



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

Nata

Client:

LumCAT: LM01D03030AE

Luminaire:

Report No: GC2019091909

Voltage(V): 220.6000

Test No: NATA07

Current(A): 0.0180

LampCAT: CREE CXA1304

Power (W): 2.9800

Lamp flux(lm): 231.0

PF: 0.7290

Number of Lamps: 1

Ballast type: AC

Length(mm): 30

Width(mm): 30

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 212.93, Efficiency(%): 92.18% , Luminous Efficacy(lm/W): 71.45

Central intensity(cd): 637.785, Maximum intensity(cd): 637.785

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=27.4

[C90/270]Total=27.4

Field angle(10%Imax): [C0/180]Total=54.2

[C90/270]Total=54.2

Maximum s/h(1/2): C0_180=0.46 C90_270=0.46

Maximum s/h(1/4): C0_180=0.48 C90_270=0.48

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.18%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.080%

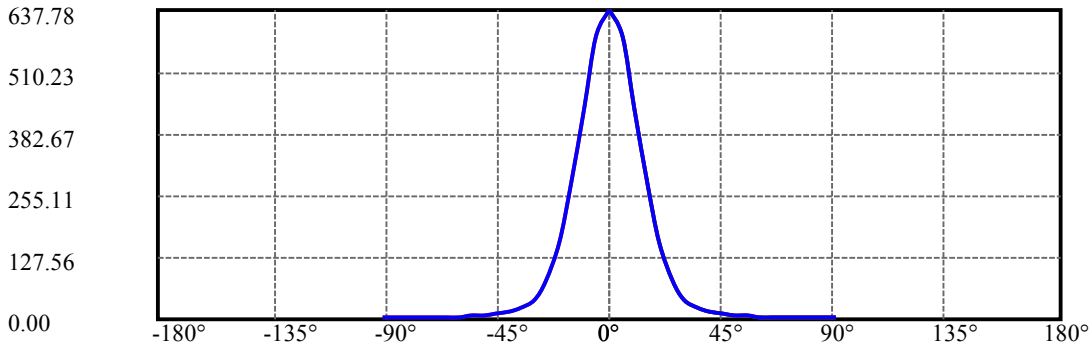
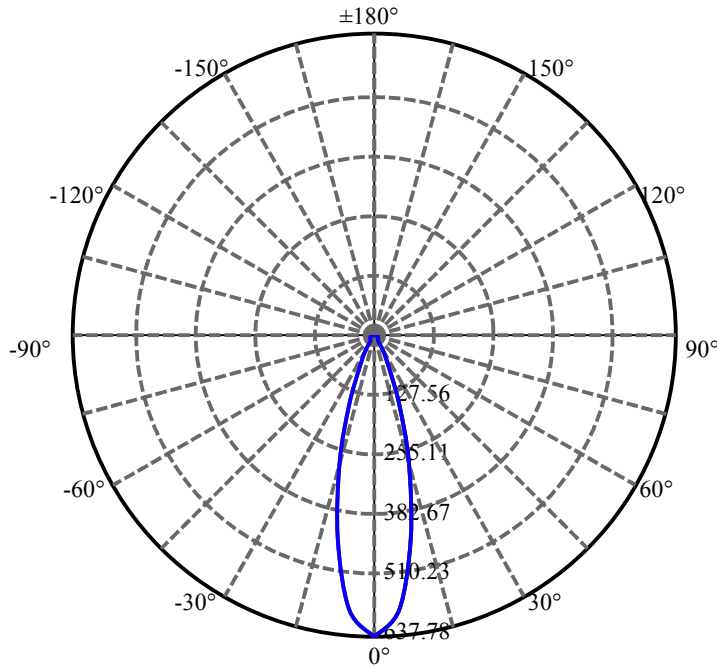
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	637.785	0.000	0	.000%	.000%
5.0	583.580	14.601	14.601	6.321%	6.857%
10.0	437.450	36.525	51.127	15.812%	24.011%
15.0	279.122	42.507	93.633	18.401%	43.974%
20.0	156.913	35.935	129.568	15.556%	60.851%
25.0	79.843	24.831	154.4	10.749%	72.513%
30.0	41.560	15.364	169.763	6.651%	79.729%
35.0	22.361	9.413	179.176	4.075%	84.149%
40.0	14.275	6.112	185.288	2.646%	87.020%
45.0	10.603	4.606	189.895	1.994%	89.183%
50.0	8.724	3.905	193.8	1.691%	91.017%
55.0	7.303	3.485	197.285	1.509%	92.654%
60.0	5.835	3.037	200.322	1.315%	94.080%
65.0	4.942	2.620	202.942	1.134%	95.311%
70.0	4.275	2.334	205.275	1.010%	96.407%
75.0	3.701	2.085	207.36	.902%	97.386%
80.0	3.463	1.917	209.277	.830%	98.286%
85.0	3.492	1.890	211.167	.818%	99.174%
90.0	2.935	1.760	212.926	.762%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	169.76	73.49%	79.73%
0-40	185.29	80.21%	87.02%
0-60	200.32	86.72%	94.08%
0-90	211.17	91.41%	99.17%
0-120	211.17	91.41%	99.17%
0-180	212.93	92.18%	100.00%
60-90	13.88	6.01%	6.52%
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%
0-30.31	170.34	73.74%	80.00%

ZONAL LUMEN SUMMARY

0-10	51.13
10-20	78.44
20-30	40.19
30-40	15.53
40-50	8.51
50-60	6.52
60-70	4.95
70-80	4.00
80-90	1.89
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: —————

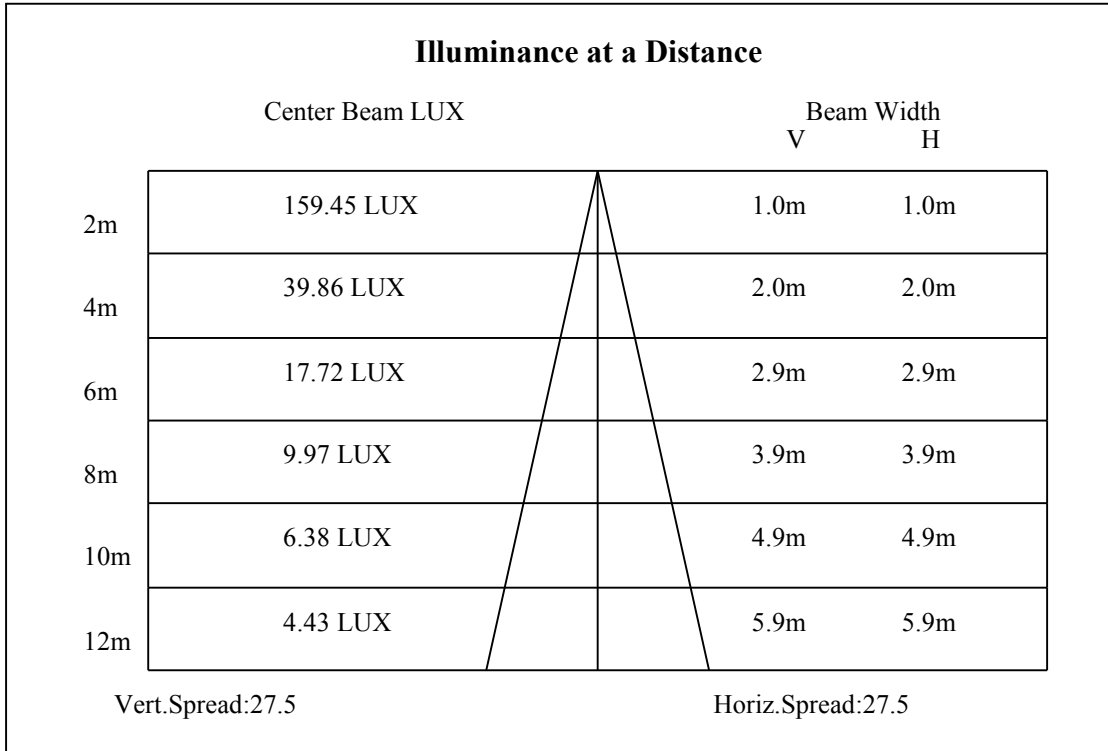
C90/C270: —————

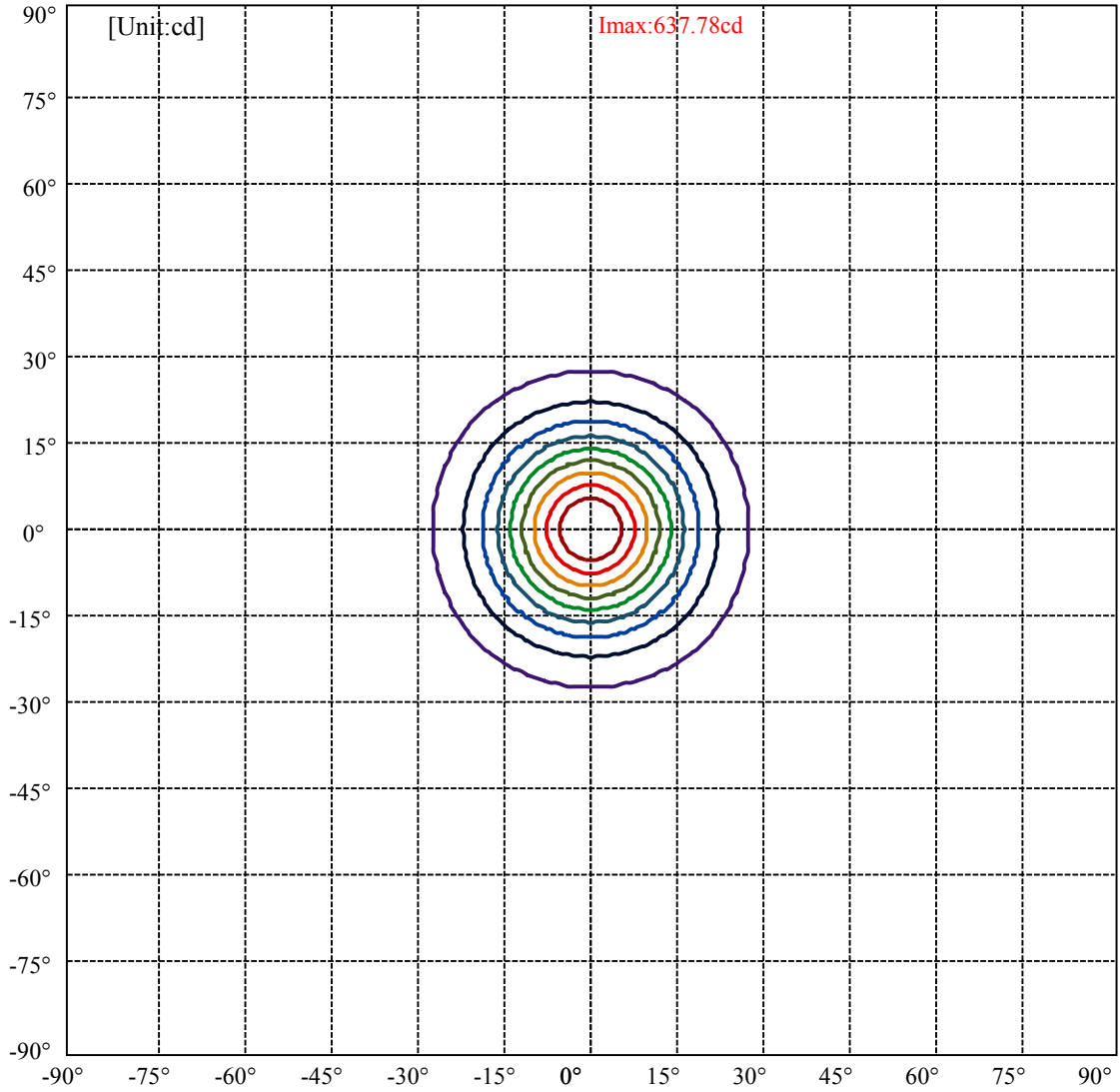
Field angle(10%Imax):C0/180Left:27.1 Right:27.1

:C90/270Left:27.1 Right:27.1

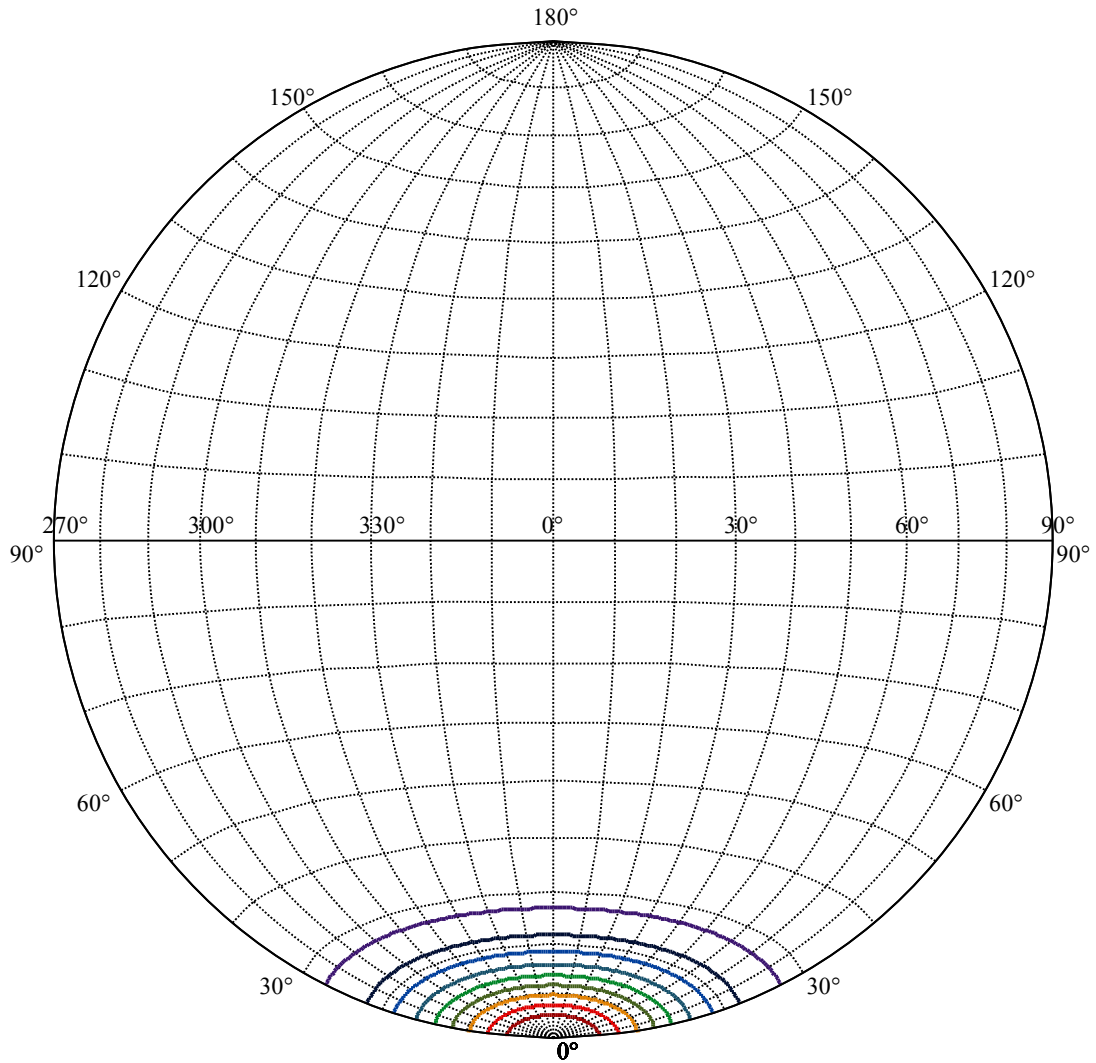
Beam Angle(50%Imax):C0/180Left:13.7 Right:13.7

:C90/270Left:13.7 Right:13.7





(10%Imax) 63.7785	—
(20%Imax) 127.557	—
(30%Imax) 191.335	—
(40%Imax) 255.114	—
(50%Imax) 318.892	—
(60%Imax) 382.671	—
(70%Imax) 446.449	—
(80%Imax) 510.228	—
(90%Imax) 574.006	—



House

[Unit:cd]

Road

Imax:637.78

(10%Imax) 63.7785

(20%Imax) 127.557

(30%Imax) 191.335

(40%Imax) 255.114

(50%Imax) 318.892

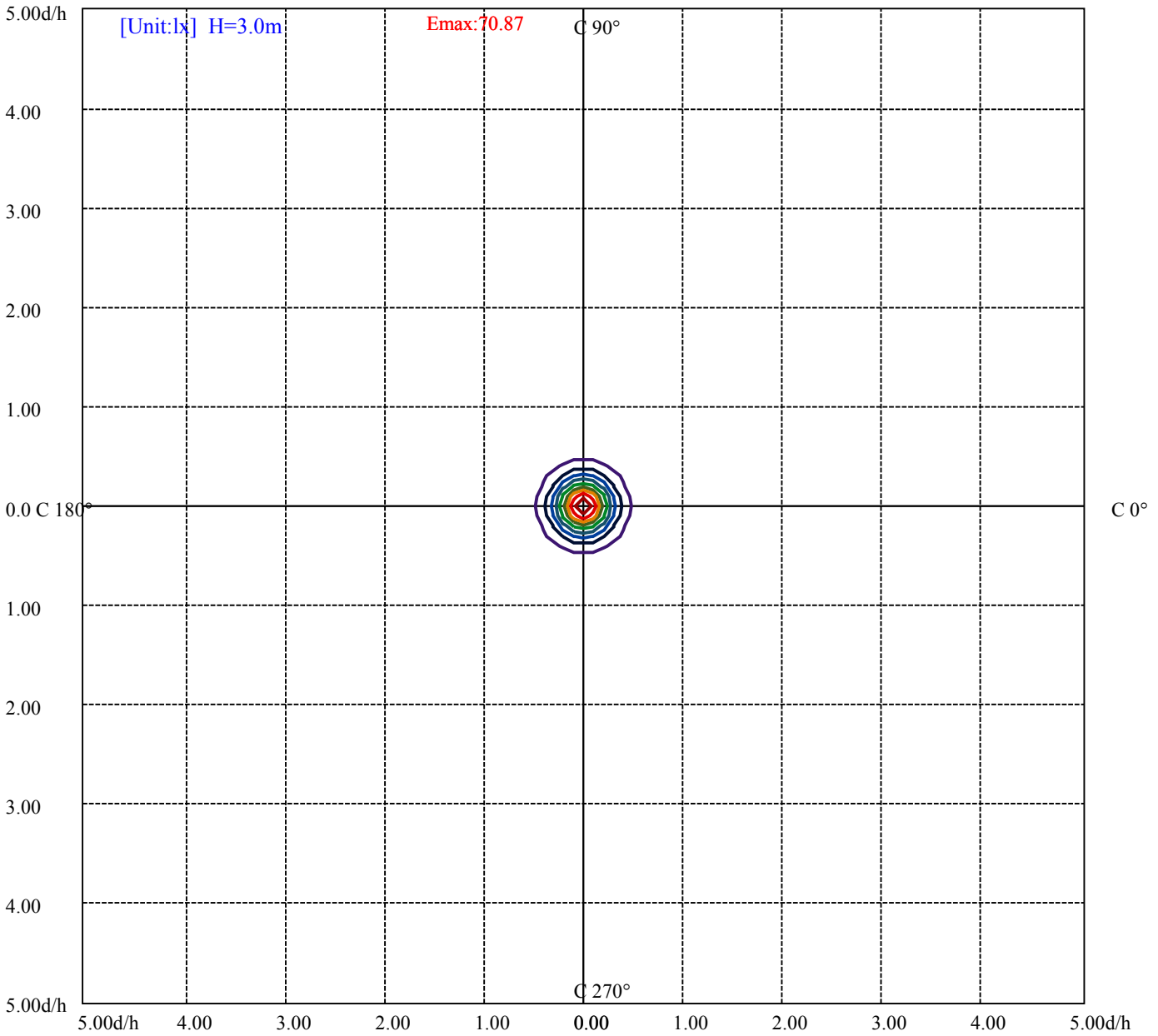
(60%Imax) 382.671

(70%Imax) 446.449

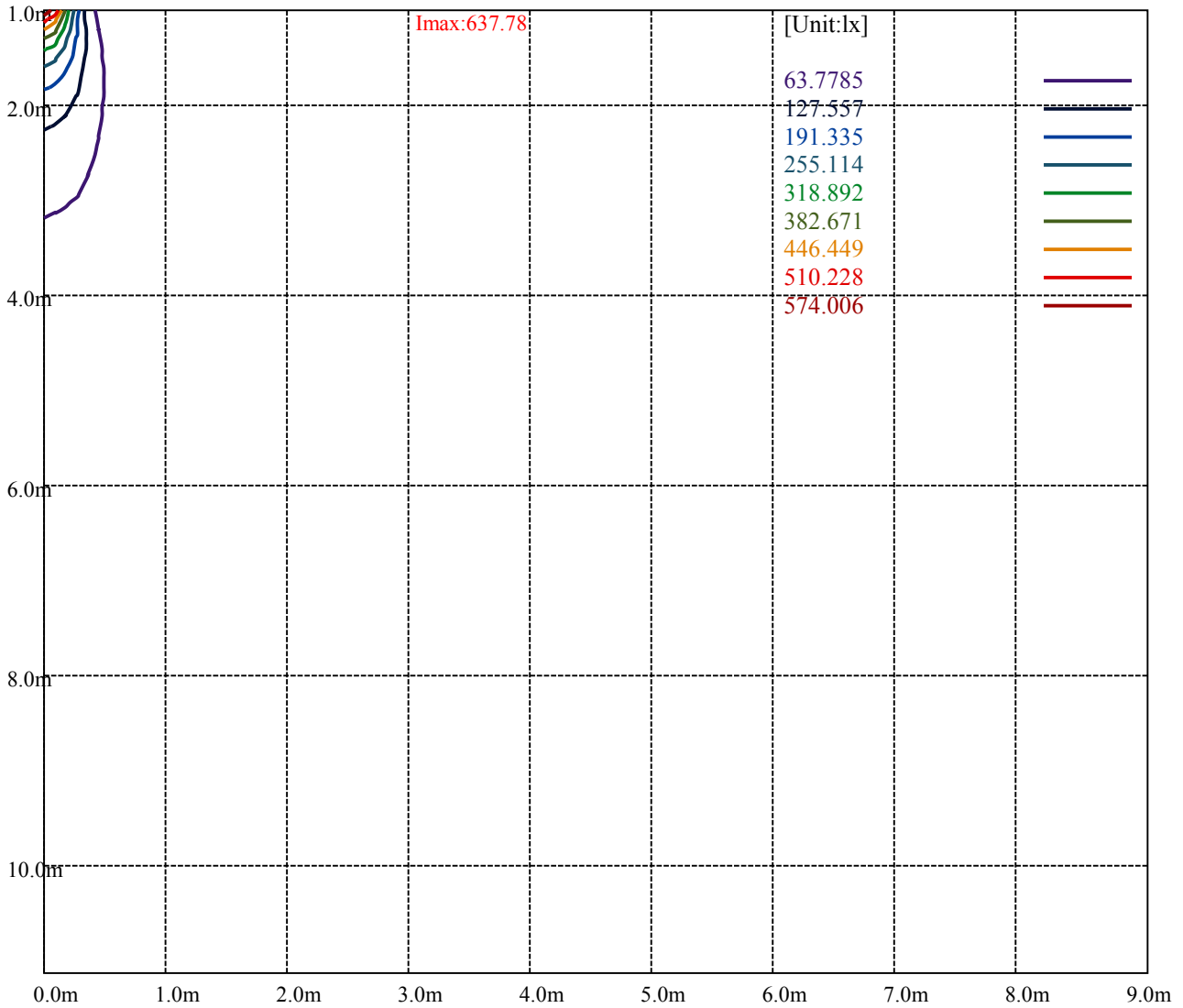
(80%Imax) 510.228

(90%Imax) 574.006





(10%Emax) 7.086478	—
(20%Emax) 14.173	—
(30%Emax) 21.25945	—
(40%Emax) 28.34589	—
(50%Emax) 35.43245	—
(60%Emax) 42.51889	—
(70%Emax) 49.60533	—
(80%Emax) 56.69189	—
(90%Emax) 63.77834	—



Luminance Table

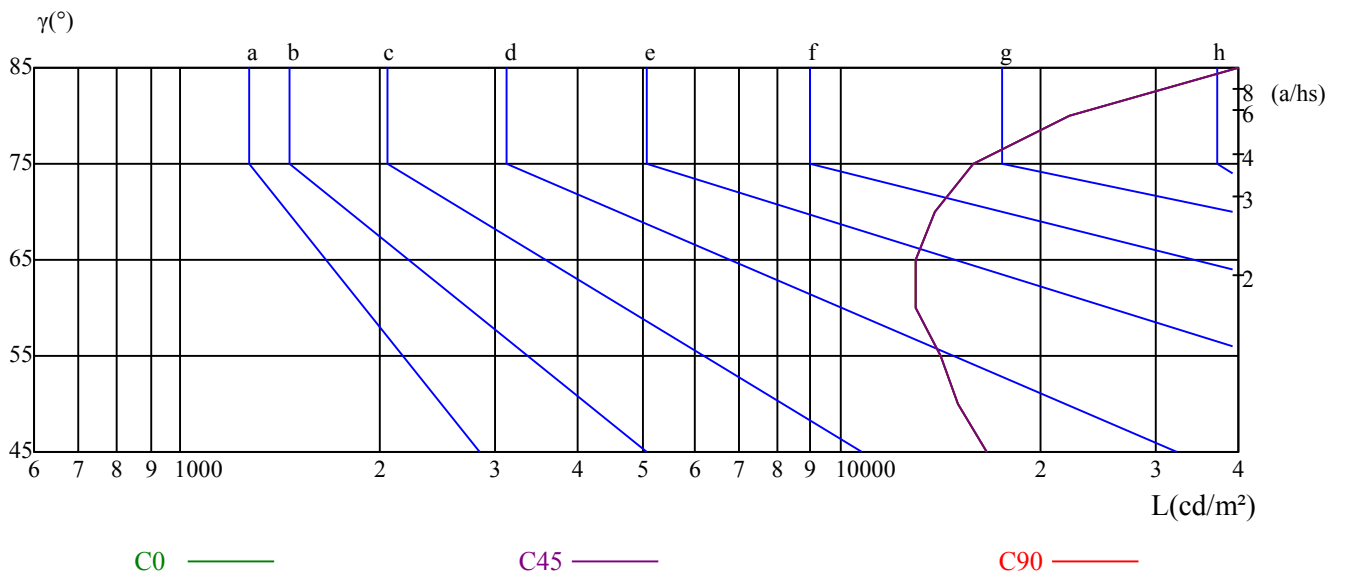
γ	45	50	55	60	65	70	75	80	85
C0	16661	15080	14147	12967	12993	13888	15887	22158	44516
C45	16661	15080	14147	12967	12993	13888	15887	22158	44516
C90	16661	15080	14147	12967	12993	13888	15887	22158	44516

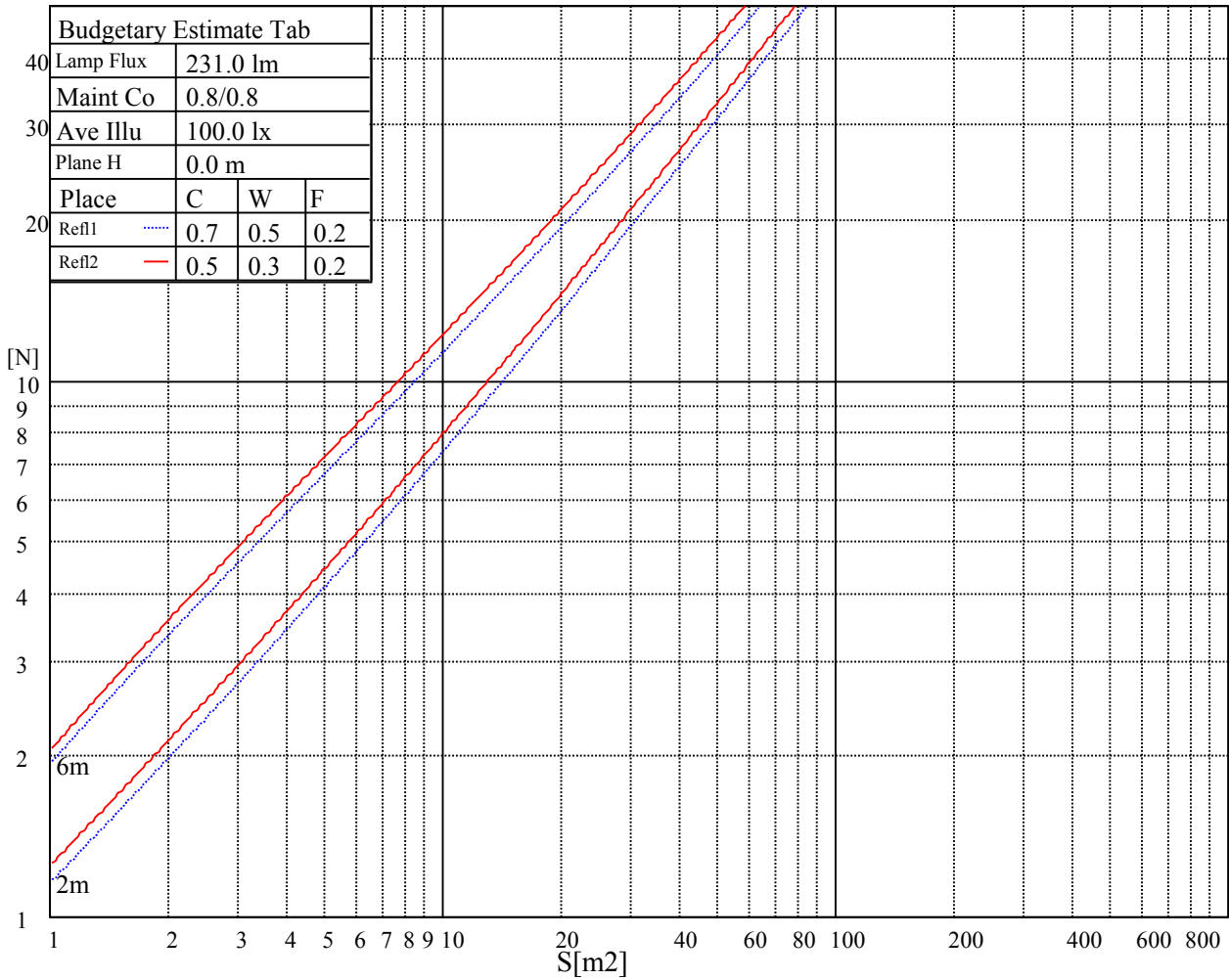
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
12993	12993	12993	15887	15887	15887	44516	44516	44516

Glare Table

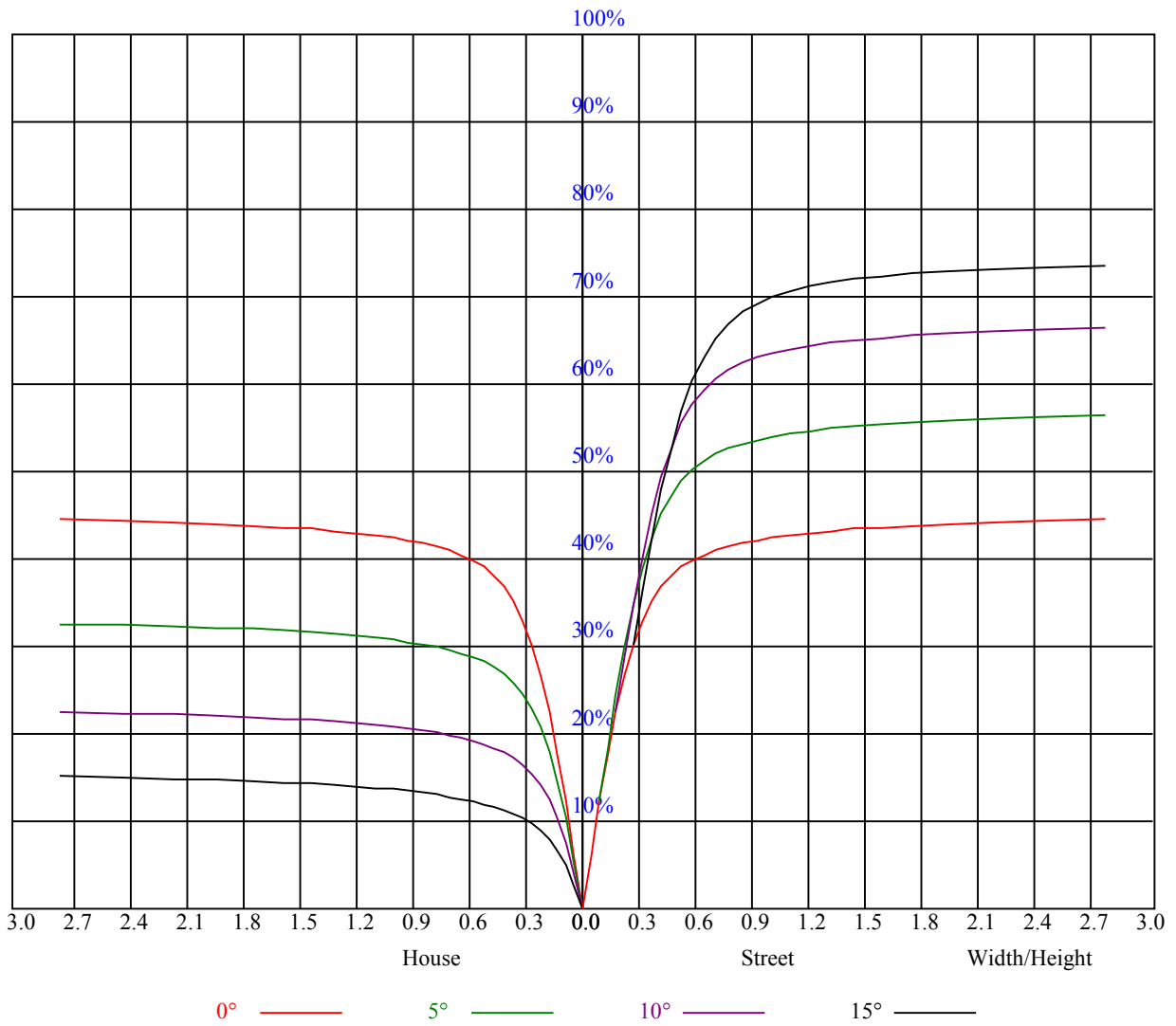
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

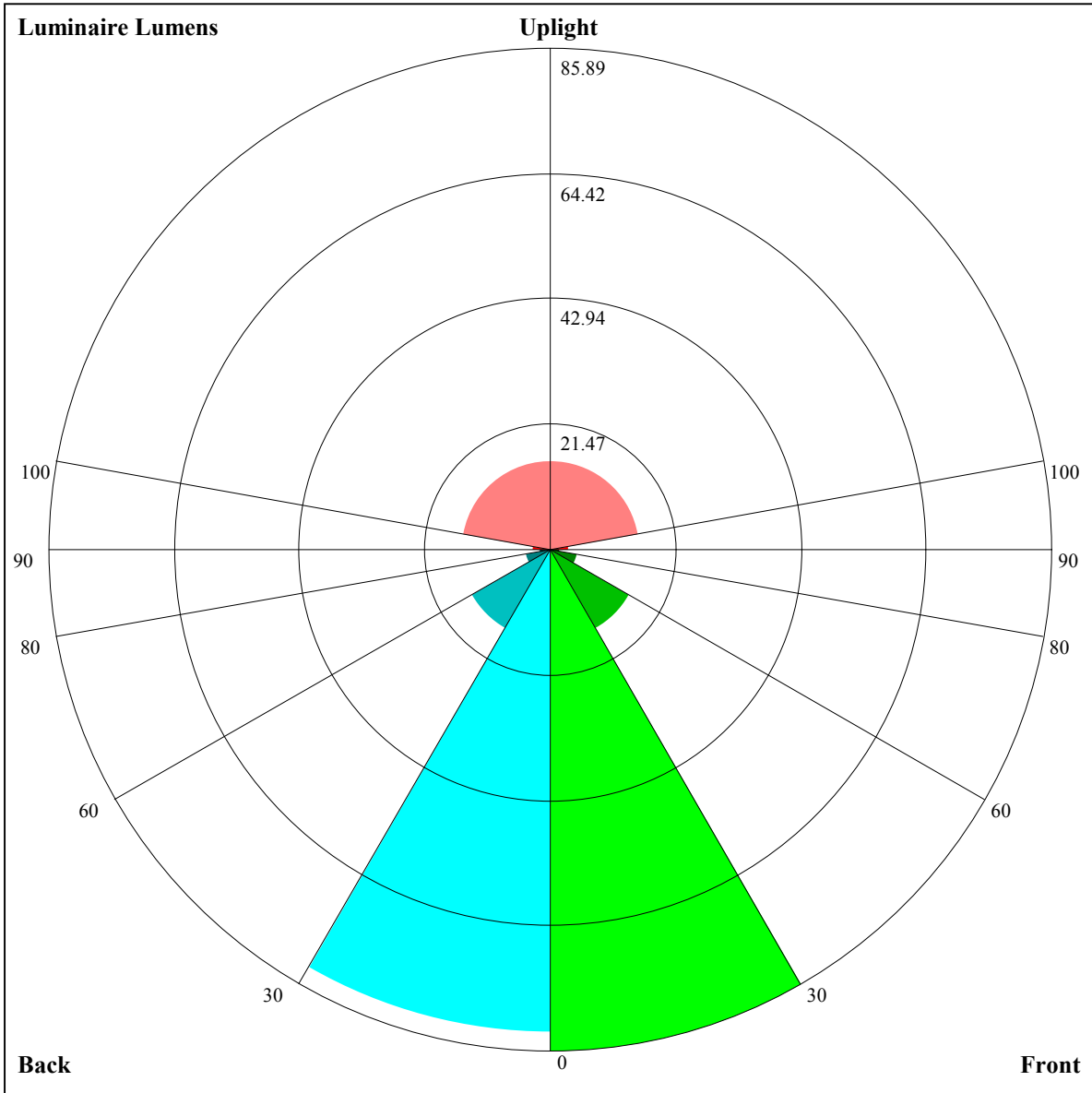
Luminance Limiting Curve





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	1.10	1.10	1.10	1.07	1.07	1.07	1.02	1.02	1.02	0.98	0.98	0.98	0.94	0.94	0.94	0.92
1	1.01	0.99	0.97	0.99	0.97	0.95	0.96	0.94	0.92	0.92	0.91	0.90	0.89	0.88	0.87	0.85
2	0.95	0.91	0.88	0.93	0.90	0.87	0.90	0.87	0.85	0.87	0.85	0.83	0.85	0.83	0.81	0.80
3	0.89	0.85	0.81	0.88	0.84	0.80	0.85	0.82	0.79	0.83	0.80	0.78	0.81	0.79	0.77	0.75
4	0.84	0.79	0.76	0.83	0.79	0.75	0.81	0.77	0.74	0.79	0.76	0.74	0.78	0.75	0.73	0.71
5	0.80	0.75	0.71	0.79	0.75	0.71	0.78	0.74	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.68
6	0.76	0.71	0.68	0.76	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
7	0.73	0.68	0.65	0.72	0.68	0.64	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.63	0.62
8	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.64	0.61	0.68	0.64	0.61	0.67	0.63	0.61	0.60
9	0.67	0.62	0.59	0.67	0.62	0.59	0.66	0.62	0.59	0.65	0.61	0.59	0.65	0.61	0.59	0.57
10	0.65	0.60	0.57	0.64	0.60	0.57	0.64	0.60	0.57	0.63	0.59	0.57	0.62	0.59	0.56	0.55





Luminaire Lumens:

FL=85.89,FM=15.53,FH=4.66,FVH=1.65

BL=82.6,BM=15.48,BH=4.46,BVH=2.01

UL=3.2,UH=15.24

BUG Rating:B0-U2-G0

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	640.18	586.17	427.93	270.02	148.77	71.55	36.57	19.81	12.90
45.0	646.12	572.39	419.16	253.41	139.86	74.57	37.77	19.58	12.76
90.0	610.25	472.43	304.22	172.16	82.46	41.76	21.07	14.25	11.37
135.0	654.10	558.00	379.30	224.87	127.10	57.73	31.32	18.28	12.58
180.0	640.18	595.17	451.04	275.26	154.71	76.52	40.19	22.64	14.20
225.0	647.09	587.42	437.12	288.81	153.97	87.42	46.12	23.90	15.22
270.0	610.25	658.42	581.57	423.20	249.14	137.31	70.81	34.25	19.58
315.0	654.10	638.65	499.25	325.24	199.30	91.88	48.63	26.17	15.59
360.0	640.18	586.17	427.93	270.02	148.77	71.55	36.57	19.81	12.90
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	9.47	7.61	6.40	5.24	4.59	3.99	3.48	3.02	3.06
45.0	9.84	8.54	7.05	5.48	5.15	4.36	3.62	2.92	2.97
90.0	9.56	8.26	6.82	5.52	4.55	3.94	3.39	3.43	3.34
135.0	9.74	8.17	6.91	5.10	4.50	3.90	3.39	3.67	3.90
180.0	10.07	8.07	6.54	5.10	4.22	3.94	3.67	4.45	5.99
225.0	11.37	9.42	7.66	5.89	4.32	3.85	3.43	3.20	3.16
270.0	13.69	10.67	9.42	7.84	6.45	5.29	4.59	3.71	3.48
315.0	11.09	9.05	7.61	6.50	5.75	4.92	4.04	3.29	2.04
360.0	9.47	7.61	6.40	5.24	4.59	3.99	3.48	3.02	3.06
C/ γ (°)	90.0								
0.0	2.60								
45.0	2.69								
90.0	3.06								
135.0	3.29								
180.0	2.97								
225.0	3.02								
270.0	3.34								
315.0	2.51								
360.0	2.60								