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Nata

LumCAT: 3-2439-A
Luminaire: 92.70.153.00
Report No: NATA0100 Voltage(V): 33.8600
Test No: GC2019111416 Current(A): 0.4270
LampCAT: PHILIPS SLM92757 TWL152024 Power (W): 14.4500
Lamp flux(lm): 1410.0 PF: 1.0000
Number of Lamps: 1 Ballast type: DC
Length(mm): 0 Width(mm): 0
Phm Type: C Height(mm): 0

Photometric Results

Lumens(lm): 1167.98
Efficiency(%): 82.84%
Lumens(lm)/Power(W): 80.83
Central intensity(cd): 2275.313
Maximum intensity(cd): 2275.313
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=38.0
 [C90/270]Total=38.0
Field angle(10%Imax): [C0/180]Total=72.9
 [C90/270]Total=72.9
Maximum s/h(1/2): C0_180=0.62 C90_270=0.62
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(%): 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 : 97.949%

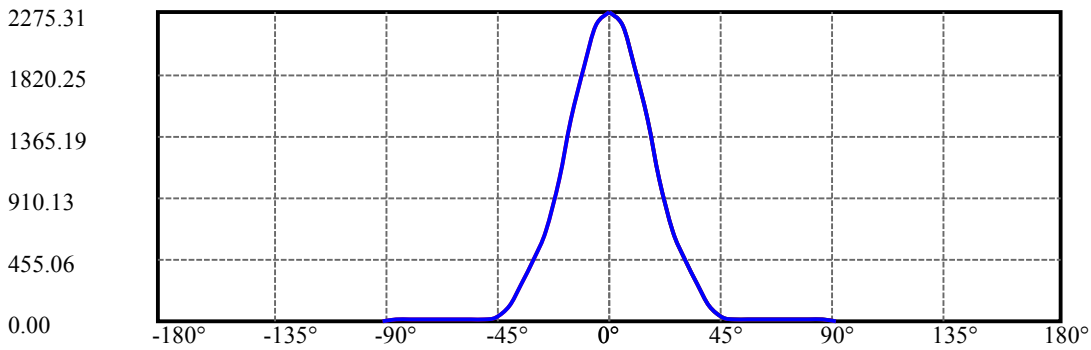
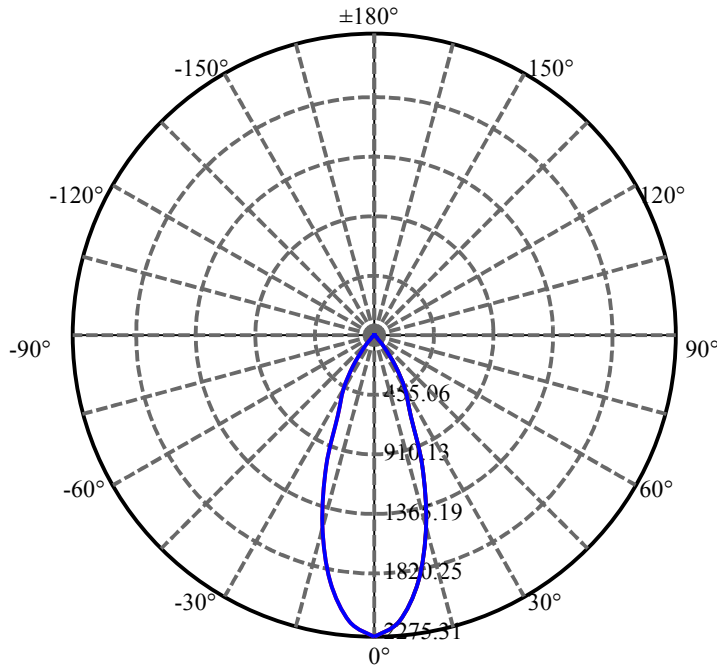
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2275.313	0.000	0	.000%	.000%
5.0	2169.492	53.136	53.136	3.769%	4.549%
10.0	1885.359	145.055	198.191	10.288%	16.969%
15.0	1484.156	199.877	398.069	14.176%	34.082%
20.0	1050.328	208.877	606.946	14.814%	51.965%
25.0	666.577	180.072	787.017	12.771%	67.383%
30.0	468.070	143.591	930.608	10.184%	79.677%
35.0	275.569	109.506	1040.114	7.766%	89.052%
40.0	107.501	63.912	1104.026	4.533%	94.525%
45.0	28.245	25.134	1129.16	1.783%	96.676%
50.0	9.176	7.561	1136.722	.536%	97.324%
55.0	7.875	3.707	1140.429	.263%	97.641%
60.0	7.685	3.597	1144.026	.255%	97.949%
65.0	7.587	3.713	1147.739	.263%	98.267%
70.0	7.509	3.822	1151.561	.271%	98.594%
75.0	7.404	3.898	1155.459	.276%	98.928%
80.0	7.390	3.958	1159.417	.281%	99.267%
85.0	9.436	4.572	1163.989	.324%	99.658%
90.0	5.133	3.989	1167.978	.283%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	930.61	66.00%	79.68%
0-40	1104.03	78.30%	94.52%
0-60	1144.03	81.14%	97.95%
0-90	1163.99	82.55%	99.66%
0-120	1163.99	82.55%	99.66%
0-180	1167.98	82.84%	100.00%
60-90	23.56	1.67%	2.02%
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%
0-30.17	934.38	66.27%	80.00%

ZONAL LUMEN SUMMARY

0-10	198.19
10-20	408.75
20-30	323.66
30-40	173.42
40-50	32.70
50-60	7.30
60-70	7.54
70-80	7.86
80-90	4.57
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: —————

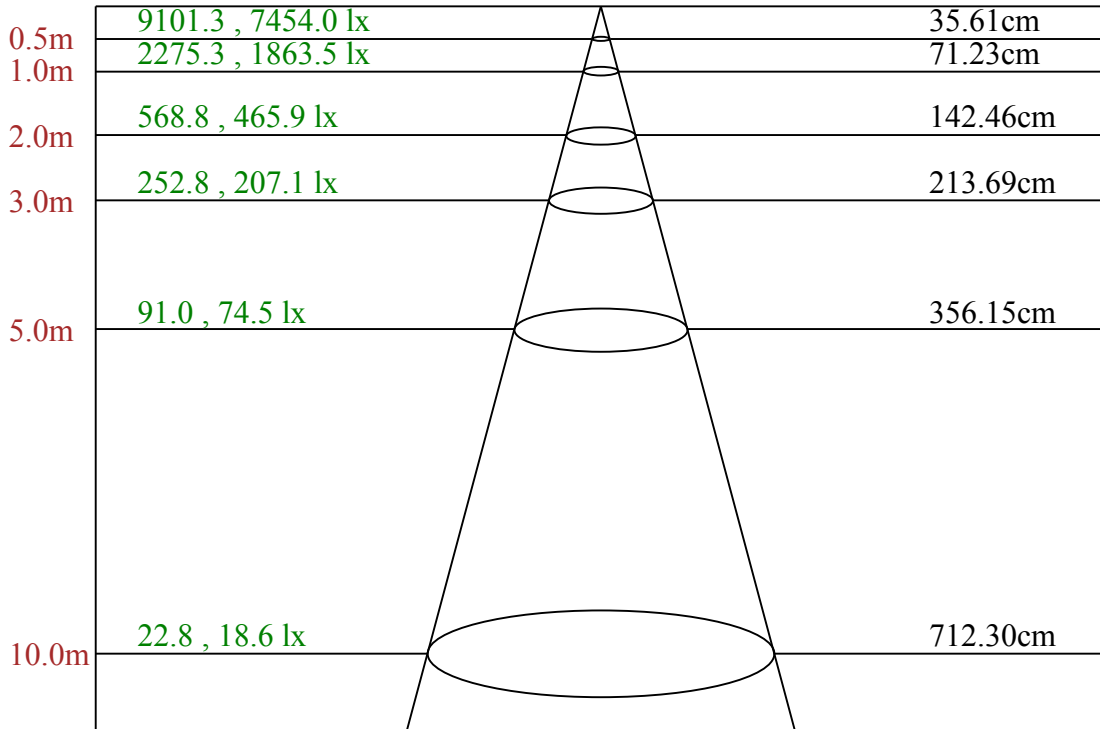
C90/C270: —————

Field angle(10%Imax):C0/180Left:36.4 Right:36.4

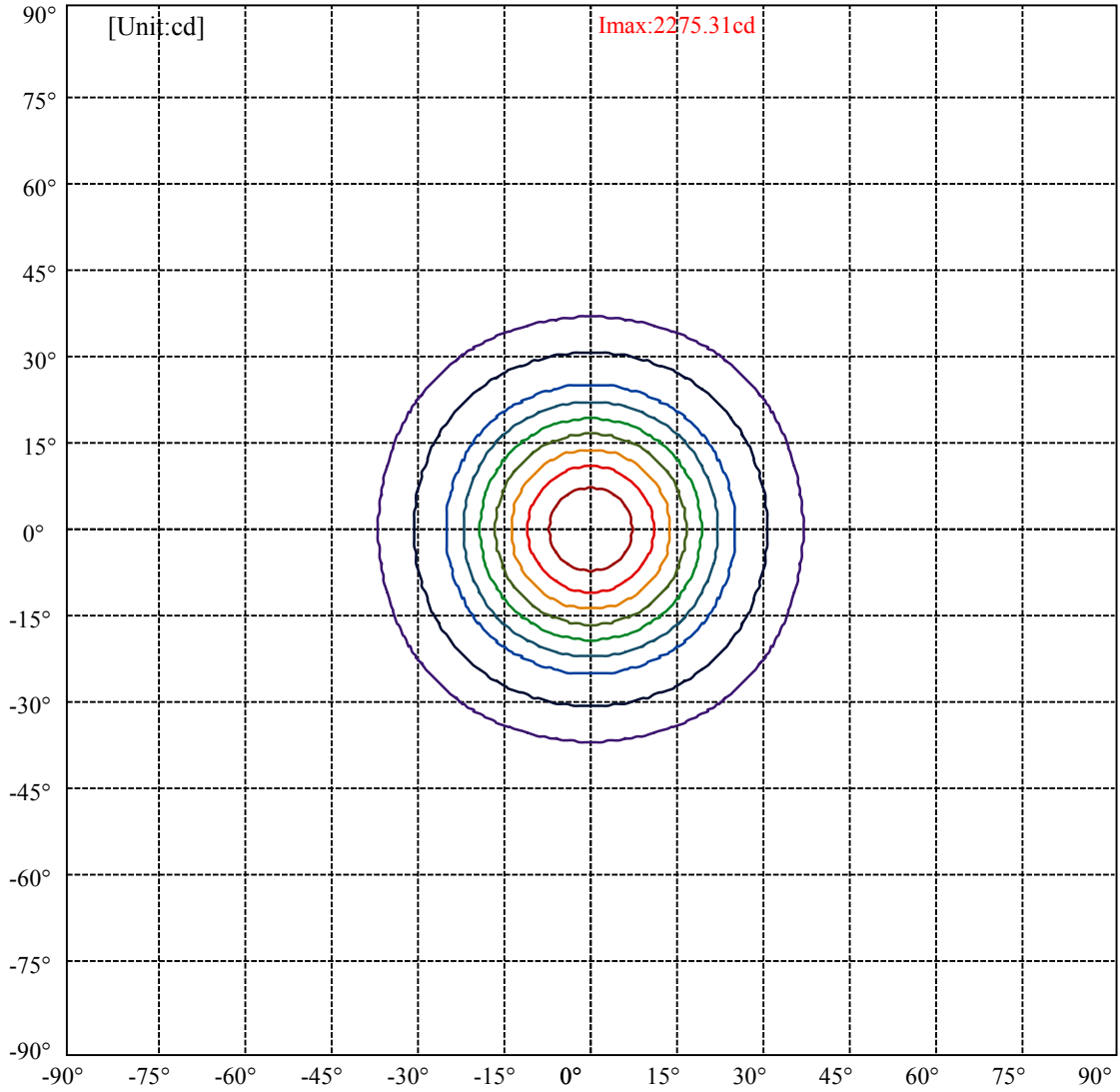
:C90/270Left:36.4 Right:36.4

Beam Angle(50%Imax):C0/180Left:19.0 Right:19.0

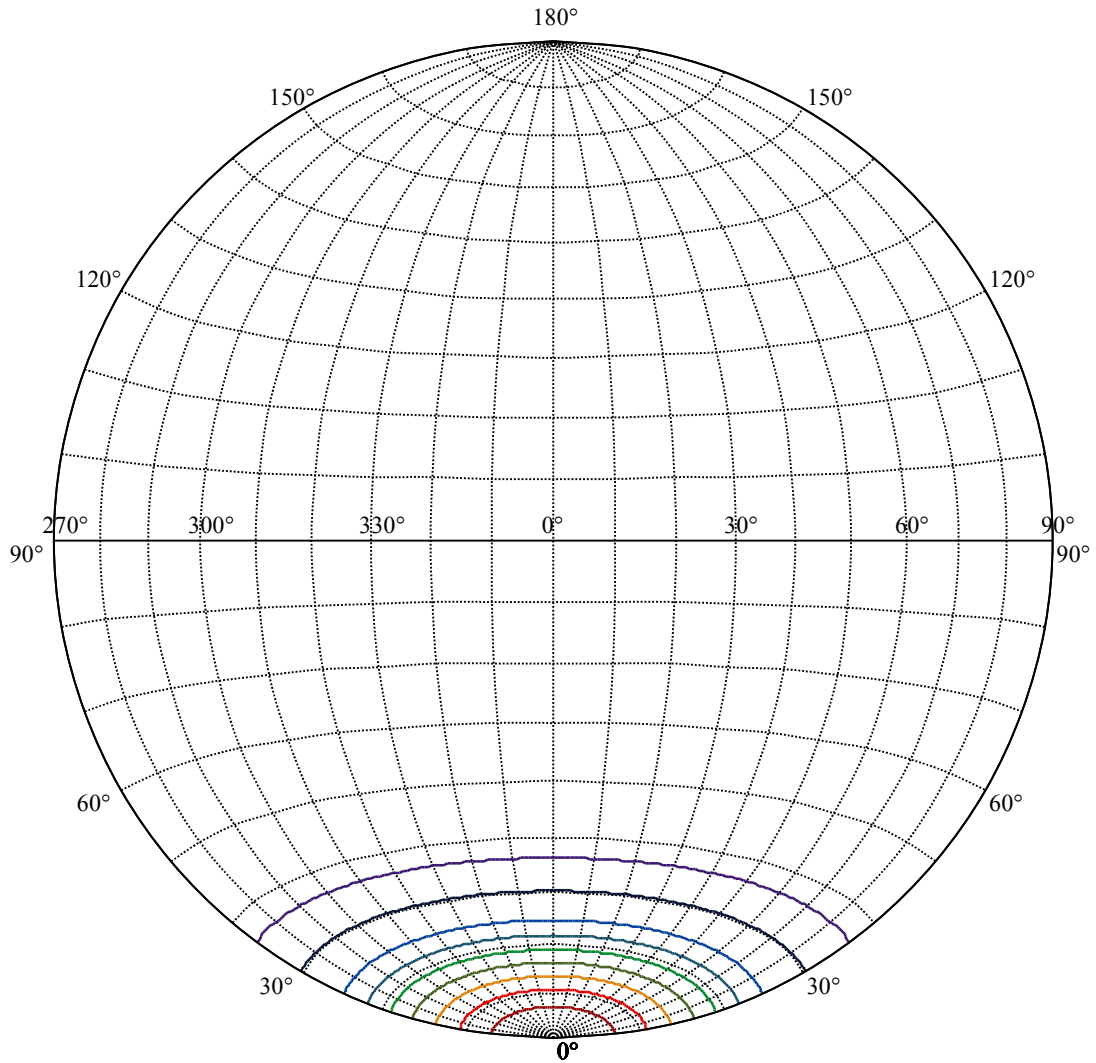
:C90/270Left:19.0 Right:19.0



Max , Ave Beam angle of C0 plane 39.21



(10%Imax)	227.531	—
(20%Imax)	455.063	—
(30%Imax)	682.594	—
(40%Imax)	910.125	—
(50%Imax)	1137.66	—
(60%Imax)	1365.19	—
(70%Imax)	1592.72	—
(80%Imax)	1820.25	—
(90%Imax)	2047.78	—



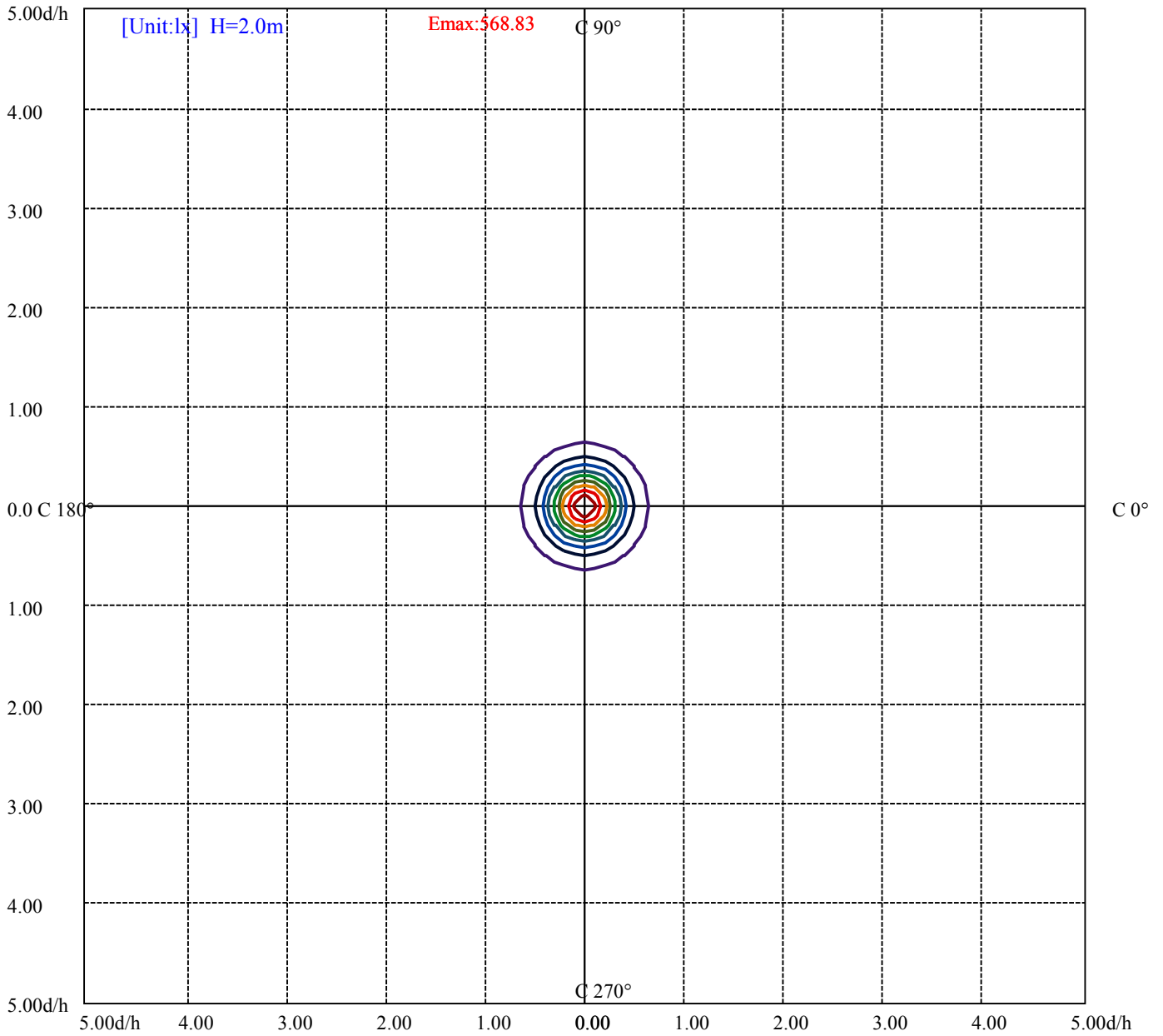
House

[Unit:cd]

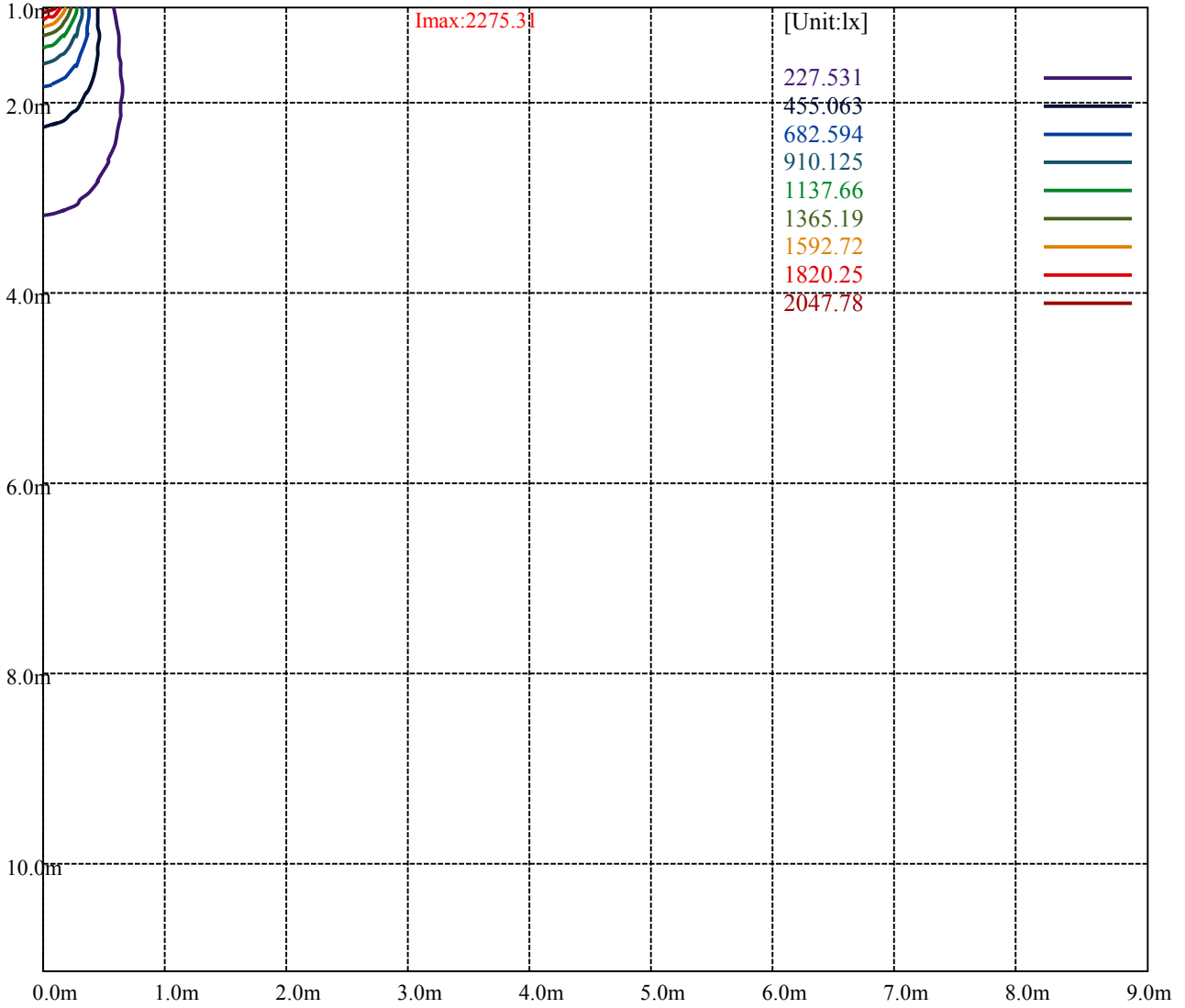
Road

Imax:2275.31

(10%Imax) 227.531	—
(20%Imax) 455.063	—
(30%Imax) 682.594	—
(40%Imax) 910.125	—
(50%Imax) 1137.66	—
(60%Imax) 1365.19	—
(70%Imax) 1592.72	—
(80%Imax) 1820.25	—
(90%Imax) 2047.78	—



(10%Emax) 56.88275	—
(20%Emax) 113.7655	—
(30%Emax) 170.6483	—
(40%Emax) 227.531	—
(50%Emax) 284.4125	—
(60%Emax) 341.2975	—
(70%Emax) 398.18	—
(80%Emax) 455.0625	—
(90%Emax) 511.945	—



Luminance Table

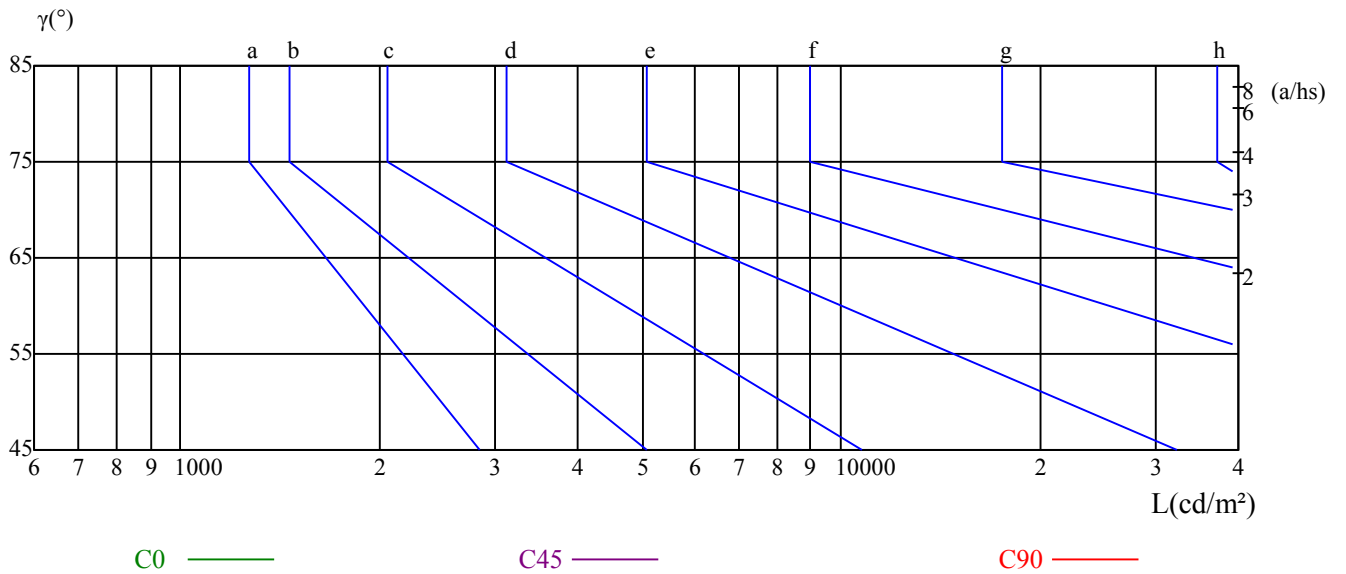
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

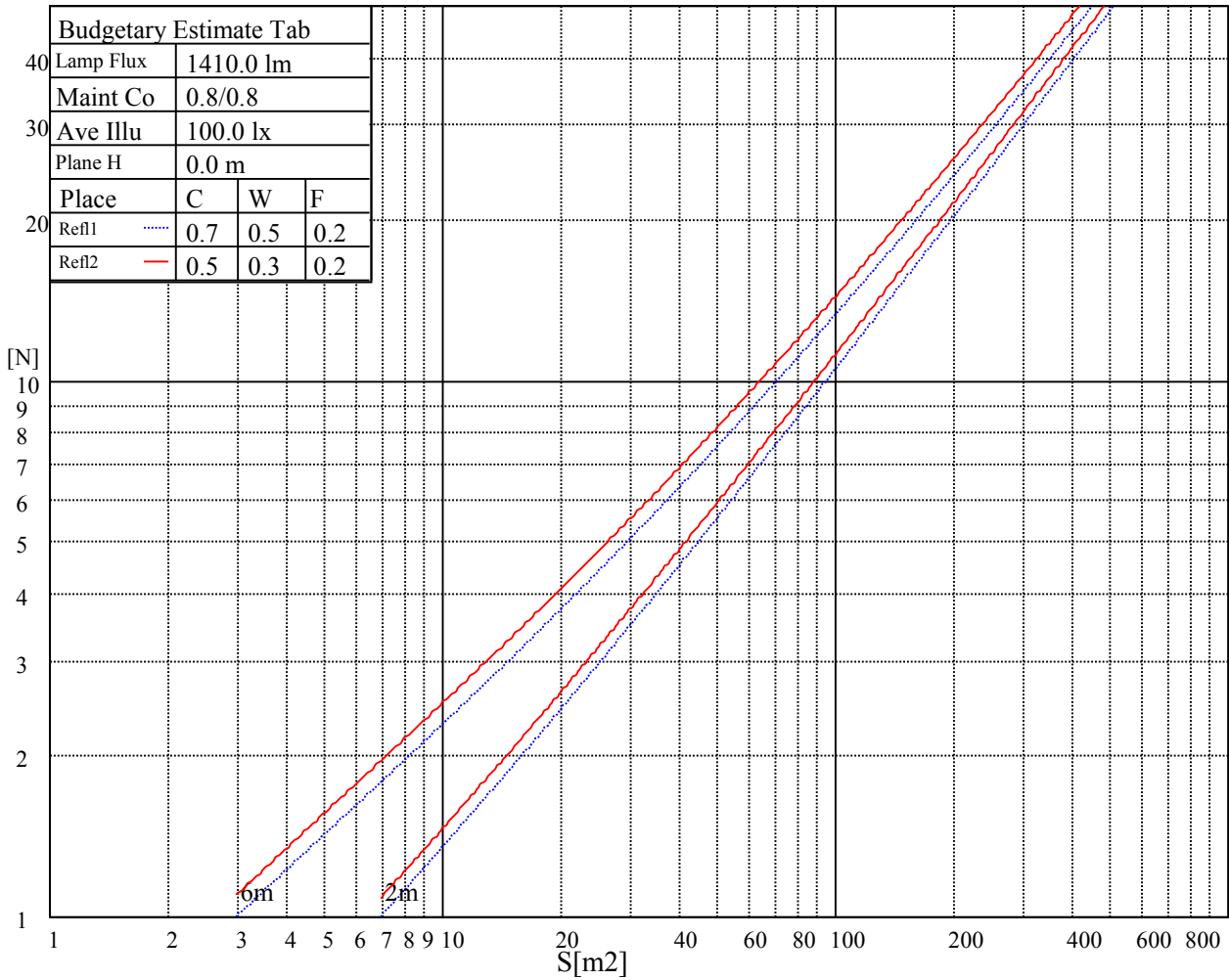
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

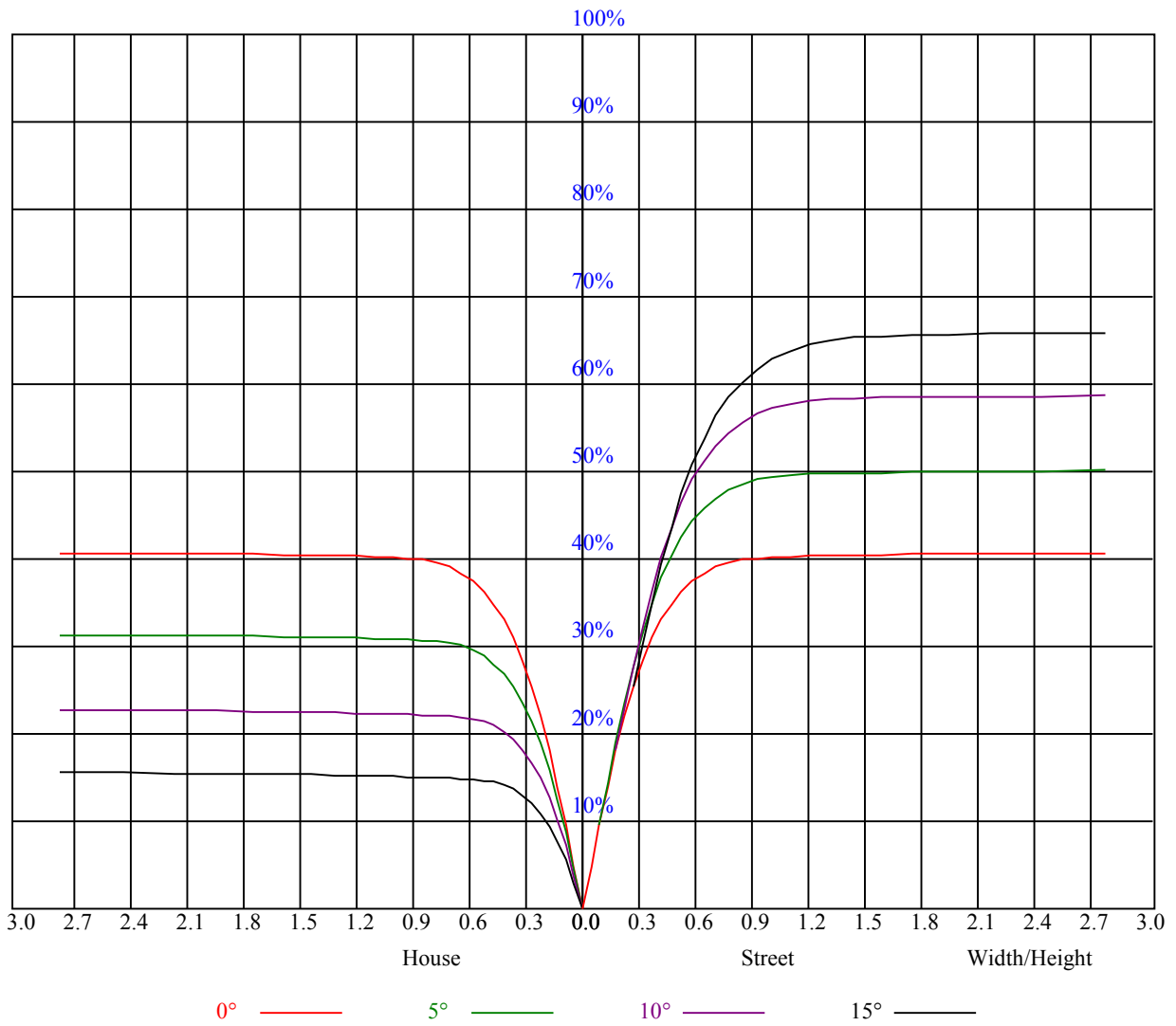
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	0.92	0.90	0.88	0.90	0.88	0.87	0.87	0.85	0.84	0.84	0.82	0.81	0.81	0.80	0.79	0.78
2	0.86	0.83	0.80	0.85	0.82	0.79	0.82	0.80	0.78	0.80	0.78	0.76	0.77	0.76	0.74	0.73
3	0.81	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.72	0.76	0.73	0.71	0.74	0.72	0.70	0.69
4	0.76	0.72	0.69	0.75	0.71	0.68	0.74	0.70	0.68	0.72	0.69	0.67	0.71	0.68	0.66	0.65
5	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.67	0.65	0.63	0.61
6	0.68	0.64	0.61	0.68	0.64	0.60	0.67	0.63	0.60	0.65	0.62	0.60	0.64	0.62	0.59	0.58
7	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.55
8	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
9	0.59	0.55	0.52	0.59	0.54	0.52	0.58	0.54	0.51	0.57	0.54	0.51	0.57	0.53	0.51	0.50
10	0.56	0.52	0.49	0.56	0.52	0.49	0.55	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.48



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	2275.31	2223.00	2005.88	1620.56	1179.56	770.06	519.19	334.13	151.14
45.0	2269.69	2232.56	2013.75	1631.81	1239.75	776.81	523.13	331.31	153.39
90.0	2277.56	2187.56	1905.19	1492.88	1062.73	672.02	471.21	282.83	109.35
135.0	2278.69	2184.19	1895.63	1520.44	1049.06	657.00	474.75	286.31	105.58
180.0	2275.31	2110.50	1740.38	1343.25	901.46	564.58	413.72	210.54	71.04
225.0	2269.69	2106.00	1763.44	1347.75	909.34	580.16	416.42	205.48	69.41
270.0	2277.56	2163.94	1879.31	1460.81	1044.00	659.81	462.94	292.50	97.76
315.0	2278.69	2148.19	1879.31	1455.75	1016.72	652.16	463.22	261.45	102.32
360.0	2275.31	2223.00	2005.88	1620.56	1179.56	770.06	519.19	334.13	151.14

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	42.58	10.97	8.04	7.71	7.54	7.37	7.26	7.14	6.86
45.0	41.29	10.46	7.82	7.65	7.54	7.43	7.31	7.14	7.31
90.0	27.39	8.94	7.82	7.71	7.65	7.71	7.65	7.71	10.63
135.0	28.29	8.94	8.04	7.88	7.76	7.65	7.54	7.54	12.99
180.0	18.06	8.27	7.88	7.71	7.54	7.43	7.31	7.26	7.03
225.0	15.41	8.10	7.76	7.59	7.54	7.48	7.37	7.43	8.72
270.0	26.33	8.89	7.76	7.59	7.59	7.54	7.48	7.59	9.23
315.0	26.61	8.83	7.88	7.65	7.54	7.48	7.31	7.31	12.71
360.0	42.58	10.97	8.04	7.71	7.54	7.37	7.26	7.14	6.86

C/γ(°)	90.0
0.0	5.12
45.0	5.12
90.0	5.12
135.0	5.12
180.0	5.12
225.0	5.12
270.0	5.18
315.0	5.18
360.0	5.12