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## Nata

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LumCAT: LN01D04560DA-N

Luminaire: 97.70.234.00

Report No: 210624-B003

Test No: 210624-C003

LampCAT: Fortimo LED SLM 1201 G7N

Lamp flux(lm): 1175.3

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): 965.61

Efficiency(%): 82.16%

Lumens(lm)/Power(W): 97.20

Central intensity(cd): 957.431

Maximum intensity(cd): 957.431

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

Beam Angle(50%Imax): [C0/180]Total=57.4

[C90/270]Total=57.4

Field angle(10%Imax): [C0/180]Total=93.2

[C90/270]Total=93.2

Maximum s/h(1/2): C0\_180=0.87 C90\_270=0.87

Maximum s/h(1/4): C0\_180=0.89 C90\_270=0.89

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.16%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.239%

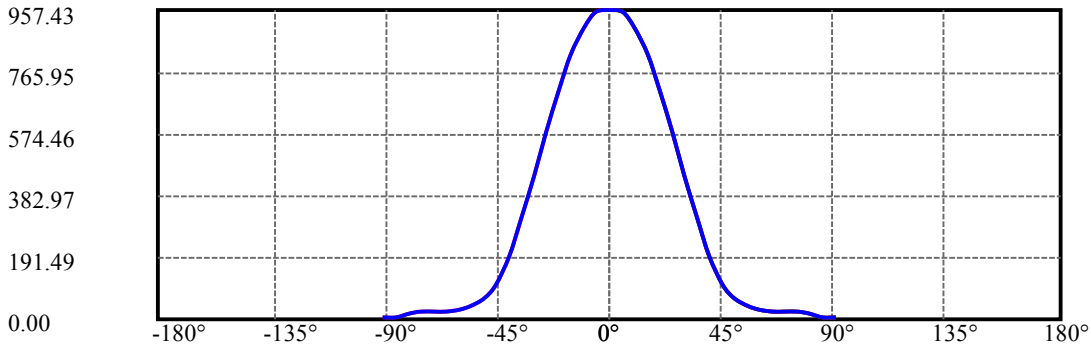
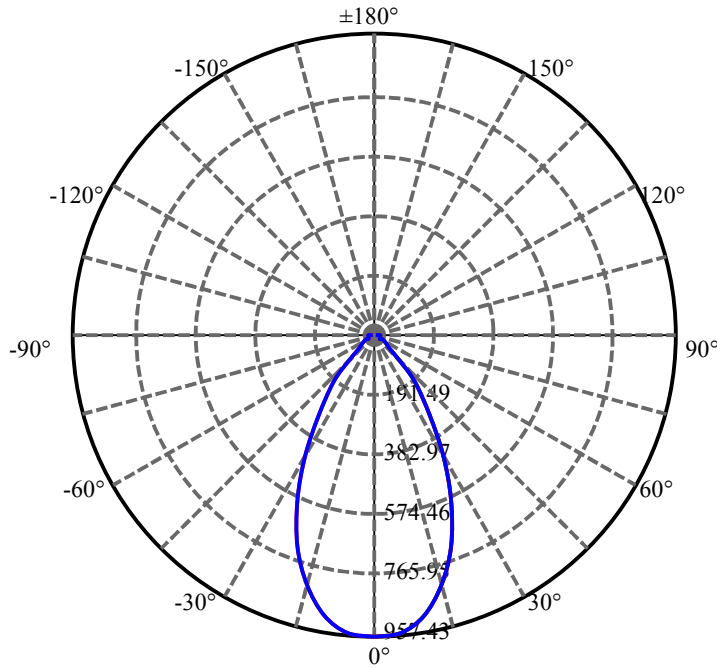
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	957.431	0.000	0	.000%	.000%
5.0	948.677	22.787	22.787	1.939%	2.360%
10.0	904.359	66.289	89.076	5.640%	9.225%
15.0	821.320	102.366	191.442	8.709%	19.826%
20.0	714.691	126.589	318.031	10.770%	32.936%
25.0	578.053	135.585	453.616	11.536%	46.977%
30.0	443.665	129.299	582.915	11.001%	60.368%
35.0	309.973	110.978	693.894	9.442%	71.861%
40.0	194.794	84.216	778.11	7.165%	80.583%
45.0	109.891	56.415	834.525	4.800%	86.425%
50.0	66.059	35.553	870.078	3.025%	90.107%
55.0	41.780	23.448	893.526	1.995%	92.535%
60.0	29.377	16.448	909.974	1.399%	94.239%
65.0	22.788	12.681	922.655	1.079%	95.552%
70.0	22.437	11.451	934.106	.974%	96.738%
75.0	22.050	11.628	945.734	.989%	97.942%
80.0	16.031	10.189	955.924	.867%	98.997%
85.0	7.657	6.437	962.361	.548%	99.664%
90.0	4.198	3.246	965.606	.276%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	582.92	49.60%	60.37%
0-40	778.11	66.20%	80.58%
0-60	909.97	77.42%	94.24%
0-90	962.36	81.88%	99.66%
0-120	962.36	81.88%	99.66%
0-180	965.61	82.16%	100.00%
60-90	68.83	5.86%	7.13%
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%
0-39.67	772.49	65.72%	80.00%

ZONAL LUMEN SUMMARY

0-10	89.08
10-20	228.96
20-30	264.88
30-40	195.19
40-50	91.97
50-60	39.90
60-70	24.13
70-80	21.82
80-90	6.44
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: —————

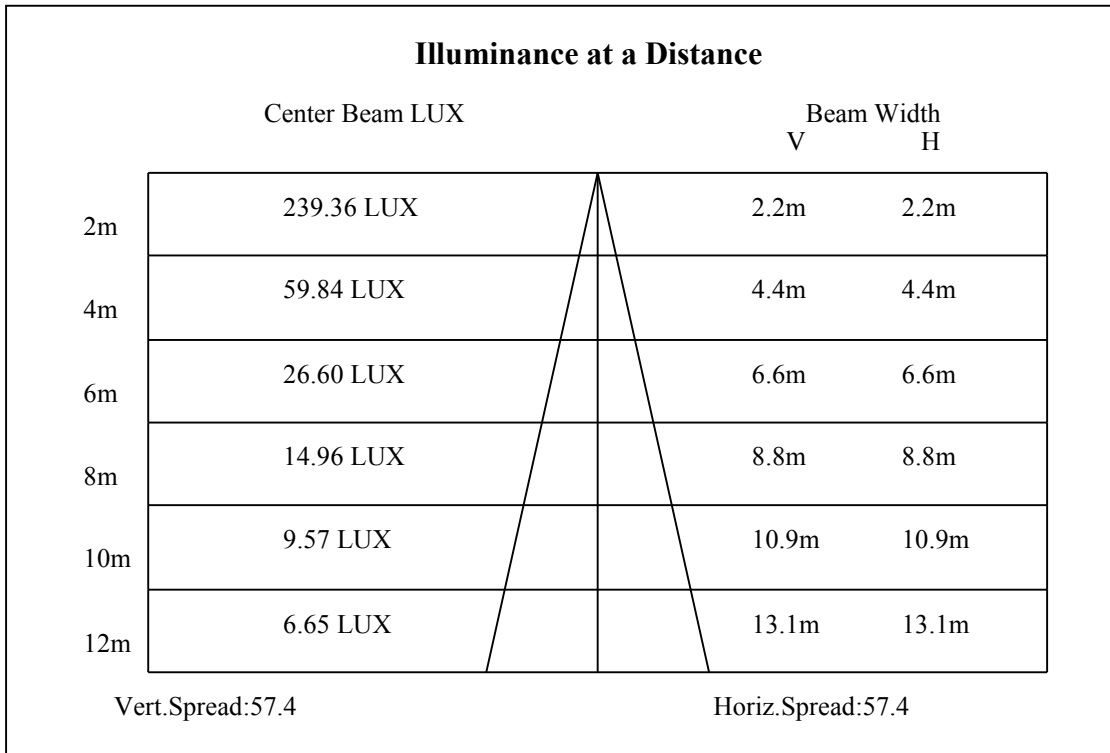
C90/C270: —————

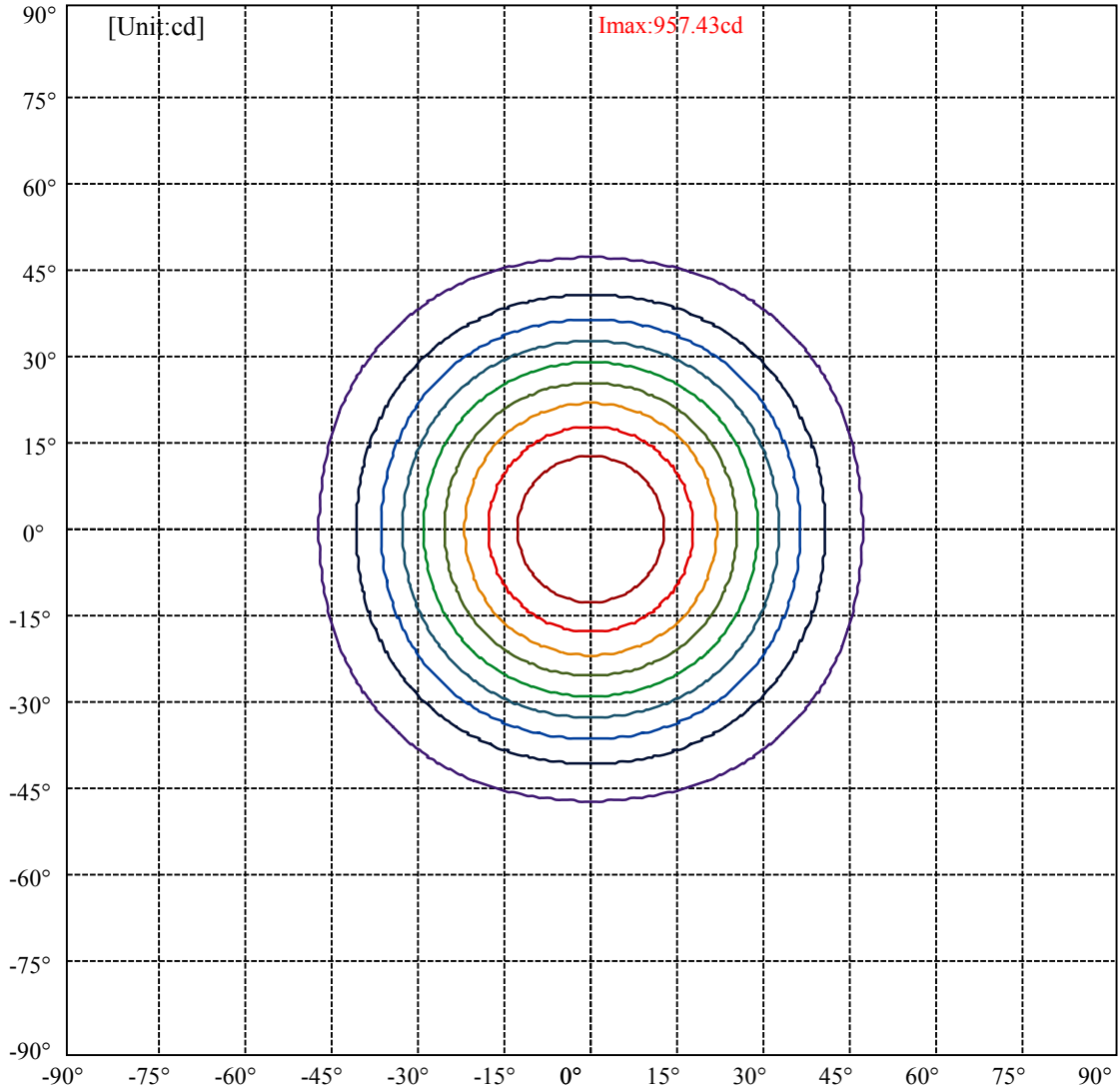
Field angle(10%Imax):C0/180Left:46.6 Right:46.6

:C90/270Left:46.6 Right:46.6

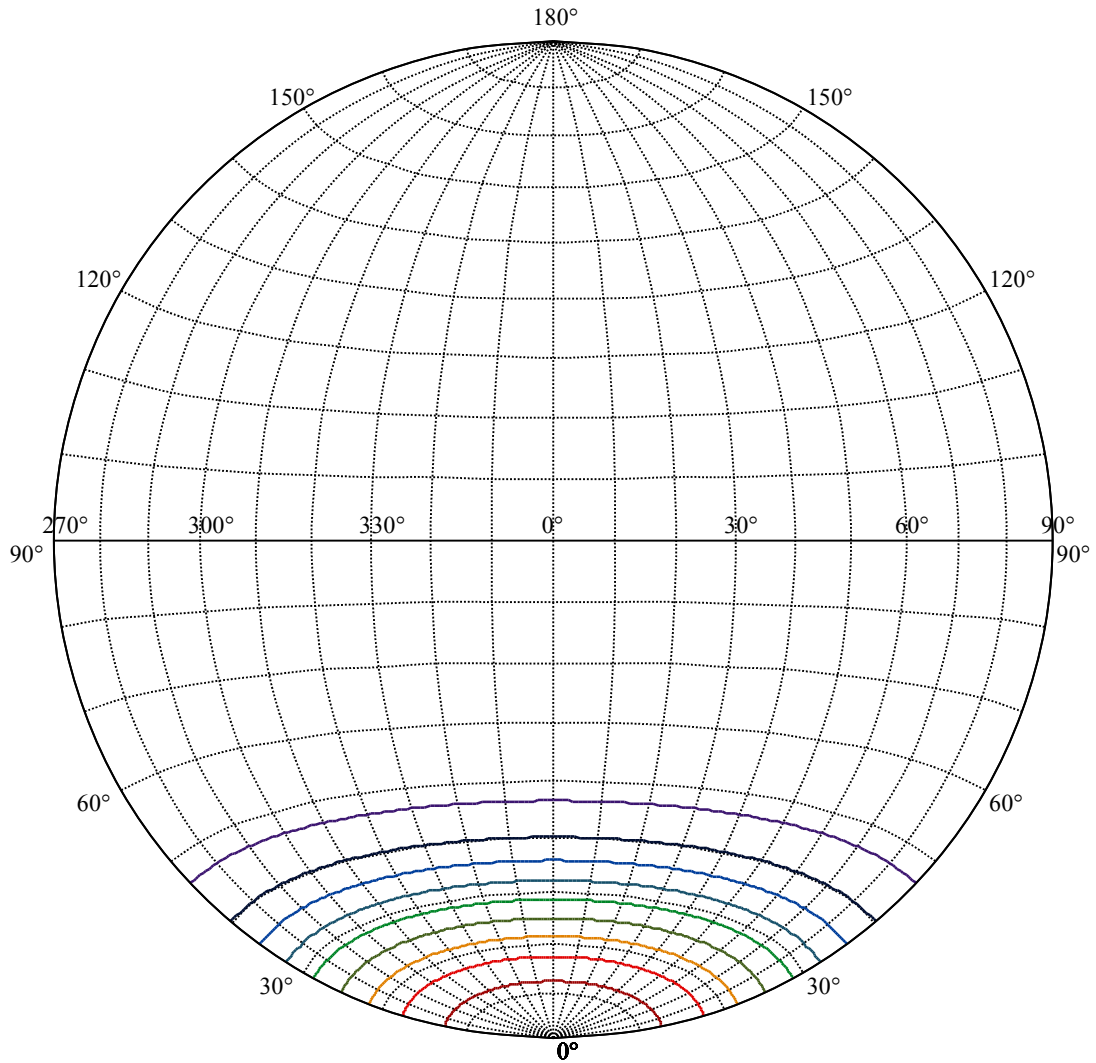
Beam Angle(50%Imax):C0/180Left:28.7 Right:28.7

:C90/270Left:28.7 Right:28.7





(10% $I_{max}$ )	95.7431	—
(20% $I_{max}$ )	191.486	—
(30% $I_{max}$ )	287.229	—
(40% $I_{max}$ )	382.973	—
(50% $I_{max}$ )	478.716	—
(60% $I_{max}$ )	574.459	—
(70% $I_{max}$ )	670.202	—
(80% $I_{max}$ )	765.945	—
(90% $I_{max}$ )	861.688	—



House

[Unit:cd]

Road

Imax:957.43

(10%Imax) 95.7431

(20%Imax) 191.486

(30%Imax) 287.229

(40%Imax) 382.973

(50%Imax) 478.716

(60%Imax) 574.459

(70%Imax) 670.202

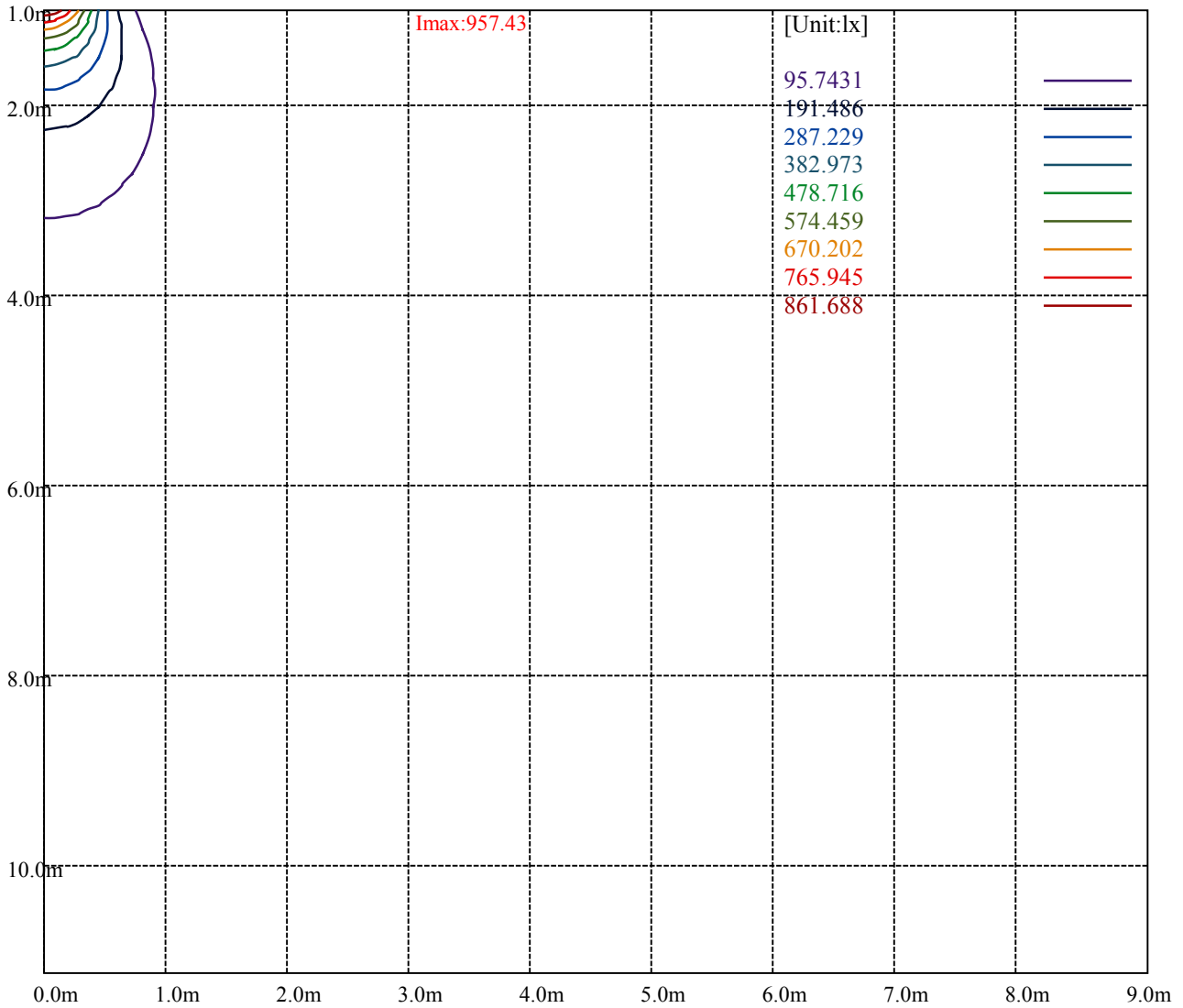
(80%Imax) 765.945

(90%Imax) 861.688









Luminance Table

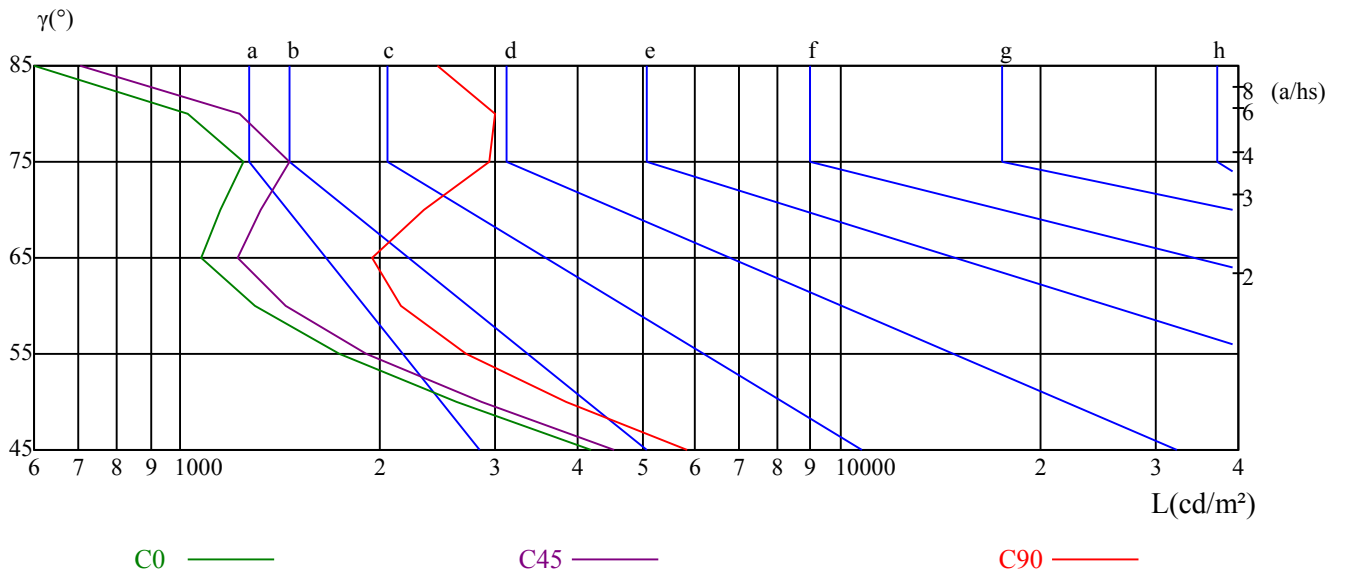
$\gamma$	45	50	55	60	65	70	75	80	85
C0	4195	2619	1737	1294	1076	1151	1249	1022	563
C45	4525	2853	1913	1443	1217	1324	1466	1231	702
C90	5853	3846	2704	2159	1955	2333	2937	3002	2445

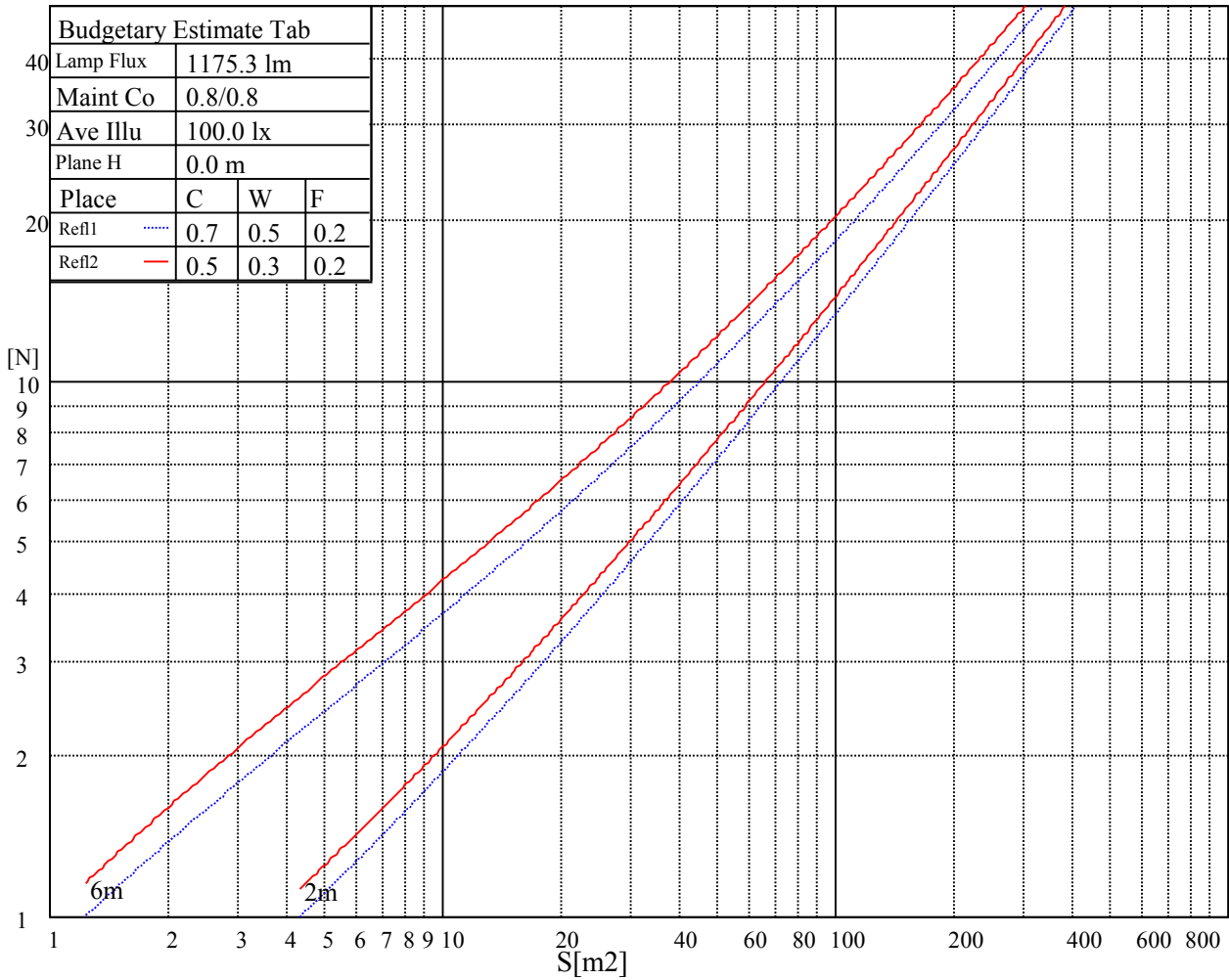
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2102	2102	2102	3321	3321	3321	3425	3425	3425

Glare Table

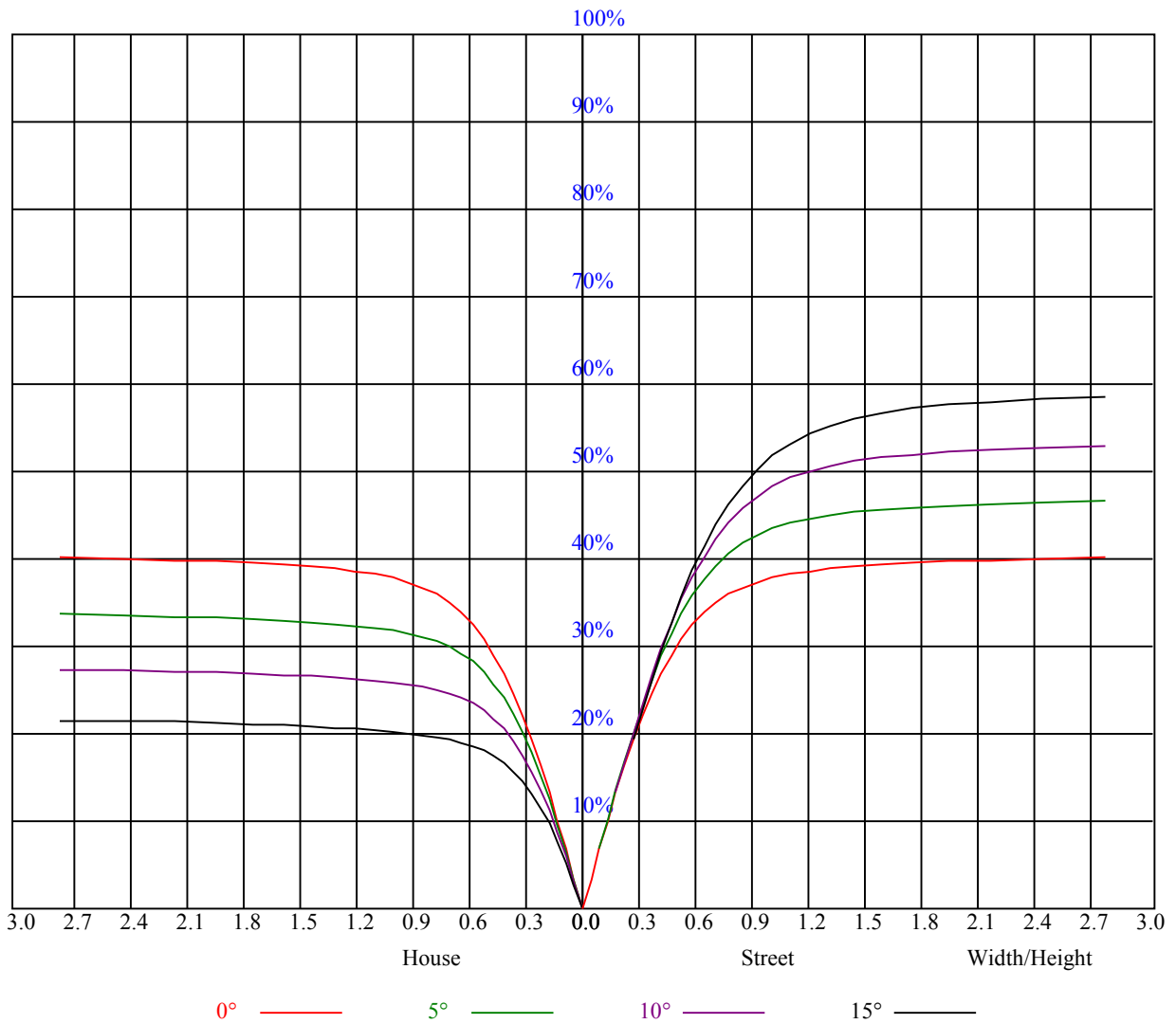
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.87	0.87	0.87	0.84	0.84	0.84	0.82
1	0.89	0.87	0.85	0.88	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.78	0.78	0.77	0.76	0.75
2	0.82	0.78	0.75	0.81	0.77	0.74	0.78	0.75	0.72	0.75	0.73	0.71	0.73	0.71	0.69	0.68
3	0.76	0.71	0.67	0.74	0.70	0.66	0.72	0.68	0.65	0.70	0.67	0.64	0.68	0.66	0.63	0.62
4	0.70	0.65	0.61	0.69	0.64	0.60	0.67	0.63	0.60	0.65	0.62	0.59	0.64	0.61	0.58	0.57
5	0.65	0.59	0.55	0.64	0.59	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.60	0.56	0.54	0.52
6	0.60	0.55	0.51	0.60	0.55	0.51	0.58	0.54	0.50	0.57	0.53	0.50	0.56	0.52	0.50	0.48
7	0.56	0.51	0.47	0.56	0.51	0.47	0.55	0.50	0.47	0.54	0.50	0.46	0.53	0.49	0.46	0.45
8	0.53	0.48	0.44	0.52	0.47	0.44	0.51	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.42
9	0.50	0.44	0.41	0.49	0.44	0.41	0.48	0.44	0.41	0.48	0.43	0.40	0.47	0.43	0.40	0.39
10	0.47	0.42	0.38	0.46	0.42	0.38	0.46	0.41	0.38	0.45	0.41	0.38	0.44	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	955.24	955.63	923.74	856.07	752.34	624.88	492.41	360.23	233.44
45.0	959.29	957.49	928.46	856.52	759.77	621.11	485.16	336.09	219.66
90.0	958.61	955.58	915.02	838.13	730.63	584.33	440.27	300.99	184.39
135.0	956.59	952.03	918.90	836.27	723.32	578.08	435.94	299.98	185.18
180.0	955.24	931.44	874.29	779.12	668.64	533.87	398.31	267.41	160.65
225.0	959.29	938.64	874.18	783.17	671.91	541.86	412.37	280.91	169.71
270.0	958.61	949.95	897.69	806.01	702.84	568.01	441.23	318.21	204.41
315.0	956.59	948.66	902.59	815.29	708.08	572.29	443.64	315.96	200.93
360.0	955.24	955.63	923.74	856.07	752.34	624.88	492.41	360.23	233.44

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	134.44	80.44	48.66	33.36	24.64	19.35	15.24	12.09	8.61
45.0	124.37	73.58	46.58	32.06	23.51	18.62	14.79	11.59	8.04
90.0	102.43	62.78	39.54	28.24	24.69	32.34	35.55	24.58	7.93
135.0	103.16	64.97	39.71	28.18	21.49	21.88	23.91	15.53	7.26
180.0	89.38	53.16	36.06	26.04	19.74	15.98	12.60	9.51	6.30
225.0	94.33	58.39	37.63	26.94	20.76	16.54	13.05	10.07	6.69
270.0	117.56	68.74	43.48	30.43	24.92	33.19	36.96	27.56	8.21
315.0	113.46	66.43	42.58	29.76	22.56	21.60	24.30	17.33	8.21
360.0	134.44	80.44	48.66	33.36	24.64	19.35	15.24	12.09	8.61

C/γ(°)	90.0
0.0	4.84
45.0	4.50
90.0	3.88
135.0	3.88
180.0	4.33
225.0	4.39
270.0	3.83
315.0	3.94
360.0	4.84