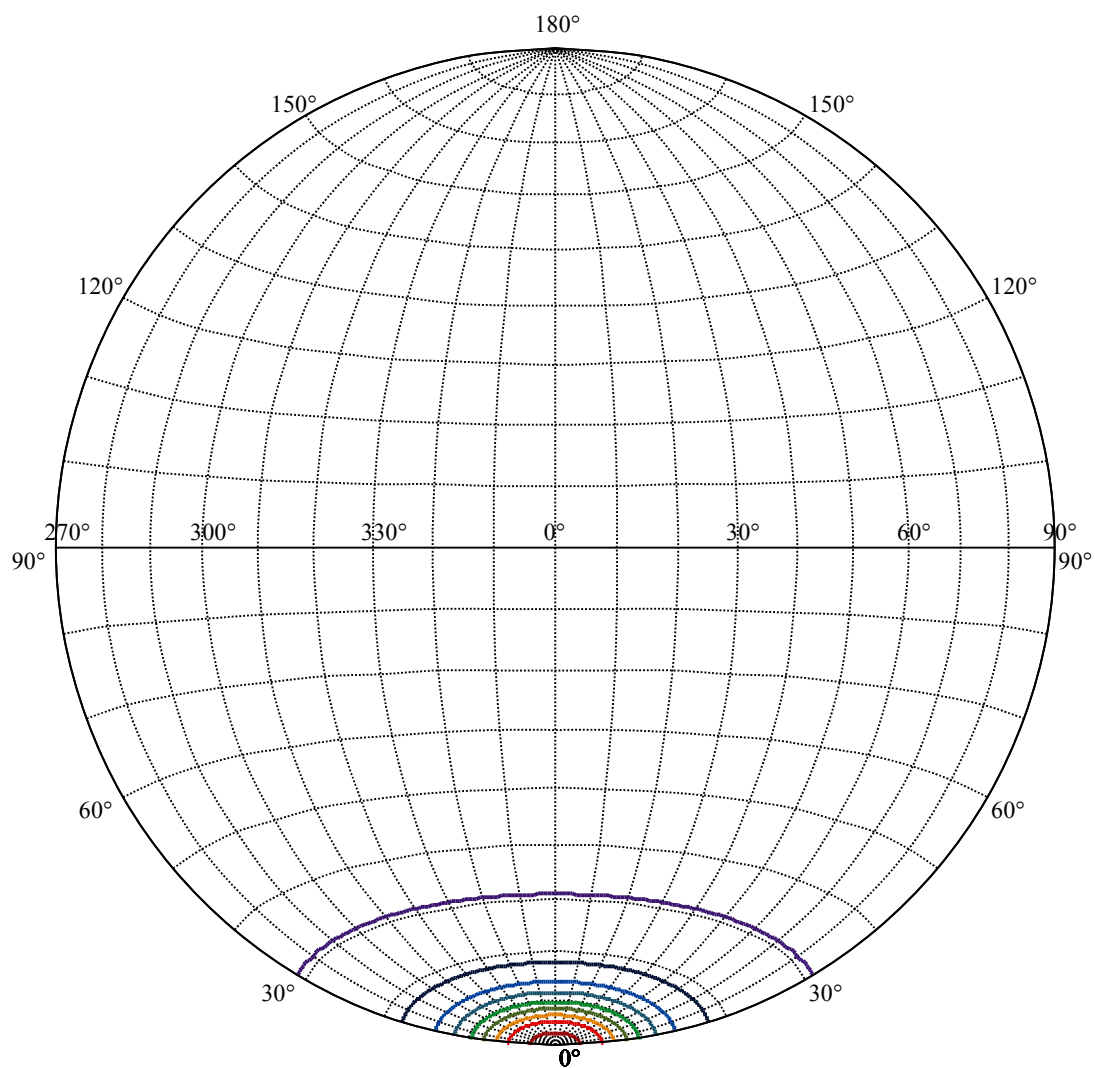
C90/C270: —————

Field angle(10%Imax):C0/180Left:31.1 Right:31.1
:C90/270Left:31.1 Right:31.1

Beam Angle(50%Imax):C0/180Left:9.7 Right:9.7
:C90/270Left:9.7 Right:9.7







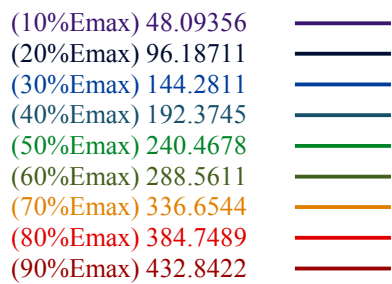
House

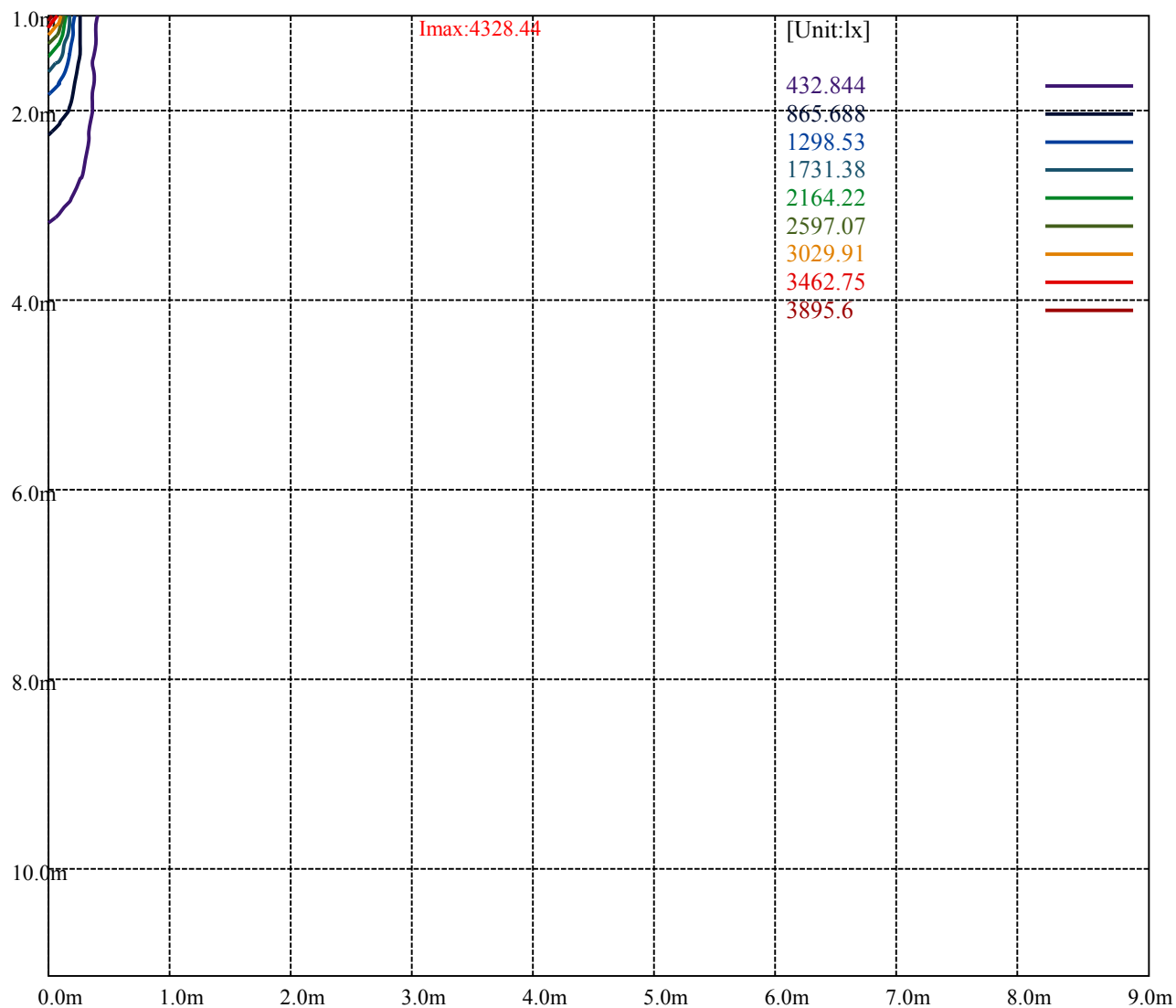
[Unit:cd]

Road

Imax:4328.44

(10%Imax)	432.844	—
(20%Imax)	865.688	—
(30%Imax)	1298.53	—
(40%Imax)	1731.38	—
(50%Imax)	2164.22	—
(60%Imax)	2597.07	—
(70%Imax)	3029.91	—
(80%Imax)	3462.75	—
(90%Imax)	3895.6	—





Luminance Table

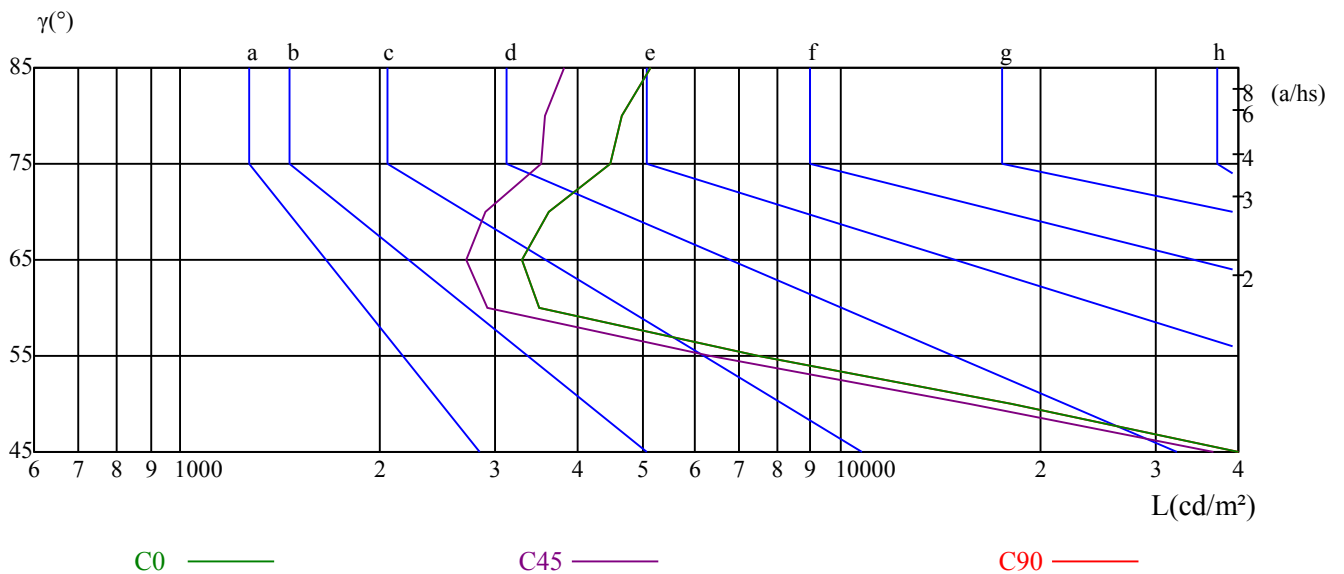
γ	45	50	55	60	65	70	75	80	85
C0	41875	18140	7482	3482	3297	3610	4474	4658	5168
C45	36668	15654	6357	2909	2705	2902	3512	3557	3815
C90	41875	18140	7482	3482	3297	3610	4474	4658	5168

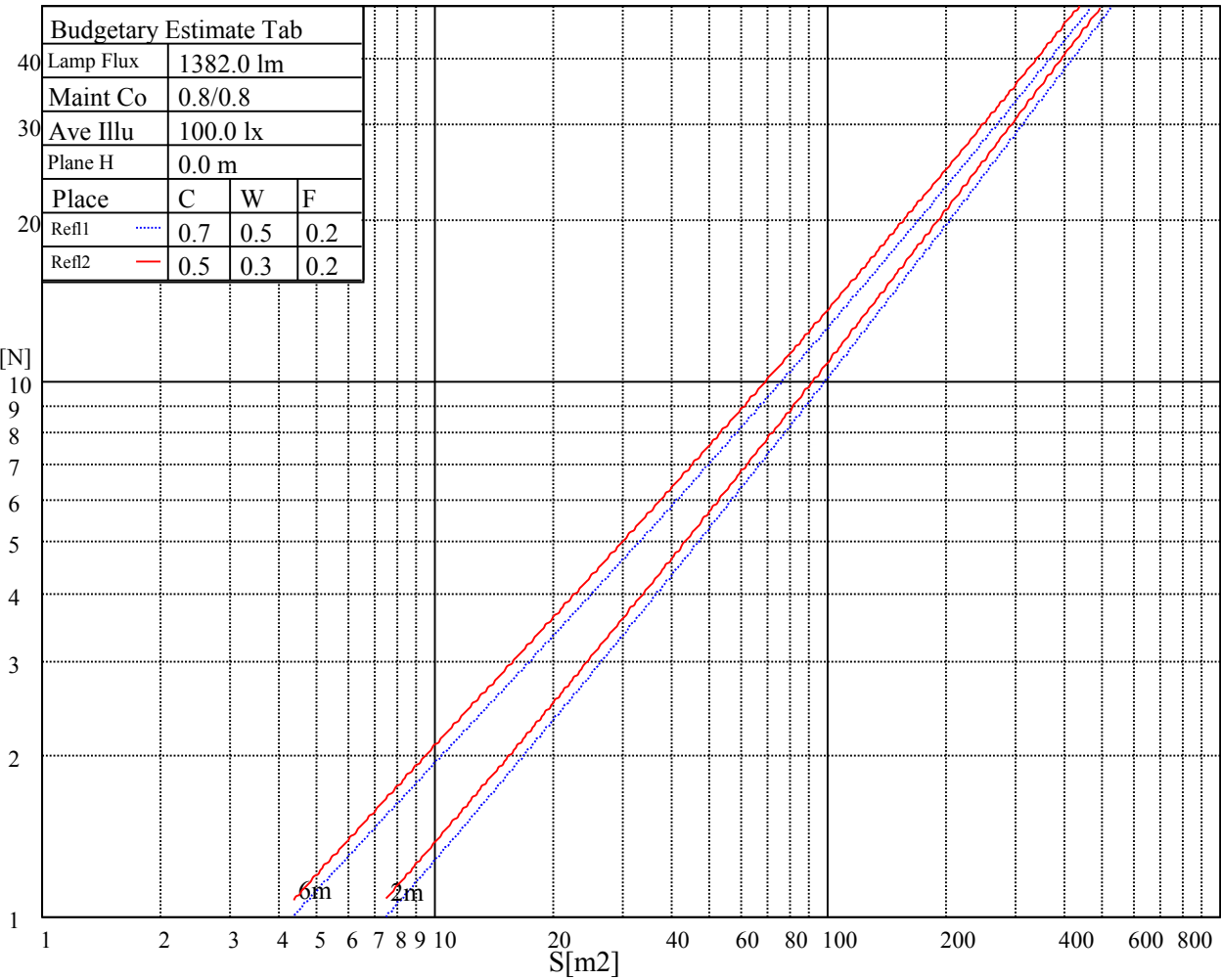
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
6986	6986	6986	13185	13185	13185	35985	35985	35985

Glare Table

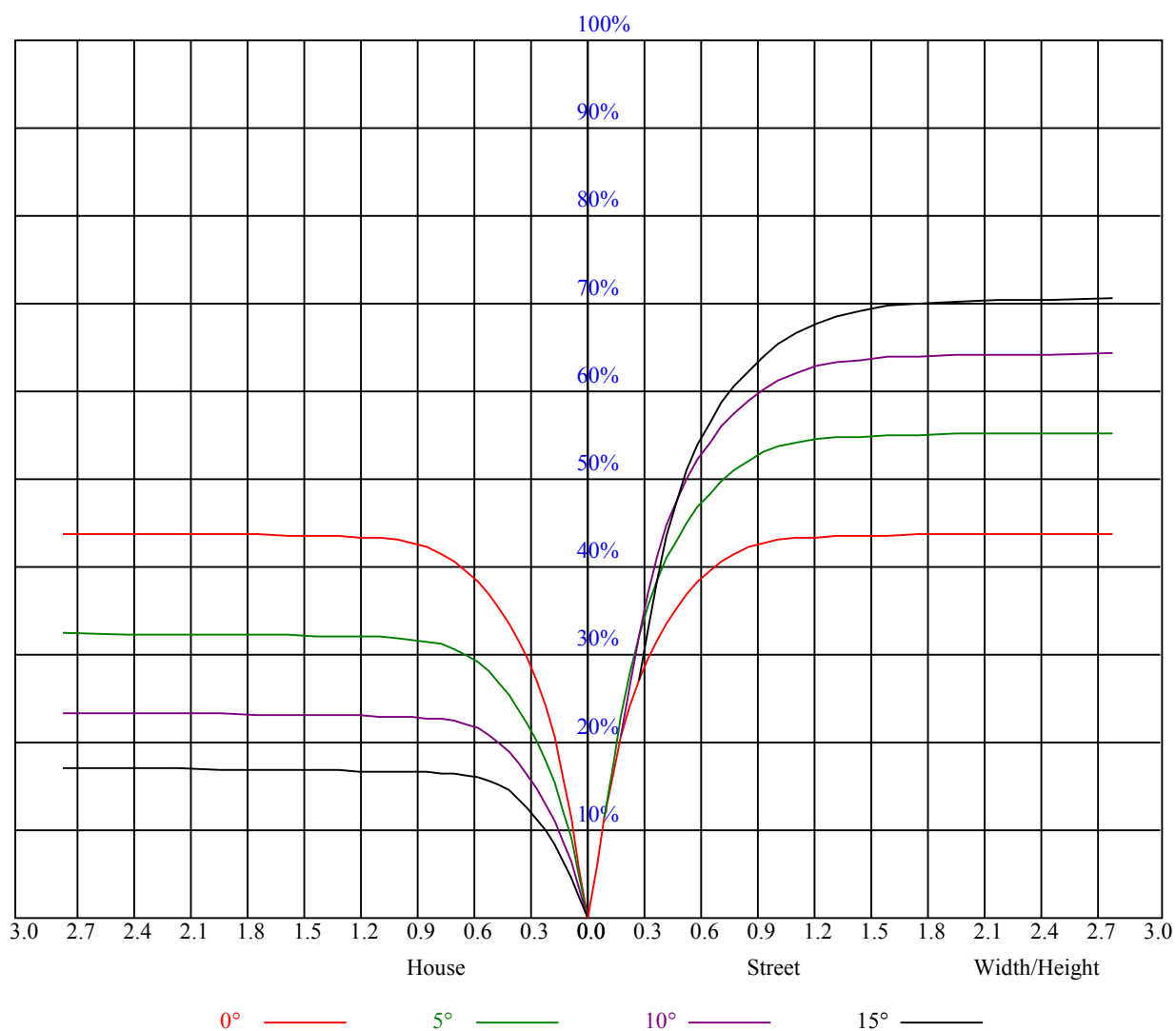
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

Luminance Limiting Curve





RHOC	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	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	0.97	0.95	0.92	0.95	0.93	0.91	0.92	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.81
2	0.91	0.88	0.84	0.90	0.86	0.83	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.77
3	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.79	0.76	0.80	0.78	0.75	0.78	0.76	0.74	0.73
4	0.82	0.77	0.73	0.81	0.76	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.73	0.70	0.69
5	0.78	0.73	0.69	0.77	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.66
6	0.74	0.69	0.65	0.73	0.69	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.69	0.66	0.64	0.63
7	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.61	0.67	0.64	0.61	0.60
8	0.68	0.63	0.59	0.67	0.63	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.64	0.61	0.59	0.58
9	0.65	0.60	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.55
10	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.53



Nata 1701-A

Appendix Page: 14 Total:14

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	4295.19	3549.74	2010.41	1088.21	695.14	528.75	444.93	360.68	236.69
45.0	4348.06	3601.94	2069.29	1082.42	703.49	535.70	452.95	365.13	248.09
90.0	4339.71	3614.85	2115.04	1091.66	710.95	538.32	454.34	368.58	262.17
135.0	4330.81	3601.94	2069.29	1082.42	703.49	535.70	452.95	365.13	248.09
180.0	4295.19	3549.74	2010.41	1088.21	695.14	528.75	444.93	360.68	236.69
225.0	4348.06	3601.94	2069.29	1082.42	703.49	535.70	452.95	365.13	248.09
270.0	4339.71	3614.85	2115.04	1091.66	710.95	538.32	454.34	368.58	262.17
315.0	4330.81	3601.94	2069.29	1082.42	703.49	535.70	452.95	365.13	248.09
360.0	4295.19	3549.74	2010.41	1088.21	695.14	528.75	444.93	360.68	236.69
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	96.44	39.51	16.25	7.51	6.57	7.18	9.57	7.96	7.07
45.0	94.77	40.12	15.81	6.96	6.23	6.18	6.68	6.57	6.51
90.0	95.39	40.29	15.53	6.62	5.95	5.90	5.95	6.01	6.46
135.0	94.77	40.12	15.81	6.96	6.23	6.18	6.68	6.57	6.51
180.0	96.44	39.51	16.25	7.51	6.57	7.18	9.57	7.96	7.07
225.0	94.77	40.12	15.81	6.96	6.23	6.18	6.68	6.57	6.51
270.0	95.39	40.29	15.53	6.62	5.95	5.90	5.95	6.01	6.46
315.0	94.77	40.12	15.81	6.96	6.23	6.18	6.68	6.57	6.51
360.0	96.44	39.51	16.25	7.51	6.57	7.18	9.57	7.96	7.07
C/ γ (°)	90.0								
0.0	4.45								
45.0	4.45								
90.0	4.51								
135.0	4.45								
180.0	4.45								
225.0	4.45								
270.0	4.51								
315.0	4.45								
360.0	4.45								