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Nata

LumCAT: LN01D04560DA-N

Luminaire: 97.70.234.00

Report No: 210701-B005

Test No: 210701-C005

LampCAT: Fortimo LED SLM 1202 G7N

Lamp flux(lm): 1511.8

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 37.2300

Current(A): 0.3040

Power (W): 11.3170

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 1252.42

Efficiency(%): 82.84%

Lumens(lm)/Power(W): 110.67

Central intensity(cd): 1209.938

Maximum intensity(cd): 1209.938

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=58.5

[C90/270]Total=58.5

Field angle(10%Imax): [C0/180]Total=94.4

[C90/270]Total=94.4

Maximum s/h(1/2): C0_180=0.88 C90_270=0.88

Maximum s/h(1/4): C0_180=0.90 C90_270=0.90

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.84%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.289%

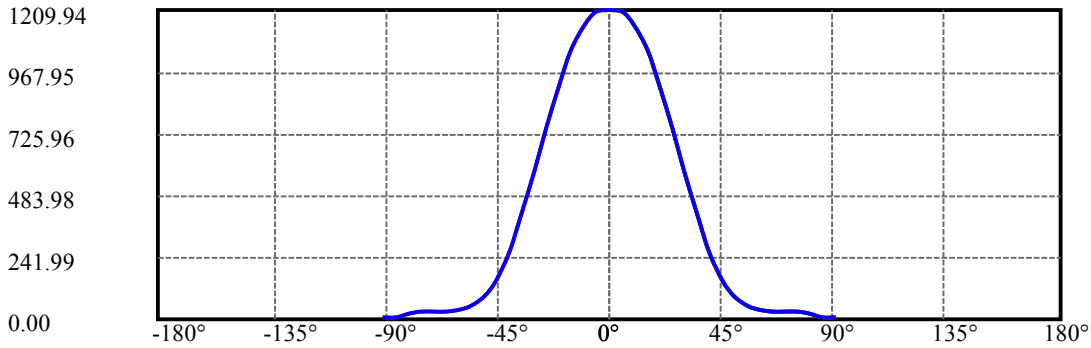
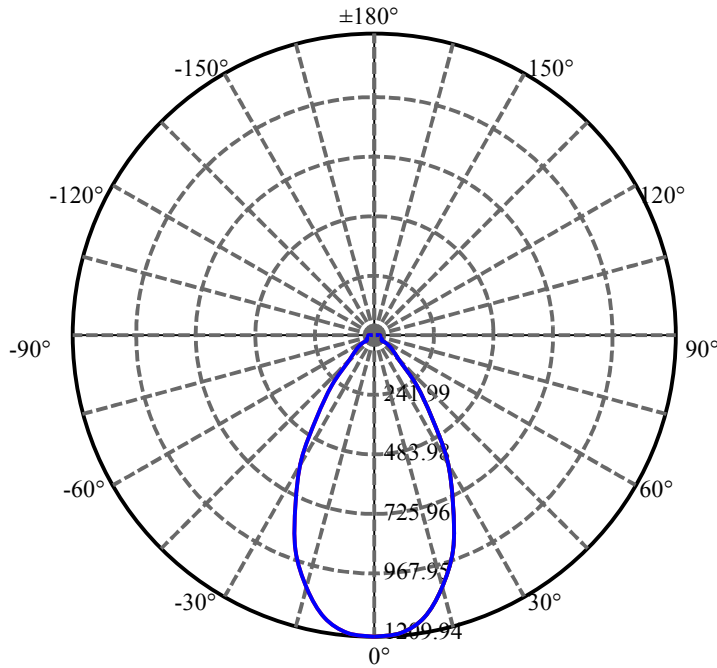
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1209.938	0.000	0	.000%	.000%
5.0	1200.445	28.815	28.815	1.906%	2.301%
10.0	1147.577	83.996	112.812	5.556%	9.008%
15.0	1053.584	130.571	243.383	8.637%	19.433%
20.0	915.539	162.283	405.666	10.734%	32.391%
25.0	745.594	174.222	579.889	11.524%	46.302%
30.0	579.846	167.736	747.624	11.095%	59.694%
35.0	404.599	144.966	892.591	9.589%	71.269%
40.0	265.746	111.842	1004.433	7.398%	80.199%
45.0	147.101	76.442	1080.875	5.056%	86.303%
50.0	87.750	47.455	1128.33	3.139%	90.092%
55.0	54.795	30.994	1159.324	2.050%	92.567%
60.0	38.538	21.574	1180.897	1.427%	94.289%
65.0	30.354	16.748	1197.645	1.108%	95.627%
70.0	28.540	14.912	1212.557	.986%	96.817%
75.0	26.353	14.348	1226.905	.949%	97.963%
80.0	21.572	12.823	1239.729	.848%	98.987%
85.0	9.809	8.527	1248.256	.564%	99.668%
90.0	5.393	4.162	1252.418	.275%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	747.62	49.45%	59.69%
0-40	1004.43	66.44%	80.20%
0-60	1180.90	78.11%	94.29%
0-90	1248.26	82.57%	99.67%
0-120	1248.26	82.57%	99.67%
0-180	1252.42	82.84%	100.00%
60-90	88.93	5.88%	7.10%
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%
0-39.89	1001.93	66.27%	80.00%

ZONAL LUMEN SUMMARY

0-10	112.81
10-20	292.85
20-30	341.96
30-40	256.81
40-50	123.90
50-60	52.57
60-70	31.66
70-80	27.17
80-90	8.53
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



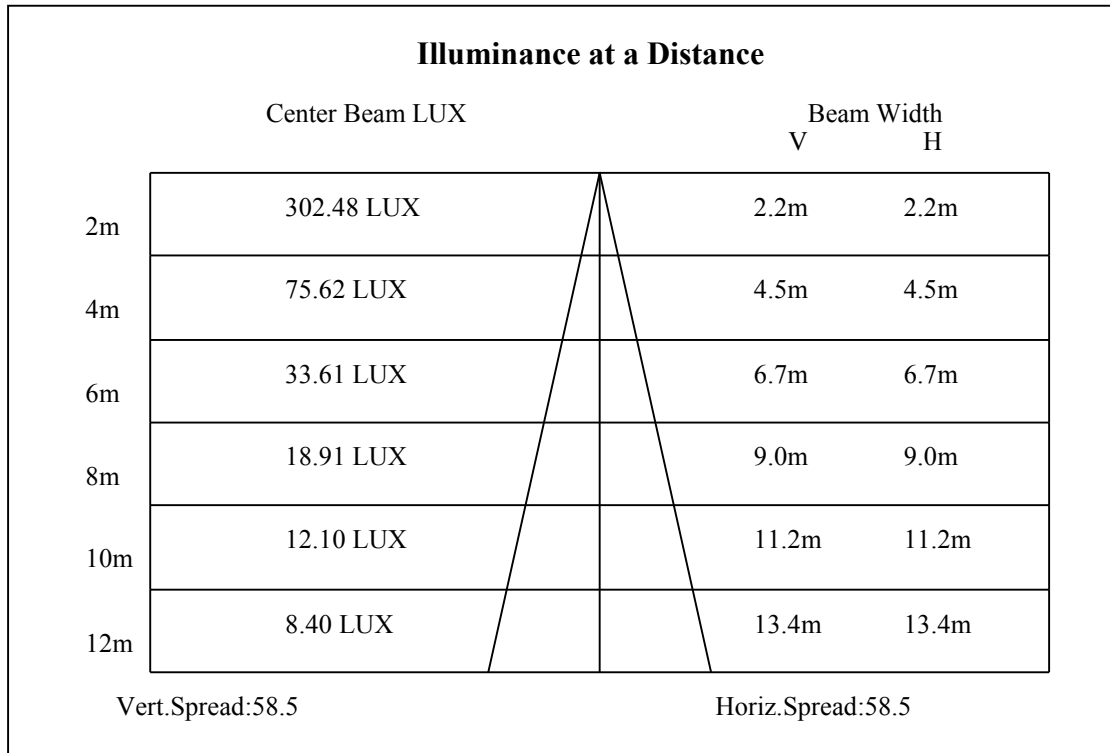
C0(Max): —————

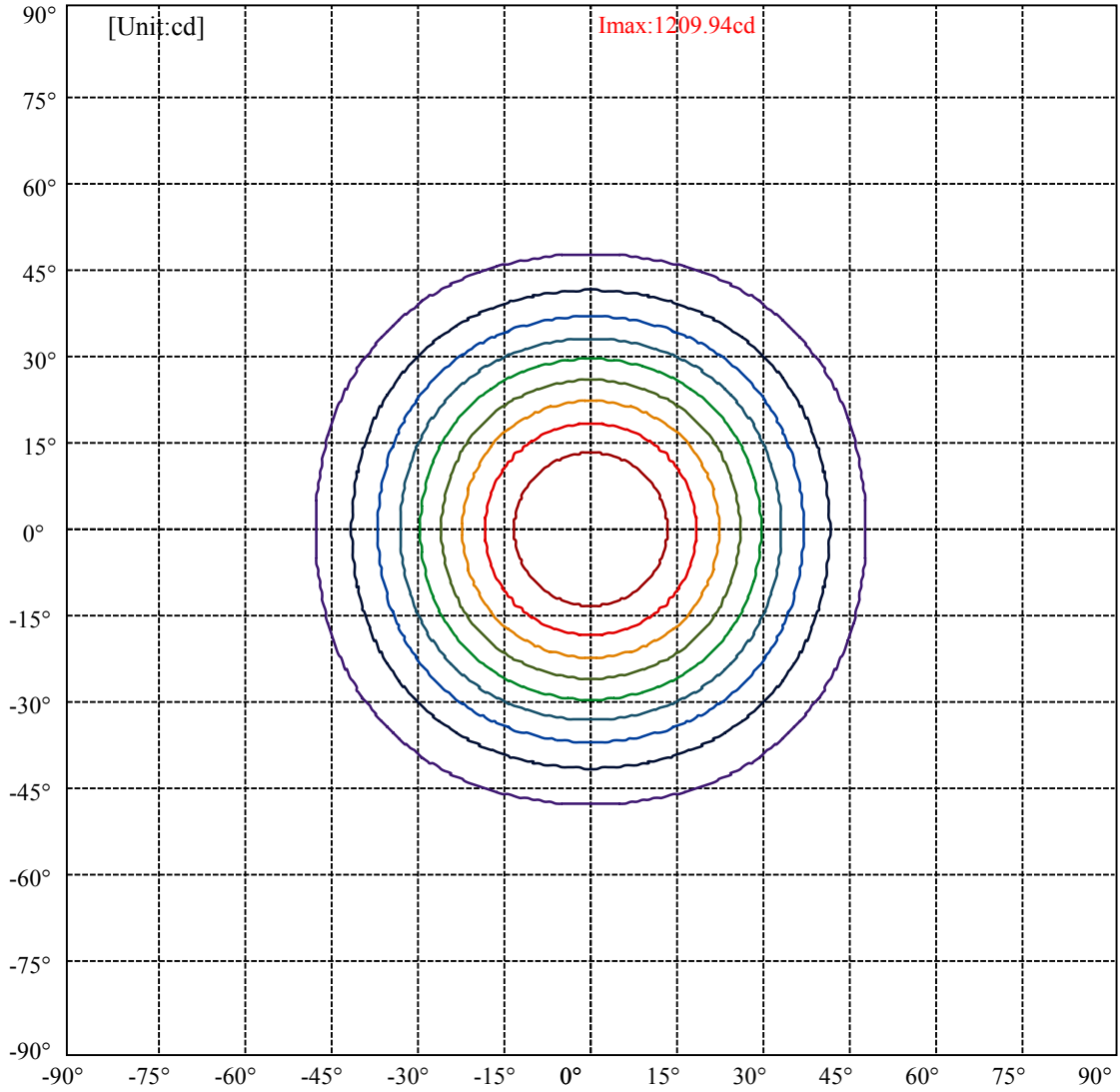
C0/C180: —————

C90/C270: —————

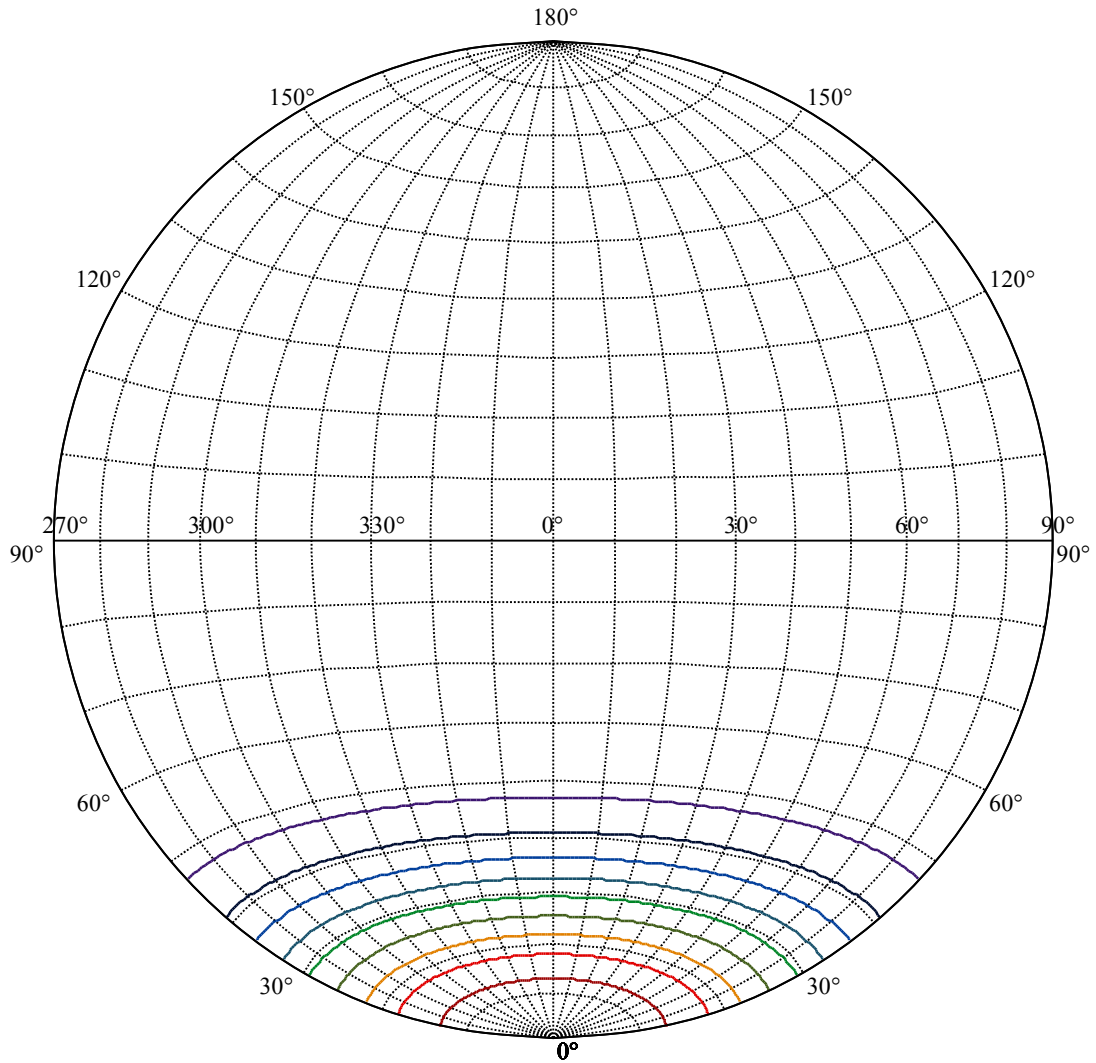
Field angle(10%Imax):C0/180Left:47.2 Right:47.2
:C90/270Left:47.2 Right:47.2

Beam Angle(50%Imax):C0/180Left:29.2 Right:29.2
:C90/270Left:29.2 Right:29.2





(10%Imax) 120.994	—
(20%Imax) 241.988	—
(30%Imax) 362.981	—
(40%Imax) 483.975	—
(50%Imax) 604.969	—
(60%Imax) 725.963	—
(70%Imax) 846.956	—
(80%Imax) 967.95	—
(90%Imax) 1088.94	—



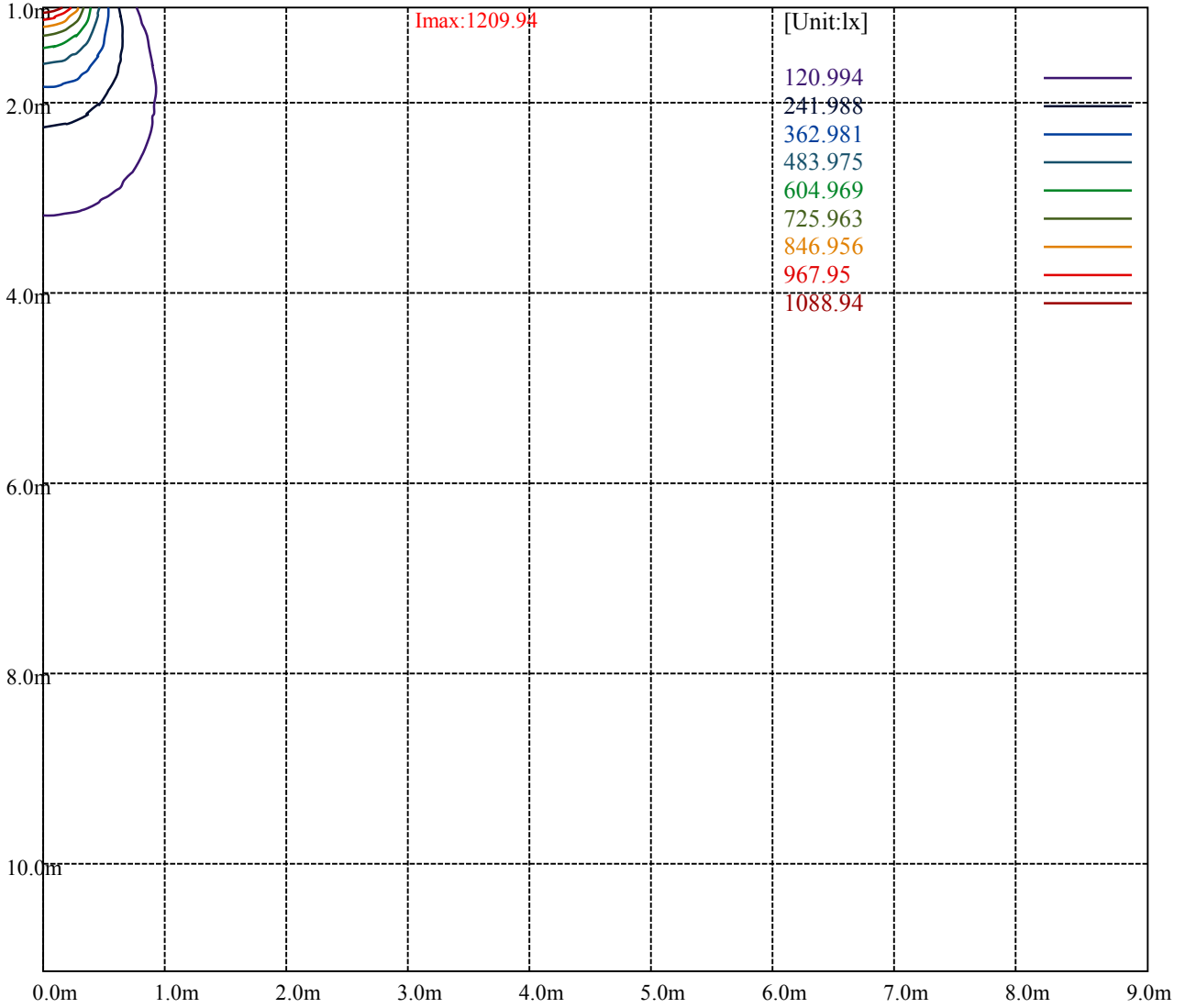
House

[Unit:cd]

Road

Imax:1209.94

(10%Imax) 120.994	—
(20%Imax) 241.988	—
(30%Imax) 362.981	—
(40%Imax) 483.975	—
(50%Imax) 604.969	—
(60%Imax) 725.963	—
(70%Imax) 846.956	—
(80%Imax) 967.95	—
(90%Imax) 1088.94	—



Luminance Table

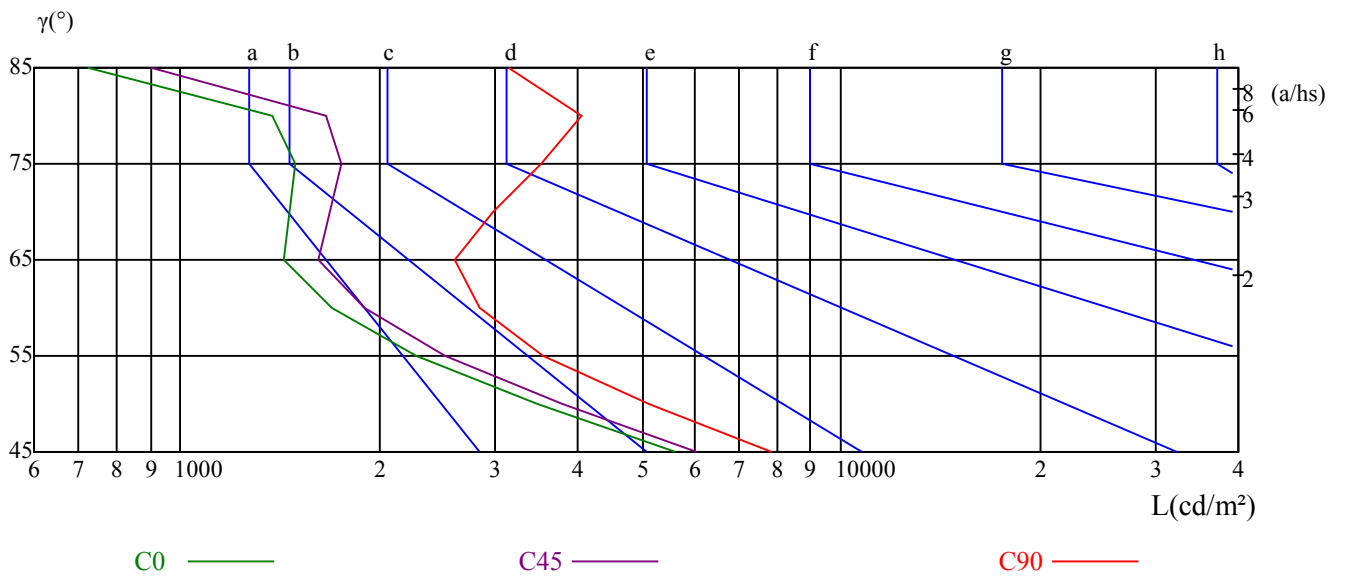
γ	45	50	55	60	65	70	75	80	85
C0	5615	3479	2278	1698	1434	1465	1493	1376	722
C45	6057	3790	2509	1893	1621	1684	1752	1657	900
C90	7835	5109	3547	2833	2604	2967	3510	4039	3132

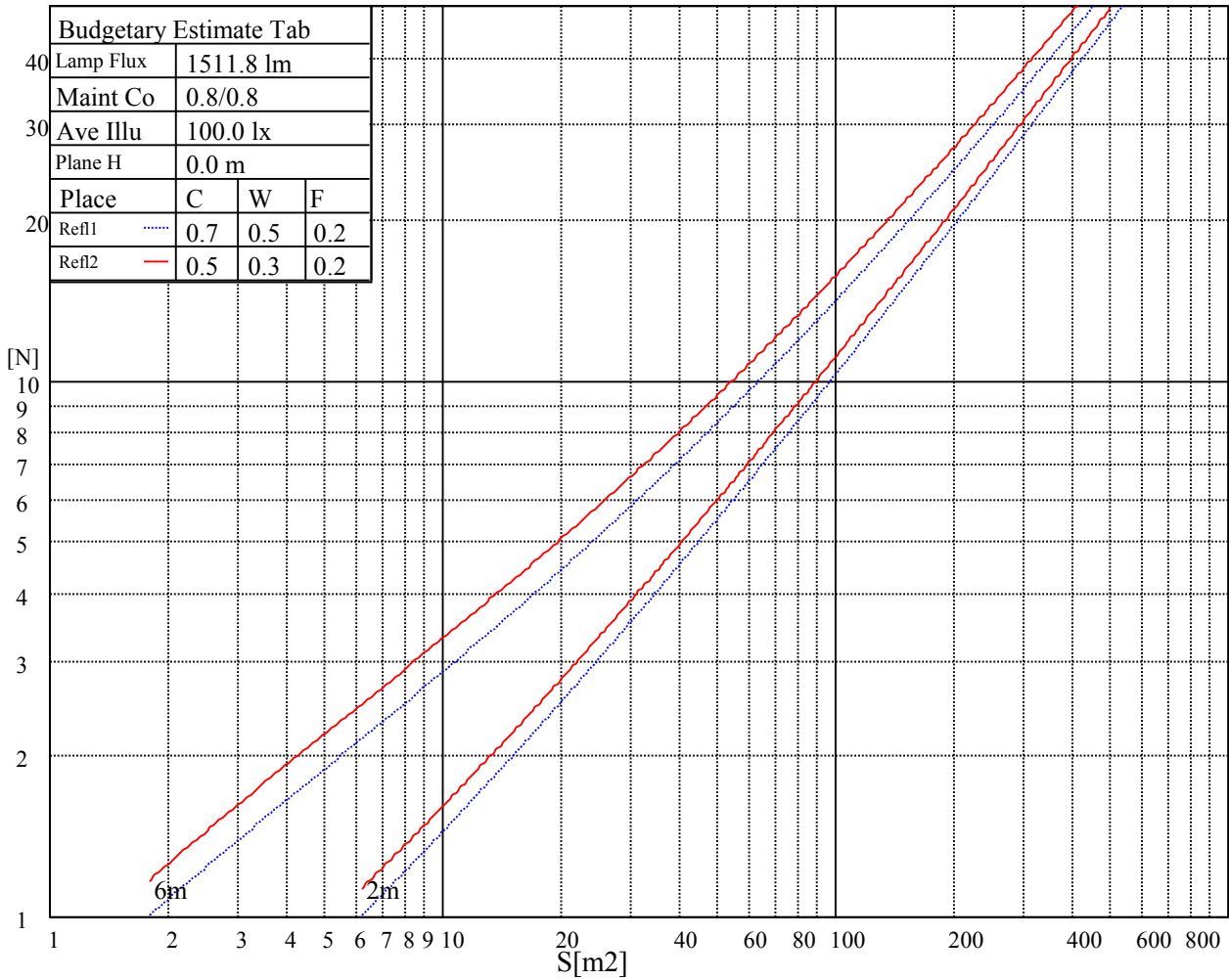
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2800	2800	2800	3970	3970	3970	4388	4388	4388

Glare Table

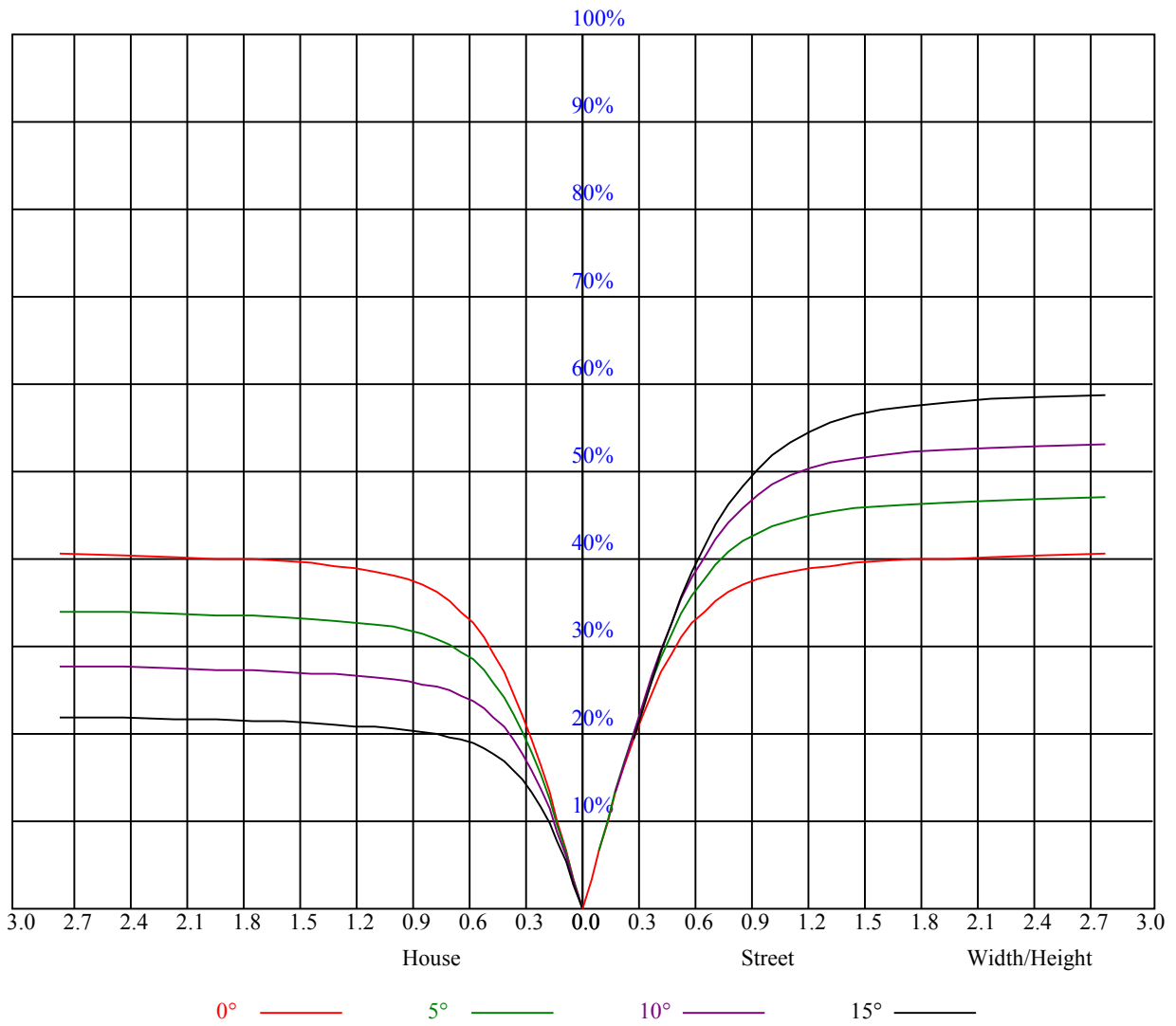
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.99	0.99	0.99	0.96	0.96	0.96	0.92	0.92	0.92	0.88	0.88	0.88	0.85	0.85	0.85	0.83
1	0.90	0.88	0.85	0.88	0.86	0.84	0.85	0.83	0.81	0.82	0.80	0.79	0.79	0.78	0.77	0.75
2	0.83	0.79	0.75	0.81	0.78	0.74	0.78	0.75	0.73	0.76	0.73	0.71	0.74	0.72	0.70	0.68
3	0.76	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.66	0.71	0.67	0.65	0.69	0.66	0.64	0.62
4	0.70	0.65	0.61	0.69	0.64	0.61	0.67	0.63	0.60	0.66	0.62	0.59	0.64	0.61	0.58	0.57
5	0.65	0.60	0.56	0.64	0.59	0.55	0.63	0.58	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.53
6	0.61	0.55	0.51	0.60	0.55	0.51	0.59	0.54	0.51	0.57	0.53	0.50	0.56	0.53	0.50	0.49
7	0.57	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.47	0.53	0.49	0.46	0.45
8	0.53	0.48	0.44	0.53	0.47	0.44	0.52	0.47	0.44	0.51	0.46	0.43	0.50	0.46	0.43	0.42
9	0.50	0.45	0.41	0.49	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.47	0.43	0.40	0.39
10	0.47	0.42	0.38	0.47	0.42	0.38	0.46	0.41	0.38	0.45	0.41	0.38	0.45	0.41	0.38	0.37



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	1207.69	1207.69	1173.94	1101.38	975.38	815.06	663.19	471.38	306.56
45.0	1211.63	1212.19	1197.56	1121.63	976.50	789.75	614.81	424.13	286.31
90.0	1209.94	1206.00	1164.38	1069.71	925.09	744.81	573.53	385.71	236.93
135.0	1210.50	1199.25	1150.88	1051.88	917.44	743.63	568.13	406.13	287.44
180.0	1207.69	1180.69	1103.96	986.12	851.18	687.38	520.43	345.94	216.28
225.0	1211.63	1196.44	1119.26	1016.94	865.52	699.41	538.93	372.88	241.88
270.0	1209.94	1203.19	1150.31	1046.25	904.50	745.31	585.56	419.63	286.88
315.0	1210.50	1198.13	1120.33	1034.78	908.72	739.41	574.20	411.02	263.70
360.0	1207.69	1207.69	1173.94	1101.38	975.38	815.06	663.19	471.38	306.56

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	179.38	104.06	63.11	43.20	31.84	24.98	19.69	15.69	11.14
45.0	155.81	92.19	57.21	40.39	29.70	23.51	19.24	15.64	10.13
90.0	136.01	80.78	50.85	36.45	34.82	45.23	49.78	41.34	10.13
135.0	138.32	87.02	52.76	37.01	27.39	21.88	17.27	13.28	8.78
180.0	121.22	73.58	48.43	34.82	26.21	21.09	16.59	12.54	8.44
225.0	137.25	81.51	51.69	37.01	27.62	21.99	18.62	13.67	9.06
270.0	158.96	92.48	58.11	40.39	36.28	46.52	51.36	46.29	10.91
315.0	149.85	90.39	56.19	39.04	28.97	23.12	18.28	14.12	9.90
360.0	179.38	104.06	63.11	43.20	31.84	24.98	19.69	15.69	11.14

C/γ(°)	90.0
0.0	6.47
45.0	5.29
90.0	4.95
135.0	5.34
180.0	5.63
225.0	5.29
270.0	4.95
315.0	5.23
360.0	6.47