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## Nata

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Client:

LumCAT: LM01D05536BH

Luminaire: 92.70.127.00

Report No:

Voltage(V): 38.9800

Test No: GC2019072308

Current(A): 0.2970

LampCAT: CREE CXA1507

Power (W): 11.5800

Lamp flux(lm): 745.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 55

Width(mm): 55

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 678.55, Efficiency(%): 91.08% , Luminous Efficacy(lm/W): 58.60

Central intensity(cd): 1635.047, Maximum intensity(cd): 1635.047

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

Beam Angle(50%Imax): [C0/180]Total=35.4

[C90/270]Total=35.4

Field angle(10%Imax): [C0/180]Total=55.8

[C90/270]Total=55.8

Maximum s/h(1/2): C0\_180=0.59 C90\_270=0.59

Maximum s/h(1/4): C0\_180=0.56 C90\_270=0.56

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.08%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.101%

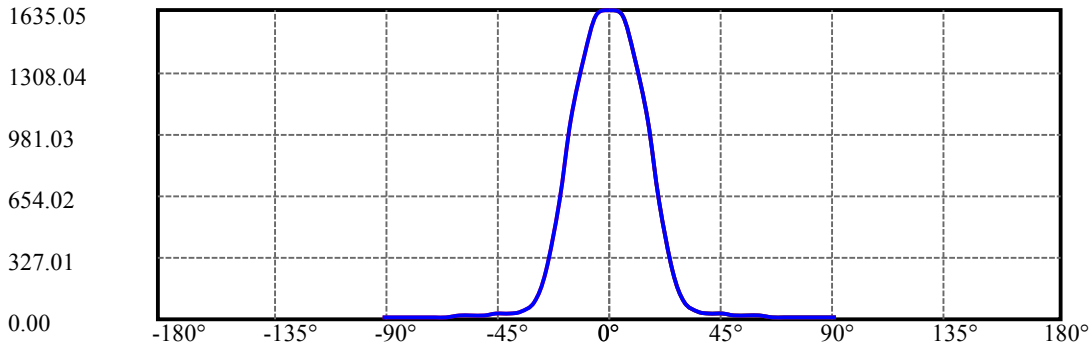
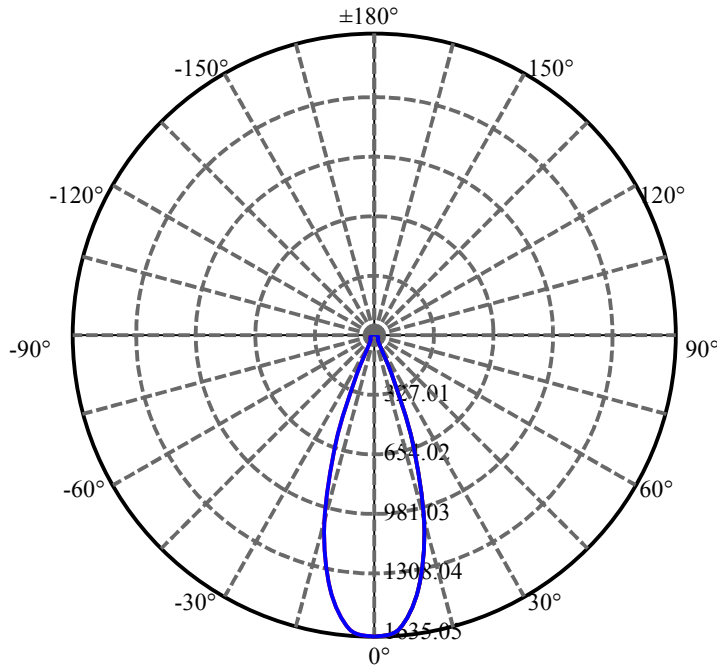
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1635.047	0.000	0	.000%	.000%
5.0	1600.383	38.679	38.679	5.192%	5.700%
10.0	1390.732	107.002	145.68	14.363%	21.469%
15.0	1054.343	145.040	290.72	19.468%	42.844%
20.0	621.267	138.094	428.814	18.536%	63.195%
25.0	258.638	92.286	521.1	12.387%	76.796%
30.0	93.206	44.526	565.626	5.977%	83.358%
35.0	43.840	20.181	585.807	2.709%	86.332%
40.0	30.649	12.428	598.235	1.668%	88.163%
45.0	27.253	10.721	608.956	1.439%	89.743%
50.0	24.905	10.539	619.495	1.415%	91.297%
55.0	21.305	10.047	629.543	1.349%	92.777%
60.0	17.543	8.980	638.522	1.205%	94.101%
65.0	13.950	7.656	646.178	1.028%	95.229%
70.0	11.524	6.450	652.629	.866%	96.180%
75.0	11.102	5.914	658.543	.794%	97.051%
80.0	13.373	6.549	665.092	.879%	98.016%
85.0	12.874	7.132	672.224	.957%	99.067%
90.0	10.238	6.328	678.552	.849%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	565.63	75.92%	83.36%
0-40	598.24	80.30%	88.16%
0-60	638.52	85.71%	94.10%
0-90	672.22	90.23%	99.07%
0-120	672.22	90.23%	99.07%
0-180	678.55	91.08%	100.00%
60-90	42.68	5.73%	6.29%
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%
0-27.44	542.84	72.86%	80.00%

ZONAL LUMEN SUMMARY

0-10	145.68
10-20	283.13
20-30	136.81
30-40	32.61
40-50	21.26
50-60	19.03
60-70	14.11
70-80	12.46
80-90	7.13
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: —————

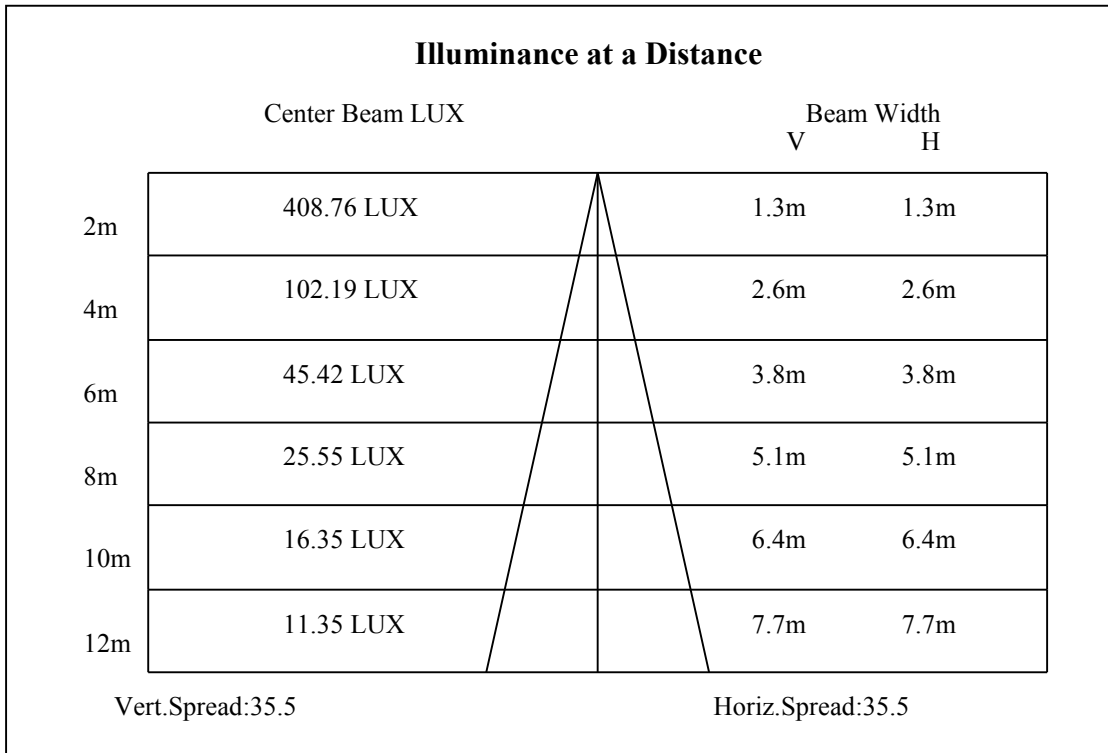
C90/C270: —————

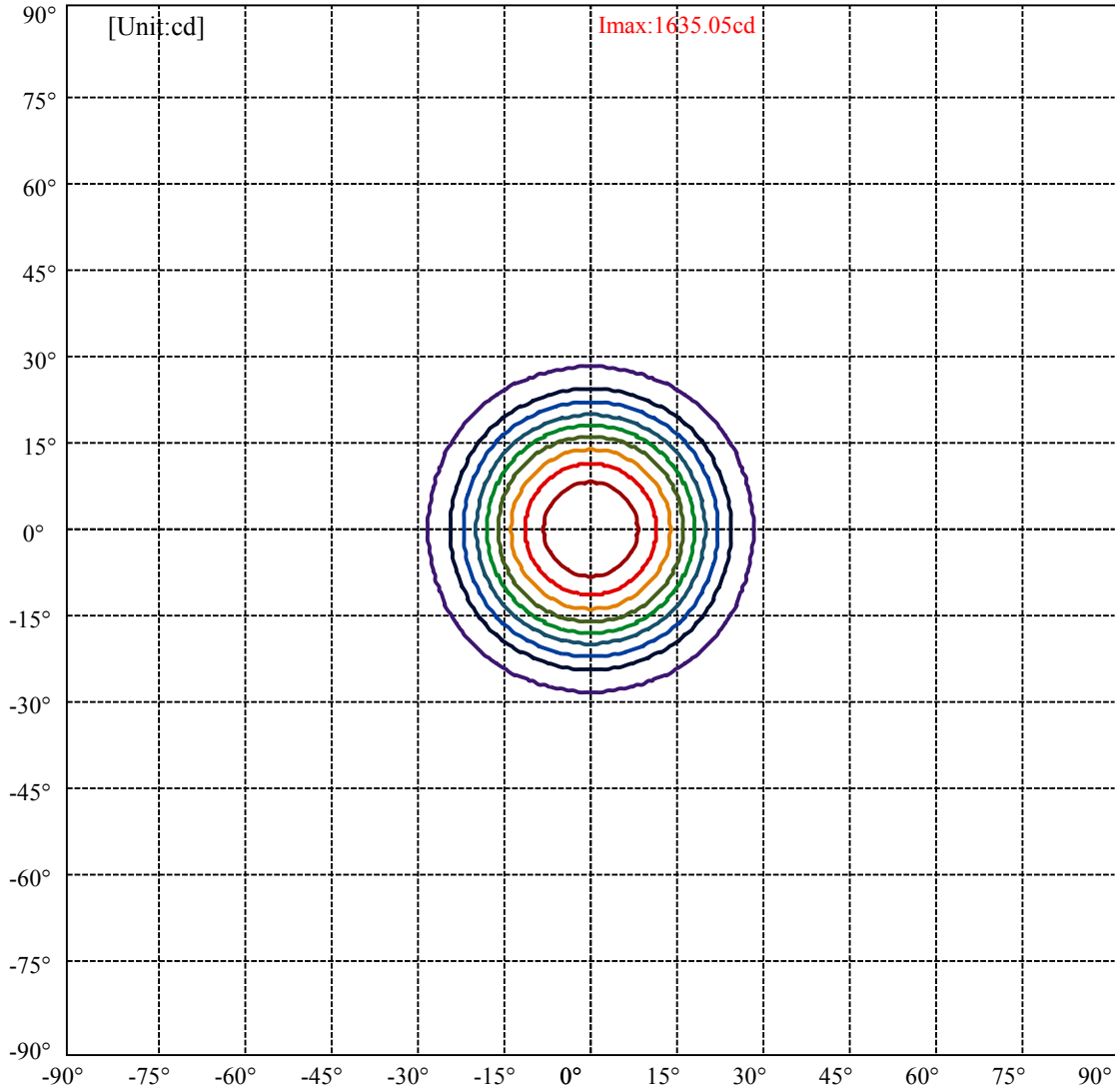
Field angle(10%Imax):C0/180Left:27.9 Right:27.9

:C90/270Left:27.9 Right:27.9

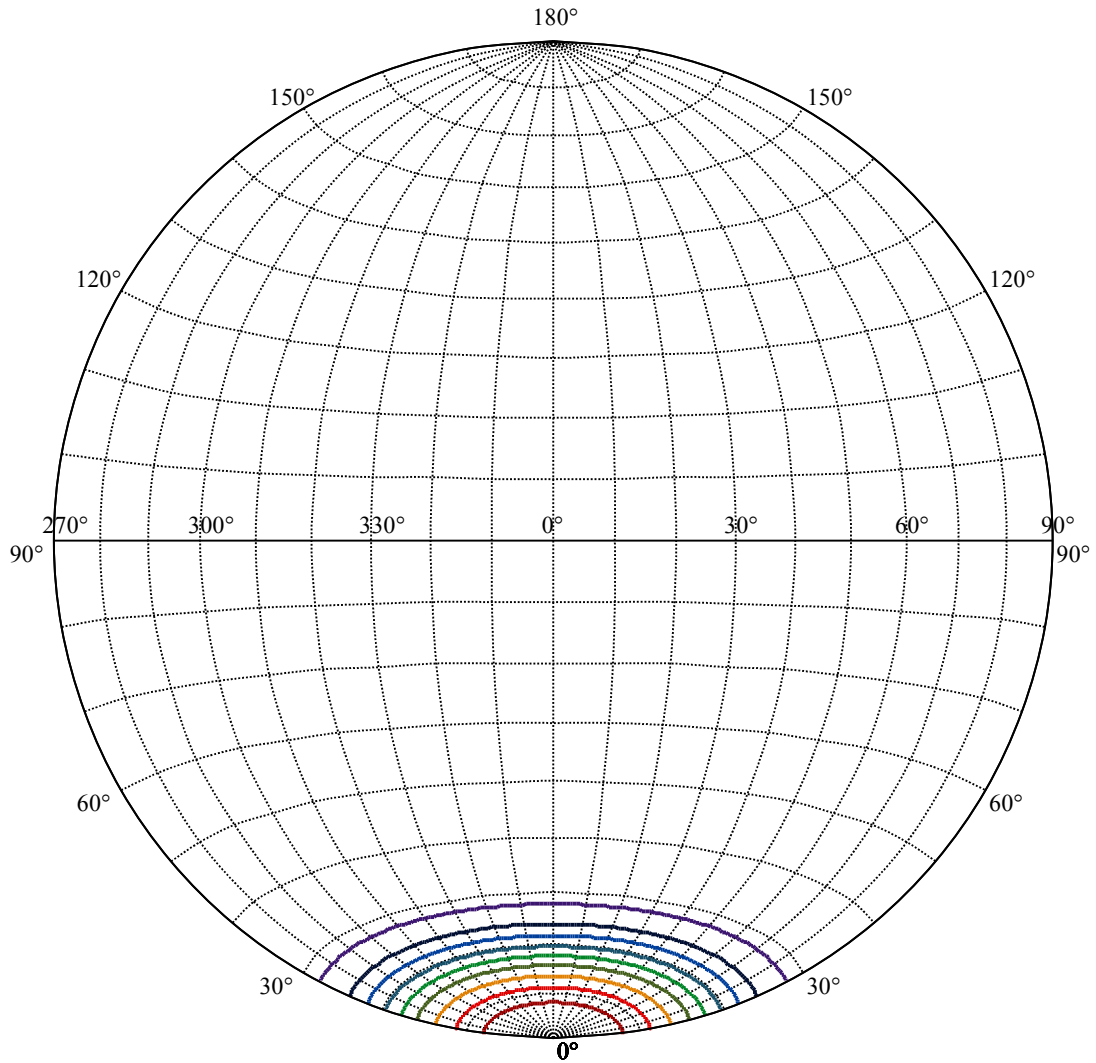
Beam Angle(50%Imax):C0/180Left:17.7 Right:17.7

:C90/270Left:17.7 Right:17.7





(10%Imax) 163.505	—
(20%Imax) 327.009	—
(30%Imax) 490.514	—
(40%Imax) 654.019	—
(50%Imax) 817.523	—
(60%Imax) 981.028	—
(70%Imax) 1144.53	—
(80%Imax) 1308.04	—
(90%Imax) 1471.54	—



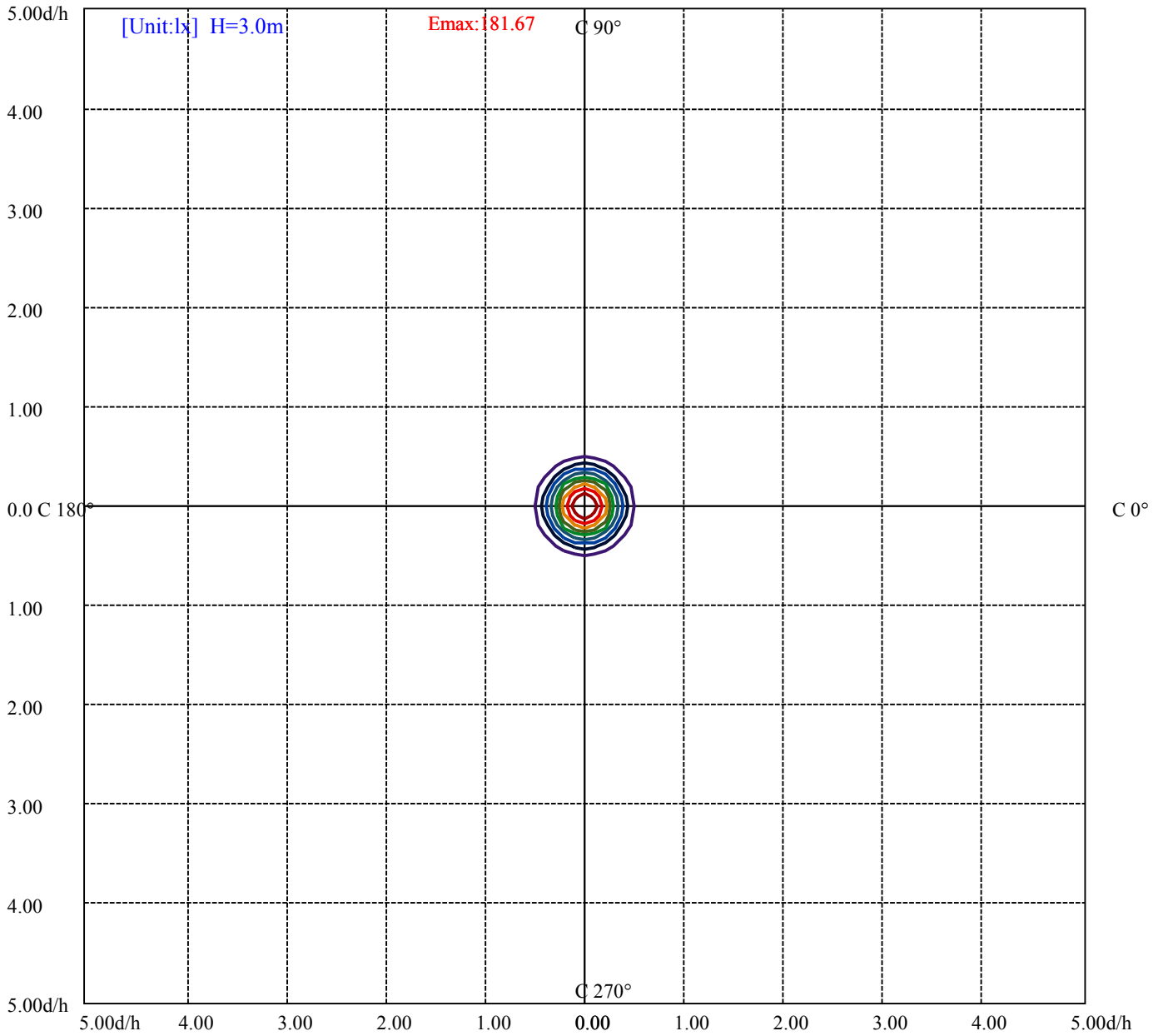
House

[Unit:cd]

Road

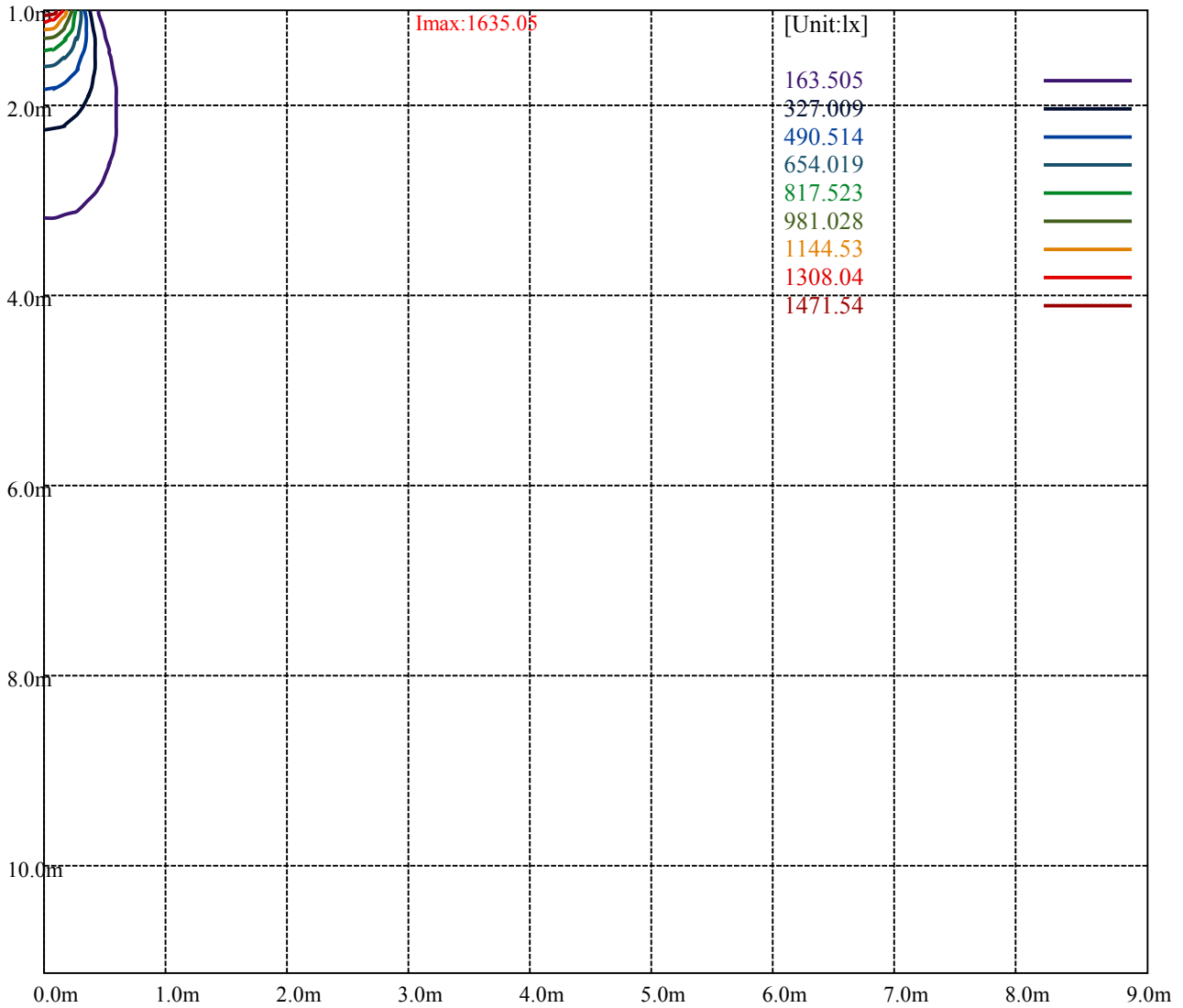
Imax:1635.05

(10%Imax)	163.505	—
(20%Imax)	327.009	—
(30%Imax)	490.514	—
(40%Imax)	654.019	—
(50%Imax)	817.523	—
(60%Imax)	981.028	—
(70%Imax)	1144.53	—
(80%Imax)	1308.04	—
(90%Imax)	1471.54	—



(10%Emax) 18.16722	—
(20%Emax) 36.33434	—
(30%Emax) 54.50156	—
(40%Emax) 72.66867	—
(50%Emax) 90.83589	—
(60%Emax) 109.003	—
(70%Emax) 127.17	—
(80%Emax) 145.3378	—
(90%Emax) 163.5045	—





Luminance Table

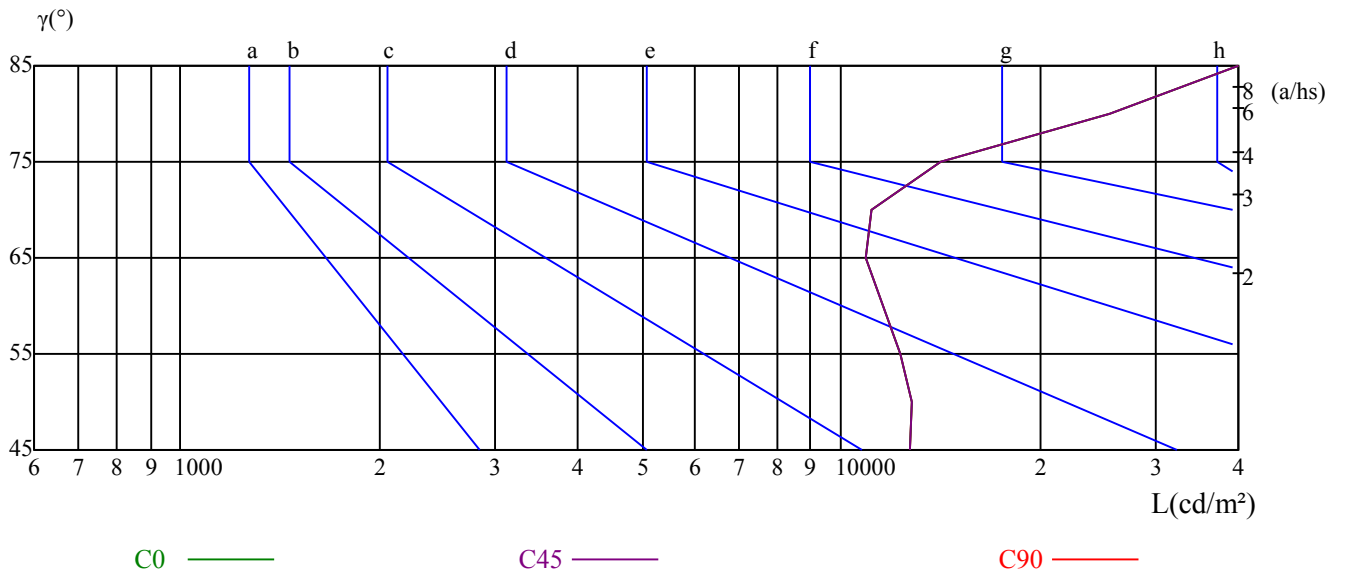
$\gamma$	45	50	55	60	65	70	75	80	85
C0	12741	12808	12279	11599	10912	11139	14181	25459	48831
C45	12741	12808	12279	11599	10912	11139	14181	25459	48831
C90	12741	12808	12279	11599	10912	11139	14181	25459	48831

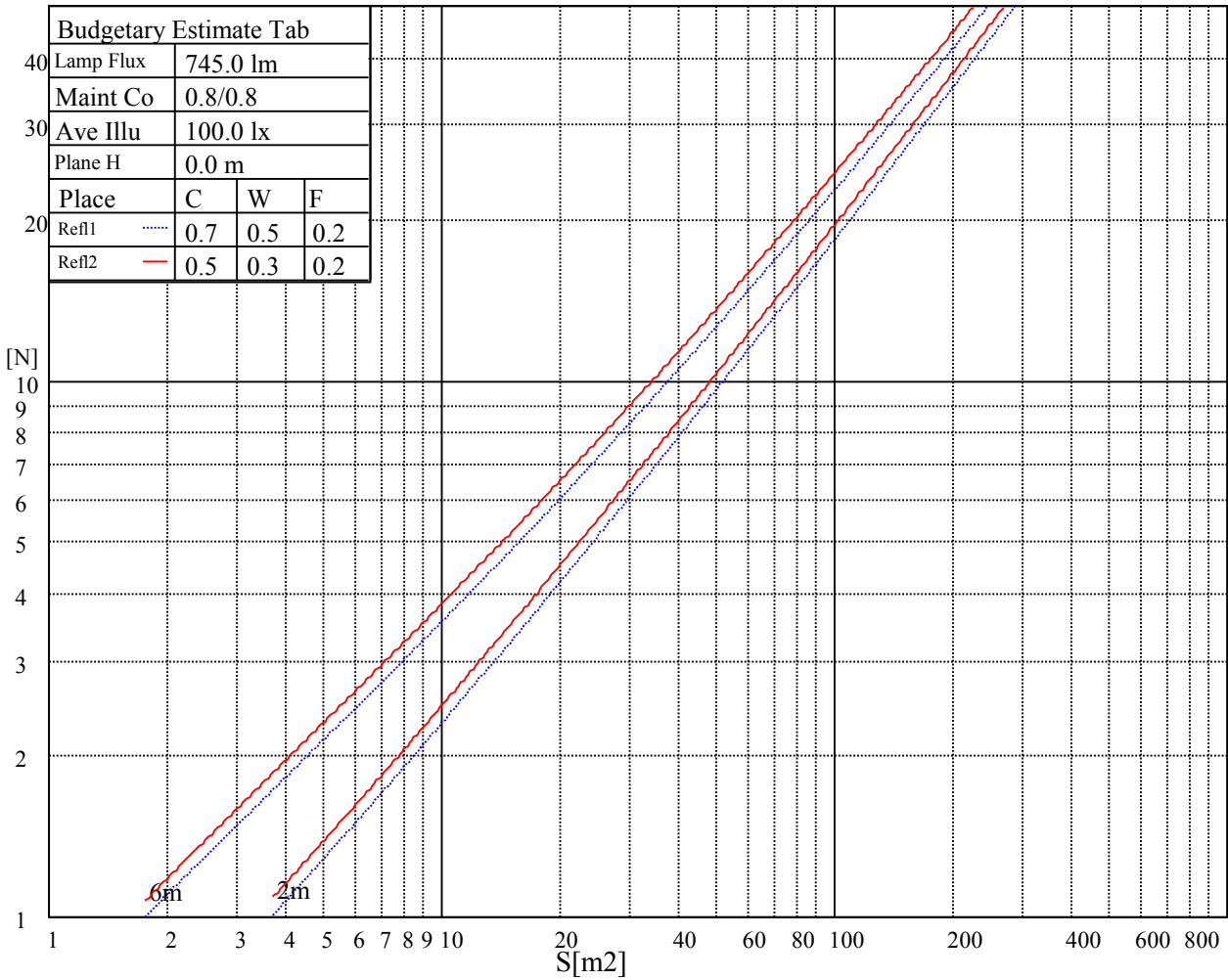
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10912	10912	10912	14181	14181	14181	48831	48831	48831

Glare Table

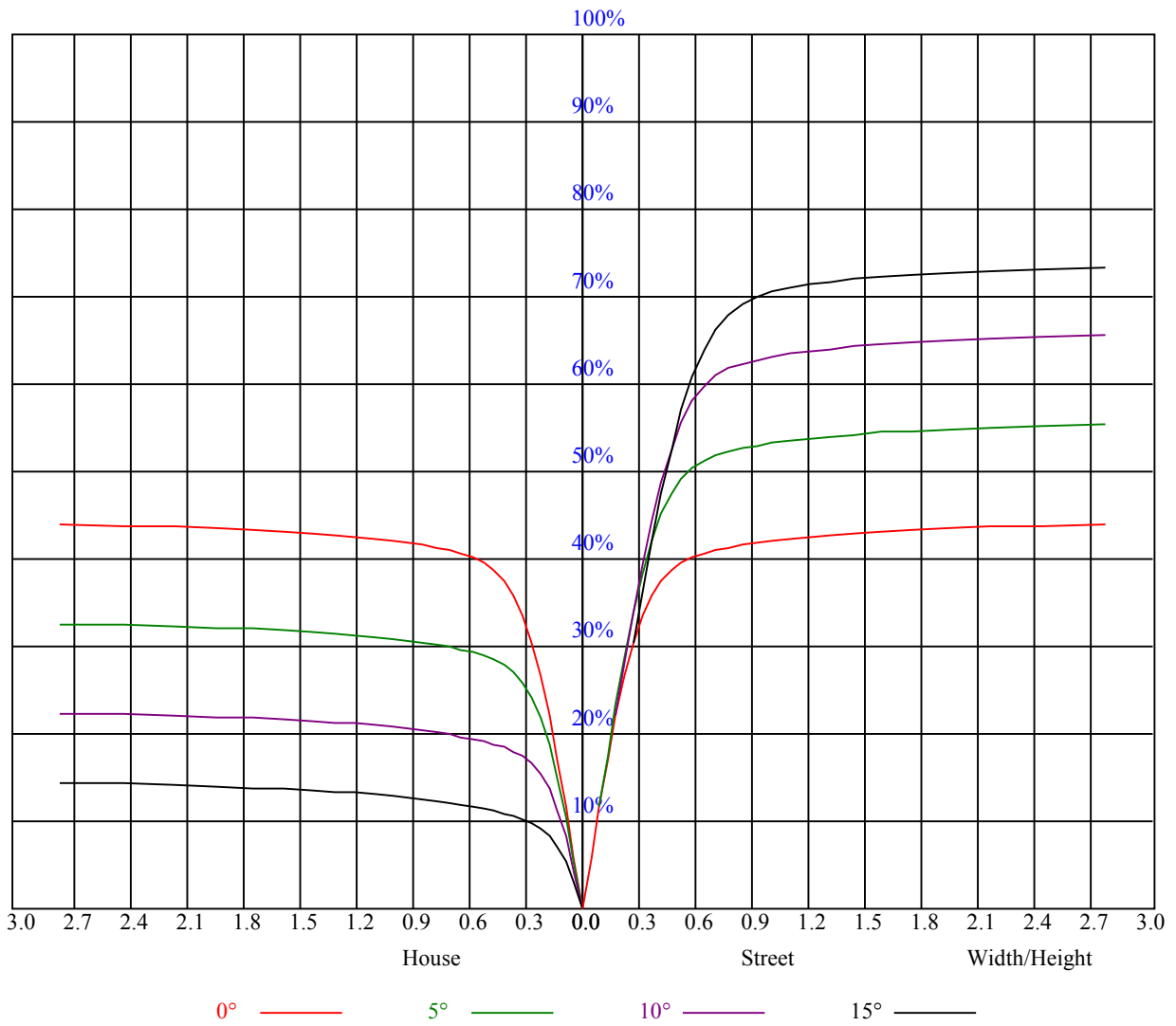
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

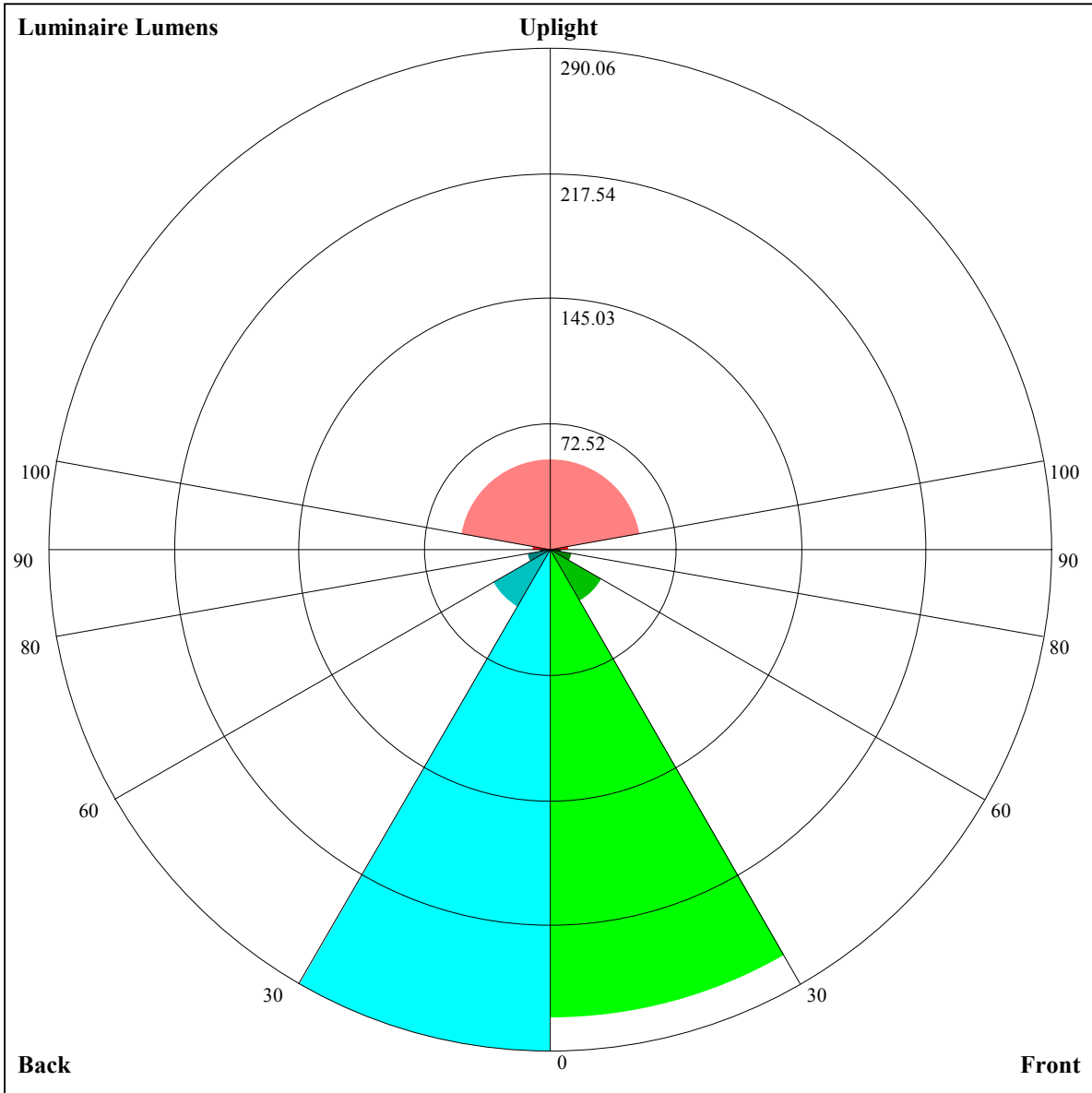
Luminance Limiting Curve





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	1.08	1.08	1.08	1.06	1.06	1.06	1.01	1.01	1.01	0.97	0.97	0.97	0.93	0.93	0.93	0.91
1	1.00	0.98	0.96	0.98	0.96	0.94	0.95	0.93	0.91	0.91	0.90	0.88	0.88	0.87	0.86	0.84
2	0.94	0.90	0.87	0.92	0.89	0.86	0.89	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.81	0.79
3	0.88	0.84	0.80	0.87	0.83	0.80	0.85	0.81	0.79	0.82	0.80	0.77	0.80	0.78	0.76	0.75
4	0.84	0.79	0.75	0.83	0.78	0.75	0.81	0.77	0.74	0.79	0.76	0.73	0.77	0.75	0.72	0.71
5	0.79	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.68
6	0.76	0.71	0.67	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.66	0.71	0.68	0.66	0.65
7	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.67	0.64	0.70	0.66	0.63	0.69	0.66	0.63	0.62
8	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.64	0.61	0.66	0.63	0.61	0.60
9	0.67	0.62	0.59	0.66	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.64	0.61	0.58	0.57
10	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.63	0.59	0.56	0.62	0.59	0.56	0.55





Luminaire Lumens:

FL=271.06,FM=34.26,FH=12.91,FVH=6.57

BL=290.06,BM=38.34,BH=13.41,BVH=6.81

UL=11.17,UH=53.15

BUG Rating:B1-U2-G0

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	1635.19	1581.19	1376.44	988.31	515.25	285.19	72.51	36.68	29.70
45.0	1631.81	1680.19	1587.38	1257.19	748.69	291.94	101.19	46.63	30.15
90.0	1647.56	1737.56	1648.69	1256.06	852.98	351.23	127.41	54.45	34.14
135.0	1625.63	1704.94	1653.75	1379.81	948.38	443.81	164.14	67.84	37.97
180.0	1635.19	1614.94	1421.44	1093.44	683.94	281.42	108.23	48.09	32.74
225.0	1631.81	1502.44	1110.94	799.26	419.96	156.94	60.75	34.37	27.28
270.0	1647.56	1504.69	1220.63	883.69	448.88	141.36	61.20	31.95	26.21
315.0	1625.63	1477.13	1106.61	776.98	352.07	117.23	50.23	30.71	27.00
360.0	1635.19	1581.19	1376.44	988.31	515.25	285.19	72.51	36.68	29.70
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	27.28	24.98	21.77	17.83	13.84	11.25	11.70	14.01	11.87
45.0	25.43	23.01	19.41	15.81	12.71	10.58	9.28	10.97	12.32
90.0	29.08	26.78	23.29	19.13	14.79	11.53	9.28	12.71	13.67
135.0	30.71	28.24	24.41	20.36	16.76	14.29	12.43	14.40	15.13
180.0	29.42	27.68	24.08	19.91	15.75	12.66	10.91	13.61	12.94
225.0	24.81	22.33	18.56	15.30	12.21	9.96	10.18	13.11	11.87
270.0	25.48	23.34	19.46	15.81	12.26	9.90	10.97	13.61	11.42
315.0	25.82	22.89	19.46	16.20	13.28	12.04	14.06	14.57	13.78
360.0	27.28	24.98	21.77	17.83	13.84	11.25	11.70	14.01	11.87
C/ $\gamma$ (°)	90.0								
0.0	10.63								
45.0	8.61								
90.0	9.96								
135.0	12.66								
180.0	10.24								
225.0	10.01								
270.0	9.45								
315.0	10.35								
360.0	10.63								