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Nata

Client:

LumCAT: 1654-S

Luminaire: 92.70.044.00

Report No: nata0100

Test No: GC2017110402

LampCAT: NICHIA NVNWS007Z-V1

Lamp flux(lm): 824.0

Number of Lamps: 1

Length(mm): 32

Phm Type: C

Voltage(V): 20.1000

Current(A): 0.3000

Power (W): 6.0300

PF: 0.0000

Ballast type: DC

Width(mm): 32

Height(mm): 0

Photometric Results

Lumens(lm): 734.04, Efficiency(%): 89.08% , Luminous Efficacy(lm/W): 121.73

Central intensity(cd): 2222.214, Maximum intensity(cd): 2222.214

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=29.4

[C90/270]Total=29.4

Field angle(10%Imax): [C0/180]Total=60.6

[C90/270]Total=60.6

Maximum s/h(1/2): C0_180=0.49 C90_270=0.49

Maximum s/h(1/4): C0_180=0.50 C90_270=0.50

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 89.08%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.521%

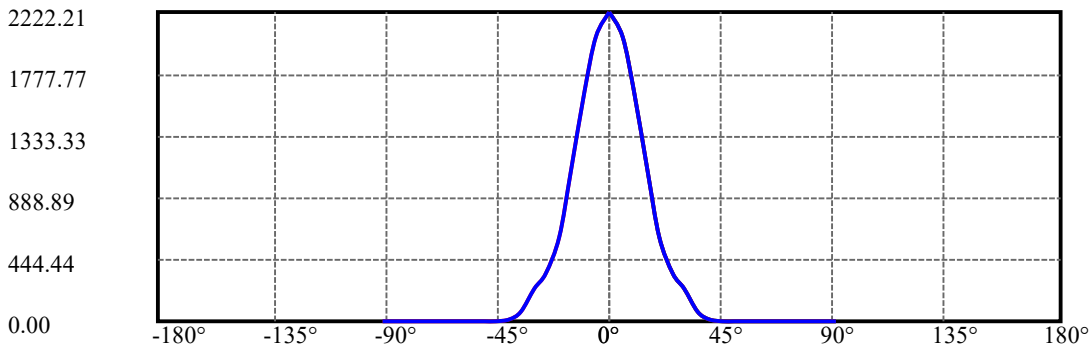
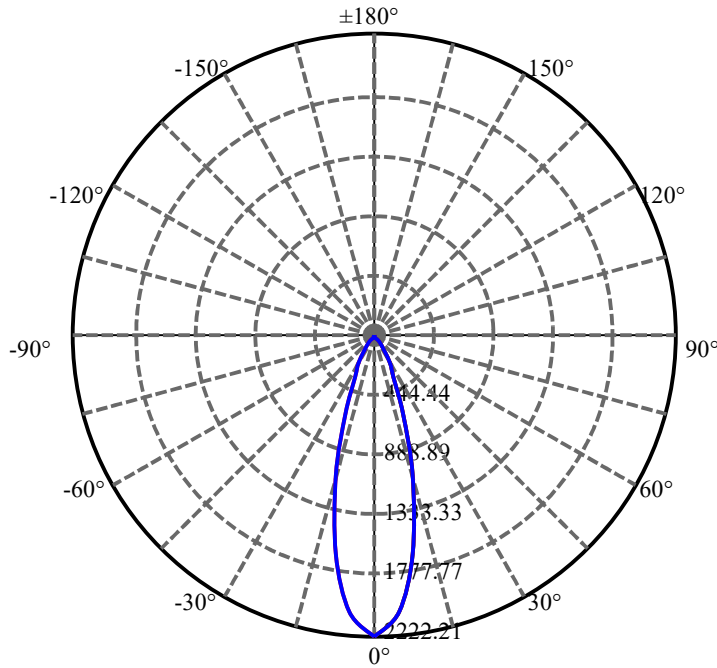
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	2222.214	0.000	0	.000%	.000%
5.0	2045.208	51.016	51.016	6.191%	6.950%
10.0	1641.507	131.885	182.901	16.006%	24.917%
15.0	1077.027	161.262	344.163	19.571%	46.886%
20.0	612.489	139.240	483.403	16.898%	65.855%
25.0	341.460	100.052	583.454	12.142%	79.486%
30.0	232.902	72.686	656.14	8.821%	89.388%
35.0	75.469	45.410	701.55	5.511%	95.574%
40.0	9.305	14.144	715.694	1.716%	97.501%
45.0	4.590	2.573	718.266	.312%	97.852%
50.0	3.703	1.676	719.942	.203%	98.080%
55.0	3.599	1.588	721.53	.193%	98.296%
60.0	3.544	1.651	723.181	.200%	98.521%
65.0	3.503	1.713	724.894	.208%	98.754%
70.0	3.475	1.767	726.661	.214%	98.995%
75.0	3.420	1.802	728.464	.219%	99.241%
80.0	3.427	1.832	730.296	.222%	99.490%
85.0	3.517	1.887	732.183	.229%	99.747%
90.0	3.255	1.854	734.037	.225%	100.000%

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	656.14	79.63%	89.39%
0-40	715.69	86.86%	97.50%
0-60	723.18	87.76%	98.52%
0-90	732.18	88.86%	99.75%
0-120	732.18	88.86%	99.75%
0-180	734.04	89.08%	100.00%
60-90	10.65	1.29%	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%
0-25.26	587.23	71.27%	80.00%

ZONAL LUMEN SUMMARY

0-10	182.90
10-20	300.50
20-30	172.74
30-40	59.55
40-50	4.25
50-60	3.24
60-70	3.48
70-80	3.63
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: —————

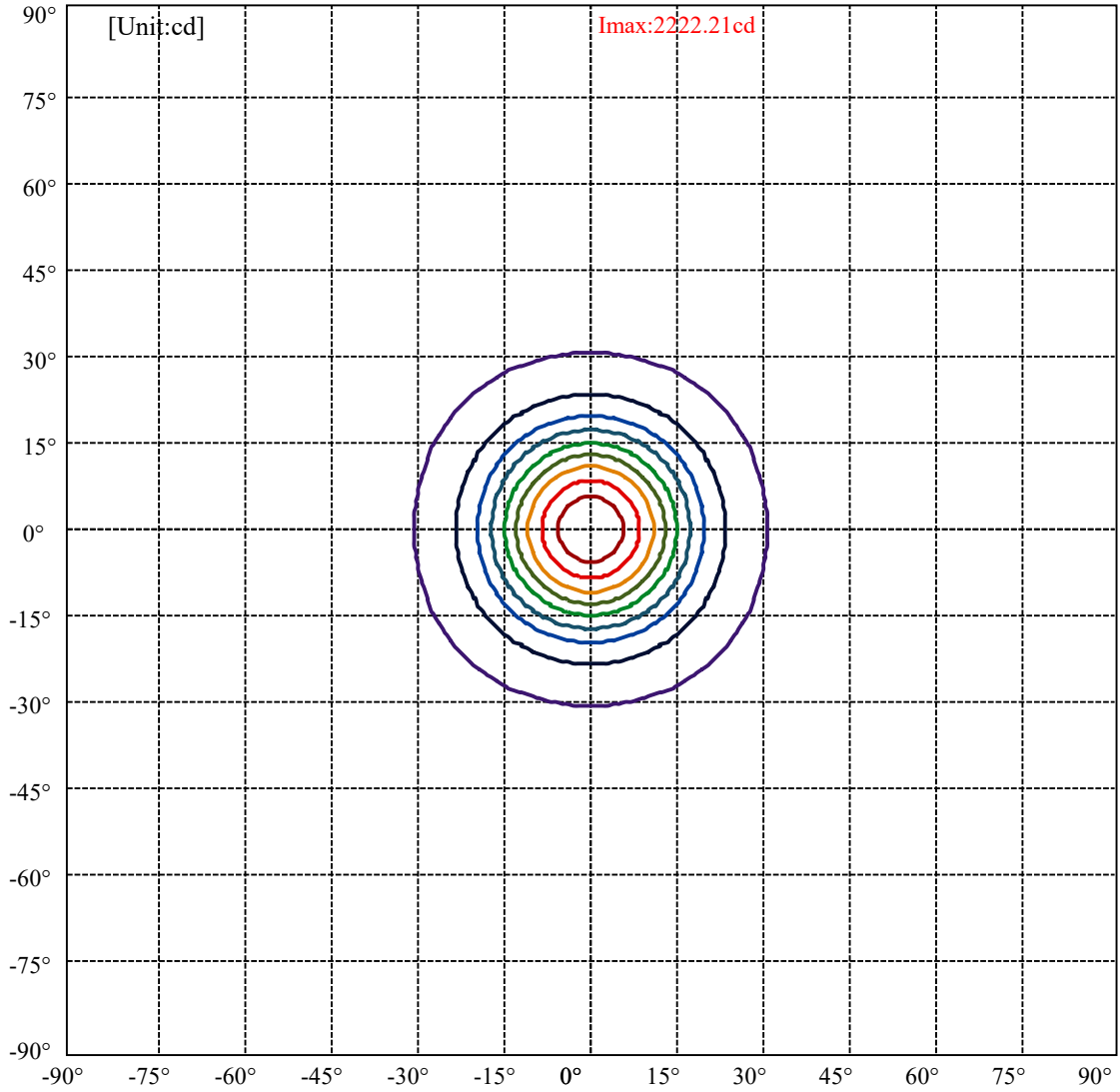
C90/C270: —————

Field angle(10%Imax):C0/180Left:30.3 Right:30.3

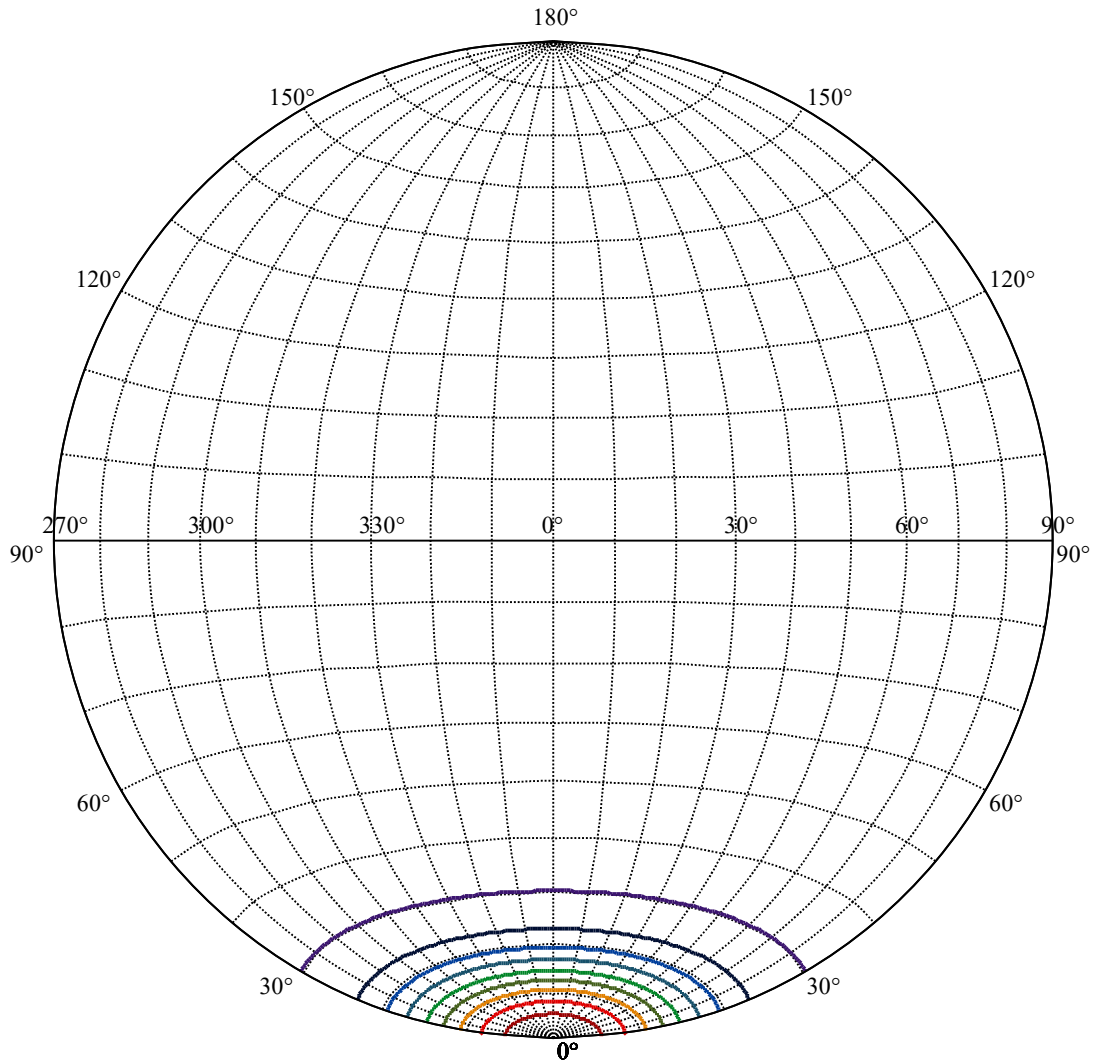
:C90/270Left:30.3 Right:30.3

Beam Angle(50%Imax):C0/180Left:14.7 Right:14.7

:C90/270Left:14.7 Right:14.7



(10%Imax) 222.221	—
(20%Imax) 444.443	—
(30%Imax) 666.664	—
(40%Imax) 888.886	—
(50%Imax) 1111.11	—
(60%Imax) 1333.33	—
(70%Imax) 1555.55	—
(80%Imax) 1777.77	—
(90%Imax) 1999.99	—



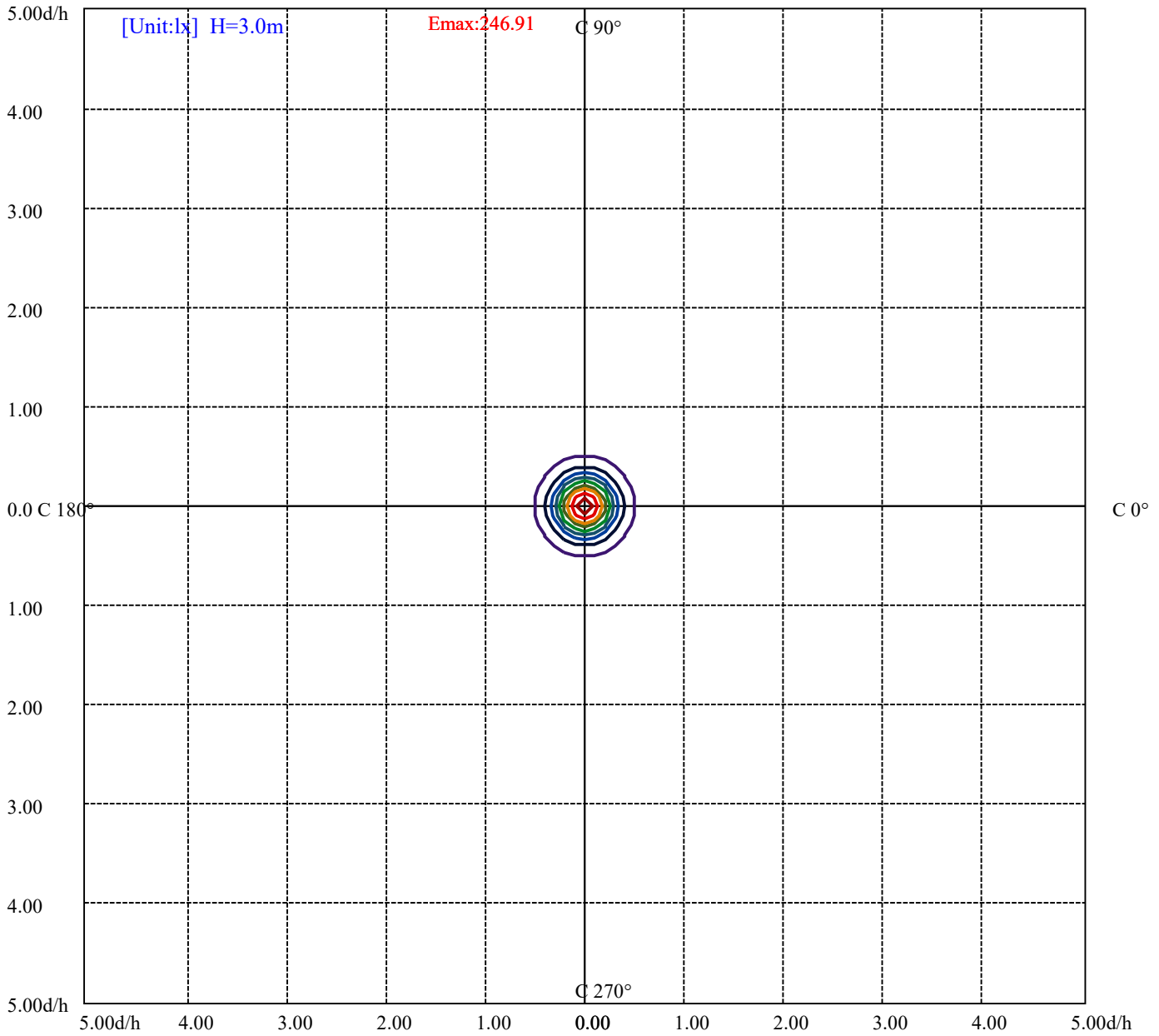
House

[Unit:cd]

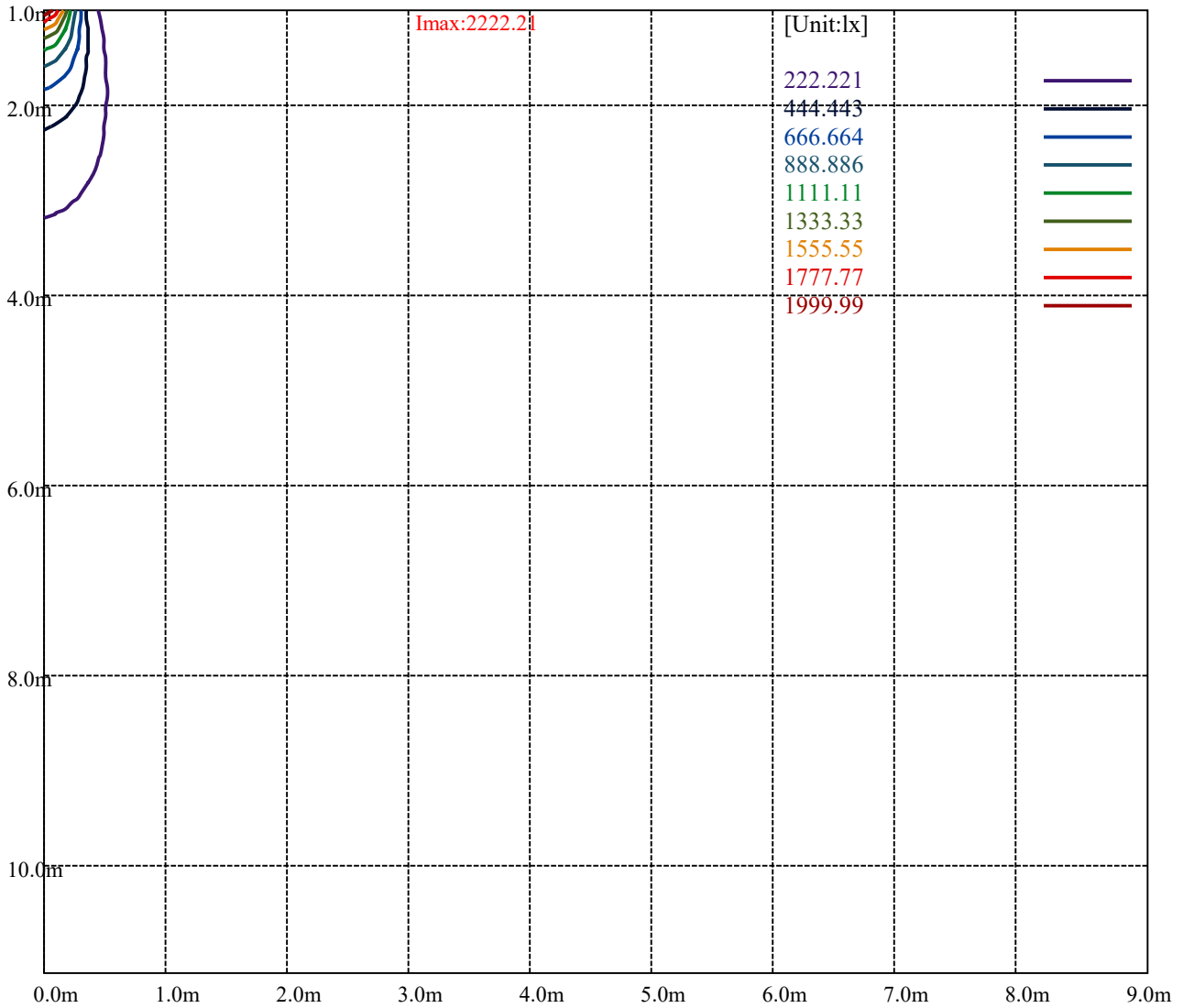
Road

Imax:2222.21

(10%Imax) 222.221	—
(20%Imax) 444.443	—
(30%Imax) 666.664	—
(40%Imax) 888.886	—
(50%Imax) 1111.11	—
(60%Imax) 1333.33	—
(70%Imax) 1555.55	—
(80%Imax) 1777.77	—
(90%Imax) 1999.99	—



(10%Emax) 24.69122	—
(20%Emax) 49.38244	—
(30%Emax) 74.07367	—
(40%Emax) 98.76478	—
(50%Emax) 123.4556	—
(60%Emax) 148.1478	—
(70%Emax) 172.8389	—
(80%Emax) 197.53	—
(90%Emax) 222.2211	—



Luminance Table

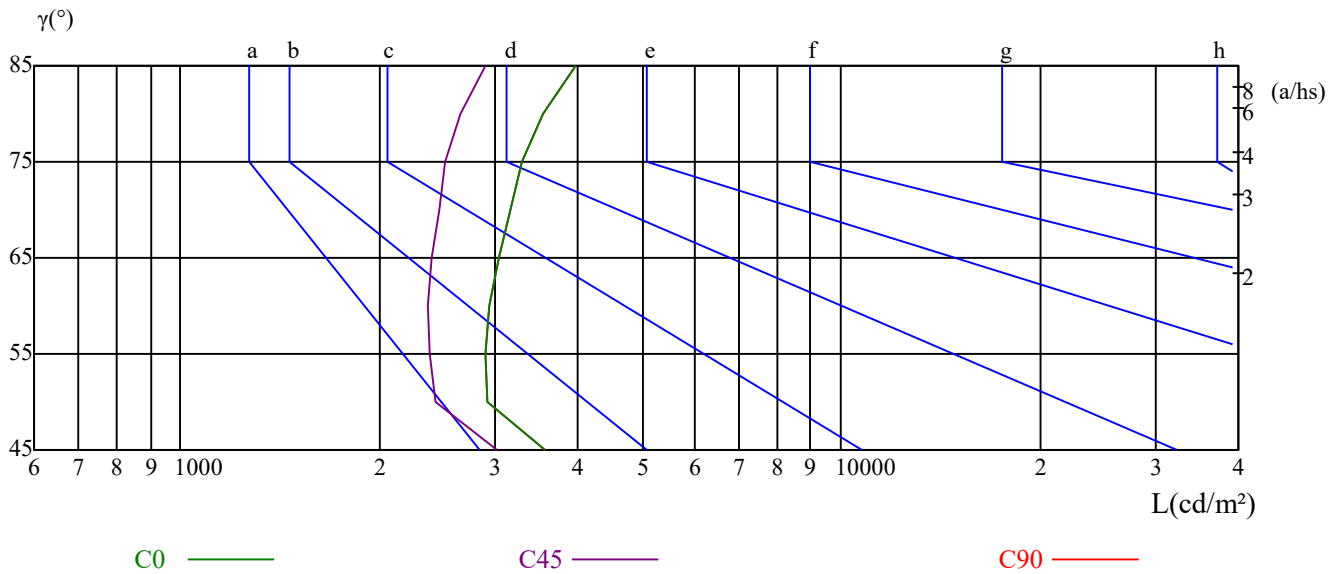
γ	45	50	55	60	65	70	75	80	85
C0	3559	2913	2896	2942	3026	3154	3296	3549	3968
C45	3012	2428	2377	2376	2402	2459	2519	2653	2891
C90	3559	2913	2896	2942	3026	3154	3296	3549	3968

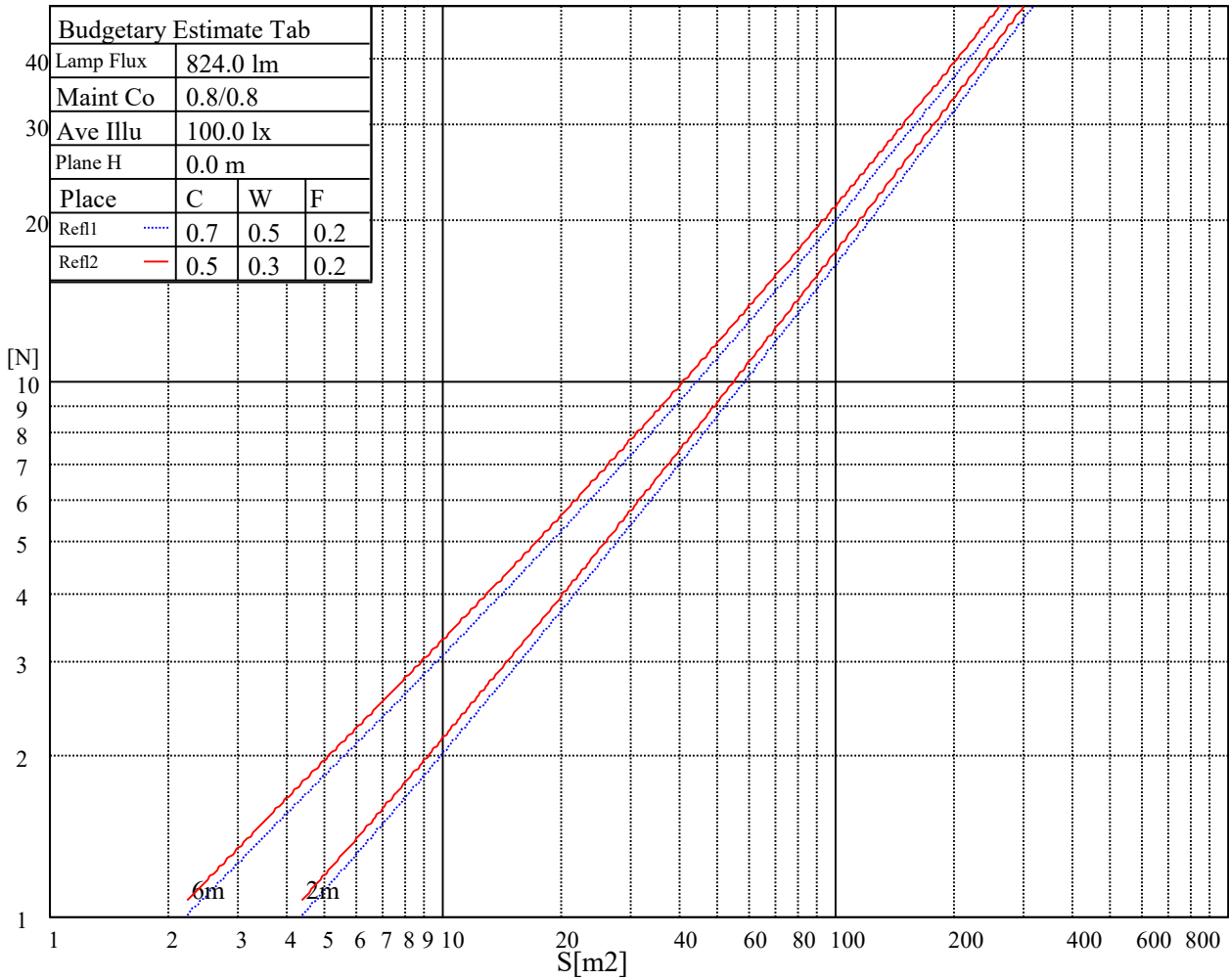
L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
8094	8094	8094	12906	12906	12906	39404	39404	39404

Glare Table

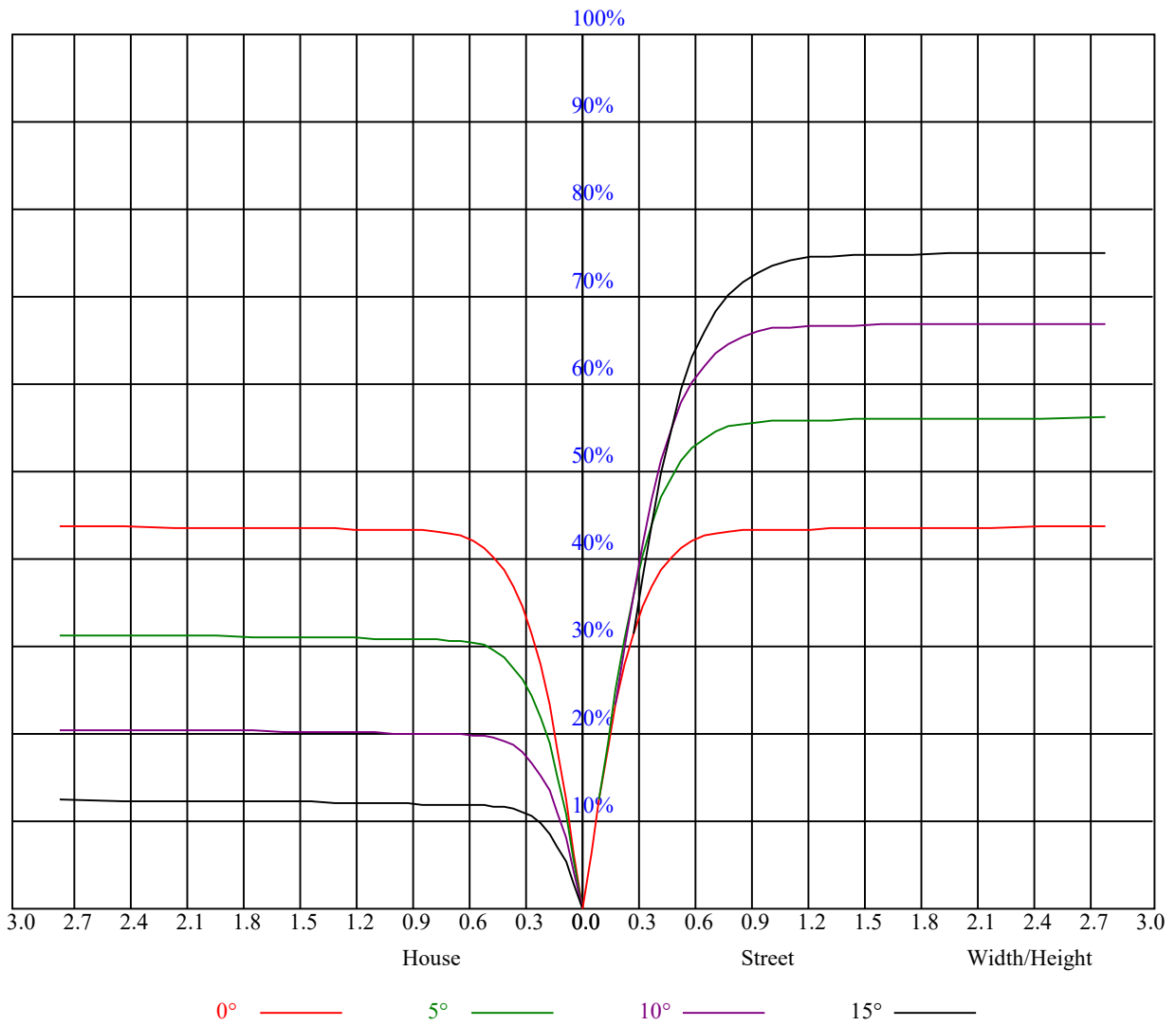
Glare	Quality	Service Values Illuminance(lx)							
1.15	A	2000	1000	500	<=300				
1.5	B		2000	1000	500	<=300			
1.85	C			2000	1000	500	<=300		
2.2	D				2000	1000	500	<=300	
2.55	E					2000	1000	500	<=300
		a	b	c	d	e	f	g	h

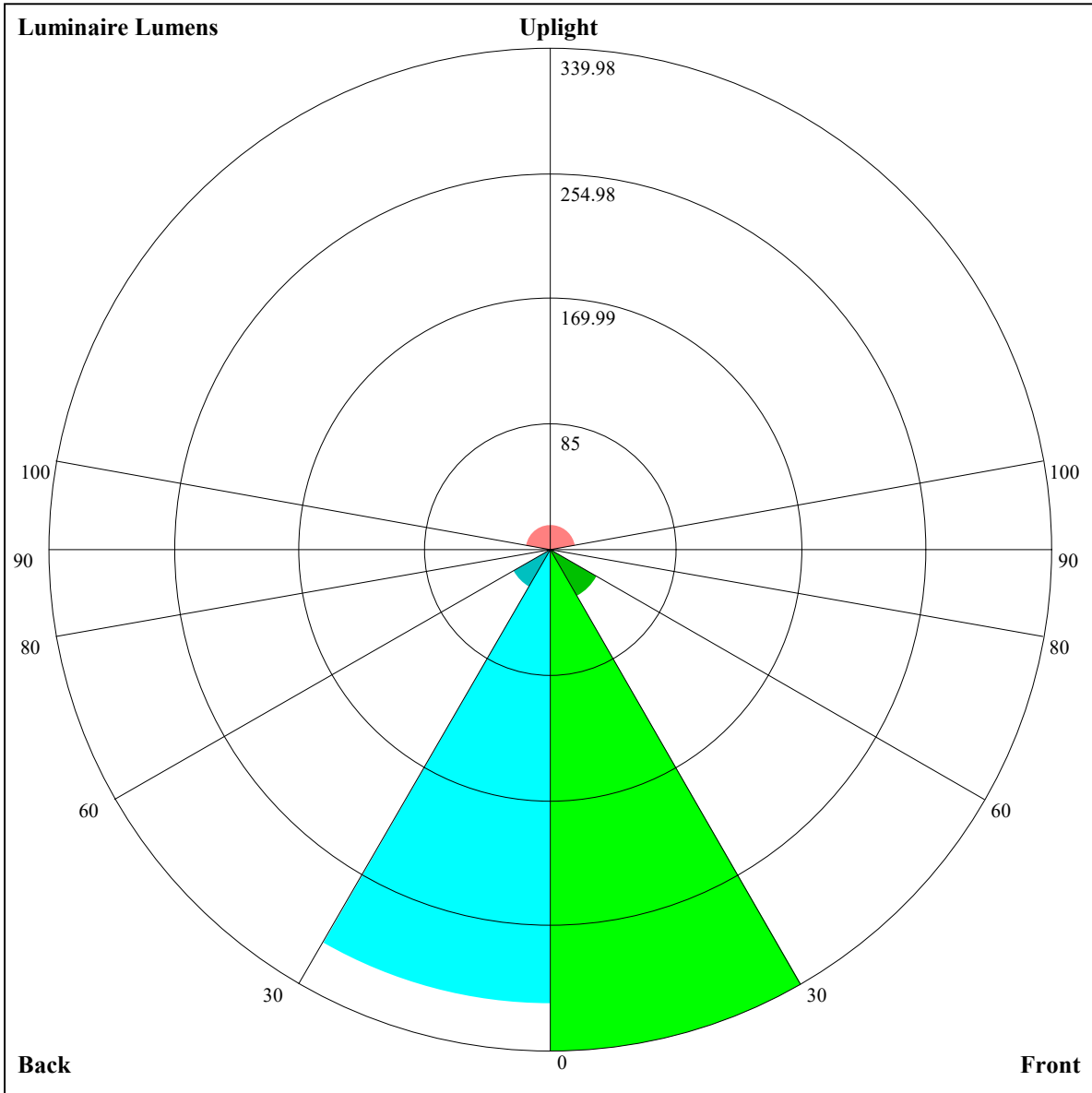
Luminance Limiting Curve





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	1.04	1.04	1.04	0.99	0.99	0.99	0.95	0.95	0.95	0.91	0.91	0.91	0.89
1	1.00	0.98	0.96	0.98	0.96	0.94	0.94	0.93	0.91	0.91	0.90	0.89	0.88	0.87	0.86	0.85
2	0.94	0.91	0.89	0.93	0.90	0.88	0.90	0.88	0.86	0.87	0.85	0.84	0.85	0.83	0.82	0.81
3	0.89	0.86	0.83	0.88	0.85	0.82	0.86	0.83	0.81	0.84	0.82	0.80	0.82	0.80	0.78	0.77
4	0.85	0.81	0.78	0.84	0.80	0.78	0.82	0.79	0.77	0.81	0.78	0.76	0.79	0.77	0.75	0.74
5	0.81	0.77	0.74	0.81	0.77	0.74	0.79	0.76	0.73	0.78	0.75	0.72	0.76	0.74	0.72	0.71
6	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.75	0.72	0.69	0.74	0.71	0.69	0.68
7	0.75	0.70	0.67	0.74	0.70	0.67	0.73	0.70	0.67	0.72	0.69	0.67	0.71	0.68	0.66	0.65
8	0.72	0.68	0.65	0.71	0.67	0.65	0.71	0.67	0.64	0.70	0.66	0.64	0.69	0.66	0.64	0.63
9	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.67	0.64	0.61	0.61
10	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.60	0.65	0.62	0.59	0.65	0.62	0.59	0.58





Luminaire Lumens:

FL=339.98,FM=37.15,FH=3.54,FVH=1.85

BL=308.23,BM=29.25,BH=3.58,BVH=1.89

UL=3.55,UH=16.9

BUG Rating:B1-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	2211.62	2176.93	1809.70	1348.88	779.05	396.41	280.24	125.91	11.34
45.0	2231.99	2034.88	1615.35	1070.85	590.76	336.39	250.34	59.68	8.04
90.0	2208.31	1876.32	1413.85	893.46	474.15	292.40	179.48	24.06	6.44
135.0	2236.94	1957.26	1488.17	931.55	518.63	307.77	193.19	36.01	6.94
180.0	2211.62	1897.24	1463.40	894.78	461.48	294.44	179.04	28.57	7.05
225.0	2231.99	2056.91	1679.22	1094.91	598.24	336.17	241.04	79.06	8.86
270.0	2208.31	2198.40	1862.01	1310.34	753.17	398.06	279.69	132.80	15.25
315.0	2236.94	2163.72	1800.34	1071.45	724.43	370.03	260.20	117.66	10.52
360.0	2211.62	2176.93	1809.70	1348.88	779.05	396.41	280.24	125.91	11.34
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	5.62	3.74	3.63	3.52	3.47	3.47	3.36	3.36	3.36
45.0	4.24	3.63	3.47	3.47	3.41	3.41	3.41	3.36	3.47
90.0	3.85	3.63	3.58	3.52	3.52	3.52	3.52	3.52	3.63
135.0	3.96	3.74	3.69	3.63	3.63	3.52	3.36	3.36	3.52
180.0	3.85	3.74	3.69	3.63	3.58	3.58	3.52	3.58	3.74
225.0	4.40	3.69	3.58	3.52	3.47	3.41	3.41	3.47	3.58
270.0	5.62	3.74	3.58	3.52	3.47	3.47	3.36	3.36	3.41
315.0	5.18	3.69	3.58	3.52	3.47	3.41	3.41	3.41	3.41
360.0	5.62	3.74	3.63	3.52	3.47	3.47	3.36	3.36	3.36
C/γ(°)	90.0								
0.0	3.30								
45.0	3.19								
90.0	3.25								
135.0	3.25								
180.0	3.30								
225.0	3.25								
270.0	3.25								
315.0	3.25								
360.0	3.30								