



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

Nata

Client:

LumCAT: 1407-N

Luminaire: 92.70.044.00

Report No: nata-0100

Test No: GC2018060203

LampCAT: NICHIA NFCWS024B-V3

Lamp flux(lm): 1022.7

Number of Lamps: 1

Length(mm): 39

Phm Type: C

Voltage(V): 36.2000

Current(A): 0.3000

Power (W): 10.8600

PF: 1.0000

Ballast type: DC

Width(mm): 39

Height(mm): 0

Photometric Results

Lumens(lm): 860.81, Efficiency(%): 84.17% , Luminous Efficacy(lm/W): 79.26

Central intensity(cd): 1056.642, Maximum intensity(cd): 1056.642

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=44.6

[C90/270]Total=44.6

Field angle(10%Imax): [C0/180]Total=93.2

[C90/270]Total=93.2

Maximum s/h(1/2): C0_180=0.68 C90_270=0.68

Maximum s/h(1/4): C0_180=0.77 C90_270=0.77

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.71%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 95.345%

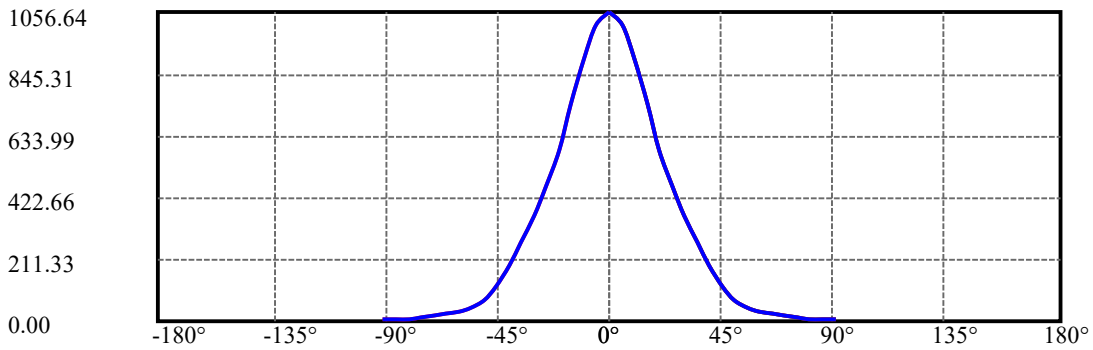
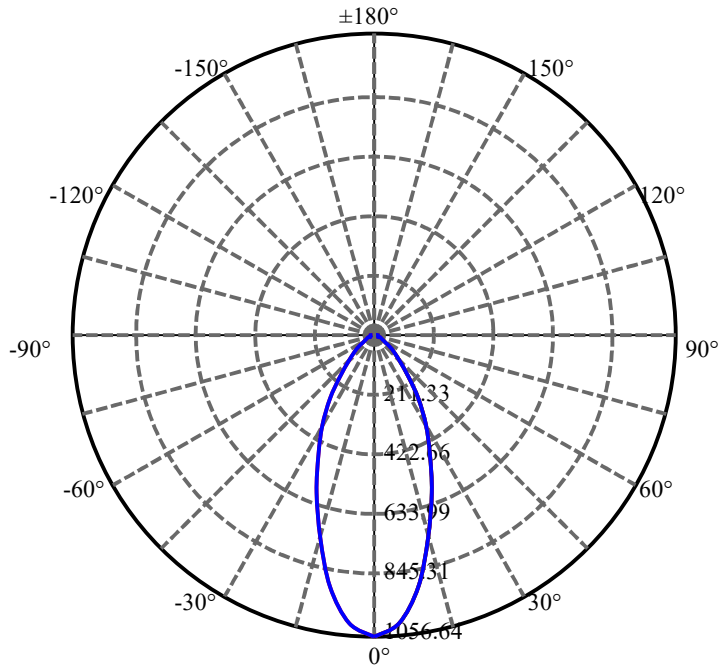
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1056.642	6.319	6.319	.618%	.734%
5.0	1011.537	48.325	54.643	4.725%	6.348%
10.0	896.008	85.285	139.928	8.339%	16.256%
15.0	738.575	104.780	244.709	10.245%	28.428%
20.0	586.688	109.989	354.697	10.754%	41.205%
25.0	459.659	106.481	461.179	10.411%	53.575%
30.0	361.425	99.055	560.234	9.685%	65.083%
35.0	267.478	84.095	644.329	8.223%	74.852%
40.0	189.883	66.902	711.231	6.542%	82.624%
45.0	120.635	46.757	757.988	4.572%	88.056%
50.0	75.069	31.521	789.51	3.082%	91.718%
55.0	46.942	21.078	810.587	2.061%	94.166%
60.0	32.414	15.387	825.975	1.505%	95.954%
65.0	23.000	11.426	837.4	1.117%	97.281%
70.0	16.799	8.653	846.053	.846%	98.286%
75.0	11.947	6.326	852.379	.619%	99.021%
80.0	8.252	4.454	856.833	.436%	99.539%
85.0	5.478	2.991	859.824	.292%	99.886%
90.0	3.579	0.981	860.805	.096%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	560.23	54.78%	65.08%
0-40	711.23	69.54%	82.62%
0-60	825.97	80.76%	95.95%
0-90	859.82	84.07%	99.89%
0-120	859.82	84.07%	99.89%
0-180	860.81	84.17%	100.00%
60-90	49.24	4.81%	5.72%
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%
0-38.31	688.64	67.33%	80.00%

ZONAL LUMEN SUMMARY

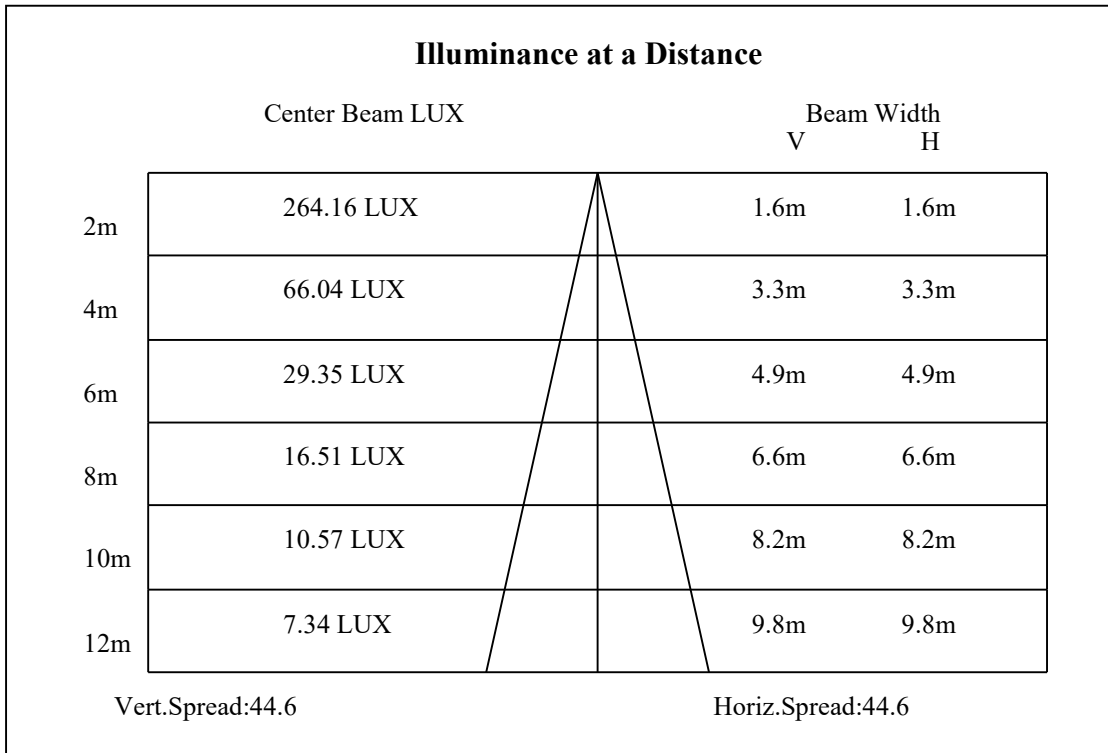
0-10	139.93
10-20	214.77
20-30	205.54
30-40	151.00
40-50	78.28
50-60	36.46
60-70	20.08
70-80	10.78
80-90	2.99
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

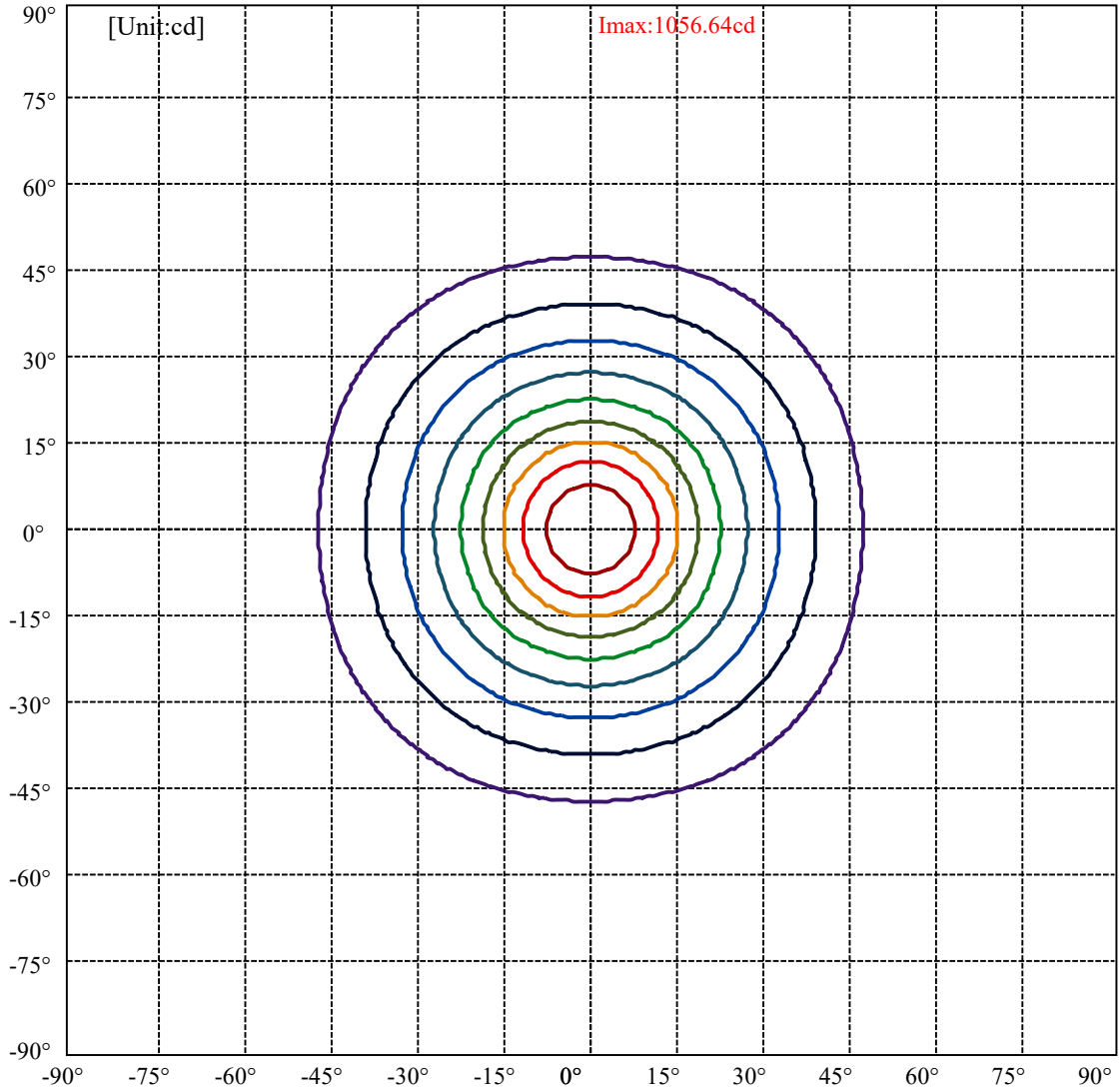


C0(Max): —————
 C0/C180: —————
 C90/C270: —————

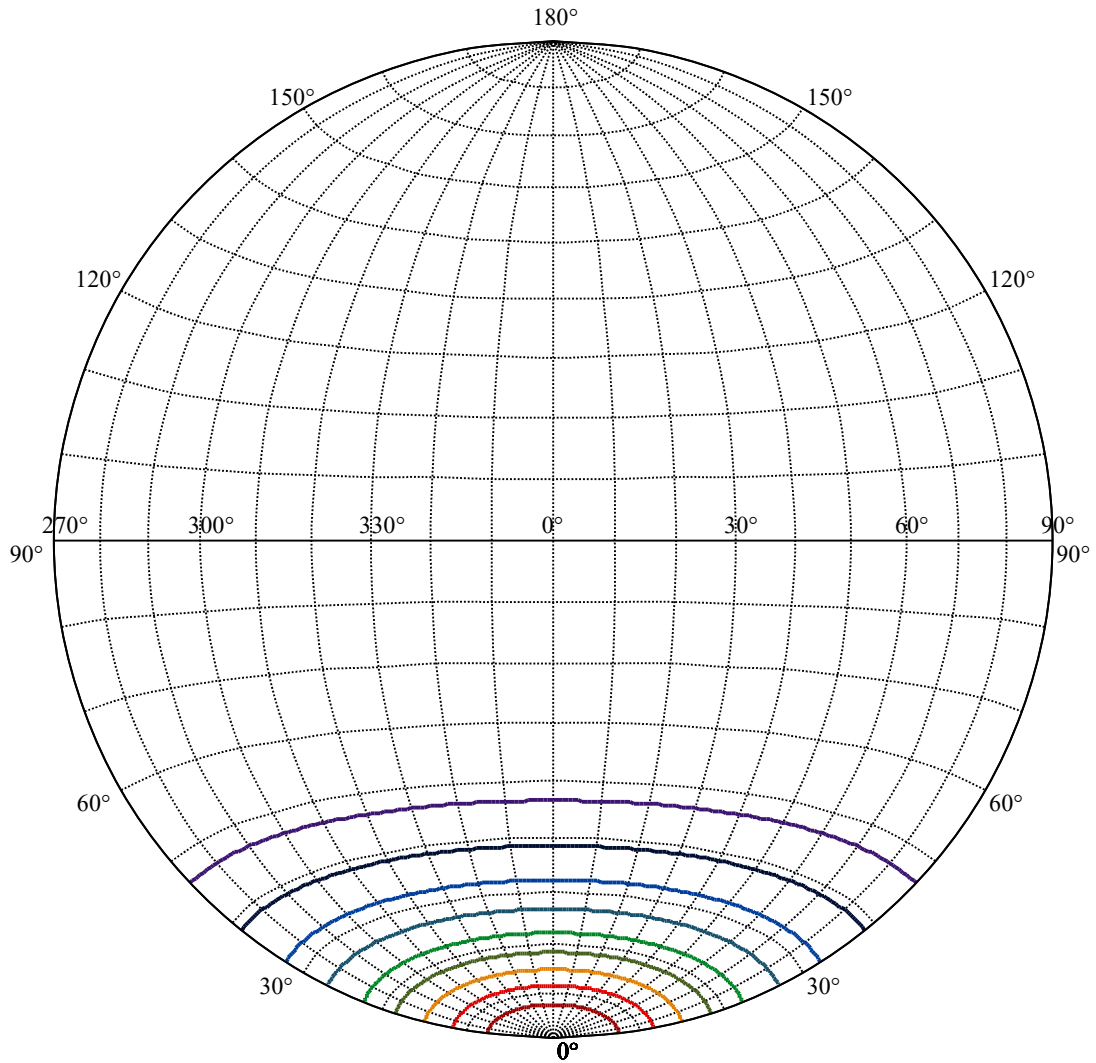
Field angle(10%Imax):C0/180Left:46.6 Right:46.6
 :C90/270Left:46.6 Right:46.6

Beam Angle(50%Imax):C0/180Left:22.3 Right:22.3
 :C90/270Left:22.3 Right:22.3





(10%Imax) 105.664	—
(20%Imax) 211.328	—
(30%Imax) 316.993	—
(40%Imax) 422.657	—
(50%Imax) 528.321	—
(60%Imax) 633.985	—
(70%Imax) 739.65	—
(80%Imax) 845.314	—
(90%Imax) 950.978	—



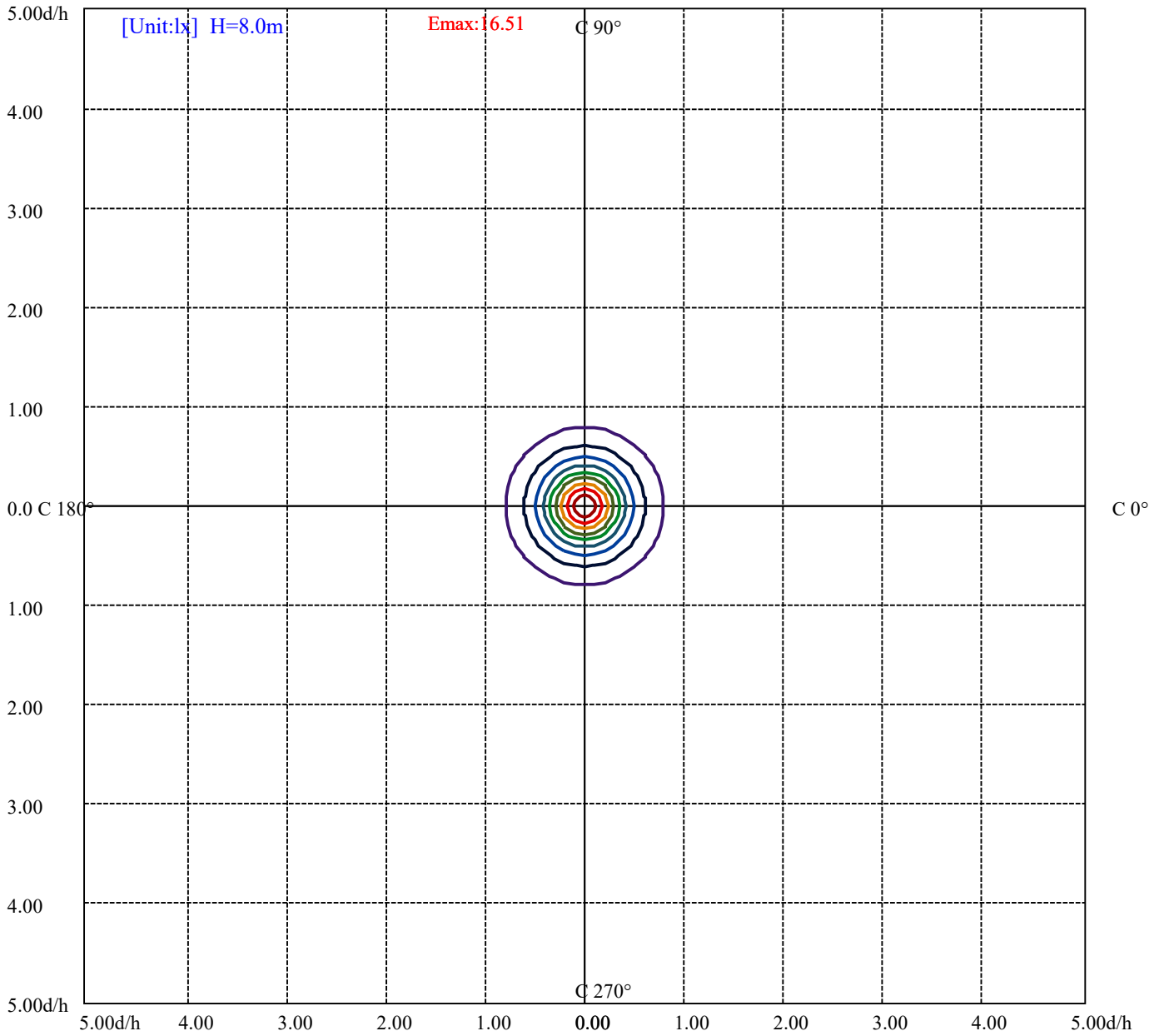
House

[Unit:cd]

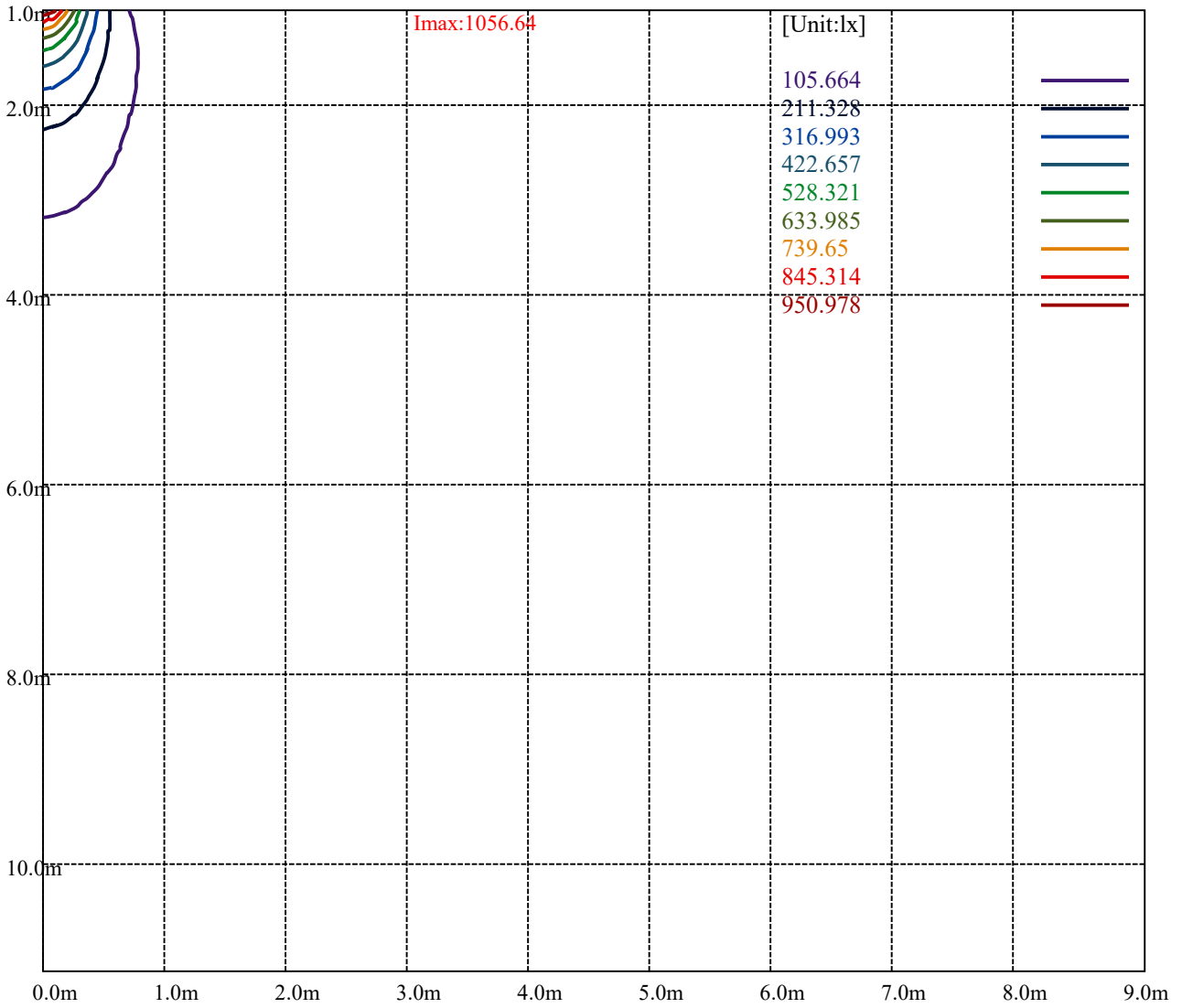
Road

I_{max}:1056.64

(10%I _{max})	105.664	—
(20%I _{max})	211.328	—
(30%I _{max})	316.993	—
(40%I _{max})	422.657	—
(50%I _{max})	528.321	—
(60%I _{max})	633.985	—
(70%I _{max})	739.65	—
(80%I _{max})	845.314	—
(90%I _{max})	950.978	—



- (10%Emax) 1.651
- (20%Emax) 3.302
- (30%Emax) 4.953
- (40%Emax) 6.604
- (50%Emax) 8.255015
- (60%Emax) 9.906015
- (70%Emax) 11.55702
- (80%Emax) 13.20802
- (90%Emax) 14.85902



Luminance Table

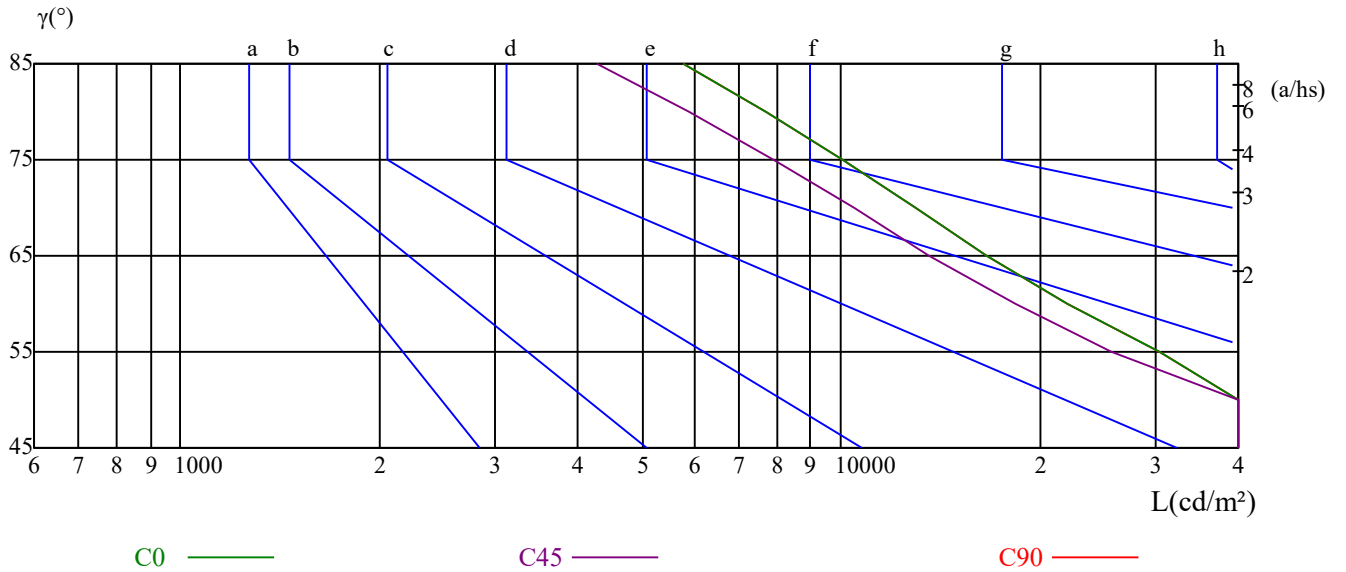
γ	45	50	55	60	65	70	75	80	85
C0	72908	46770	30417	22054	16606	13024	10084	7707	5776
C45	63676	40253	25776	18380	13589	10443	7899	5874	4258
C90	72908	46770	30417	22054	16606	13024	10084	7707	5776

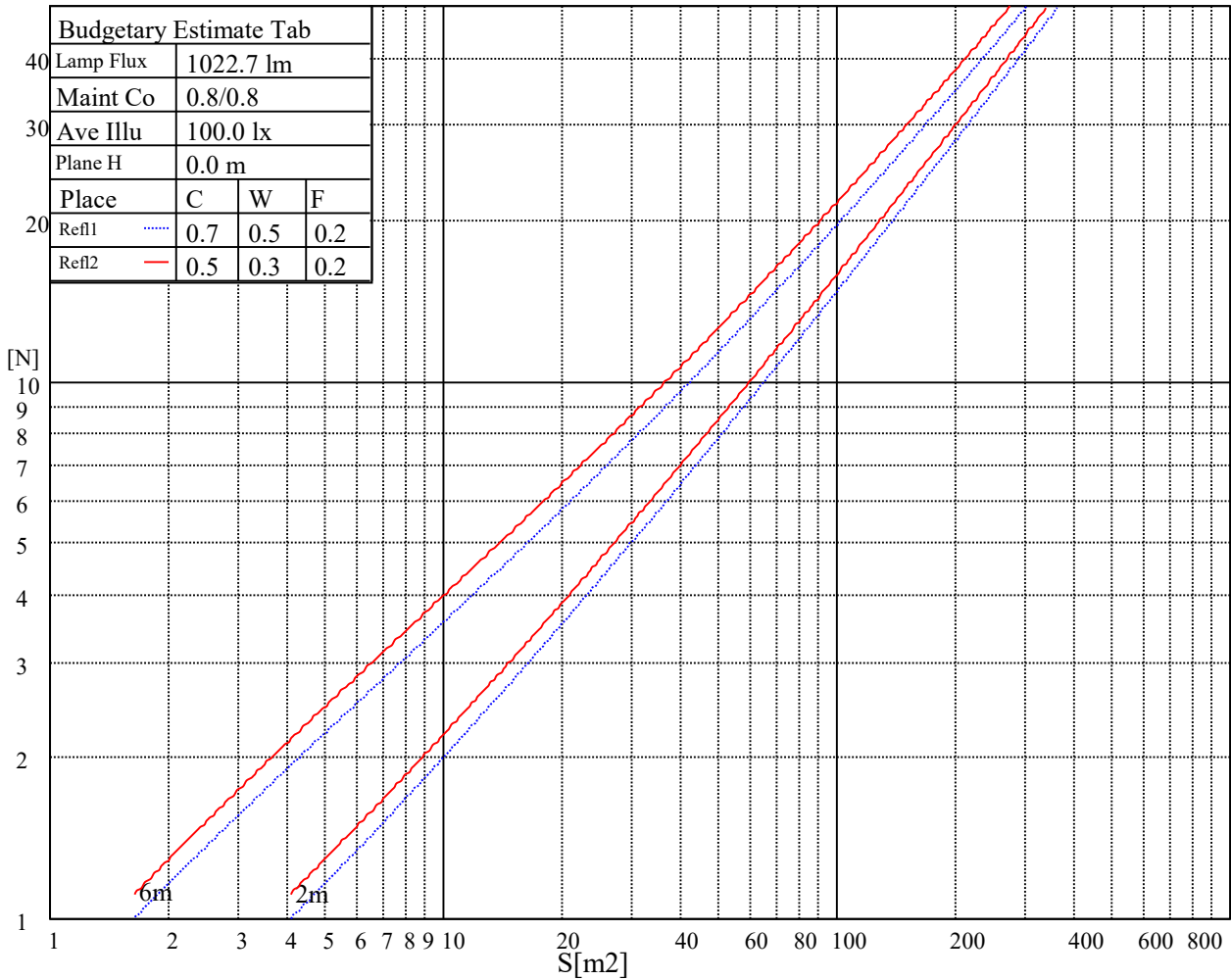
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
35781	35781	35781	30349	30349	30349	41324	41324	41324

Glare Table

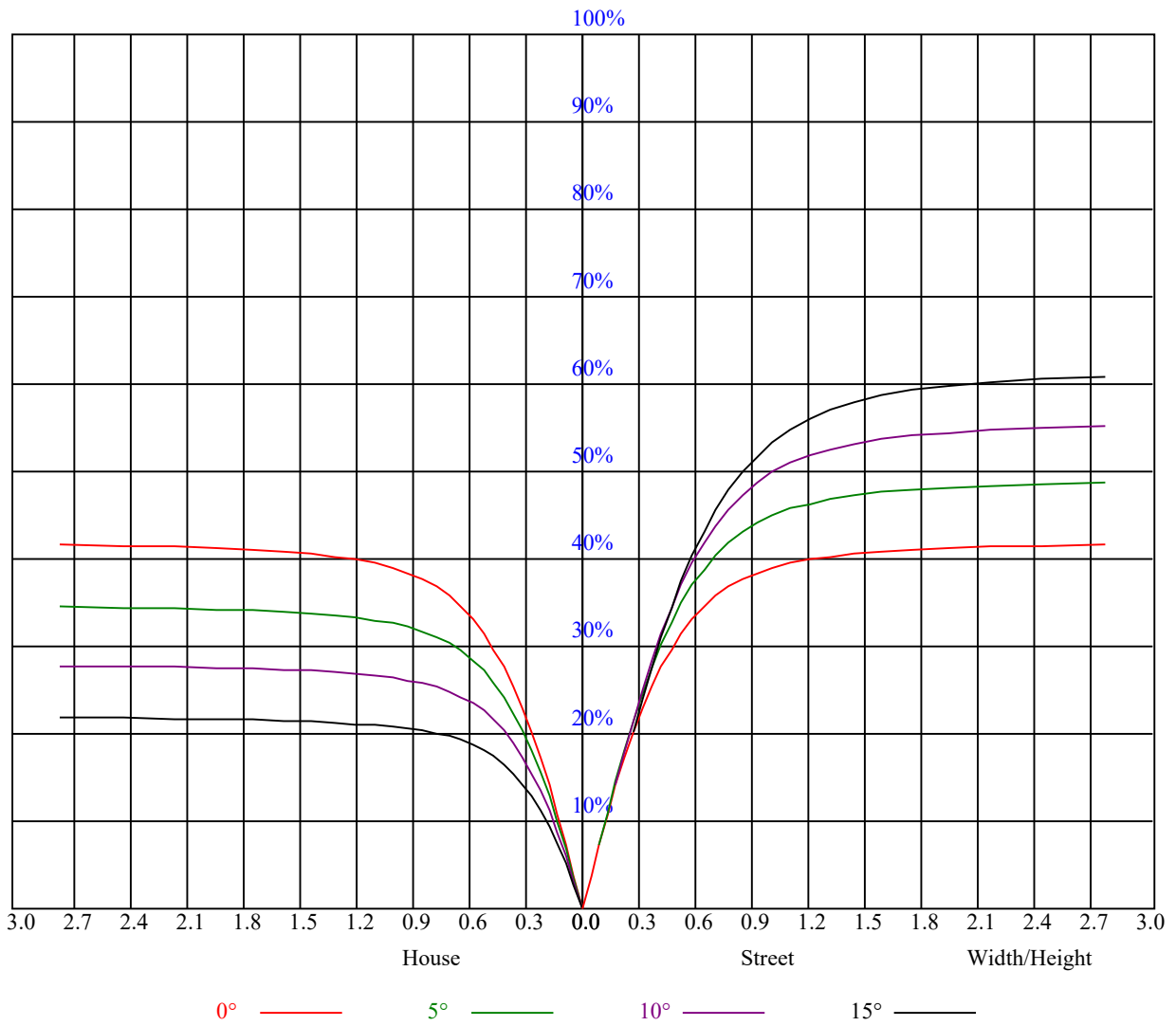
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

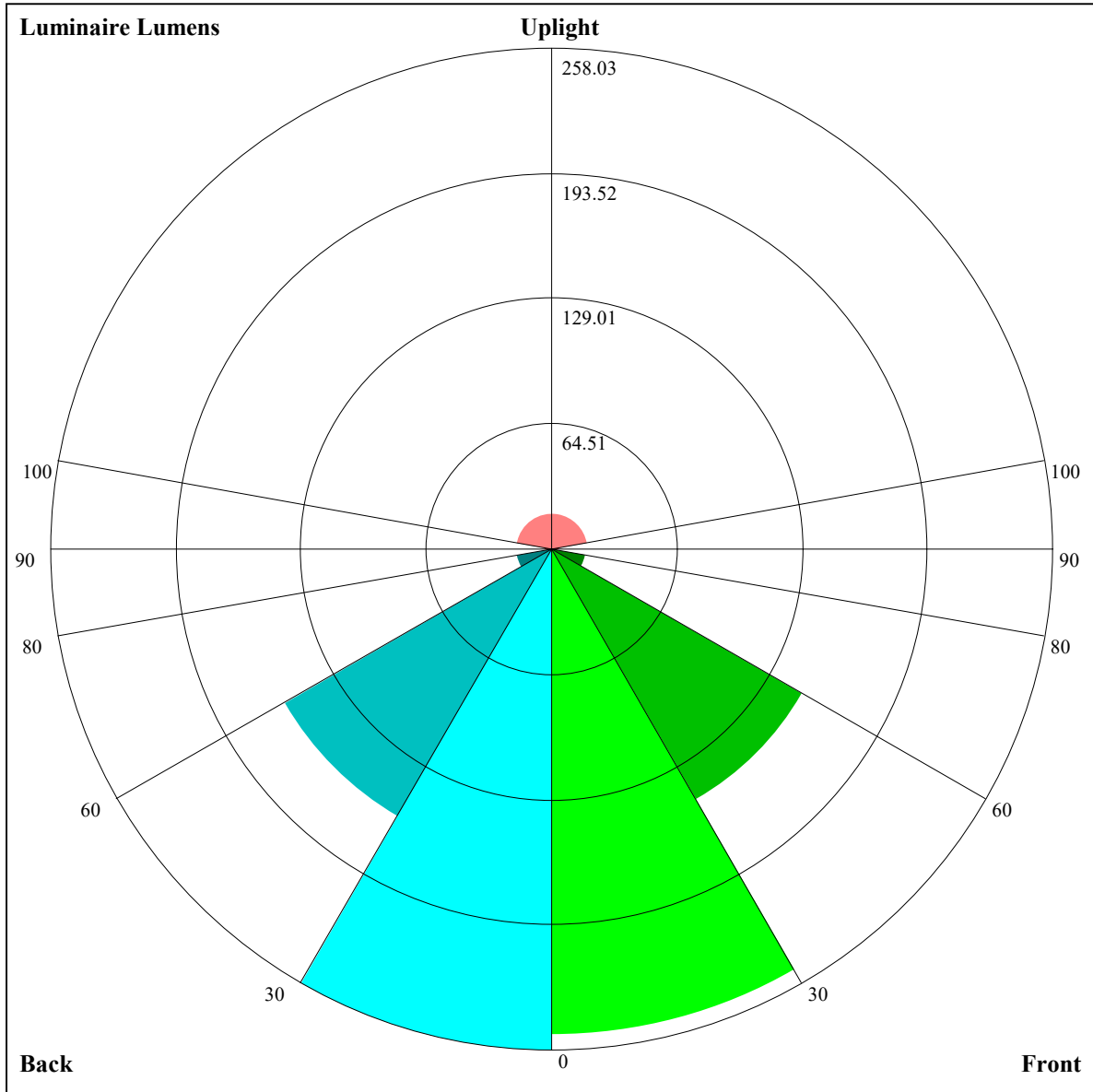
Luminance Limiting Curve





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	1.01	1.01	1.01	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.86	0.86	0.86	0.85
1	0.92	0.90	0.87	0.90	0.88	0.86	0.87	0.85	0.83	0.84	0.82	0.81	0.81	0.80	0.79	0.77
2	0.85	0.81	0.78	0.84	0.80	0.77	0.81	0.78	0.75	0.78	0.76	0.74	0.76	0.74	0.72	0.71
3	0.79	0.74	0.71	0.78	0.73	0.70	0.76	0.72	0.69	0.73	0.70	0.68	0.71	0.69	0.67	0.65
4	0.74	0.68	0.65	0.73	0.68	0.64	0.71	0.67	0.63	0.69	0.65	0.63	0.67	0.64	0.62	0.61
5	0.69	0.63	0.60	0.68	0.63	0.59	0.66	0.62	0.59	0.65	0.61	0.58	0.64	0.60	0.58	0.56
6	0.64	0.59	0.55	0.64	0.59	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.60	0.57	0.54	0.53
7	0.61	0.55	0.52	0.60	0.55	0.51	0.59	0.54	0.51	0.58	0.54	0.51	0.57	0.53	0.51	0.49
8	0.57	0.52	0.48	0.57	0.52	0.48	0.56	0.51	0.48	0.55	0.51	0.48	0.54	0.50	0.48	0.46
9	0.54	0.49	0.46	0.54	0.49	0.46	0.53	0.49	0.45	0.52	0.48	0.45	0.52	0.48	0.45	0.44
10	0.52	0.46	0.43	0.51	0.46	0.43	0.50	0.46	0.43	0.50	0.46	0.43	0.49	0.45	0.43	0.42





Luminaire Lumens:

FL=250.06,FM=148.8,FH=17.37,FVH=2.94

BL=258.03,BM=159.15,BH=18.98,BVH=3.26

UL=3.9,UH=18.58

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	1060.50	1014.69	895.44	728.62	578.75	461.76	367.12	269.72	181.80
45.0	1054.94	1034.01	931.11	778.77	625.17	491.76	390.85	290.81	208.33
90.0	1056.42	1028.56	926.10	764.95	595.32	470.84	364.09	270.82	197.10
135.0	1054.72	1045.91	956.49	809.99	641.35	497.88	397.84	302.15	223.09
180.0	1060.50	1017.28	914.60	762.42	615.37	482.51	381.16	283.10	201.07
225.0	1054.94	995.36	868.46	711.82	578.59	451.79	353.74	257.00	184.99
270.0	1056.42	990.74	849.36	699.88	548.31	425.97	335.73	249.46	172.33
315.0	1054.72	965.74	826.51	652.14	510.65	394.75	300.88	216.76	150.36
360.0	1060.50	1014.69	895.44	728.62	578.75	461.76	367.12	269.72	181.80

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	114.63	69.43	44.43	30.28	21.20	15.53	11.18	7.71	5.01
45.0	131.25	82.25	49.66	33.31	24.11	17.07	12.17	8.37	5.40
90.0	126.30	79.06	49.88	33.91	23.73	17.23	12.50	8.75	5.84
135.0	150.14	94.20	56.87	39.20	27.20	19.93	14.20	10.08	6.28
180.0	130.10	80.71	49.72	34.91	24.67	18.28	12.99	9.08	6.28
225.0	114.08	69.81	44.65	30.78	21.91	16.30	11.51	7.82	5.73
270.0	105.87	67.00	42.56	29.90	21.86	16.08	11.18	7.65	4.90
315.0	92.71	58.08	37.77	27.03	19.32	13.98	9.86	6.55	4.40
360.0	114.63	69.43	44.43	30.28	21.20	15.53	11.18	7.71	5.01

C/γ(°)	90.0
0.0	3.52
45.0	3.58
90.0	3.74
135.0	3.85
180.0	3.69
225.0	3.41
270.0	3.36
315.0	3.47
360.0	3.52