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Nata

LumCAT: LN01D05060DA-N

Luminaire: 97.70.234.00

Report No: 210701-B009

Test No: 210701-C009

LampCAT: Fortimo LED SLM 1202 G7N

Lamp flux(lm): 1511.8

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 37.1500

Current(A): 0.3040

Power (W): 11.2930

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 1337.64

Efficiency(%): 88.48%

Lumens(lm)/Power(W): 118.45

Central intensity(cd): 1421.719

Maximum intensity(cd): 1421.719

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=56.4

[C90/270]Total=56.4

Field angle(10%Imax): [C0/180]Total=89.4

[C90/270]Total=89.4

Maximum s/h(1/2): C0_180=0.86 C90_270=0.86

Maximum s/h(1/4): C0_180=0.87 C90_270=0.87

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.48%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.255%

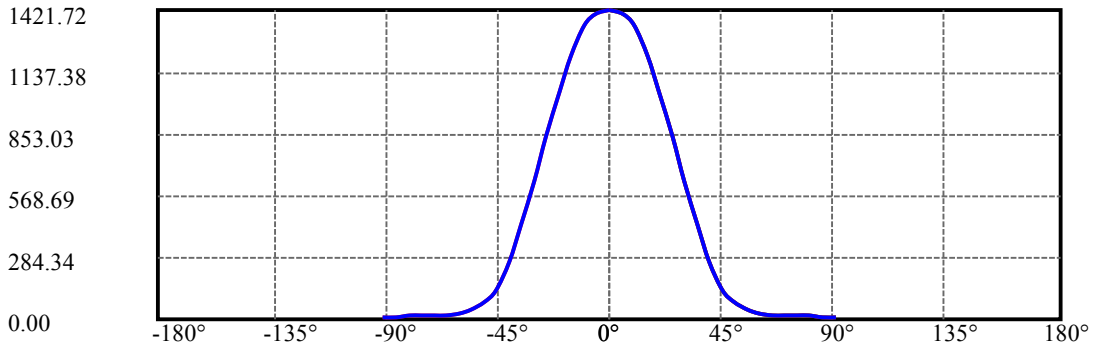
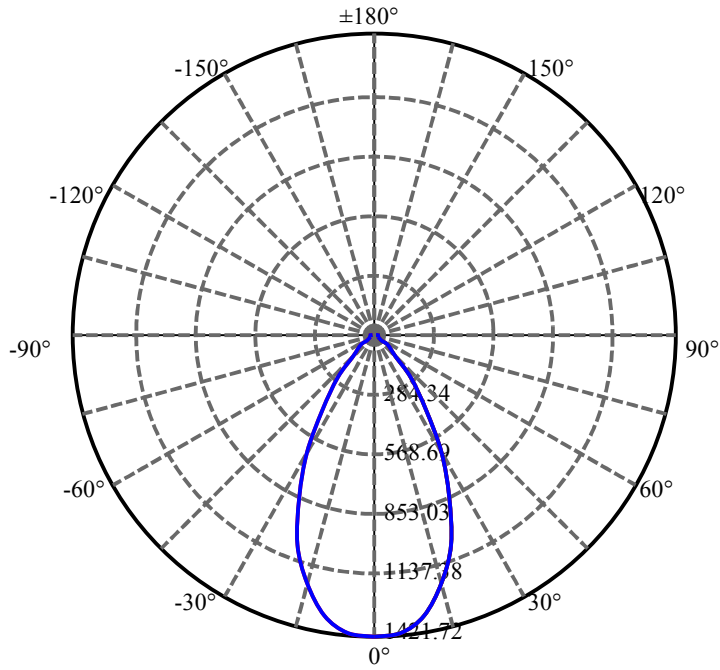
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1421.719	0.000	0	.000%	.000%
5.0	1407.234	33.819	33.819	2.237%	2.528%
10.0	1346.906	98.524	132.344	6.517%	9.894%
15.0	1208.566	151.589	283.933	10.027%	21.226%
20.0	1045.983	185.807	469.739	12.290%	35.117%
25.0	837.548	197.548	667.287	13.067%	49.885%
30.0	638.339	186.775	854.062	12.354%	63.848%
35.0	432.654	157.711	1011.773	10.432%	75.639%
40.0	262.814	116.034	1127.806	7.675%	84.313%
45.0	135.120	73.681	1201.487	4.874%	89.821%
50.0	76.943	42.850	1244.337	2.834%	93.025%
55.0	44.241	26.349	1270.687	1.743%	94.995%
60.0	28.695	16.859	1287.545	1.115%	96.255%
65.0	20.166	11.878	1299.423	.786%	97.143%
70.0	18.647	9.828	1309.251	.650%	97.878%
75.0	17.958	9.568	1318.819	.633%	98.593%
80.0	15.891	9.057	1327.876	.599%	99.270%
85.0	7.298	6.301	1334.177	.417%	99.741%
90.0	5.358	3.465	1337.642	.229%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	854.06	56.49%	63.85%
0-40	1127.81	74.60%	84.31%
0-60	1287.55	85.17%	96.25%
0-90	1334.18	88.25%	99.74%
0-120	1334.18	88.25%	99.74%
0-180	1337.64	88.48%	100.00%
60-90	63.49	4.20%	4.75%
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%
0-37.51	1070.11	70.78%	80.00%

ZONAL LUMEN SUMMARY

0-10	132.34
10-20	337.40
20-30	384.32
30-40	273.74
40-50	116.53
50-60	43.21
60-70	21.71
70-80	18.62
80-90	6.30
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: —————

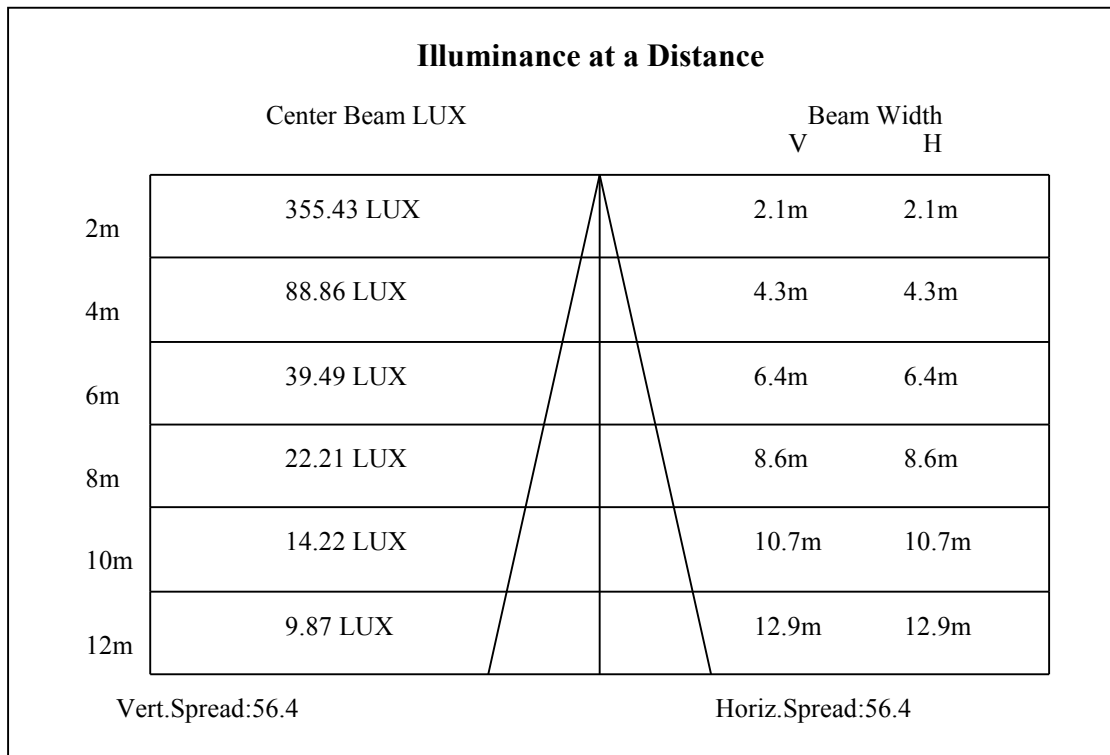
C90/C270: —————

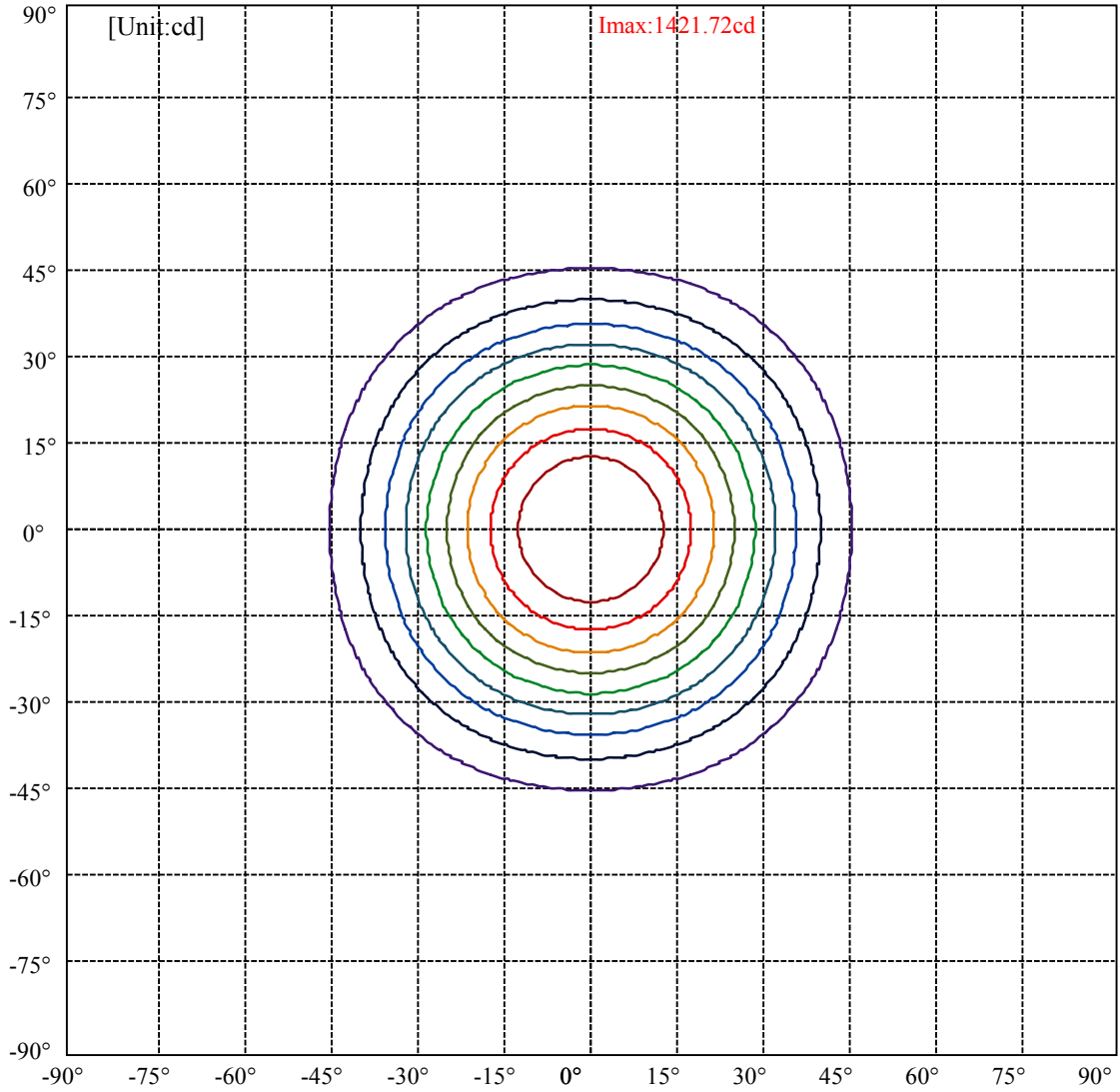
Field angle(10%Imax):C0/180Left:44.7 Right:44.7

:C90/270Left:44.7 Right:44.7

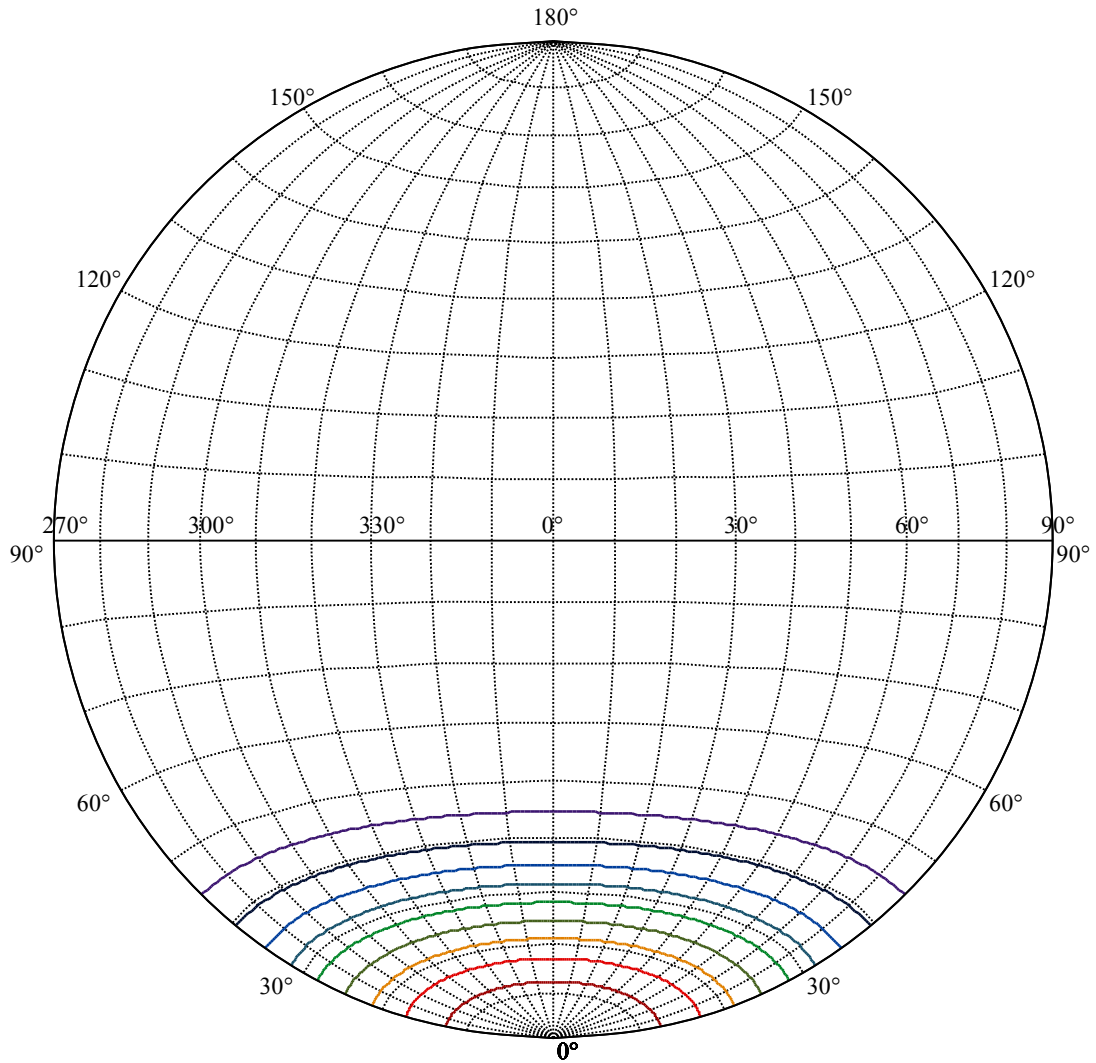
Beam Angle(50%Imax):C0/180Left:28.2 Right:28.2

:C90/270Left:28.2 Right:28.2





(10%Imax) 142.172	—
(20%Imax) 284.344	—
(30%Imax) 426.516	—
(40%Imax) 568.688	—
(50%Imax) 710.859	—
(60%Imax) 853.031	—
(70%Imax) 995.203	—
(80%Imax) 1137.38	—
(90%Imax) 1279.55	—



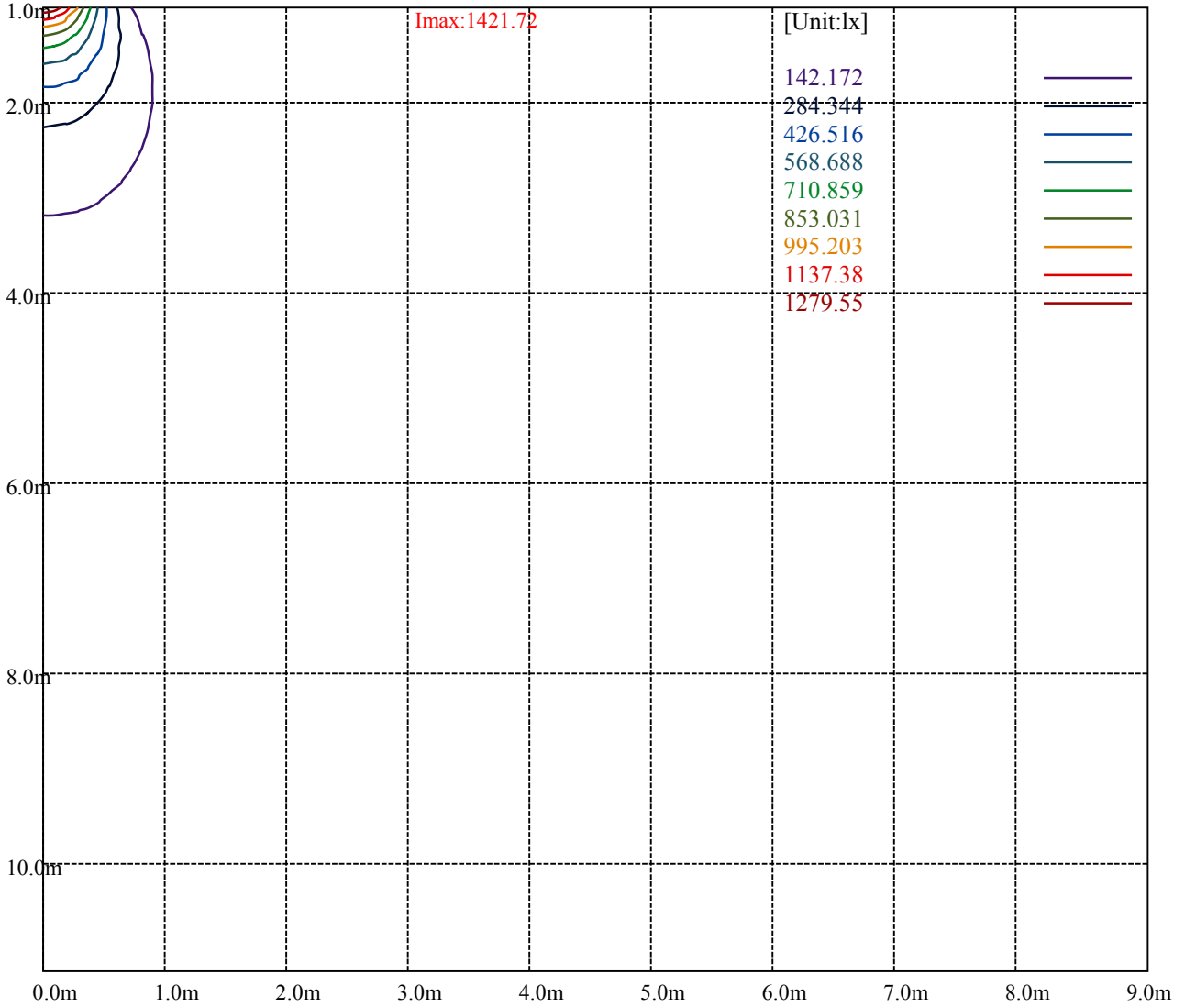
House

[Unit:cd]

Road

I_{max}:1421.72

(10%I _{max})	142.172	—
(20%I _{max})	284.344	—
(30%I _{max})	426.516	—
(40%I _{max})	568.688	—
(50%I _{max})	710.859	—
(60%I _{max})	853.031	—
(70%I _{max})	995.203	—
(80%I _{max})	1137.38	—
(90%I _{max})	1279.55	—



Luminance Table

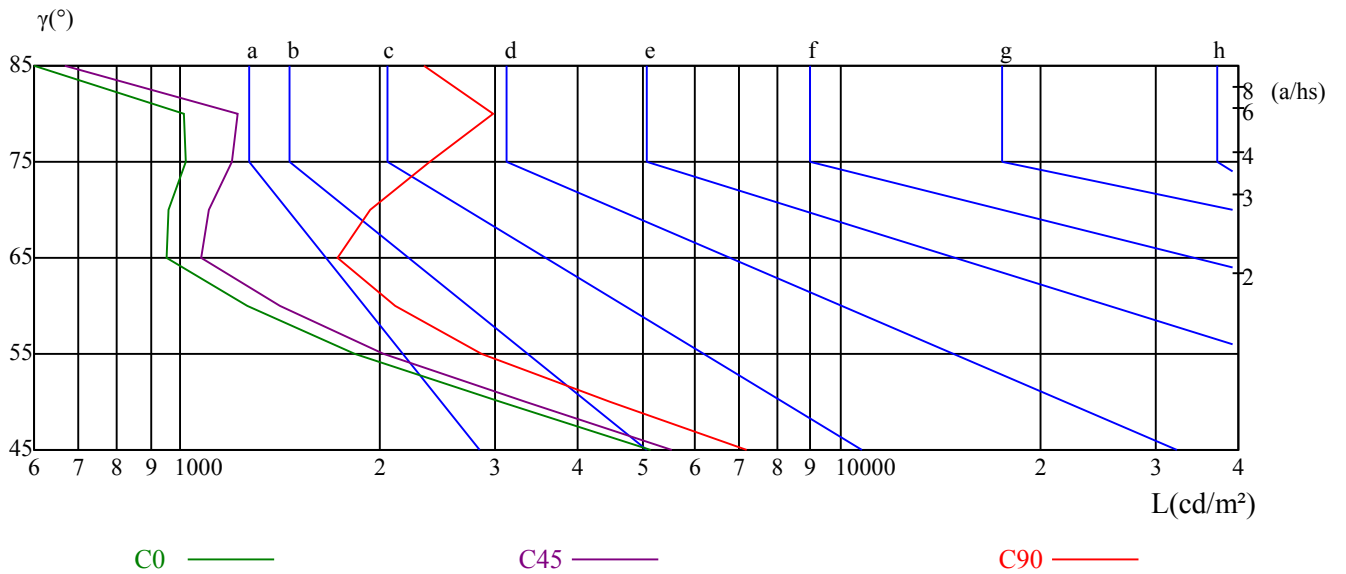
γ	45	50	55	60	65	70	75	80	85
C0	5158	3051	1839	1264	952	957	1017	1013	537
C45	5563	3324	2026	1410	1077	1100	1194	1221	670
C90	7197	4479	2864	2109	1730	1939	2392	2976	2330

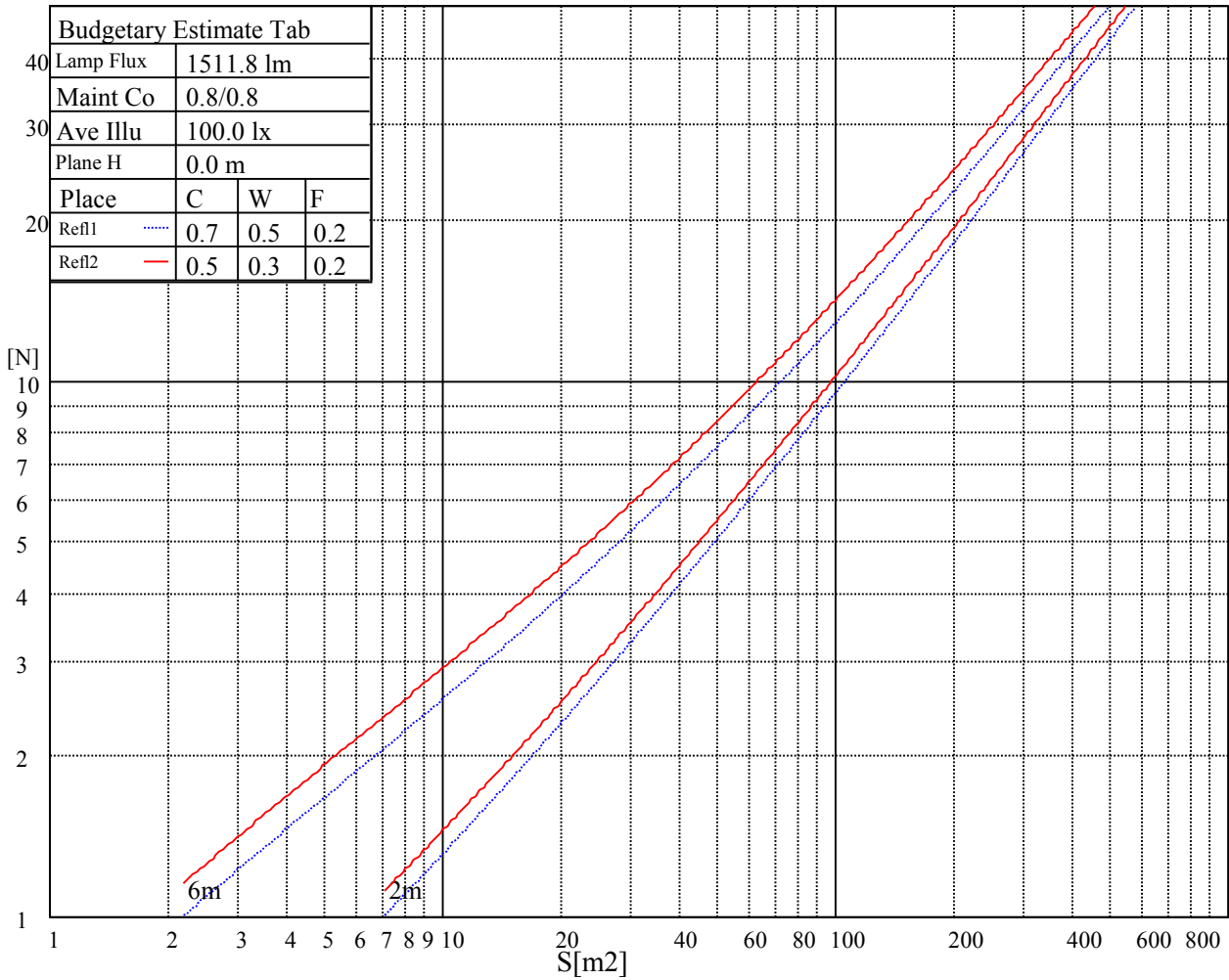
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
1860	1860	1860	2705	2705	2705	3265	3265	3265

Glare Table

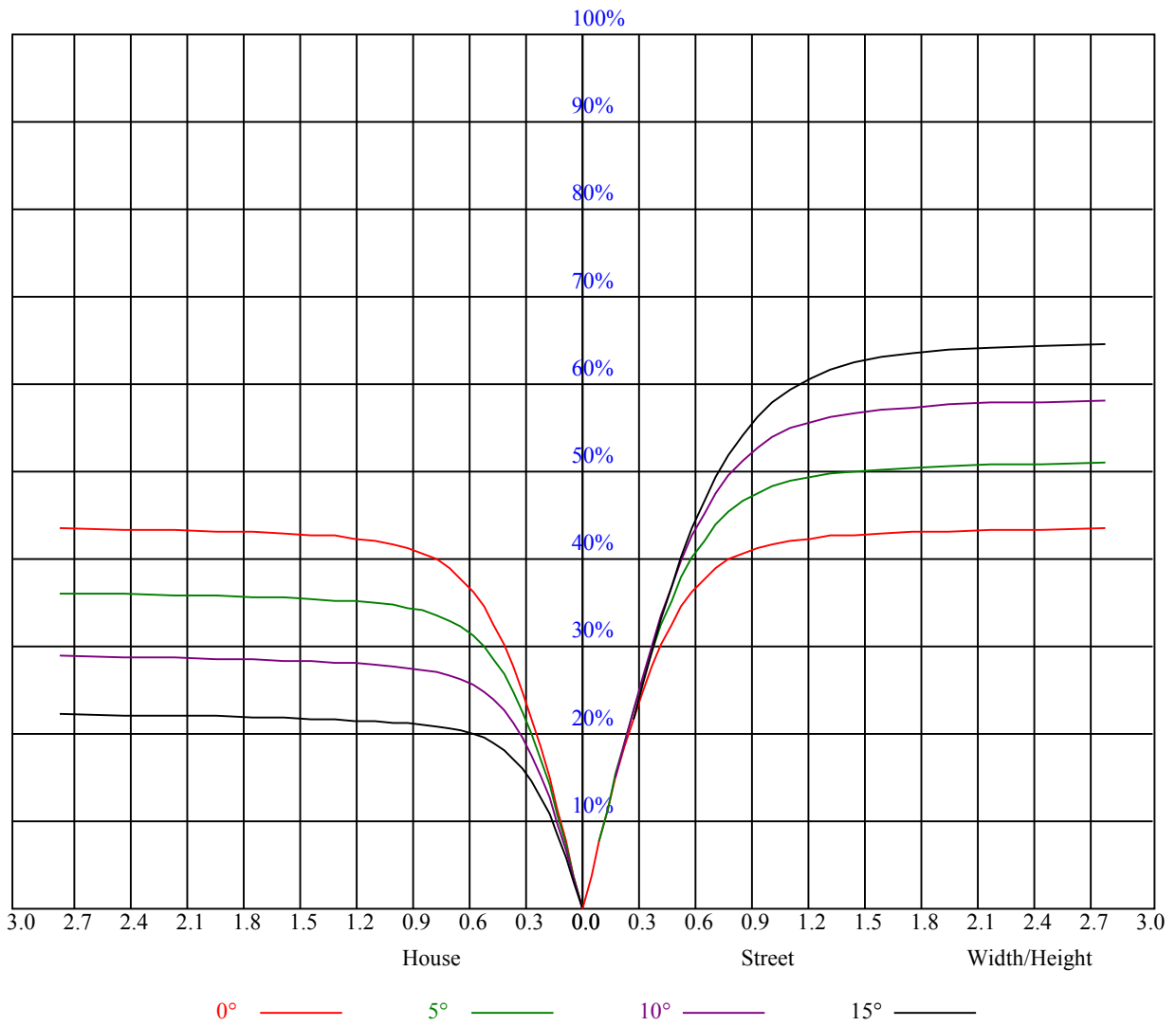
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.05	1.05	1.05	1.03	1.03	1.03	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.97	0.94	0.92	0.95	0.93	0.91	0.91	0.90	0.88	0.88	0.87	0.85	0.85	0.84	0.83	0.81
2	0.89	0.85	0.82	0.88	0.84	0.81	0.85	0.82	0.79	0.82	0.80	0.78	0.80	0.78	0.76	0.74
3	0.83	0.78	0.74	0.81	0.77	0.73	0.79	0.75	0.72	0.77	0.74	0.71	0.75	0.72	0.70	0.68
4	0.77	0.71	0.67	0.76	0.71	0.67	0.74	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.64	0.63
5	0.71	0.66	0.62	0.71	0.65	0.61	0.69	0.64	0.61	0.67	0.63	0.60	0.66	0.63	0.60	0.58
6	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.56	0.63	0.59	0.56	0.62	0.58	0.56	0.54
7	0.62	0.57	0.53	0.62	0.56	0.53	0.61	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.50
8	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.48	0.47
9	0.55	0.50	0.46	0.55	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.52	0.48	0.45	0.44
10	0.52	0.47	0.43	0.52	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.50	0.46	0.43	0.41



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	1423.13	1412.44	1369.13	1269.00	1107.00	903.94	711.56	528.19	316.13
45.0	1421.44	1414.69	1374.19	1284.75	1106.44	883.69	673.88	464.06	291.94
90.0	1421.44	1407.94	1351.13	1239.19	1060.65	854.16	639.45	407.48	234.96
135.0	1420.88	1408.50	1356.75	1231.88	1052.44	849.38	638.44	416.25	287.44
180.0	1423.13	1400.63	1317.94	1120.61	974.42	762.53	549.39	359.44	200.36
225.0	1421.44	1405.69	1334.81	1117.29	1004.79	785.53	587.36	386.72	227.08
270.0	1421.44	1406.81	1346.63	1227.38	1045.13	840.38	662.63	459.00	286.31
315.0	1420.88	1401.19	1324.69	1178.44	1017.00	820.80	644.01	440.10	258.30
360.0	1423.13	1412.44	1369.13	1269.00	1107.00	903.94	711.56	528.19	316.13

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	167.68	98.66	53.16	33.08	22.16	16.88	12.94	10.07	7.82
45.0	144.96	84.04	47.53	30.32	21.15	15.92	12.83	11.19	7.37
90.0	124.59	70.48	39.99	27.62	19.97	28.52	35.38	33.30	7.54
135.0	128.31	72.23	44.04	28.01	19.52	15.08	11.59	8.94	6.86
180.0	107.04	62.94	37.35	25.14	18.34	14.18	10.86	8.33	6.41
225.0	121.22	68.29	41.23	26.83	18.96	14.91	12.94	9.68	6.86
270.0	145.13	80.33	45.79	29.93	21.09	28.41	35.27	36.23	8.16
315.0	142.03	78.58	44.83	28.63	20.14	15.30	11.87	9.39	7.37
360.0	167.68	98.66	53.16	33.08	22.16	16.88	12.94	10.07	7.82

C/γ(°)	90.0
0.0	5.74
45.0	5.29
90.0	5.23
135.0	5.29
180.0	5.46
225.0	5.29
270.0	5.23
315.0	5.34
360.0	5.74