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Nata

Client:

LumCAT: CT01D03560AF

Luminaire:

Report No: GC2019091909

Voltage(V): 220.5000

Test No: NATA07

Current(A): 0.0420

LampCAT: CREE CXA1507

Power (W): 8.4800

Lamp flux(lm): 573.0

PF: 0.9000

Number of Lamps: 1

Ballast type: AC

Length(mm): 33

Width(mm): 33

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 460.81, Efficiency(%): 80.42% , Luminous Efficacy(lm/W): 54.34

Central intensity(cd): 296.390, Maximum intensity(cd): 296.390

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=68.4

[C90/270]Total=68.4

Field angle(10%Imax): [C0/180]Total=123.0

[C90/270]Total=123.0

Maximum s/h(1/2): C0_180=0.95 C90_270=0.95

Maximum s/h(1/4): C0_180=1.02 C90_270=1.02

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 80.42%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 84.856%

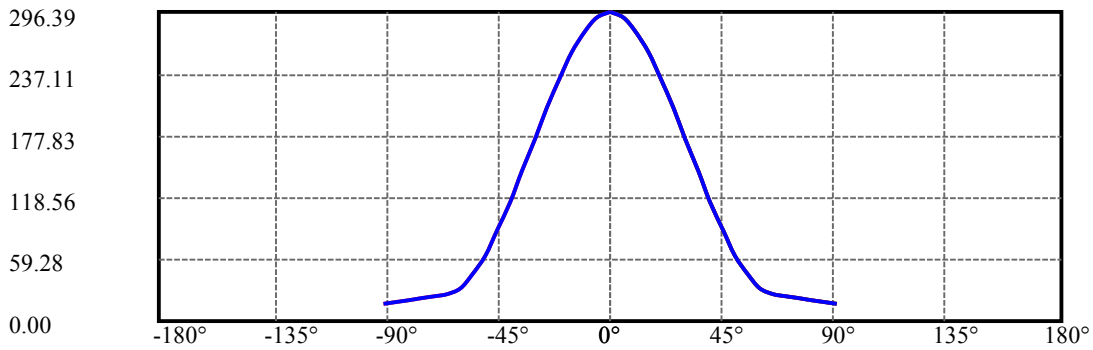
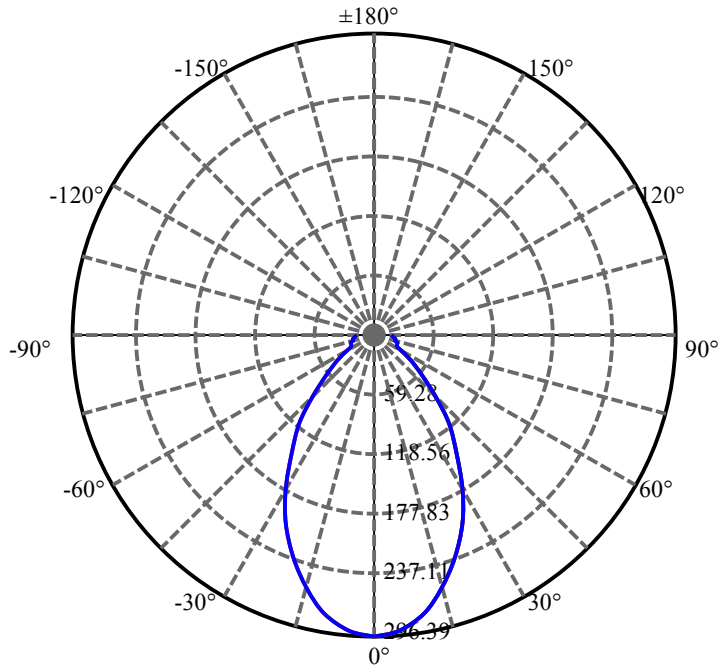
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	296.390	0.000	0	.000%	.000%
5.0	291.401	7.027	7.027	1.226%	1.525%
10.0	278.565	20.389	27.416	3.558%	5.950%
15.0	258.467	31.856	59.273	5.560%	12.863%
20.0	233.003	40.504	99.777	7.069%	21.652%
25.0	204.047	45.838	145.615	8.000%	31.600%
30.0	174.337	47.885	193.5	8.357%	41.991%
35.0	142.853	46.708	240.208	8.152%	52.127%
40.0	114.094	42.870	283.078	7.482%	61.430%
45.0	86.374	37.118	320.196	6.478%	69.485%
50.0	62.714	30.125	350.322	5.257%	76.023%
55.0	44.159	23.238	373.56	4.055%	81.065%
60.0	31.403	17.466	391.026	3.048%	84.856%
65.0	25.475	13.827	404.853	2.413%	87.856%
70.0	23.260	12.340	417.193	2.154%	90.534%
75.0	21.839	11.788	428.981	2.057%	93.092%
80.0	20.655	11.370	440.351	1.984%	95.560%
85.0	19.031	10.784	451.135	1.882%	97.900%
90.0	16.317	9.678	460.813	1.689%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	193.50	33.77%	41.99%
0-40	283.08	49.40%	61.43%
0-60	391.03	68.24%	84.86%
0-90	451.13	78.73%	97.90%
0-120	451.13	78.73%	97.90%
0-180	460.81	80.42%	100.00%
60-90	77.58	13.54%	16.83%
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%
0-53.94	368.65	64.34%	80.00%

ZONAL LUMEN SUMMARY

0-10	27.42
10-20	72.36
20-30	93.72
30-40	89.58
40-50	67.24
50-60	40.70
60-70	26.17
70-80	23.16
80-90	10.78
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: —————

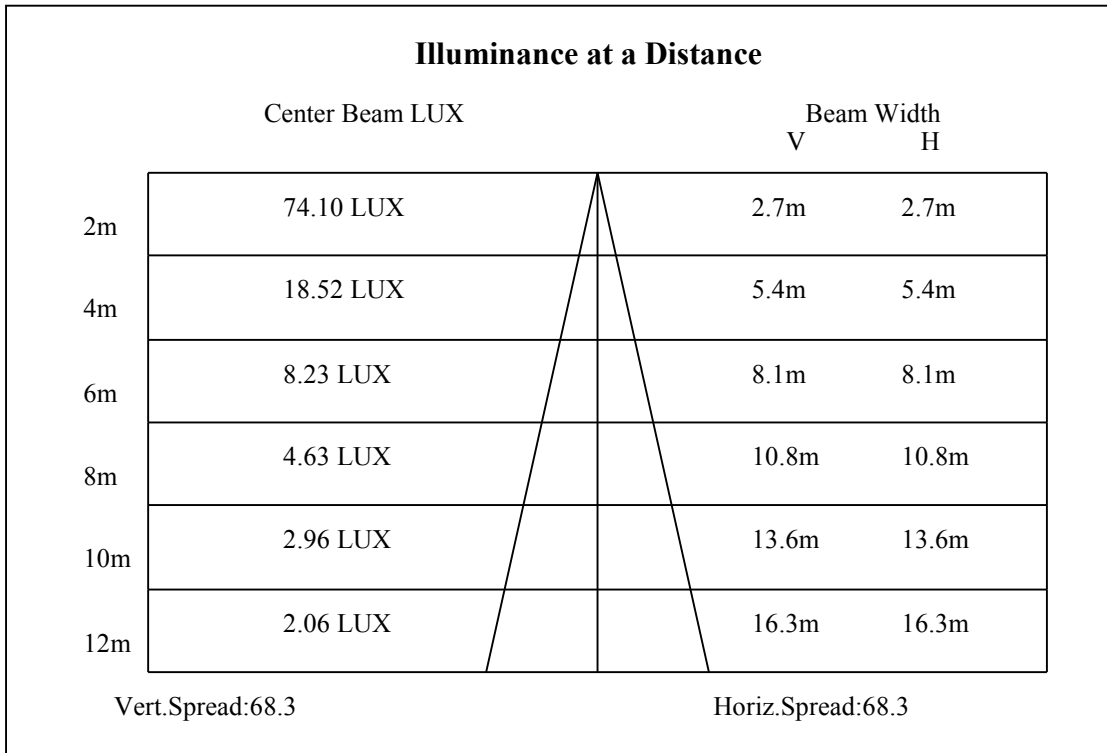
C90/C270: —————

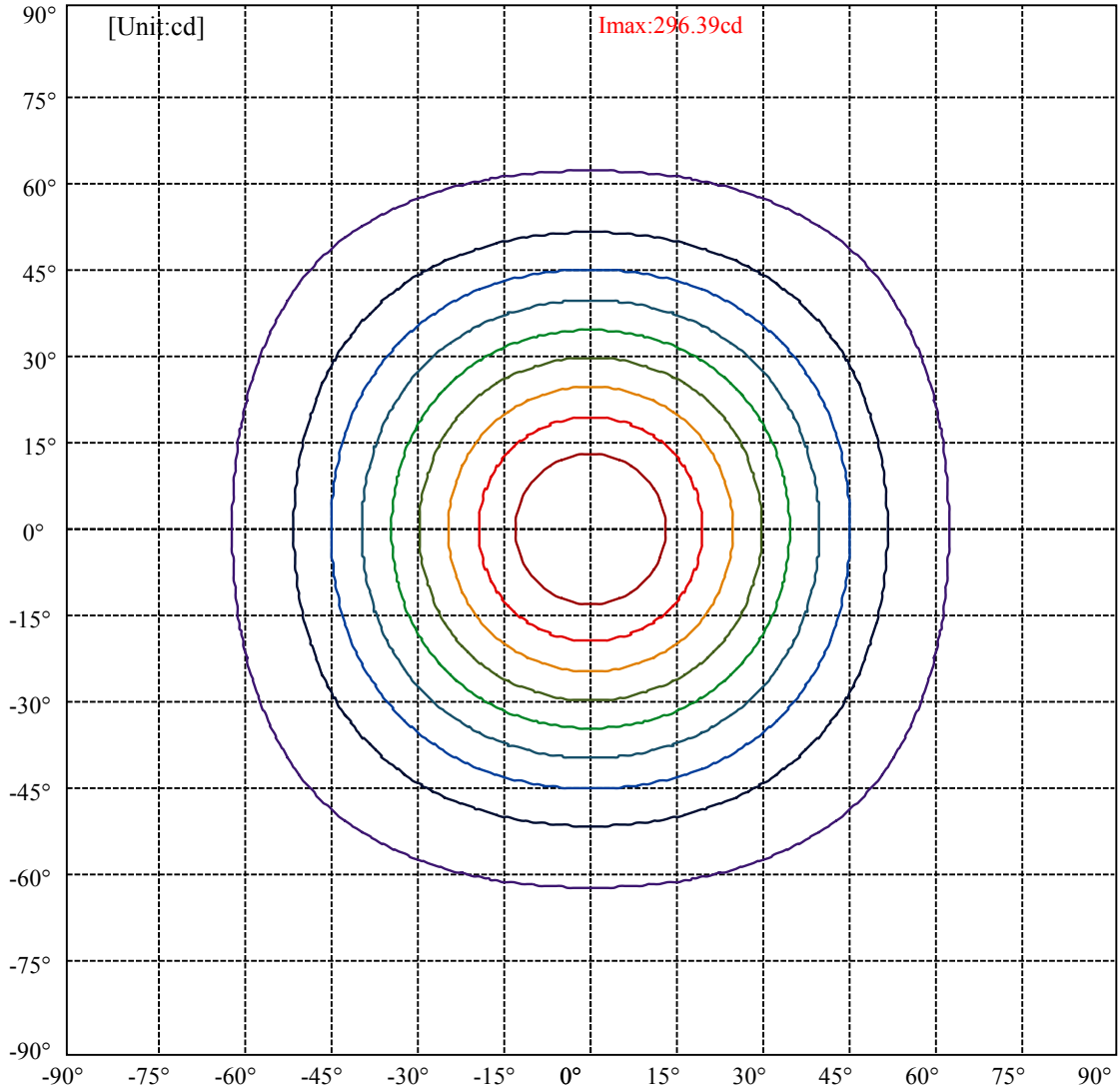
Field angle(10%Imax):C0/180Left:61.5 Right:61.5

:C90/270Left:61.5 Right:61.5

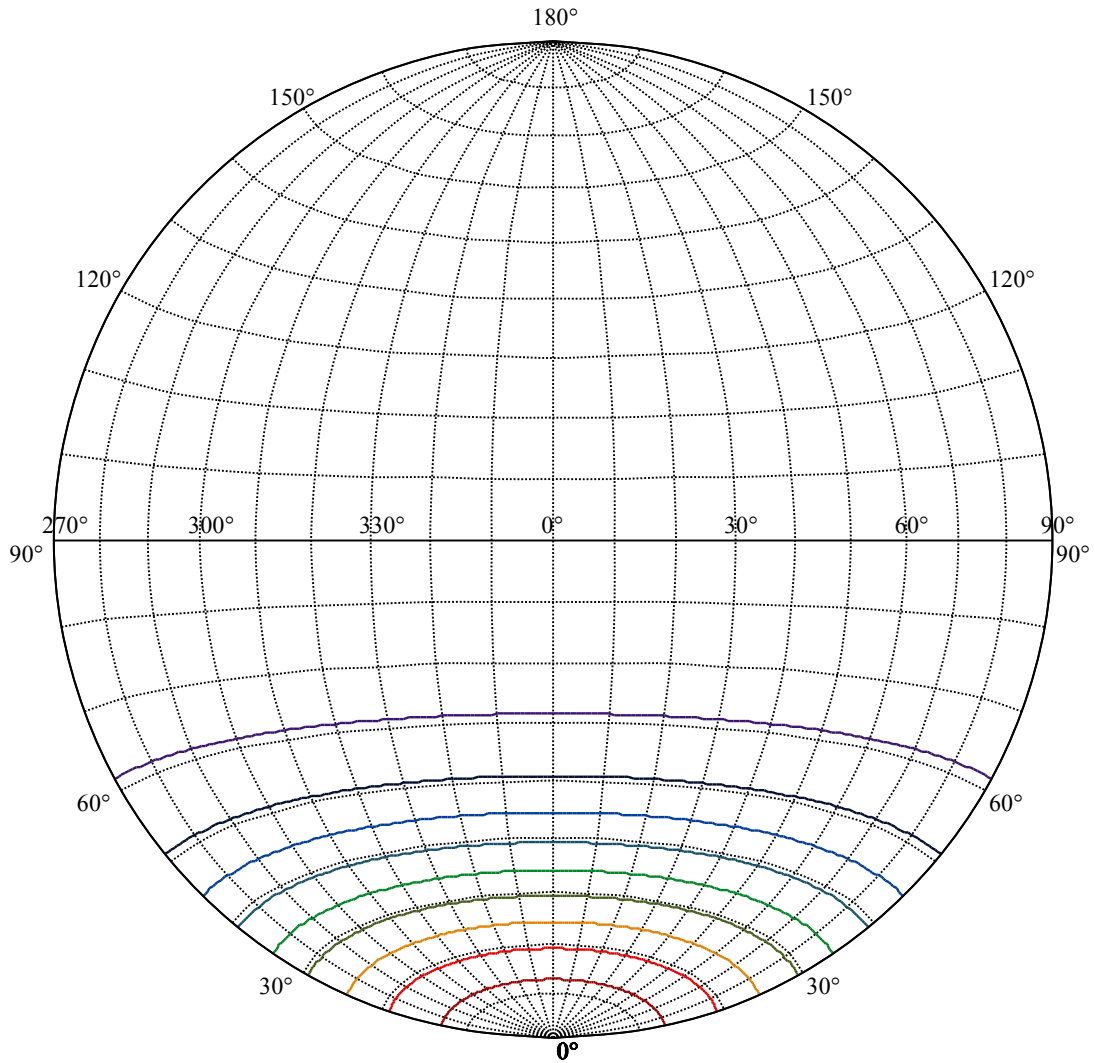
Beam Angle(50%Imax):C0/180Left:34.2 Right:34.2

:C90/270Left:34.2 Right:34.2





(10%Imax) 29.639	—
(20%Imax) 59.2779	—
(30%Imax) 88.9169	—
(40%Imax) 118.556	—
(50%Imax) 148.195	—
(60%Imax) 177.834	—
(70%Imax) 207.473	—
(80%Imax) 237.112	—
(90%Imax) 266.751	—



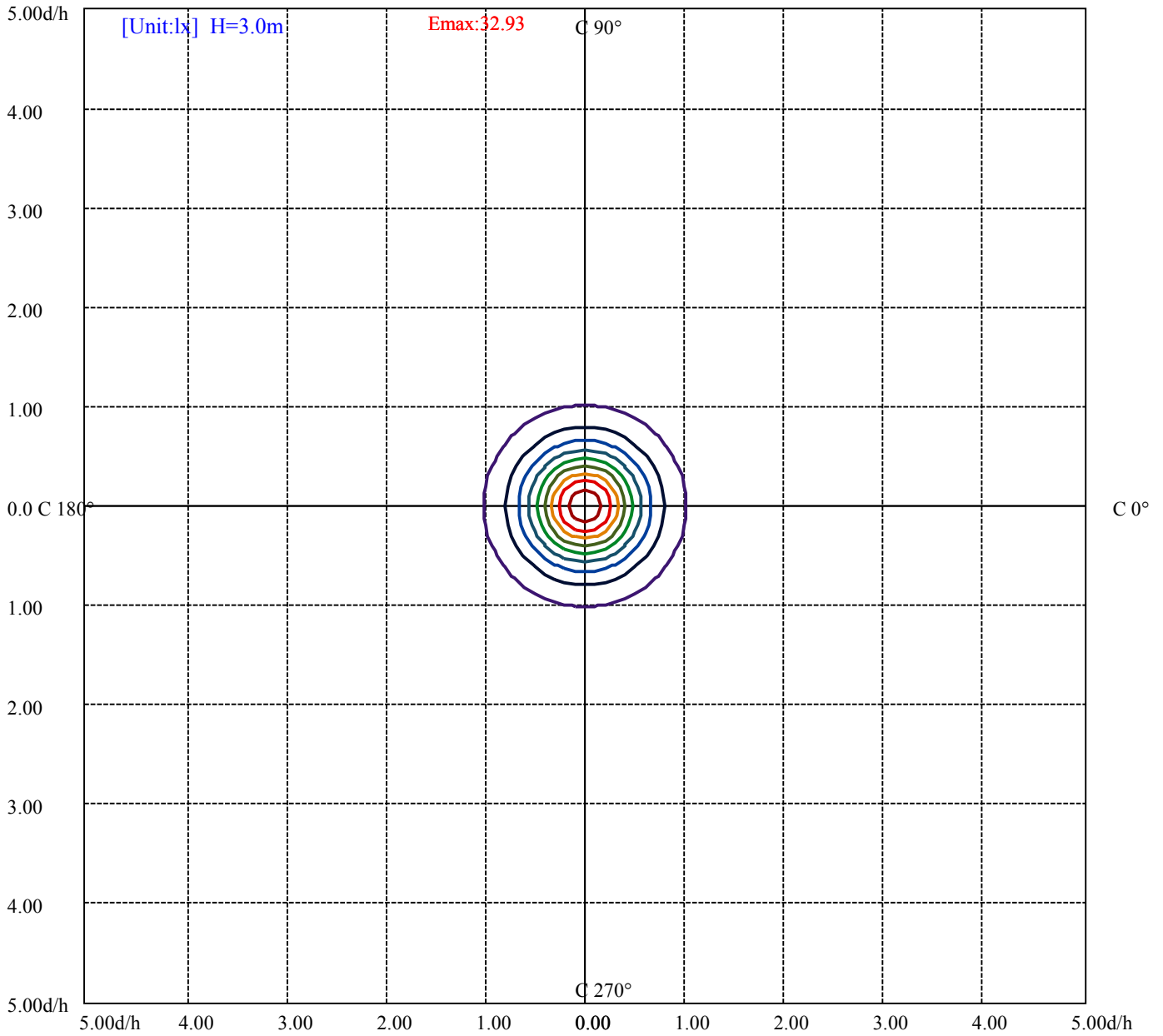
House

[Unit:cd]

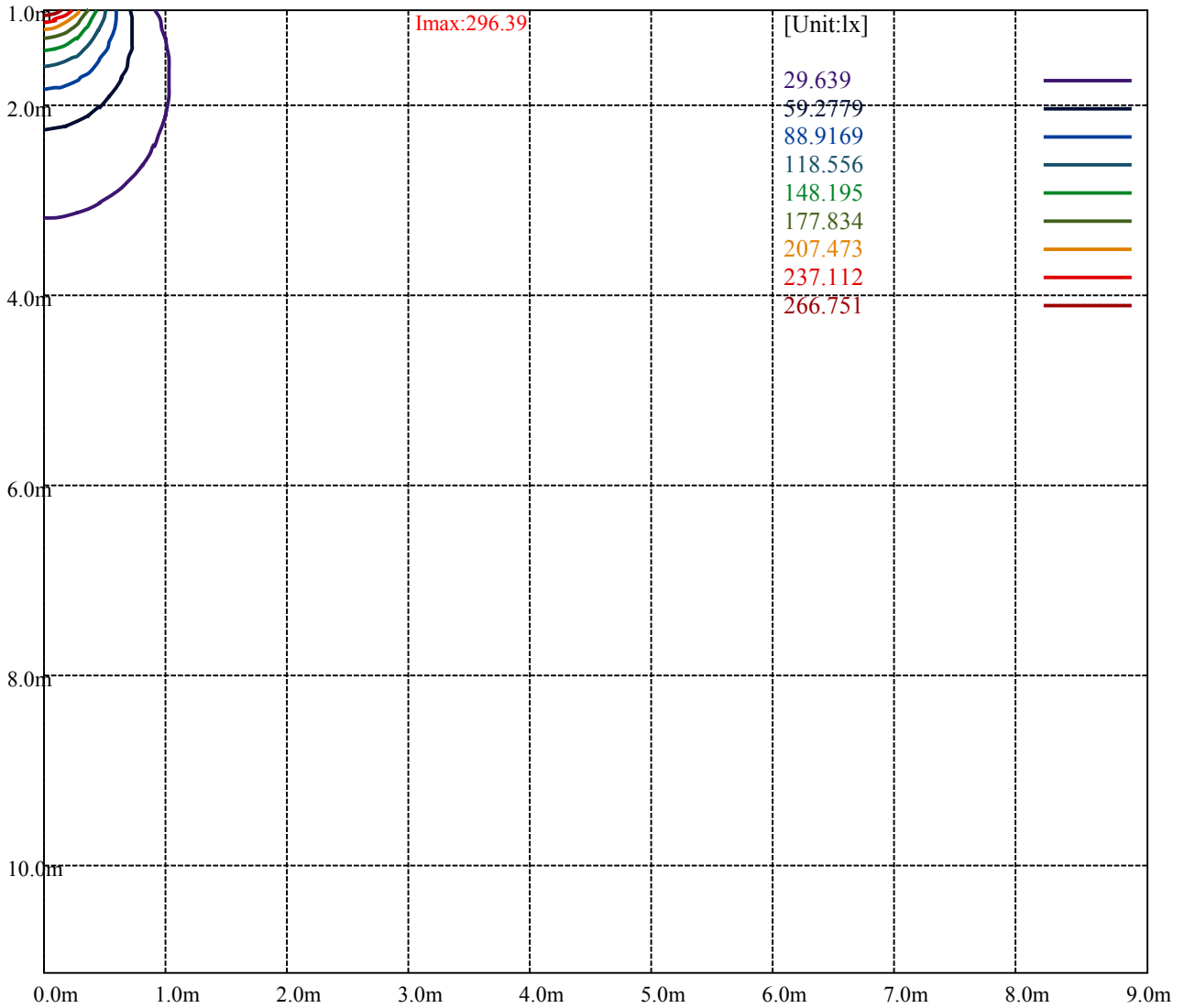
Road

Imax:296.39

(10%Imax) 29.639	—
(20%Imax) 59.2779	—
(30%Imax) 88.9169	—
(40%Imax) 118.556	—
(50%Imax) 148.195	—
(60%Imax) 177.834	—
(70%Imax) 207.473	—
(80%Imax) 237.112	—
(90%Imax) 266.751	—



- (10%Emax) 3.293222
- (20%Emax) 6.586433
- (30%Emax) 9.879656
- (40%Emax) 13.17289
- (50%Emax) 16.46611
- (60%Emax) 19.75933
- (70%Emax) 23.05256
- (80%Emax) 26.34578
- (90%Emax) 29.639



Luminance Table

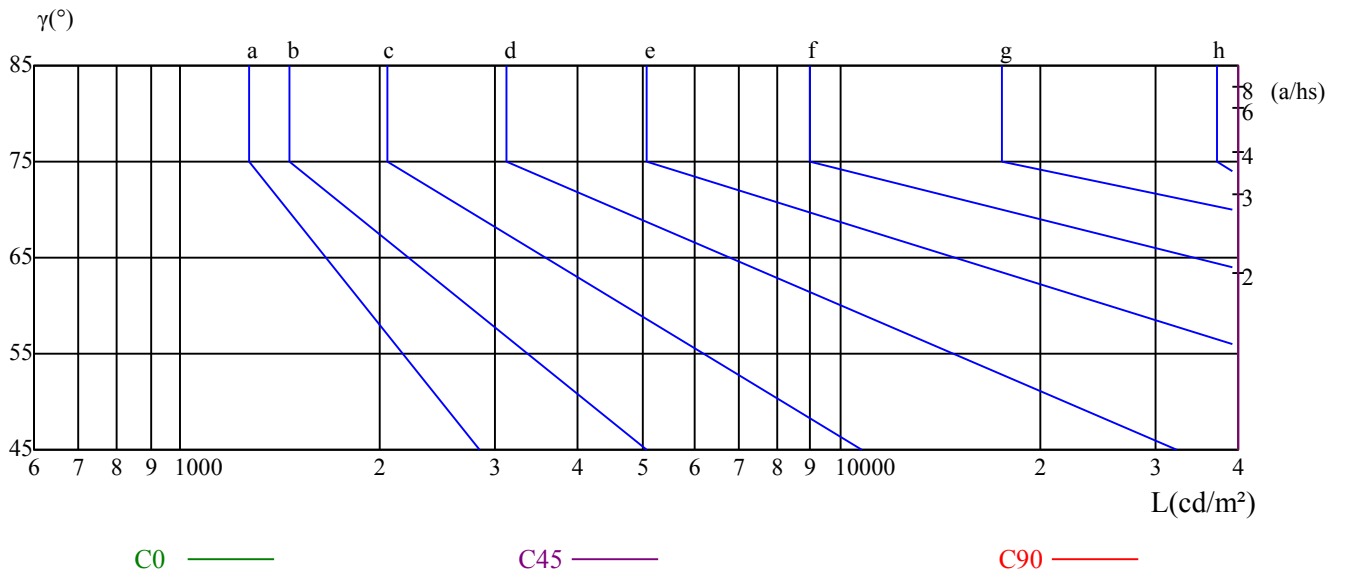
γ	45	50	55	60	65	70	75	80	85
C0	112168	89592	70696	57674	55354	62449	77482	109228	200513
C45	112168	89592	70696	57674	55354	62449	77482	109228	200513
C90	112168	89592	70696	57674	55354	62449	77482	109228	200513

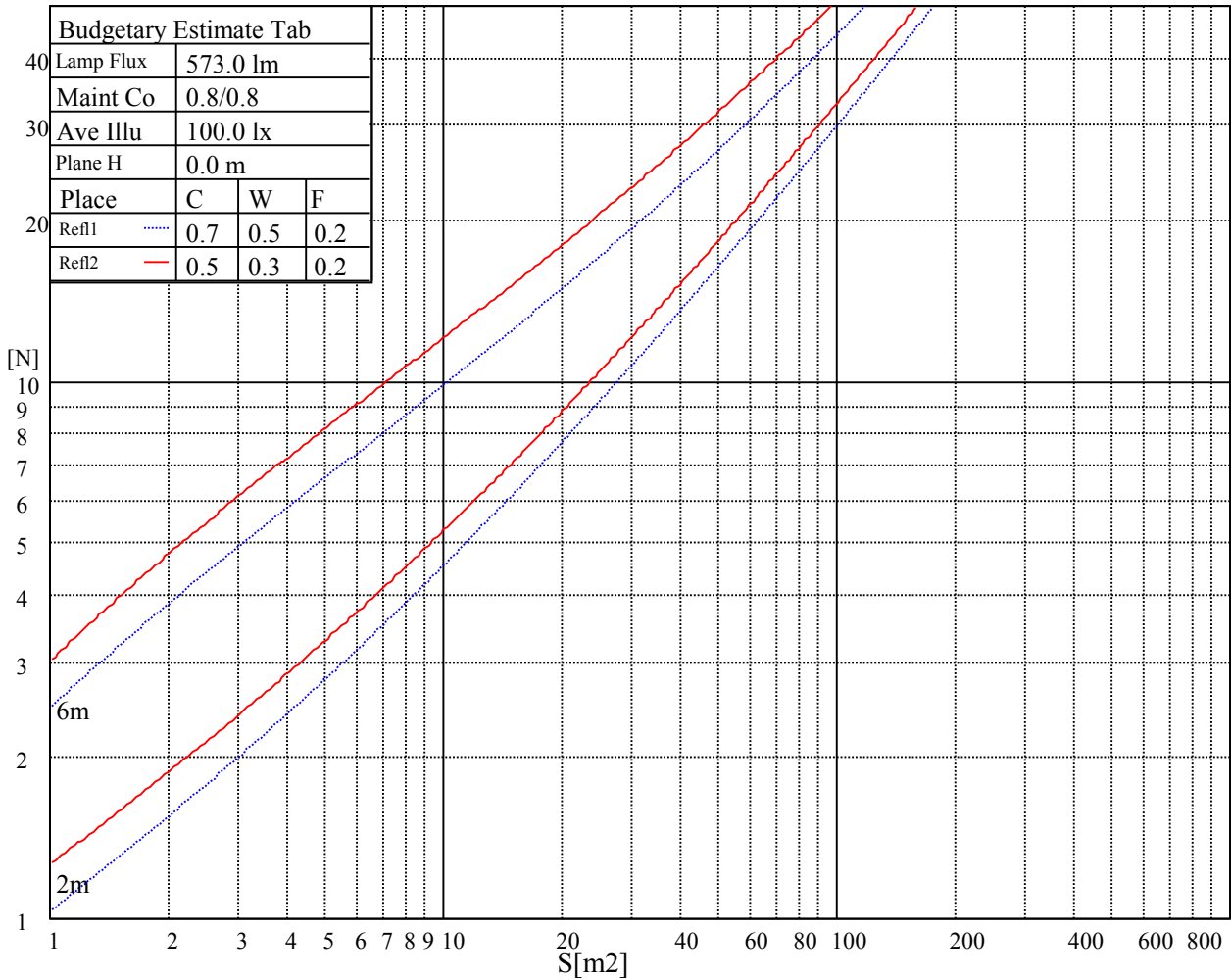
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
55354	55354	55354	77482	77482	77482	200513	200513	200513

Glare Table

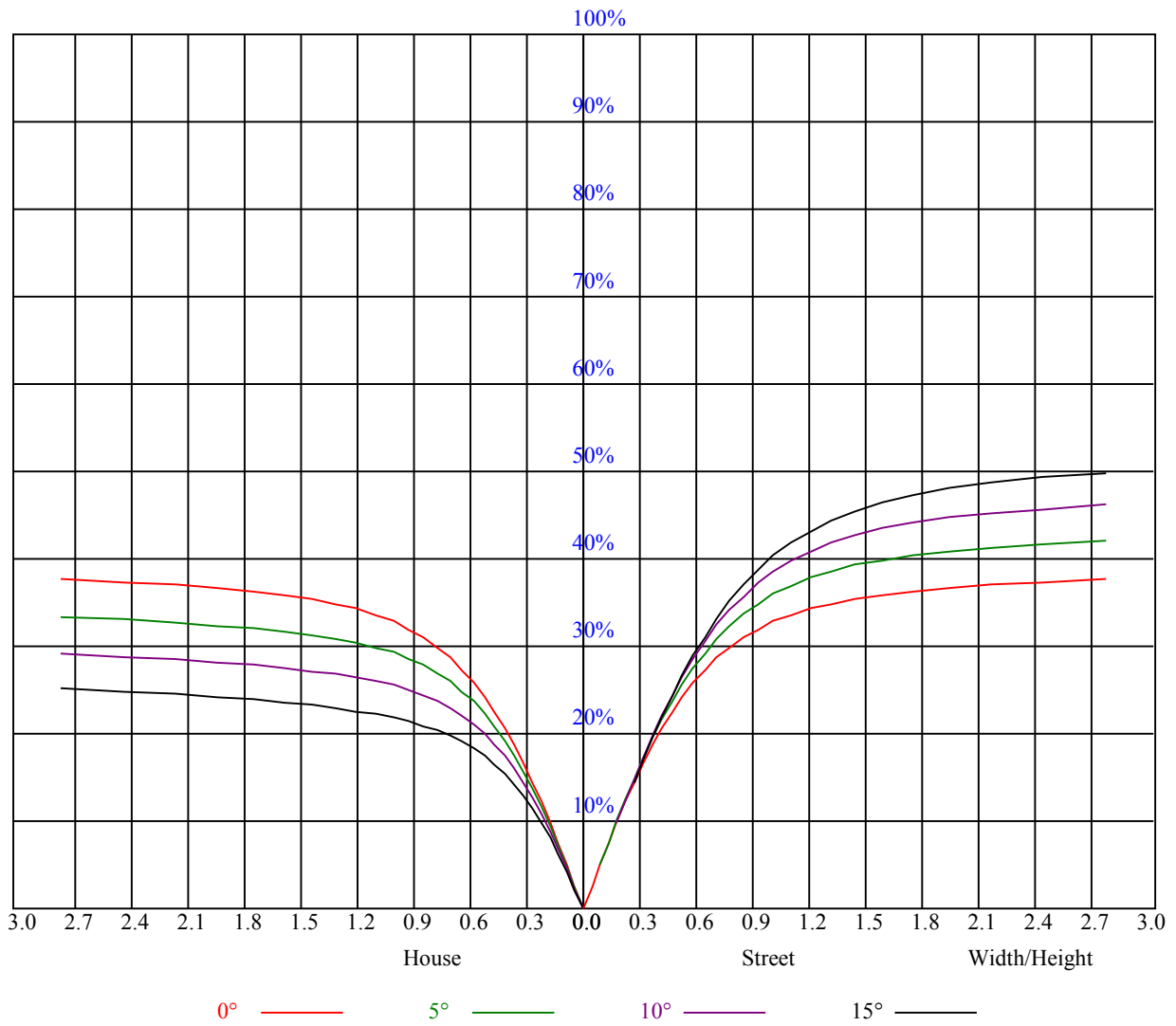
Glare	Quality	Service Values Illuminance(lx)							
		a	b	c	d	e	f	g	h
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

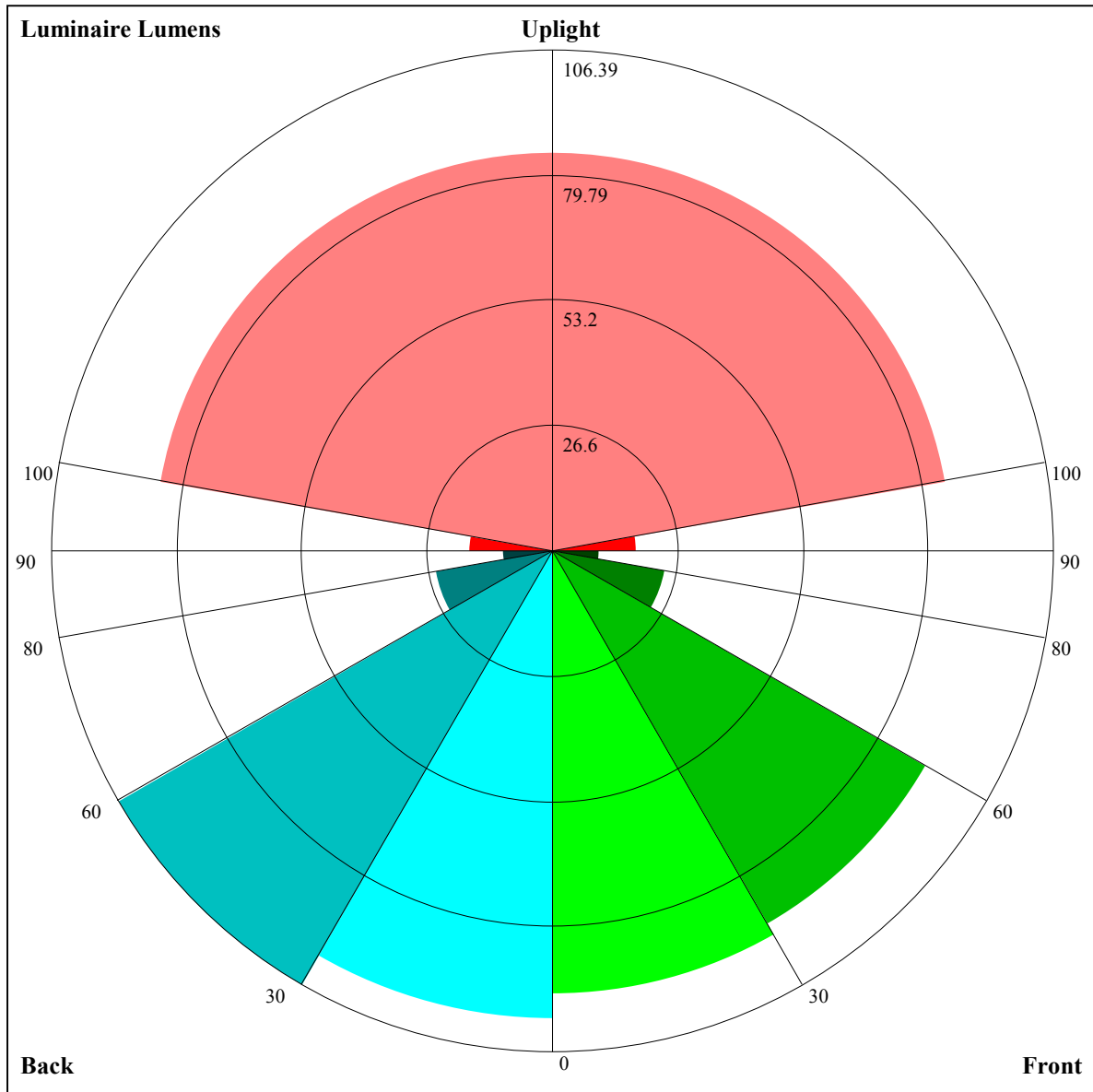
Luminance Limiting Curve





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	0.96	0.96	0.96	0.94	0.94	0.94	0.89	0.89	0.89	0.86	0.86	0.86	0.82	0.82	0.82	0.80
1	0.84	0.81	0.78	0.82	0.80	0.77	0.79	0.77	0.74	0.76	0.74	0.72	0.73	0.71	0.70	0.68
2	0.75	0.70	0.66	0.74	0.69	0.65	0.71	0.67	0.64	0.68	0.65	0.62	0.66	0.63	0.61	0.59
3	0.68	0.62	0.57	0.67	0.61	0.57	0.64	0.60	0.56	0.62	0.58	0.55	0.60	0.57	0.54	0.52
4	0.62	0.55	0.51	0.61	0.55	0.50	0.59	0.54	0.50	0.57	0.52	0.49	0.55	0.51	0.48	0.47
5	0.56	0.50	0.45	0.55	0.49	0.45	0.54	0.48	0.44	0.52	0.48	0.44	0.51	0.47	0.43	0.42
6	0.52	0.45	0.41	0.51	0.45	0.40	0.49	0.44	0.40	0.48	0.43	0.40	0.47	0.43	0.39	0.38
7	0.48	0.41	0.37	0.47	0.41	0.37	0.46	0.40	0.36	0.45	0.40	0.36	0.44	0.39	0.36	0.35
8	0.44	0.38	0.34	0.43	0.38	0.34	0.42	0.37	0.33	0.42	0.37	0.33	0.41	0.36	0.33	0.32
9	0.41	0.35	0.31	0.40	0.35	0.31	0.40	0.34	0.31	0.39	0.34	0.31	0.38	0.34	0.30	0.29
10	0.38	0.32	0.29	0.38	0.32	0.28	0.37	0.32	0.28	0.36	0.32	0.28	0.36	0.31	0.28	0.27





Luminaire Lumens:

FL=94,FM=91.51,FH=24.11,FVH=9.88

BL=99.26,BM=106.39,BH=25.48,BVH=10.84

UL=17.8,UH=84.72

BUG Rating:B0-U2-G1

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	295.73	283.76	267.00	243.66	213.50	183.48	152.53	119.54	92.25
45.0	296.19	293.78	282.36	265.10	236.24	210.02	178.28	143.06	112.20
90.0	297.68	294.66	280.69	263.25	238.88	211.92	180.51	150.67	123.43
135.0	295.96	298.10	293.04	275.87	256.42	226.73	201.39	171.88	142.37
180.0	295.73	296.52	289.65	272.43	249.70	223.62	193.46	164.45	137.54
225.0	296.19	289.60	274.48	250.58	223.57	197.12	167.52	134.20	104.87
270.0	297.68	289.70	276.89	256.61	231.14	200.83	171.27	144.04	110.16
315.0	295.96	285.10	264.41	240.23	214.57	178.65	149.74	114.99	89.93
360.0	295.73	283.76	267.00	243.66	213.50	183.48	152.53	119.54	92.25
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	70.58	47.66	34.38	26.73	23.94	22.69	20.93	19.58	15.59
45.0	85.61	61.62	43.06	31.42	24.32	22.37	21.21	19.54	17.08
90.0	91.00	69.98	48.82	33.46	27.01	24.73	23.25	22.04	20.74
135.0	111.32	84.45	62.55	39.54	29.61	24.92	23.85	22.32	21.67
180.0	103.39	79.35	55.59	37.63	27.61	24.32	23.02	21.35	20.46
225.0	76.24	53.18	35.78	26.96	22.69	21.39	20.00	19.07	18.14
270.0	85.29	58.28	40.93	29.65	25.06	23.39	21.90	21.21	19.81
315.0	67.56	47.19	32.16	25.85	23.57	22.27	20.56	20.14	18.75
360.0	70.58	47.66	34.38	26.73	23.94	22.69	20.93	19.58	15.59
C/ γ (°)	90.0								
0.0	10.53								
45.0	14.57								
90.0	18.00								
135.0	20.97								
180.0	18.05								
225.0	15.45								
270.0	17.35								
315.0	15.59								
360.0	10.53								