



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

Nata

Client:

LumCAT: 1658-S

Luminaire: 92.70.127.00

Report No: NT2018040607

Test No: nata-0100

LampCAT: CREE CXA1512

Lamp flux(lm): 1295.7

Number of Lamps: 1

Length(mm): 47

Phm Type: C

Voltage(V): 33.6000

Current(A): 0.3500

Power (W): 12.4600

PF: 0.0000

Ballast type: DC

Width(mm): 47

Height(mm): 0

Photometric Results

Lumens(lm): 1132.85, Efficiency(%): 87.43% , Luminous Efficacy(lm/W): 90.92

Central intensity(cd): 2979.309, Maximum intensity(cd): 2979.309

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=32.6

[C90/270]Total=32.6

Field angle(10%Imax): [C0/180]Total=63.6

[C90/270]Total=63.6

Maximum s/h(1/2): C0_180=0.53 C90_270=0.53

Maximum s/h(1/4): C0_180=0.57 C90_270=0.57

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 88.72%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.218%

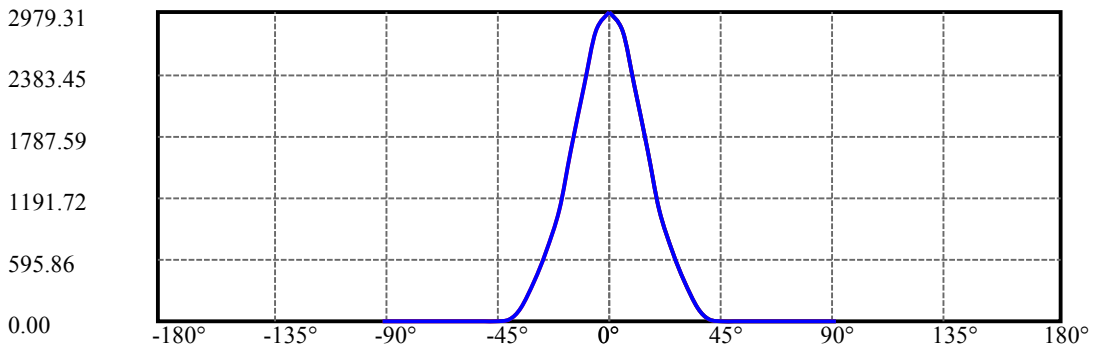
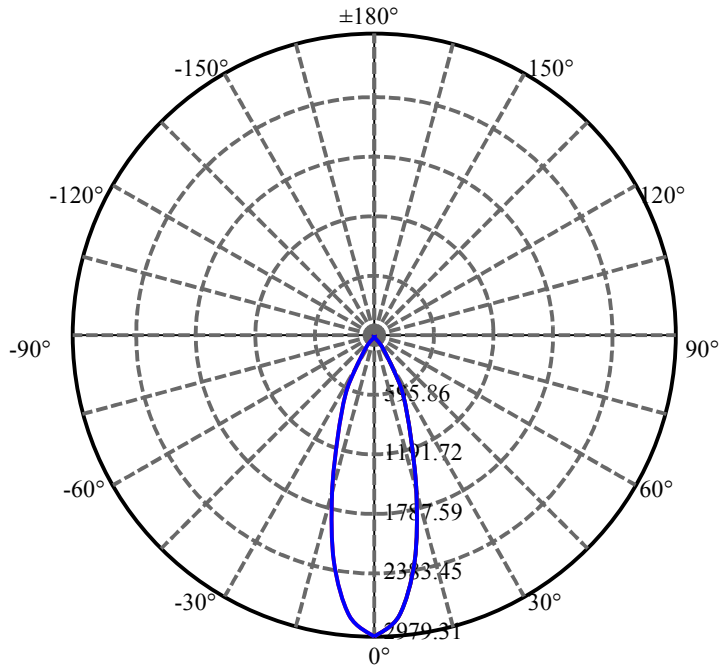
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2979.308	17.817	17.817	1.375%	1.573%
5.0	2786.336	133.113	150.929	10.273%	13.323%
10.0	2282.982	217.301	368.231	16.771%	32.505%
15.0	1639.167	232.546	600.777	17.948%	53.032%
20.0	1071.267	200.835	801.611	15.500%	70.761%
25.0	657.490	152.310	953.921	11.755%	84.205%
30.0	390.219	106.947	1060.868	8.254%	93.646%
35.0	133.601	42.004	1102.872	3.242%	97.354%
40.0	14.528	5.119	1107.99	.395%	97.806%
45.0	6.221	2.411	1110.402	.186%	98.019%
50.0	5.568	2.338	1112.74	.180%	98.225%
55.0	5.334	2.395	1115.134	.185%	98.436%
60.0	5.210	2.473	1117.607	.191%	98.655%
65.0	5.162	2.564	1120.172	.198%	98.881%
70.0	5.134	2.644	1122.816	.204%	99.114%
75.0	5.120	2.711	1125.527	.209%	99.354%
80.0	5.106	2.757	1128.284	.213%	99.597%
85.0	5.905	3.224	1131.508	.249%	99.882%
90.0	4.893	1.341	1132.849	.104%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	1060.87	81.88%	93.65%
0-40	1107.99	85.51%	97.81%
0-60	1117.61	86.26%	98.65%
0-90	1131.51	87.33%	99.88%
0-120	1131.51	87.33%	99.88%
0-180	1132.85	87.43%	100.00%
60-90	16.37	1.26%	1.45%
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%
0-23.44	906.28	69.95%	80.00%

ZONAL LUMEN SUMMARY

0-10	368.23
10-20	433.38
20-30	259.26
30-40	47.12
40-50	4.75
50-60	4.87
60-70	5.21
70-80	5.47
80-90	3.22
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: —————

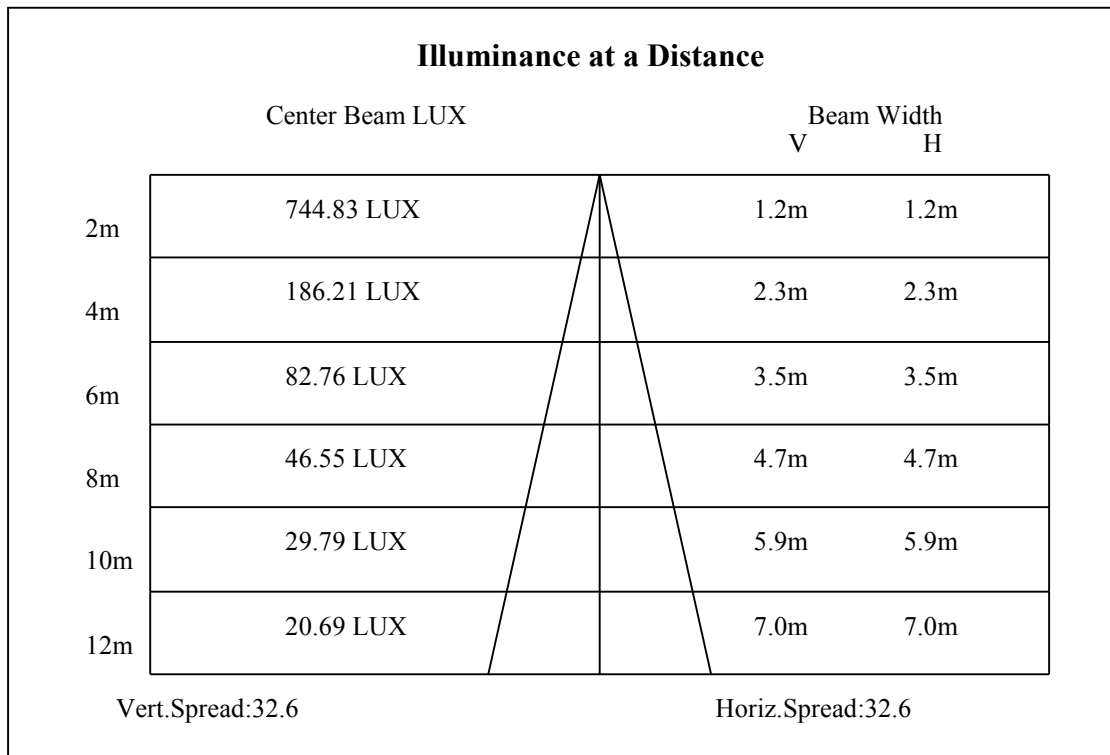
C90/C270: —————

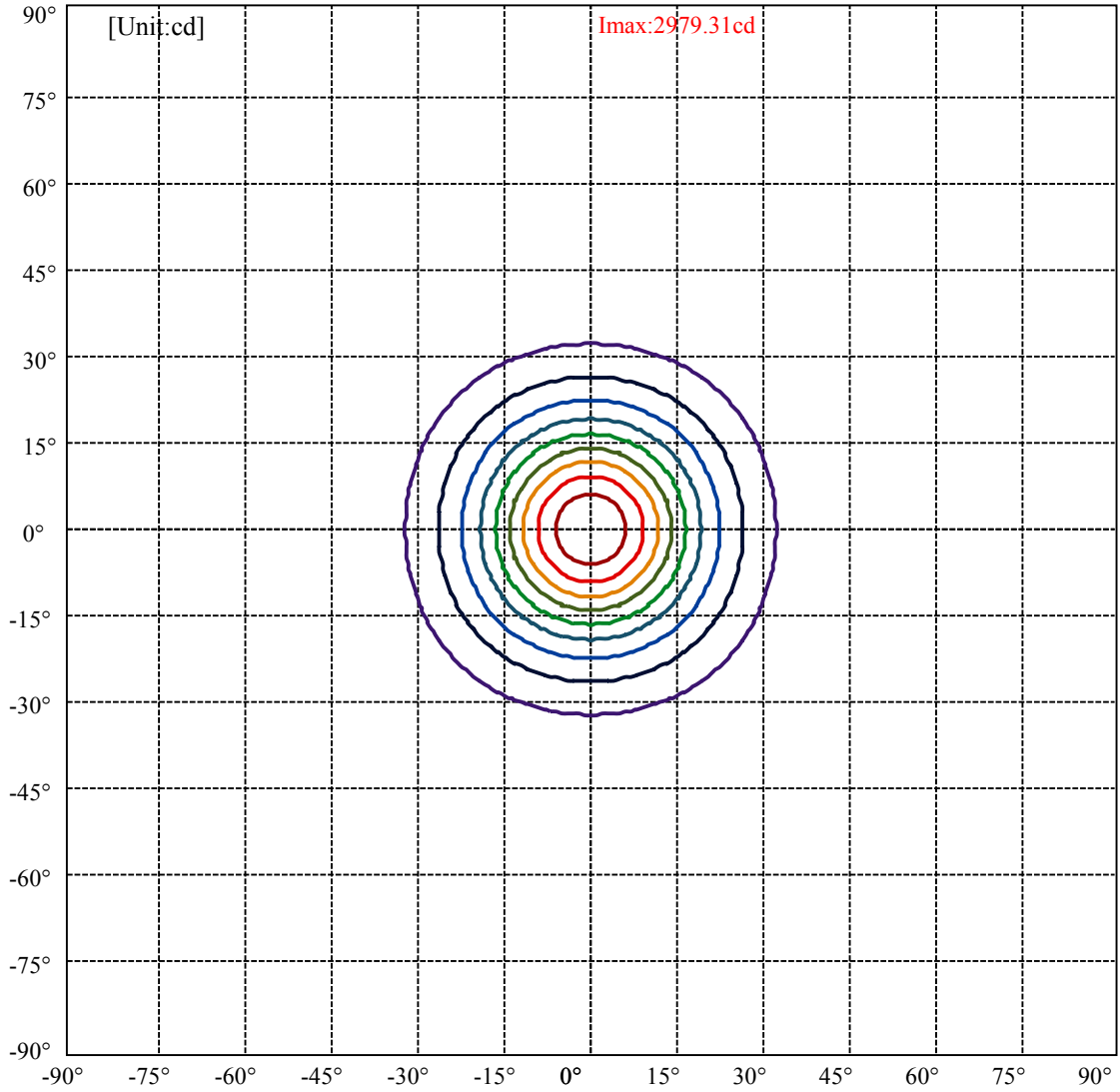
Field angle(10%Imax):C0/180Left:31.8 Right:31.8

:C90/270Left:31.8 Right:31.8

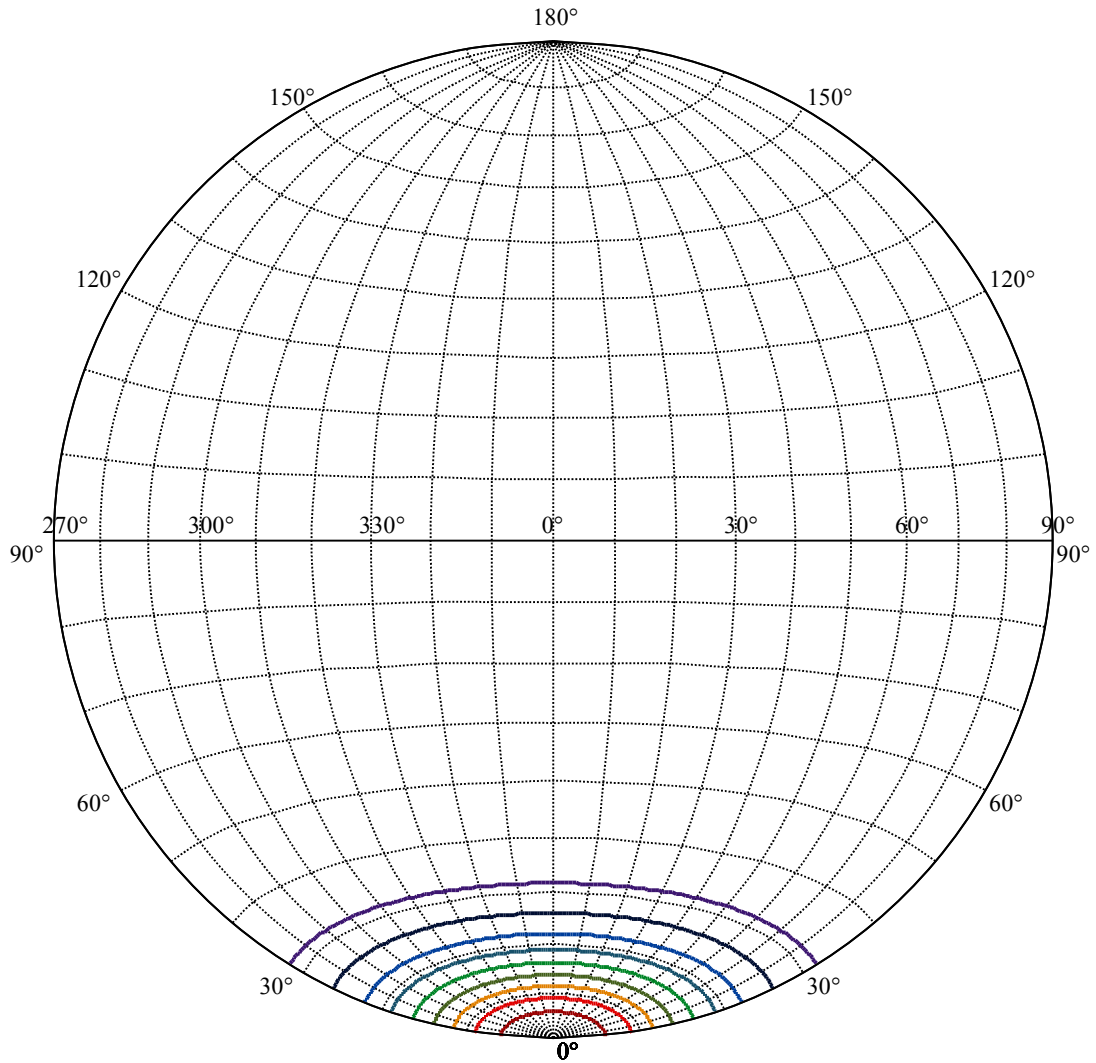
Beam Angle(50%Imax):C0/180Left:16.3 Right:16.3

:C90/270Left:16.3 Right:16.3





(10%Imax) 297.931	—
(20%Imax) 595.862	—
(30%Imax) 893.793	—
(40%Imax) 1191.72	—
(50%Imax) 1489.65	—
(60%Imax) 1787.59	—
(70%Imax) 2085.52	—
(80%Imax) 2383.45	—
(90%Imax) 2681.38	—



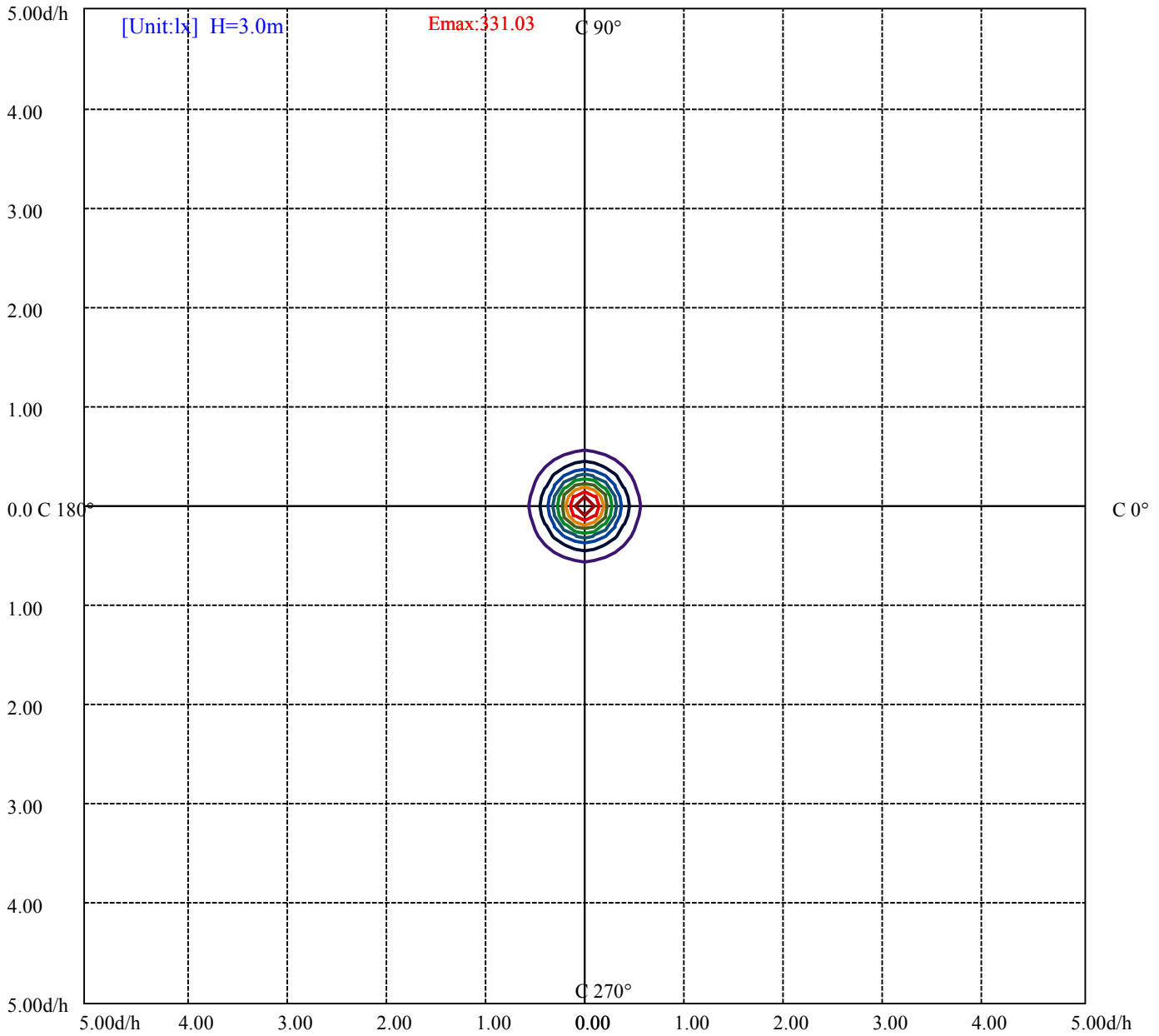
House

[Unit:cd]

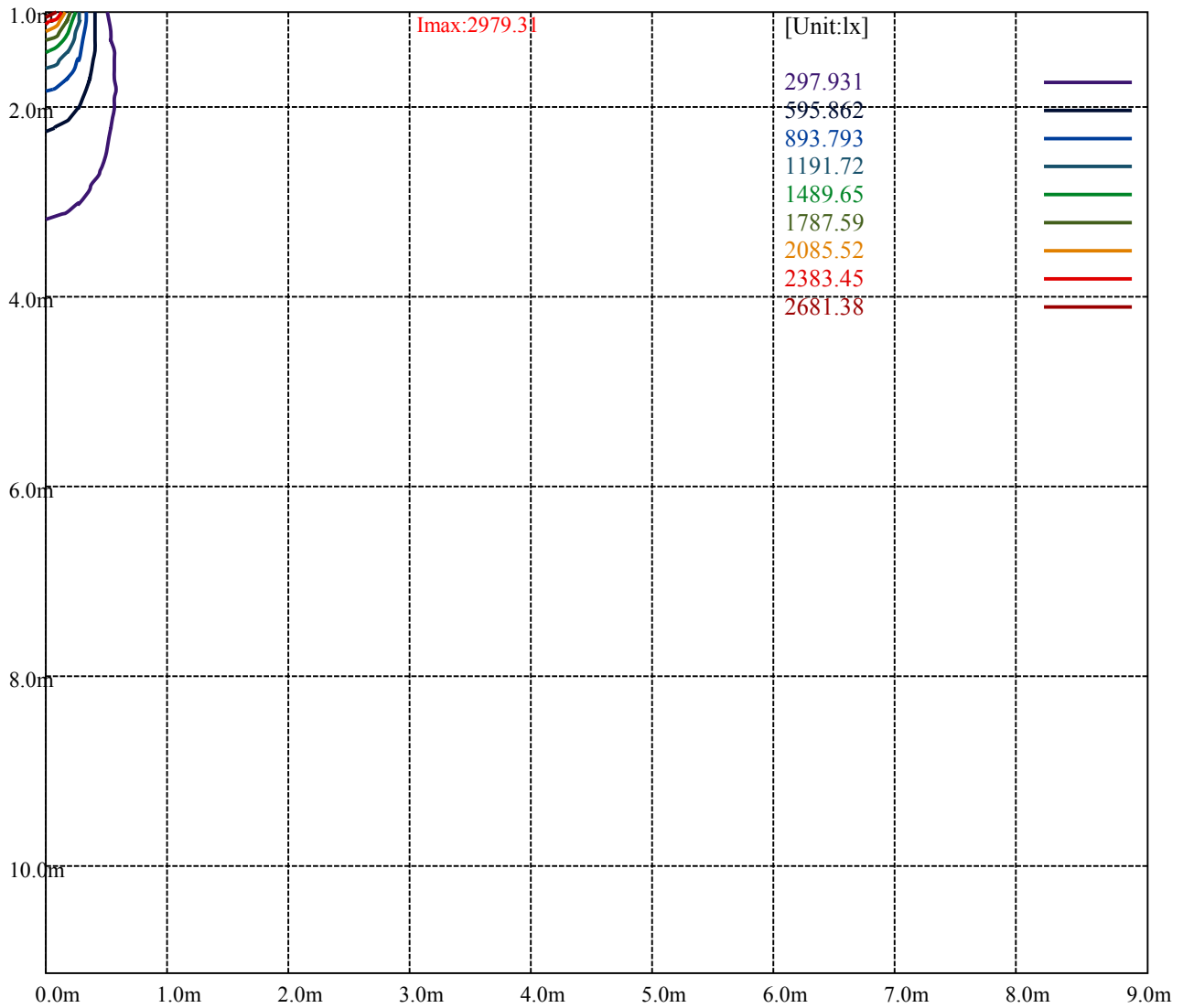
Road

I_{max}:2979.31

(10%I _{max})	297.931	—
(20%I _{max})	595.862	—
(30%I _{max})	893.793	—
(40%I _{max})	1191.72	—
(50%I _{max})	1489.65	—
(60%I _{max})	1787.59	—
(70%I _{max})	2085.52	—
(80%I _{max})	2383.45	—
(90%I _{max})	2681.38	—



- (10%Emax) 33.10333 ———
- (20%Emax) 66.20678 ———
- (30%Emax) 99.31011 ———
- (40%Emax) 132.4133 ———
- (50%Emax) 165.5167 ———
- (60%Emax) 198.62 ———
- (70%Emax) 231.7233 ———
- (80%Emax) 264.8267 ———
- (90%Emax) 297.93 ———



Luminance Table

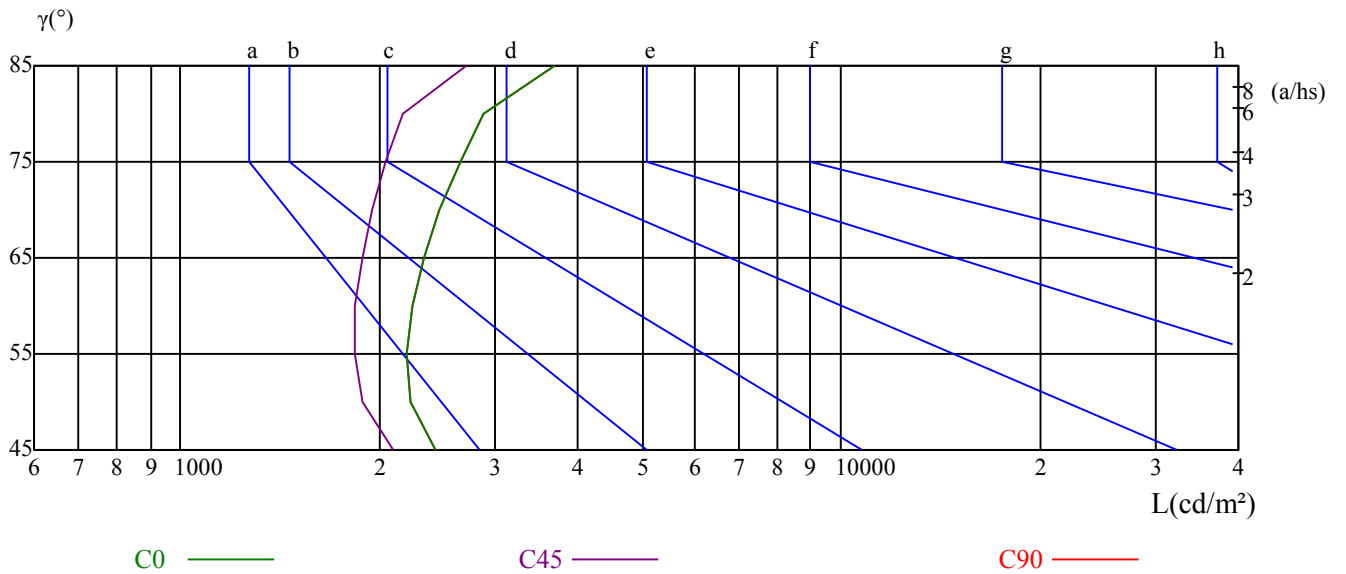
γ	45	50	55	60	65	70	75	80	85
C0	2431	2227	2202	2240	2334	2468	2648	2881	3697
C45	2093	1889	1839	1840	1883	1953	2050	2175	2710
C90	2431	2227	2202	2240	2334	2468	2648	2881	3697

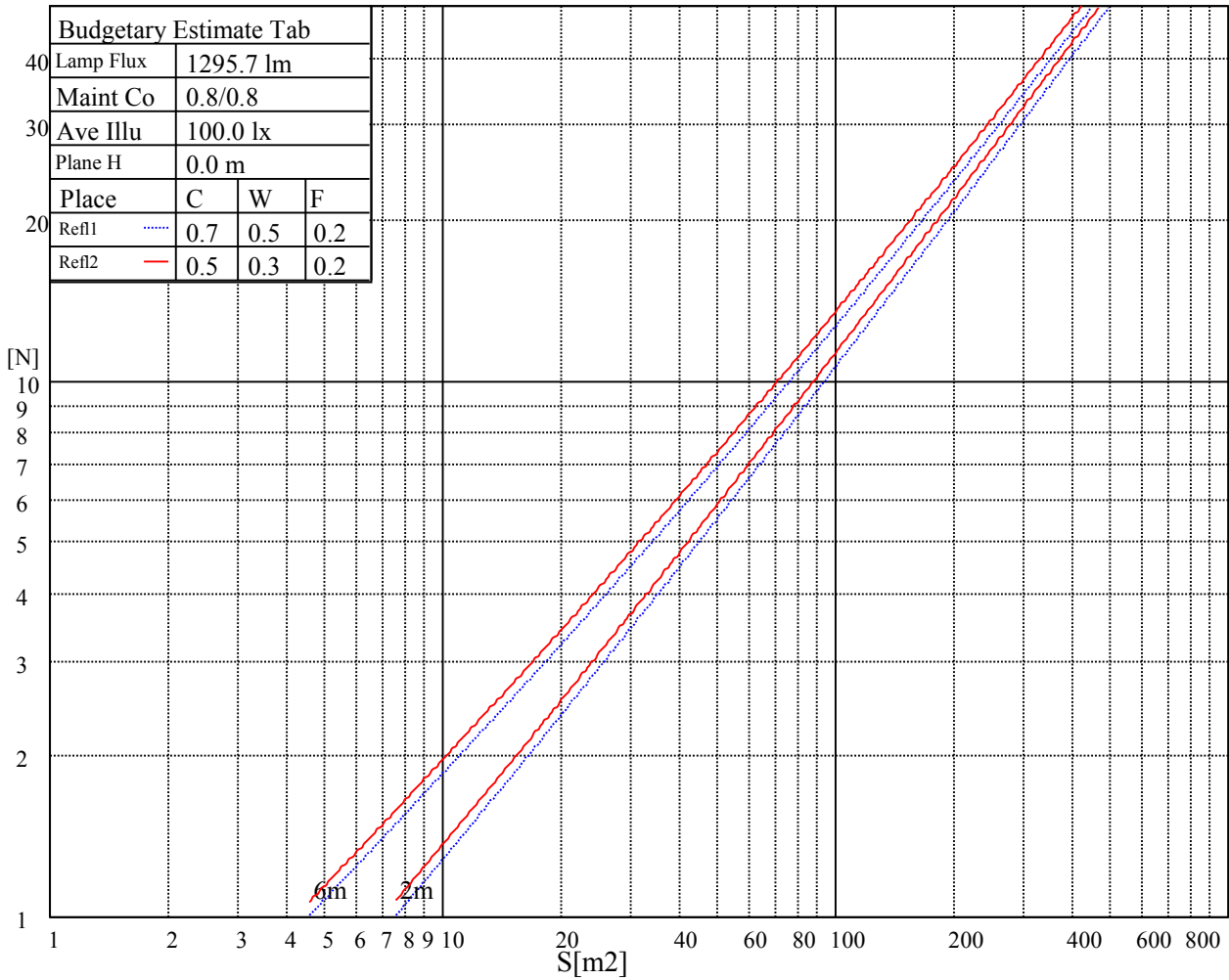
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
5529	5529	5529	8956	8956	8956	30670	30670	30670

Glare Table

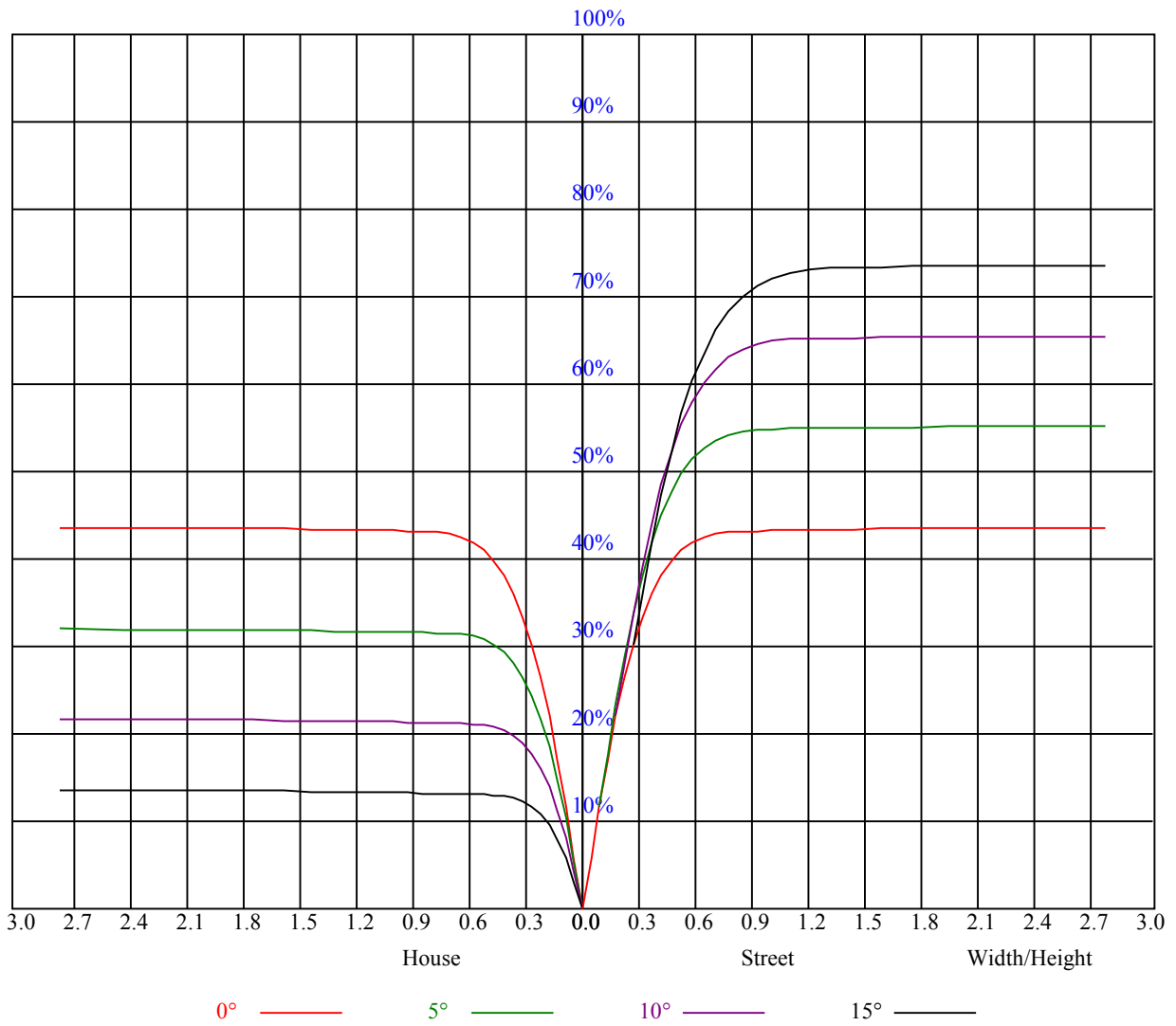
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

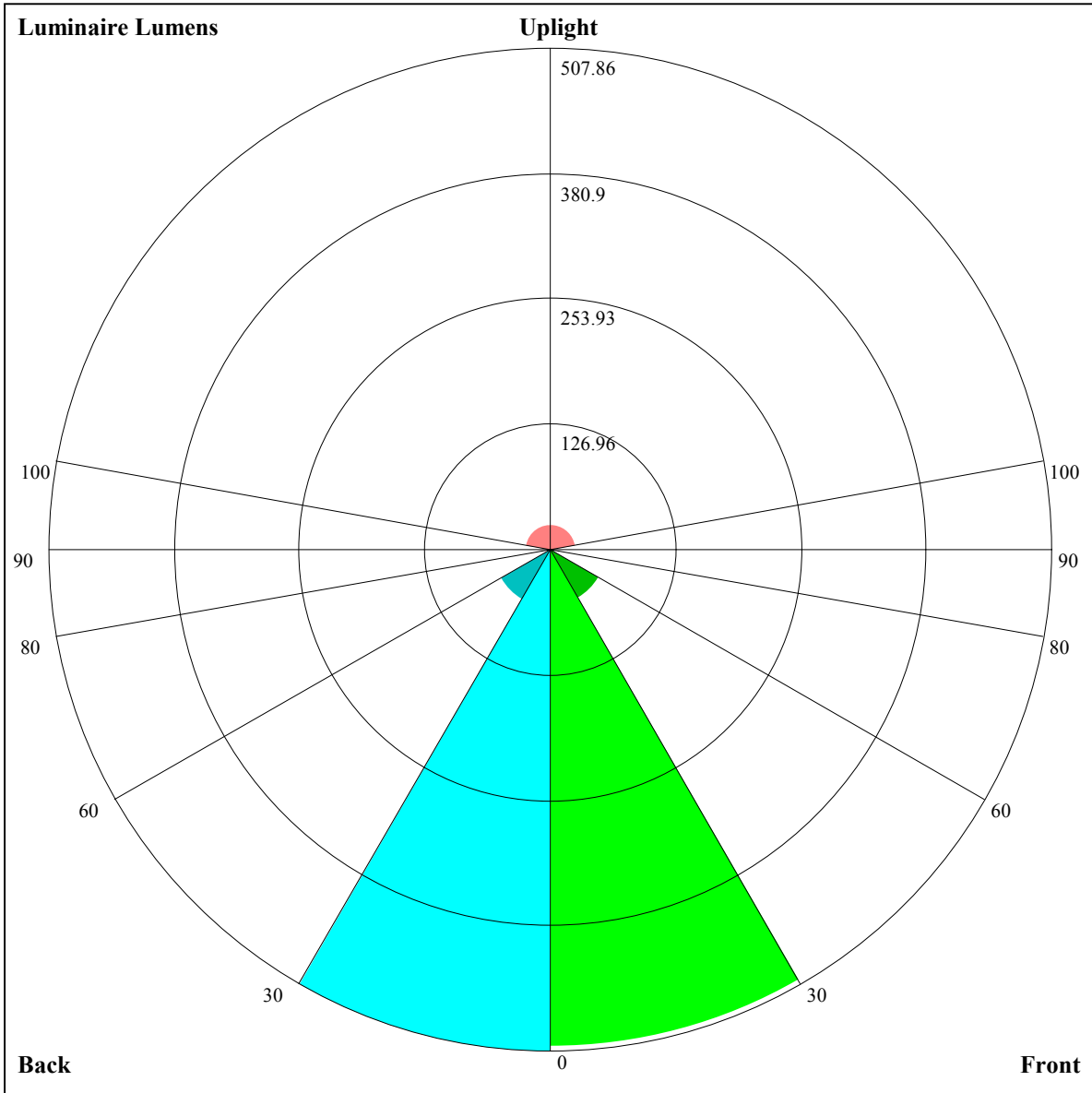
Luminance Limiting Curve





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	1.06	1.06	1.06	1.03	1.03	1.03	0.99	0.99	0.99	0.94	0.94	0.94	0.91	0.91	0.91	0.89
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	0.93	0.89	0.87	0.91	0.88	0.86	0.88	0.86	0.84	0.86	0.84	0.82	0.83	0.82	0.80	0.79
3	0.88	0.84	0.81	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.80	0.78	0.81	0.79	0.77	0.76
4	0.84	0.80	0.77	0.83	0.80	0.77	0.82	0.78	0.76	0.80	0.77	0.75	0.78	0.76	0.74	0.73
5	0.81	0.77	0.74	0.80	0.76	0.73	0.79	0.75	0.73	0.77	0.74	0.72	0.76	0.74	0.72	0.70
6	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.73	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
7	0.75	0.71	0.68	0.74	0.71	0.68	0.73	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.67	0.66
8	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.68	0.65	0.70	0.67	0.65	0.70	0.67	0.65	0.64
9	0.70	0.66	0.63	0.70	0.66	0.63	0.69	0.65	0.63	0.68	0.65	0.63	0.68	0.65	0.63	0.62
10	0.68	0.64	0.61	0.67	0.64	0.61	0.67	0.63	0.61	0.66	0.63	0.61	0.66	0.63	0.61	0.60





Luminaire Lumens:

FL=502.66,FM=56.81,FH=5.25,FVH=2.97

BL=507.86,BM=57.43,BH=5.3,BVH=2.99

UL=5.34,UH=25.41

BUG Rating:B2-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	2970.29	2763.83	2271.08	1652.79	1076.35	646.91	411.27	126.57	14.20
45.0	2985.16	2759.43	2274.38	1607.65	1036.71	622.69	373.28	102.13	12.66
90.0	2981.85	2715.38	2115.27	1495.33	947.08	580.13	314.92	67.39	10.57
135.0	2980.75	2820.54	2306.86	1667.66	1090.67	660.13	383.74	121.78	14.53
180.0	2970.29	2793.56	2272.73	1607.65	1038.69	647.90	373.01	110.00	14.53
225.0	2985.16	2807.88	2336.04	1677.02	1079.93	687.43	414.30	133.84	15.03
270.0	2981.85	2878.90	2435.70	1797.59	1223.90	763.63	470.73	283.54	20.81
315.0	2979.10	2751.17	2251.81	1607.65	1076.79	651.10	380.49	123.55	13.87
360.0	2970.29	2763.83	2271.08	1652.79	1076.35	646.91	411.27	126.57	14.20
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	6.44	5.62	5.34	5.23	5.12	5.12	5.12	5.07	5.95
45.0	6.06	5.51	5.29	5.18	5.12	5.07	5.07	5.01	5.78
90.0	5.73	5.45	5.29	5.18	5.18	5.12	5.12	5.12	6.44
135.0	6.17	5.56	5.34	5.23	5.18	5.18	5.12	5.12	6.22
180.0	6.17	5.56	5.34	5.23	5.23	5.18	5.23	5.18	5.95
225.0	6.33	5.56	5.34	5.23	5.18	5.12	5.12	5.12	5.56
270.0	6.61	5.67	5.40	5.23	5.18	5.18	5.12	5.18	5.45
315.0	6.28	5.62	5.34	5.18	5.12	5.12	5.07	5.07	5.89
360.0	6.44	5.62	5.34	5.23	5.12	5.12	5.12	5.07	5.95
C/γ(°)	90.0								
0.0	4.90								
45.0	4.84								
90.0	4.90								
135.0	4.96								
180.0	4.90								
225.0	4.84								
270.0	4.90								
315.0	4.90								
360.0	4.90								