



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

Client:

LumCAT: 3-1700-N

Luminaire: 92.70.065.00+92.70.089.00

Report No: nt0100

Voltage(V): 33.9700

Test No: GC2020011018

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.3900

Lamp flux(lm): 2436.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1864.49, Efficiency(%): 76.54% , Luminous Efficacy(lm/W): 91.44

Central intensity(cd): 3689.297, Maximum intensity(cd): 3689.297

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=37.6

[C90/270]Total=37.6

Field angle(10%Imax): [C0/180]Total=68.4

[C90/270]Total=68.4

Maximum s/h(1/2): C0_180=0.62 C90_270=0.62

Maximum s/h(1/4): C0_180=0.61 C90_270=0.61

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 76.54%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.200%

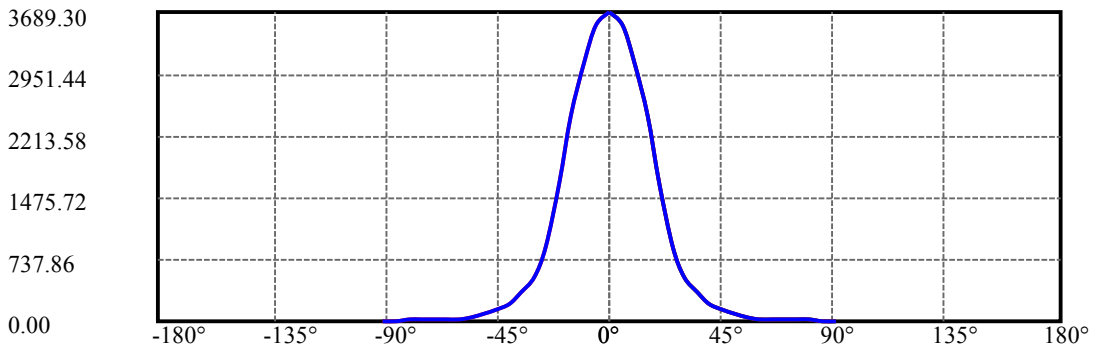
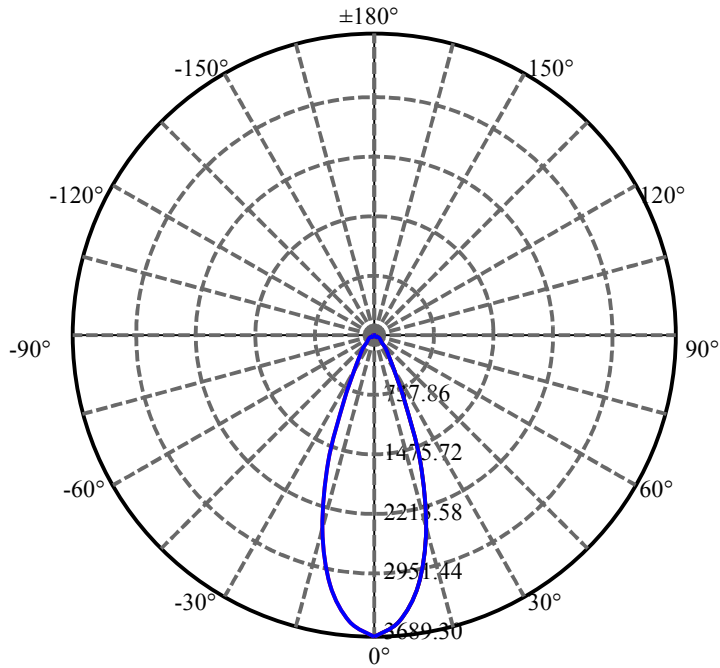
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	3689.297	0.000	0	.000%	.000%
5.0	3523.781	86.230	86.23	3.540%	4.625%
10.0	3094.734	236.765	322.995	9.719%	17.323%
15.0	2456.930	329.321	652.316	13.519%	34.986%
20.0	1643.576	337.939	990.256	13.873%	53.111%
25.0	903.136	267.103	1257.359	10.965%	67.437%
30.0	537.687	182.337	1439.696	7.485%	77.216%
35.0	336.966	128.799	1568.495	5.287%	84.124%
40.0	211.366	91.485	1659.98	3.756%	89.031%
45.0	128.194	62.872	1722.852	2.581%	92.403%
50.0	80.873	42.245	1765.097	1.734%	94.669%
55.0	49.493	28.346	1793.443	1.164%	96.189%
60.0	32.041	18.846	1812.289	.774%	97.200%
65.0	23.541	13.512	1825.802	.555%	97.925%
70.0	19.406	10.874	1836.676	.446%	98.508%
75.0	15.757	9.191	1845.867	.377%	99.001%
80.0	12.677	7.608	1853.475	.312%	99.409%
85.0	9.773	6.100	1859.576	.250%	99.736%
90.0	8.191	4.919	1864.495	.202%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1439.70	59.10%	77.22%
0-40	1659.98	68.14%	89.03%
0-60	1812.29	74.40%	97.20%
0-90	1859.58	76.34%	99.74%
0-120	1859.58	76.34%	99.74%
0-180	1864.49	76.54%	100.00%
60-90	66.13	2.71%	3.55%
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%
0-32.01	1491.60	61.23%	80.00%

ZONAL LUMEN SUMMARY

0-10	323.00
10-20	667.26
20-30	449.44
30-40	220.28
40-50	105.12
50-60	47.19
60-70	24.39
70-80	16.80
80-90	6.10
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: —————

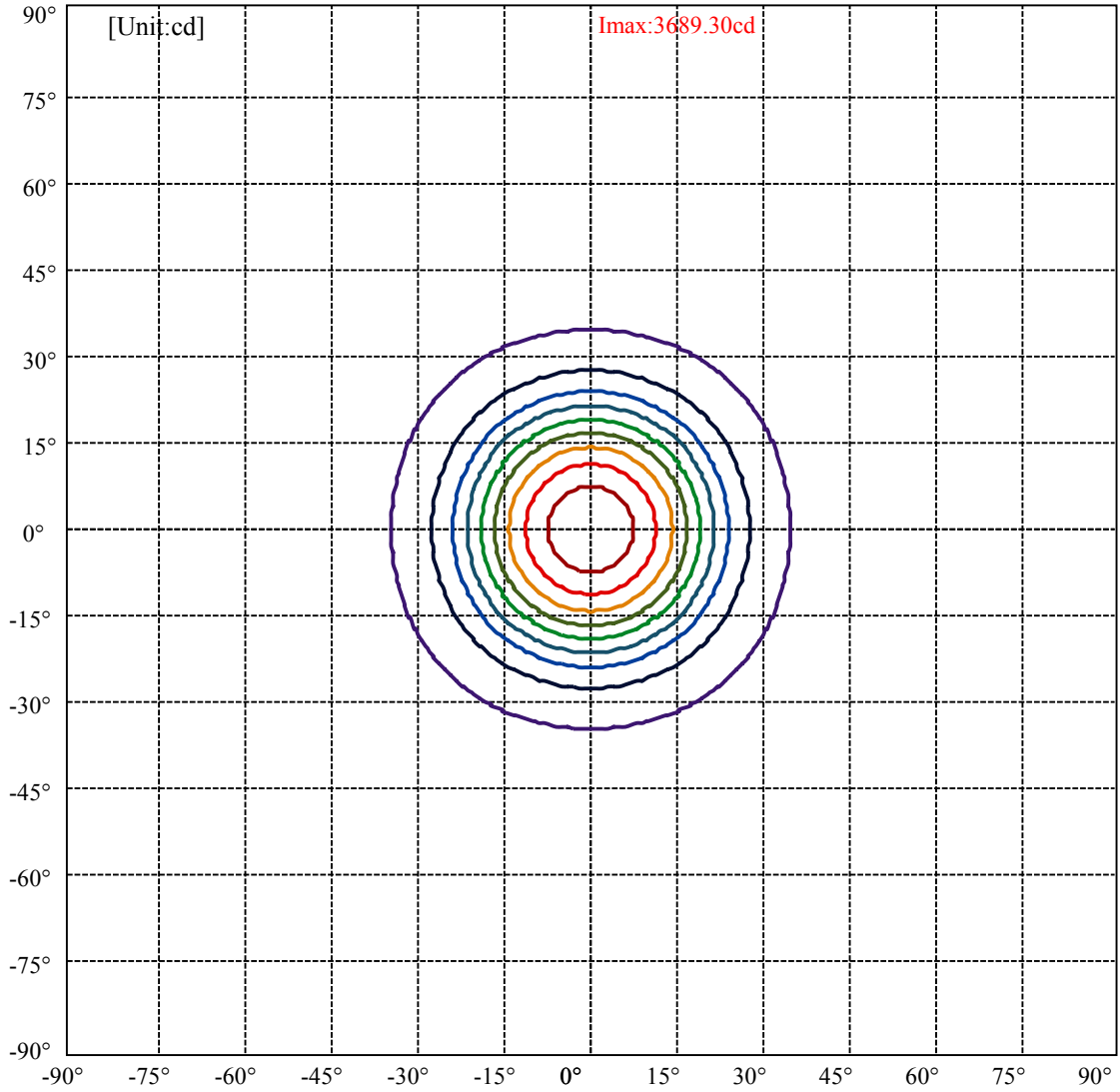
C90/C270: —————

Field angle(10%Imax):C0/180Left:34.2 Right:34.2

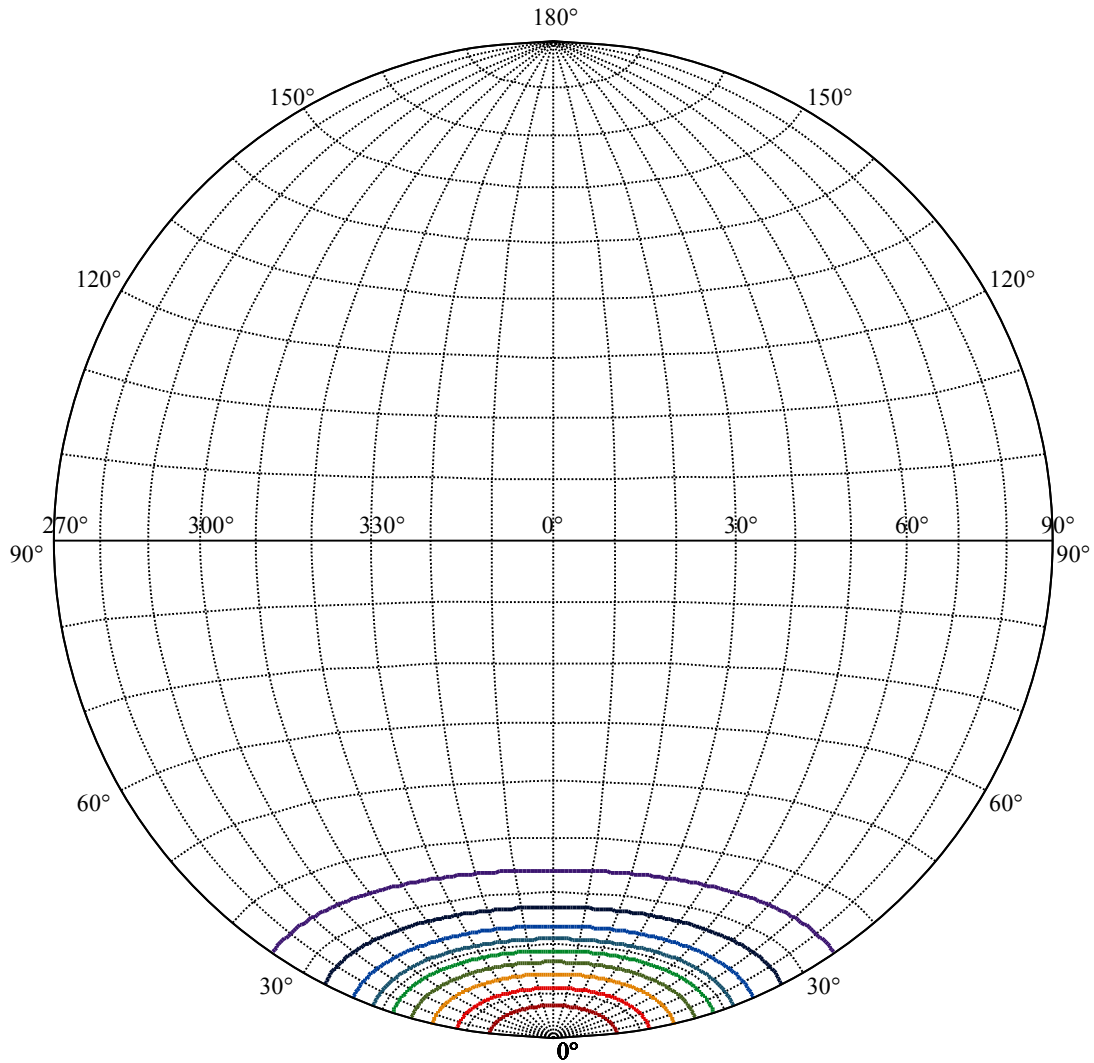
:C90/270Left:34.2 Right:34.2

Beam Angle(50%Imax):C0/180Left:18.8 Right:18.8

:C90/270Left:18.8 Right:18.8



(10%Imax) 368.93	—
(20%Imax) 737.859	—
(30%Imax) 1106.79	—
(40%Imax) 1475.72	—
(50%Imax) 1844.65	—
(60%Imax) 2213.58	—
(70%Imax) 2582.51	—
(80%Imax) 2951.44	—
(90%Imax) 3320.37	—



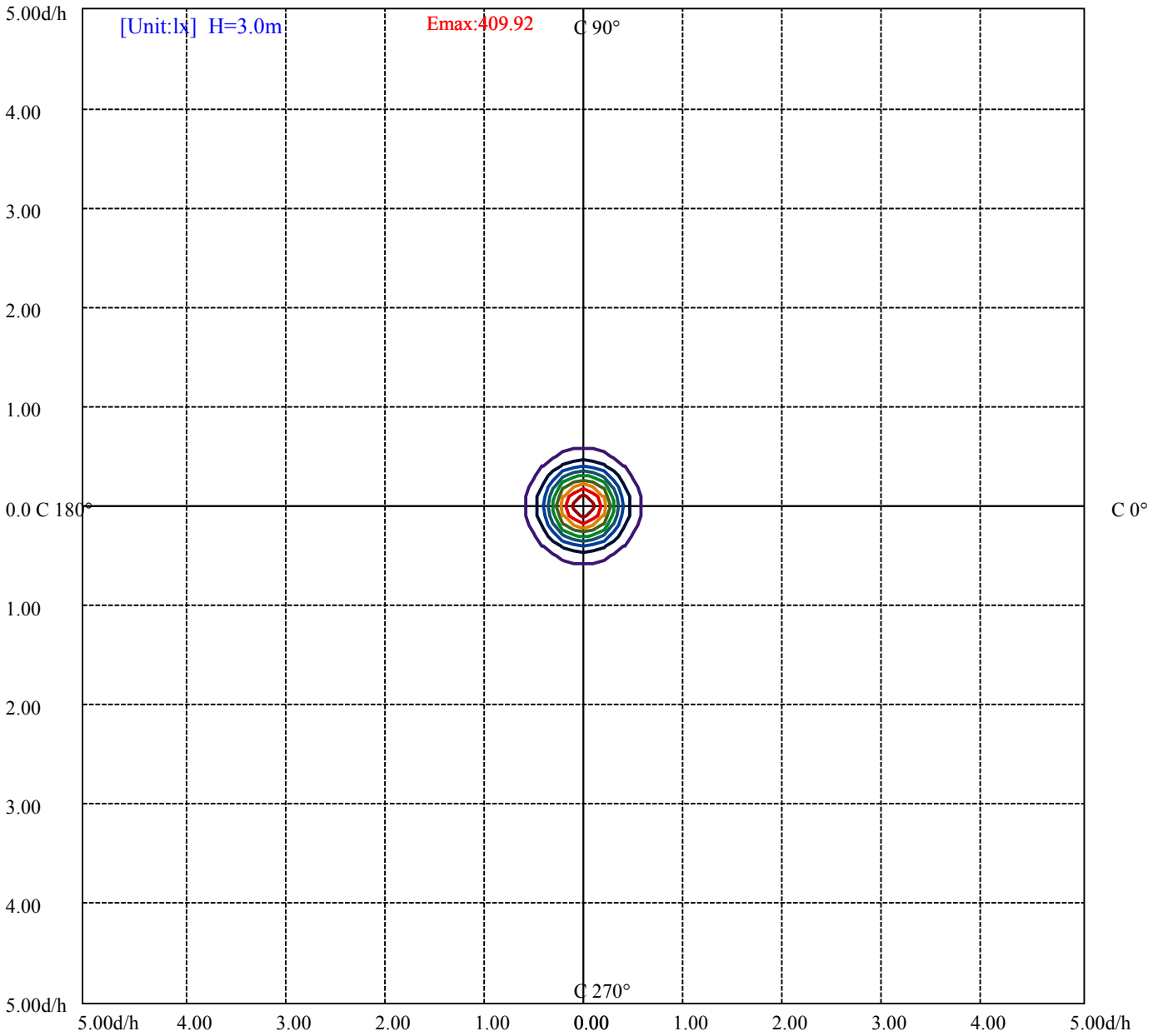
House

[Unit:cd]

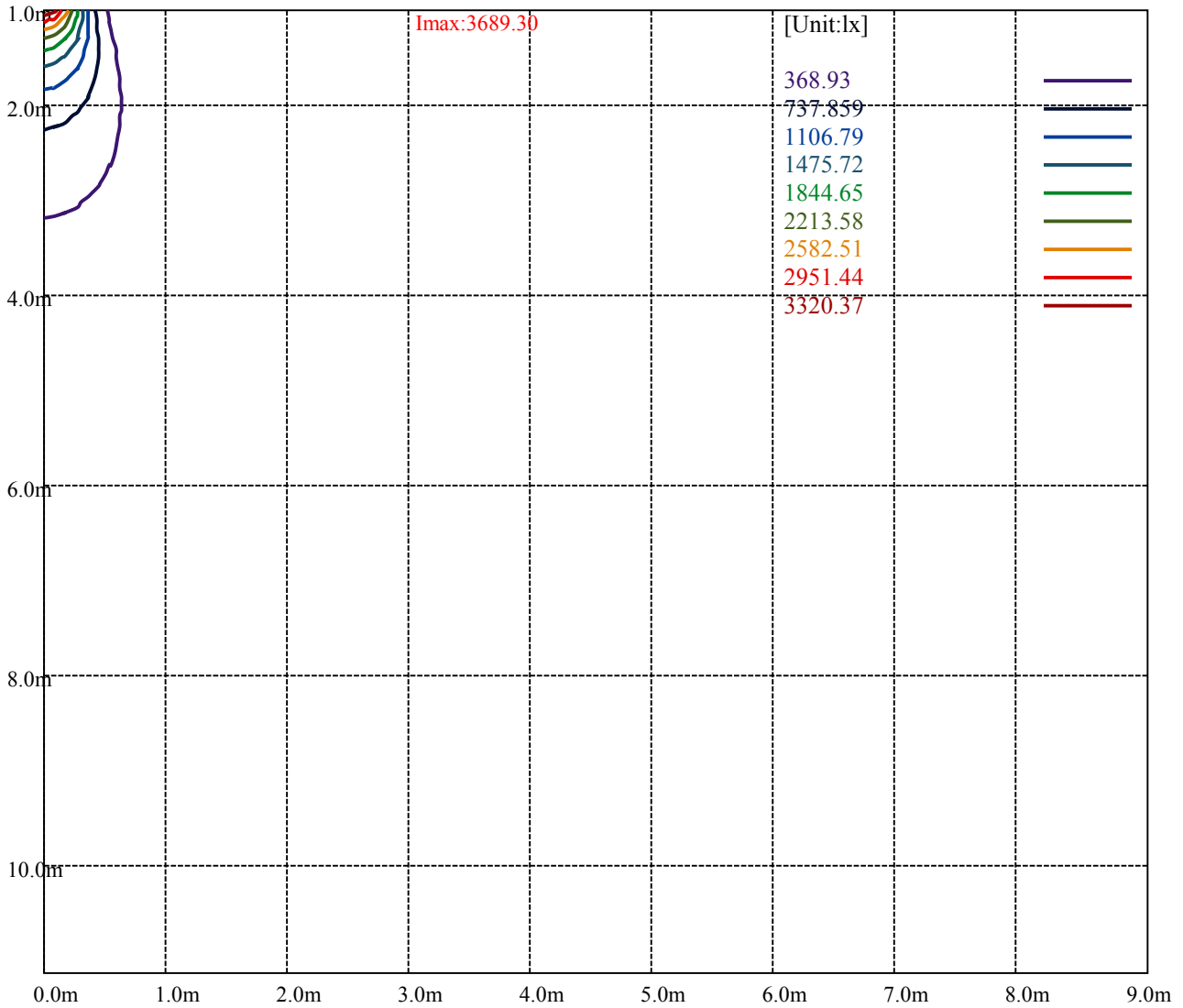
Road

Imax:3689.30

(10%Imax)	368.93	—
(20%Imax)	737.859	—
(30%Imax)	1106.79	—
(40%Imax)	1475.72	—
(50%Imax)	1844.65	—
(60%Imax)	2213.58	—
(70%Imax)	2582.51	—
(80%Imax)	2951.44	—
(90%Imax)	3320.37	—



(10%E _{max}) 40.99211	—
(20%E _{max}) 81.98422	—
(30%E _{max}) 122.9767	—
(40%E _{max}) 163.9689	—
(50%E _{max}) 204.9611	—
(60%E _{max}) 245.9533	—
(70%E _{max}) 286.9445	—
(80%E _{max}) 327.9366	—
(90%E _{max}) 368.9289	—



Luminance Table

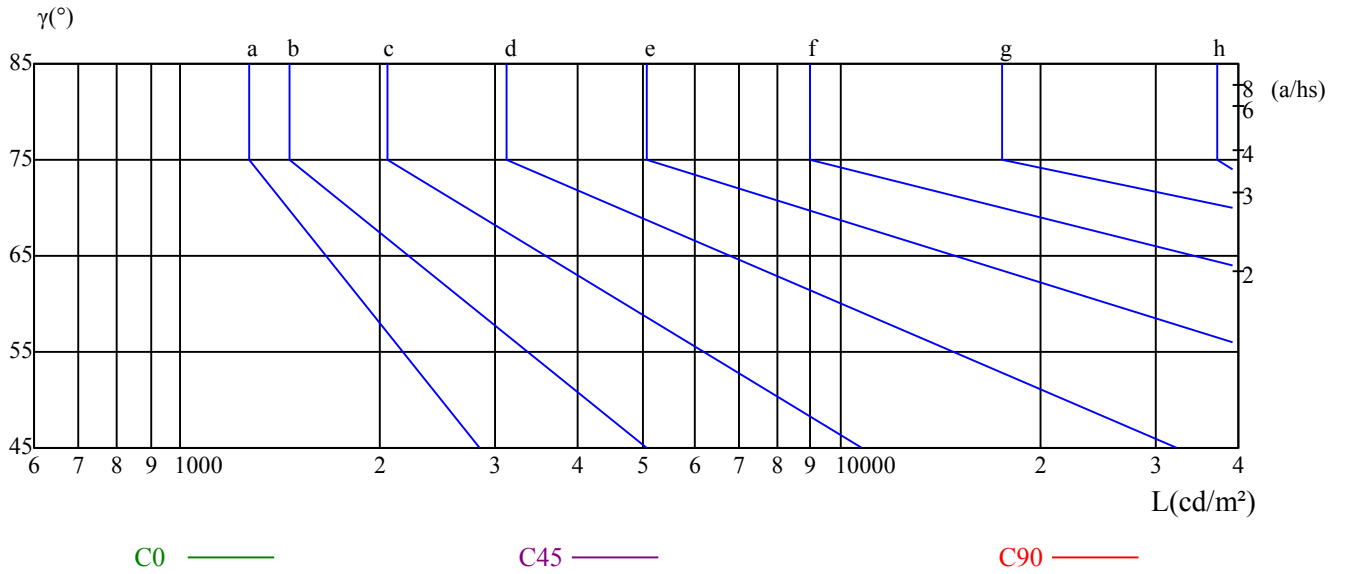
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

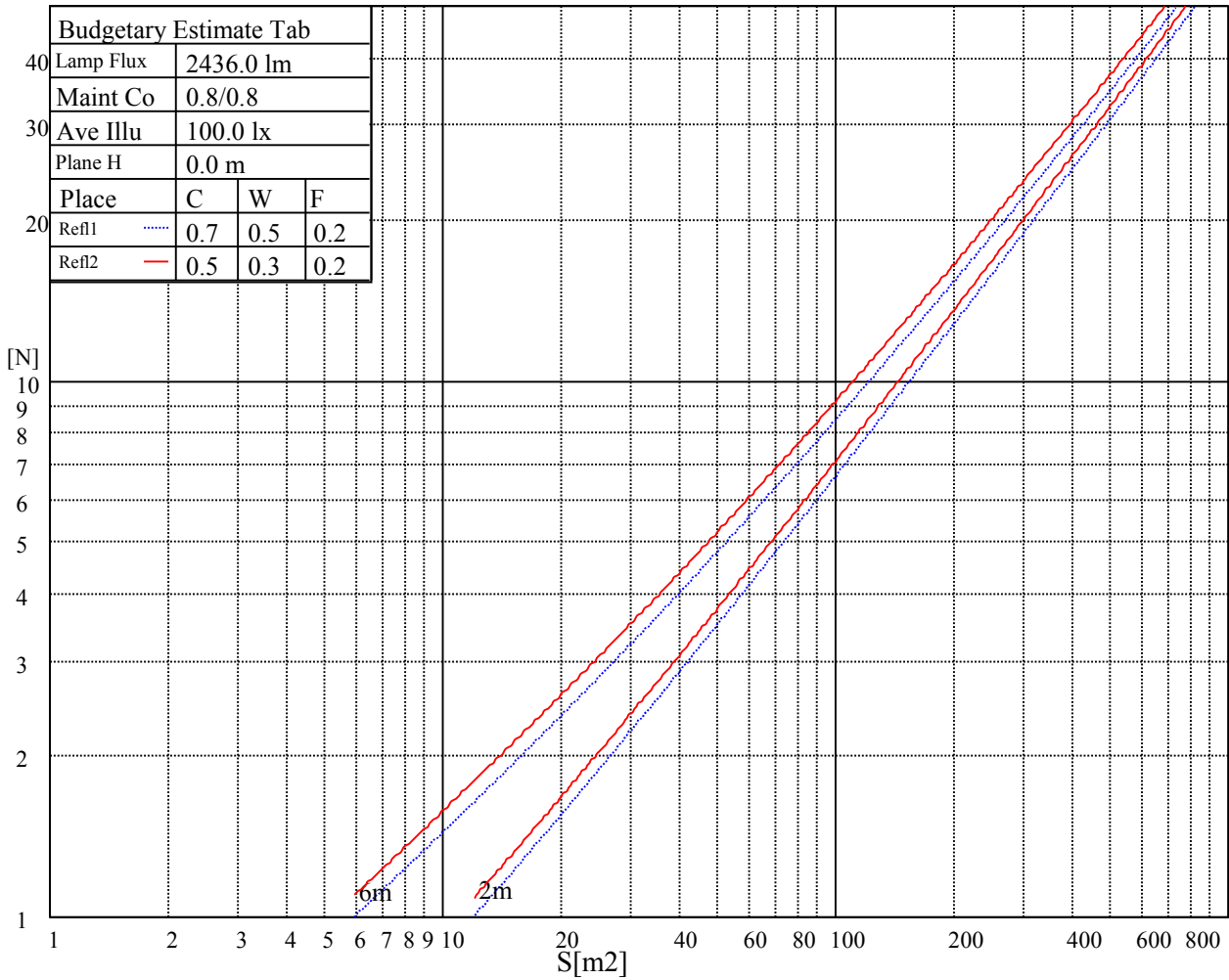
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

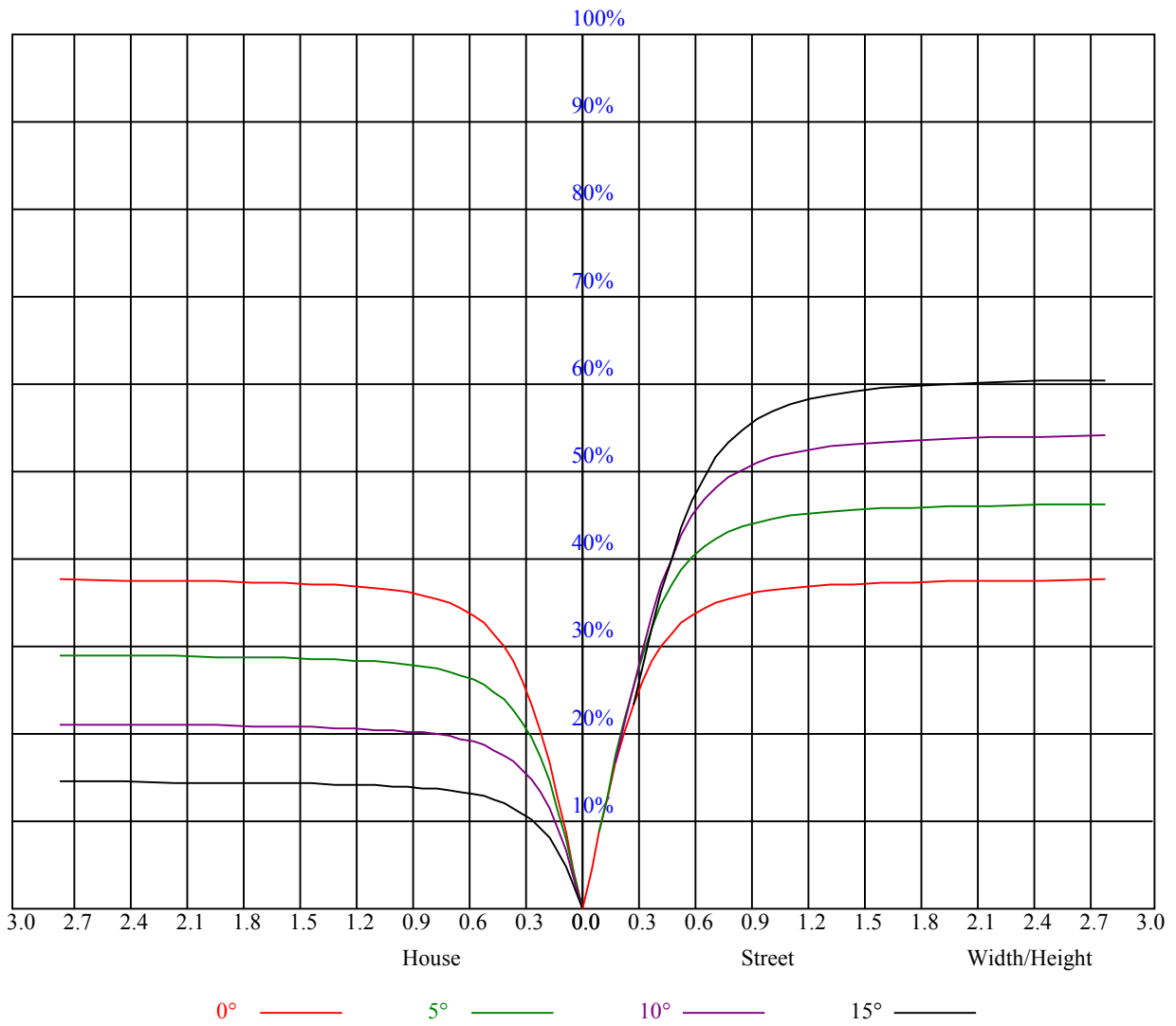
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

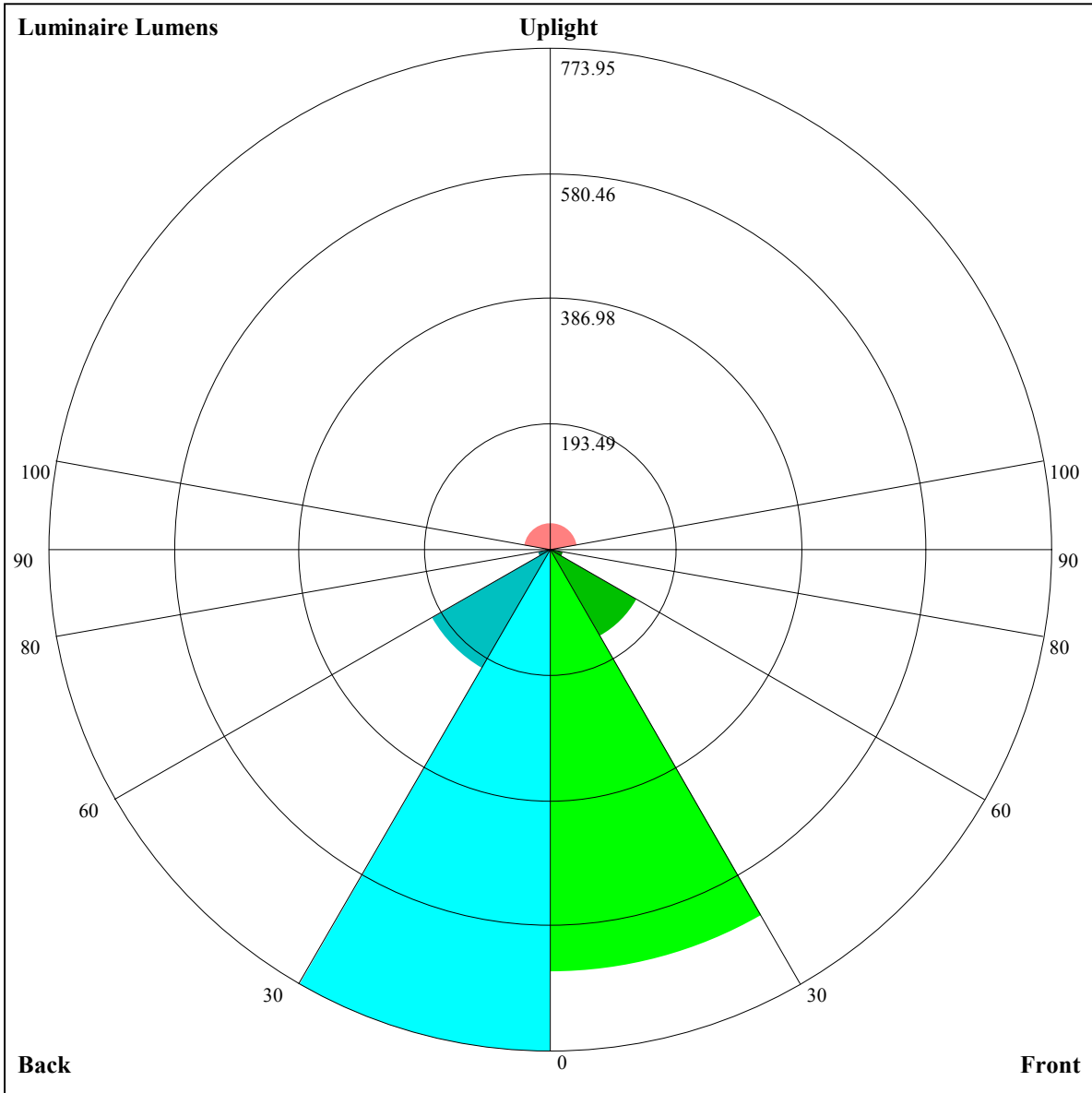
Luminance Limiting Curve





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	0.91	0.91	0.91	0.89	0.89	0.89	0.85	0.85	0.85	0.81	0.81	0.81	0.78	0.78	0.78	0.77
1	0.85	0.83	0.81	0.83	0.81	0.80	0.80	0.79	0.77	0.77	0.76	0.75	0.74	0.74	0.73	0.71
2	0.79	0.76	0.73	0.78	0.75	0.73	0.75	0.73	0.71	0.73	0.71	0.70	0.71	0.69	0.68	0.67
3	0.74	0.70	0.67	0.73	0.70	0.67	0.71	0.68	0.66	0.69	0.67	0.65	0.67	0.66	0.64	0.63
4	0.70	0.66	0.63	0.69	0.65	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.64	0.62	0.60	0.59
5	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.63	0.60	0.57	0.61	0.59	0.57	0.56
6	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.54	0.53
7	0.59	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.51	0.57	0.54	0.51	0.56	0.53	0.51	0.50
8	0.56	0.52	0.49	0.56	0.52	0.49	0.55	0.51	0.49	0.54	0.51	0.49	0.54	0.51	0.48	0.48
9	0.54	0.50	0.47	0.53	0.49	0.47	0.53	0.49	0.47	0.52	0.49	0.46	0.51	0.48	0.46	0.45
10	0.51	0.47	0.45	0.51	0.47	0.45	0.50	0.47	0.44	0.50	0.47	0.44	0.49	0.46	0.44	0.43





Luminaire Lumens:
FL=653.01,FM=155.34,FH=19.55,FVH=5.32
BL=773.95,BM=210.8,BH=21.52,BVH=5.71
UL=8.94,UH=42.53

BUG Rating:B2-U2-G0

NATA 3-1700-N

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	3683.81	3511.13	2994.75	2241.00	1249.31	604.13	397.69	289.13	155.81
45.0	3697.31	3510.00	3111.19	2316.38	1413.56	696.38	421.88	286.88	169.59
90.0	3691.69	3472.31	3038.06	2446.88	1652.63	880.20	513.84	311.40	199.13
135.0	3684.38	3567.94	3216.38	2746.69	2145.94	1343.81	740.25	457.31	287.44
180.0	3683.81	3533.63	3155.63	2710.13	2052.00	1112.40	750.88	434.81	289.80
225.0	3697.31	3542.06	3159.00	2601.00	1881.56	1105.93	612.23	371.59	244.07
270.0	3691.69	3584.25	3169.13	2544.75	1672.88	899.44	506.81	308.81	198.34
315.0	3684.38	3468.94	2913.75	2048.63	1080.73	582.81	357.92	235.80	146.76
360.0	3683.81	3511.13	2994.75	2241.00	1249.31	604.13	397.69	289.13	155.81
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	96.53	62.61	39.83	27.28	21.88	18.06	14.51	11.70	8.78
45.0	104.96	68.51	43.20	29.31	22.84	18.84	15.41	12.38	9.51
90.0	122.12	76.84	46.63	29.98	23.34	19.24	15.58	12.71	9.90
135.0	172.01	110.53	63.51	39.49	25.76	21.15	17.16	13.84	10.69
180.0	174.21	104.34	61.48	37.52	25.26	20.70	16.76	13.44	10.46
225.0	146.08	88.99	54.51	34.76	24.41	19.91	16.43	13.16	10.29
270.0	118.46	74.14	47.93	31.16	23.46	19.52	15.86	12.83	9.73
315.0	91.18	61.03	38.87	26.83	21.38	17.83	14.34	11.36	8.83
360.0	96.53	62.61	39.83	27.28	21.88	18.06	14.51	11.70	8.78
C/ γ (°)	90.0								
0.0	7.93								
45.0	8.27								
90.0	8.27								
135.0	8.21								
180.0	8.10								
225.0	8.38								
270.0	8.27								
315.0	8.10								
360.0	7.93								