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Nata

LumCAT: LN01D05060DA-N

Luminaire: 97.70.234.00

Report No: 210707-B004

Test No: 210707-C004

LampCAT: Fortimo LED SLM 1203 G7N

Lamp flux(lm): 2182.7

Number of Lamps: 1

Length(mm): 570

Phm Type: C

Voltage(V): 36.7000

Current(A): 0.4510

Power (W): 16.5510

PF: 0.0000

Ballast type: DC

Width(mm): 45

Height(mm): 20

Photometric Results

Lumens(lm): 1942.74

Efficiency(%): 89.01%

Lumens(lm)/Power(W): 117.38

Central intensity(cd): 2085.188

Maximum intensity(cd): 2085.188

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=55.8

[C90/270]Total=55.8

Field angle(10%Imax): [C0/180]Total=89.8

[C90/270]Total=89.8

Maximum s/h(1/2): C0_180=0.85 C90_270=0.85

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(%): 89.01%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.298%

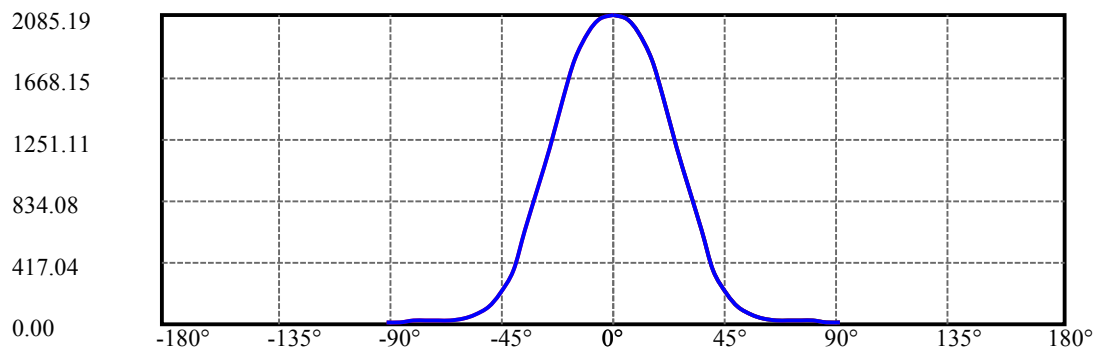
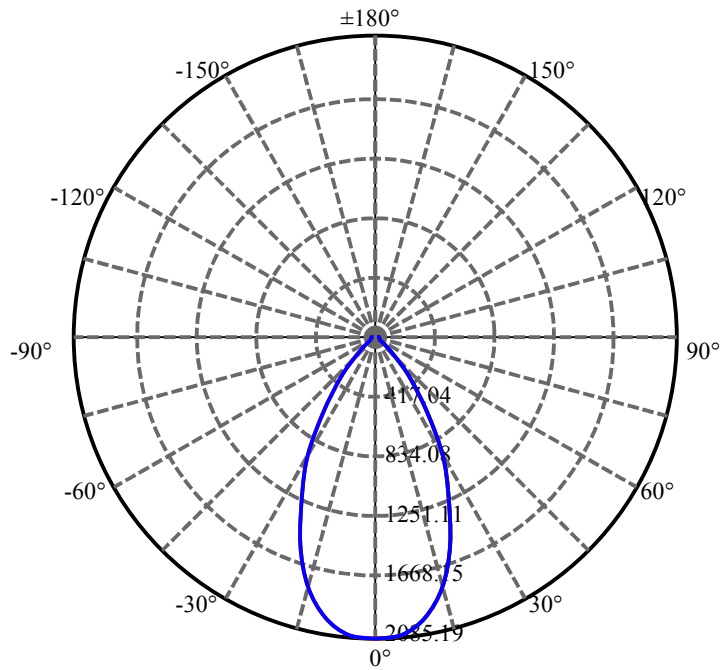
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2085.188	0.000	0	.000%	.000%
5.0	2060.648	49.562	49.562	2.271%	2.551%
10.0	1964.250	143.983	193.546	6.596%	9.963%
15.0	1785.586	222.438	415.983	10.191%	21.412%
20.0	1528.031	273.089	689.072	12.511%	35.469%
25.0	1190.791	285.154	974.226	13.064%	50.147%
30.0	935.515	269.086	1243.312	12.328%	63.998%
35.0	628.214	230.270	1473.582	10.550%	75.851%
40.0	365.280	165.757	1639.339	7.594%	84.383%
45.0	204.652	105.528	1744.867	4.835%	89.815%
50.0	110.770	63.736	1808.602	2.920%	93.095%
55.0	63.619	37.918	1846.52	1.737%	95.047%
60.0	41.491	24.296	1870.816	1.113%	96.298%
65.0	29.229	17.192	1888.008	.788%	97.183%
70.0	26.663	14.152	1902.161	.648%	97.911%
75.0	25.924	13.745	1915.906	.630%	98.619%
80.0	22.078	12.844	1928.75	.588%	99.280%
85.0	10.659	8.896	1937.646	.408%	99.738%
90.0	7.945	5.094	1942.74	.233%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1243.31	56.96%	64.00%
0-40	1639.34	75.10%	84.38%
0-60	1870.82	85.71%	96.30%
0-90	1937.65	88.77%	99.74%
0-120	1937.65	88.77%	99.74%
0-180	1942.74	89.01%	100.00%
60-90	91.13	4.17%	4.69%
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%
0-37.43	1554.19	71.20%	80.00%

ZONAL LUMEN SUMMARY

0-10	193.55
10-20	495.53
20-30	554.24
30-40	396.03
40-50	169.26
50-60	62.21
60-70	31.34
70-80	26.59
80-90	8.90
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

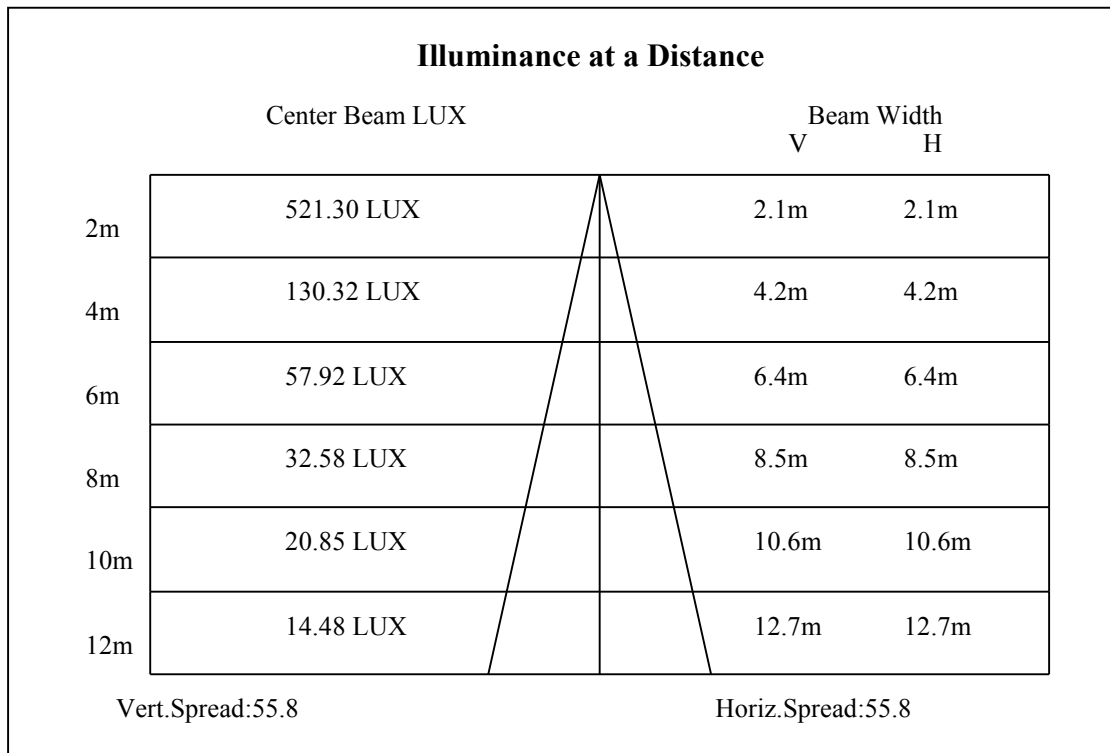
C0(Max): —————C0/C180: —————C90/C270: —————

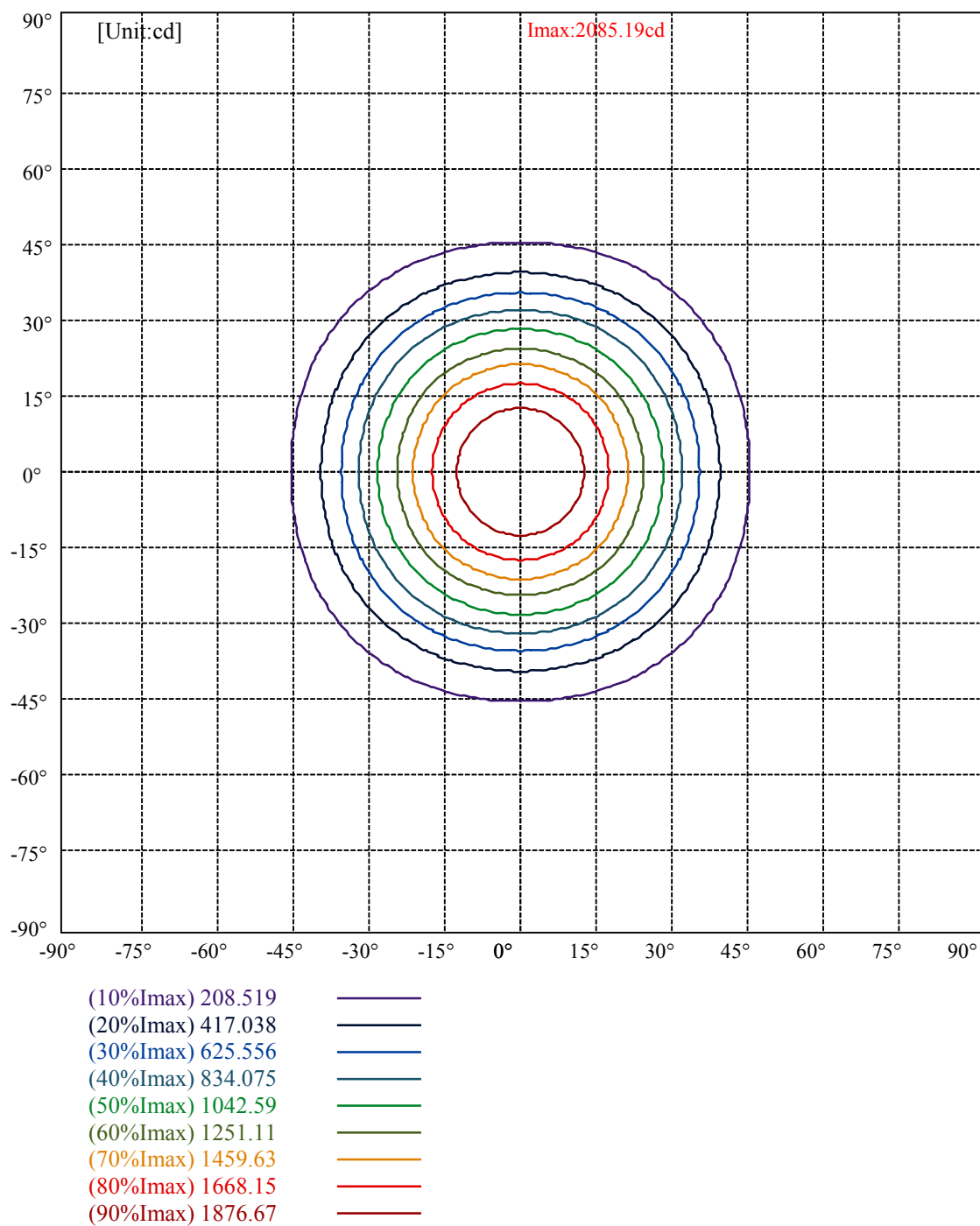
Field angle(10%Imax):C0/180Left:44.9 Right:44.9

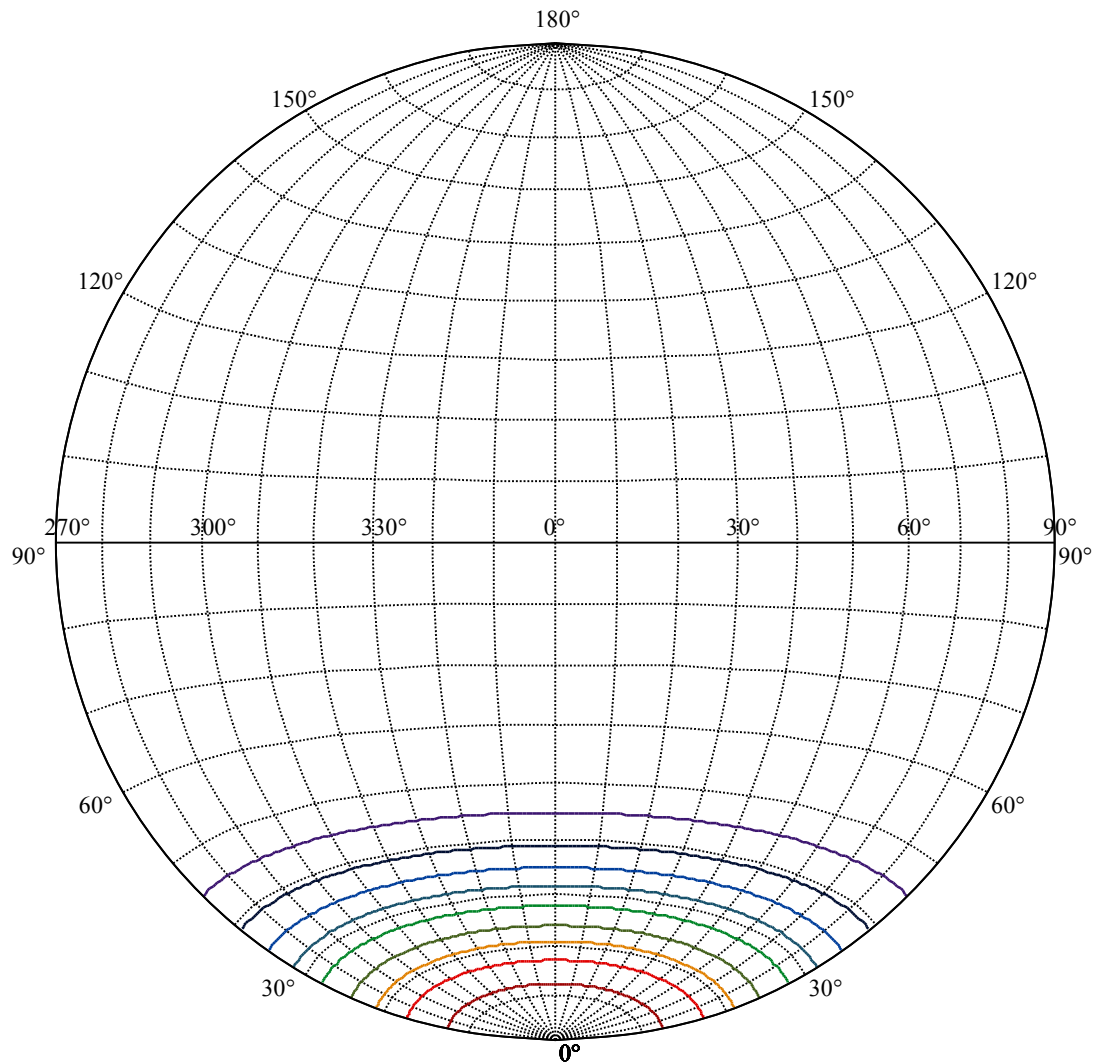
:C90/270Left:44.9 Right:44.9

Beam Angle(50%Imax):C0/180Left:27.9 Right:27.9

:C90/270Left:27.9 Right:27.9







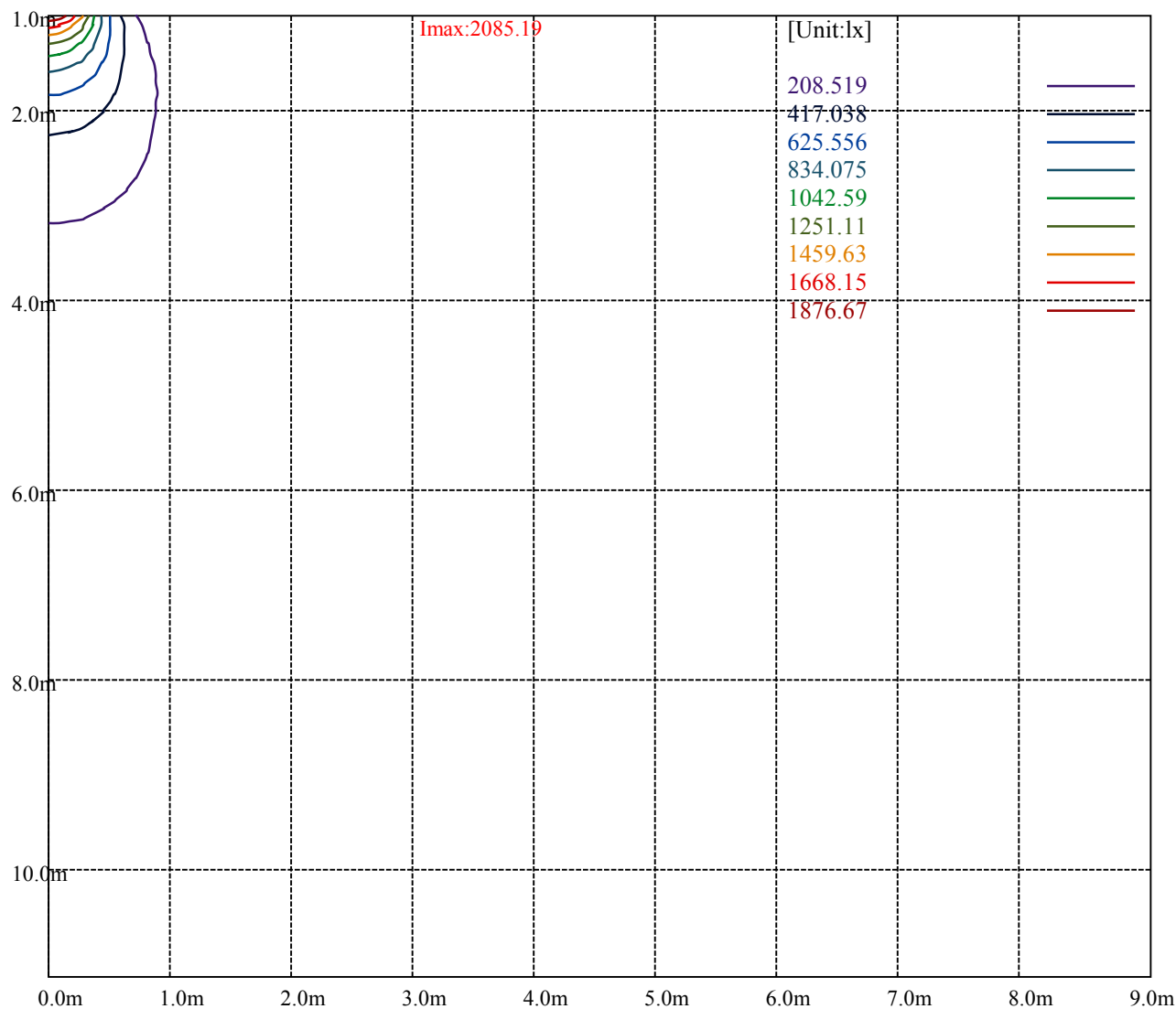
House

[Unit:cd]

Road

Imax:2085.19

(10%Imax)	208.519	—
(20%Imax)	417.038	—
(30%Imax)	625.556	—
(40%Imax)	834.075	—
(50%Imax)	1042.59	—
(60%Imax)	1251.11	—
(70%Imax)	1459.63	—
(80%Imax)	1668.15	—
(90%Imax)	1876.67	—



Luminance Table

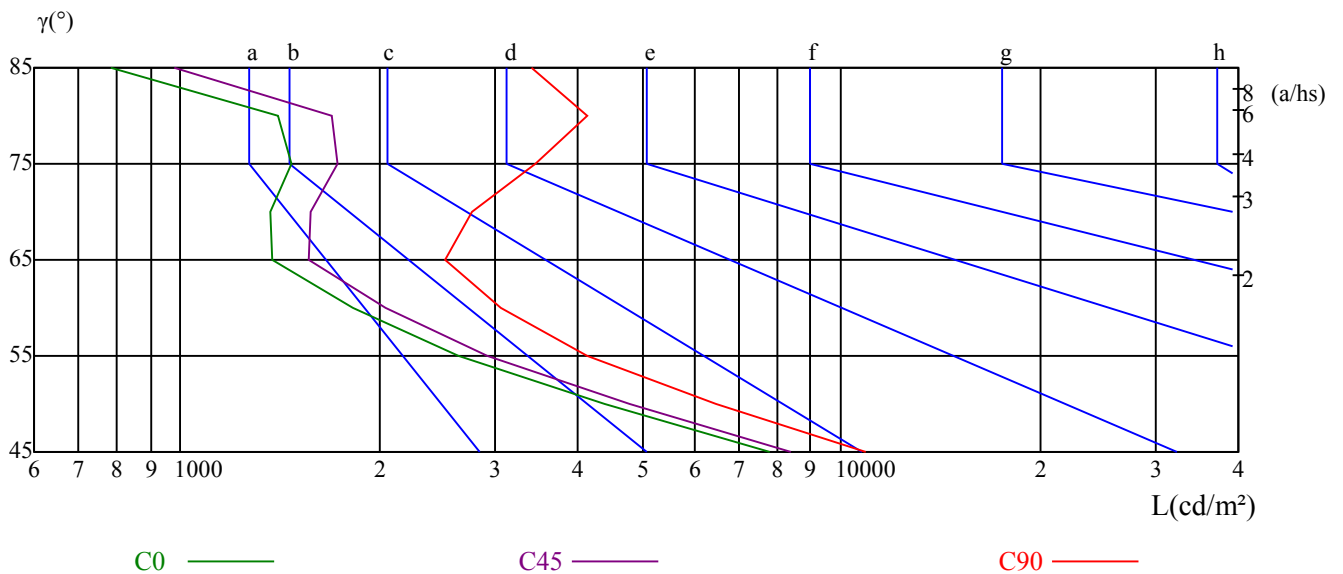
γ	45	50	55	60	65	70	75	80	85
C0	7812	4392	2645	1828	1381	1368	1469	1408	784
C45	8426	4785	2913	2038	1561	1573	1724	1696	978
C90	10901	6449	4118	3050	2508	2772	3453	4134	3403

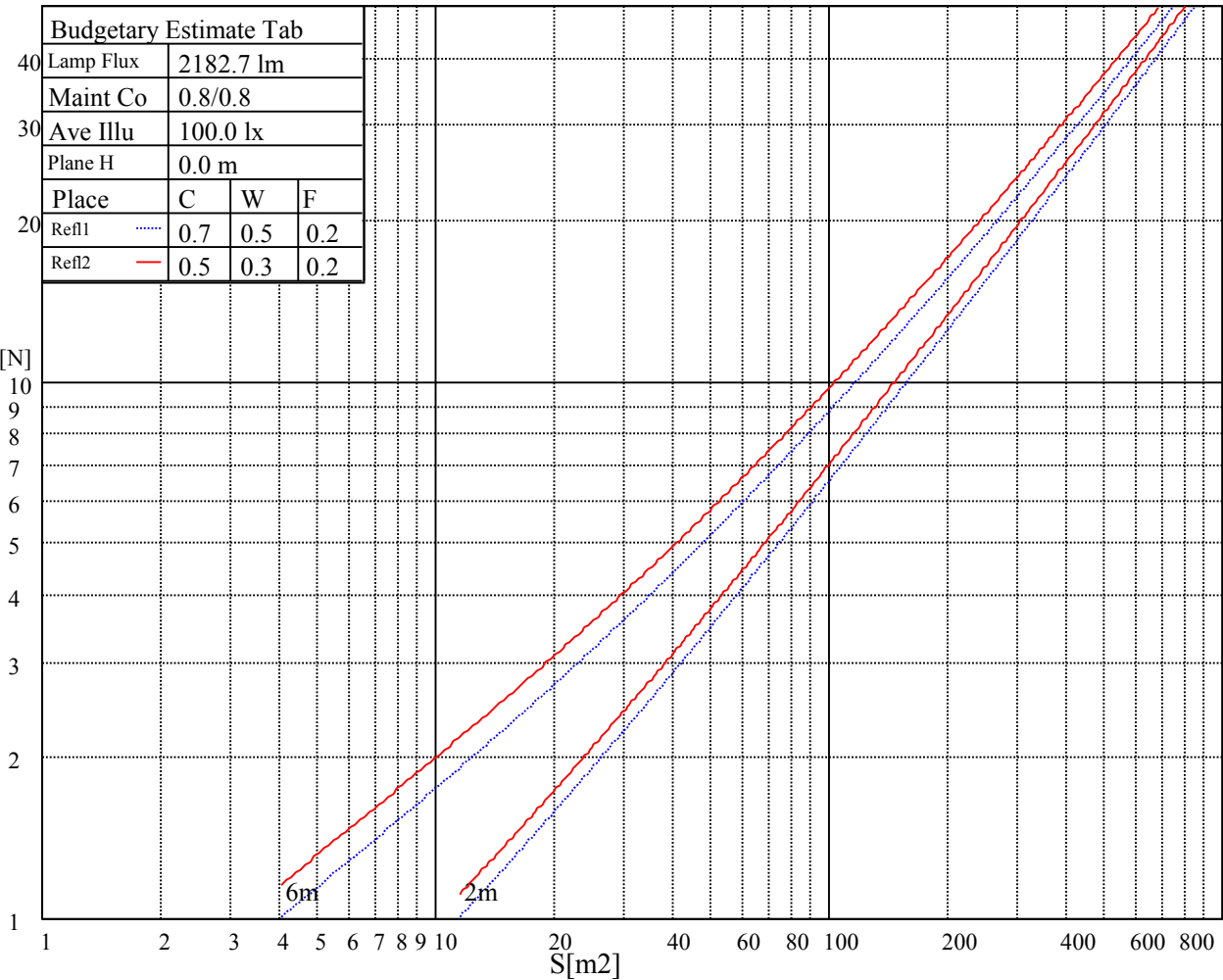
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
2696	2696	2696	3905	3905	3905	4768	4768	4768

Glare Table

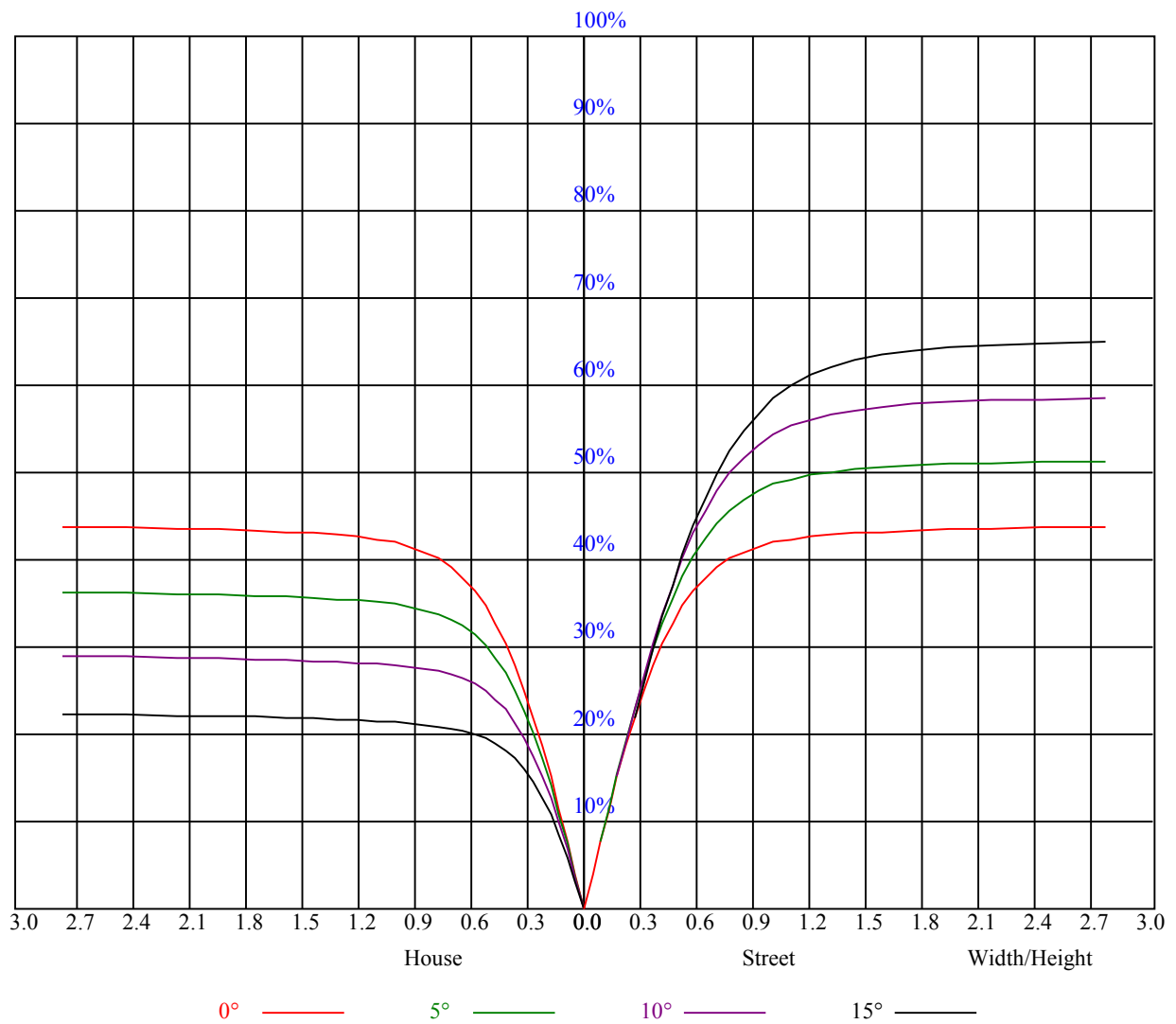
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	≤ 300				
1.5	B		2000	1000	500	≤ 300			
1.85	C			2000	1000	500	≤ 300		
2.2	D				2000	1000	500	≤ 300	
2.55	E					2000	1000	500	≤ 300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.97	0.95	0.93	0.96	0.93	0.91	0.92	0.90	0.88	0.89	0.87	0.86	0.85	0.84	0.83	0.82
2	0.90	0.86	0.83	0.88	0.85	0.82	0.85	0.82	0.80	0.83	0.80	0.78	0.80	0.78	0.76	0.75
3	0.83	0.78	0.74	0.82	0.77	0.74	0.80	0.76	0.73	0.77	0.74	0.71	0.75	0.73	0.70	0.69
4	0.77	0.72	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.72	0.69	0.66	0.71	0.68	0.65	0.64
5	0.72	0.66	0.62	0.71	0.66	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.66	0.63	0.60	0.59
6	0.67	0.61	0.57	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.55
7	0.63	0.57	0.53	0.62	0.57	0.53	0.61	0.56	0.53	0.60	0.56	0.52	0.59	0.55	0.52	0.51
8	0.59	0.53	0.50	0.59	0.53	0.49	0.58	0.53	0.49	0.57	0.52	0.49	0.56	0.52	0.49	0.48
9	0.56	0.50	0.46	0.55	0.50	0.46	0.54	0.50	0.46	0.54	0.49	0.46	0.53	0.49	0.46	0.45
10	0.53	0.47	0.44	0.52	0.47	0.43	0.51	0.47	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.42



Intensity data(cd)

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C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	2084.63	2067.19	1971.56	1789.88	1528.31	1226.81	940.50	649.13	375.19
45.0	2088.56	2060.44	1964.81	1793.25	1518.19	1193.06	903.38	586.13	334.13
90.0	2084.63	2050.88	1947.94	1784.25	1522.13	1113.47	899.33	564.02	304.71
135.0	2082.94	2071.13	1985.63	1824.19	1598.63	1284.19	975.94	653.06	389.25
180.0	2084.63	2062.13	1973.81	1777.50	1521.56	1118.14	920.98	624.38	358.48
225.0	2088.56	2068.31	1983.94	1799.44	1521.56	1200.94	947.59	648.90	399.38
270.0	2084.63	2062.69	1967.63	1794.38	1553.06	1274.06	997.31	699.75	417.38
315.0	2082.94	2042.44	1918.69	1721.81	1460.81	1115.66	899.10	600.36	343.74
360.0	2084.63	2067.19	1971.56	1789.88	1528.31	1226.81	940.50	649.13	375.19
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	196.82	113.34	64.86	41.91	28.97	22.39	17.33	13.56	10.52
45.0	187.65	103.56	59.91	39.38	27.84	21.09	16.20	12.83	9.84
90.0	172.74	97.65	57.09	38.76	29.53	42.08	48.94	41.63	10.07
135.0	201.71	112.61	65.93	42.41	29.25	22.67	20.53	17.49	10.46
180.0	191.31	110.64	63.17	41.01	29.03	22.16	16.99	13.22	10.13
225.0	214.54	119.76	68.40	44.38	30.21	22.73	17.78	13.84	10.91
270.0	290.25	124.43	69.98	45.28	31.16	38.53	48.38	48.21	12.88
315.0	182.19	104.18	59.63	38.81	27.84	21.66	21.26	15.86	10.46
360.0	196.82	113.34	64.86	41.91	28.97	22.39	17.33	13.56	10.52
C/γ(°)	90.0								
0.0	7.93								
45.0	8.16								
90.0	7.76								
135.0	7.71								
180.0	7.82								
225.0	8.49								
270.0	7.99								
315.0	7.71								
360.0	7.93								