



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: 2-1285-N

Luminaire: 92.70.064.00

Report No: nt0100

Test No: GC20191225121

LampCAT: LUMINUS CXM-9-AC40

Lamp flux(lm): 1100.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 33.5700

Current(A): 0.2970

Power (W): 9.9700

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 904.98, Efficiency(%): 82.27% , Luminous Efficacy(lm/W): 90.77

Central intensity(cd): 2072.109, Maximum intensity(cd): 2072.109

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=33.4

[C90/270]Total=33.4

Field angle(10%Imax): [C0/180]Total=65.8

[C90/270]Total=65.8

Maximum s/h(1/2): C0_180=0.54 C90_270=0.54

Maximum s/h(1/4): C0_180=0.60 C90_270=0.60

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.27%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.608%

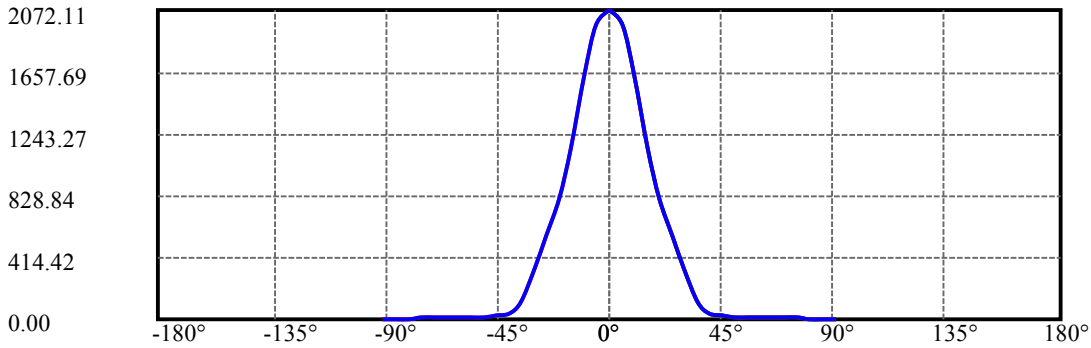
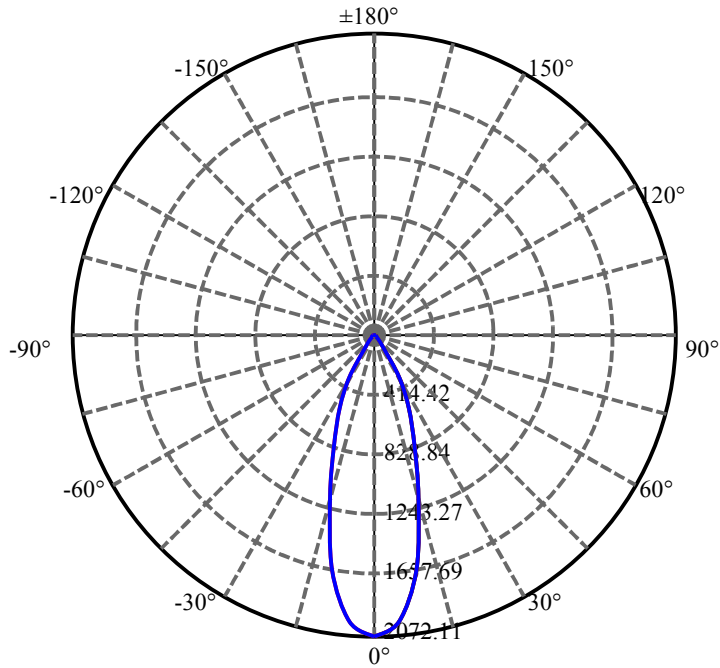
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2072.109	0.000	0	.000%	.000%
5.0	1972.688	48.354	48.354	4.396%	5.343%
10.0	1640.883	129.269	177.623	11.752%	19.627%
15.0	1150.770	165.599	343.222	15.054%	37.926%
20.0	808.305	161.455	504.677	14.678%	55.767%
25.0	550.905	142.556	647.234	12.960%	71.519%
30.0	338.548	112.561	759.795	10.233%	83.957%
35.0	115.699	66.891	826.686	6.081%	91.349%
40.0	32.815	24.778	851.464	2.253%	94.087%
45.0	22.662	10.272	861.736	.934%	95.222%
50.0	18.422	8.302	870.038	.755%	96.139%
55.0	14.836	7.231	877.269	.657%	96.938%
60.0	11.398	6.064	883.333	.551%	97.608%
65.0	9.042	4.969	888.302	.452%	98.157%
70.0	7.777	4.259	892.56	.387%	98.628%
75.0	6.483	3.727	896.287	.339%	99.040%
80.0	5.738	3.270	899.557	.297%	99.401%
85.0	4.943	2.902	902.459	.264%	99.722%
90.0	4.261	2.520	904.98	.229%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	759.79	69.07%	83.96%
0-40	851.46	77.41%	94.09%
0-60	883.33	80.30%	97.61%
0-90	902.46	82.04%	99.72%
0-120	902.46	82.04%	99.72%
0-180	904.98	82.27%	100.00%
60-90	25.19	2.29%	2.78%
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%
0-28.41	723.98	65.82%	80.00%

ZONAL LUMEN SUMMARY

0-10	177.62
10-20	327.05
20-30	255.12
30-40	91.67
40-50	18.57
50-60	13.30
60-70	9.23
70-80	7.00
80-90	2.90
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



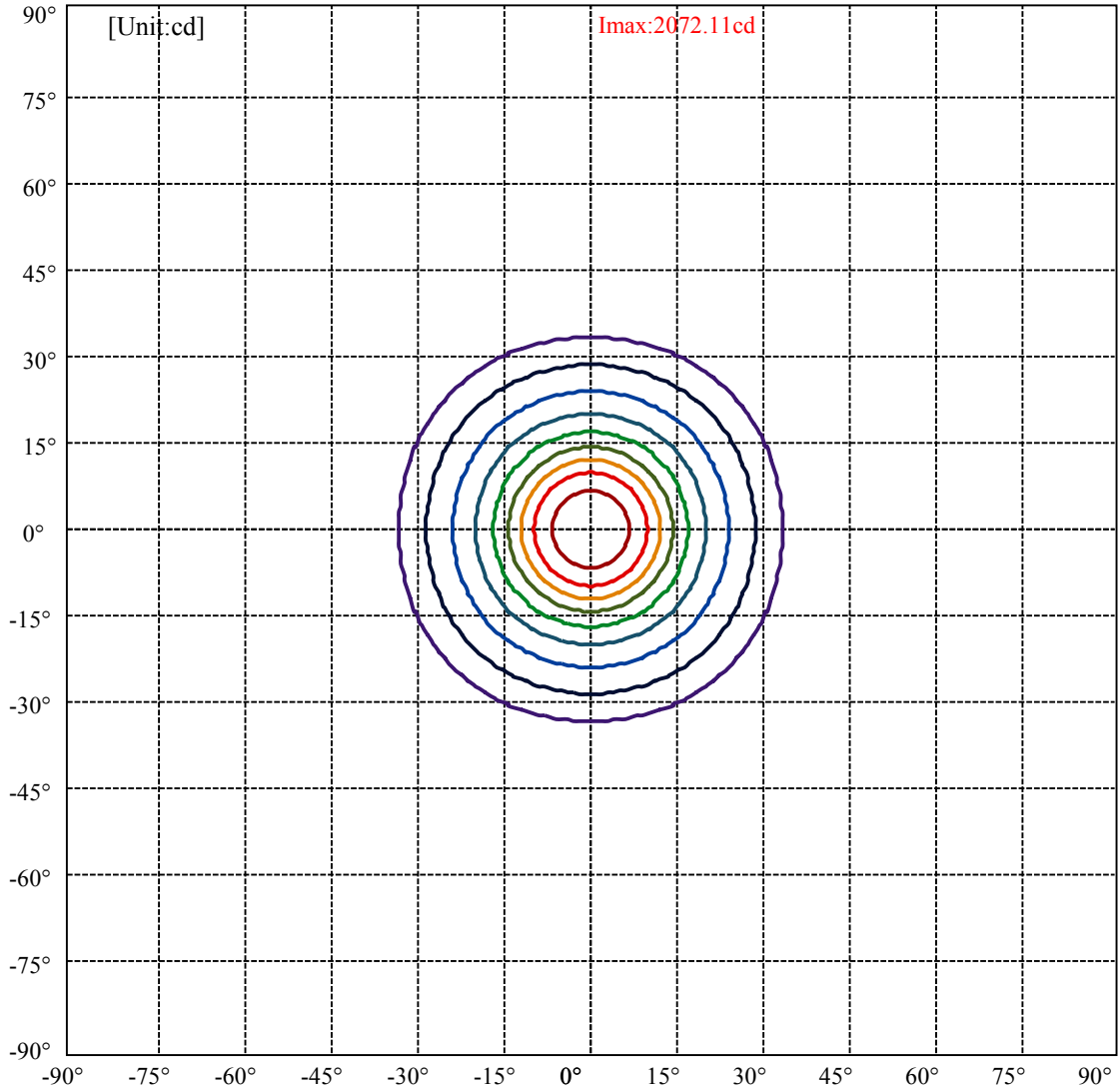
C0(Max): —————

C0/C180: —————

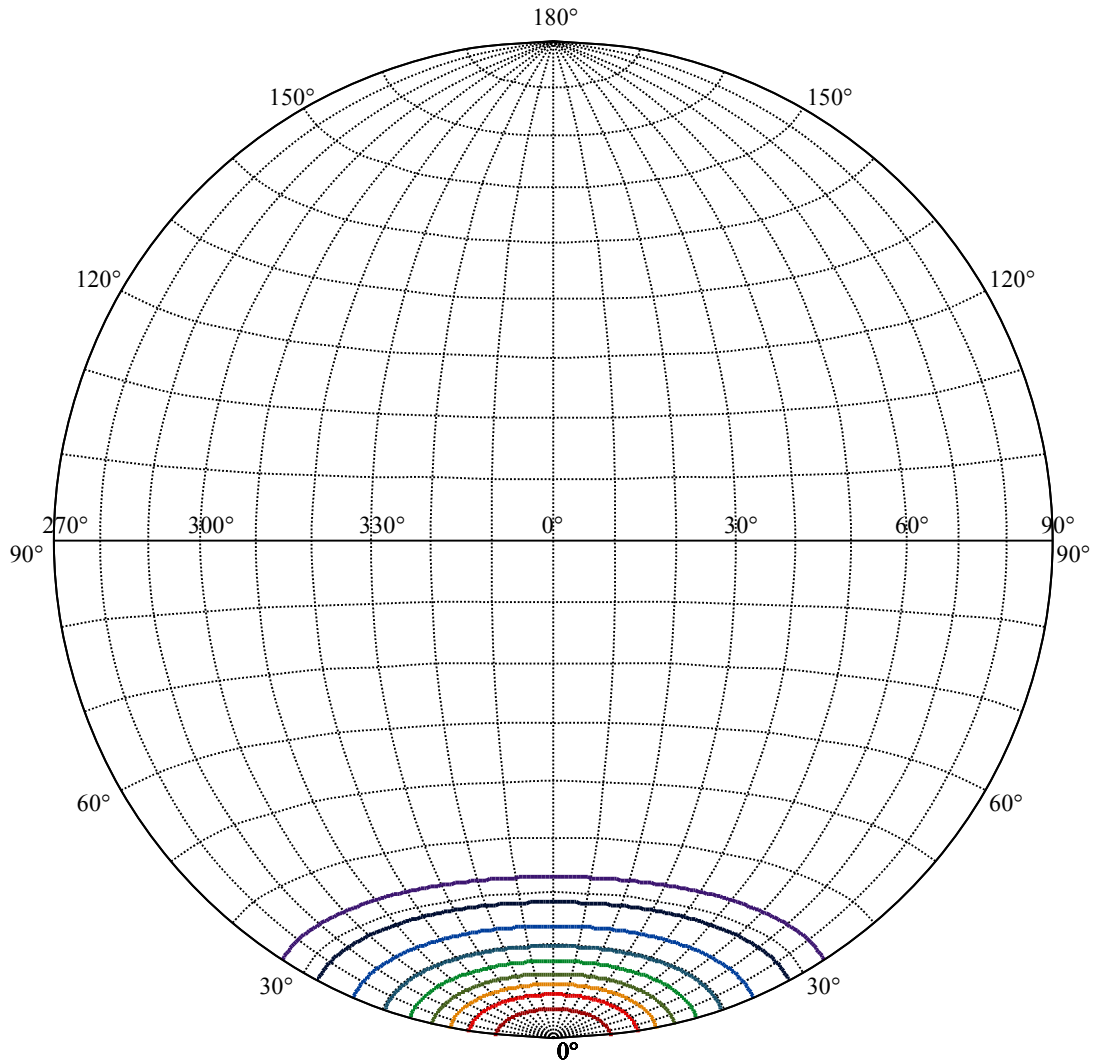
C90/C270: —————

Field angle(10%Imax):C0/180Left:32.9 Right:32.9
:C90/270Left:32.9 Right:32.9

Beam Angle(50%Imax):C0/180Left:16.7 Right:16.7
:C90/270Left:16.7 Right:16.7



(10%Imax) 207.211	—
(20%Imax) 414.422	—
(30%Imax) 621.633	—
(40%Imax) 828.844	—
(50%Imax) 1036.05	—
(60%Imax) 1243.27	—
(70%Imax) 1450.48	—
(80%Imax) 1657.69	—
(90%Imax) 1864.9	—



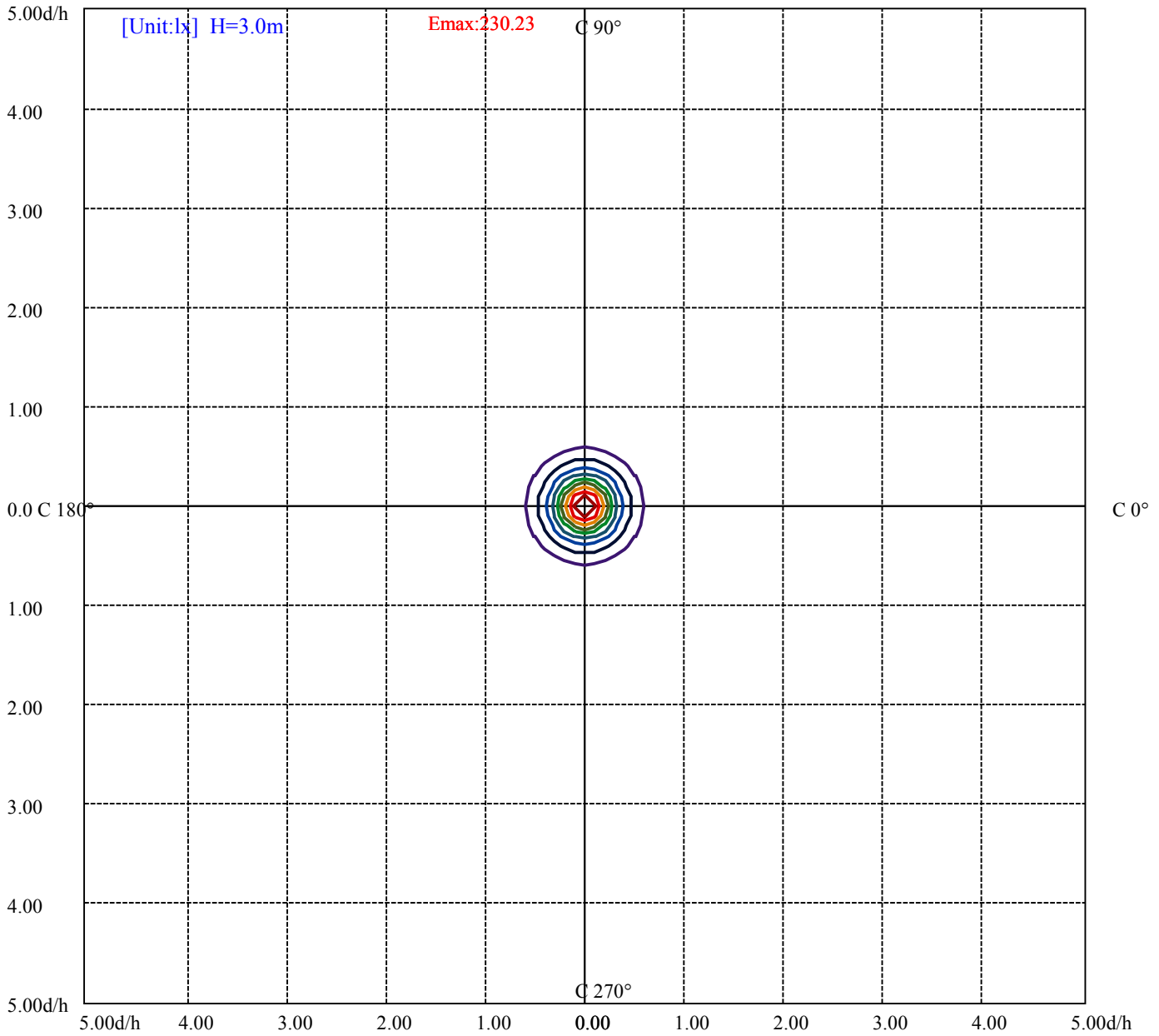
House

[Unit:cd]

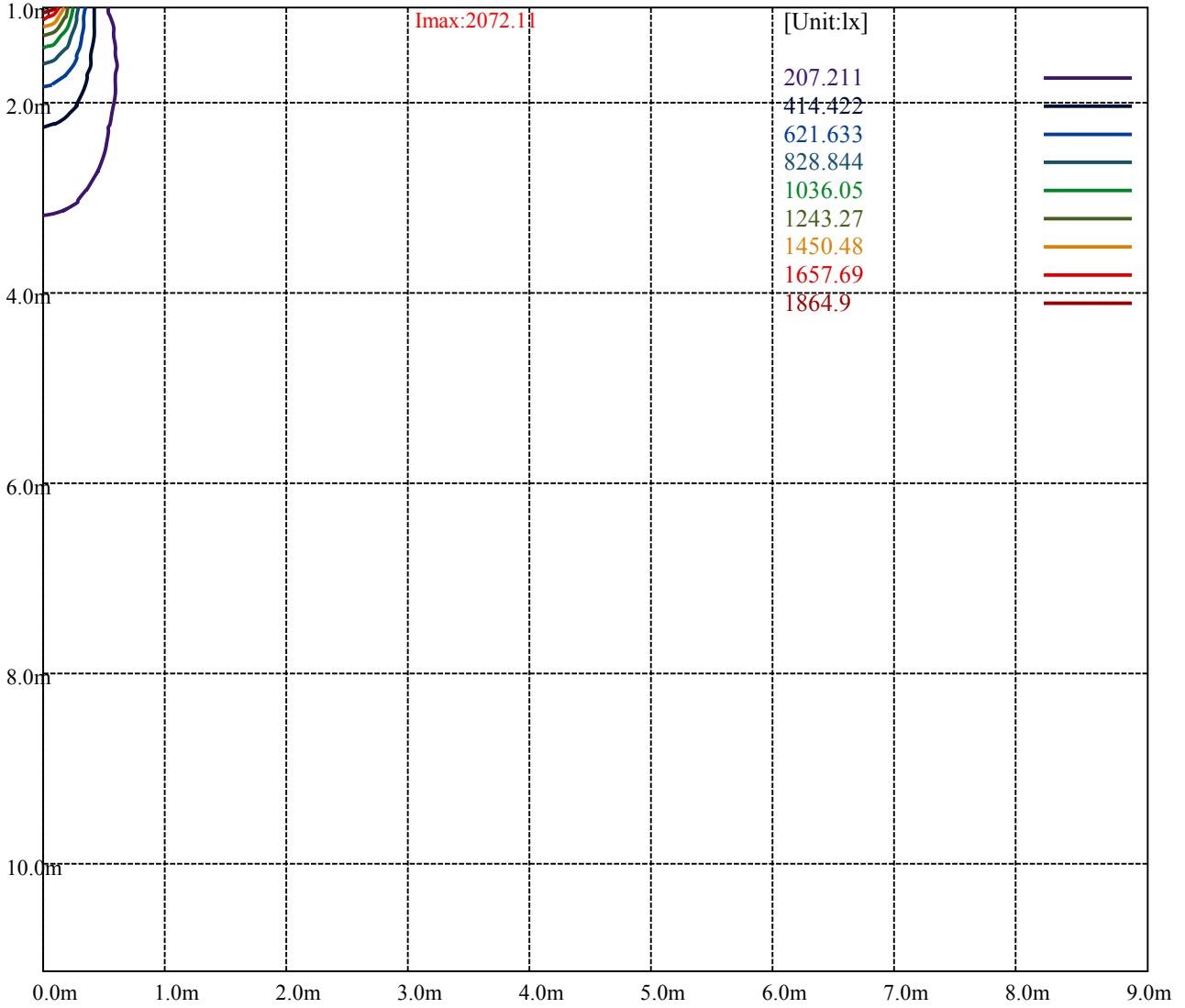
Road

Imax:2072.11

(10%Imax) 207.211	—
(20%Imax) 414.422	—
(30%Imax) 621.633	—
(40%Imax) 828.844	—
(50%Imax) 1036.05	—
(60%Imax) 1243.27	—
(70%Imax) 1450.48	—
(80%Imax) 1657.69	—
(90%Imax) 1864.9	—



(10%Emax) 23.02345	—
(20%Emax) 46.04678	—
(30%Emax) 69.07022	—
(40%Emax) 92.09367	—
(50%Emax) 115.1167	—
(60%Emax) 138.14	—
(70%Emax) 161.1633	—
(80%Emax) 184.1878	—
(90%Emax) 207.2111	—



Luminance Table

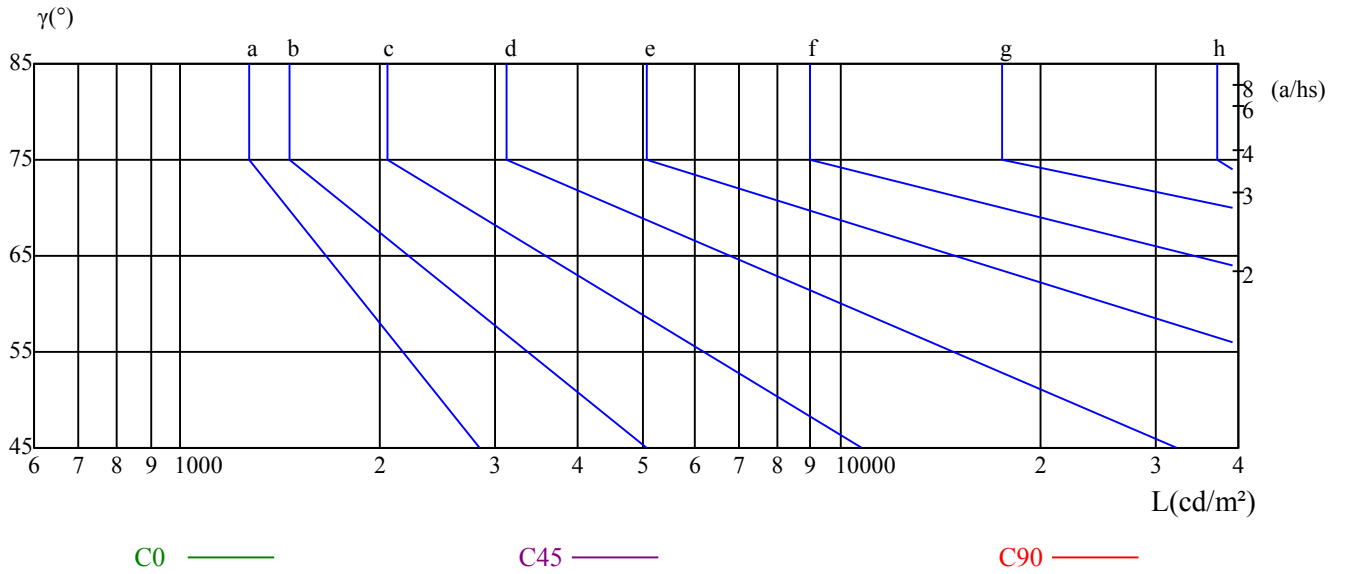
γ	45	50	55	60	65	70	75	80	85
C0	0	0	0	0	0	0	0	0	0
C45	0	0	0	0	0	0	0	0	0
C90	0	0	0	0	0	0	0	0	0

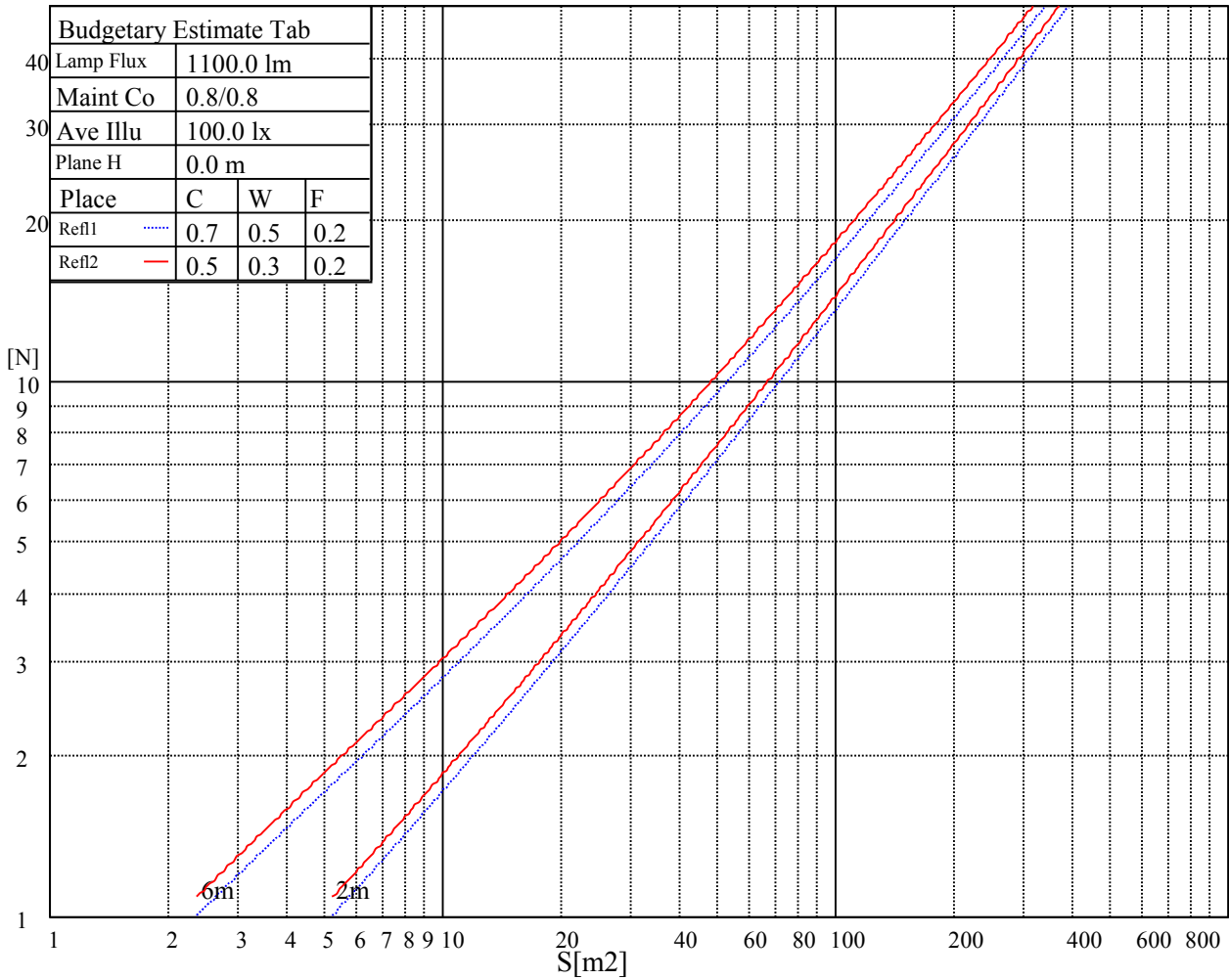
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
0	0	0	0	0	0	0	0	0

Glare Table

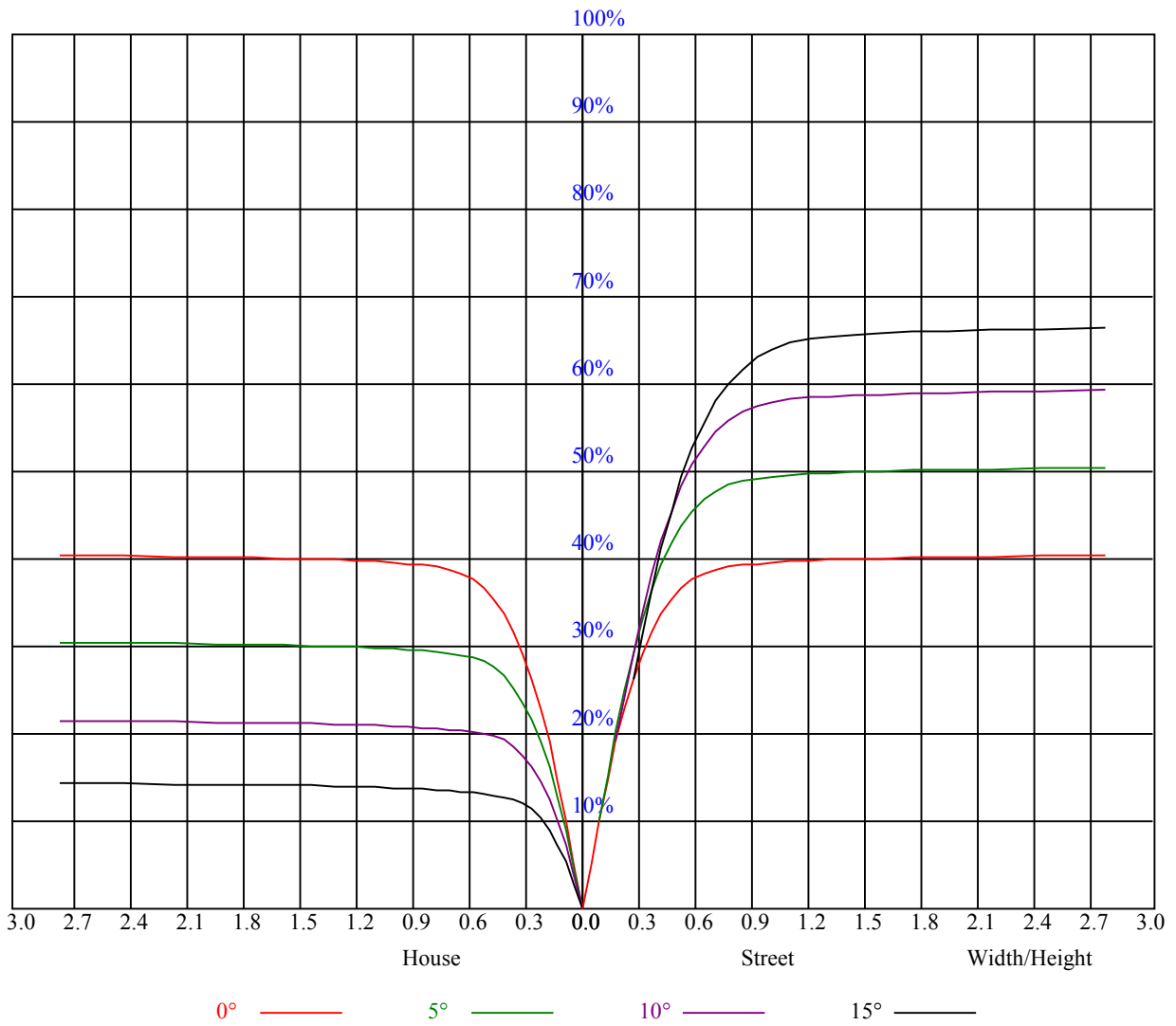
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

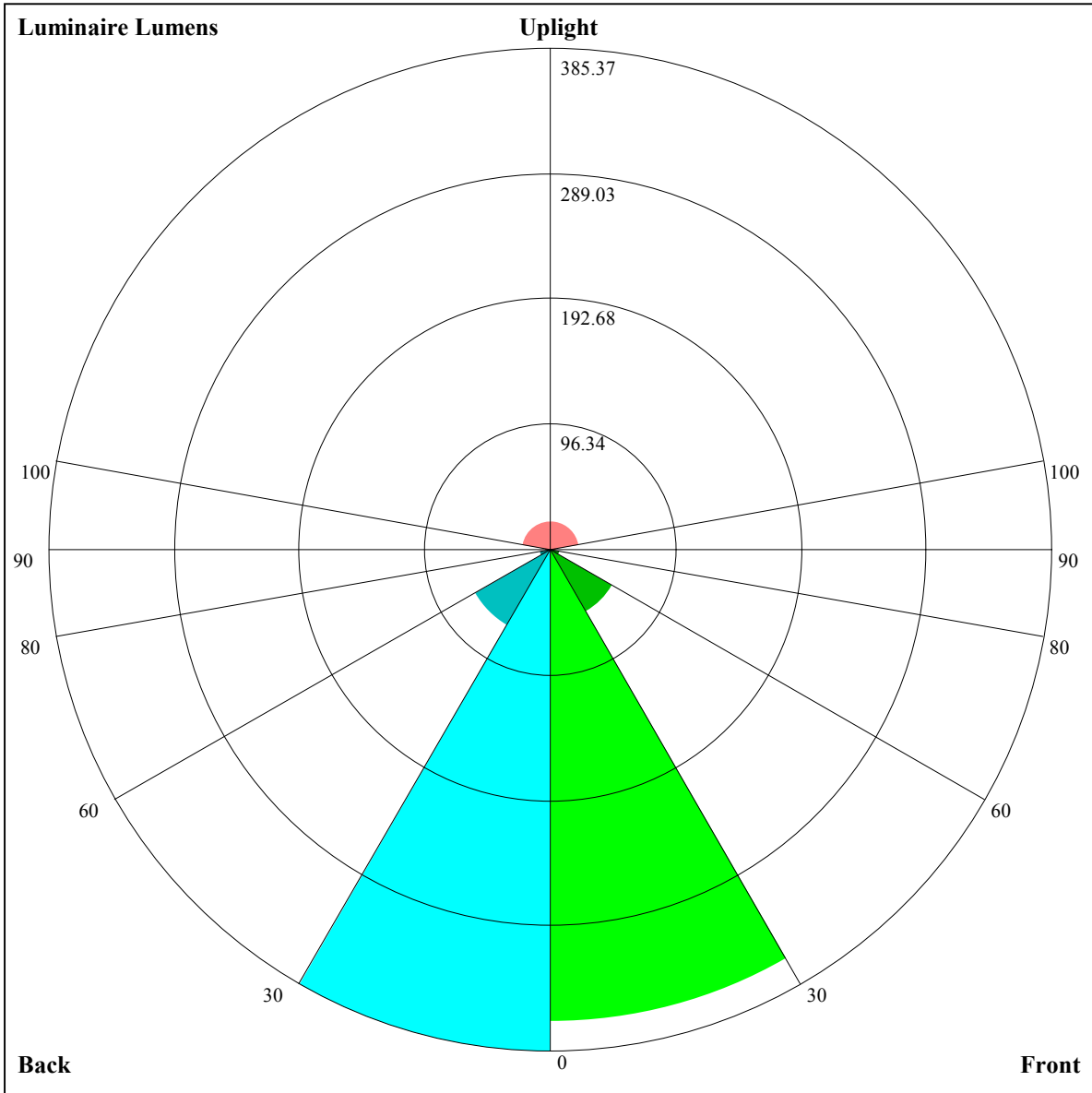
Luminance Limiting Curve





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	0.98	0.98	0.98	0.96	0.96	0.96	0.91	0.91	0.91	0.88	0.88	0.88	0.84	0.84	0.84	0.82
1	0.91	0.89	0.88	0.90	0.88	0.86	0.86	0.85	0.84	0.83	0.82	0.81	0.80	0.80	0.79	0.77
2	0.86	0.83	0.80	0.84	0.82	0.79	0.82	0.79	0.77	0.79	0.77	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	0.76	0.72	0.69	0.74	0.71	0.68	0.72	0.69	0.67	0.71	0.68	0.66	0.65
5	0.73	0.68	0.65	0.72	0.68	0.65	0.70	0.67	0.64	0.69	0.66	0.64	0.68	0.65	0.63	0.62
6	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.60	0.65	0.62	0.60	0.59
7	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.61	0.58	0.63	0.60	0.58	0.62	0.60	0.57	0.56
8	0.63	0.59	0.56	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.60	0.57	0.55	0.54
9	0.60	0.56	0.53	0.60	0.56	0.53	0.59	0.55	0.53	0.58	0.55	0.53	0.58	0.55	0.52	0.51
10	0.58	0.53	0.51	0.57	0.53	0.51	0.57	0.53	0.51	0.56	0.53	0.50	0.56	0.52	0.50	0.49





Luminaire Lumens:

FL=363.56,FM=54.69,FH=7.94,FVH=2.66

BL=385.37,BM=67.15,BH=8.3,BVH=2.77

UL=4.65,UH=22.12

BUG Rating:B1-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	2080.69	1973.25	1651.50	1193.06	811.69	563.06	328.50	96.75	28.97
45.0	2063.25	1889.44	1486.69	1062.56	722.81	496.13	297.00	59.18	26.66
90.0	2068.31	1899.56	1491.19	1053.73	693.79	458.66	268.43	78.24	31.28
135.0	2076.19	2030.06	1734.75	1290.94	915.75	585.00	368.44	157.22	37.24
180.0	2080.69	2012.63	1684.69	1104.41	851.12	580.22	361.86	133.03	31.89
225.0	2063.25	2021.63	1764.56	1109.64	858.60	619.82	427.22	174.88	39.99
270.0	2068.31	2004.75	1735.88	1270.13	856.13	586.69	374.06	146.76	38.14
315.0	2076.19	1950.19	1577.81	1121.68	756.56	517.67	282.88	79.54	28.35
360.0	2080.69	1973.25	1651.50	1193.06	811.69	563.06	328.50	96.75	28.97
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	21.09	17.83	14.68	11.19	8.83	7.76	6.30	5.63	4.84
45.0	20.81	17.55	13.67	10.69	8.61	7.14	6.13	5.40	4.56
90.0	22.61	18.06	13.89	10.80	8.66	7.48	6.24	5.51	4.61
135.0	24.41	19.58	15.58	11.76	9.17	7.93	6.64	5.79	4.95
180.0	22.44	18.11	15.02	11.48	9.17	7.99	6.58	5.74	5.06
225.0	24.69	19.52	16.09	12.43	9.68	8.21	6.98	6.13	5.40
270.0	24.41	19.13	15.53	12.09	9.51	8.33	6.69	6.08	5.29
315.0	20.81	17.61	14.23	10.74	8.72	7.37	6.30	5.63	4.84
360.0	21.09	17.83	14.68	11.19	8.83	7.76	6.30	5.63	4.84
C/ γ (°)	90.0								
0.0	4.16								
45.0	4.22								
90.0	4.28								
135.0	4.22								
180.0	4.28								
225.0	4.50								
270.0	4.28								
315.0	4.16								
360.0	4.16								