



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

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## Nata

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Client:

LumCAT: LM01D06938BJ

Luminaire: 92.70.074.00

Report No:

Voltage(V): 34.7000

Test No: GC2019072302

Current(A): 0.2970

LampCAT: CREE CXA1830

Power (W): 10.3100

Lamp flux(lm): 1109.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 69

Width(mm): 69

Phm Type: C

Height(mm): 0

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## Photometric Results

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Lumens(lm): 1005.68, Efficiency(%): 90.68% , Luminous Efficacy(lm/W): 97.54

Central intensity(cd): 1846.266, Maximum intensity(cd): 1846.266

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=67.4

[C90/270]Total=67.4

Maximum s/h(1/2): C0\_180=0.65 C90\_270=0.65

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(%): 90.68%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.550%

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Equipment: GMS1980  
Temperature(°C): 25.0

Date: 2019/7/23  
Humidity(%): 65.0%

Operator: NT07  
Distance(m): 7.50

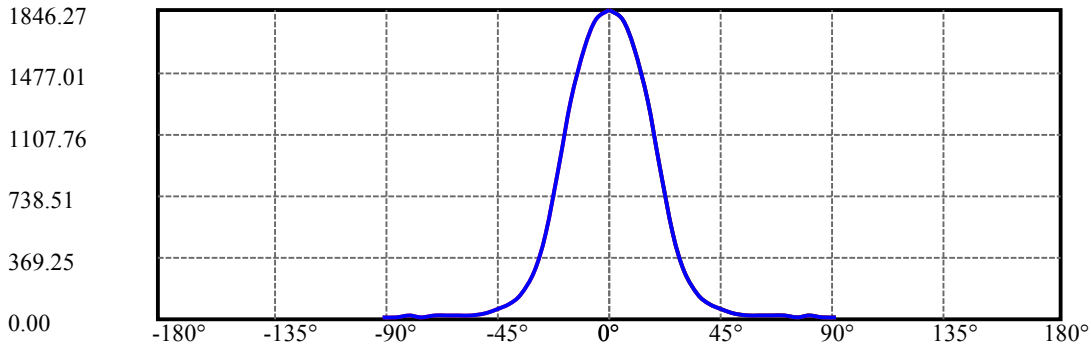
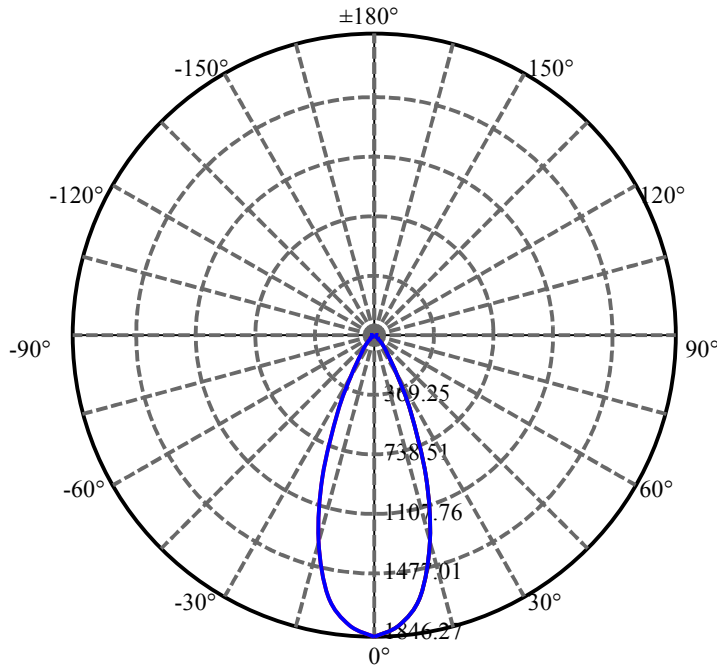
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1846.266	0.000	0	.000%	.000%
5.0	1784.039	43.399	43.399	3.913%	4.315%
10.0	1622.391	121.859	165.258	10.988%	16.433%
15.0	1304.543	173.624	338.882	15.656%	33.697%
20.0	930.220	184.176	523.058	16.607%	52.010%
25.0	521.564	152.265	675.323	13.730%	67.151%
30.0	286.059	102.205	777.528	9.216%	77.314%
35.0	148.521	63.995	841.523	5.771%	83.677%
40.0	86.794	39.261	880.784	3.540%	87.581%
45.0	53.234	25.927	906.711	2.338%	90.159%
50.0	36.323	18.096	924.807	1.632%	91.959%
55.0	27.591	13.897	938.704	1.253%	93.341%
60.0	25.038	12.165	950.87	1.097%	94.550%
65.0	21.108	11.218	962.088	1.012%	95.666%
70.0	17.522	9.781	971.869	.882%	96.638%
75.0	15.954	8.750	980.619	.789%	97.508%
80.0	18.710	9.275	989.894	.836%	98.431%
85.0	13.402	8.726	998.62	.787%	99.298%
90.0	12.375	7.058	1005.678	.636%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	777.53	70.11%	77.31%
0-40	880.78	79.42%	87.58%
0-60	950.87	85.74%	94.55%
0-90	998.62	90.05%	99.30%
0-120	998.62	90.05%	99.30%
0-180	1005.68	90.68%	100.00%
60-90	59.92	5.40%	5.96%
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%
0-32.11	804.54	72.55%	80.00%

ZONAL LUMEN SUMMARY

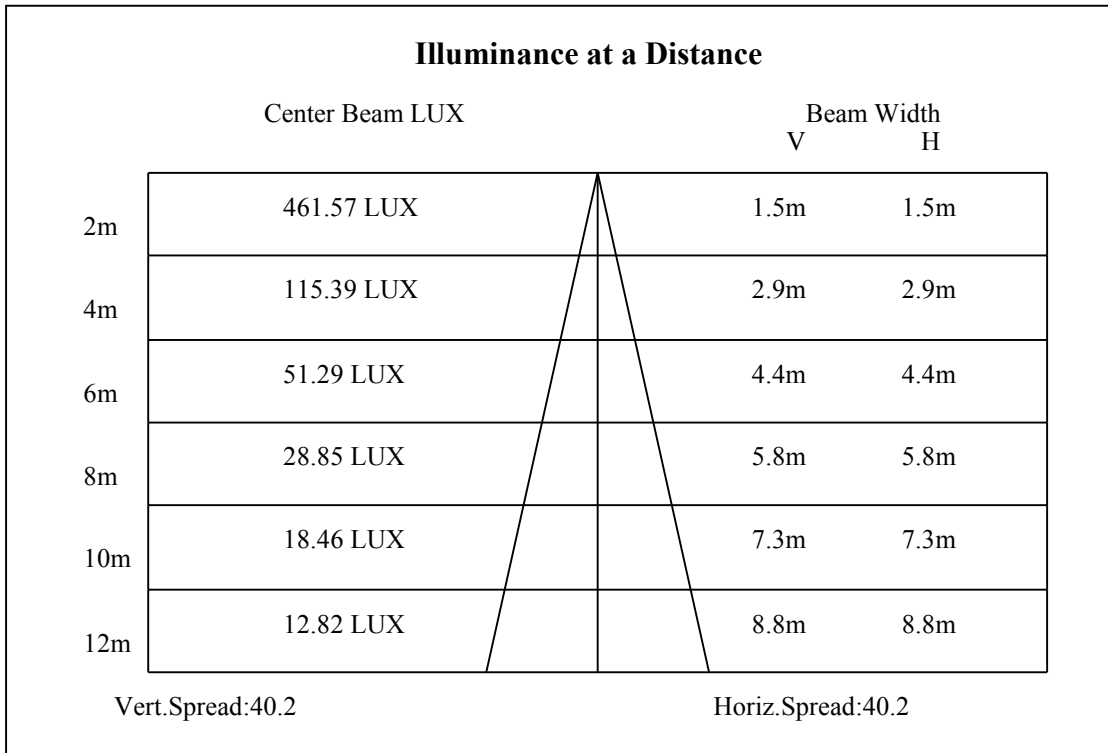
0-10	165.26
10-20	357.80
20-30	254.47
30-40	103.26
40-50	44.02
50-60	26.06
60-70	21.00
70-80	18.03
80-90	8.73
90-100	0.00
100-110	0.00
110-120	0.00
120-130	0.00
130-140	0.00
140-150	0.00
150-160	0.00
160-170	0.00
170-180	0.00

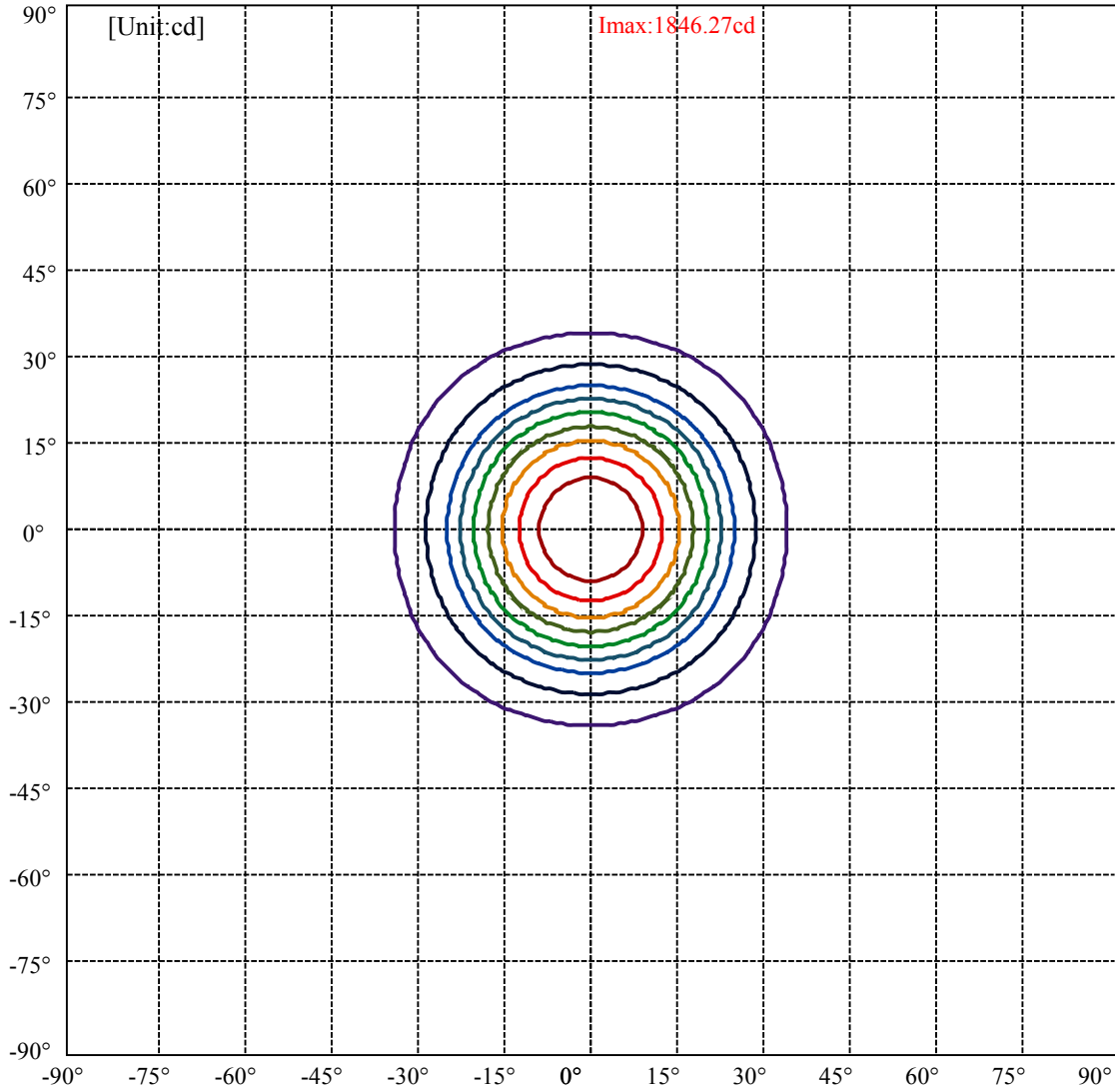


C0(Max): —————  
C0/C180: —————  
C90/C270: —————

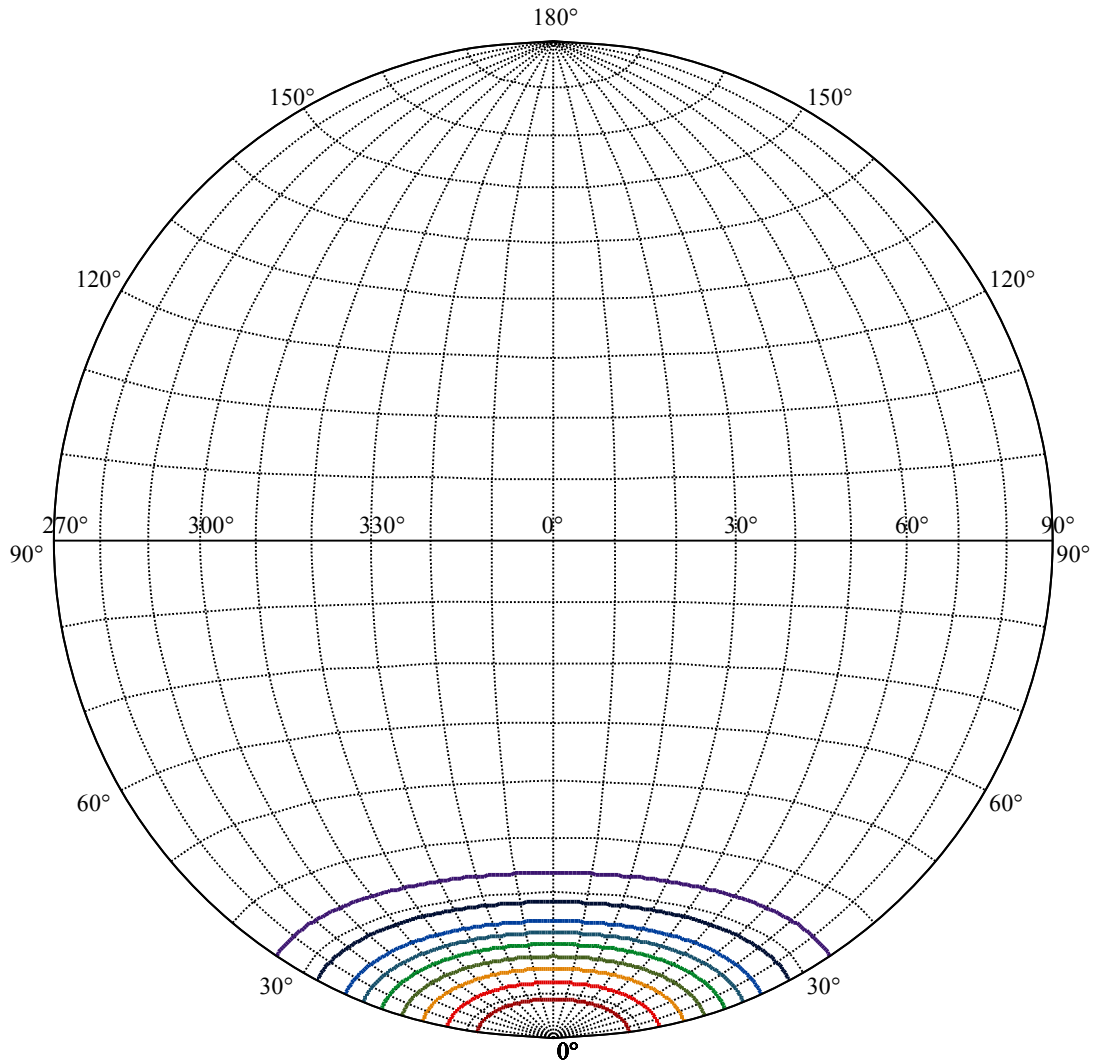
Field angle(10%Imax):C0/180Left:33.7 Right:33.7  
:C90/270Left:33.7 Right:33.7

Beam Angle(50%Imax):C0/180Left:20.1 Right:20.1  
:C90/270Left:20.1 Right:20.1





(10%Imax) 184.627	—
(20%Imax) 369.253	—
(30%Imax) 553.88	—
(40%Imax) 738.506	—
(50%Imax) 923.133	—
(60%Imax) 1107.76	—
(70%Imax) 1292.39	—
(80%Imax) 1477.01	—
(90%Imax) 1661.64	—



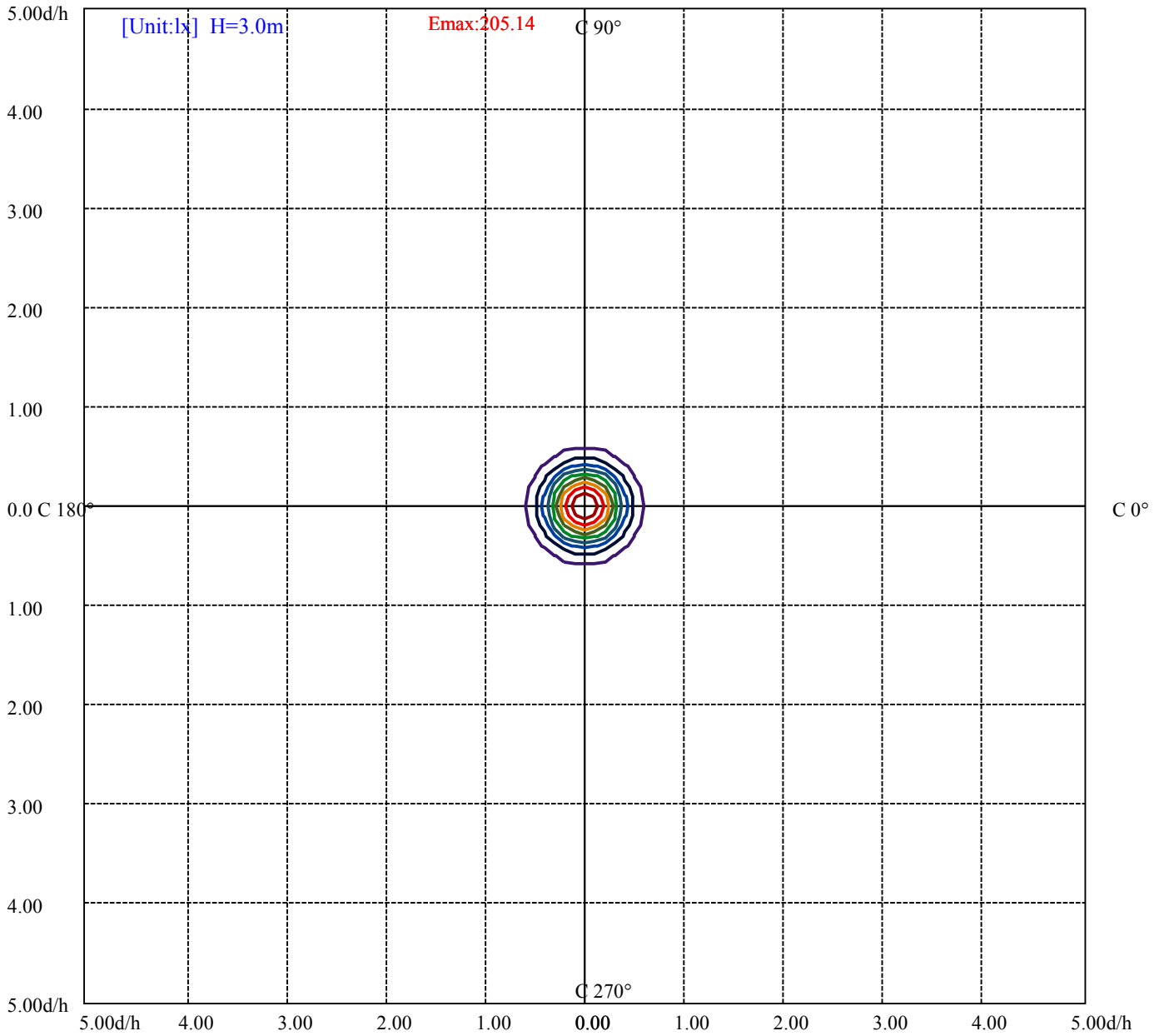
House

[Unit:cd]

Road

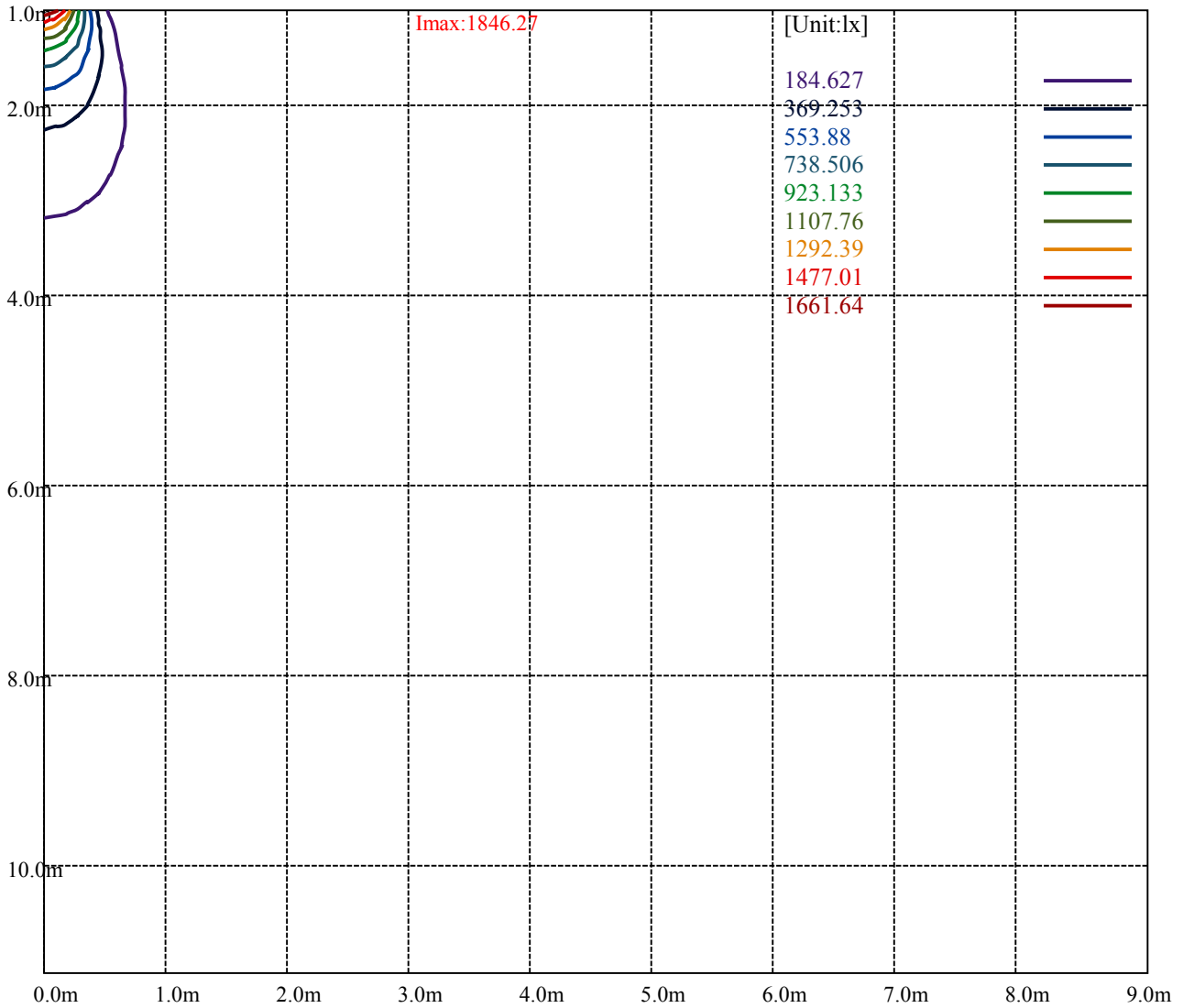
Imax:1846.27

(10%Imax)	184.627	—
(20%Imax)	369.253	—
(30%Imax)	553.88	—
(40%Imax)	738.506	—
(50%Imax)	923.133	—
(60%Imax)	1107.76	—
(70%Imax)	1292.39	—
(80%Imax)	1477.01	—
(90%Imax)	1661.64	—



- (10%Emax) 20.514
- (20%Emax) 41.02811
- (30%Emax) 61.54211
- (40%Emax) 82.05622
- (50%Emax) 102.5702
- (60%Emax) 123.0844
- (70%Emax) 143.5978
- (80%Emax) 164.1122
- (90%Emax) 184.6267





Luminance Table

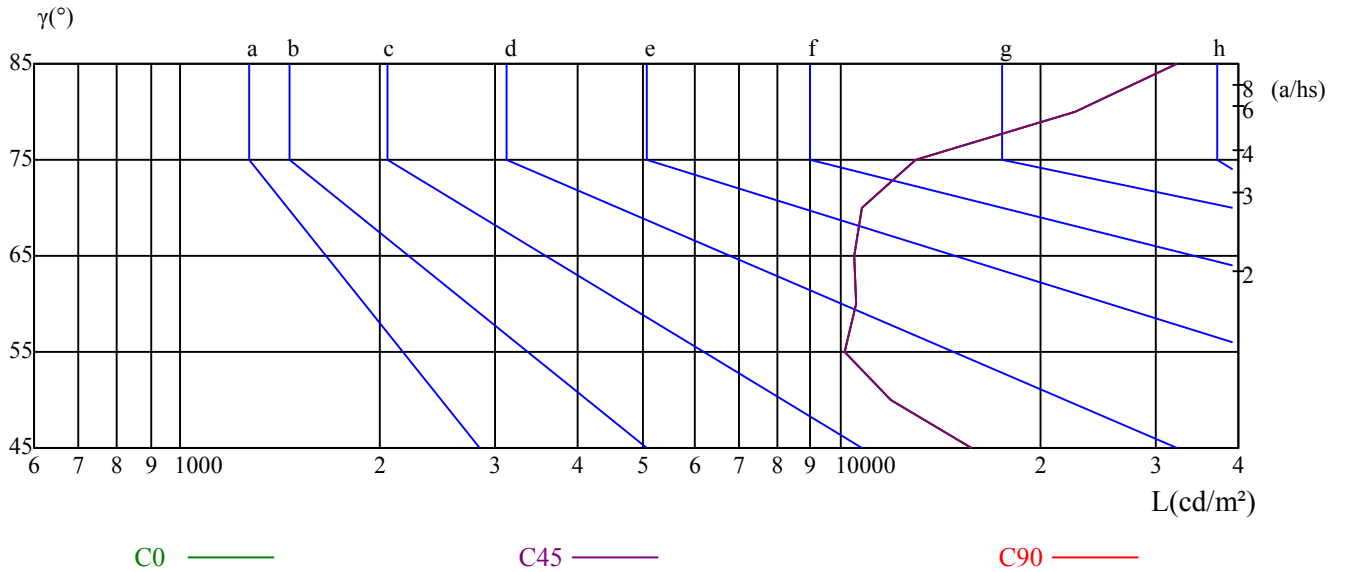
$\gamma$	45	50	55	60	65	70	75	80	85
C0	15813	11869	10104	10518	10491	10760	12947	22631	32297
C45	15813	11869	10104	10518	10491	10760	12947	22631	32297
C90	15813	11869	10104	10518	10491	10760	12947	22631	32297

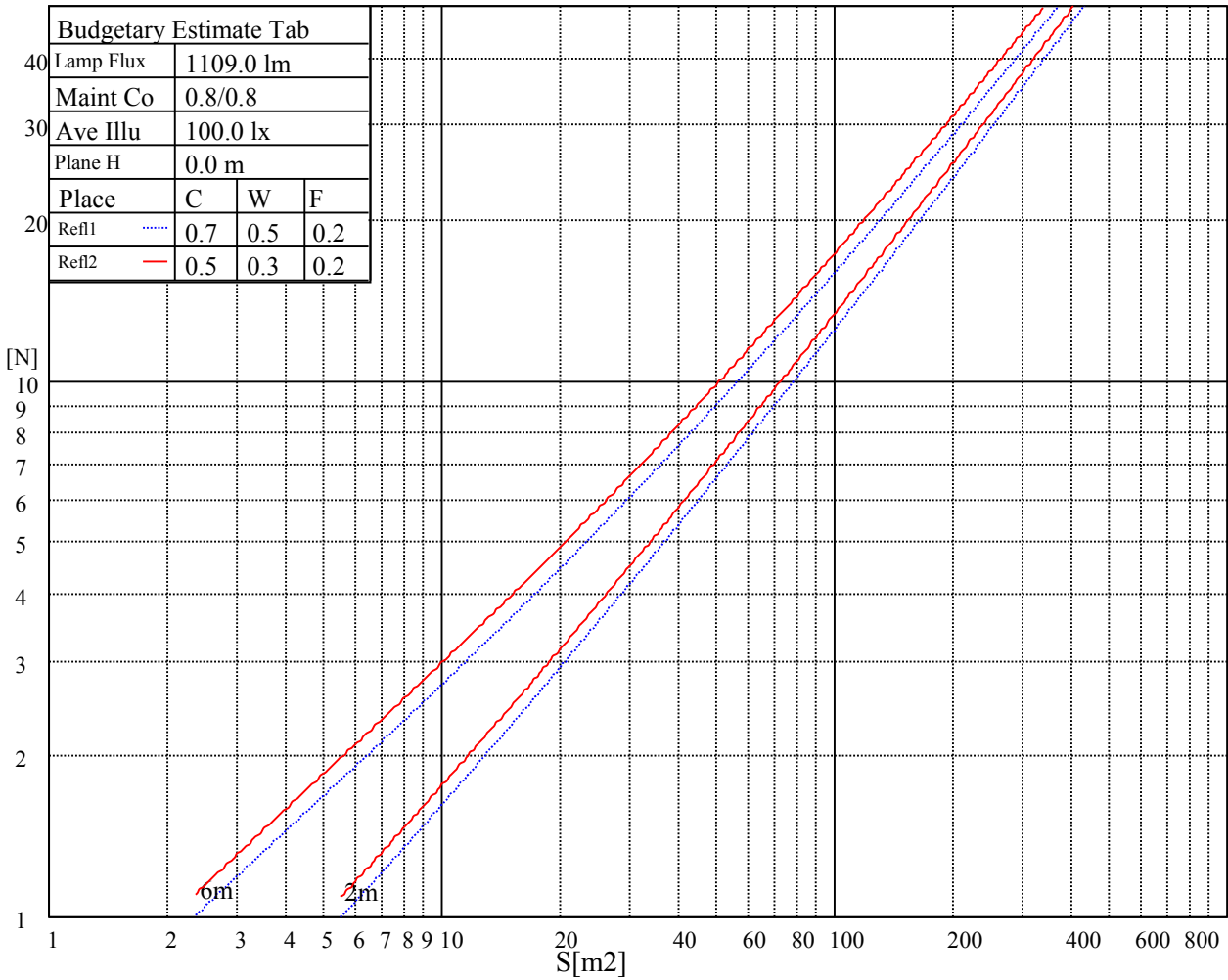
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
10491	10491	10491	12947	12947	12947	32297	32297	32297

Glare Table

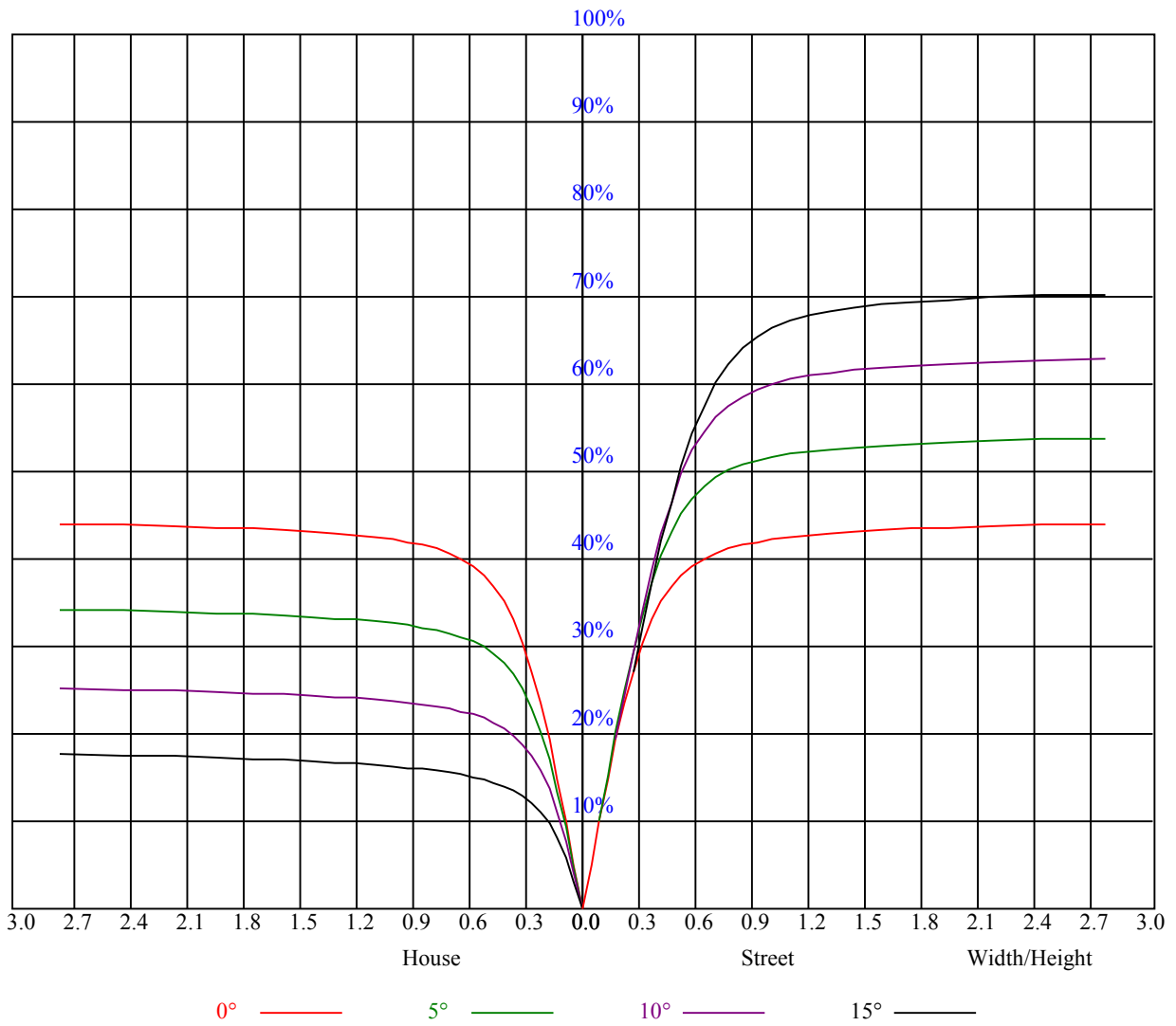
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

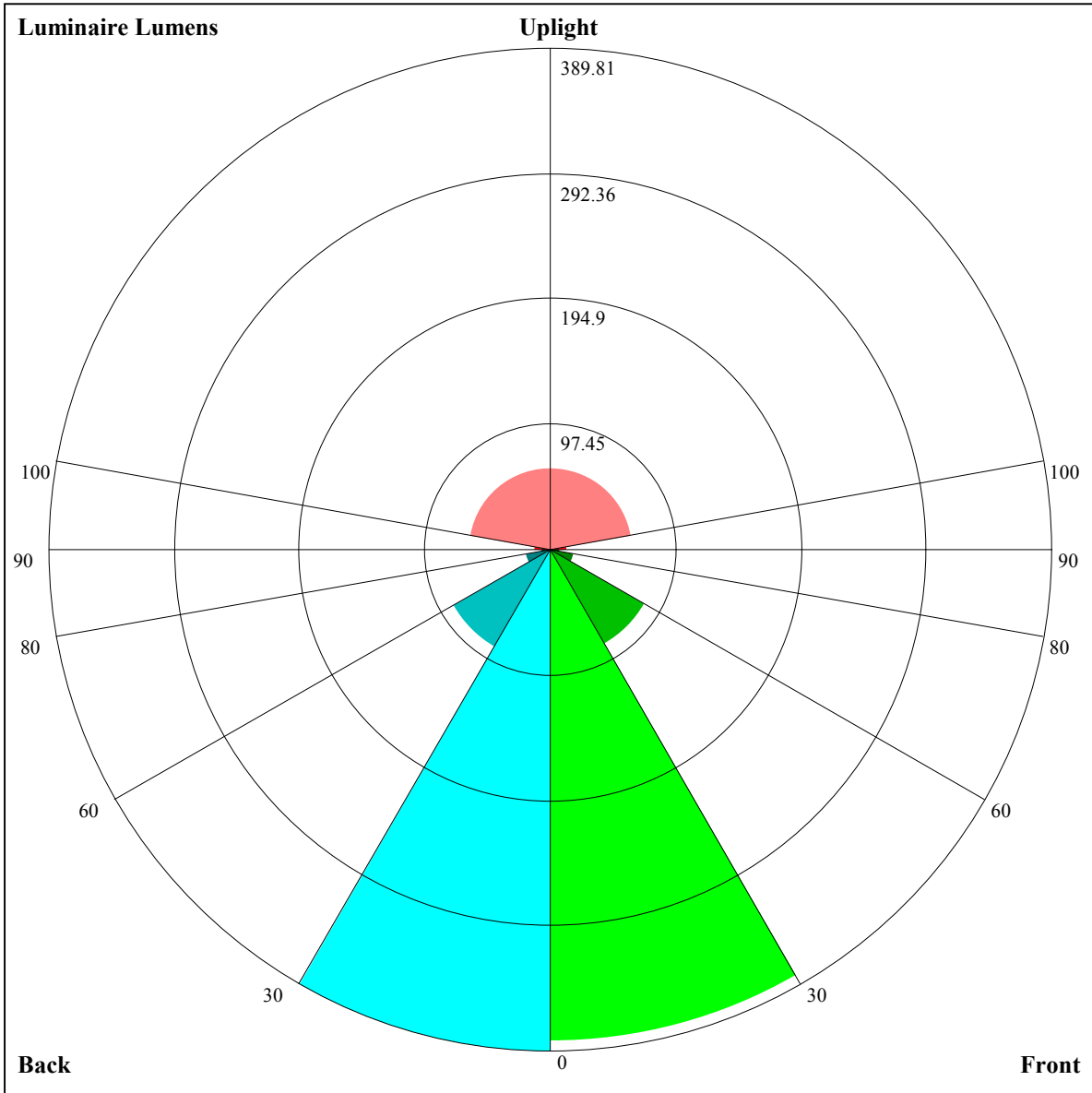
Luminance Limiting Curve





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	1.05	1.05	1.05	1.01	1.01	1.01	0.96	0.96	0.96	0.93	0.93	0.93	0.91
1	1.00	0.97	0.95	0.98	0.95	0.93	0.94	0.92	0.90	0.90	0.89	0.88	0.87	0.86	0.85	0.84
2	0.93	0.89	0.86	0.91	0.88	0.85	0.88	0.85	0.83	0.85	0.83	0.81	0.83	0.81	0.79	0.78
3	0.87	0.82	0.78	0.85	0.81	0.78	0.83	0.79	0.77	0.81	0.78	0.75	0.79	0.76	0.74	0.73
4	0.81	0.77	0.73	0.80	0.76	0.72	0.79	0.75	0.71	0.77	0.73	0.71	0.75	0.72	0.70	0.68
5	0.77	0.72	0.68	0.76	0.71	0.68	0.74	0.70	0.67	0.73	0.69	0.66	0.72	0.68	0.66	0.65
6	0.73	0.68	0.64	0.72	0.67	0.64	0.71	0.66	0.63	0.70	0.66	0.63	0.68	0.65	0.62	0.61
7	0.69	0.64	0.60	0.69	0.64	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.58
8	0.66	0.61	0.57	0.65	0.60	0.57	0.64	0.60	0.57	0.63	0.60	0.57	0.63	0.59	0.56	0.55
9	0.63	0.58	0.54	0.62	0.58	0.54	0.62	0.57	0.54	0.61	0.57	0.54	0.60	0.56	0.54	0.53
10	0.60	0.55	0.52	0.60	0.55	0.52	0.59	0.55	0.52	0.58	0.54	0.52	0.58	0.54	0.51	0.50





Luminaire Lumens:

FL=381.57,FM=84.26,FH=18.98,FVH=7.53

BL=389.81,BM=87.15,BH=19.67,BVH=7.96

UL=13.5,UH=64.25

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	1850.63	1771.31	1607.63	1327.50	921.94	509.06	296.44	147.21	85.33
45.0	1847.25	1791.00	1650.94	1385.44	992.81	594.56	318.94	163.46	96.58
90.0	1847.81	1792.69	1631.25	1359.00	952.48	535.28	279.45	149.01	85.39
135.0	1839.38	1826.44	1688.63	1462.50	1059.19	622.13	332.44	171.39	95.85
180.0	1850.63	1792.69	1649.81	1364.06	947.31	552.83	294.64	157.67	94.16
225.0	1847.25	1773.00	1591.88	1111.22	846.28	445.22	254.42	139.89	82.91
270.0	1847.81	1782.56	1606.50	1312.31	916.88	486.00	289.13	135.73	79.59
315.0	1839.38	1742.63	1552.50	1114.31	804.88	427.44	223.03	123.81	74.53
360.0	1850.63	1771.31	1607.63	1327.50	921.94	509.06	296.44	147.21	85.33
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	52.43	36.28	28.01	26.89	22.11	17.61	15.24	21.04	13.56
45.0	56.42	37.35	27.28	23.74	22.50	16.54	14.51	19.74	13.39
90.0	51.81	36.17	27.06	23.68	20.93	17.49	15.92	14.46	12.83
135.0	57.88	39.04	28.35	24.30	21.04	17.72	16.37	14.40	13.16
180.0	55.69	36.96	27.90	25.82	22.05	18.45	16.09	23.91	13.73
225.0	52.43	35.61	27.56	26.55	20.36	17.33	18.17	28.46	14.85
270.0	51.24	35.21	27.45	24.47	19.80	17.49	15.98	14.18	13.16
315.0	47.98	33.98	27.11	24.86	20.08	17.55	15.36	13.50	12.54
360.0	52.43	36.28	28.01	26.89	22.11	17.61	15.24	21.04	13.56
C/ $\gamma$ (°)	90.0								
0.0	12.77								
45.0	12.38								
90.0	12.26								
135.0	11.98								
180.0	11.98								
225.0	12.71								
270.0	12.32								
315.0	12.60								
360.0	12.77								