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Client:

LumCAT: 1451-E

Luminaire: 92.70.043.00

Report No: nt0100

Test No: GC2019121812

LampCAT: LUMINUS CXM-6-AC40

Lamp flux(lm): 823.0

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 34.7500

Current(A): 0.1970

Power (W): 6.8400

PF: 1.0000

Ballast type: DC

Width(mm): 0

Height(mm): 0

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Photometric Results

Lumens(lm): 725.47, Efficiency(%): 88.15% , Luminous Efficacy(lm/W): 106.06

Central intensity(cd): 1388.391, Maximum intensity(cd): 1388.391

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

Beam Angle(50%Imax): [C0/180]Total=35.2

[C90/270]Total=35.2

Field angle(10%Imax): [C0/180]Total=77.0

[C90/270]Total=77.0

Maximum s/h(1/2): C0\_180=0.57 C90\_270=0.57

Maximum s/h(1/4): C0\_180=0.63 C90\_270=0.63

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.15%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.943%

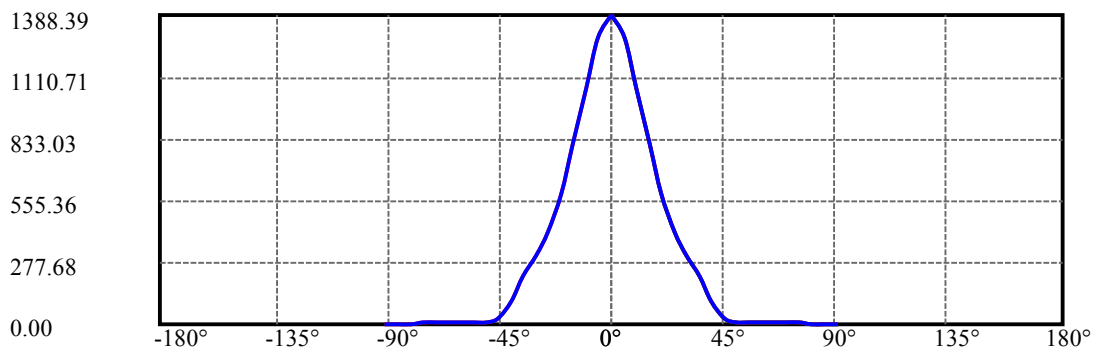
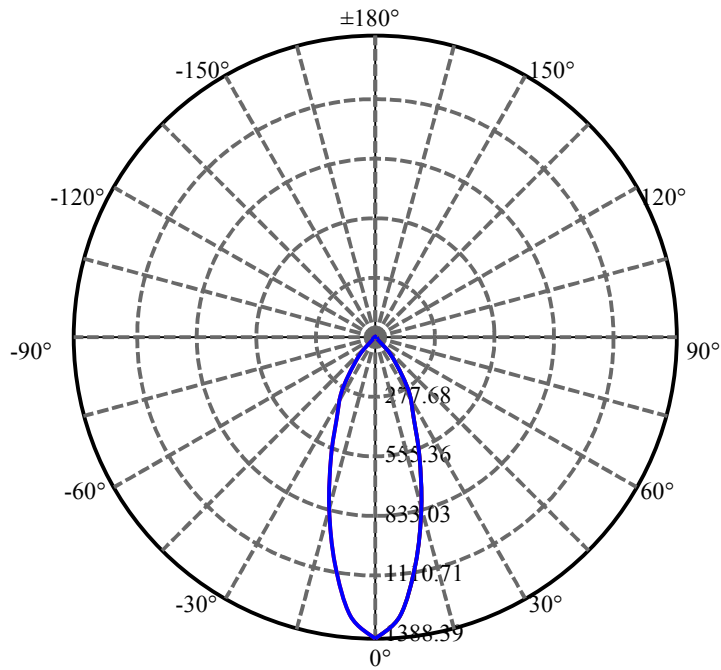
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1388.391	0.000	0	.000%	.000%
5.0	1285.896	31.970	31.97	3.885%	4.407%
10.0	1061.585	83.977	115.947	10.204%	15.982%
15.0	812.834	111.189	227.136	13.510%	31.309%
20.0	585.724	115.261	342.397	14.005%	47.196%
25.0	412.010	104.644	447.041	12.715%	61.621%
30.0	310.936	91.489	538.531	11.117%	74.232%
35.0	218.278	77.930	616.461	9.469%	84.974%
40.0	105.652	54.045	670.506	6.567%	92.423%
45.0	27.928	24.733	695.24	3.005%	95.833%
50.0	10.835	7.833	703.072	.952%	96.912%
55.0	7.966	4.088	707.16	.497%	97.476%
60.0	6.694	3.389	710.549	.412%	97.943%
65.0	5.822	3.043	713.592	.370%	98.362%
70.0	5.351	2.829	716.421	.344%	98.752%
75.0	4.873	2.672	719.093	.325%	99.121%
80.0	4.155	2.416	721.509	.294%	99.454%
85.0	3.579	2.102	723.61	.255%	99.743%
90.0	3.220	1.862	725.472	.226%	100.000%

## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	538.53	65.44%	74.23%
0-40	670.51	81.47%	92.42%
0-60	710.55	86.34%	97.94%
0-90	723.61	87.92%	99.74%
0-120	723.61	87.92%	99.74%
0-180	725.47	88.15%	100.00%
60-90	16.45	2.00%	2.27%
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%
0-32.68	580.38	70.52%	80.00%

## ZONAL LUMEN SUMMARY

0-10	115.95
10-20	226.45
20-30	196.13
30-40	131.98
40-50	32.57
50-60	7.48
60-70	5.87
70-80	5.09
80-90	2.10
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: —————

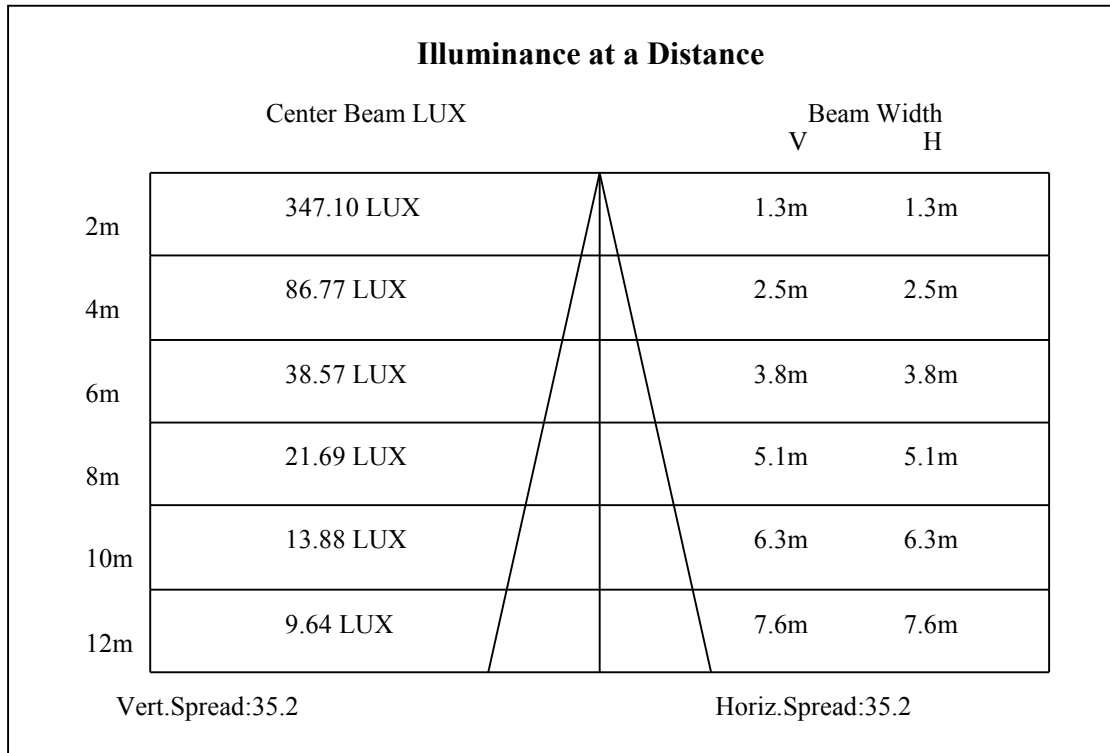
C90/C270: —————

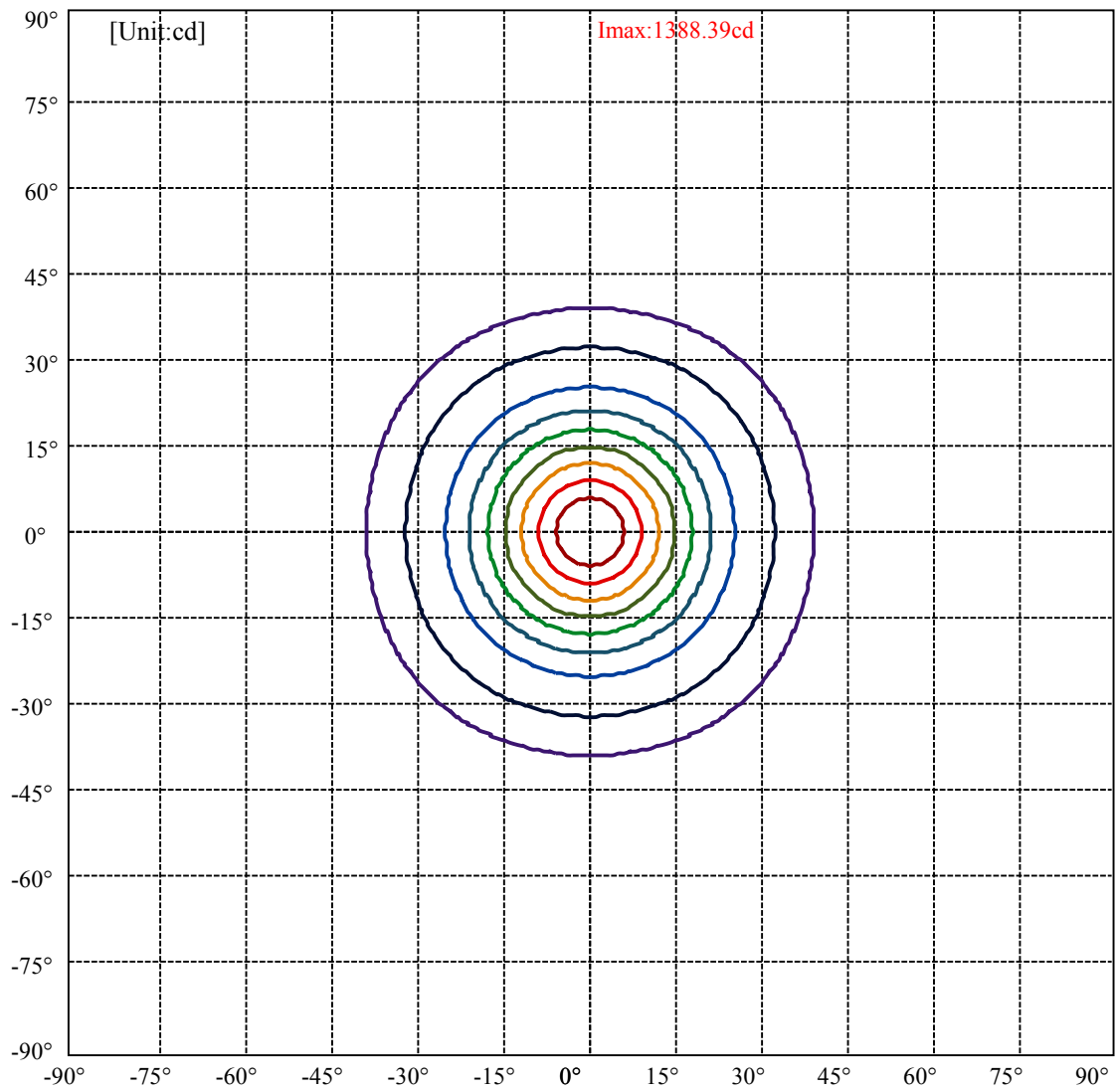
Field angle(10%Imax):C0/180Left:38.5 Right:38.5

:C90/270Left:38.5 Right:38.5

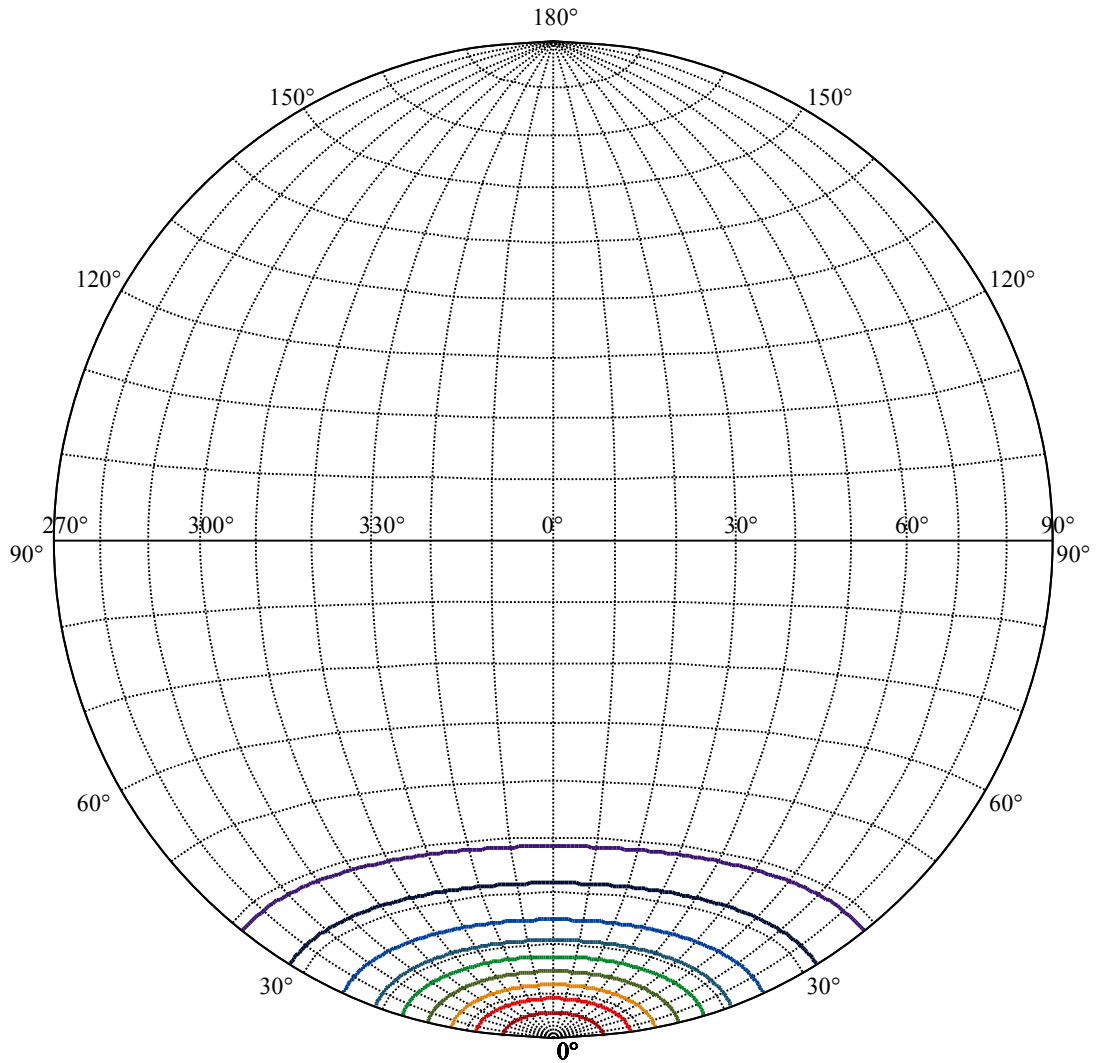
Beam Angle(50%Imax):C0/180Left:17.6 Right:17.6

:C90/270Left:17.6 Right:17.6





(10%Imax) 138.839	—
(20%Imax) 277.678	—
(30%Imax) 416.517	—
(40%Imax) 555.356	—
(50%Imax) 694.195	—
(60%Imax) 833.034	—
(70%Imax) 971.873	—
(80%Imax) 1110.71	—
(90%Imax) 1249.55	—



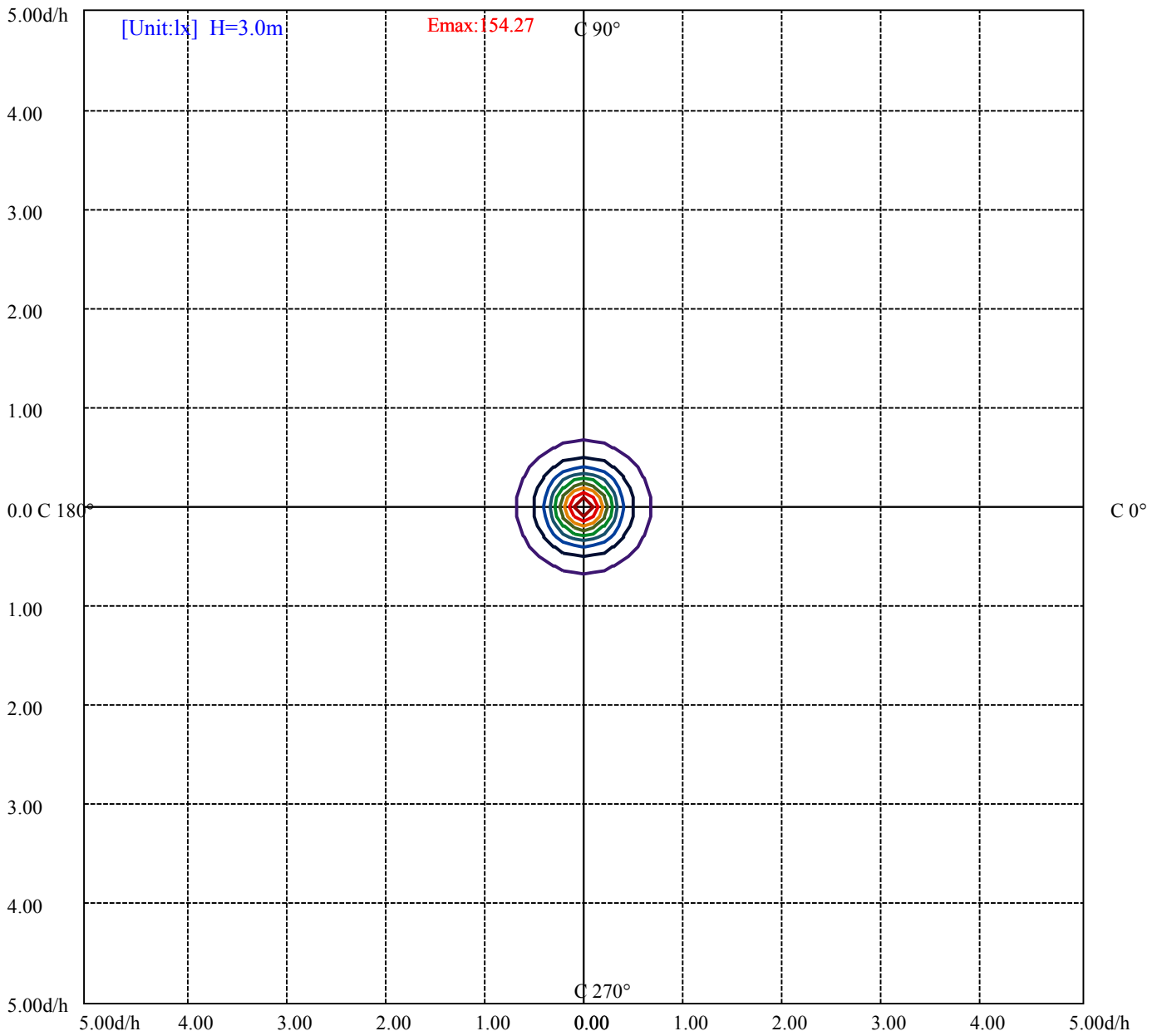
House

[Unit:cd]

Road

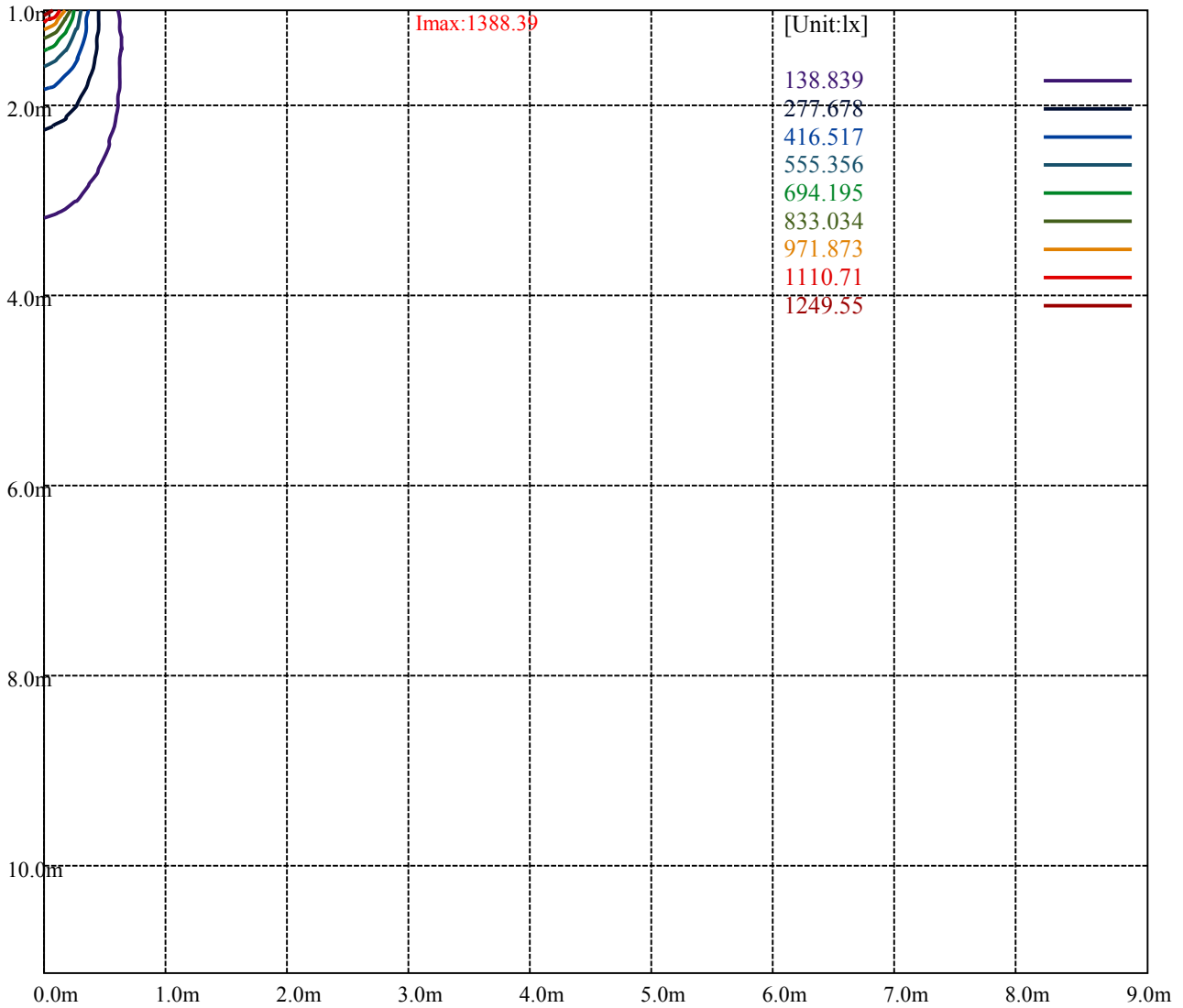
Imax:1388.39

(10%Imax)	138.839	—
(20%Imax)	277.678	—
(30%Imax)	416.517	—
(40%Imax)	555.356	—
(50%Imax)	694.195	—
(60%Imax)	833.034	—
(70%Imax)	971.873	—
(80%Imax)	1110.71	—
(90%Imax)	1249.55	—



(10%Emax)	15.42656	—
(20%Emax)	30.85311	—
(30%Emax)	46.27956	—
(40%Emax)	61.70611	—
(50%Emax)	77.13266	—
(60%Emax)	92.55923	—
(70%Emax)	107.9857	—
(80%Emax)	123.4122	—
(90%Emax)	138.8389	—





Luminance Table

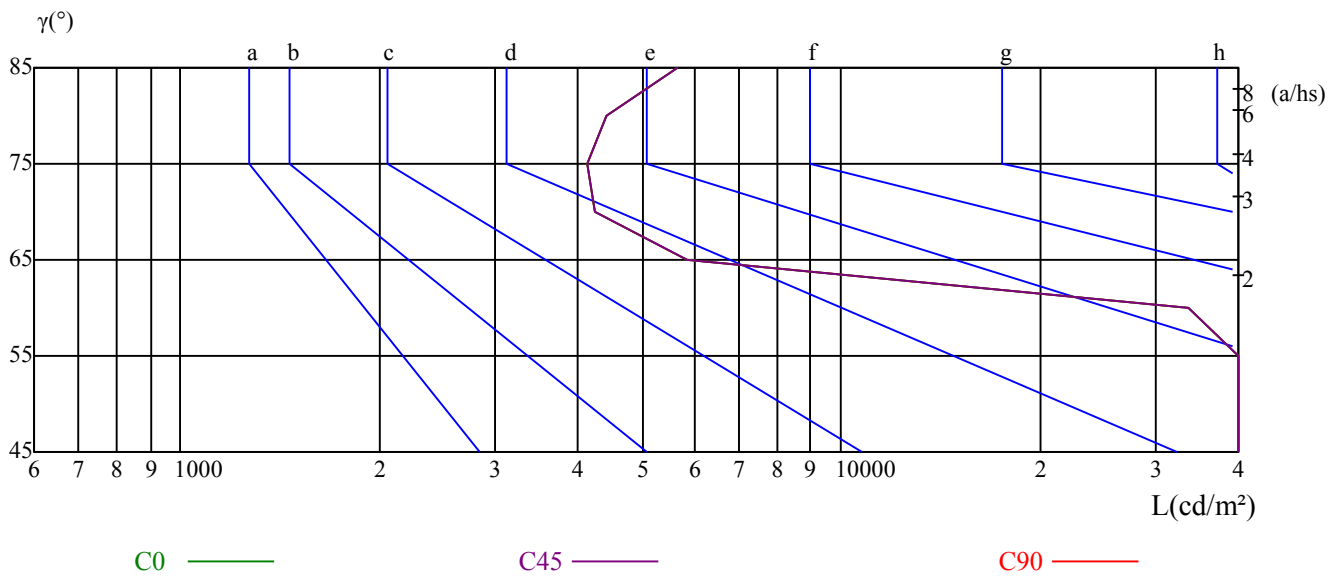
$\gamma$	45	50	55	60	65	70	75	80	85
C0	46650	52836	53885	33658	5848	4245	4131	4405	5640
C45	46650	52836	53885	33658	5848	4245	4131	4405	5640
C90	46650	52836	53885	33658	5848	4245	4131	4405	5640

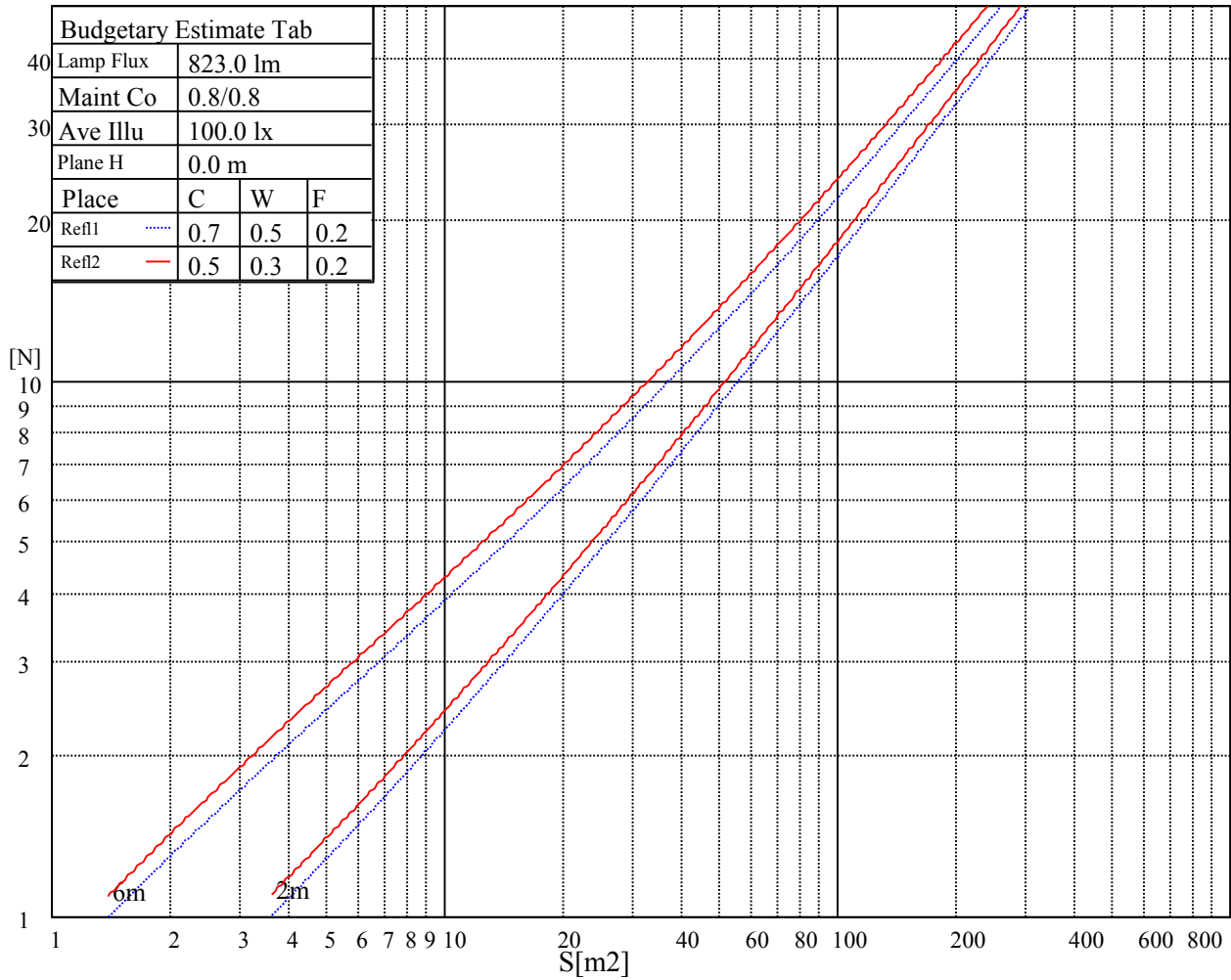
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5848	5848	5848	4131	4131	4131	5640	5640	5640

Glare Table

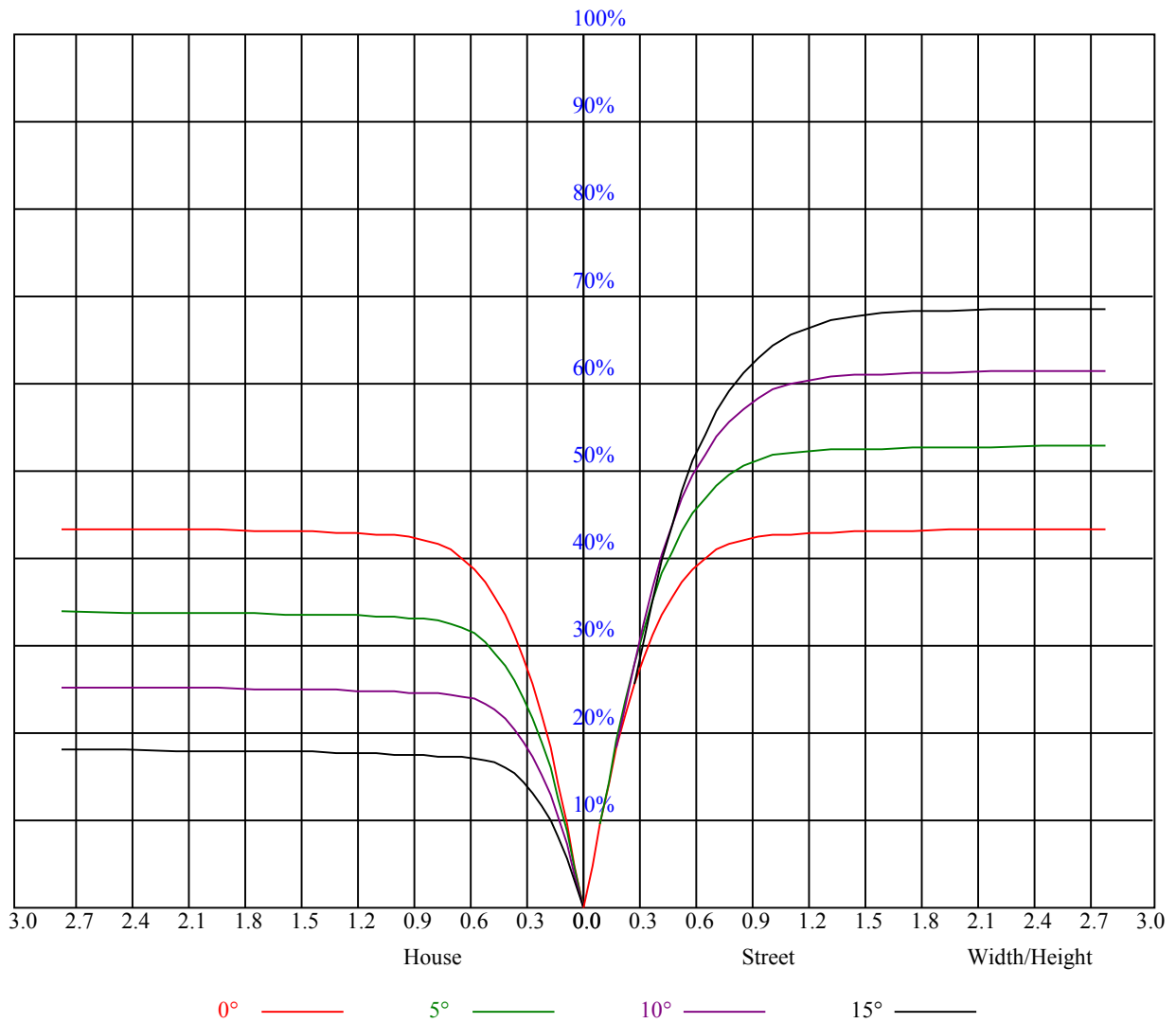
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

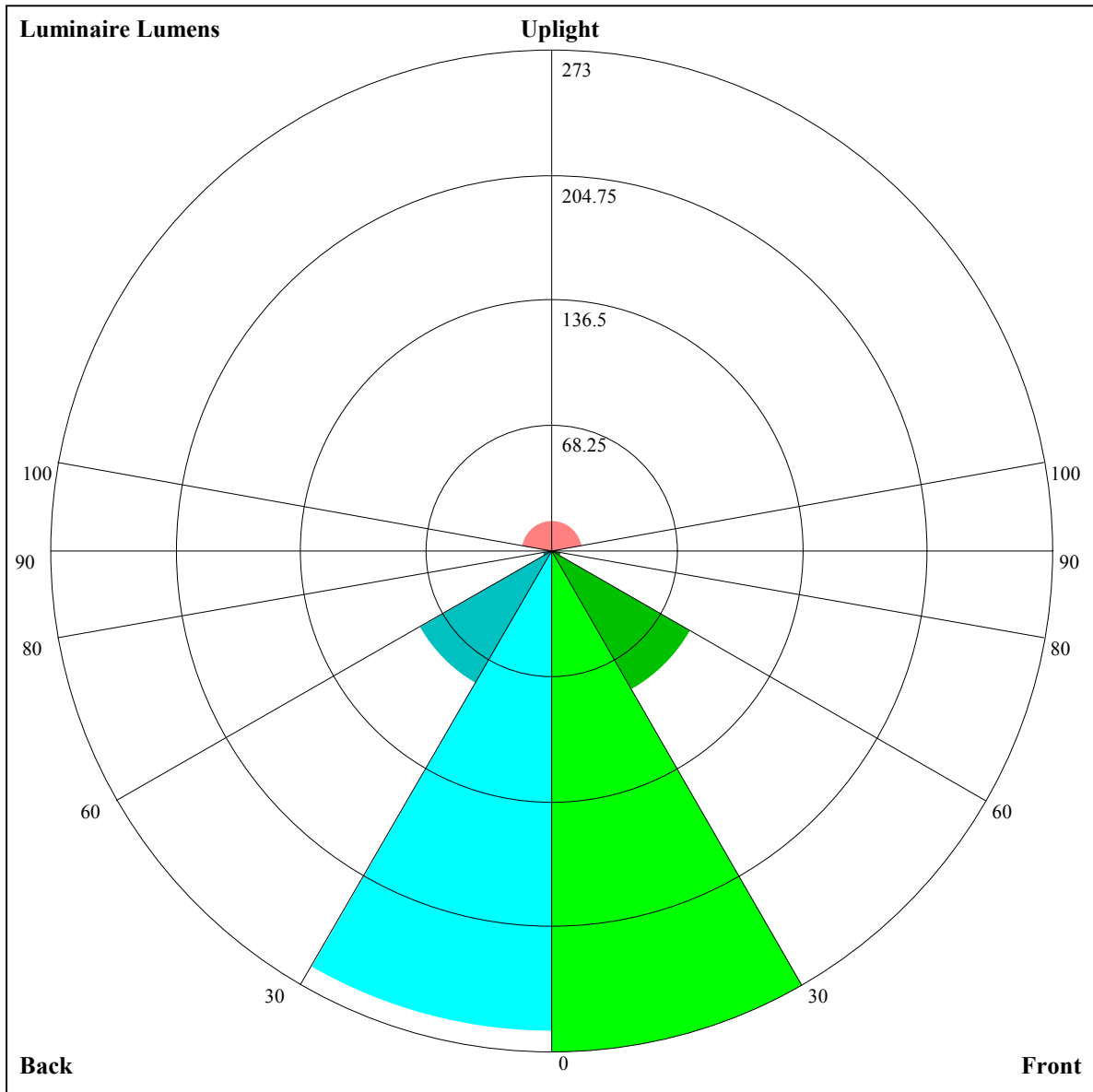
Luminance Limiting Curve





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	1.05	1.05	1.05	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.90	0.90	0.90	0.88
1	0.98	0.95	0.93	0.96	0.94	0.92	0.92	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.82
2	0.91	0.88	0.85	0.90	0.86	0.84	0.87	0.84	0.82	0.84	0.82	0.80	0.82	0.80	0.78	0.77
3	0.85	0.81	0.78	0.84	0.80	0.77	0.82	0.78	0.76	0.80	0.77	0.75	0.78	0.75	0.73	0.72
4	0.80	0.75	0.72	0.79	0.75	0.71	0.77	0.74	0.71	0.75	0.72	0.70	0.74	0.71	0.69	0.68
5	0.75	0.71	0.67	0.75	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.65	0.70	0.67	0.65	0.64
6	0.71	0.66	0.63	0.71	0.66	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.61	0.60
7	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.58	0.65	0.61	0.58	0.64	0.60	0.58	0.57
8	0.64	0.59	0.56	0.64	0.59	0.56	0.63	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.55	0.54
9	0.61	0.56	0.53	0.60	0.56	0.53	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.55	0.52	0.51
10	0.58	0.53	0.50	0.58	0.53	0.50	0.57	0.53	0.50	0.56	0.52	0.50	0.56	0.52	0.50	0.48





Luminaire Lumens:

FL=273,FM=87.45,FH=5.45,FVH=2.03

BL=261.85,BM=83.84,BH=5.2,BVH=1.92

UL=3.51,UH=16.72

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	1386.00	1326.38	1116.56	844.31	604.69	429.75	322.88	237.43	128.53
45.0	1383.19	1409.63	1222.31	956.81	696.94	480.94	331.31	245.14	152.83
90.0	1401.19	1396.69	1108.58	942.13	700.03	481.61	340.76	259.43	150.64
135.0	1383.19	1346.06	1179.56	942.75	696.38	474.75	352.69	284.06	150.47
180.0	1386.00	1238.63	1009.41	750.26	527.46	380.36	303.24	203.68	90.00
225.0	1383.19	1108.29	903.21	664.71	449.55	321.58	254.64	153.28	48.49
270.0	1401.19	1225.69	968.06	687.94	495.56	363.38	292.50	185.79	61.26
315.0	1383.19	1235.81	984.99	713.76	515.19	363.71	289.46	177.41	63.00
360.0	1386.00	1326.38	1116.56	844.31	604.69	429.75	322.88	237.43	128.53
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	25.09	10.97	8.38	6.98	5.85	5.18	4.84	4.61	3.49
45.0	48.49	15.41	10.91	9.39	8.49	7.99	7.59	5.91	3.94
90.0	39.49	12.60	7.93	6.53	5.51	4.95	4.84	4.33	3.49
135.0	39.54	11.70	7.43	5.96	4.89	4.22	3.88	3.66	3.54
180.0	19.07	10.13	8.44	7.37	6.64	6.41	5.85	3.94	3.43
225.0	18.34	10.41	8.66	7.43	6.64	6.08	4.56	3.54	3.54
270.0	18.23	7.82	5.96	4.95	4.33	4.05	3.60	3.49	3.66
315.0	15.19	7.65	6.02	4.95	4.22	3.94	3.83	3.77	3.54
360.0	25.09	10.97	8.38	6.98	5.85	5.18	4.84	4.61	3.49
C/ $\gamma$ (°)	90.0								
0.0	3.32								
45.0	3.21								
90.0	3.26								
135.0	3.38								
180.0	3.32								
225.0	3.09								
270.0	3.09								
315.0	3.09								
360.0	3.32								