



NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86-750-3770000 Fax:+86-750-3771111
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

Nata

LumCAT: 1-0788-M
Luminaire: 92.70.126.00
Report No: NATA0100
Test No: GC2018082011
LampCAT: CHM-9-AA10
Lamp flux(lm): 1813.0
Number of Lamps: 1
Length(mm): 46
Phm Type: C

Voltage(V): 36.2000
Current(A): 0.4000
Power (W): 15.4800
PF: 0.0000
Ballast type: DC
Width(mm): 46
Height(mm): 0

Photometric Results

Lumens(lm): 1685.34
Efficiency(%): 92.96%
Lumens(lm)/Power(W): 109.90
Central intensity(cd): 2936.571
Maximum intensity(cd): 2936.571
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=35.2
 [C90/270]Total=35.2
Field angle(10%Imax): [C0/180]Total=85.7
 [C90/270]Total=85.7
Maximum s/h(1/2): C0_180=0.56 C90_270=0.56
Maximum s/h(1/4): C0_180=0.64 C90_270=0.64
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.84%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.881%

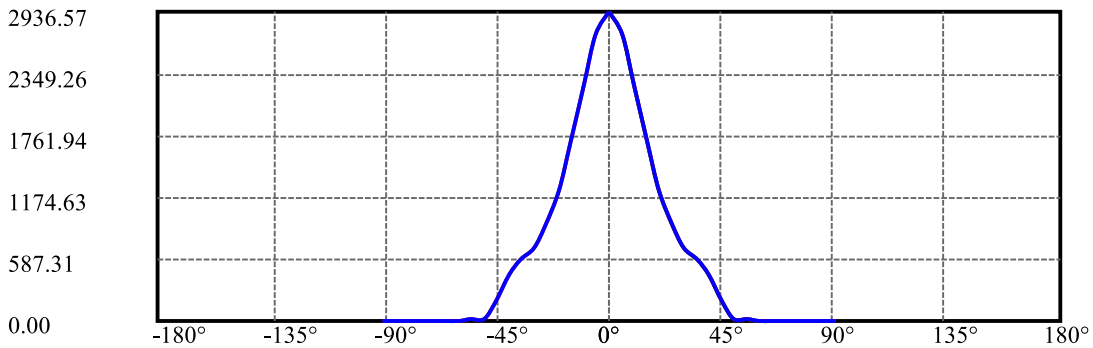
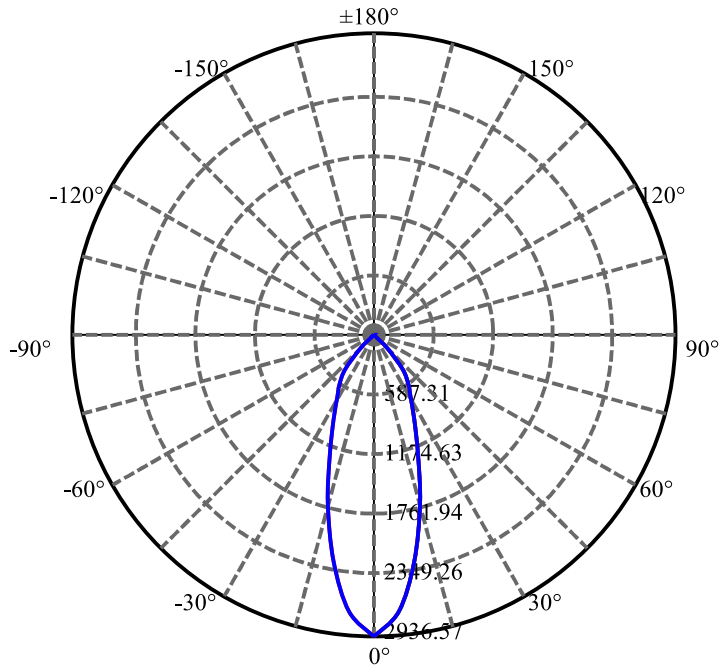
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2936.571	17.561	17.561	.969%	1.042%
5.0	2710.495	129.489	147.051	7.142%	8.725%
10.0	2242.447	213.443	360.494	11.773%	21.390%
15.0	1704.477	241.811	602.305	13.338%	35.738%
20.0	1246.229	233.636	835.941	12.887%	49.601%
25.0	912.188	211.311	1047.252	11.655%	62.139%
30.0	697.888	191.269	1238.521	10.550%	73.488%
35.0	587.046	184.566	1423.087	10.180%	84.439%
40.0	440.995	155.378	1578.466	8.570%	93.659%
45.0	180.317	69.889	1648.355	3.855%	97.805%
50.0	21.383	8.978	1657.333	.495%	98.338%
55.0	9.167	4.116	1661.449	.227%	98.582%
60.0	7.997	3.796	1665.246	.209%	98.808%
65.0	7.412	3.682	1668.928	.203%	99.026%
70.0	7.082	3.648	1672.575	.201%	99.243%
75.0	6.868	3.636	1676.212	.201%	99.458%
80.0	6.744	3.641	1679.852	.201%	99.674%
85.0	6.710	3.664	1683.516	.202%	99.892%
90.0	6.655	1.824	1685.34	.101%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1238.52	68.31%	73.49%
0-40	1578.47	87.06%	93.66%
0-60	1665.25	91.85%	98.81%
0-90	1683.52	92.86%	99.89%
0-120	1683.52	92.86%	99.89%
0-180	1685.34	92.96%	100.00%
60-90	22.07	1.22%	1.31%
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%
0-32.97	1348.27	74.37%	80.00%

ZONAL LUMEN SUMMARY

0-10	360.49
10-20	475.45
20-30	402.58
30-40	339.94
40-50	78.87
50-60	7.91
60-70	7.33
70-80	7.28
80-90	3.66
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: —————

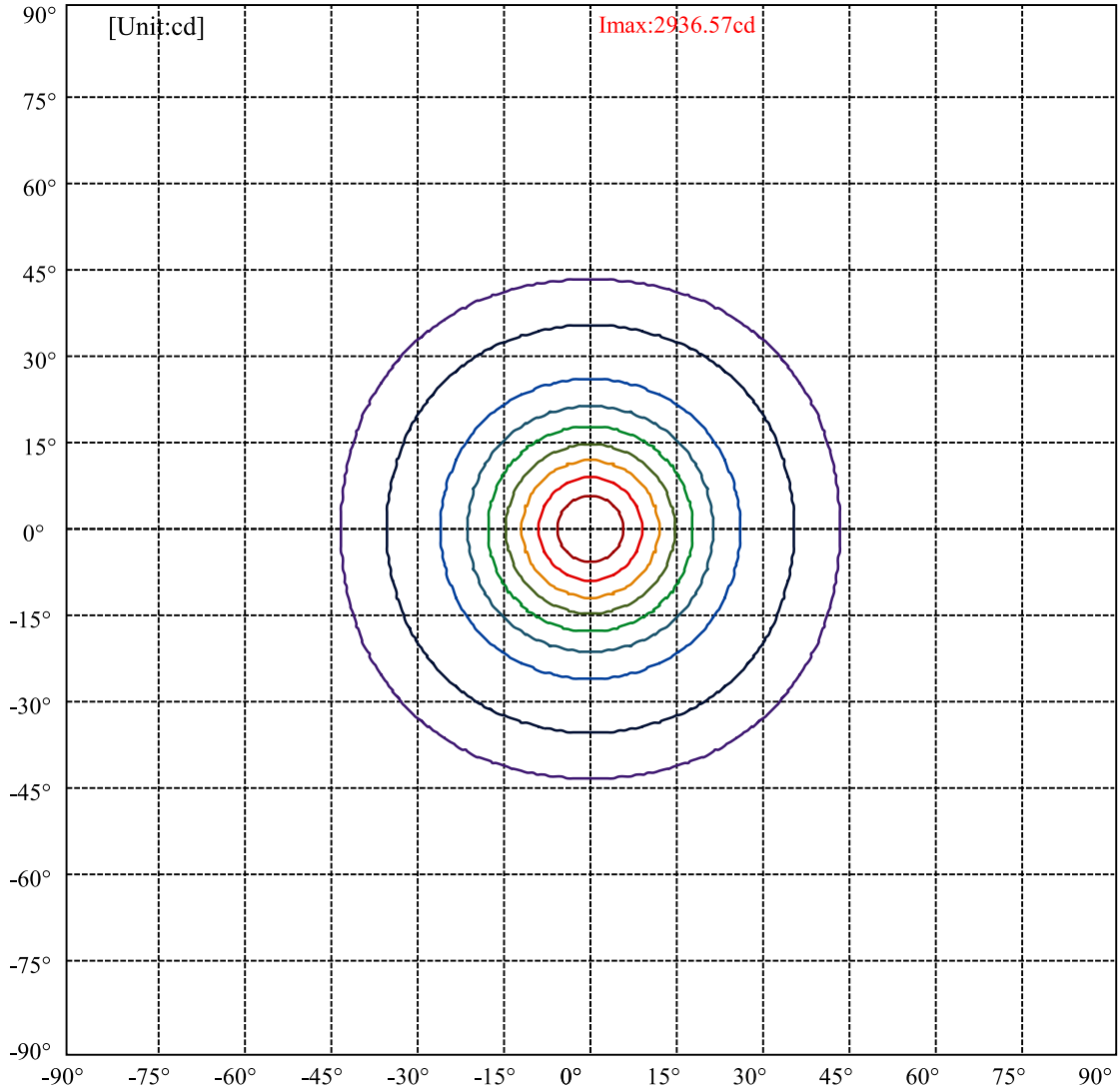
C90/C270: —————

Field angle(10%Imax):C0/180Left:42.8 Right:42.8

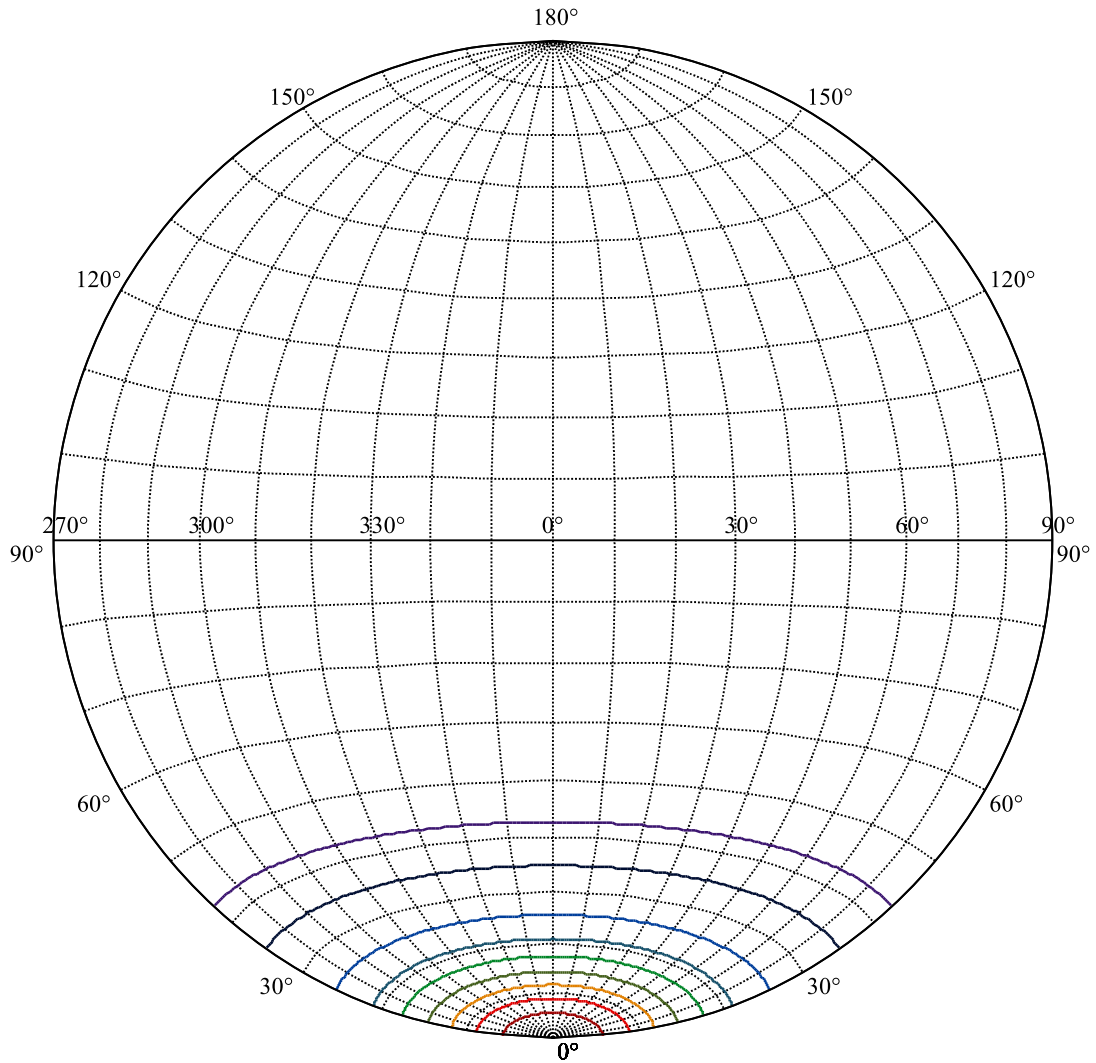
:C90/270Left:42.8 Right:42.8

Beam Angle(50%Imax):C0/180Left:17.6 Right:17.6

:C90/270Left:17.6 Right:17.6



(10%Imax) 293.657	—
(20%Imax) 587.314	—
(30%Imax) 880.971	—
(40%Imax) 1174.63	—
(50%Imax) 1468.29	—
(60%Imax) 1761.94	—
(70%Imax) 2055.6	—
(80%Imax) 2349.26	—
(90%Imax) 2642.91	—



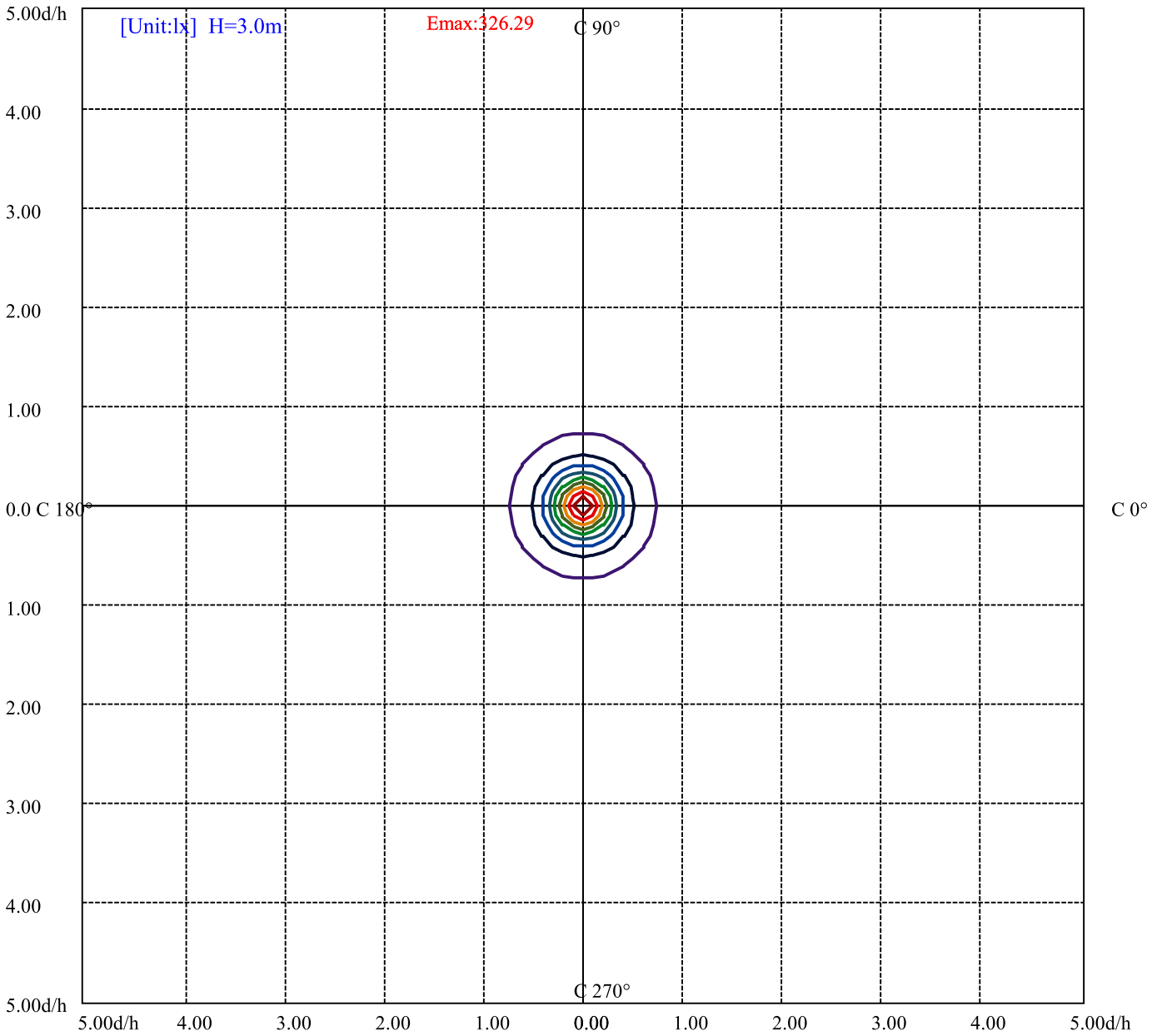
House

[Unit:cd]

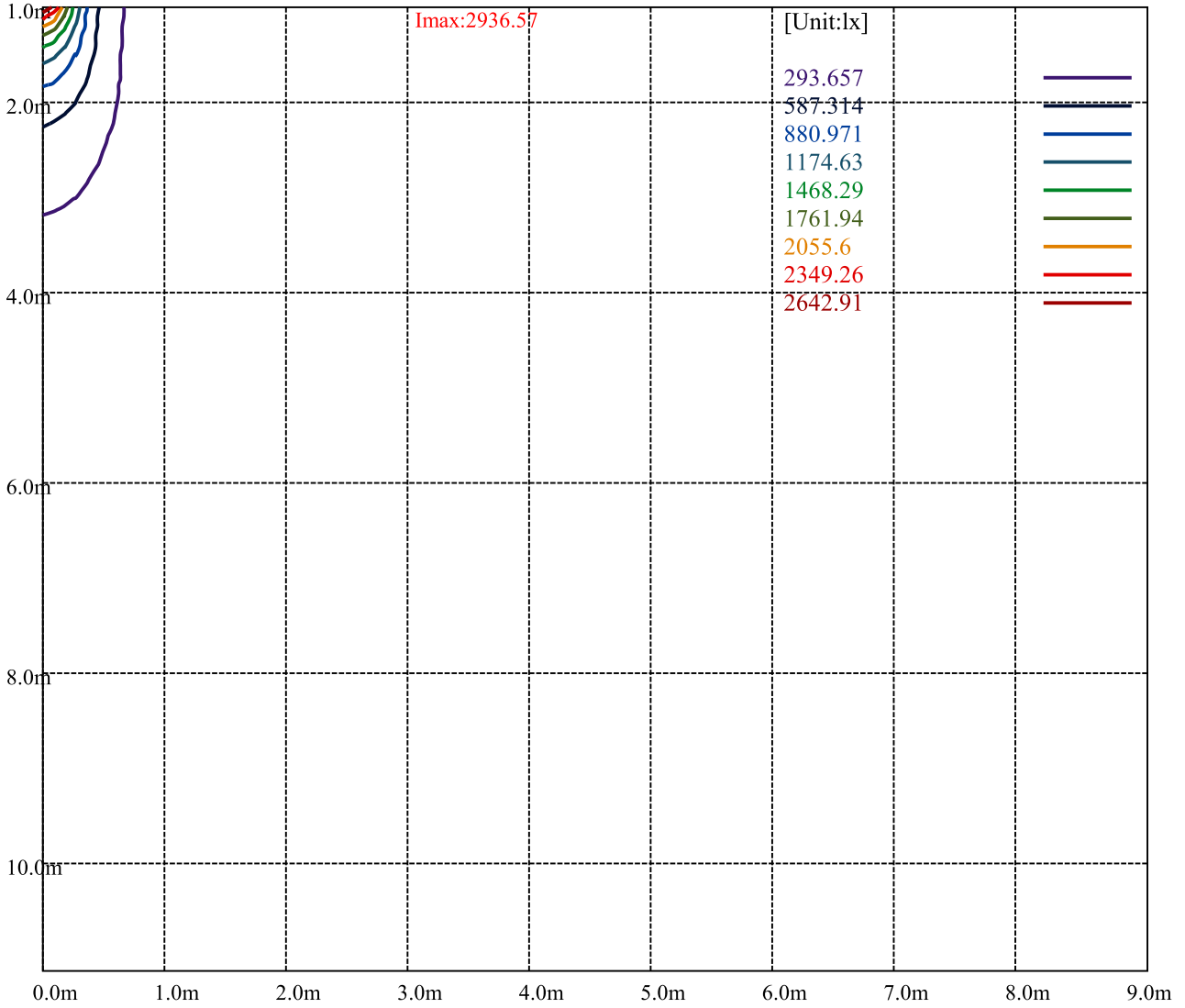
Road

Imax:2936.57

(10%Imax) 293.657	—
(20%Imax) 587.314	—
(30%Imax) 880.971	—
(40%Imax) 1174.63	—
(50%Imax) 1468.29	—
(60%Imax) 1761.94	—
(70%Imax) 2055.6	—
(80%Imax) 2349.26	—
(90%Imax) 2642.91	—



- (10%Emax) 32.62844
- (20%Emax) 65.257
- (30%Emax) 97.88544
- (40%Emax) 130.5145
- (50%Emax) 163.1422
- (60%Emax) 195.7711
- (70%Emax) 228.3989
- (80%Emax) 261.0278
- (90%Emax) 293.6566



Luminance Table

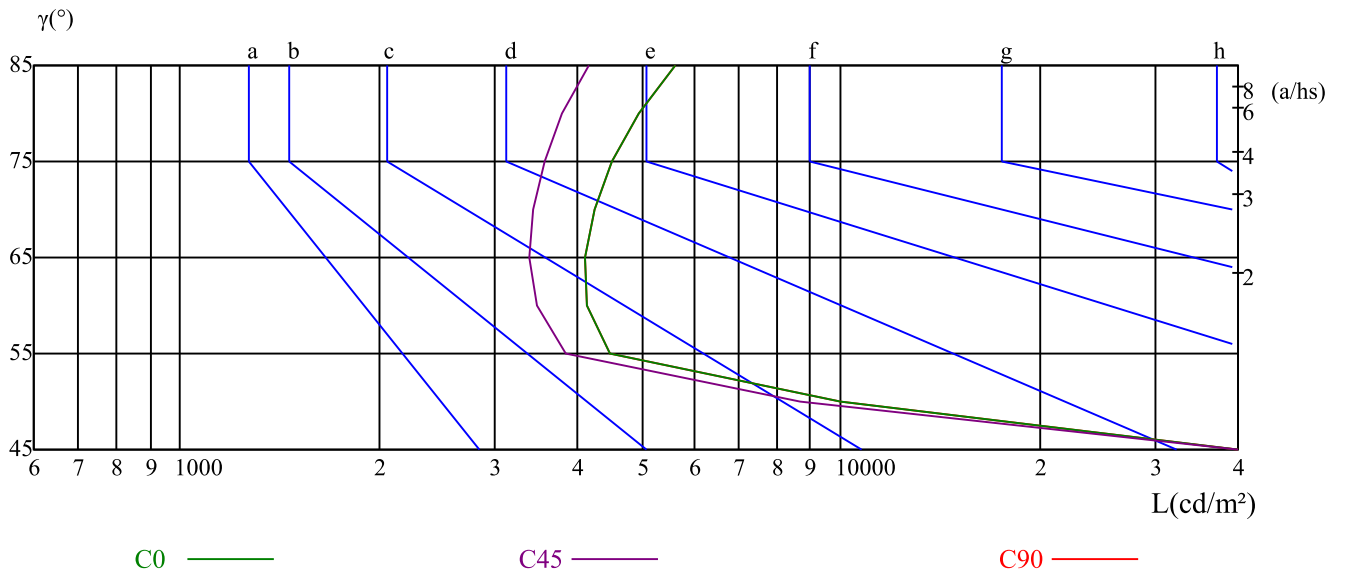
γ	45	50	55	60	65	70	75	80	85
C0	81524	10013	4488	4134	4092	4229	4503	4944	5627
C45	71890	8705	3842	3481	3382	3423	3559	3796	4167
C90	81524	10013	4488	4134	4092	4229	4503	4944	5627

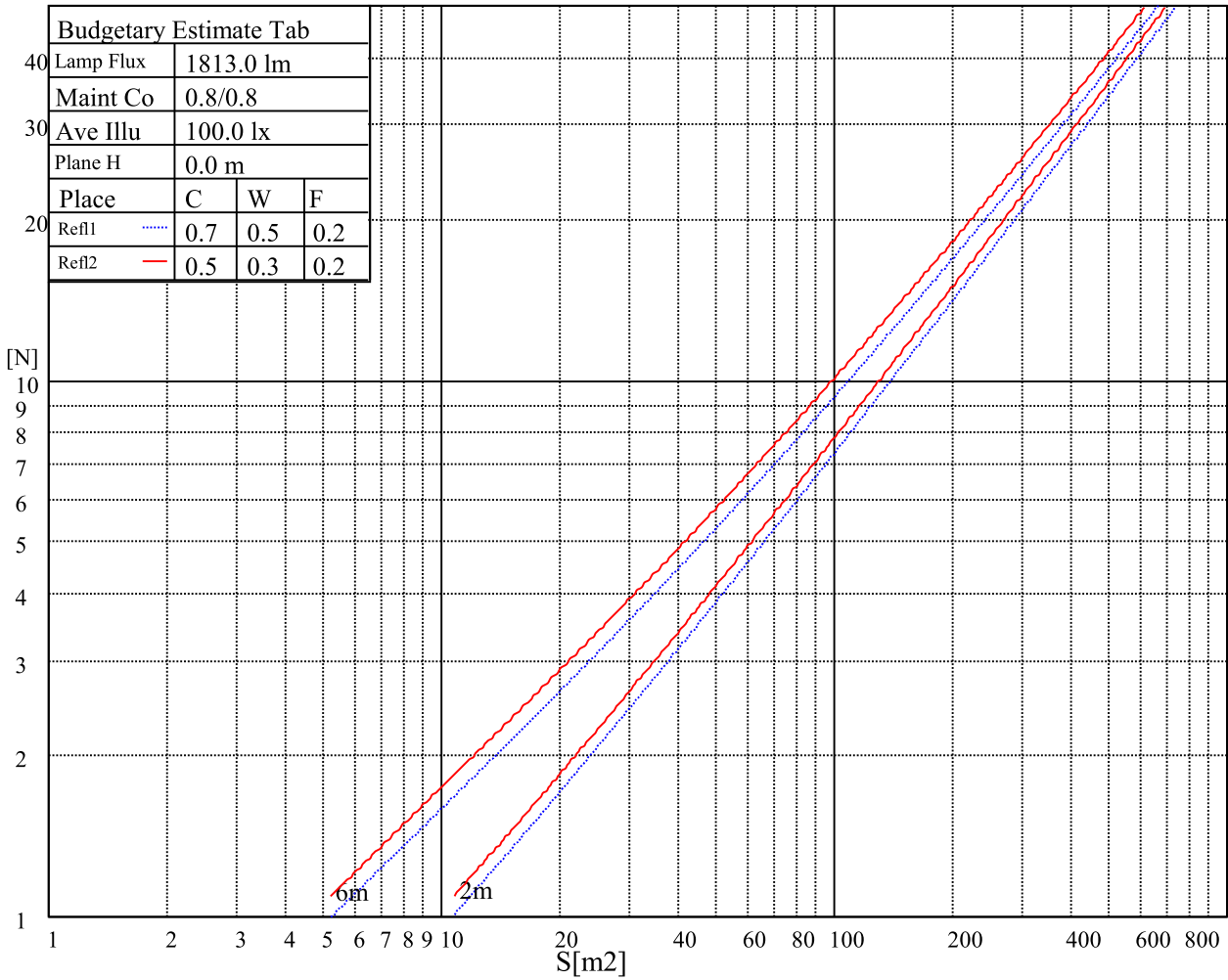
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8288	8288	8288	12541	12541	12541	36384	36384	36384

Glare Table

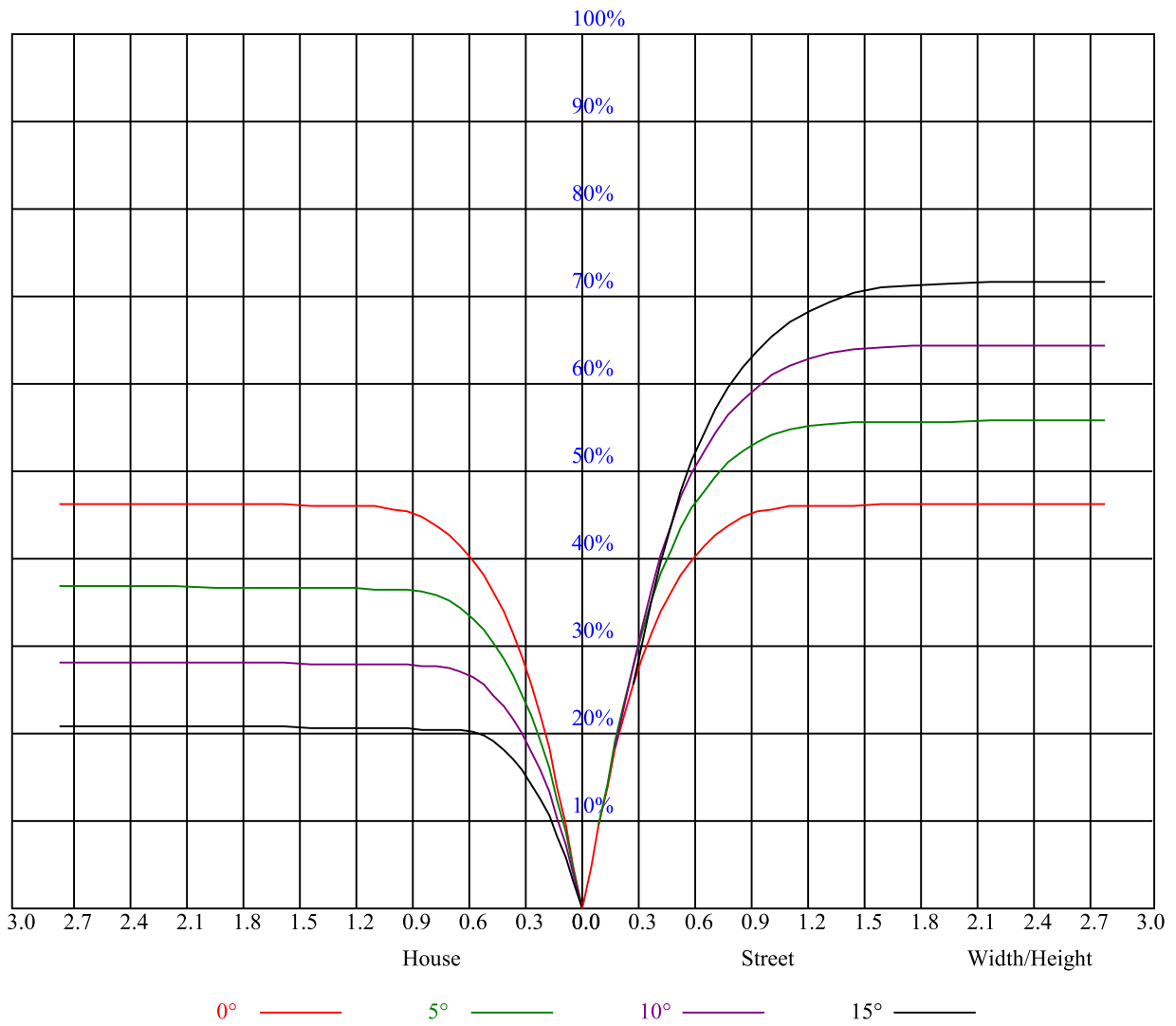
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.03	1.00	0.98	1.01	0.99	0.97	0.97	0.95	0.94	0.94	0.92	0.91	0.90	0.89	0.88	0.86
2	0.96	0.93	0.89	0.95	0.91	0.88	0.92	0.89	0.86	0.89	0.87	0.84	0.86	0.84	0.83	0.81
3	0.90	0.86	0.82	0.89	0.85	0.82	0.87	0.83	0.80	0.84	0.81	0.79	0.82	0.80	0.78	0.76
4	0.85	0.80	0.76	0.84	0.79	0.76	0.82	0.78	0.75	0.80	0.77	0.74	0.79	0.76	0.73	0.72
5	0.80	0.75	0.71	0.80	0.75	0.71	0.78	0.74	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.68
6	0.76	0.71	0.67	0.75	0.70	0.67	0.74	0.70	0.66	0.73	0.69	0.66	0.71	0.68	0.65	0.64
7	0.72	0.67	0.63	0.72	0.67	0.63	0.70	0.66	0.63	0.69	0.65	0.62	0.68	0.65	0.62	0.61
8	0.69	0.63	0.60	0.68	0.63	0.60	0.67	0.63	0.59	0.66	0.62	0.59	0.65	0.62	0.59	0.58
9	0.65	0.60	0.57	0.65	0.60	0.57	0.64	0.60	0.56	0.63	0.59	0.56	0.63	0.59	0.56	0.55
10	0.62	0.57	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.52



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	2931.20	2771.54	2311.82	1763.46	1334.02	959.08	725.09	607.82	477.34
45.0	2937.26	2715.93	2239.69	1684.18	1249.78	892.46	686.55	586.35	433.84
90.0	2927.90	2621.24	2116.37	1576.26	1091.27	836.36	659.85	562.02	382.64
135.0	2949.92	2704.37	2265.57	1711.70	1253.63	913.39	690.41	580.85	437.15
180.0	2931.20	2643.26	2159.86	1625.26	1094.14	870.77	677.63	570.82	415.07
225.0	2937.26	2726.39	2254.01	1713.36	1293.27	922.64	696.46	586.35	453.28
270.0	2927.90	2785.30	2363.57	1854.30	1383.57	994.87	743.81	610.58	501.01
315.0	2949.92	2715.93	2228.68	1707.30	1270.15	907.94	703.29	591.58	427.62
360.0	2931.20	2771.54	2311.82	1763.46	1334.02	959.08	725.09	607.82	477.34
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	291.25	22.35	9.63	7.93	7.32	6.99	6.83	6.66	6.66
45.0	131.36	20.15	8.75	7.87	7.38	7.05	6.83	6.72	6.72
90.0	90.40	16.46	8.64	7.93	7.38	7.16	6.99	6.94	6.77
135.0	204.97	20.43	9.41	7.98	7.43	7.05	6.83	6.72	6.66
180.0	110.66	21.09	8.86	7.98	7.43	7.05	6.83	6.66	6.66
225.0	166.55	23.95	9.19	8.04	7.43	7.10	6.88	6.72	6.72
270.0	287.39	26.43	10.02	8.31	7.60	7.21	6.94	6.83	6.83
315.0	159.94	20.21	8.81	7.93	7.32	7.05	6.83	6.72	6.66
360.0	291.25	22.35	9.63	7.93	7.32	6.99	6.83	6.66	6.66
C/γ(°)	90.0								
0.0	6.66								
45.0	6.66								
90.0	6.66								
135.0	6.66								
180.0	6.66								
225.0	6.66								
270.0	6.66								
315.0	6.61								
360.0	6.66								