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## Nata

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Client:

LumCAT: CR01D07524AR

Luminaire: 92.70.065.00

Report No:

Voltage(V): 32.9700

Test No: GC2019072207

Current(A): 0.2970

LampCAT: LUMINUS CXM-14

Power (W): 9.7900

Lamp flux(lm): 1570.0

PF: 1.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 75

Width(mm): 75

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 1474.57, Efficiency(%): 93.92% , Luminous Efficacy(lm/W): 150.62

Central intensity(cd): 6321.305, Maximum intensity(cd): 6321.305

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=25.4

[C90/270]Total=25.4

Field angle(10%Imax): [C0/180]Total=44.4

[C90/270]Total=44.4

Maximum s/h(1/2): C0\_180=0.44 C90\_270=0.44

Maximum s/h(1/4): C0\_180=0.42 C90\_270=0.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 93.92%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 95.397%

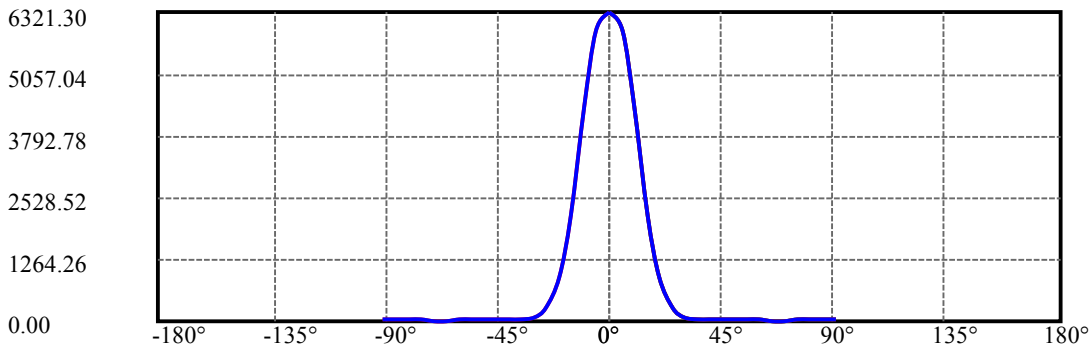
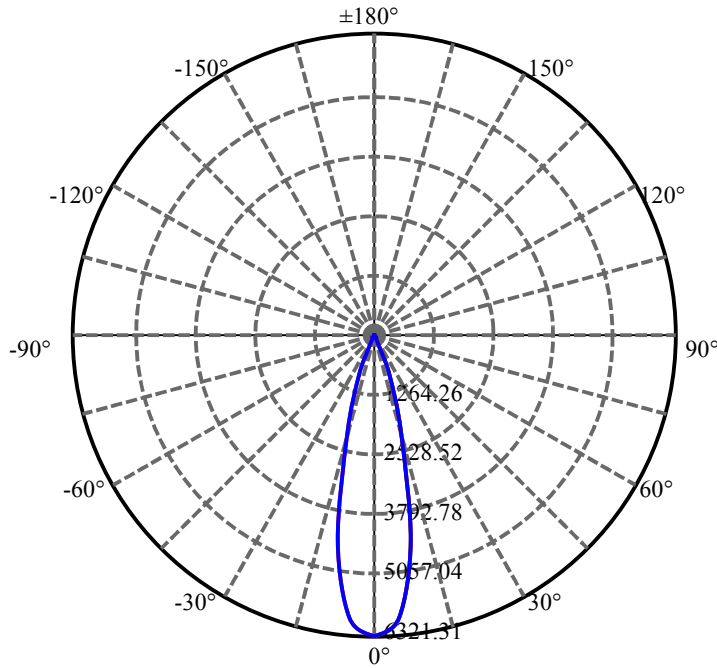
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	6321.305	0.000	0	.000%	.000%
5.0	5922.352	146.369	146.369	9.323%	9.926%
10.0	4394.672	369.072	515.442	23.508%	34.955%
15.0	2142.773	387.797	903.239	24.700%	61.254%
20.0	893.440	250.227	1153.465	15.938%	78.224%
25.0	290.229	124.145	1277.61	7.907%	86.643%
30.0	85.507	47.550	1325.16	3.029%	89.868%
35.0	44.880	19.200	1344.36	1.223%	91.170%
40.0	35.585	13.425	1357.786	.855%	92.080%
45.0	32.808	12.664	1370.449	.807%	92.939%
50.0	29.904	12.672	1383.121	.807%	93.798%
55.0	26.360	12.234	1395.355	.779%	94.628%
60.0	22.662	11.331	1406.686	.722%	95.397%
65.0	19.603	10.275	1416.96	.654%	96.093%
70.0	19.287	9.847	1426.808	.627%	96.761%
75.0	19.723	10.196	1437.004	.649%	97.453%
80.0	20.320	10.714	1447.718	.682%	98.179%
85.0	25.109	12.344	1460.063	.786%	99.016%
90.0	27.865	14.505	1474.567	.924%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1325.16	84.41%	89.87%
0-40	1357.79	86.48%	92.08%
0-60	1406.69	89.60%	95.40%
0-90	1460.06	93.00%	99.02%
0-120	1460.06	93.00%	99.02%
0-180	1474.57	93.92%	100.00%
60-90	64.71	4.12%	4.39%
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%
0-21.05	1179.65	75.14%	80.00%

ZONAL LUMEN SUMMARY

0-10	515.44
10-20	638.02
20-30	171.69
30-40	32.63
40-50	25.34
50-60	23.56
60-70	20.12
70-80	20.91
80-90	12.34
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): —————

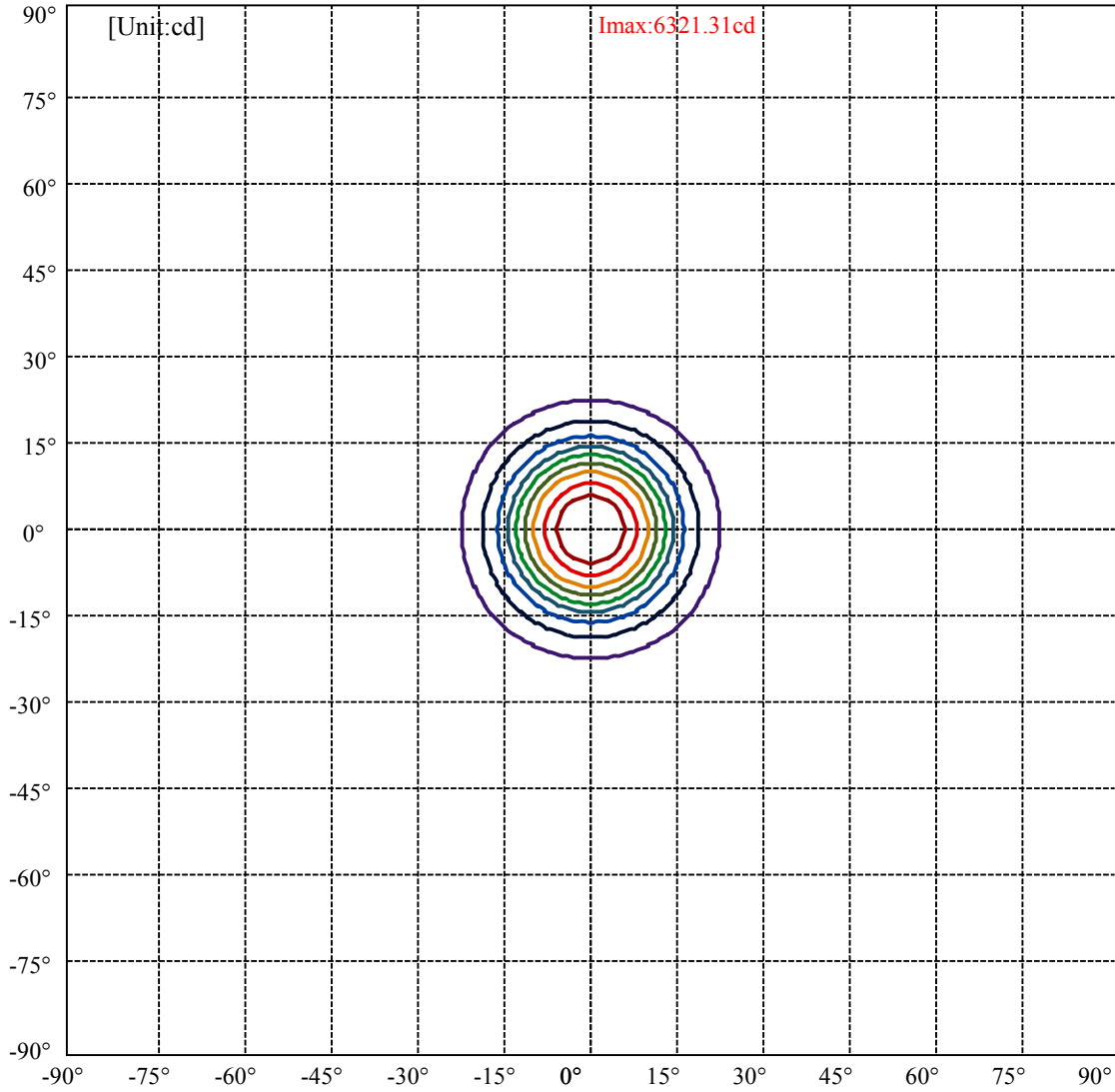
C0/C180: —————

C90/C270: —————

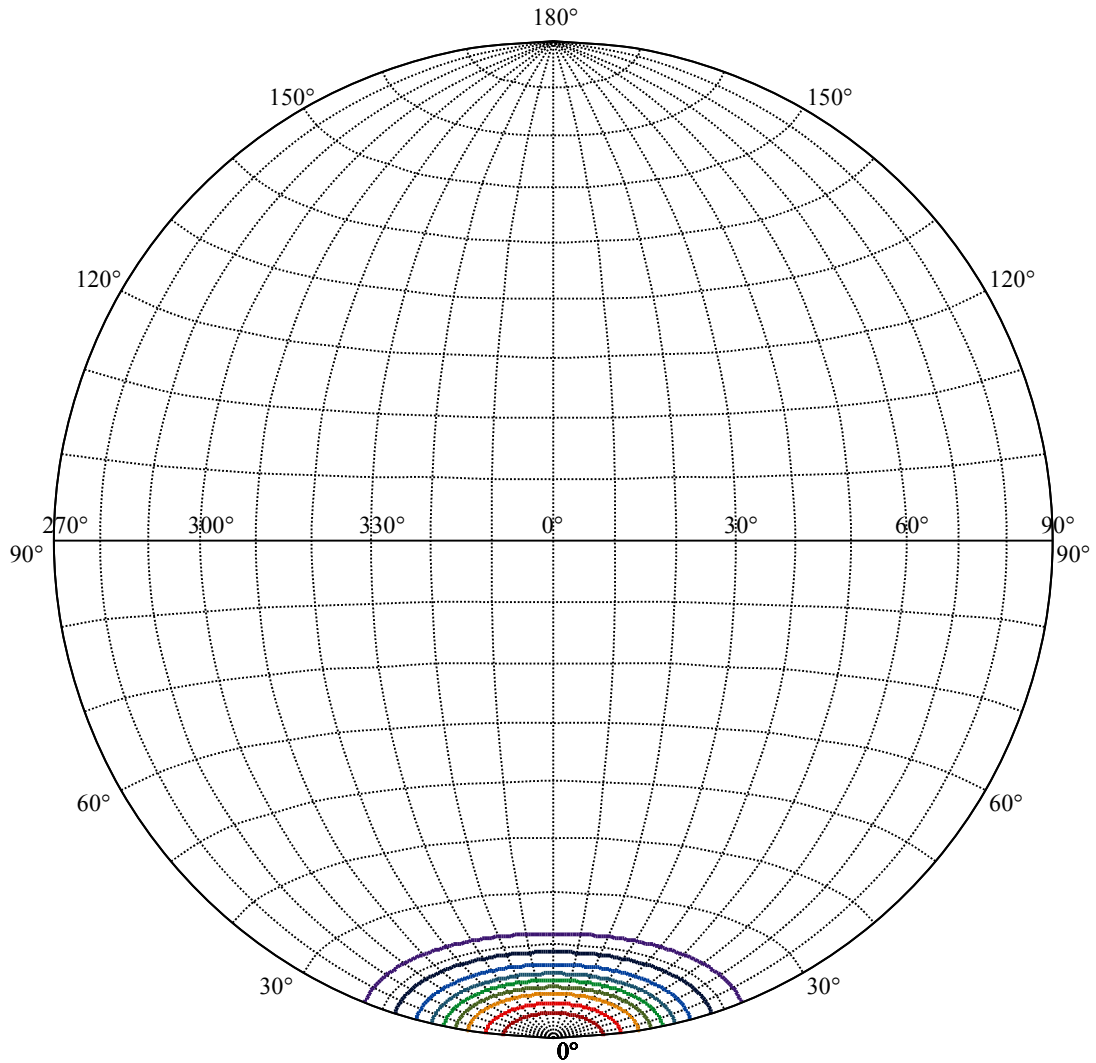
Field angle(10%Imax):C0/180Left:22.2 Right:22.2  
:C90/270Left:22.2 Right:22.2

Beam Angle(50%Imax):C0/180Left:12.7 Right:12.7  
:C90/270Left:12.7 Right:12.7





(10%Imax) 632.13	—
(20%Imax) 1264.26	—
(30%Imax) 1896.39	—
(40%Imax) 2528.52	—
(50%Imax) 3160.65	—
(60%Imax) 3792.78	—
(70%Imax) 4424.91	—
(80%Imax) 5057.04	—
(90%Imax) 5689.17	—



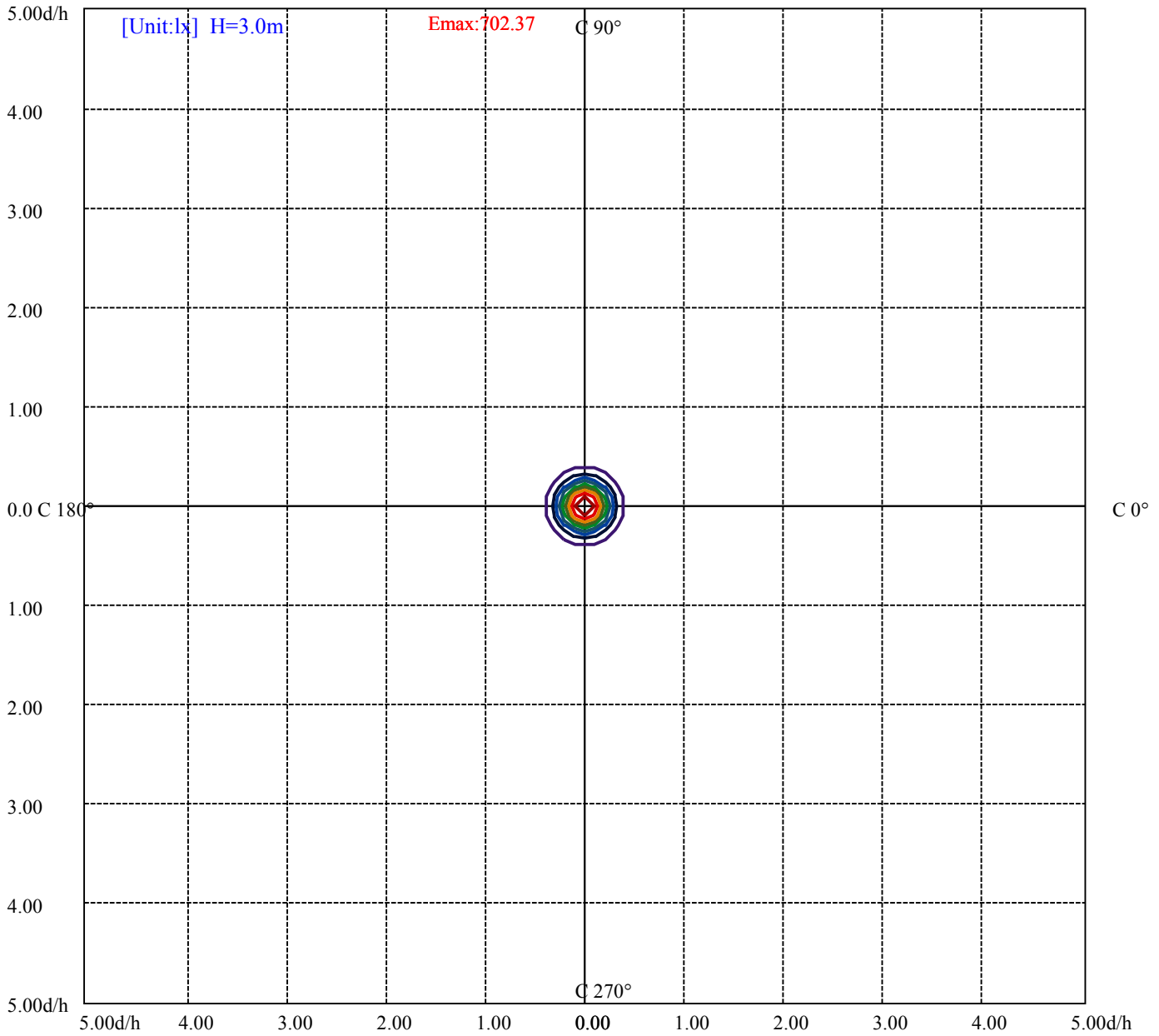
House

[Unit:cd]

Road

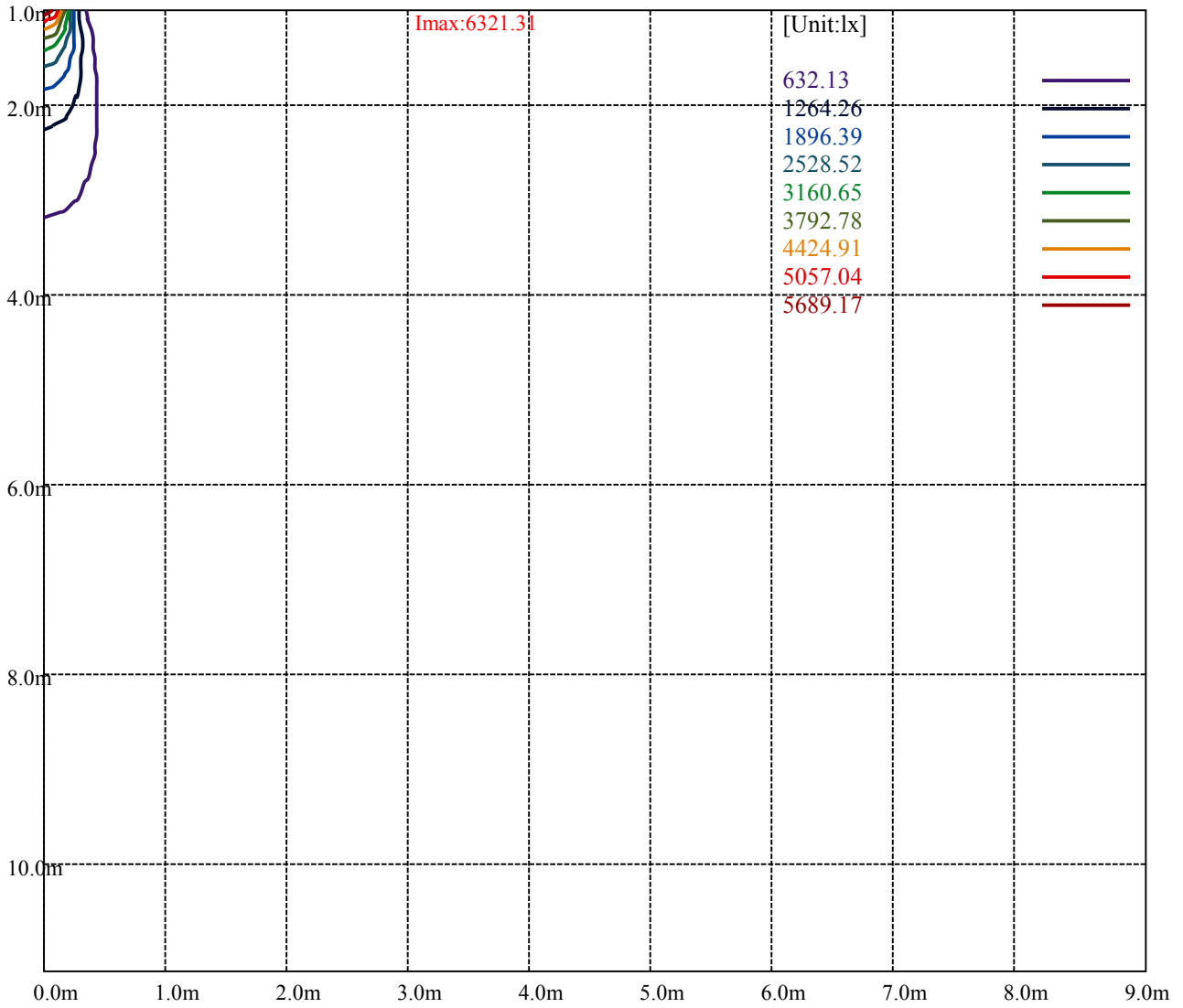
**Imax:6321.31**

(10%Imax) 632.13	—
(20%Imax) 1264.26	—
(30%Imax) 1896.39	—
(40%Imax) 2528.52	—
(50%Imax) 3160.65	—
(60%Imax) 3792.78	—
(70%Imax) 4424.91	—
(80%Imax) 5057.04	—
(90%Imax) 5689.17	—



- (10%Emax) 70.23656
- (20%Emax) 140.4733
- (30%Emax) 210.71
- (40%Emax) 280.9467
- (50%Emax) 351.1833
- (60%Emax) 421.42
- (70%Emax) 491.6555
- (80%Emax) 561.8922
- (90%Emax) 632.1289





Luminance Table

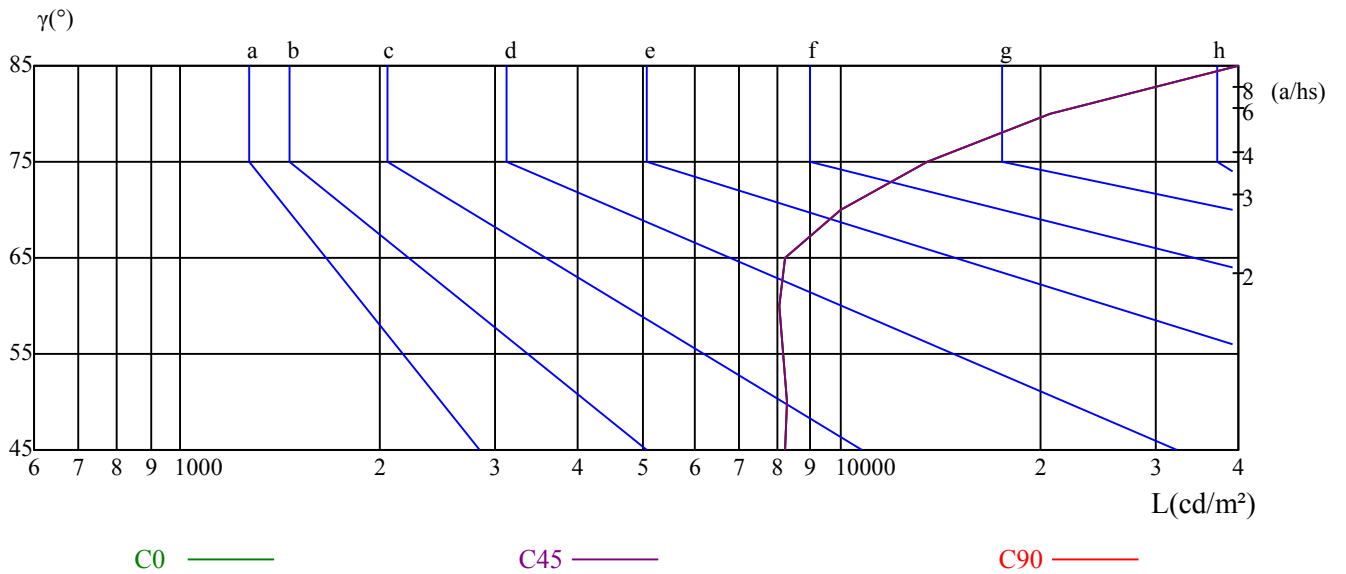
$\gamma$	45	50	55	60	65	70	75	80	85
C0	8248	8271	8170	8058	8246	10025	13547	20804	51216
C45	8248	8271	8170	8058	8246	10025	13547	20804	51216
C90	8248	8271	8170	8058	8246	10025	13547	20804	51216

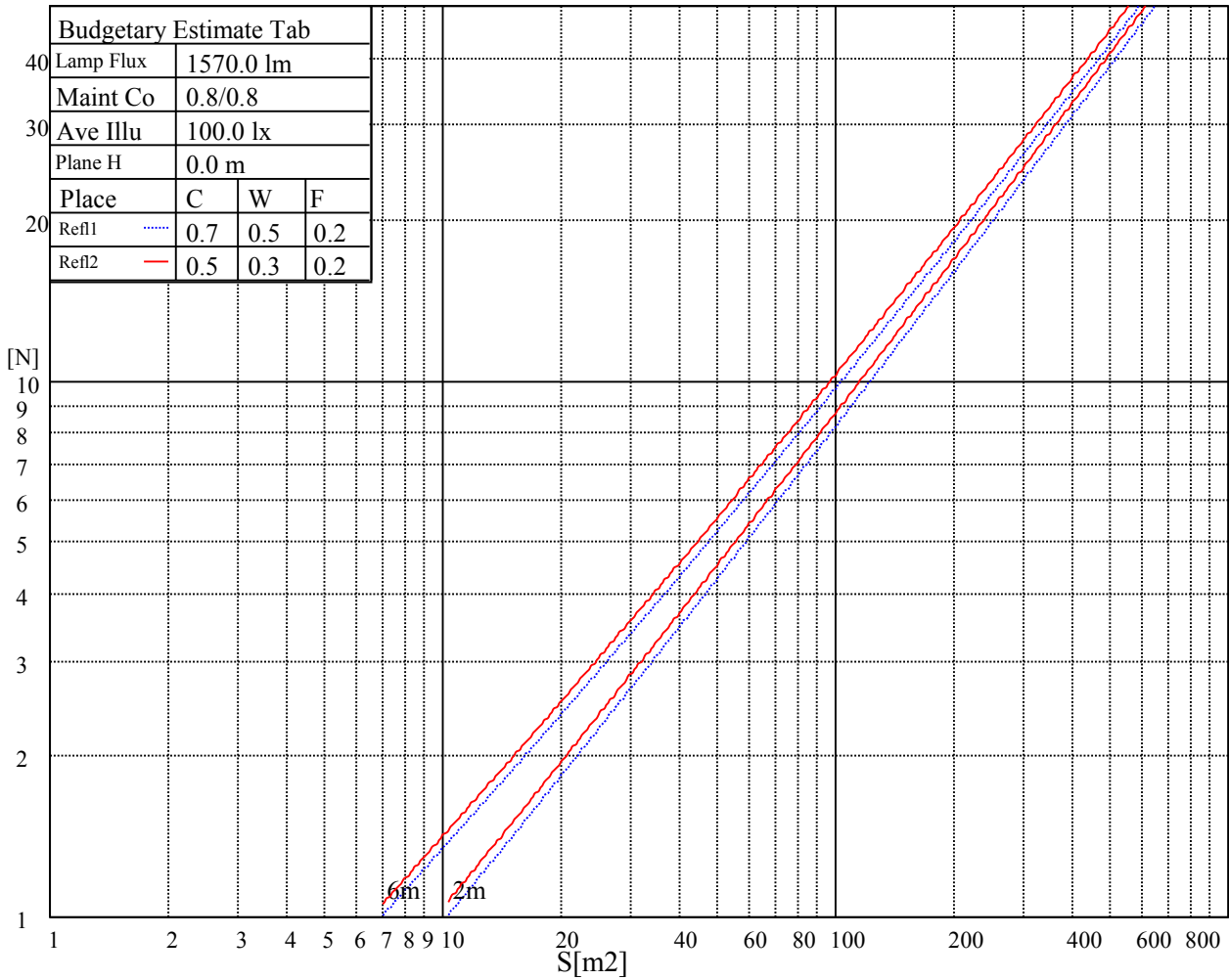
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8246	8246	8246	13547	13547	13547	51216	51216	51216

Glare Table

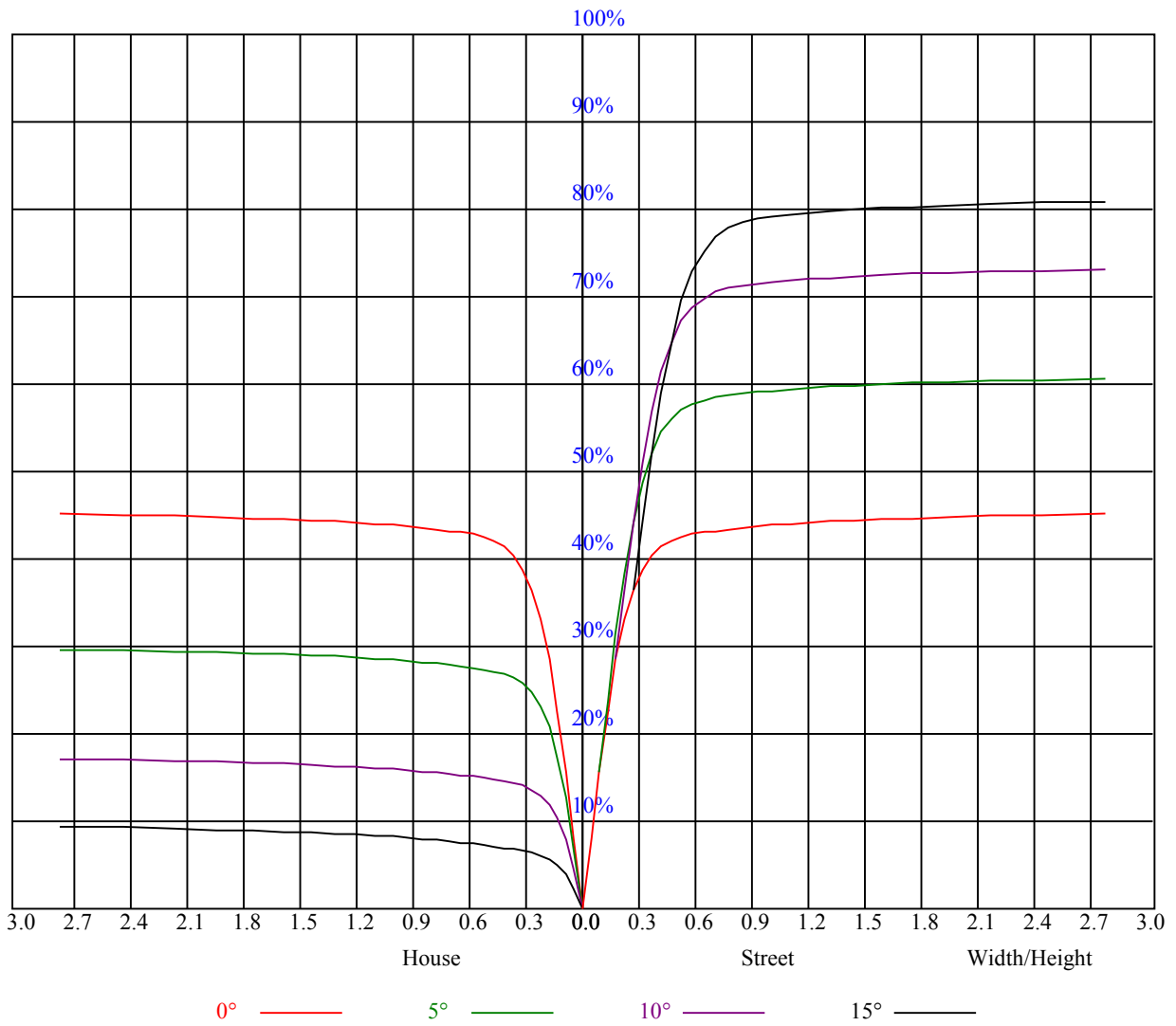
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

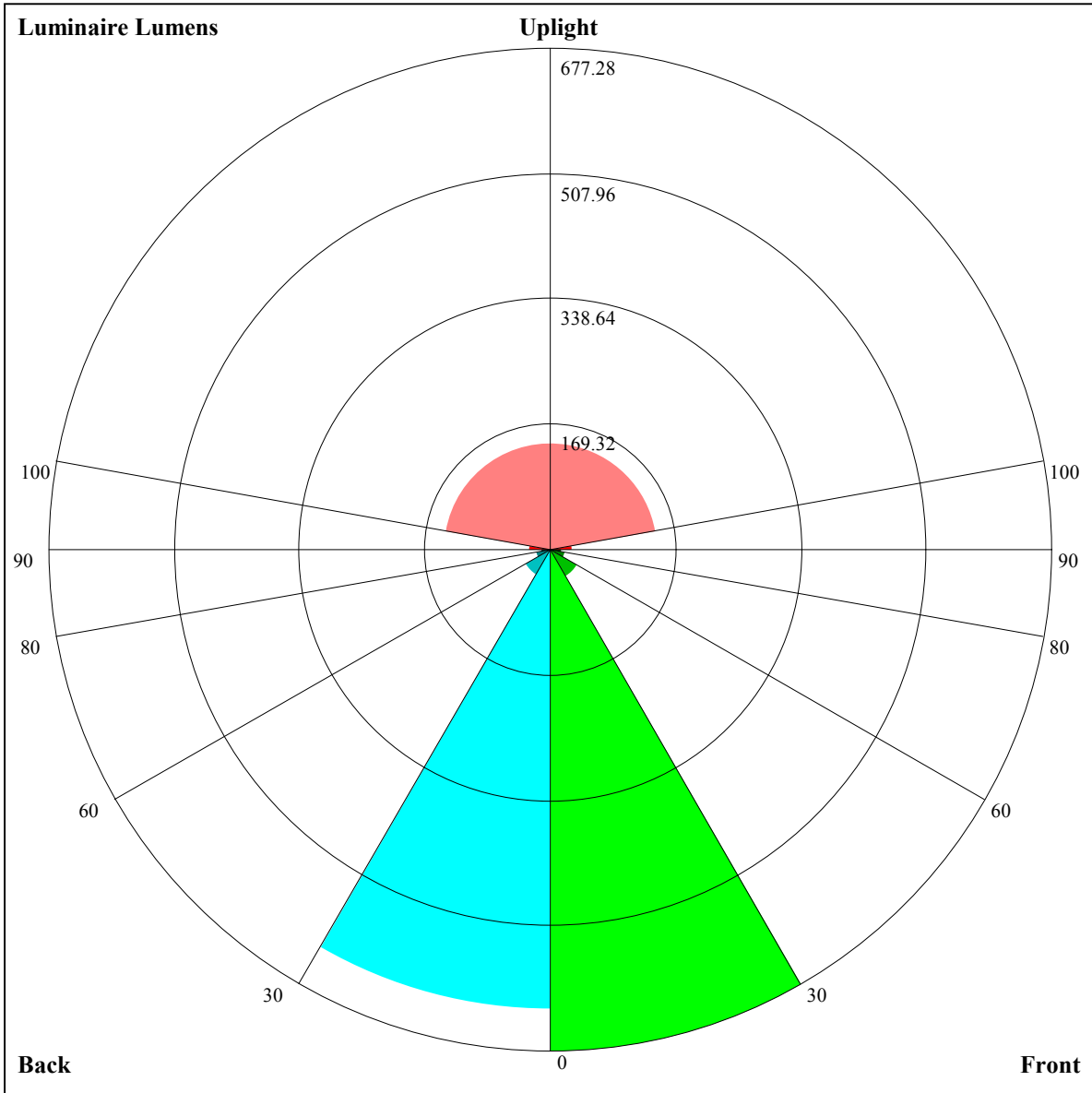
Luminance Limiting Curve





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	1.12	1.12	1.12	1.09	1.09	1.09	1.04	1.04	1.04	1.00	1.00	1.00	0.96	0.96	0.96	0.94
1	1.04	1.02	1.00	1.02	1.00	0.99	0.99	0.97	0.96	0.95	0.94	0.93	0.92	0.91	0.90	0.88
2	0.99	0.96	0.93	0.97	0.94	0.92	0.94	0.92	0.90	0.92	0.90	0.88	0.89	0.87	0.86	0.85
3	0.94	0.90	0.87	0.93	0.89	0.87	0.91	0.88	0.85	0.88	0.86	0.84	0.86	0.84	0.83	0.81
4	0.90	0.86	0.83	0.89	0.85	0.82	0.87	0.84	0.81	0.86	0.83	0.81	0.84	0.82	0.80	0.78
5	0.87	0.83	0.79	0.86	0.82	0.79	0.84	0.81	0.78	0.83	0.80	0.78	0.82	0.79	0.77	0.76
6	0.84	0.79	0.76	0.83	0.79	0.76	0.82	0.78	0.76	0.81	0.78	0.75	0.79	0.77	0.75	0.74
7	0.81	0.77	0.74	0.80	0.76	0.74	0.79	0.76	0.73	0.78	0.75	0.73	0.77	0.75	0.73	0.72
8	0.79	0.74	0.72	0.78	0.74	0.71	0.77	0.74	0.71	0.76	0.73	0.71	0.76	0.73	0.71	0.70
9	0.76	0.72	0.69	0.76	0.72	0.69	0.75	0.72	0.69	0.74	0.71	0.69	0.74	0.71	0.69	0.68
10	0.74	0.70	0.68	0.74	0.70	0.67	0.73	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.66





Luminaire Lumens:

FL=677.28,FM=42.05,FH=20.95,FVH=14.36

BL=620.59,BM=39.57,BH=20.05,BVH=12.69

UL=30.4,UH=144.68

BUG Rating:B2-U3-G1

Intensity data(cd)

C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	6305.06	6063.19	4753.13	2438.44	1067.63	371.81	96.24	47.36	35.83
45.0	6333.75	6062.06	4898.81	2772.56	1172.81	408.38	128.42	48.82	35.55
90.0	6292.13	5842.69	4313.81	2113.31	874.41	288.73	83.14	45.00	35.16
135.0	6352.31	6079.50	4591.13	2351.25	955.13	303.19	89.16	46.18	34.93
180.0	6309.00	5752.13	4043.81	1896.75	761.51	216.56	69.30	41.96	34.43
225.0	6333.75	5757.19	3824.44	1431.00	666.17	184.16	62.72	39.66	33.75
270.0	6292.13	5959.13	4598.44	2152.13	860.06	302.63	80.33	46.86	39.77
315.0	6352.31	5862.94	4133.81	1986.75	789.81	246.38	74.76	43.20	35.27
360.0	6305.06	6063.19	4753.13	2438.44	1067.63	371.81	96.24	47.36	35.83
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	33.24	30.49	27.84	24.02	20.81	20.64	21.26	21.71	27.84
45.0	32.74	30.26	27.73	23.91	20.53	19.58	19.52	20.19	25.31
90.0	32.74	30.49	26.72	23.18	20.08	19.41	19.86	21.71	25.93
135.0	31.61	29.08	25.03	21.38	18.17	18.11	18.79	18.90	20.98
180.0	31.39	29.64	25.43	22.44	19.29	19.69	20.08	18.62	21.77
225.0	30.66	28.07	24.69	21.32	18.79	18.96	18.73	19.58	24.81
270.0	37.01	30.66	26.38	21.99	19.01	18.17	19.41	20.59	26.16
315.0	33.08	30.54	27.06	23.06	20.14	19.74	20.14	21.26	28.07
360.0	33.24	30.49	27.84	24.02	20.81	20.64	21.26	21.71	27.84
C/ $\gamma$ (°)	90.0								
0.0	34.48								
45.0	31.84								
90.0	28.46								
135.0	19.69								
180.0	22.84								
225.0	26.16								
270.0	29.36								
315.0	30.09								
360.0	34.48								