
Nata

LumCAT: 2-1568-M	
Luminaire: BJB47.319.2021	
Report No: NT2017070310	Voltage(V): 34.5600
Test No: GC2017070310	Current(A): 0.5000
LampCAT: SAWx15	Power (W): 17.2800
Lamp flux(lm): 2402.0	PF: 0.0000
Number of Lamps: 1	Ballast type: DC
Length(mm): 70	Width(mm): 70
Phm Type: C	Height(mm): 1

Photometric Results

Lumens(lm): 2184.08
Efficiency(%): 90.93%
Lumens(lm)/Power(W): 126.39
Central intensity(cd): 4515.738
Maximum intensity(cd): 4515.738
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=37.9
[C90/270]Total=37.9
Field angle(10%Imax): [C0/180]Total=72.9
[C90/270]Total=72.9
Maximum s/h(1/2): C0_180=0.62 C90_270=0.62
Maximum s/h(1/4): C0_180=0.61 C90_270=0.61
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.97%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.681%

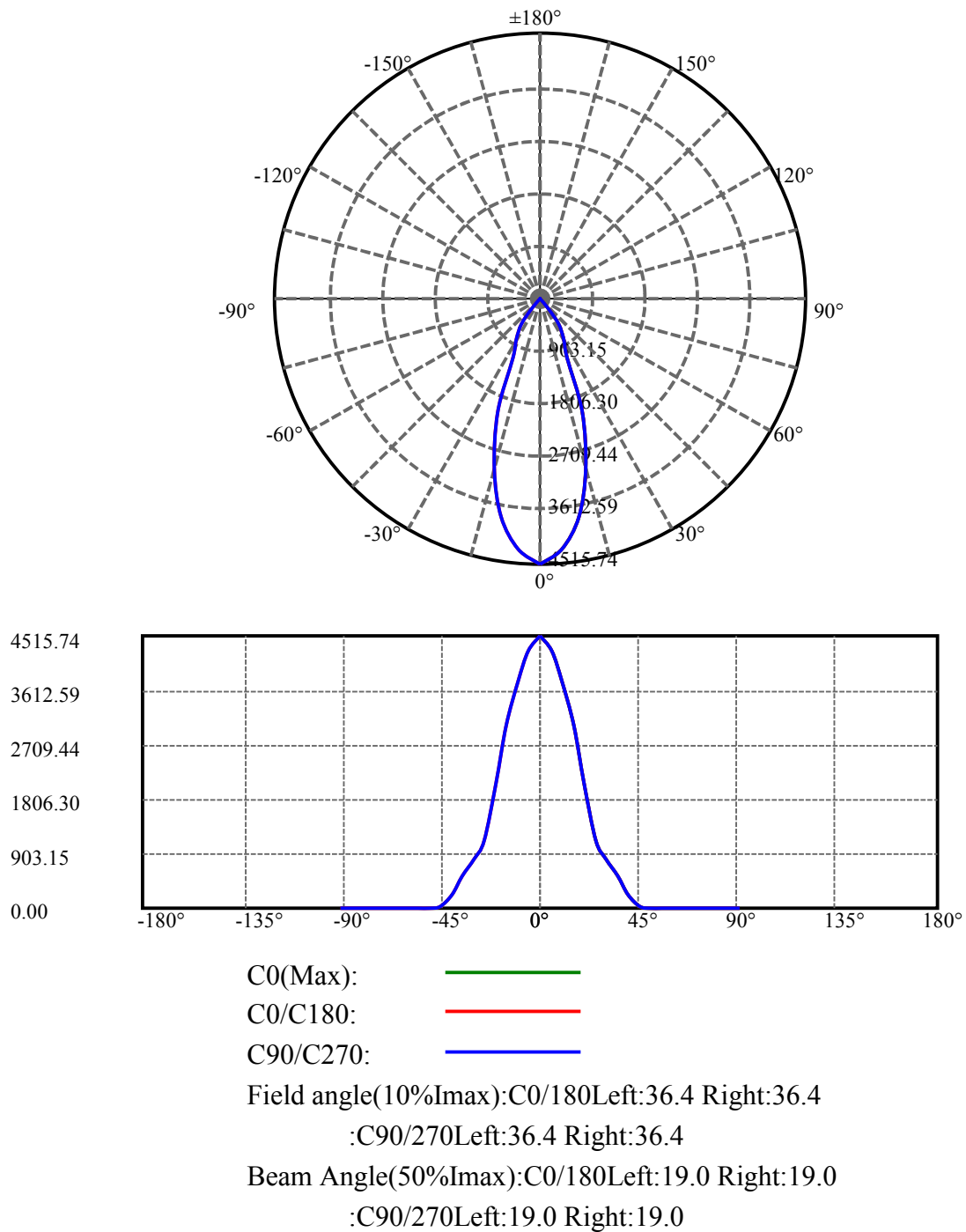
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	4515.738	27.005	27.005	1.124%	1.236%
5.0	4276.547	204.305	231.31	8.506%	10.591%
10.0	3759.544	357.845	589.155	14.898%	26.975%
15.0	3016.372	427.928	1017.083	17.815%	46.568%
20.0	2061.836	386.541	1403.623	16.092%	64.266%
25.0	1122.604	260.054	1663.678	10.827%	76.173%
30.0	807.393	221.281	1884.959	9.212%	86.304%
35.0	542.547	170.576	2055.535	7.101%	94.114%
40.0	227.615	80.197	2135.732	3.339%	97.786%
45.0	19.756	7.657	2143.39	.319%	98.137%
50.0	12.021	5.047	2148.437	.210%	98.368%
55.0	10.407	4.673	2153.11	.195%	98.582%
60.0	9.850	4.676	2157.786	.195%	98.796%
65.0	9.461	4.700	2162.486	.196%	99.011%
70.0	9.183	4.730	2167.216	.197%	99.228%
75.0	9.016	4.773	2171.989	.199%	99.446%
80.0	8.960	4.837	2176.826	.201%	99.668%
85.0	8.849	4.832	2181.657	.201%	99.889%
90.0	8.849	2.425	2184.082	.101%	100.000%

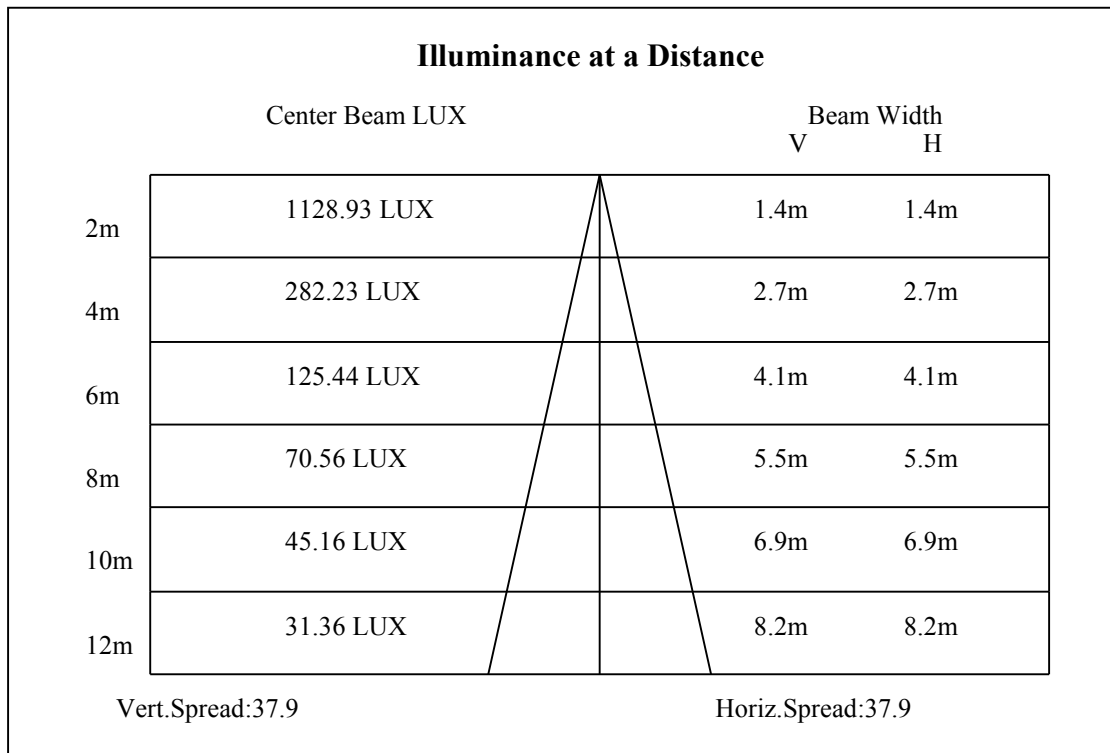
ZONAL LUMEN SUMMARY

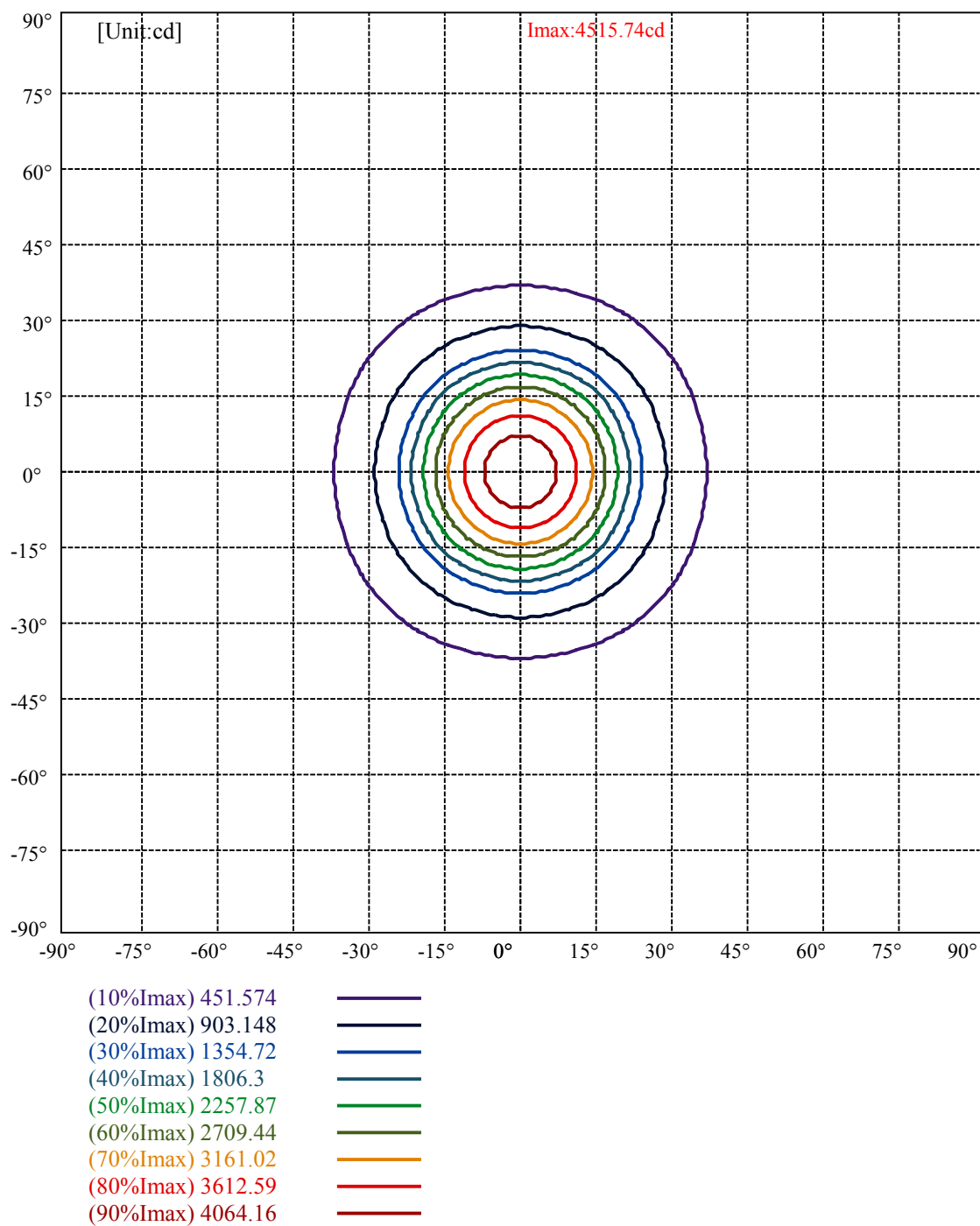
Zone	Lumens	%Lamp	%Fixt
0-30	1884.96	78.47%	86.30%
0-40	2135.73	88.91%	97.79%
0-60	2157.79	89.83%	98.80%
0-90	2181.66	90.83%	99.89%
0-120	2181.66	90.83%	99.89%
0-180	2184.08	90.93%	100.00%
60-90	28.55	1.19%	1.31%
90-120	0.00	0.00%	0.00%
90-130	0.00	0.00%	0.00%
90-150	0.00	0.00%	0.00%
90-180	0.00	0.00%	0.00%
0-26.89	1747.27	72.74%	80.00%

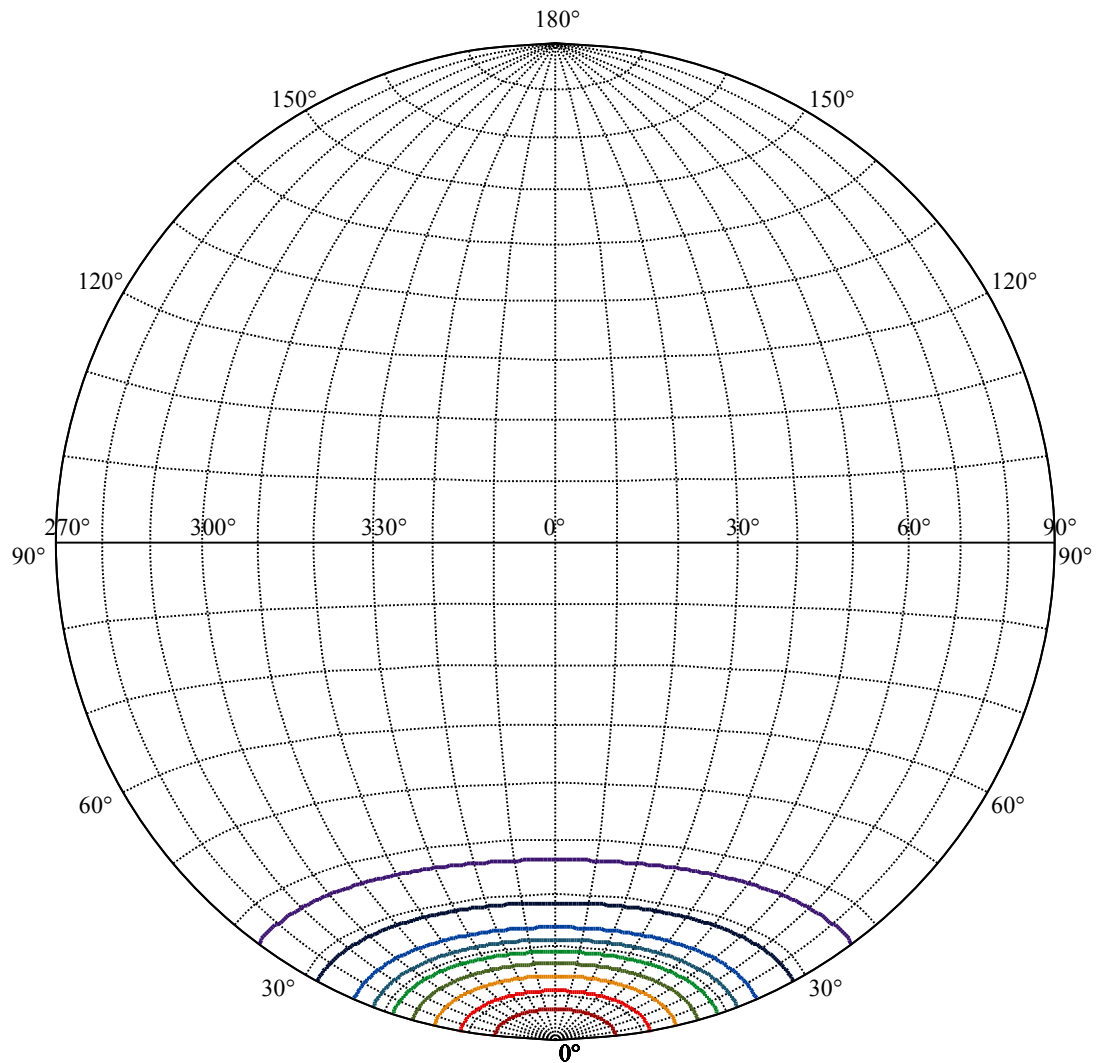
ZONAL LUMEN SUMMARY

0-10	589.15
10-20	814.47
20-30	481.34
30-40	250.77
40-50	12.70
50-60	9.35
60-70	9.43
70-80	9.61
80-90	4.83
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









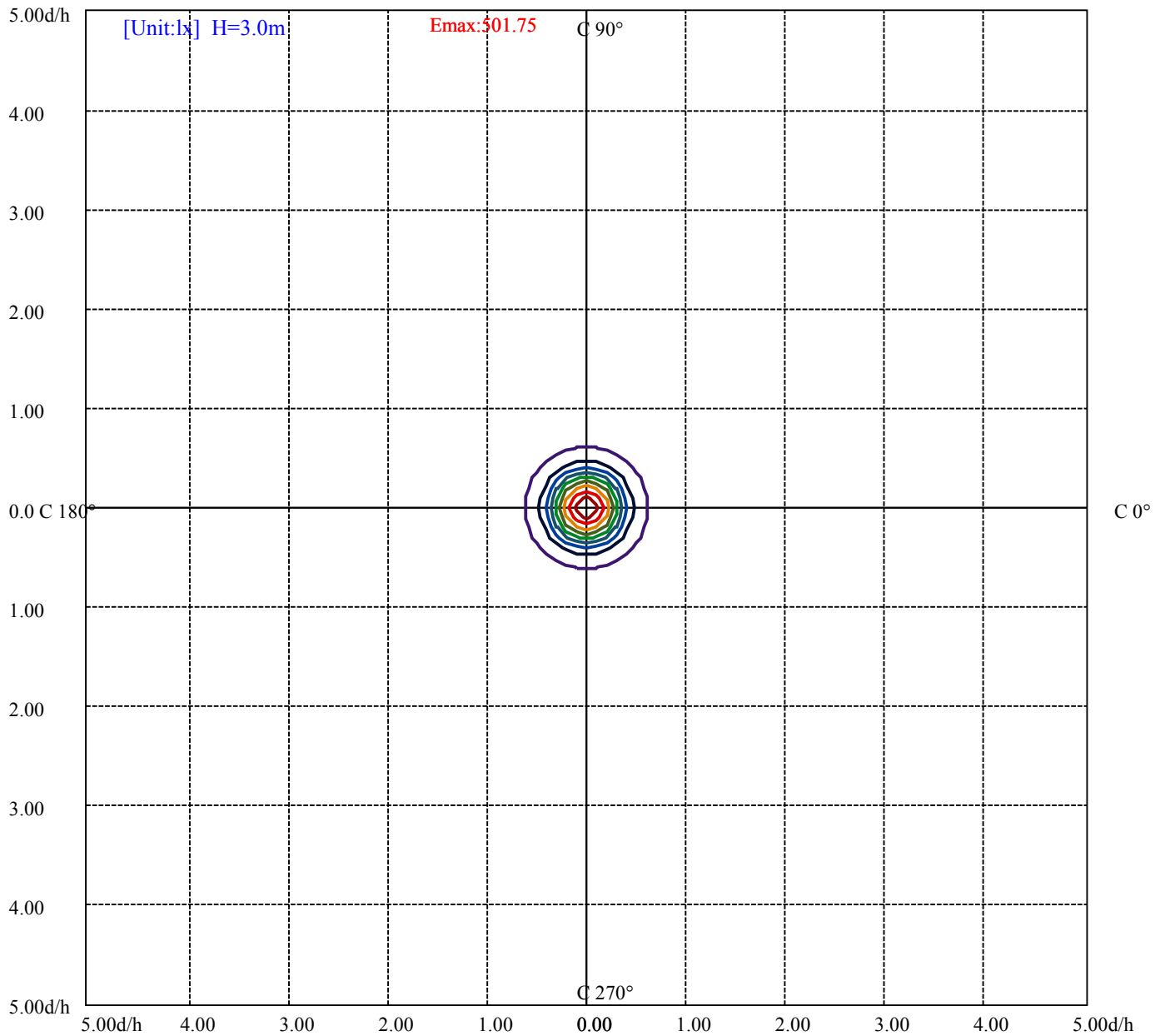
House

[Unit:cd]

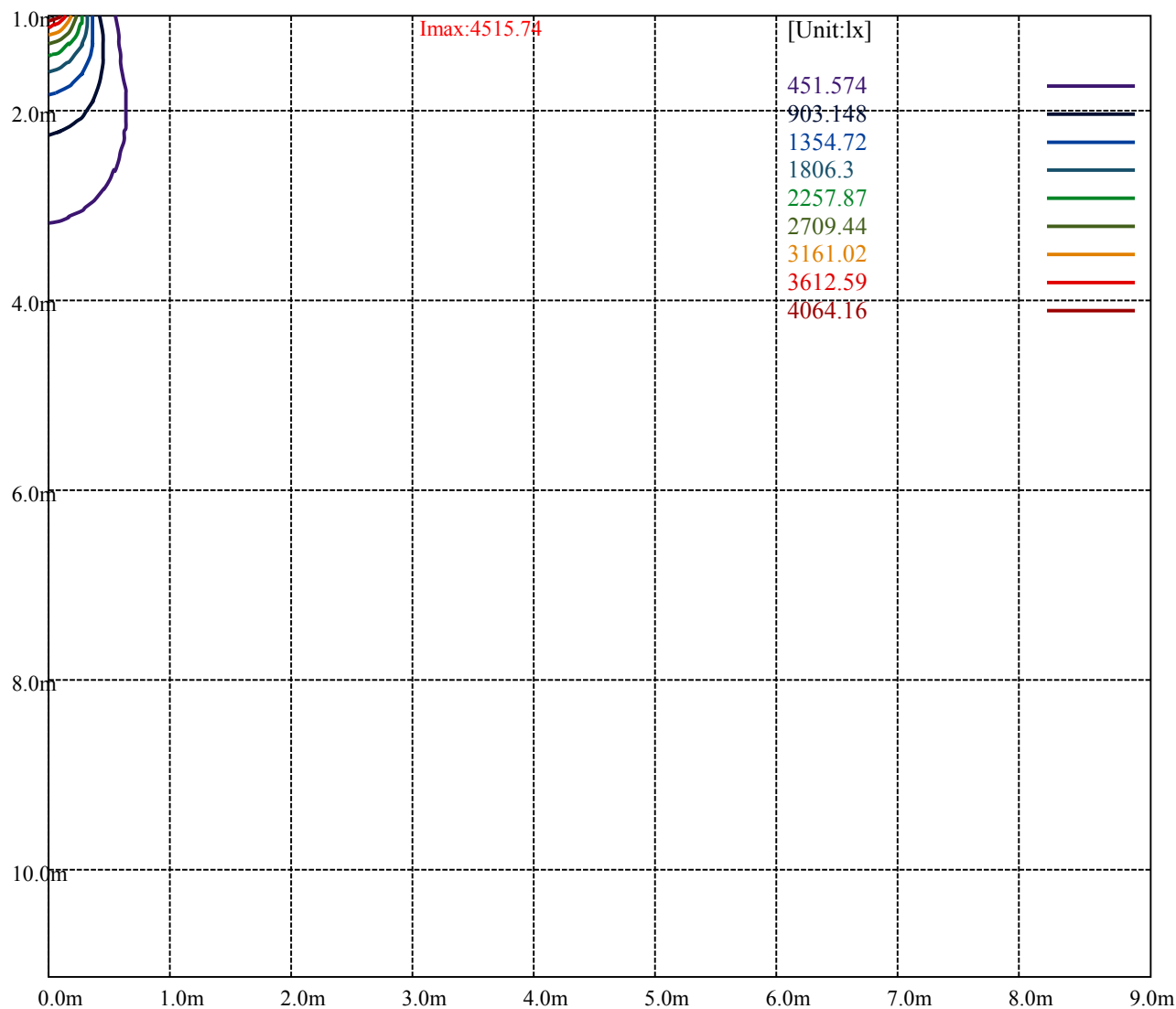
Road

Imax:4515.74

(10%Imax)	451.574	—
(20%Imax)	903.148	—
(30%Imax)	1354.72	—
(40%Imax)	1806.3	—
(50%Imax)	2257.87	—
(60%Imax)	2709.44	—
(70%Imax)	3161.02	—
(80%Imax)	3612.59	—
(90%Imax)	4064.16	—



(10%Emax) 50.17478	—
(20%Emax) 100.3496	—
(30%Emax) 150.5244	—
(40%Emax) 200.6989	—
(50%Emax) 250.8745	—
(60%Emax) 301.0489	—
(70%Emax) 351.2233	—
(80%Emax) 401.3978	—
(90%Emax) 451.5733	—



Luminance Table

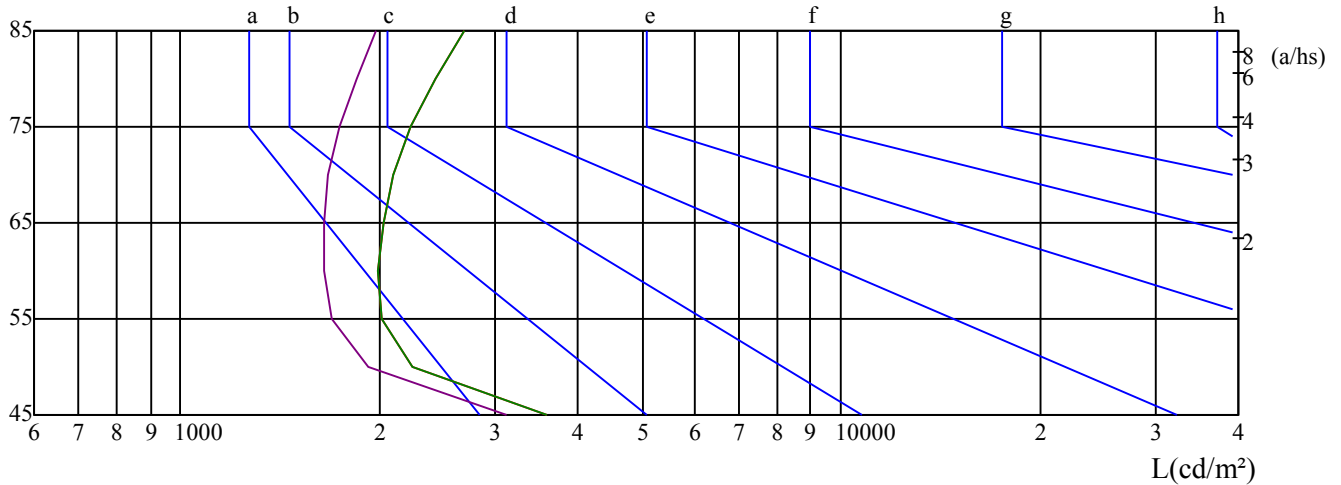
γ	45	50	55	60	65	70	75	80	85
C0	3596	2248	2016	1996	2025	2100	2231	2437	2693
C45	3119	1921	1696	1651	1646	1673	1738	1848	1979
C90	3596	2248	2016	1996	2025	2100	2231	2437	2693

L(Hor)(65)	L(Ver)(65)	L45(65)	L(Hor)(75)	L(Ver)(75)	L45(75)	L(Hor)(85)	L(Ver)(85)	L45(85)
4569	4569	4569	7109	7109	7109	20720	20720	20720

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

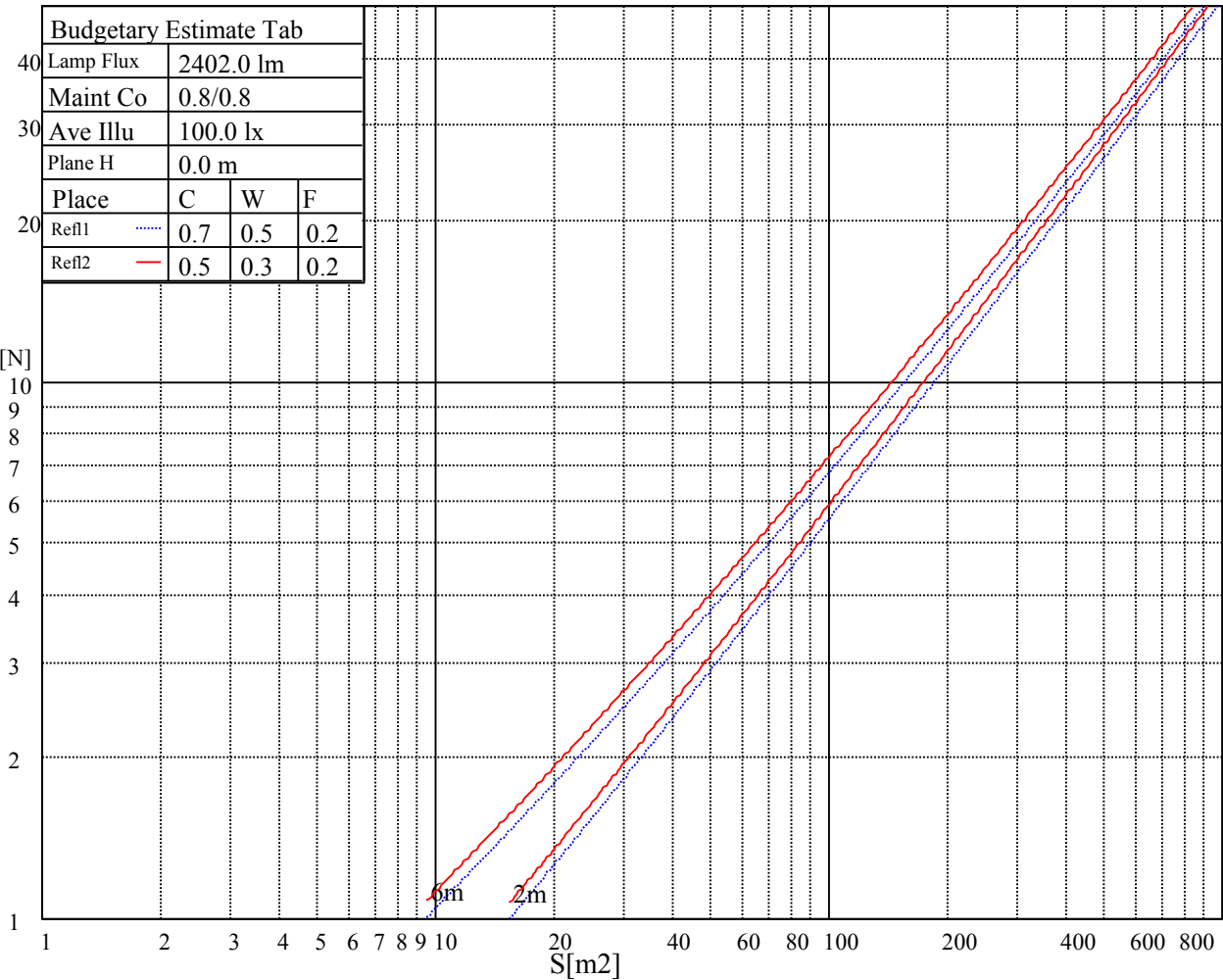
Luminance Limiting Curve

 $\gamma(^{\circ})$ 

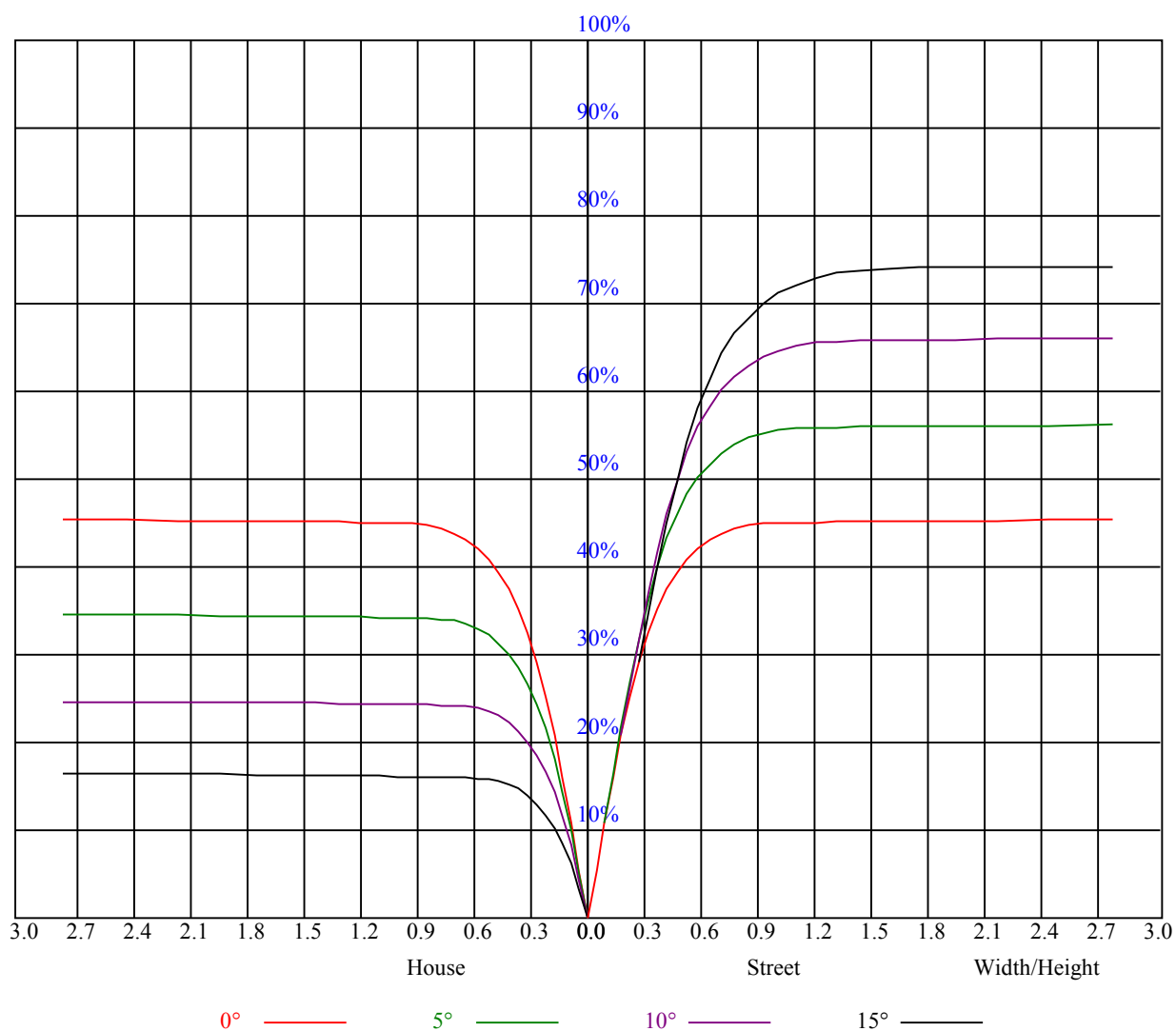
C0 ———

C45 ———

C90 ———



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	1.09	1.09	1.09	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	0.96	0.92	0.89	0.94	0.91	0.88	0.91	0.89	0.86	0.89	0.86	0.85	0.86	0.84	0.83	0.81
3	0.91	0.87	0.83	0.89	0.86	0.83	0.87	0.84	0.81	0.85	0.82	0.80	0.83	0.81	0.79	0.78
4	0.86	0.82	0.78	0.85	0.81	0.78	0.83	0.80	0.77	0.82	0.79	0.76	0.80	0.77	0.75	0.74
5	0.82	0.78	0.74	0.82	0.77	0.74	0.80	0.76	0.73	0.78	0.75	0.73	0.77	0.74	0.72	0.71
6	0.79	0.74	0.71	0.78	0.74	0.71	0.77	0.73	0.70	0.76	0.72	0.70	0.74	0.71	0.69	0.68
7	0.75	0.71	0.68	0.75	0.71	0.67	0.74	0.70	0.67	0.73	0.69	0.67	0.72	0.69	0.66	0.65
8	0.72	0.68	0.65	0.72	0.68	0.65	0.71	0.67	0.64	0.70	0.67	0.64	0.69	0.66	0.64	0.63
9	0.70	0.65	0.62	0.69	0.65	0.62	0.69	0.65	0.62	0.68	0.64	0.62	0.67	0.64	0.62	0.60
10	0.67	0.63	0.60	0.67	0.63	0.60	0.66	0.62	0.60	0.66	0.62	0.59	0.65	0.62	0.59	0.58



Nata 2-1568-M

Intensity data(cd)

Appendix Page: 14 Total:14

C/γ(°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
45.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
90.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
135.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
180.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
225.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
270.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
315.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
360.0	4515.74	4276.55	3759.54	3016.37	2061.84	1122.60	807.39	542.55	227.62
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
45.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
90.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
135.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
180.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
225.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
270.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
315.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
360.0	19.76	12.02	10.41	9.85	9.46	9.18	9.02	8.96	8.85
C/γ(°)	90.0								
0.0	8.85								
45.0	8.85								
90.0	8.85								
135.0	8.85								
180.0	8.85								
225.0	8.85								
270.0	8.85								
315.0	8.85								
360.0	8.85								