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Nata

LumCAT: 3-2035-M
Luminaire: 92.70.131.00
Report No: NATA0100
Test No: GC2018071710
LampCAT: BIRDGELUX V9 HD
Lamp flux(lm): 1178.0
Number of Lamps: 1
Length(mm): 78
Phm Type: C

Voltage(V): 34.1000
Current(A): 0.2900
Power (W): 9.8890
PF: 0.0000
Ballast type: DC
Width(mm): 78
Height(mm): 0

Photometric Results

Lumens(lm): 1040.22
Efficiency(%): 88.30%
Lumens(lm)/Power(W): 106.19
Central intensity(cd): 1812.182
Maximum intensity(cd): 1812.182
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=42.4
 [C90/270]Total=42.4
Field angle(10%Imax): [C0/180]Total=74.0
 [C90/270]Total=74.0
Maximum s/h(1/2): C0_180=0.68 C90_270=0.68
Maximum s/h(1/4): C0_180=0.70 C90_270=0.70
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 89.14%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.724%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2018/7/17
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

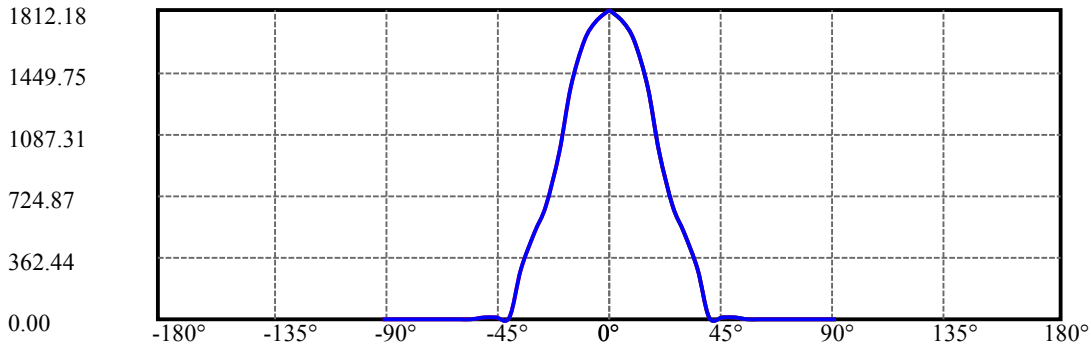
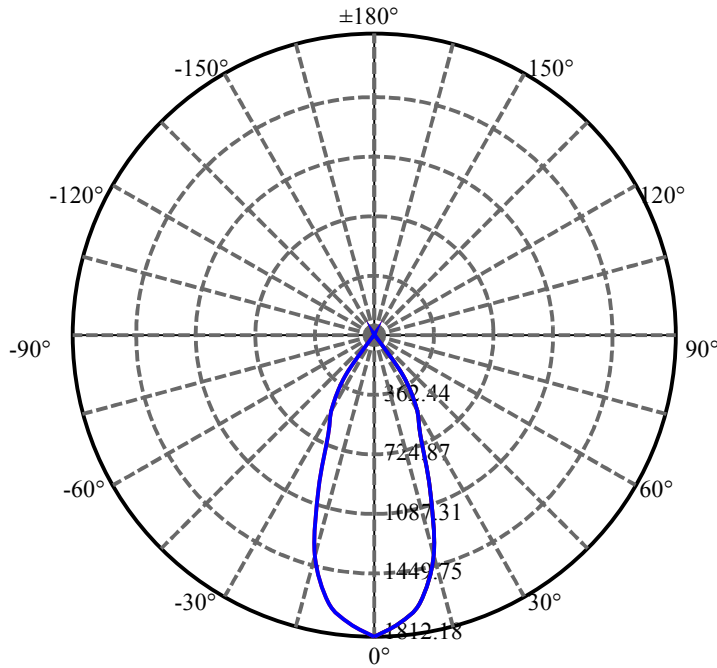
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1812.181	10.837	10.837	.920%	1.042%
5.0	1741.572	83.201	94.038	7.063%	9.040%
10.0	1628.087	154.966	249.004	13.155%	23.938%
15.0	1363.265	193.404	442.408	16.418%	42.530%
20.0	982.261	184.148	626.557	15.632%	60.233%
25.0	661.138	153.154	779.711	13.001%	74.956%
30.0	504.069	138.149	917.861	11.727%	88.237%
35.0	293.058	92.137	1009.998	7.821%	97.095%
40.0	15.987	5.633	1015.631	.478%	97.636%
45.0	7.501	2.907	1018.538	.247%	97.916%
50.0	6.125	2.572	1021.11	.218%	98.163%
55.0	5.623	2.525	1023.635	.214%	98.406%
60.0	5.340	2.535	1026.17	.215%	98.649%
65.0	5.113	2.540	1028.71	.216%	98.894%
70.0	4.941	2.545	1031.255	.216%	99.138%
75.0	4.817	2.551	1033.806	.217%	99.384%
80.0	4.749	2.563	1036.369	.218%	99.630%
85.0	4.707	2.570	1038.94	.218%	99.877%
90.0	4.666	1.279	1040.219	.109%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	917.86	77.92%	88.24%
0-40	1015.63	86.22%	97.64%
0-60	1026.17	87.11%	98.65%
0-90	1038.94	88.20%	99.88%
0-120	1038.94	88.20%	99.88%
0-180	1040.22	88.30%	100.00%
60-90	15.30	1.30%	1.47%
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%
0-26.90	832.17	70.64%	80.00%

ZONAL LUMEN SUMMARY

0-10	249.00
10-20	377.55
20-30	291.30
30-40	97.77
40-50	5.48
50-60	5.06
60-70	5.09
70-80	5.11
80-90	2.57
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: —————

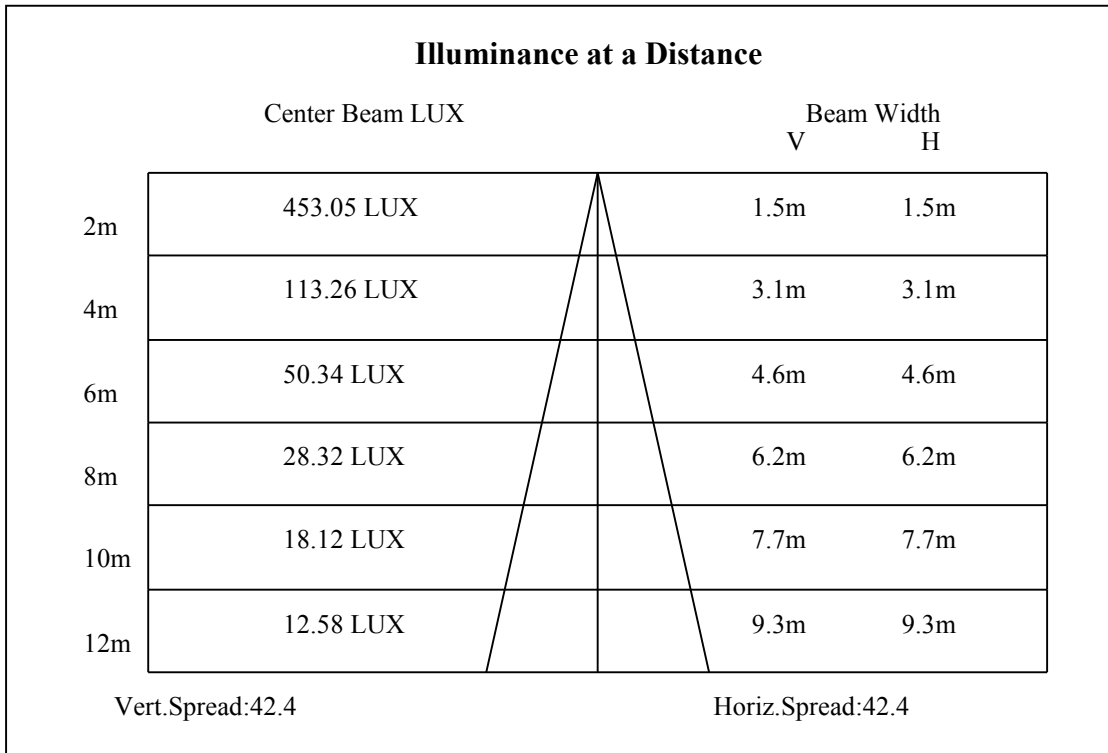
C90/C270: —————

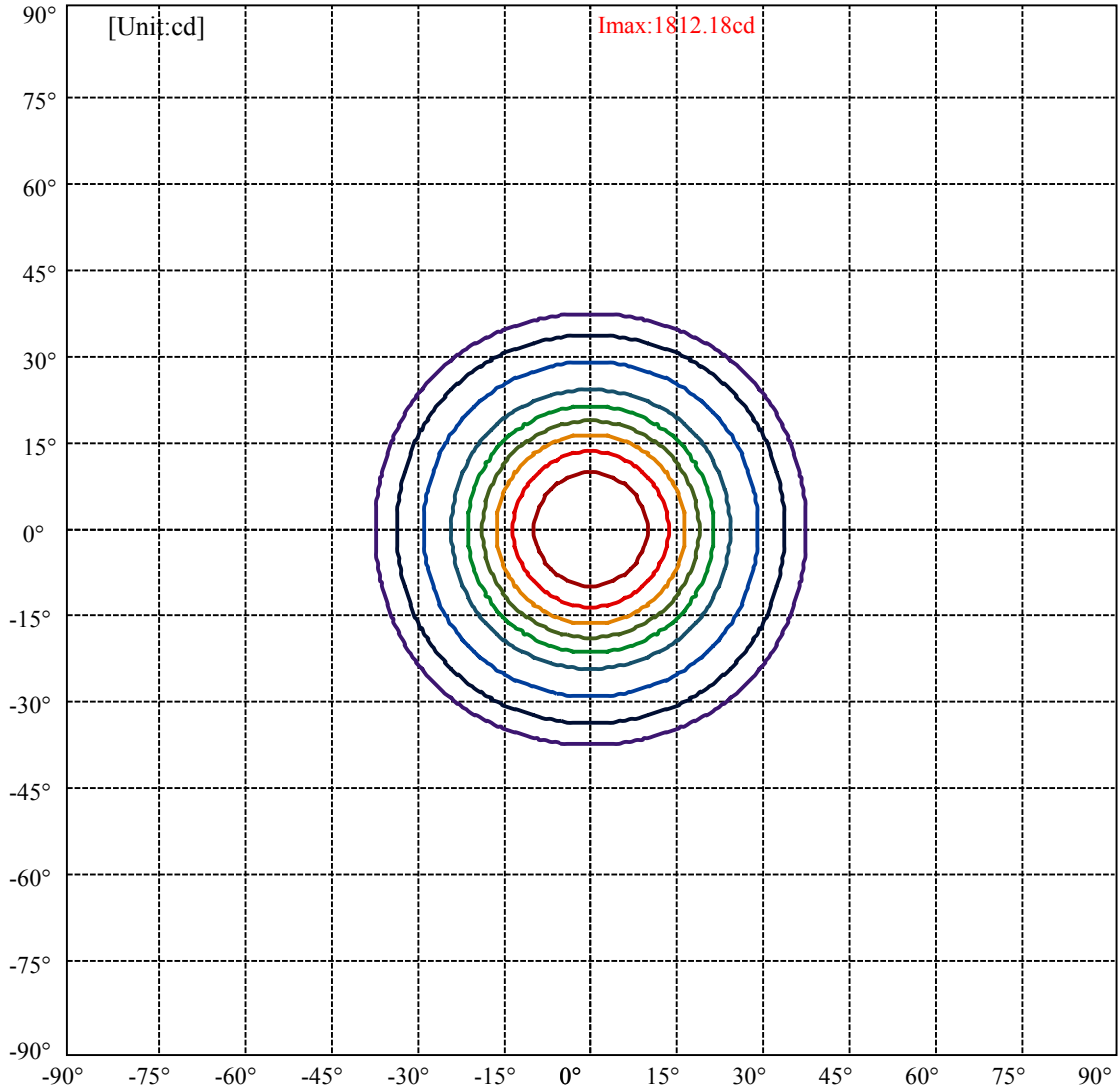
Field angle(10%Imax):C0/180Left:37.0 Right:37.0

:C90/270Left:37.0 Right:37.0

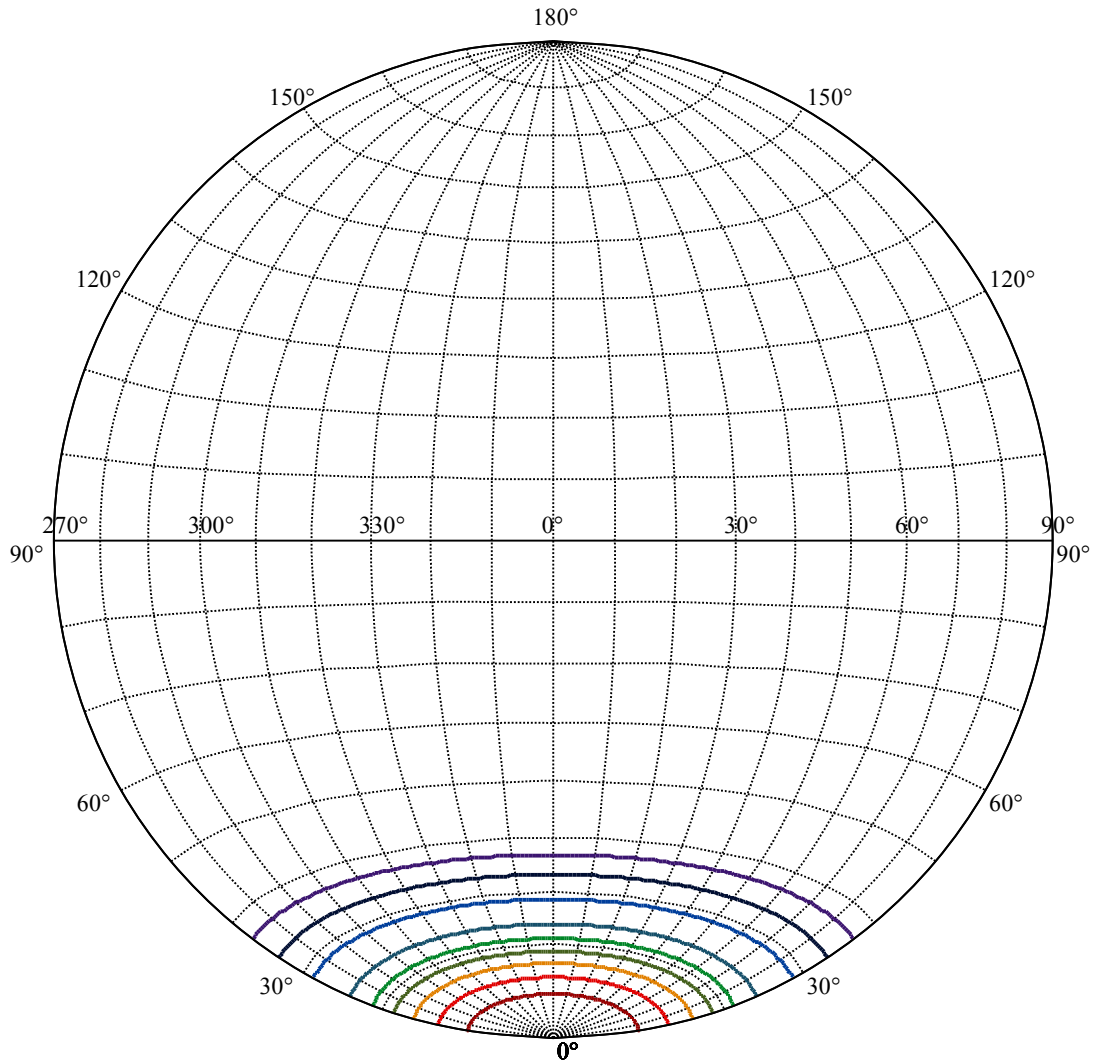
Beam Angle(50%Imax):C0/180Left:21.2 Right:21.2

:C90/270Left:21.2 Right:21.2





(10%Imax)	181.218	—
(20%Imax)	362.436	—
(30%Imax)	543.654	—
(40%Imax)	724.873	—
(50%Imax)	906.091	—
(60%Imax)	1087.31	—
(70%Imax)	1268.53	—
(80%Imax)	1449.75	—
(90%Imax)	1630.96	—



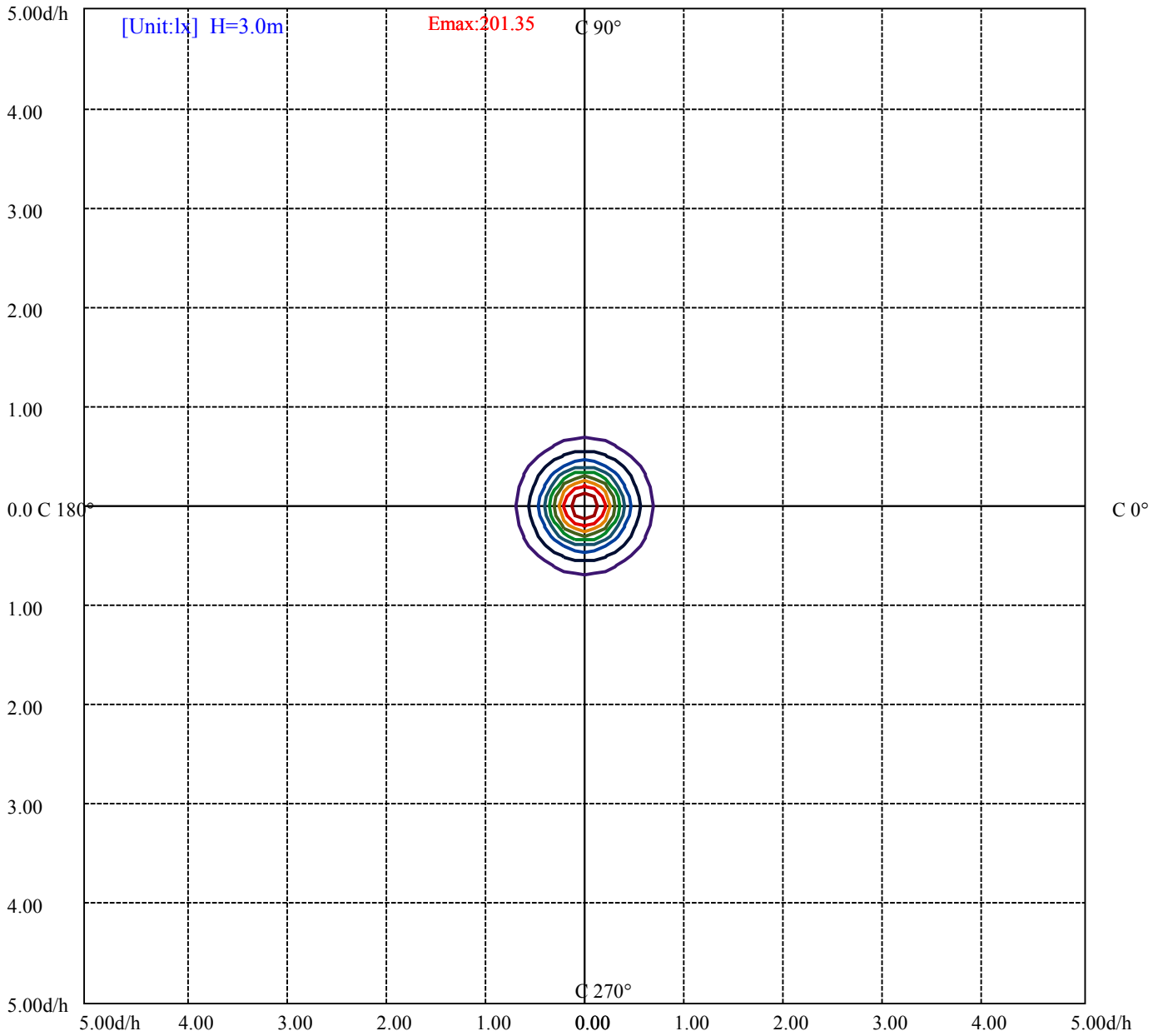
House

[Unit:cd]

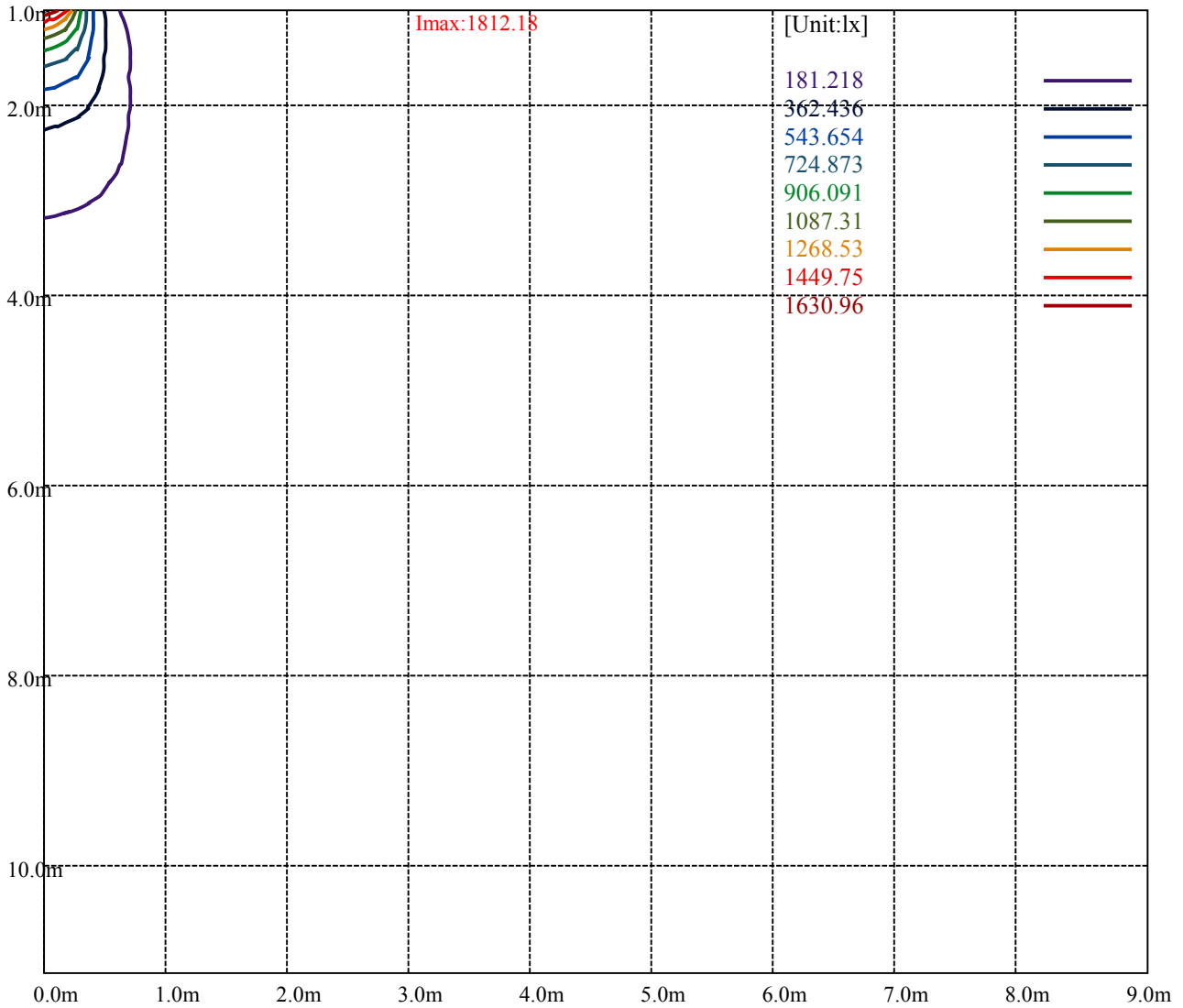
Road

Imax:1812.18

(10%Imax)	181.218	—
(20%Imax)	362.436	—
(30%Imax)	543.654	—
(40%Imax)	724.873	—
(50%Imax)	906.091	—
(60%Imax)	1087.31	—
(70%Imax)	1268.53	—
(80%Imax)	1449.75	—
(90%Imax)	1630.96	—



(10%Emax) 20.13533	—
(20%Emax) 40.27067	—
(30%Emax) 60.406	—
(40%Emax) 80.54134	—
(50%Emax) 100.6767	—
(60%Emax) 120.8122	—
(70%Emax) 140.9478	—
(80%Emax) 161.0822	—
(90%Emax) 181.2178	—



Luminance Table

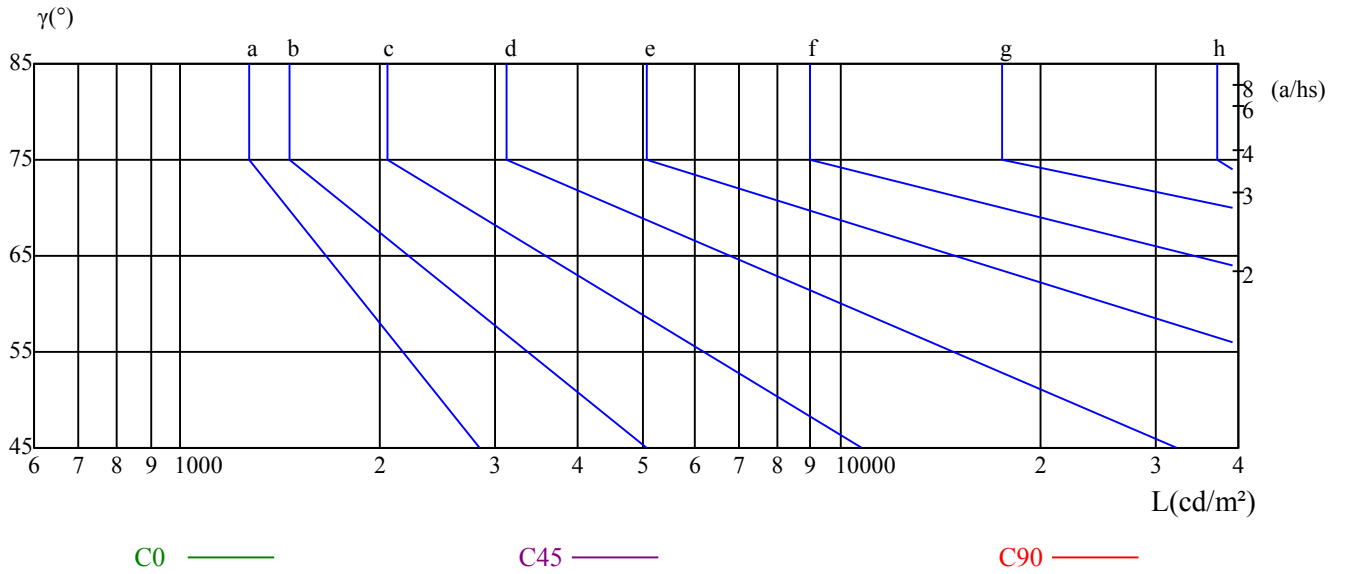
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

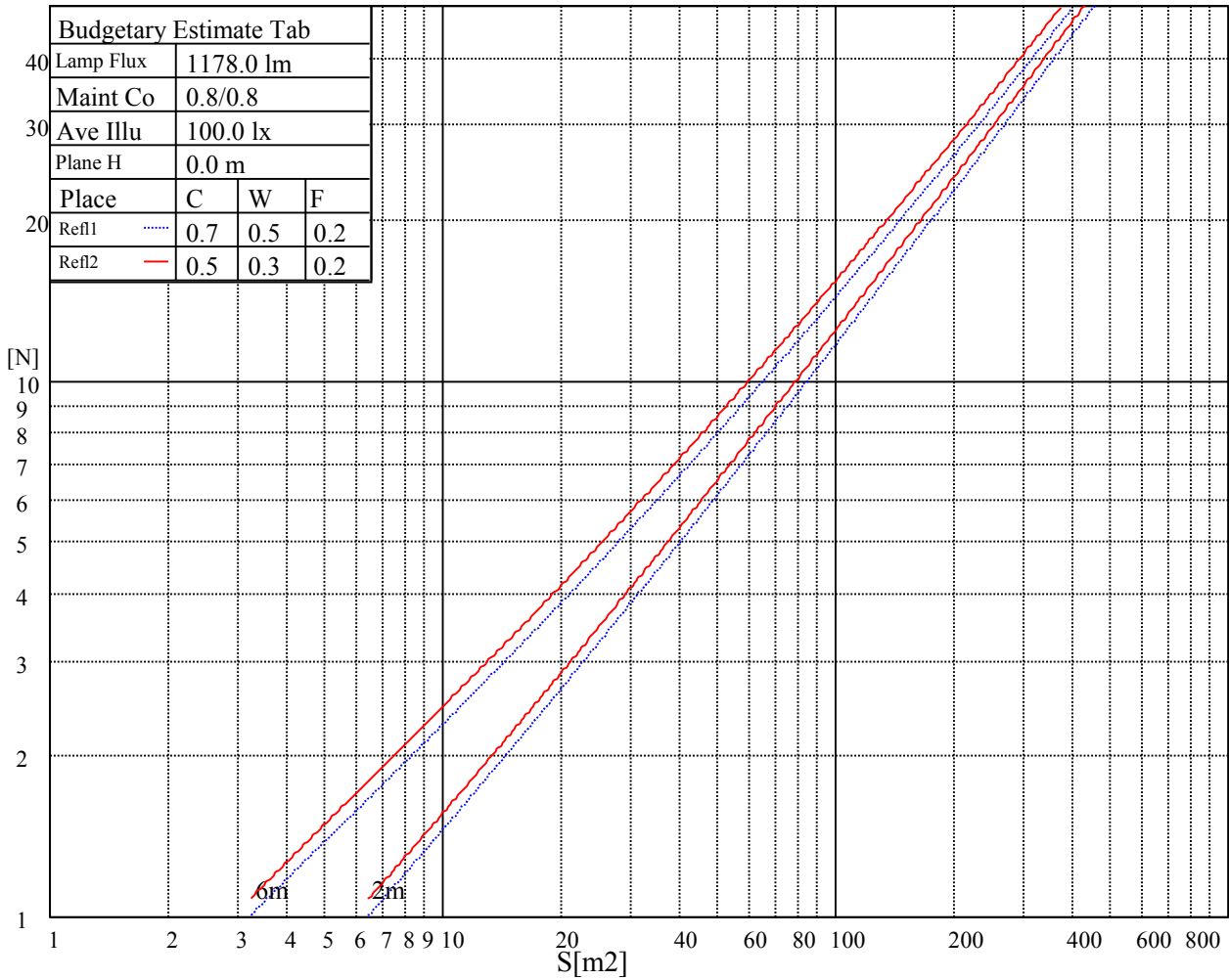
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

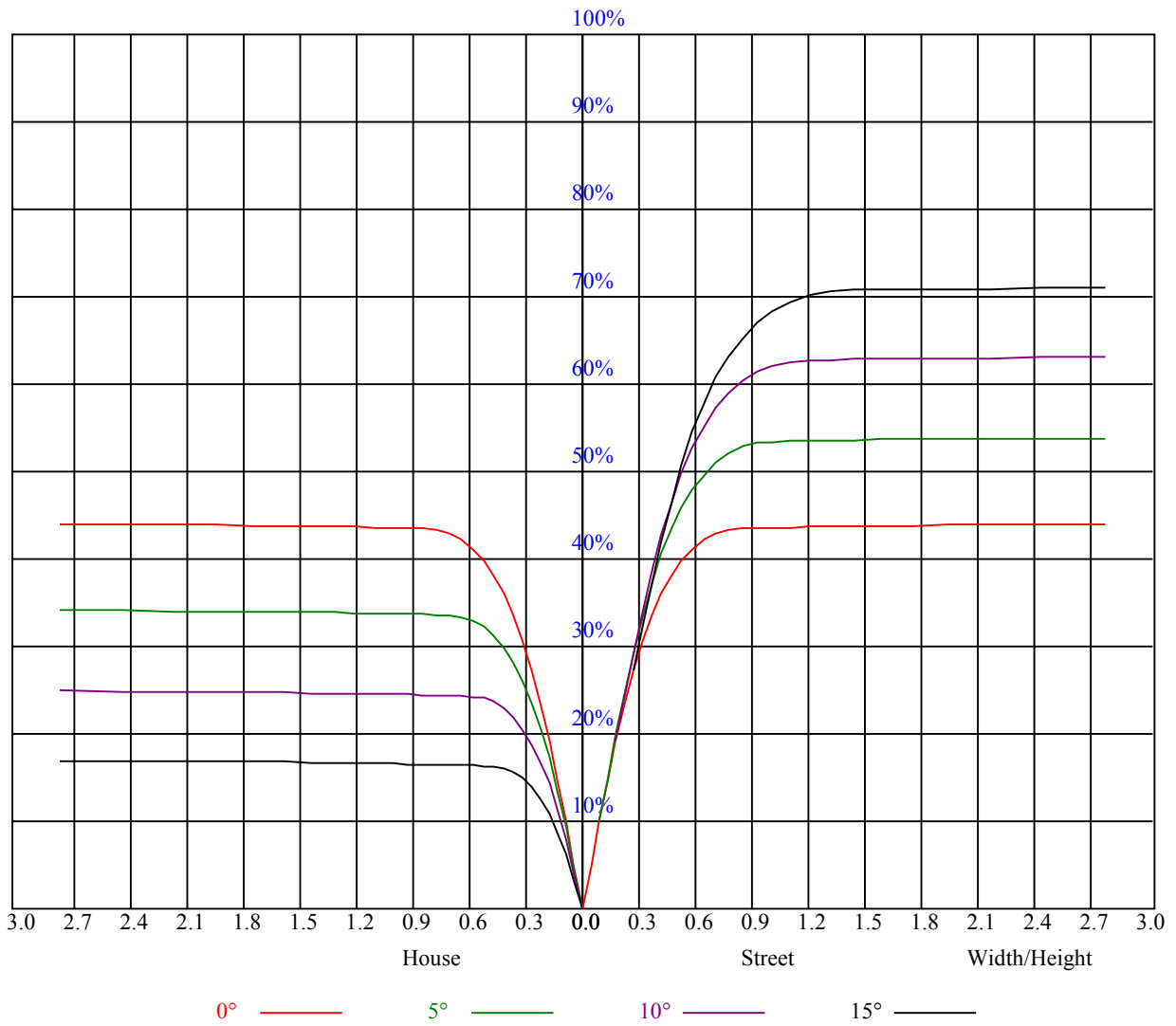
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.06	1.06	1.06	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	0.98	0.96	0.94	0.96	0.94	0.93	0.93	0.91	0.90	0.90	0.88	0.87	0.86	0.85	0.84	0.83
2	0.93	0.89	0.87	0.91	0.88	0.86	0.88	0.86	0.84	0.86	0.84	0.82	0.83	0.82	0.80	0.79
3	0.88	0.84	0.81	0.87	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.75
4	0.83	0.79	0.76	0.82	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.77	0.75	0.73	0.72
5	0.79	0.75	0.72	0.79	0.74	0.71	0.77	0.73	0.71	0.76	0.73	0.70	0.74	0.72	0.69	0.68
6	0.76	0.71	0.68	0.75	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
7	0.73	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
8	0.70	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.59	0.58
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.55



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	1811.91	1732.07	1625.82	1360.44	986.06	651.87	486.70	310.52	13.54
45.0	1820.72	1719.96	1609.85	1356.04	915.59	633.15	487.25	292.90	12.33
90.0	1804.75	1704.55	1586.17	1213.44	850.84	619.71	473.76	148.82	12.11
135.0	1811.36	1740.88	1642.88	1396.78	1016.34	680.50	513.13	309.97	15.36
180.0	1811.91	1752.45	1630.22	1359.89	997.90	651.37	485.38	308.87	15.36
225.0	1820.72	1772.27	1649.49	1413.30	1058.57	699.00	536.03	344.65	22.30
270.0	1804.75	1777.77	1675.37	1459.55	1091.22	718.49	561.58	384.29	23.89
315.0	1811.36	1732.62	1604.89	1346.68	941.57	635.02	488.74	244.45	12.99
360.0	1811.91	1732.07	1625.82	1360.44	986.06	651.87	486.70	310.52	13.54
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	7.27	6.06	5.56	5.29	5.07	4.90	4.79	4.73	4.68
45.0	6.66	6.06	5.56	5.34	5.12	4.96	4.84	4.79	4.73
90.0	6.61	5.89	5.51	5.29	5.07	4.90	4.79	4.73	4.68
135.0	7.54	6.06	5.67	5.34	5.07	4.96	4.79	4.73	4.68
180.0	7.43	6.17	5.62	5.34	5.12	4.90	4.79	4.68	4.68
225.0	8.75	6.39	5.78	5.45	5.23	5.01	4.90	4.79	4.79
270.0	8.81	6.39	5.73	5.40	5.18	5.01	4.84	4.79	4.73
315.0	6.94	6.00	5.56	5.29	5.07	4.90	4.79	4.73	4.68
360.0	7.27	6.06	5.56	5.29	5.07	4.90	4.79	4.73	4.68
C/ γ (°)	90.0								
0.0	4.68								
45.0	4.68								
90.0	4.68								
135.0	4.62								
180.0	4.62								
225.0	4.68								
270.0	4.68								
315.0	4.68								
360.0	4.68								