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Nata

LumCAT: 1-0920-M	
Luminaire: 92.70.124.00	
Report No: 210713-B003	Voltage(V): 38.8700
Test No: 210713-C003	Current(A): 0.2310
LampCAT: Fortimo LED SLM 1201 G7N	Power (W): 8.9780
Lamp flux(lm): 1070.7	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 570	Width(mm): 45
Phm Type: C	Height(mm): 20

Photometric Results

Lumens(lm): 838.99
Efficiency(%): 78.36%
Lumens(lm)/Power(W): 93.45
Central intensity(cd): 2549.672
Maximum intensity(cd): 2549.672
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=34.5
[C90/270]Total=34.5
Field angle(10%Imax): [C0/180]Total=51.4
[C90/270]Total=51.4
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
Maximum s/h(1/4): C0_180=0.55 C90_270=0.55
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 78.36%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.579%

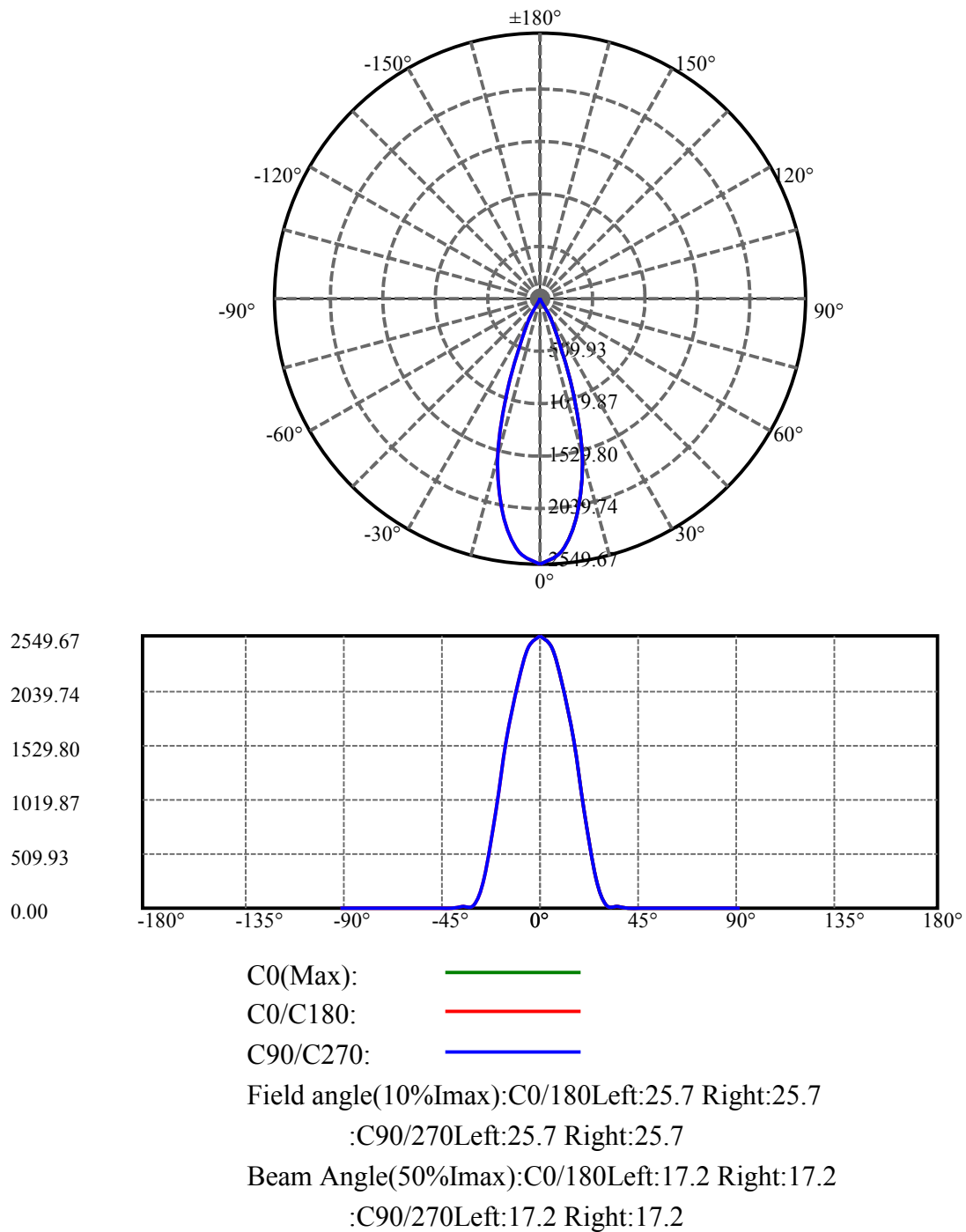
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2549.672	0.000	0	.000%	.000%
5.0	2431.055	59.543	59.543	5.561%	7.097%
10.0	2099.461	162.071	221.614	15.136%	26.414%
15.0	1563.117	217.262	438.876	20.291%	52.310%
20.0	920.946	204.722	643.597	19.120%	76.711%
25.0	290.763	127.086	770.683	11.869%	91.858%
30.0	30.143	40.611	811.294	3.793%	96.699%
35.0	8.550	5.698	816.992	.532%	97.378%
40.0	5.934	2.417	819.409	.226%	97.666%
45.0	4.943	2.014	821.423	.188%	97.906%
50.0	4.444	1.897	823.319	.177%	98.132%
55.0	4.163	1.871	825.191	.175%	98.355%
60.0	3.973	1.880	827.071	.176%	98.579%
65.0	3.874	1.908	828.979	.178%	98.807%
70.0	3.811	1.946	830.925	.182%	99.039%
75.0	3.776	1.983	832.908	.185%	99.275%
80.0	3.748	2.013	834.921	.188%	99.515%
85.0	3.734	2.033	836.954	.190%	99.757%
90.0	3.705	2.037	838.99	.190%	100.000%

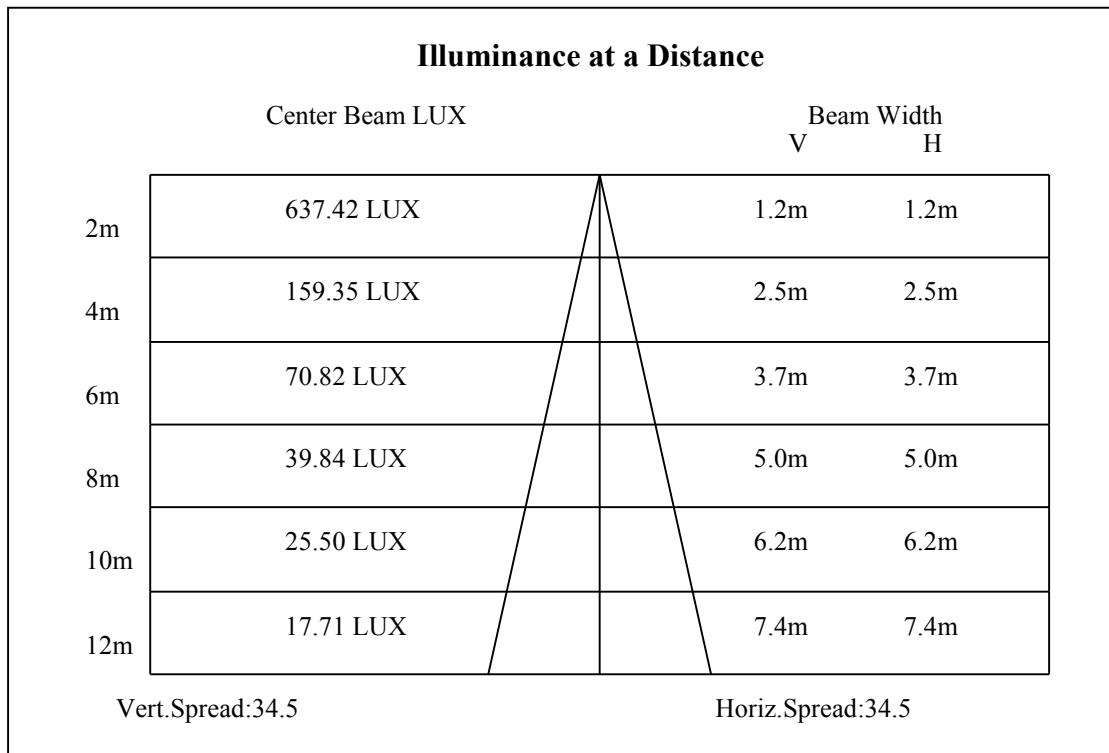
ZONAL LUMEN SUMMARY

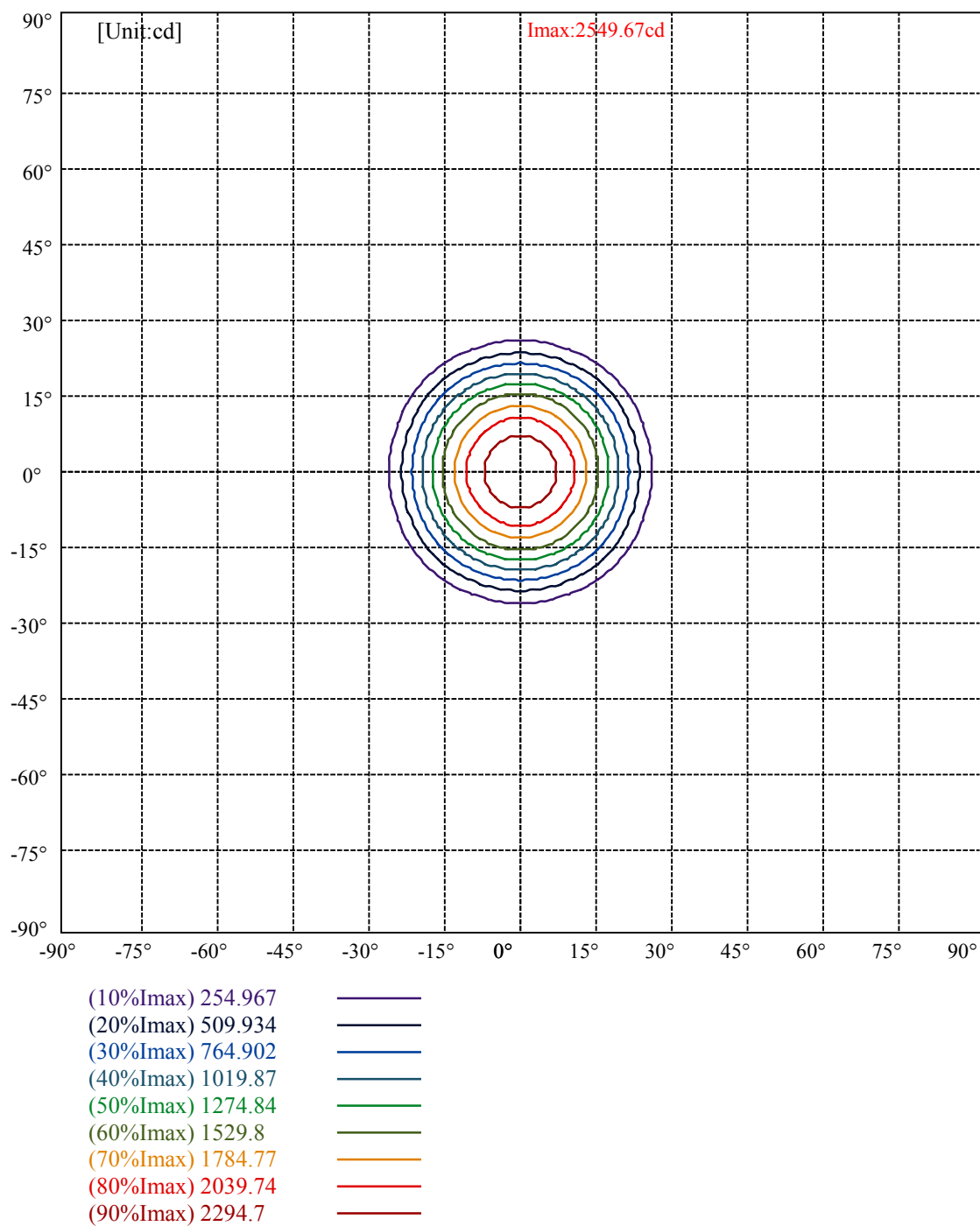
Zone	Lumens	%Lamp	%Fixt
0-30	811.29	75.77%	96.70%
0-40	819.41	76.53%	97.67%
0-60	827.07	77.24%	98.58%
0-90	836.95	78.17%	99.76%
0-120	836.95	78.17%	99.76%
0-180	838.99	78.36%	100.00%
60-90	11.76	1.10%	1.40%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-21.09	671.19	62.69%	80.00%

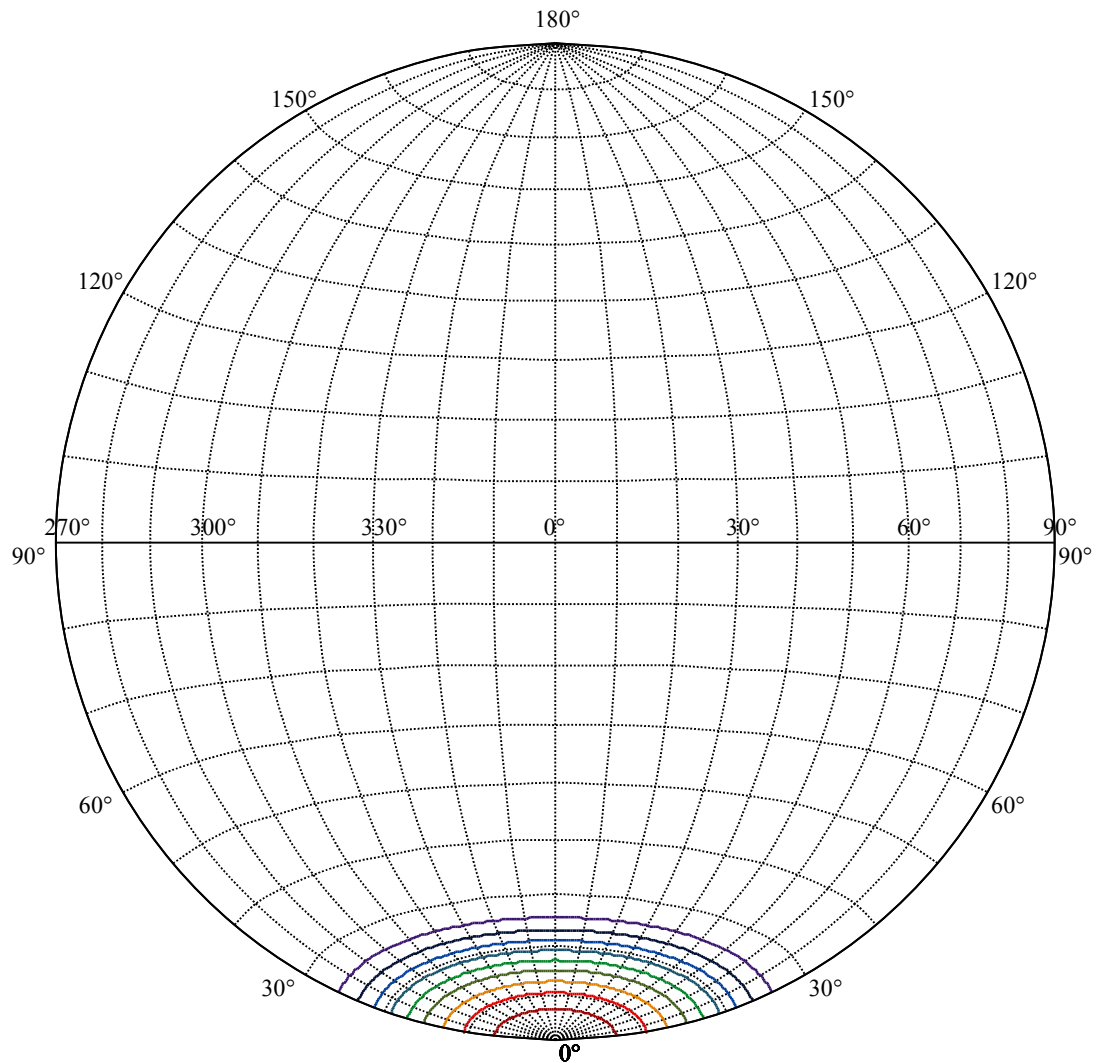
ZONAL LUMEN SUMMARY

0-10	221.61
10-20	421.98
20-30	167.70
30-40	8.11
40-50	3.91
50-60	3.75
60-70	3.85
70-80	4.00
80-90	2.03
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









House

[Unit:cd]

Road

Imax:2549.67

(10%Imax) 254.967

(20%Imax) 509.934

(30%Imax) 764.902

(40%Imax) 1019.87

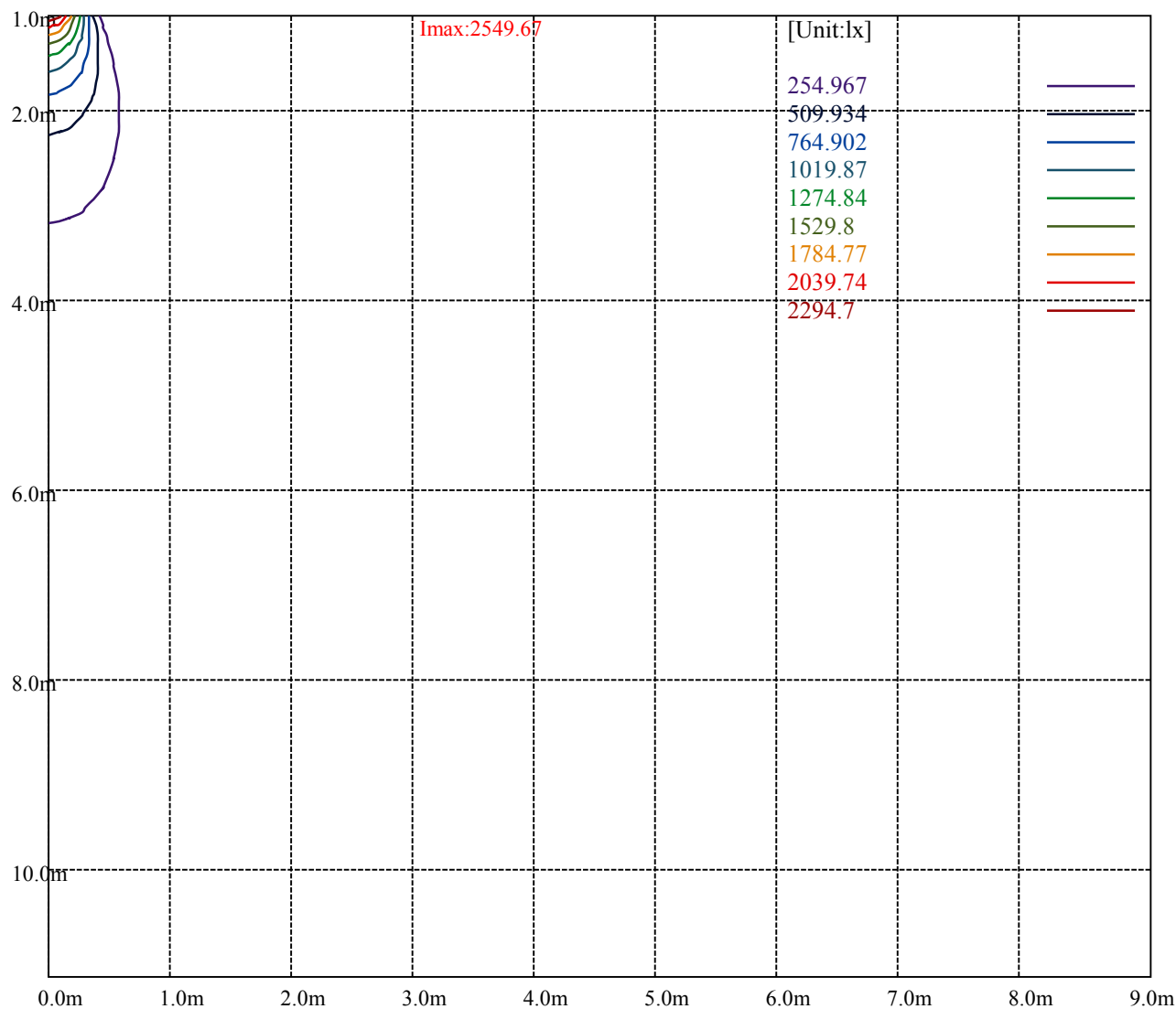
(50%Imax) 1274.84

(60%Imax) 1529.8

(70%Imax) 1784.77

(80%Imax) 2039.74

(90%Imax) 2294.7



Luminance Table

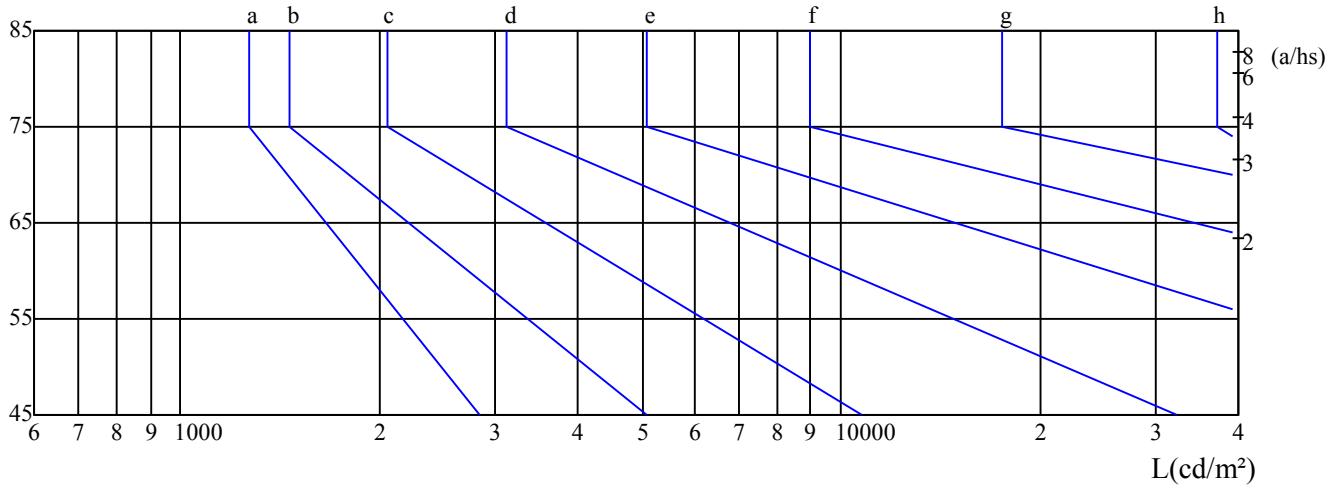
γ	45	50	55	60	65	70	75	80	85
C0	189	176	173	175	183	196	214	239	275
C45	204	192	191	195	207	225	251	288	343
C90	263	259	269	292	332	396	503	702	1192

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
357	357	357	569	569	569	1670	1670	1670

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

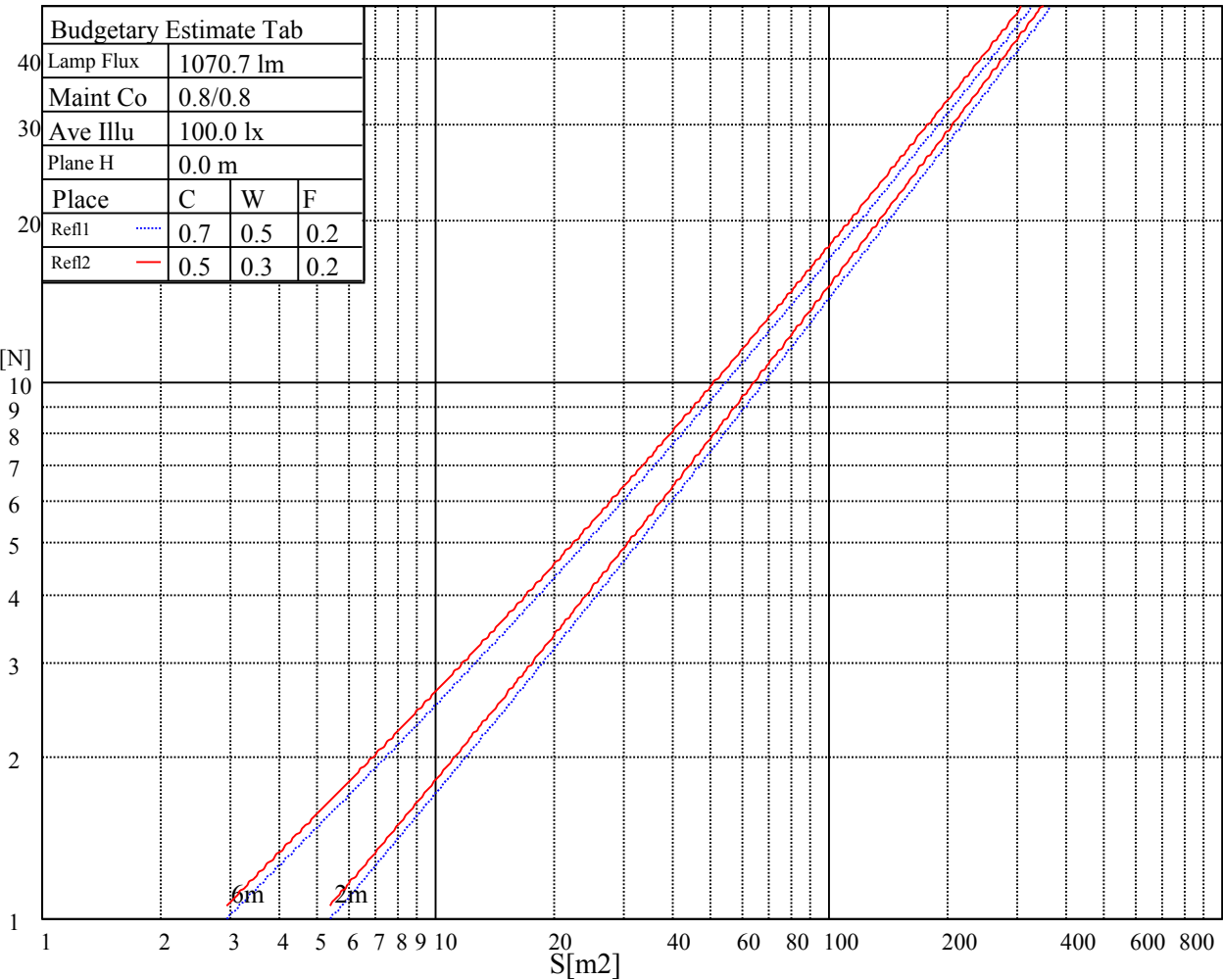
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

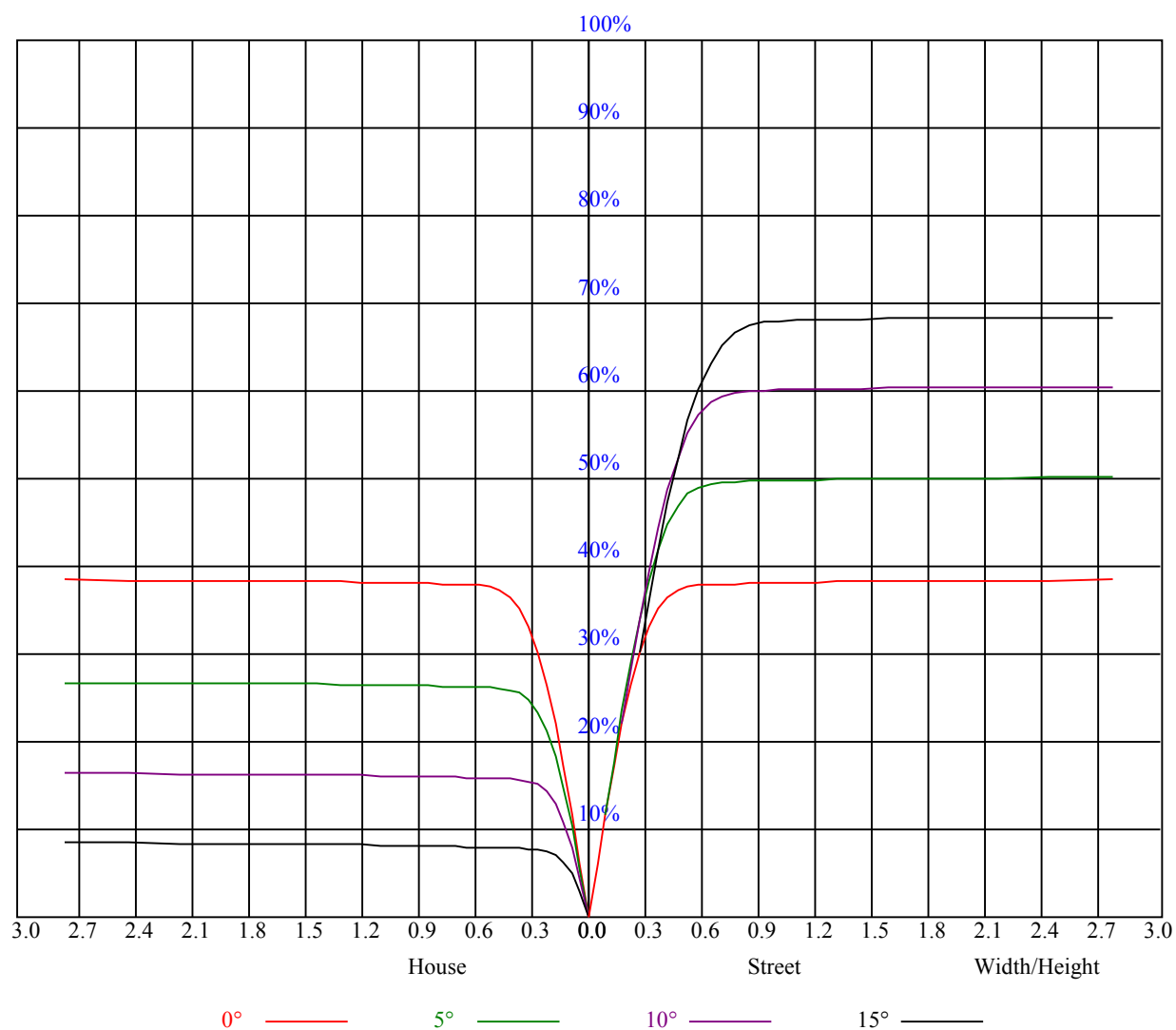
C0 ———

C45 ———

C90 ———



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



Nata 1-0920-M

Intensity data(cd)

Appendix Page: 14 Total:14

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2547.56	2478.38	2144.25	1671.75	984.94	333.56	33.08	8.89	6.02
45.0	2553.75	2404.13	2043.56	1480.50	839.81	291.94	20.36	7.59	5.74
90.0	2547.56	2369.81	1985.63	1298.25	753.86	174.49	18.34	7.03	5.63
135.0	2549.81	2442.38	2140.31	1639.13	943.31	308.81	32.06	8.21	5.96
180.0	2547.56	2394.56	2031.19	1518.75	837.39	217.35	25.48	7.76	5.63
225.0	2553.75	2469.38	2151.00	1605.38	1019.98	334.13	33.36	9.90	6.24
270.0	2547.56	2473.31	2199.94	1744.31	1100.81	397.69	51.75	10.69	6.41
315.0	2549.81	2416.50	2099.81	1546.88	887.46	268.14	26.72	8.33	5.85
360.0	2547.56	2478.38	2144.25	1671.75	984.94	333.56	33.08	8.89	6.02
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	4.95	4.44	4.16	3.94	3.83	3.77	3.71	3.71	3.71
45.0	4.89	4.50	4.16	4.05	3.94	3.88	3.83	3.83	3.77
90.0	4.84	4.39	4.16	3.99	3.88	3.83	3.83	3.77	3.77
135.0	4.95	4.44	4.16	3.99	3.88	3.83	3.77	3.71	3.71
180.0	4.78	4.33	4.11	3.88	3.83	3.77	3.71	3.71	3.66
225.0	5.06	4.50	4.16	3.99	3.88	3.83	3.83	3.77	3.77
270.0	5.18	4.56	4.22	3.99	3.88	3.83	3.77	3.77	3.77
315.0	4.89	4.39	4.16	3.94	3.88	3.77	3.77	3.71	3.71
360.0	4.95	4.44	4.16	3.94	3.83	3.77	3.71	3.71	3.71
C/γ(°)	90.0								
0.0	3.66								
45.0	3.71								
90.0	3.71								
135.0	3.71								
180.0	3.66								
225.0	3.77								
270.0	3.71								
315.0	3.71								
360.0	3.66								