



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: 2-1299-N

Luminaire: 92.70.065.00+92.70.059.00

Report No: nt0100

Voltage(V): 34.0300

Test No: GC2020011018

Current(A): 0.6000

LampCAT: LUMINUS CXM-14-AC40

Power (W): 20.4100

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): 1888.85, Efficiency(%): 77.54% , Luminous Efficacy(lm/W): 92.55

Central intensity(cd): 7089.188, Maximum intensity(cd): 7089.188

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.4

[C90/270]Total=23.4

Field angle(10%Imax): [C0/180]Total=48.2

[C90/270]Total=48.2

Maximum s/h(1/2): C0_180=0.40 C90_270=0.40

Maximum s/h(1/4): C0_180=0.41 C90_270=0.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 77.54%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.204%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2020/1/10
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

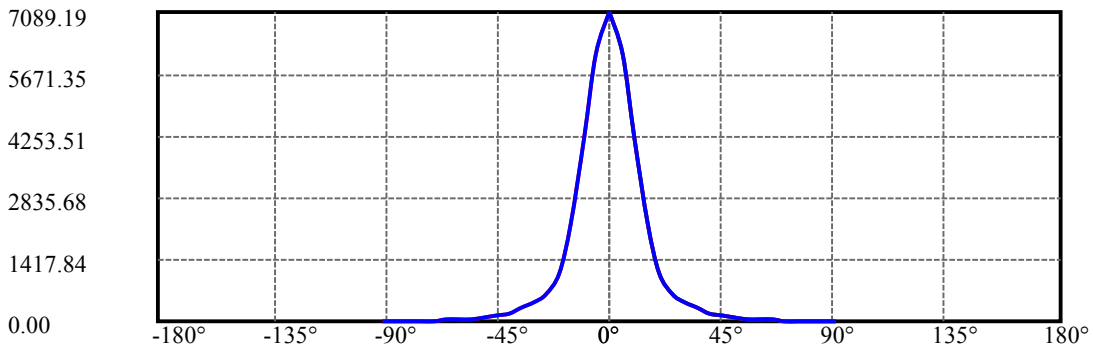
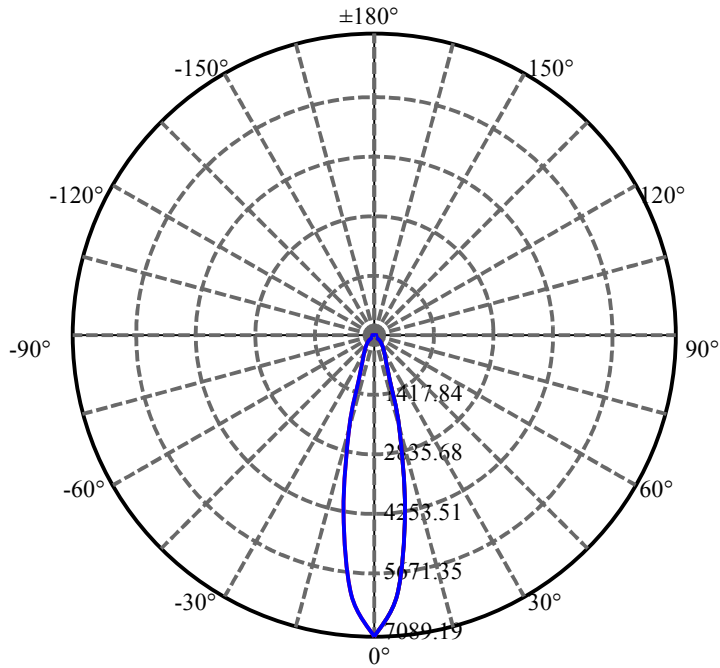
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	7089.188	0.000	0	.000%	.000%
5.0	6141.586	158.170	158.17	6.493%	8.374%
10.0	4210.031	370.310	528.48	15.202%	27.979%
15.0	2254.500	383.472	911.952	15.742%	48.281%
20.0	1084.163	275.153	1187.104	11.295%	62.848%
25.0	631.751	179.968	1367.072	7.388%	72.376%
30.0	423.352	133.524	1500.596	5.481%	79.445%
35.0	287.677	104.704	1605.3	4.298%	84.988%
40.0	197.395	80.931	1686.231	3.322%	89.273%
45.0	124.523	59.606	1745.837	2.447%	92.429%
50.0	81.134	41.556	1787.393	1.706%	94.629%
55.0	51.729	28.889	1816.281	1.186%	96.158%
60.0	33.708	19.748	1836.03	.811%	97.204%
65.0	23.393	13.881	1849.911	.570%	97.939%
70.0	19.455	10.850	1860.761	.445%	98.513%
75.0	16.130	9.301	1870.062	.382%	99.006%
80.0	12.916	7.772	1877.834	.319%	99.417%
85.0	9.731	6.154	1883.988	.253%	99.743%
90.0	8.009	4.857	1888.845	.199%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1500.60	61.60%	79.45%
0-40	1686.23	69.22%	89.27%
0-60	1836.03	75.37%	97.20%
0-90	1883.99	77.34%	99.74%
0-120	1883.99	77.34%	99.74%
0-180	1888.85	77.54%	100.00%
60-90	67.71	2.78%	3.58%
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%
0-30.50	1511.08	62.03%	80.00%

ZONAL LUMEN SUMMARY

0-10	528.48
10-20	658.62
20-30	313.49
30-40	185.63
40-50	101.16
50-60	48.64
60-70	24.73
70-80	17.07
80-90	6.15
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



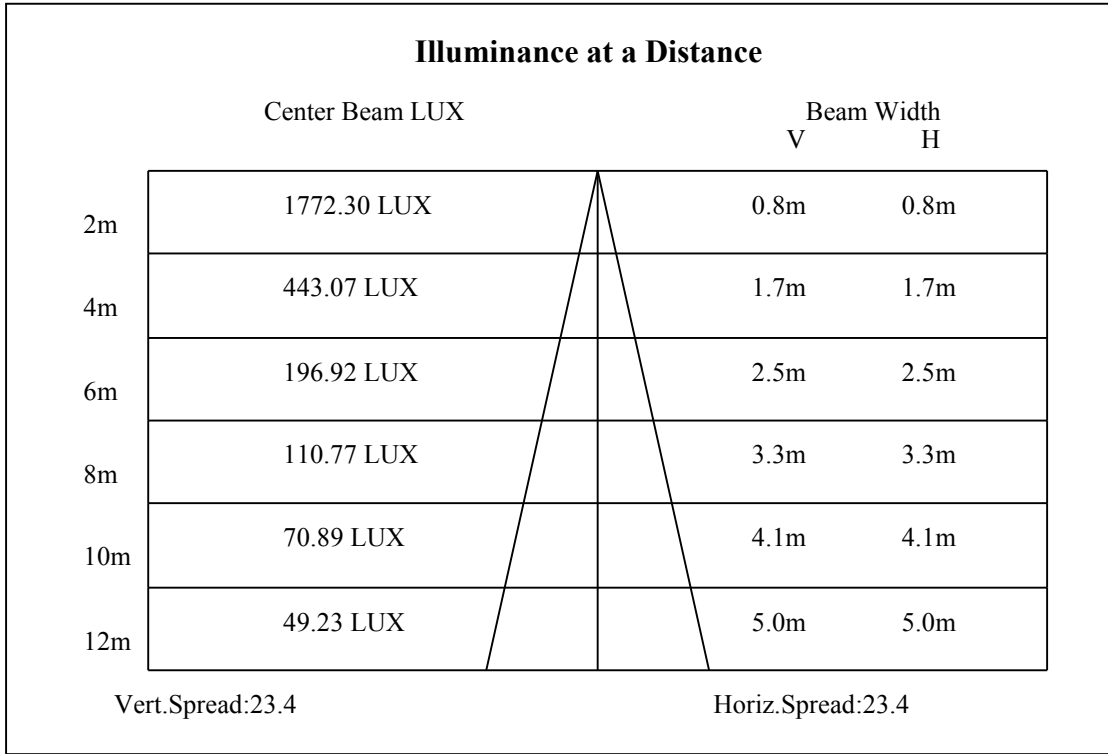
C0(Max): —————

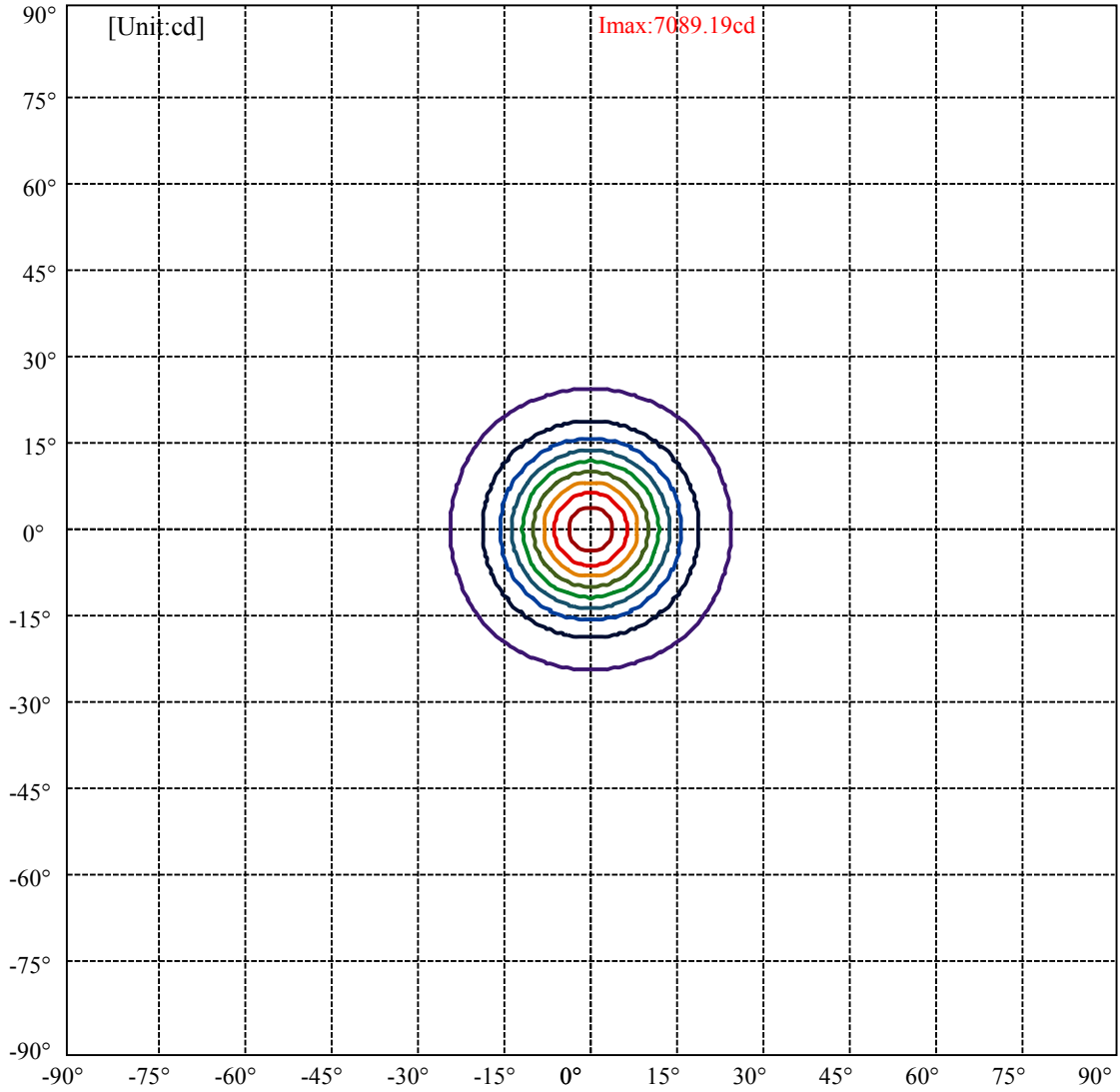
C0/C180: —————

C90/C270: —————

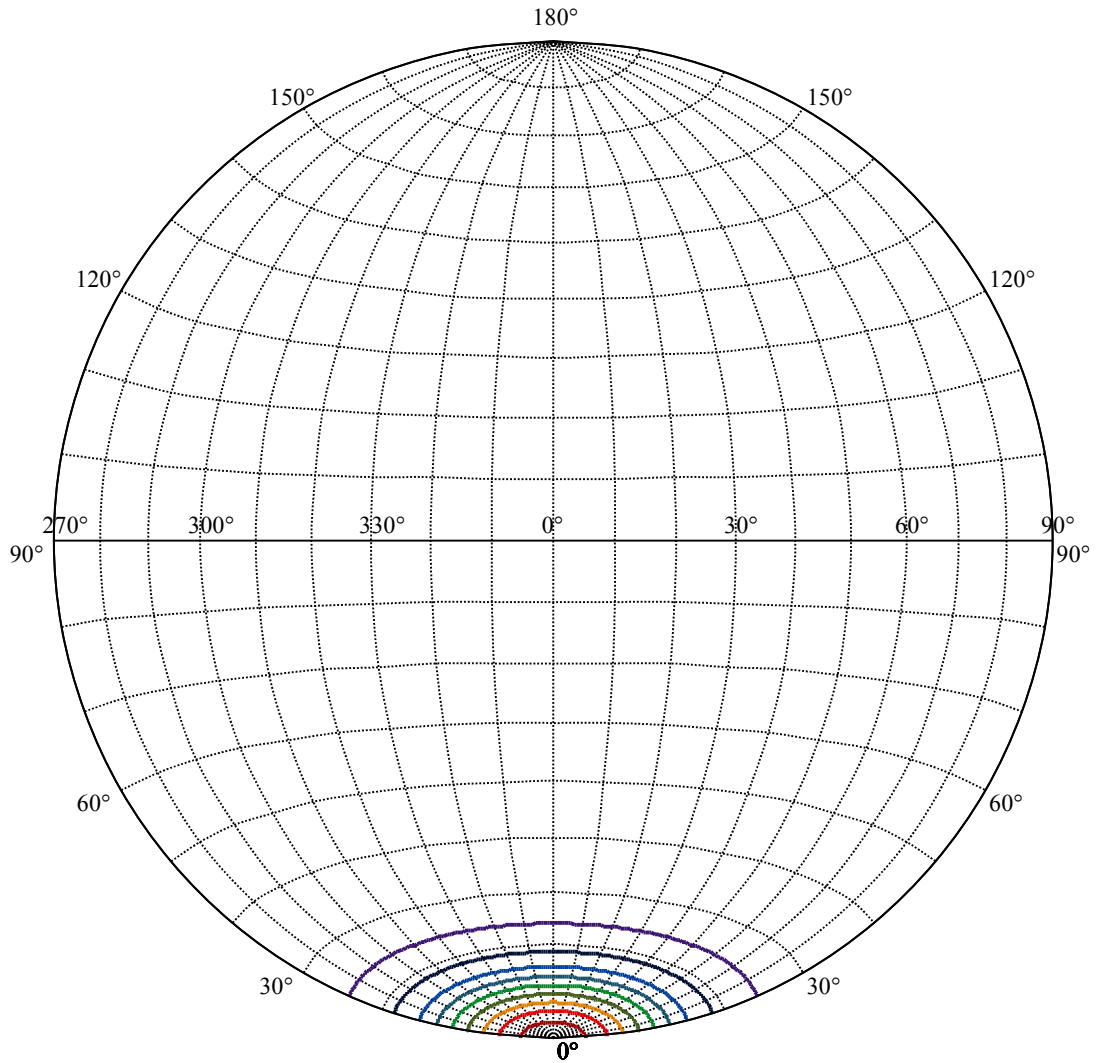
Field angle(10%Imax):C0/180Left:24.1 Right:24.1
:C90/270Left:24.1 Right:24.1

Beam Angle(50%Imax):C0/180Left:11.7 Right:11.7
:C90/270Left:11.7 Right:11.7





(10%Imax) 708.919	—
(20%Imax) 1417.84	—
(30%Imax) 2126.76	—
(40%Imax) 2835.68	—
(50%Imax) 3544.59	—
(60%Imax) 4253.51	—
(70%Imax) 4962.43	—
(80%Imax) 5671.35	—
(90%Imax) 6380.27	—



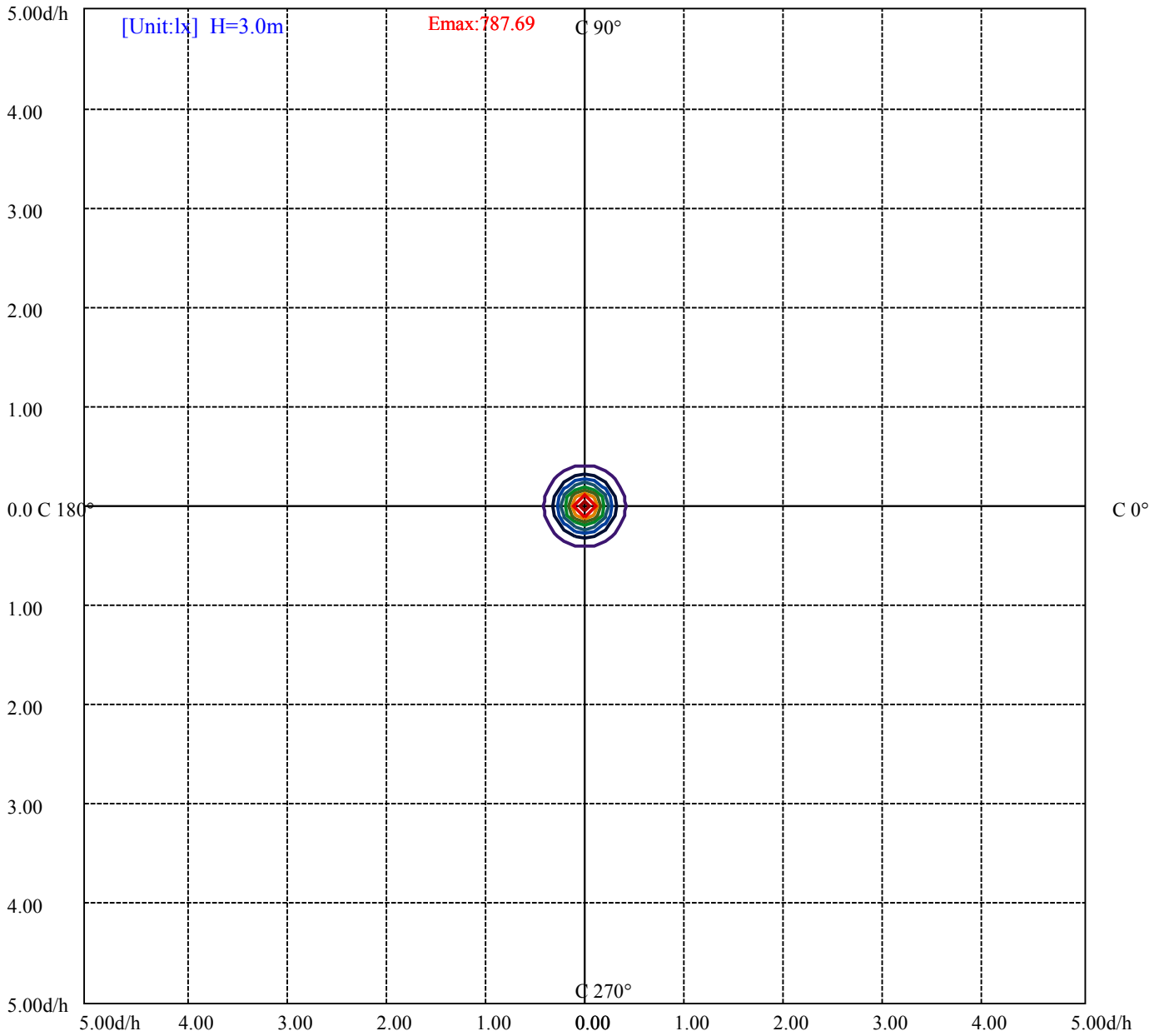
House

[Unit:cd]

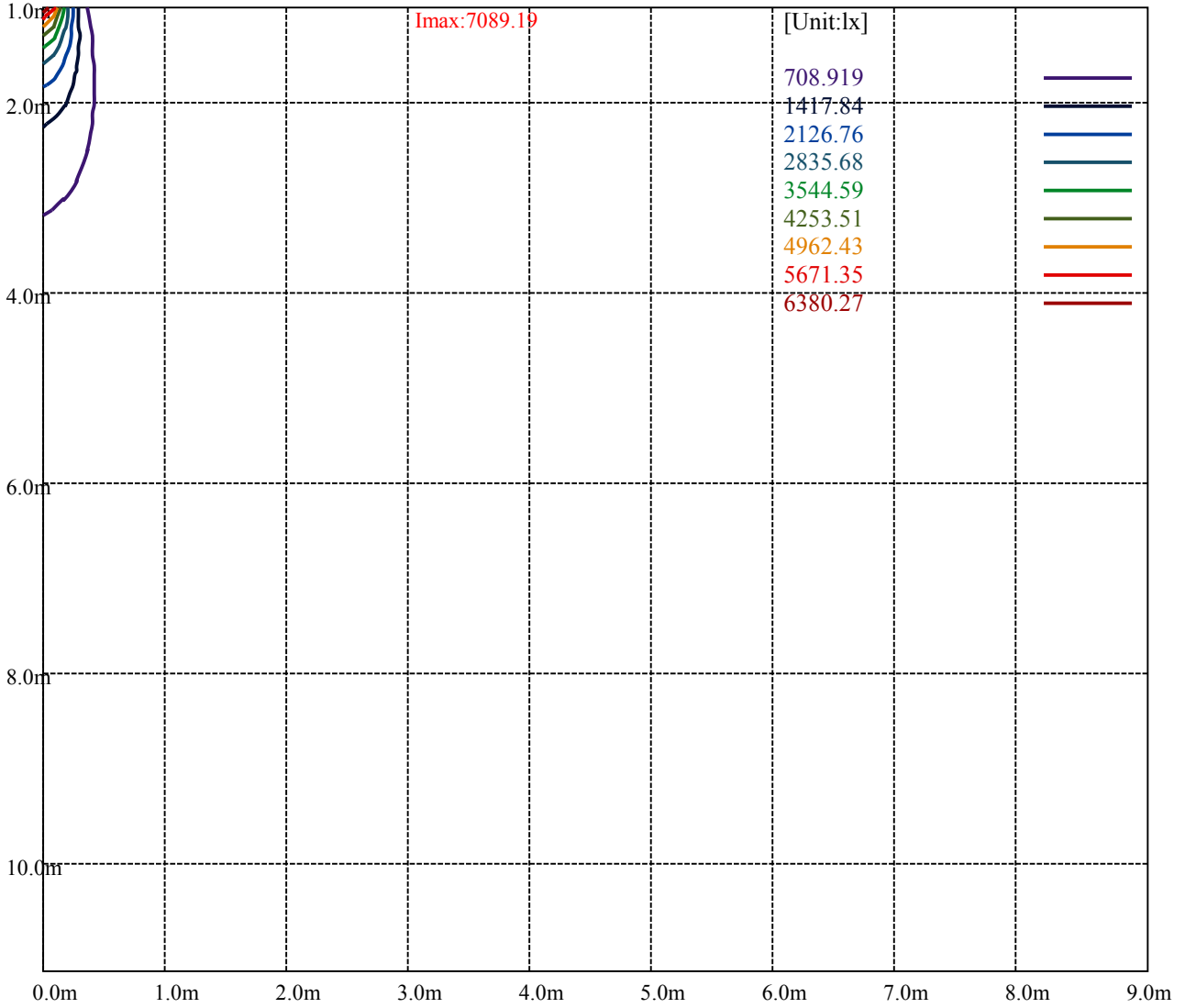
Road

Imax:7089.19

(10%Imax) 708.919	—
(20%Imax) 1417.84	—
(30%Imax) 2126.76	—
(40%Imax) 2835.68	—
(50%Imax) 3544.59	—
(60%Imax) 4253.51	—
(70%Imax) 4962.43	—
(80%Imax) 5671.35	—
(90%Imax) 6380.27	—



(10%Emax) 78.76845	—
(20%Emax) 157.5367	—
(30%Emax) 236.3056	—
(40%Emax) 315.0733	—
(50%Emax) 393.8422	—
(60%Emax) 472.6111	—
(70%Emax) 551.3789	—
(80%Emax) 630.1478	—
(90%Emax) 708.9156	—



Luminance Table

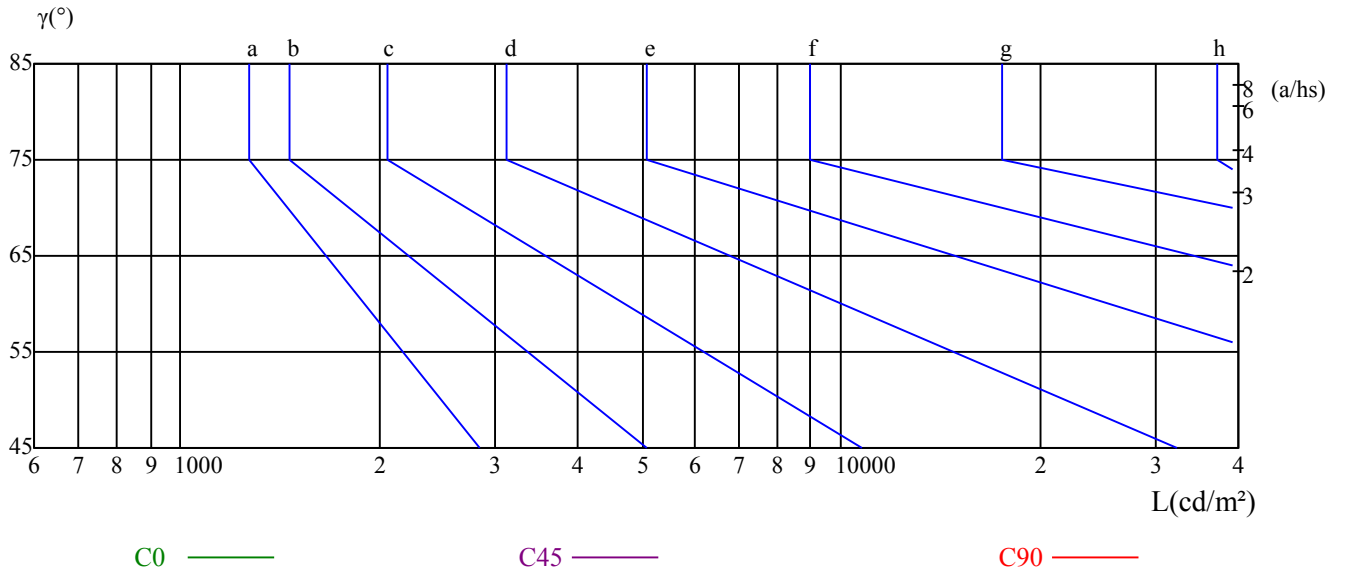
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

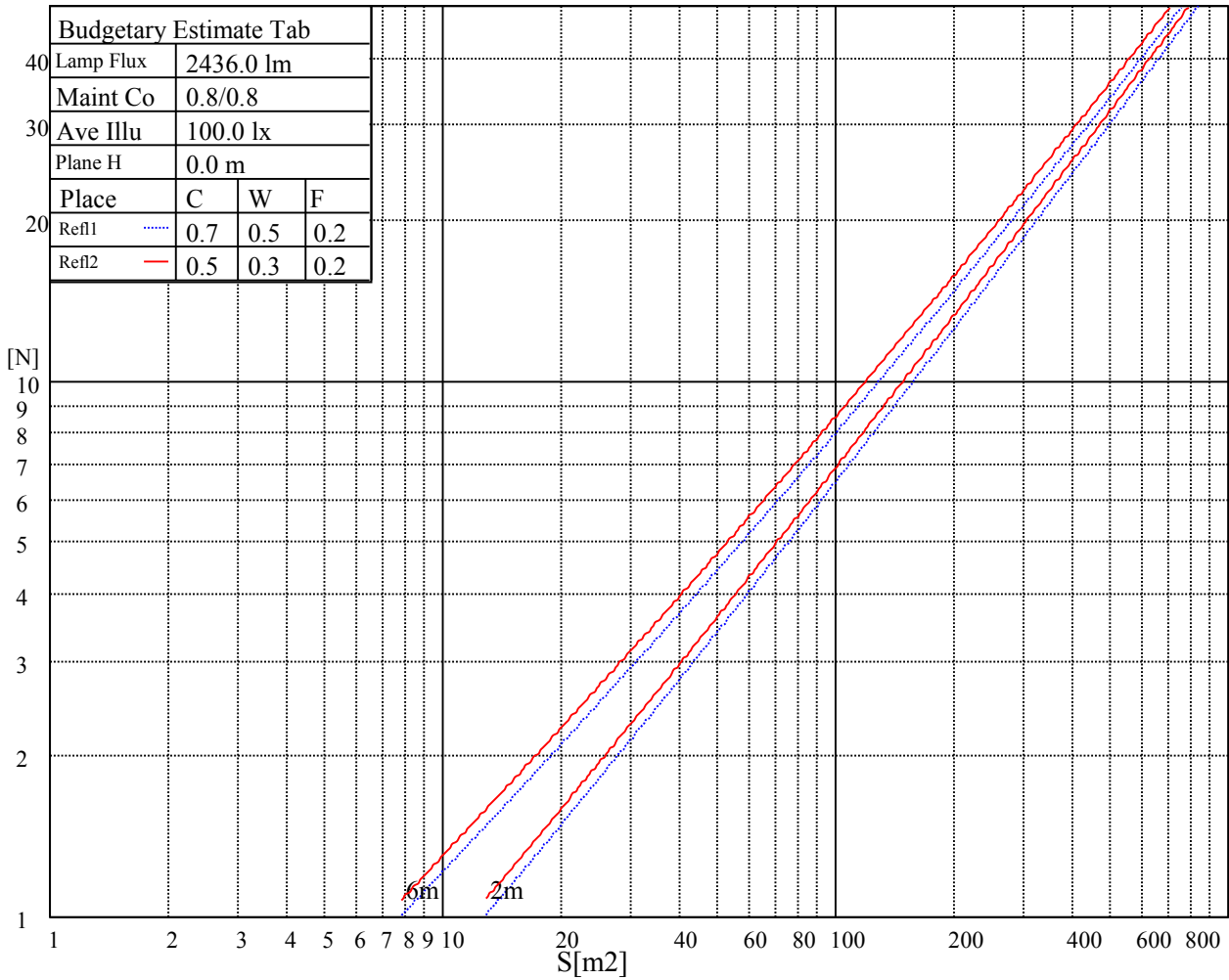
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

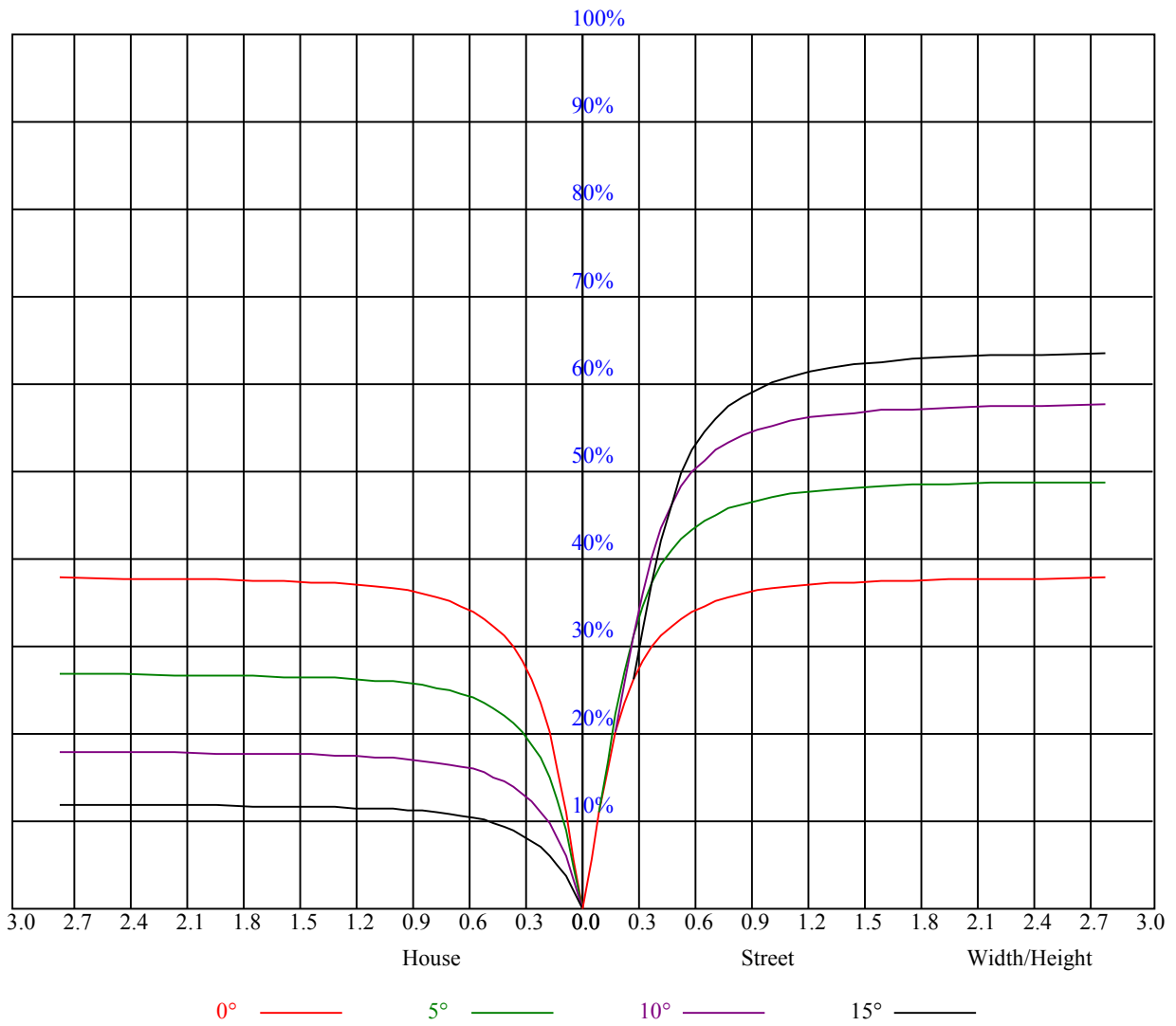
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

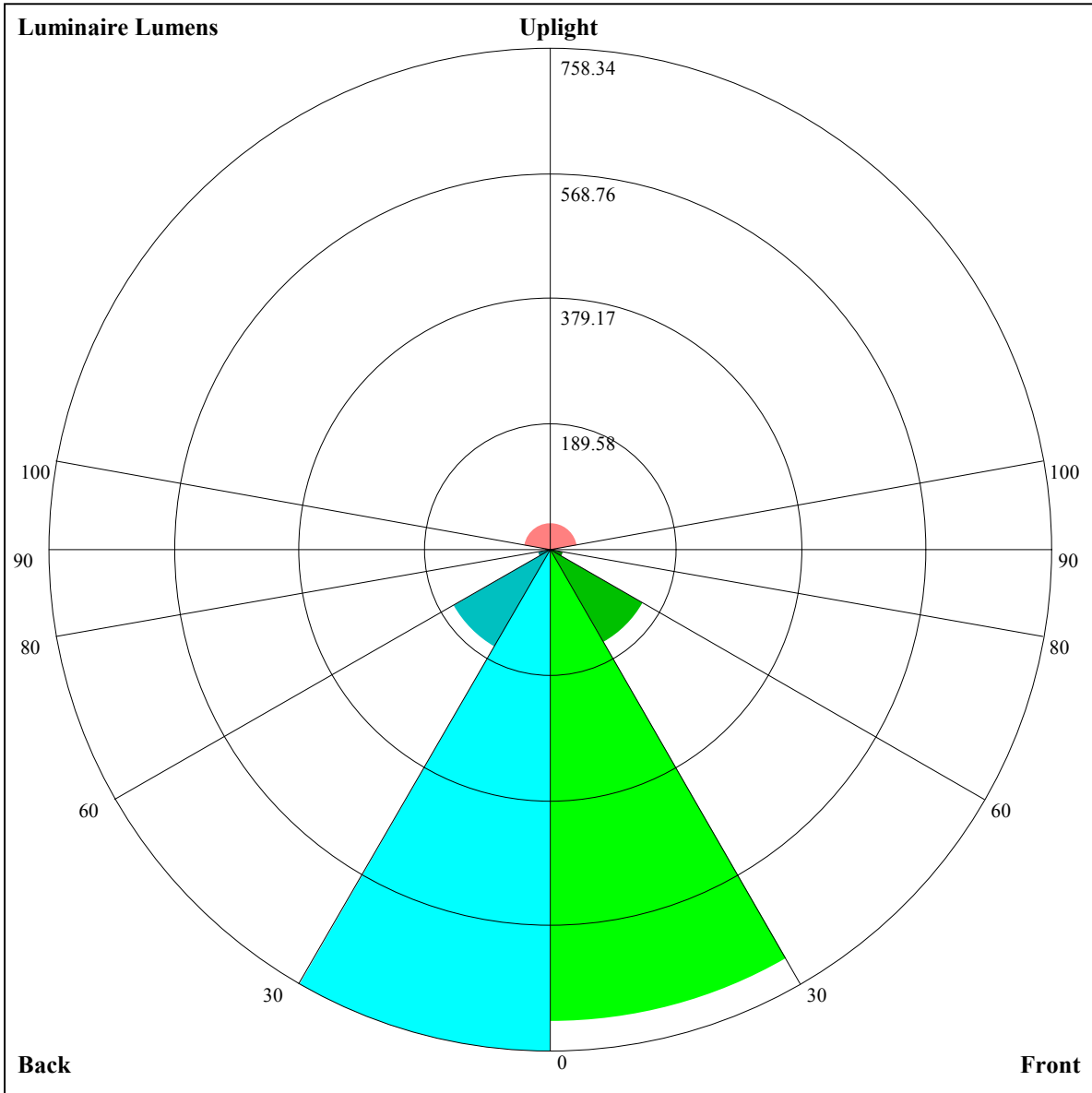
Luminance Limiting Curve





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	0.92	0.92	0.92	0.90	0.90	0.90	0.86	0.86	0.86	0.82	0.82	0.82	0.79	0.79	0.79	0.78
1	0.86	0.84	0.83	0.85	0.83	0.81	0.81	0.80	0.79	0.79	0.78	0.77	0.76	0.75	0.74	0.73
2	0.81	0.78	0.76	0.80	0.77	0.75	0.77	0.75	0.73	0.75	0.73	0.72	0.73	0.71	0.70	0.69
3	0.76	0.73	0.70	0.75	0.72	0.70	0.73	0.71	0.68	0.71	0.69	0.67	0.70	0.68	0.66	0.65
4	0.72	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.65	0.68	0.66	0.64	0.67	0.65	0.63	0.62
5	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.66	0.63	0.61	0.64	0.62	0.60	0.59
6	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.63	0.60	0.58	0.62	0.60	0.58	0.57
7	0.63	0.59	0.56	0.62	0.59	0.56	0.62	0.58	0.56	0.61	0.58	0.55	0.60	0.57	0.55	0.54
8	0.60	0.57	0.54	0.60	0.56	0.54	0.59	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.52
9	0.58	0.54	0.52	0.58	0.54	0.52	0.57	0.54	0.51	0.57	0.53	0.51	0.56	0.53	0.51	0.50
10	0.56	0.52	0.50	0.56	0.52	0.50	0.55	0.52	0.50	0.55	0.52	0.49	0.54	0.51	0.49	0.49





Luminaire Lumens:

FL=713.58,FM=163.26,FH=20.57,FVH=5.43

BL=758.34,BM=171.14,BH=21.22,BVH=5.59

UL=8.74,UH=41.58

BUG Rating:B2-U2-G0

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	7119.56	6072.19	4024.13	2139.19	1030.50	602.44	407.81	289.13	190.07
45.0	7077.38	6381.00	4434.19	2483.44	1190.81	667.13	450.56	300.94	208.63
90.0	7142.63	6309.56	4509.00	2471.63	1101.49	682.20	443.87	297.00	211.84
135.0	7017.19	6757.88	5048.44	2892.38	1384.31	740.81	488.81	326.25	228.38
180.0	7119.56	6244.31	4323.38	2290.50	1081.07	634.22	427.95	289.63	203.40
225.0	7077.38	5903.44	3966.75	2019.38	1024.43	601.71	399.60	267.53	186.75
270.0	7142.63	5957.44	4012.88	2054.81	1006.88	596.81	401.63	286.31	185.29
315.0	7017.19	5506.88	3361.50	1684.69	853.82	528.69	366.58	244.63	164.81
360.0	7119.56	6072.19	4024.13	2139.19	1030.50	602.44	407.81	289.13	190.07
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	119.31	78.47	49.50	31.95	23.12	19.24	15.81	12.60	9.34
45.0	131.34	85.73	53.66	34.93	24.02	19.86	16.48	13.39	9.84
90.0	130.73	85.44	54.11	35.89	23.74	19.58	16.31	13.16	10.13
135.0	145.24	94.05	60.24	39.38	25.43	20.59	17.16	13.95	10.52
180.0	127.18	82.86	53.10	34.54	23.23	19.74	16.26	12.88	9.96
225.0	117.79	76.73	50.06	32.34	22.84	19.24	15.92	12.60	9.73
270.0	117.45	76.61	49.28	32.63	22.89	19.13	16.14	12.77	9.51
315.0	107.16	69.19	43.88	28.01	21.88	18.28	14.96	11.98	8.83
360.0	119.31	78.47	49.50	31.95	23.12	19.24	15.81	12.60	9.34
C/ γ (°)	90.0								
0.0	7.88								
45.0	8.04								
90.0	8.04								
135.0	8.16								
180.0	7.93								
225.0	8.04								
270.0	8.04								
315.0	7.93								
360.0	7.88								