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## Nata

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LumCAT: LN01D05036DA-N

Luminaire: 97.70.234.00

Report No: 210623-B013

Test No: 210623-C013

LampCAT: Fortimo LED SLM 1201 G7N

Lamp flux(lm): 1187.6

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 39.5800

Current(A): 0.2510

Power (W): 9.9340

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

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## Photometric Results

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Lumens(lm): 1090.39

Efficiency(%): 91.82%

Lumens(lm)/Power(W): 109.76

Central intensity(cd): 2152.406

Maximum intensity(cd): 2152.406

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.7

[C90/270]Total=40.7

Field angle(10%Imax): [C0/180]Total=64.7

[C90/270]Total=64.7

Maximum s/h(1/2): C0\_180=0.67 C90\_270=0.67

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(%): 91.82%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.068%

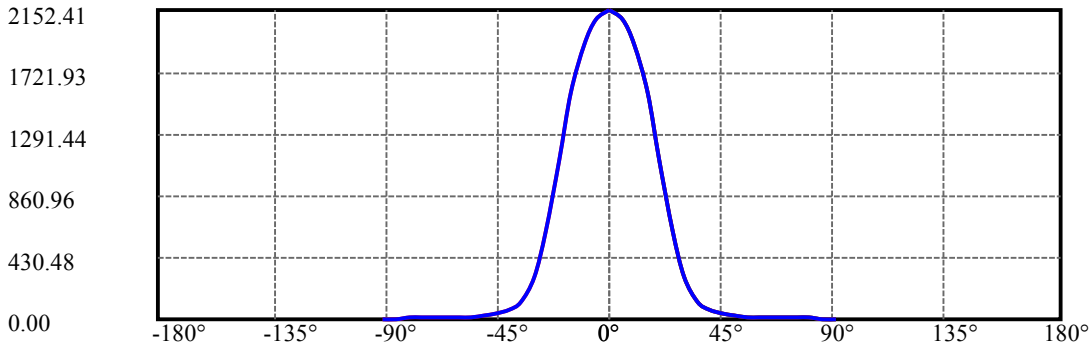
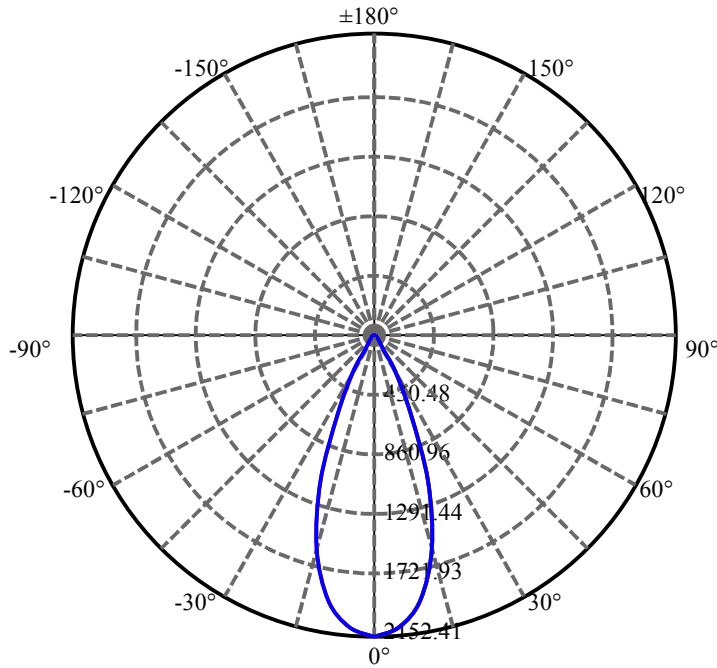
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2152.406	0.000	0	.000%	.000%
5.0	2085.891	50.668	50.668	4.266%	4.647%
10.0	1915.031	143.126	193.793	12.052%	17.773%
15.0	1575.914	207.081	400.874	17.437%	36.764%
20.0	1110.720	221.416	622.29	18.644%	57.070%
25.0	618.623	181.376	803.666	15.273%	73.704%
30.0	294.616	115.571	919.238	9.732%	84.303%
35.0	126.408	61.999	981.236	5.221%	89.989%
40.0	63.485	31.682	1012.918	2.668%	92.895%
45.0	36.345	18.484	1031.403	1.556%	94.590%
50.0	23.442	12.081	1043.484	1.017%	95.698%
55.0	15.813	8.535	1052.019	.719%	96.481%
60.0	11.883	6.402	1058.421	.539%	97.068%
65.0	9.823	5.277	1063.698	.444%	97.552%
70.0	11.187	5.320	1069.017	.448%	98.040%
75.0	14.379	6.682	1075.7	.563%	98.652%
80.0	12.059	7.074	1082.774	.596%	99.301%
85.0	5.681	4.820	1087.594	.406%	99.743%
90.0	4.542	2.799	1090.393	.236%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	919.24	77.40%	84.30%
0-40	1012.92	85.29%	92.89%
0-60	1058.42	89.12%	97.07%
0-90	1087.59	91.58%	99.74%
0-120	1087.59	91.58%	99.74%
0-180	1090.39	91.82%	100.00%
60-90	35.57	3.00%	3.26%
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%
0-27.97	872.31	73.45%	80.00%

ZONAL LUMEN SUMMARY

0-10	193.79
10-20	428.50
20-30	296.95
30-40	93.68
40-50	30.57
50-60	14.94
60-70	10.60
70-80	13.76
80-90	4.82
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: —————

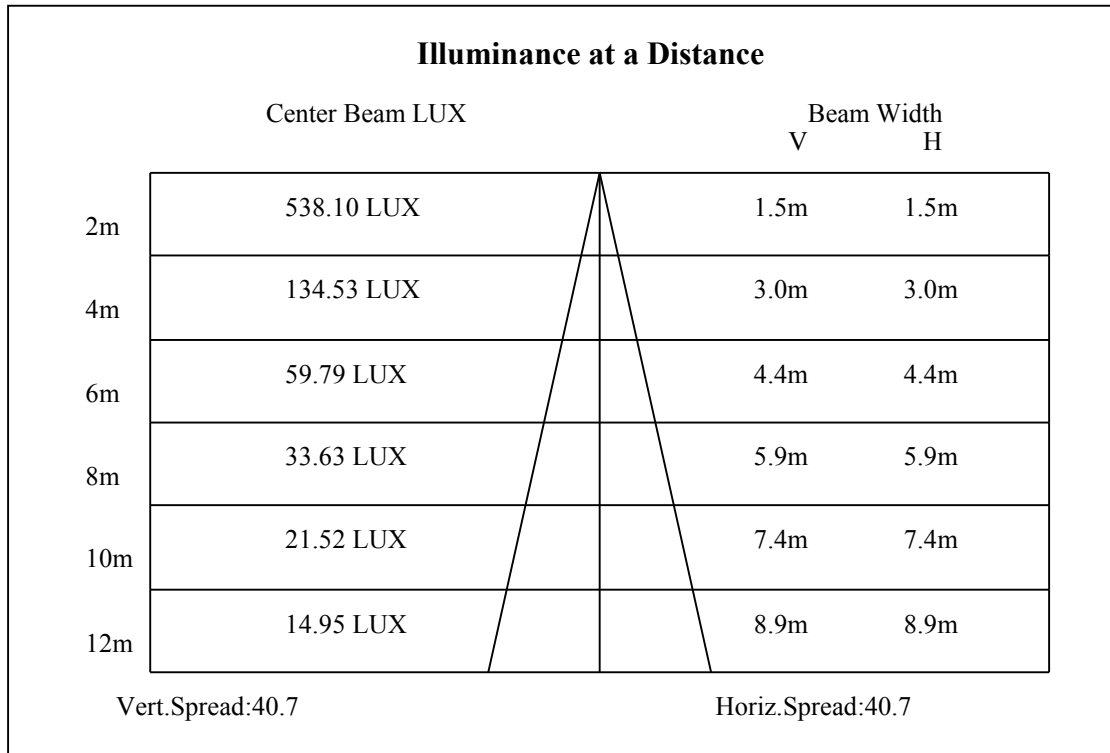
C90/C270: —————

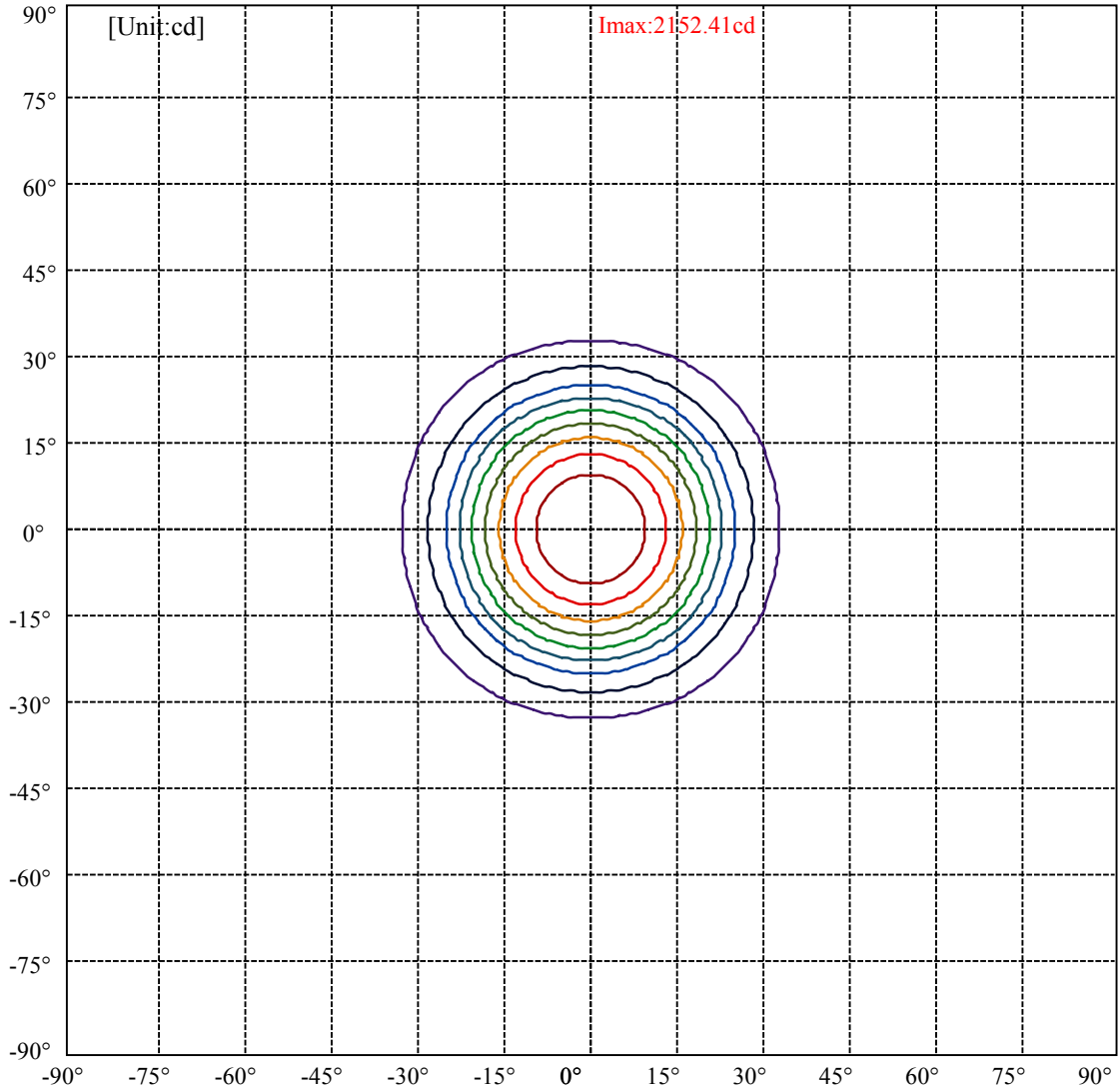
Field angle(10%Imax):C0/180Left:32.4 Right:32.4

:C90/270Left:32.4 Right:32.4

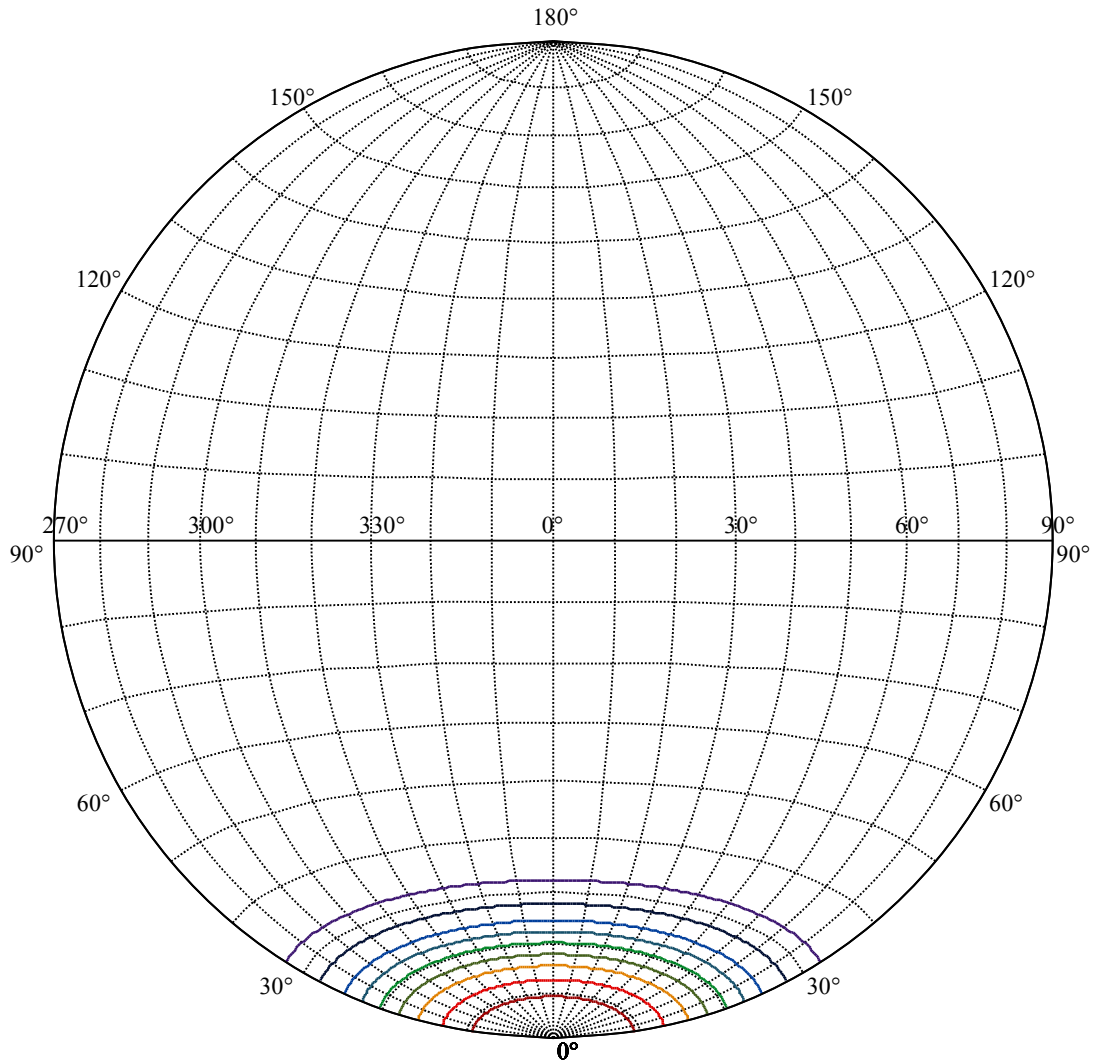
Beam Angle(50%Imax):C0/180Left:20.4 Right:20.4

:C90/270Left:20.4 Right:20.4





(10%Imax)	215.241	—
(20%Imax)	430.481	—
(30%Imax)	645.722	—
(40%Imax)	860.963	—
(50%Imax)	1076.2	—
(60%Imax)	1291.44	—
(70%Imax)	1506.68	—
(80%Imax)	1721.93	—
(90%Imax)	1937.17	—



House

[Unit:cd]

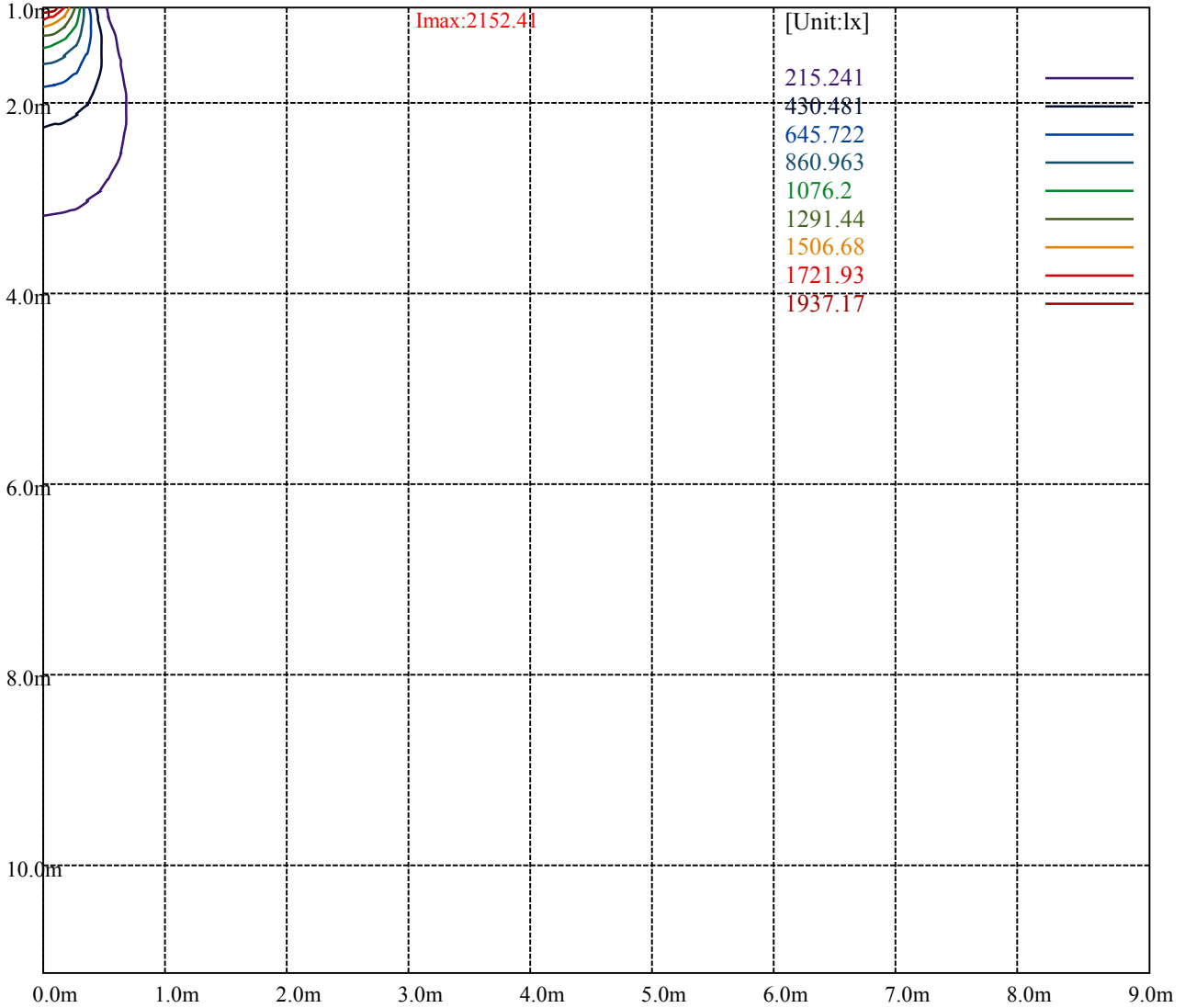
Road

**I<sub>max</sub>:2152.41**

(10%I <sub>max</sub> ) 215.241	—
(20%I <sub>max</sub> ) 430.481	—
(30%I <sub>max</sub> ) 645.722	—
(40%I <sub>max</sub> ) 860.963	—
(50%I <sub>max</sub> ) 1076.2	—
(60%I <sub>max</sub> ) 1291.44	—
(70%I <sub>max</sub> ) 1506.68	—
(80%I <sub>max</sub> ) 1721.93	—
(90%I <sub>max</sub> ) 1937.17	—







Luminance Table

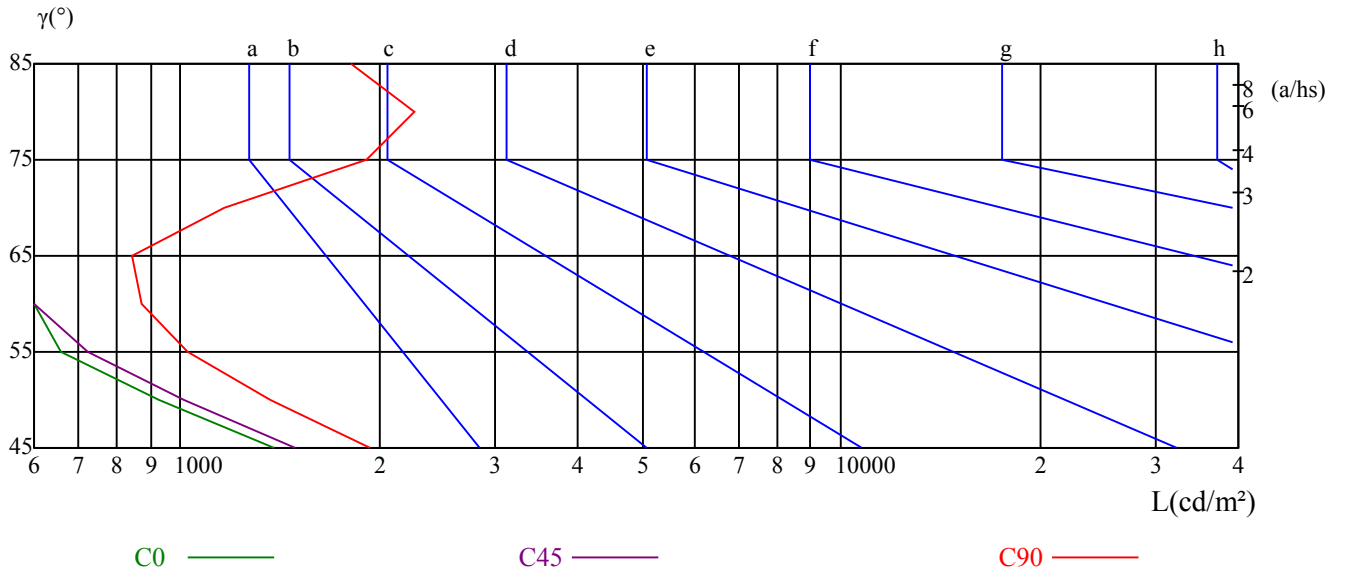
$\gamma$	45	50	55	60	65	70	75	80	85
C0	1387	929	658	524	464	574	815	769	418
C45	1496	1013	724	584	525	660	956	926	521
C90	1936	1365	1024	873	843	1163	1915	2258	1814

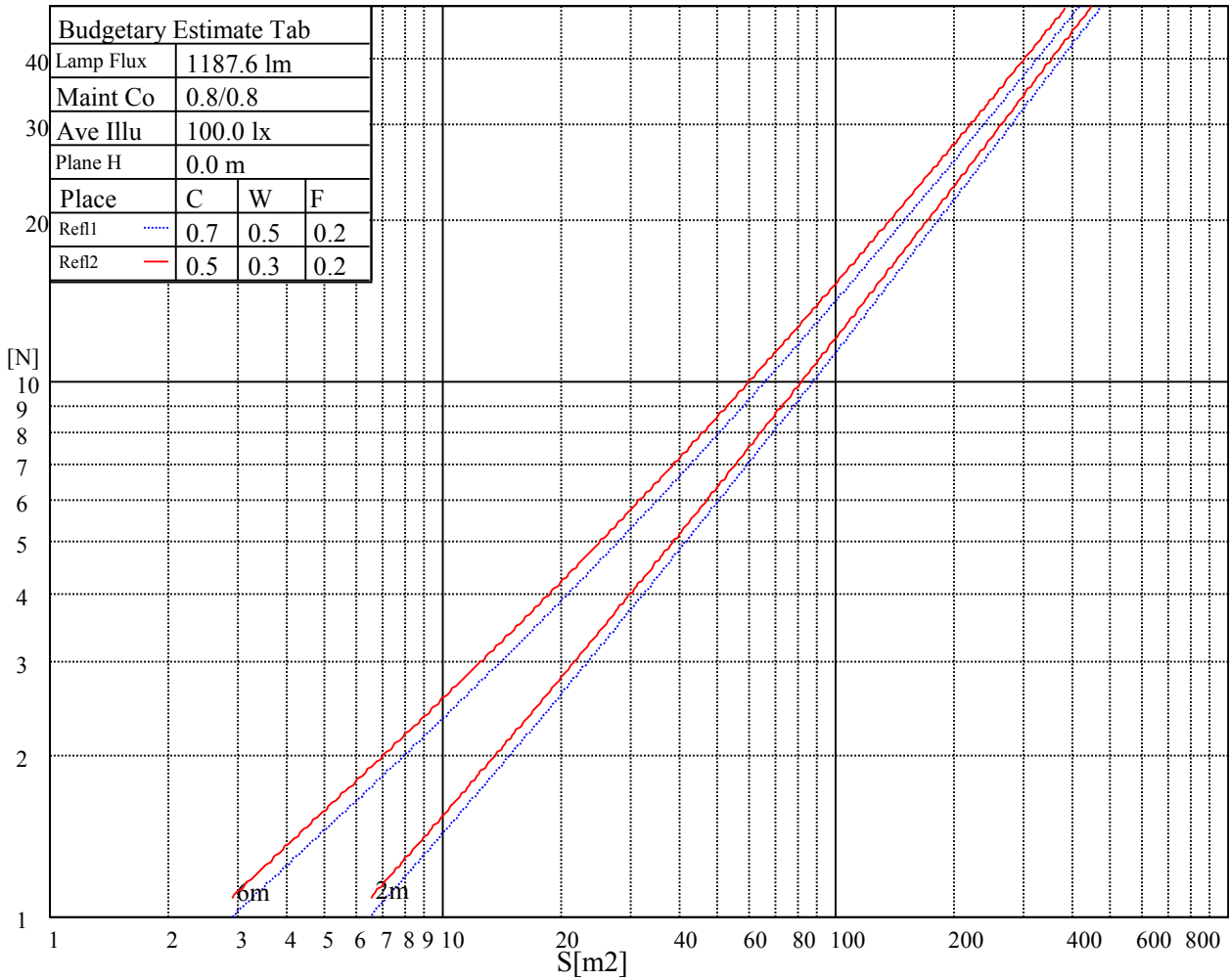
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
906	906	906	2166	2166	2166	2541	2541	2541

Glare Table

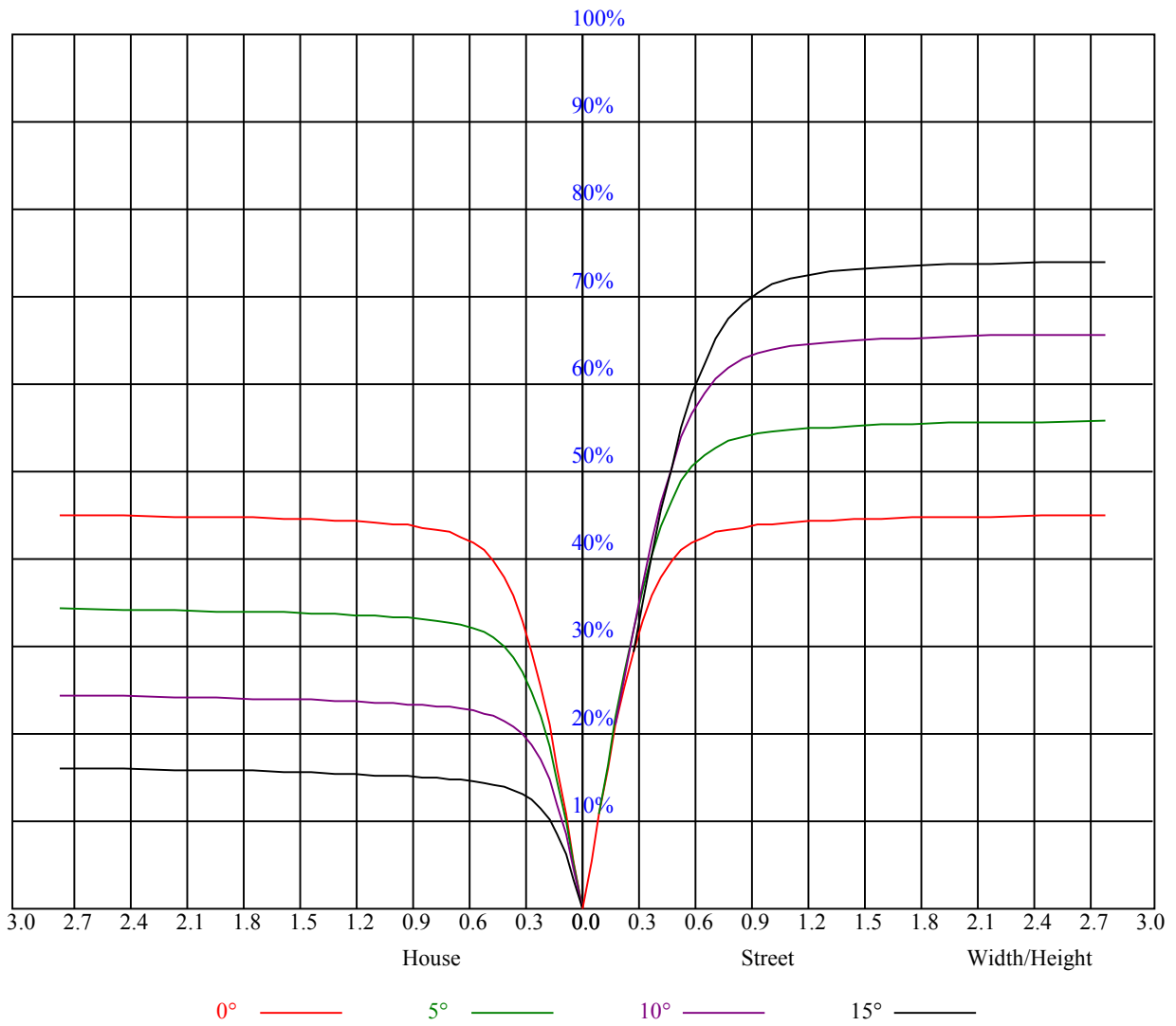
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.09	1.09	1.09	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.02	1.00	0.98	1.00	0.98	0.96	0.96	0.95	0.93	0.93	0.91	0.90	0.90	0.89	0.88	0.86
2	0.95	0.92	0.89	0.94	0.91	0.88	0.91	0.88	0.86	0.88	0.86	0.84	0.86	0.84	0.82	0.81
3	0.90	0.86	0.82	0.89	0.85	0.82	0.86	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.77	0.84	0.80	0.76	0.82	0.78	0.75	0.80	0.77	0.75	0.79	0.76	0.74	0.72
5	0.81	0.76	0.72	0.80	0.75	0.72	0.78	0.74	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.69
6	0.77	0.72	0.68	0.76	0.71	0.68	0.75	0.71	0.68	0.73	0.70	0.67	0.72	0.69	0.67	0.65
7	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.62
8	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.57
10	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.62	0.58	0.56	0.55



Intensity data(cd)

<b>C/γ(°)</b>	<b>0.0</b>	<b>5.0</b>	<b>10.0</b>	<b>15.0</b>	<b>20.0</b>	<b>25.0</b>	<b>30.0</b>	<b>35.0</b>	<b>40.0</b>
<b>0.0</b>	2144.25	2141.44	2007.56	1738.69	1296.56	802.13	389.25	166.28	82.91
<b>45.0</b>	2159.44	2133.56	1983.38	1701.56	1258.88	736.88	354.94	155.87	76.22
<b>90.0</b>	2153.81	2077.88	1914.19	1545.19	1099.07	588.99	273.38	111.32	60.47
<b>135.0</b>	2152.13	2081.81	1918.13	1584.00	1090.13	573.19	288.56	117.51	58.22
<b>180.0</b>	2144.25	2018.81	1788.19	1396.69	905.34	445.73	210.71	95.23	51.13
<b>225.0</b>	2159.44	2044.69	1829.25	1407.38	979.48	497.48	217.46	103.50	54.56
<b>270.0</b>	2153.81	2088.00	1922.06	1607.06	1154.25	642.38	314.44	130.33	62.33
<b>315.0</b>	2152.13	2100.94	1957.50	1626.75	1102.05	662.23	308.19	131.23	62.04
<b>360.0</b>	2144.25	2141.44	2007.56	1738.69	1296.56	802.13	389.25	166.28	82.91
<b>C/γ(°)</b>	<b>45.0</b>	<b>50.0</b>	<b>55.0</b>	<b>60.0</b>	<b>65.0</b>	<b>70.0</b>	<b>75.0</b>	<b>80.0</b>	<b>85.0</b>
<b>0.0</b>	45.17	28.41	19.07	13.67	10.58	9.11	7.76	6.64	5.68
<b>45.0</b>	42.02	27.96	18.00	13.16	10.35	8.94	7.65	6.53	5.63
<b>90.0</b>	34.26	21.94	15.19	11.48	9.51	9.62	14.63	10.80	5.74
<b>135.0</b>	33.58	21.43	14.46	11.25	9.84	18.11	27.84	23.46	6.36
<b>180.0</b>	31.33	20.59	14.23	10.97	9.28	7.99	6.75	5.85	4.78
<b>225.0</b>	32.40	21.66	14.85	11.31	9.28	8.10	6.98	5.96	5.12
<b>270.0</b>	36.45	23.12	15.58	11.70	9.79	9.96	15.36	11.87	5.63
<b>315.0</b>	35.55	22.44	15.13	11.53	9.96	17.66	28.07	25.37	6.53
<b>360.0</b>	45.17	28.41	19.07	13.67	10.58	9.11	7.76	6.64	5.68
<b>C/γ(°)</b>	<b>90.0</b>								
<b>0.0</b>	4.67								
<b>45.0</b>	4.67								
<b>90.0</b>	4.50								
<b>135.0</b>	4.44								
<b>180.0</b>	4.50								
<b>225.0</b>	4.61								
<b>270.0</b>	4.44								
<b>315.0</b>	4.50								
<b>360.0</b>	4.67								