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## Nata

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Client:

LumCAT: LM01D06938BJ

Luminaire: 92.70.065.00

Report No:

Voltage(V): 32.9700

Test No: GC2019072208

Current(A): 0.2970

LampCAT: LUMINUS CXM-14

Power (W): 9.7900

Lamp flux(lm): 1570.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 38

Width(mm): 38

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 1407.10, Efficiency(%): 89.62% , Luminous Efficacy(lm/W): 143.73

Central intensity(cd): 2403.844, Maximum intensity(cd): 2403.844

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

Beam Angle(50%Imax): [C0/180]Total=40.2

[C90/270]Total=40.2

Field angle(10%Imax): [C0/180]Total=71.6

[C90/270]Total=71.6

Maximum s/h(1/2): C0\_180=0.66 C90\_270=0.66

Maximum s/h(1/4): C0\_180=0.65 C90\_270=0.65

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.62%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.362%

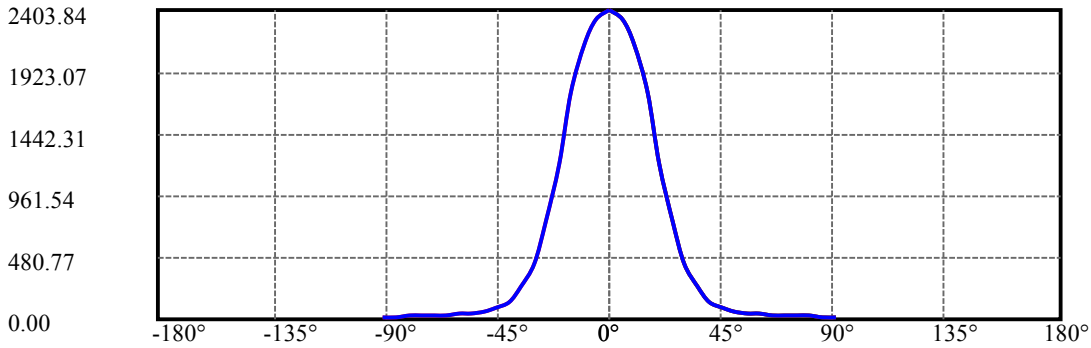
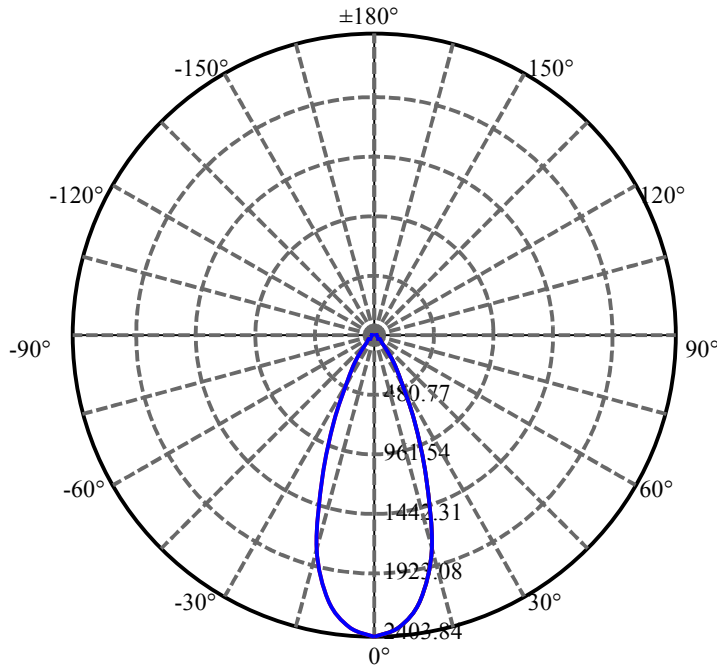
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2403.844	0.000	0	.000%	.000%
5.0	2332.125	56.617	56.617	3.606%	4.024%
10.0	2140.594	160.003	216.62	10.191%	15.395%
15.0	1765.617	231.714	448.334	14.759%	31.862%
20.0	1210.901	245.307	693.641	15.625%	49.296%
25.0	755.248	206.213	899.854	13.135%	63.951%
30.0	427.985	149.739	1049.593	9.538%	74.593%
35.0	258.300	101.060	1150.653	6.437%	81.775%
40.0	139.212	66.322	1216.975	4.224%	86.488%
45.0	84.670	41.454	1258.429	2.640%	89.434%
50.0	56.841	28.594	1287.023	1.821%	91.466%
55.0	42.272	21.550	1308.573	1.373%	92.998%
60.0	40.781	19.197	1327.771	1.223%	94.362%
65.0	31.985	17.690	1345.46	1.127%	95.620%
70.0	25.193	14.478	1359.938	.922%	96.648%
75.0	22.458	12.455	1372.393	.793%	97.534%
80.0	25.861	12.929	1385.322	.823%	98.452%
85.0	18.598	12.080	1397.403	.769%	99.311%
90.0	16.812	9.695	1407.098	.618%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1049.59	66.85%	74.59%
0-40	1216.97	77.51%	86.49%
0-60	1327.77	84.57%	94.36%
0-90	1397.40	89.01%	99.31%
0-120	1397.40	89.01%	99.31%
0-180	1407.10	89.62%	100.00%
60-90	88.83	5.66%	6.31%
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%
0-33.76	1125.68	71.70%	80.00%

ZONAL LUMEN SUMMARY

0-10	216.62
10-20	477.02
20-30	355.95
30-40	167.38
40-50	70.05
50-60	40.75
60-70	32.17
70-80	25.38
80-90	12.08
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: —————

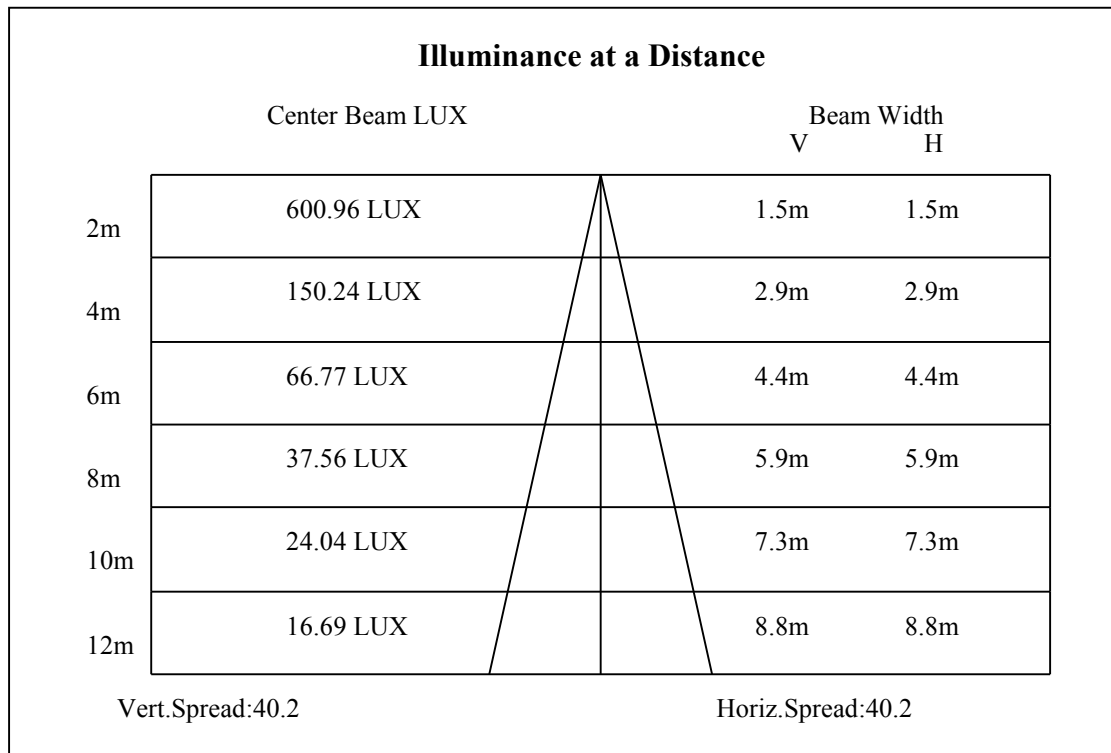
C90/C270: —————

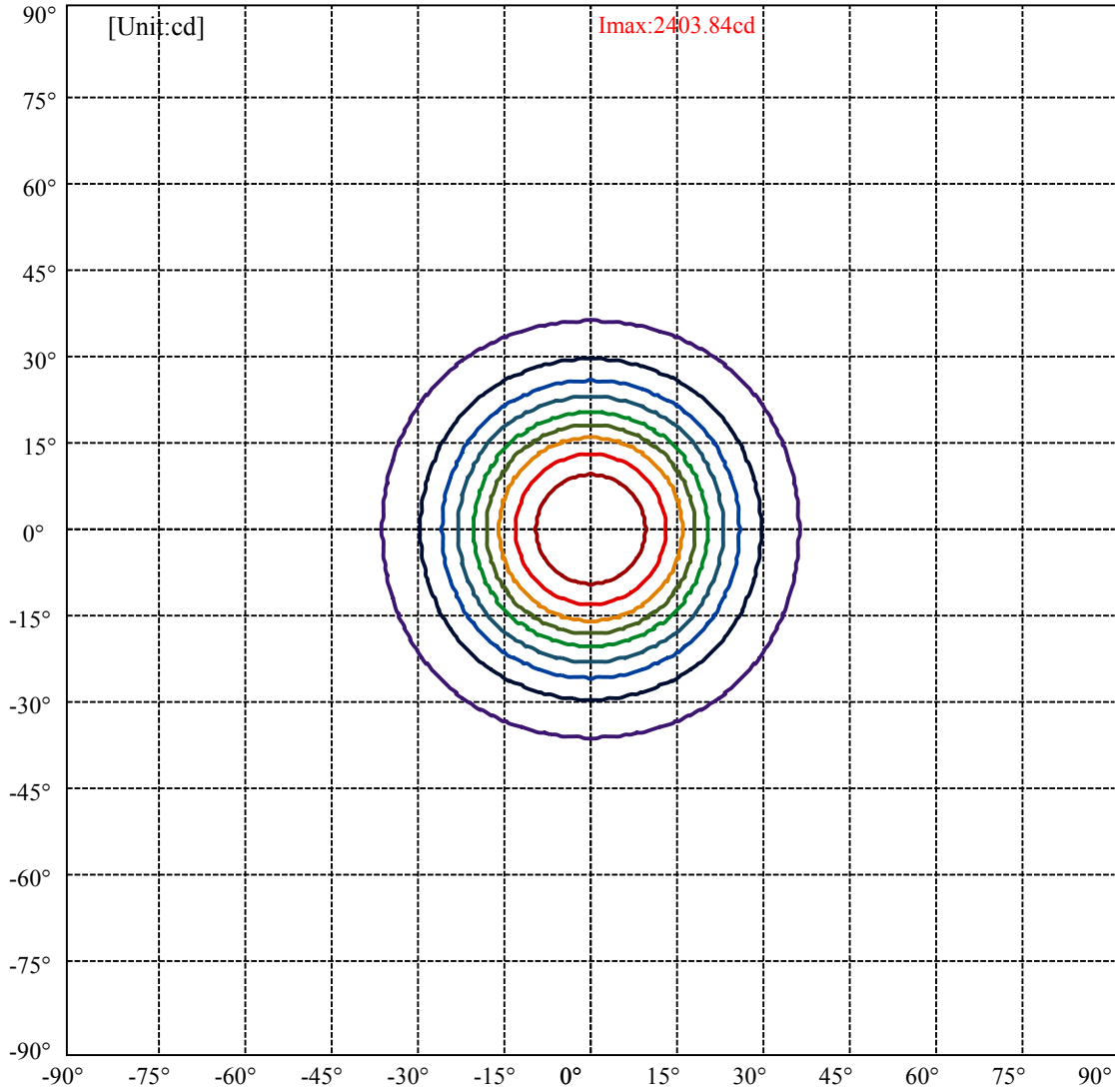
Field angle(10%Imax):C0/180Left:35.8 Right:35.8

:C90/270Left:35.8 Right:35.8

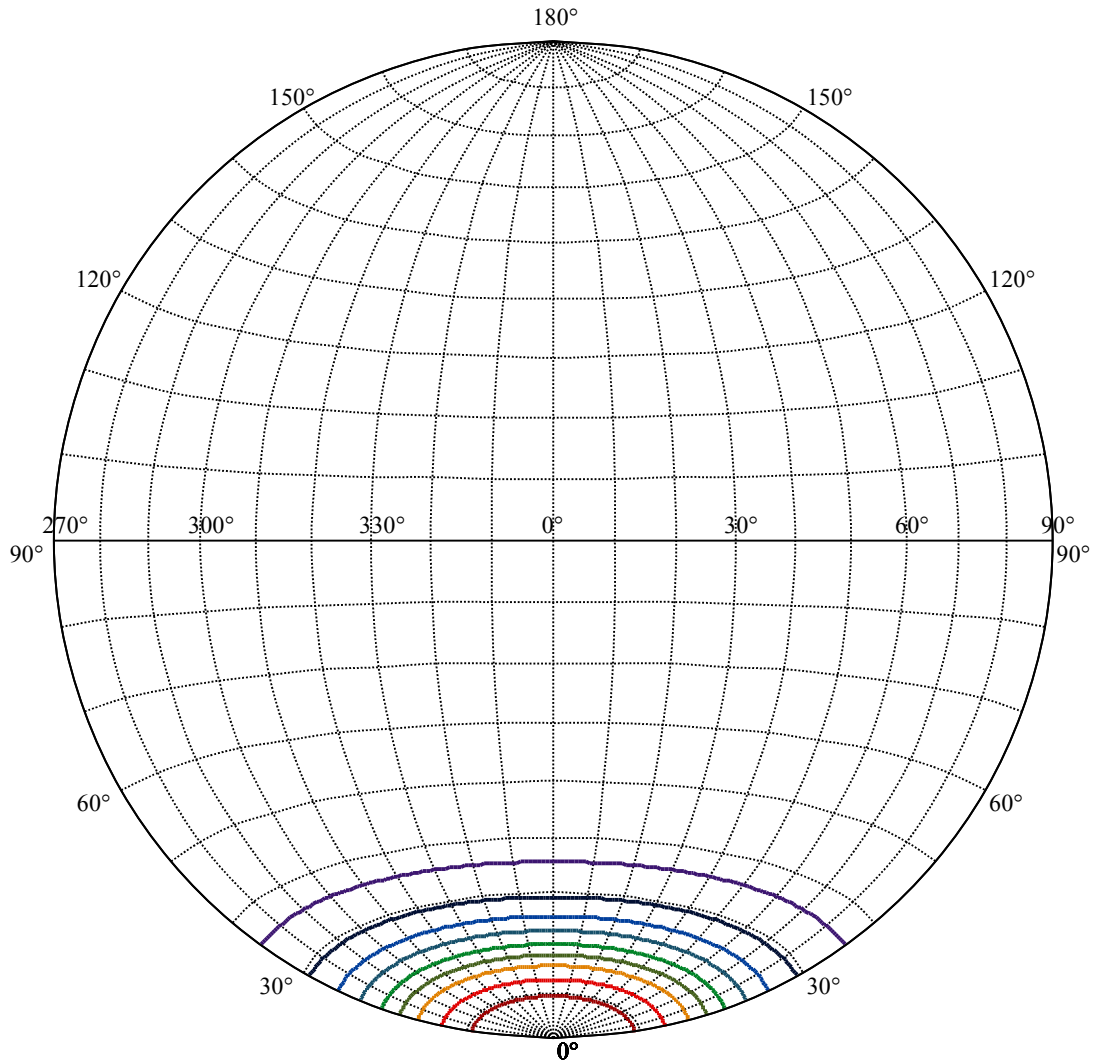
Beam Angle(50%Imax):C0/180Left:20.1 Right:20.1

:C90/270Left:20.1 Right:20.1





(10%Imax) 240.384	—
(20%Imax) 480.769	—
(30%Imax) 721.153	—
(40%Imax) 961.537	—
(50%Imax) 1201.92	—
(60%Imax) 1442.31	—
(70%Imax) 1682.69	—
(80%Imax) 1923.07	—
(90%Imax) 2163.46	—



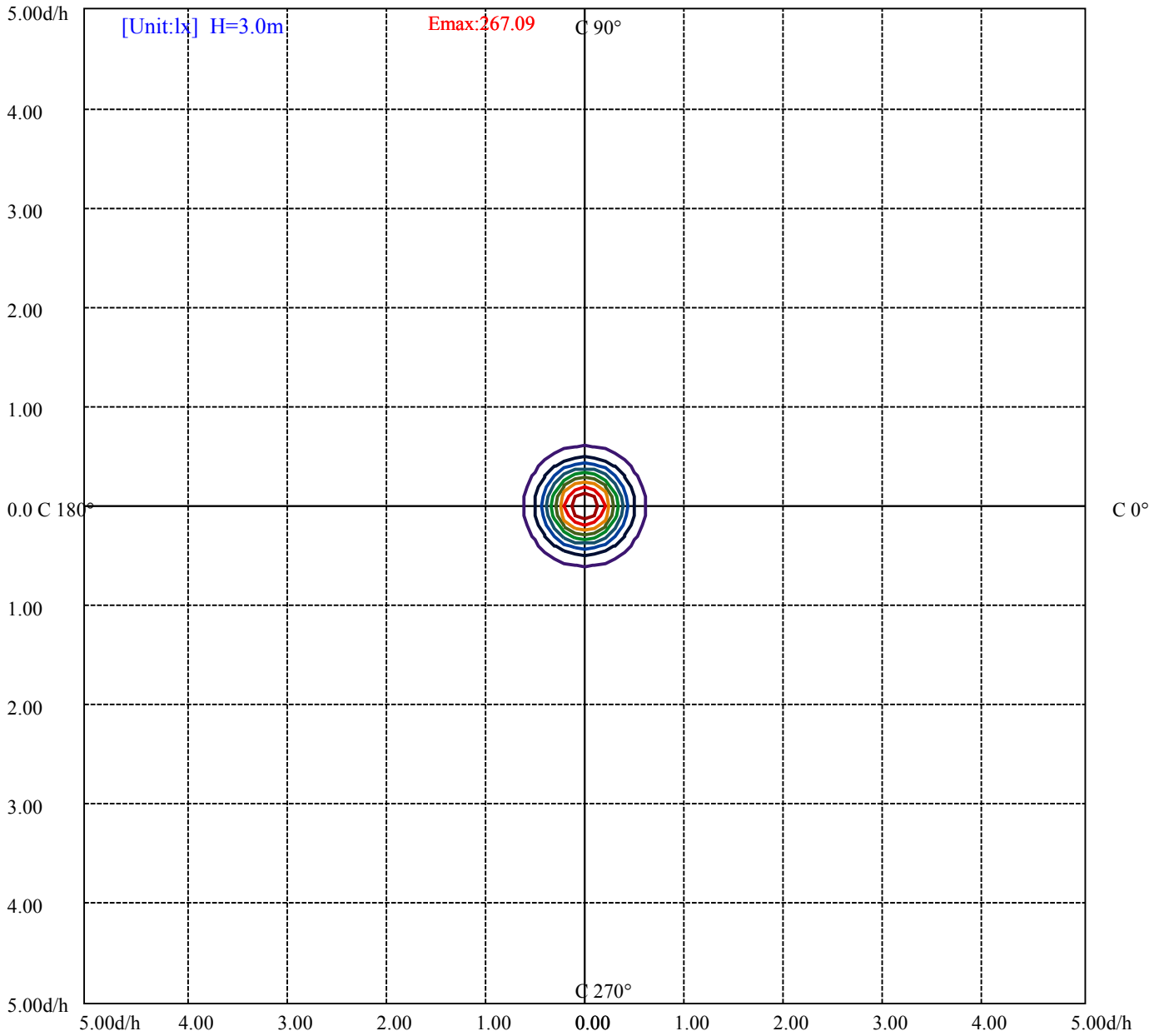
House

[Unit:cd]

Road

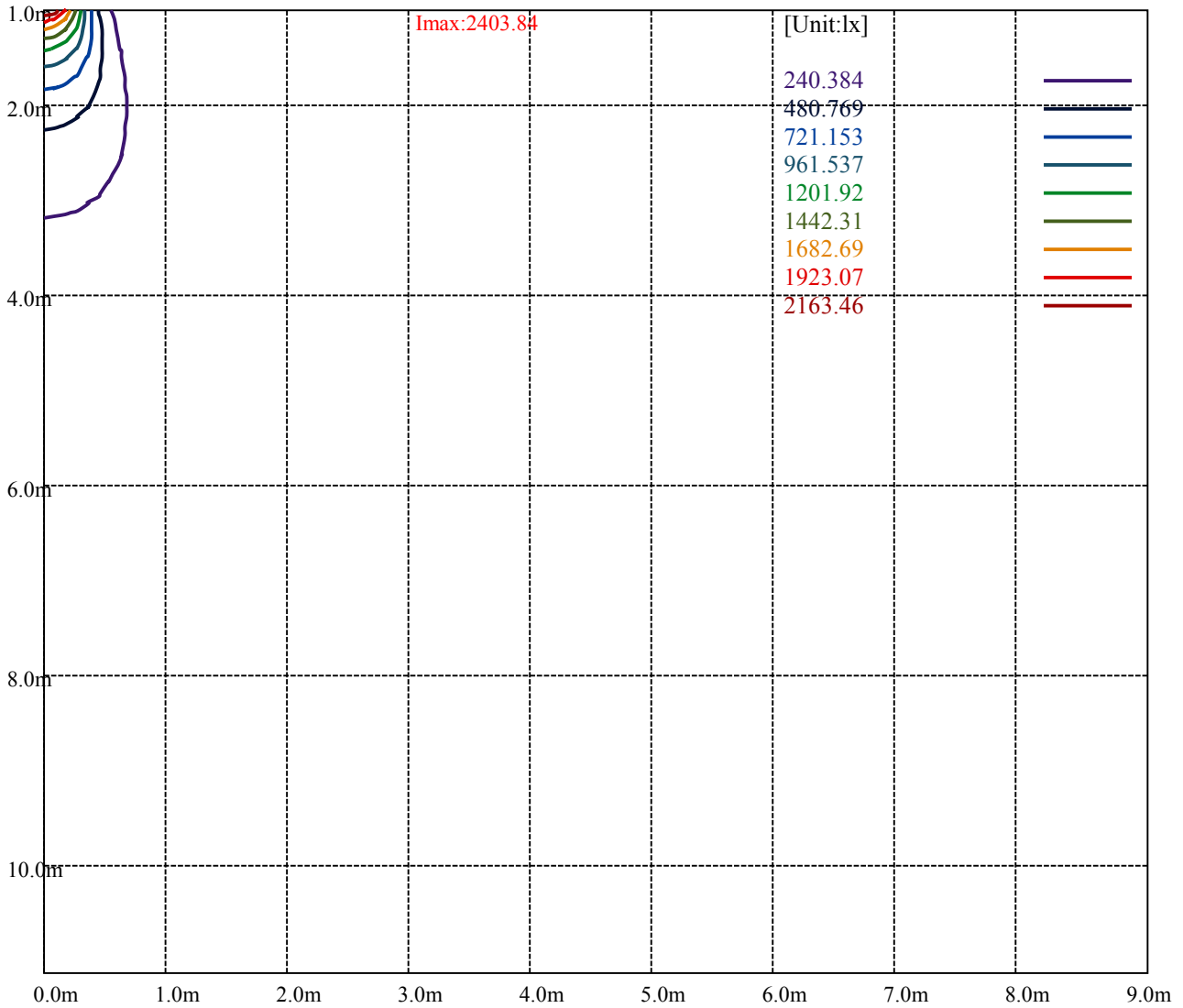
**Imax:2403.84**

(10%Imax) 240.384	—
(20%Imax) 480.769	—
(30%Imax) 721.153	—
(40%Imax) 961.537	—
(50%Imax) 1201.92	—
(60%Imax) 1442.31	—
(70%Imax) 1682.69	—
(80%Imax) 1923.07	—
(90%Imax) 2163.46	—



(10%Emax) 26.70933	—
(20%Emax) 53.41867	—
(30%Emax) 80.128	—
(40%Emax) 106.8374	—
(50%Emax) 133.5467	—
(60%Emax) 160.2556	—
(70%Emax) 186.9655	—
(80%Emax) 213.6744	—
(90%Emax) 240.3844	—





Luminance Table

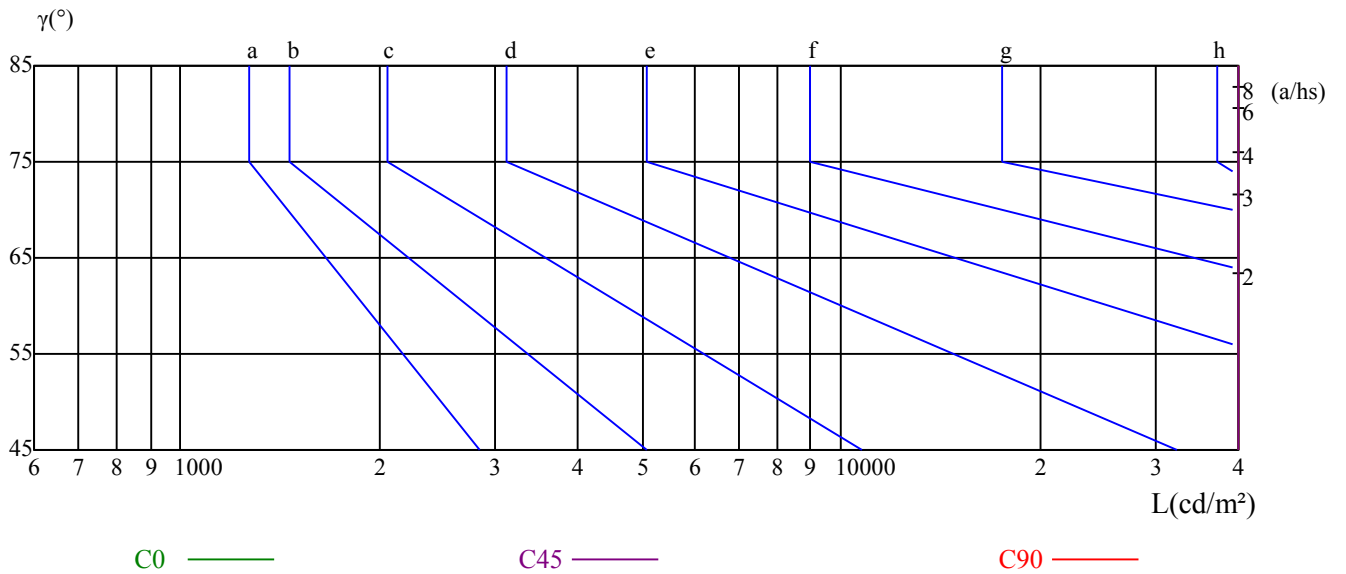
$\gamma$	45	50	55	60	65	70	75	80	85
C0	82924	61238	51038	56484	52412	51011	60090	103135	147773
C45	82924	61238	51038	56484	52412	51011	60090	103135	147773
C90	82924	61238	51038	56484	52412	51011	60090	103135	147773

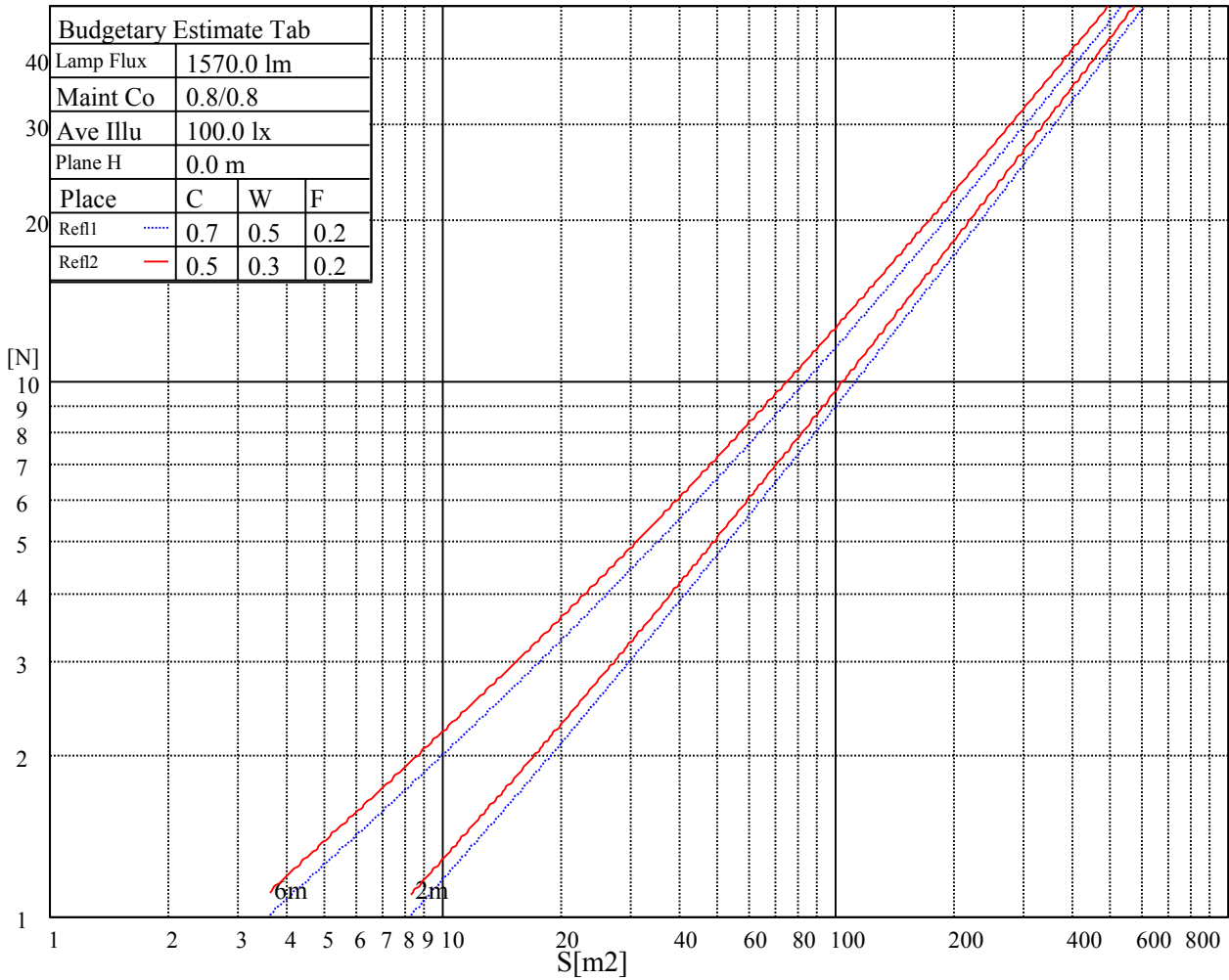
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
52412	52412	52412	60090	60090	60090	147773	147773	147773

Glare Table

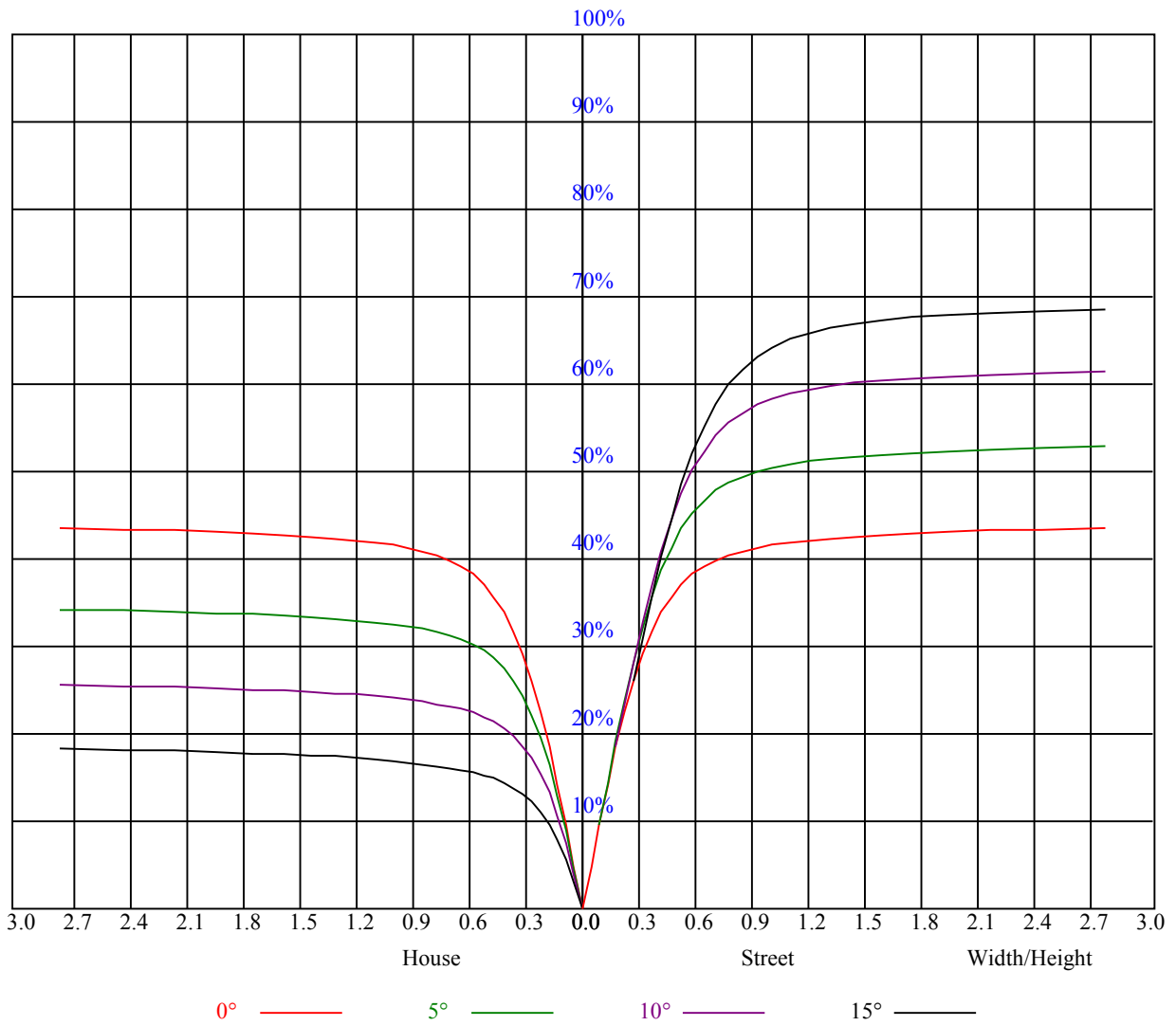
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

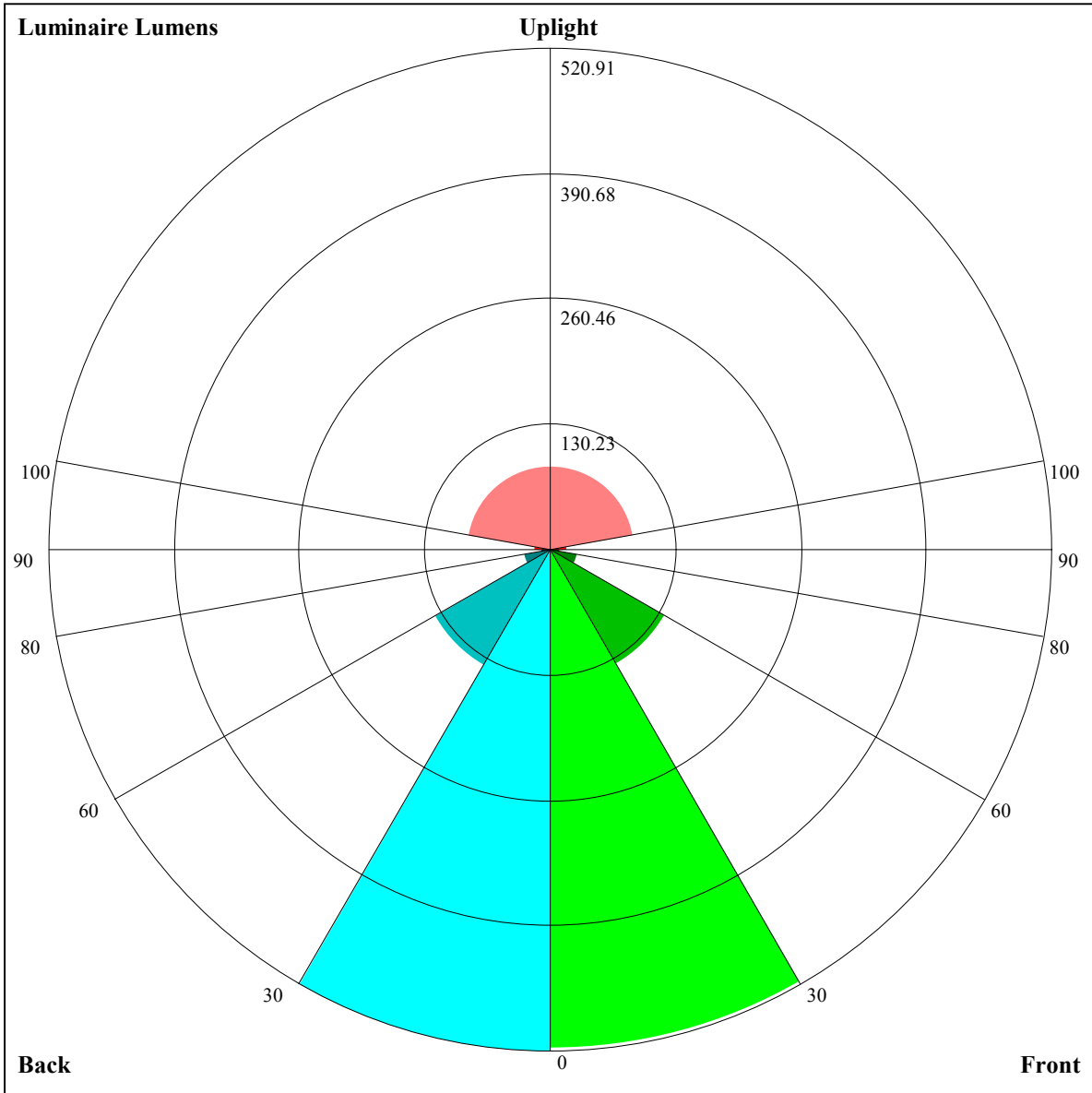
Luminance Limiting Curve





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	1.07	1.07	1.07	1.04	1.04	1.04	1.00	1.00	1.00	0.95	0.95	0.95	0.91	0.91	0.91	0.90
1	0.98	0.96	0.93	0.96	0.94	0.92	0.93	0.91	0.89	0.89	0.88	0.86	0.86	0.85	0.84	0.82
2	0.91	0.87	0.84	0.90	0.86	0.83	0.87	0.84	0.81	0.84	0.82	0.80	0.81	0.80	0.78	0.76
3	0.85	0.80	0.77	0.84	0.80	0.76	0.81	0.78	0.75	0.79	0.76	0.74	0.77	0.75	0.73	0.71
4	0.80	0.75	0.71	0.79	0.74	0.71	0.77	0.73	0.70	0.75	0.72	0.69	0.73	0.70	0.68	0.67
5	0.75	0.70	0.66	0.74	0.69	0.66	0.73	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.64	0.63
6	0.71	0.66	0.62	0.70	0.65	0.62	0.69	0.65	0.61	0.68	0.64	0.61	0.67	0.63	0.60	0.59
7	0.67	0.62	0.58	0.67	0.62	0.58	0.66	0.61	0.58	0.65	0.61	0.58	0.64	0.60	0.57	0.56
8	0.64	0.59	0.55	0.63	0.59	0.55	0.62	0.58	0.55	0.62	0.58	0.55	0.61	0.57	0.54	0.53
9	0.61	0.56	0.52	0.60	0.56	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.54	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	0.49	0.56	0.52	0.49	0.48





Luminaire Lumens:

FL=518.93,FM=137.76,FH=28.11,FVH=10.8

BL=520.91,BM=138.09,BH=28.69,BVH=10.71

UL=18.34,UH=87.29

BUG Rating:B2-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	2404.69	2332.13	2156.06	1774.13	1272.94	788.06	444.94	290.25	146.98
45.0	2403.00	2346.19	2157.19	1768.50	1322.44	776.25	433.69	293.06	136.80
90.0	2405.25	2323.69	2115.56	1708.88	1102.11	719.83	404.49	226.91	131.85
135.0	2402.44	2350.13	2184.75	1854.00	1361.81	835.88	491.63	286.88	152.94
180.0	2404.69	2332.69	2123.44	1775.25	1109.36	745.99	431.04	240.75	141.64
225.0	2403.00	2328.19	2129.06	1755.00	1115.10	712.24	394.54	220.89	127.41
270.0	2405.25	2343.94	2160.00	1806.19	1301.63	768.94	430.88	285.75	141.36
315.0	2402.44	2300.06	2098.69	1683.00	1101.83	694.80	392.68	221.91	134.72
360.0	2404.69	2332.13	2156.06	1774.13	1272.94	788.06	444.94	290.25	146.98

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	86.79	56.03	41.63	46.52	30.71	24.64	22.73	34.26	20.03
45.0	80.61	54.06	40.39	34.99	29.42	26.44	23.96	19.07	14.23
90.0	79.20	52.37	40.56	36.17	29.36	23.46	20.70	21.09	18.23
135.0	93.82	61.71	44.10	39.99	36.06	25.54	21.71	28.58	19.35
180.0	89.55	60.86	45.34	44.61	36.73	27.06	22.67	28.07	19.46
225.0	79.82	55.97	41.40	36.45	30.15	27.28	24.98	21.09	18.84
270.0	86.91	59.91	43.82	38.36	33.92	24.86	21.26	21.26	18.34
315.0	80.66	53.83	40.95	49.16	29.53	22.28	21.66	33.47	20.31
360.0	86.79	56.03	41.63	46.52	30.71	24.64	22.73	34.26	20.03

C/γ(°)	90.0
0.0	17.78
45.0	14.23
90.0	17.78
135.0	16.82
180.0	16.26
225.0	16.71
270.0	16.76
315.0	18.17
360.0	17.78