



Shenzhen Belling Efficiency Testing Laboratory Co., Ltd.  
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LumCAT:

Luminaire:

Report No:

Test No:

LampCAT:

Lamp flux(lm): 3217.8

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 120.24

Current(A): 0.1829

Power (W): 21.7530

PF: 0.9892

Ballast type:

Width(mm): 0

Height(mm): 0

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### Photometric Results

Lumens(lm): 3217.75

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 147.92

Central intensity(cd): 1133.004

Maximum intensity(cd): 1135.992

Angle of maximum intensity: C=180.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=112.6

[C90/270]Total=111.8

Field angle(10%Imax): [C0/180]Total=158.7

[C90/270]Total=157.7

Maximum s/h(1/2): C0\_180=1.30 C90\_270=1.30

Maximum s/h(1/4): C0\_180=1.85 C90\_270=1.39

Up flux rate of lamp(%): 0.39%

Down flux rate of lamp(%): 99.61%

Up flux rate of LUM(%): 0.39%

Down flux rate of LUM(%): 99.61%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 80.307%

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Equipment: GMS-3000  
Temperature(°C): 25

Date:  
Humidity(%): 58%

Operator: Zac

## Zonal flux distribution table

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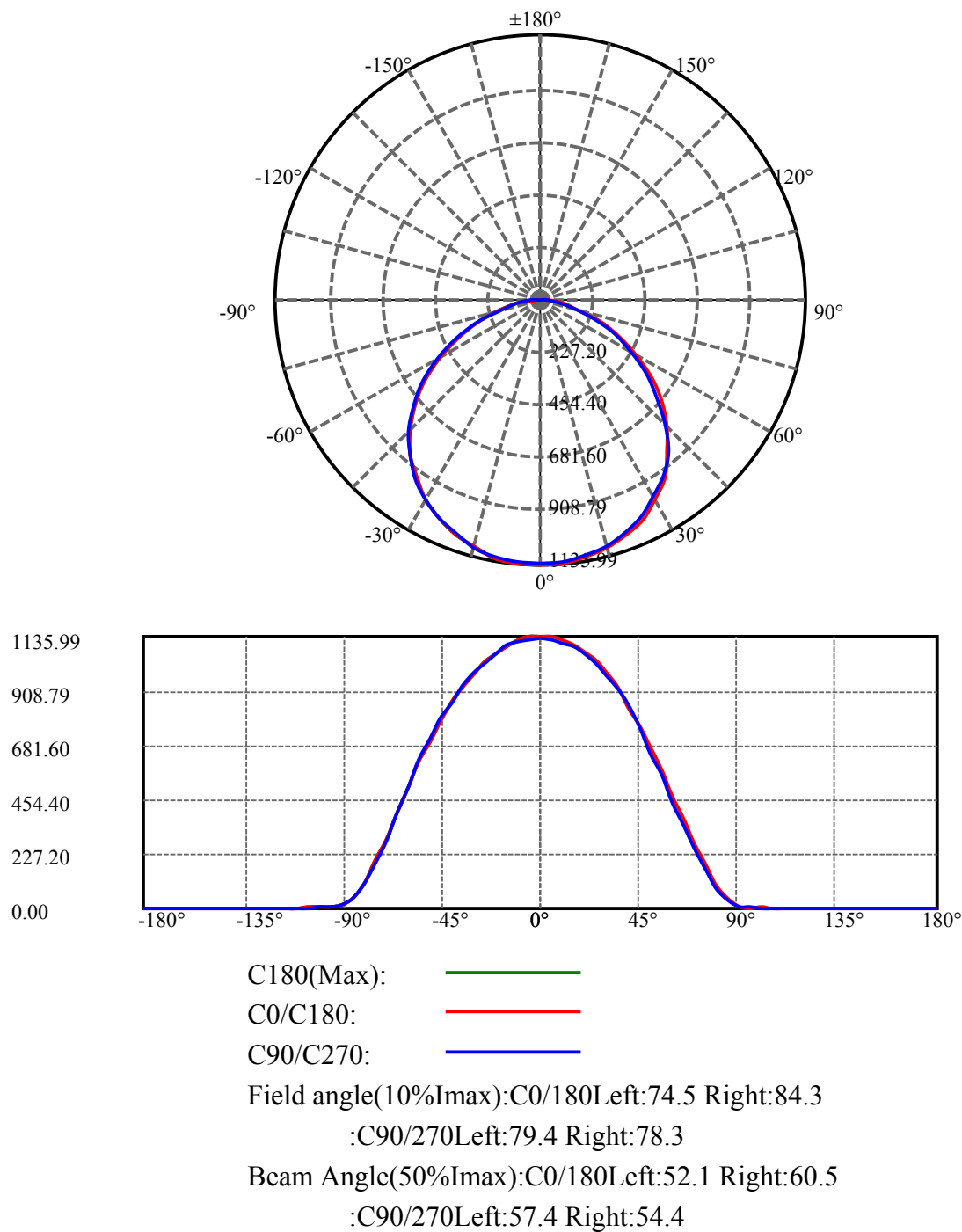
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	1127.161	.000	.000	.000%	.000%
5.0	1126.200	26.938	26.938	.837%	.837%
10.0	1114.860	80.170	107.108	2.491%	3.329%
15.0	1092.354	130.931	238.039	4.069%	7.398%
20.0	1064.499	177.755	415.794	5.524%	12.922%
25.0	1026.251	219.281	635.075	6.815%	19.737%
30.0	978.891	253.752	888.827	7.886%	27.623%
35.0	923.194	280.095	1168.922	8.705%	36.327%
40.0	852.194	296.210	1465.132	9.206%	45.533%
45.0	771.496	300.639	1765.772	9.343%	54.876%
50.0	682.993	293.901	2059.673	9.134%	64.010%
55.0	589.675	276.720	2336.393	8.600%	72.610%
60.0	481.908	247.693	2584.087	7.698%	80.307%
65.0	375.409	208.415	2792.502	6.477%	86.784%
70.0	275.393	164.787	2957.290	5.121%	91.906%
75.0	182.101	119.582	3076.871	3.716%	95.622%
80.0	100.429	75.597	3152.469	2.349%	97.971%
85.0	40.689	38.345	3190.814	1.192%	99.163%
90.0	11.873	14.392	3205.206	.447%	99.610%
95.0	5.817	4.844	3210.050	.151%	99.761%
100.0	2.708	2.316	3212.366	.072%	99.833%
105.0	1.428	1.107	3213.473	.034%	99.867%
110.0	.800	.582	3214.055	.018%	99.885%
115.0	.467	.321	3214.376	.010%	99.895%
120.0	.480	.230	3214.606	.007%	99.902%
125.0	.587	.247	3214.853	.008%	99.910%
130.0	.787	.299	3215.152	.009%	99.919%
135.0	.947	.350	3215.502	.011%	99.930%
140.0	1.054	.371	3215.873	.012%	99.942%
145.0	1.107	.361	3216.233	.011%	99.953%
150.0	1.348	.361	3216.595	.011%	99.964%
155.0	1.334	.339	3216.934	.011%	99.975%
160.0	1.388	.285	3217.219	.009%	99.984%
165.0	1.401	.230	3217.449	.007%	99.991%
170.0	1.388	.165	3217.615	.005%	99.996%
175.0	1.401	.100	3217.714	.003%	99.999%
180.0	1.575	.036	3217.750	.001%	100.000%

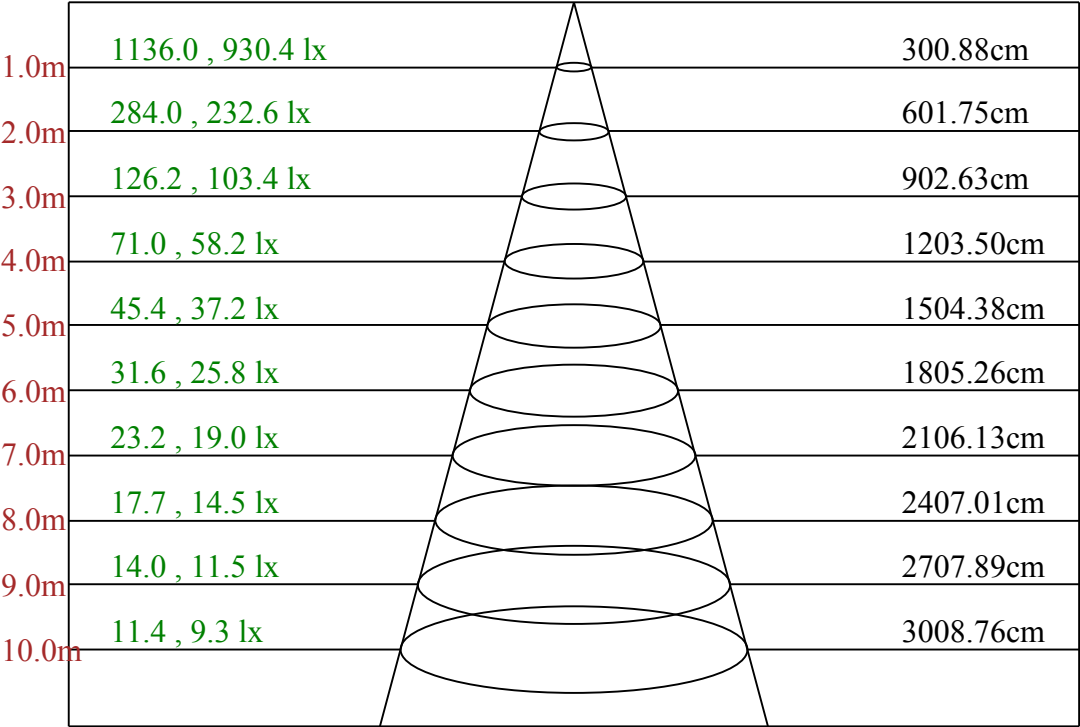
## ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	888.83	27.62%	27.62%
0-40	1465.13	45.53%	45.53%
0-60	2584.09	80.31%	80.31%
0-90	3205.21	99.61%	99.61%
0-120	3214.61	99.90%	99.90%
0-180	3217.75	100.00%	100.00%
60-90	868.81	27.00%	27.00%
90-120	23.79	0.74%	0.74%
90-130	24.34	0.76%	0.76%
90-150	25.78	0.80%	0.80%
90-180	26.90	0.84%	0.84%
0-59.80	2574.20	80.00%	80.00%

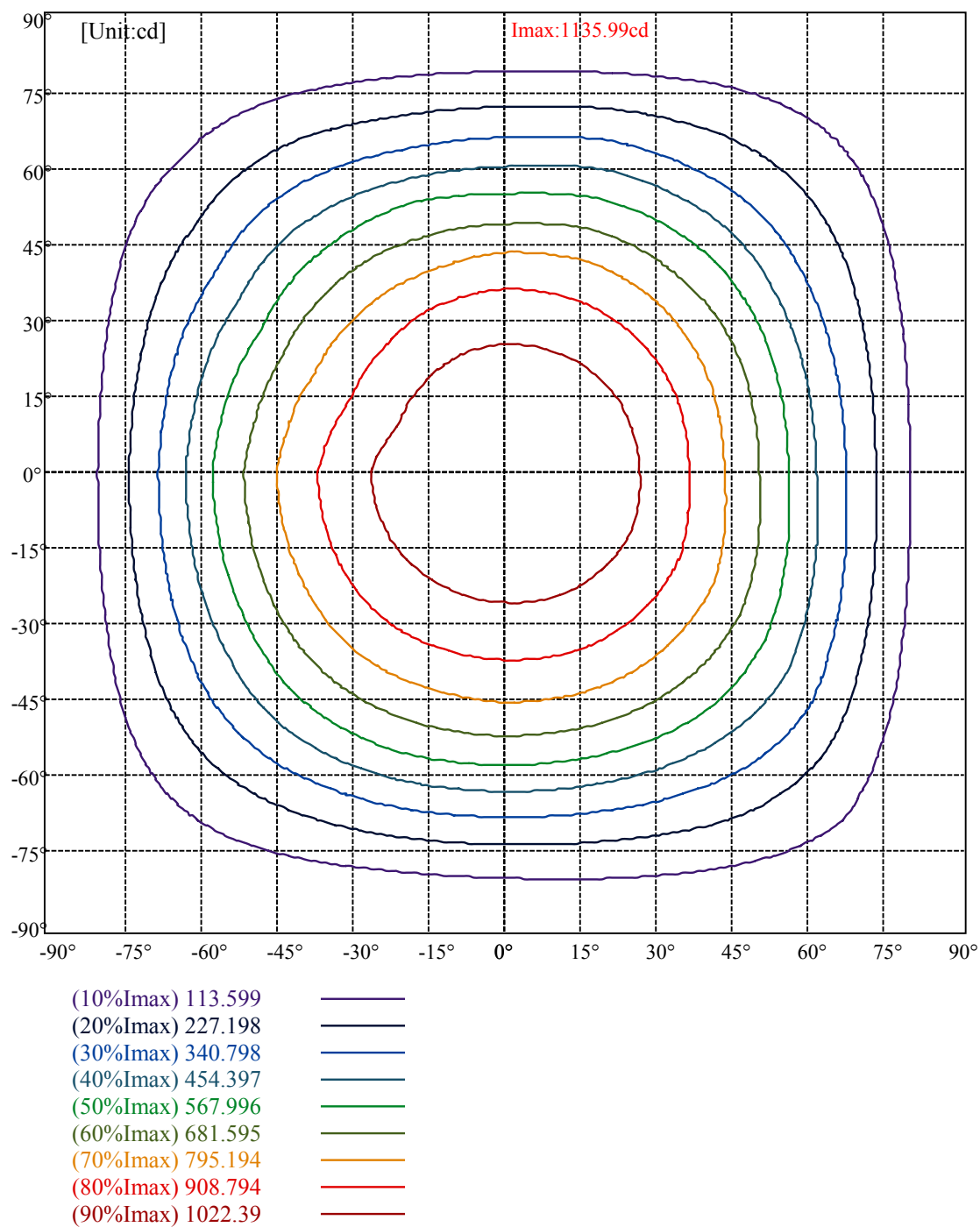
## ZONAL LUMEN SUMMARY

0-10	107.11
10-20	308.69
20-30	473.03
30-40	576.31
40-50	594.54
50-60	524.41
60-70	373.20
70-80	195.18
80-90	52.74
90-100	7.16
100-110	1.69
110-120	0.55
120-130	0.55
130-140	0.72
140-150	0.72
150-160	0.62
160-170	0.40
170-180	0.10





Max , Ave      Beam angle of C180plane112.74



## Intensity data(cd)

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C/ $\gamma$ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	1133.00	1133.00	1119.13	1098.42	1071.53	1035.88	989.14	927.24	842.71
22.5	1128.74	1130.44	1122.76	1097.78	1076.01	1033.75	989.56	928.52	850.82
45.0	1124.47	1129.16	1115.07	1094.37	1068.76	1029.27	983.16	924.03	856.80
67.5	1128.52	1125.96	1115.07	1092.45	1063.85	1025.64	979.75	924.03	853.38
90.0	1131.08	1123.40	1109.31	1092.23	1063.85	1022.65	973.34	918.70	851.89
112.5	1126.81	1125.75	1109.95	1089.25	1058.94	1017.10	971.85	906.75	824.14
135.0	1119.13	1120.62	1106.96	1080.49	1051.04	1004.72	952.21	887.75	811.33
157.5	1125.53	1117.42	1103.12	1078.36	1046.56	1000.66	942.82	885.19	813.68
180.0	1133.00	1135.99	1120.84	1095.01	1068.33	1032.90	982.09	926.38	864.70
202.5	1128.74	1128.74	1116.57	1094.16	1064.70	1029.27	981.03	927.24	857.86
225.0	1124.47	1124.89	1116.35	1088.39	1061.50	1024.36	977.40	928.30	861.92
247.5	1128.52	1126.17	1118.28	1091.59	1065.55	1024.57	979.96	927.66	859.36
270.0	1131.08	1122.33	1115.29	1098.64	1061.92	1026.28	985.30	932.36	863.41
292.5	1126.81	1122.12	1117.21	1095.65	1067.26	1033.32	986.79	939.83	871.53
315.0	1119.13	1123.61	1116.35	1092.66	1067.90	1036.31	991.91	943.46	873.87
337.5	1125.53	1129.59	1115.50	1098.21	1074.30	1043.35	995.97	943.67	877.72
360.0	1133.00	1133.00	1119.13	1098.42	1071.53	1035.88	989.14	927.24	842.71
C/ $\gamma$ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	762.45	678.35	579.10	474.93	376.32	276.85	182.08	101.60	39.70
22.5	764.59	679.42	579.31	463.83	353.69	269.59	187.20	106.94	42.69
45.0	768.64	669.39	576.11	470.66	356.04	266.82	185.92	105.23	44.40
67.5	772.70	676.22	580.59	478.13	371.19	271.30	175.67	94.77	35.65
90.0	755.19	648.68	554.76	447.40	349.21	251.66	163.72	87.94	32.45
112.5	723.60	653.16	563.30	433.31	335.55	242.48	158.81	84.95	32.23
135.0	730.22	645.91	540.25	438.00	338.11	247.60	157.10	81.54	29.03
157.5	736.84	638.22	535.12	436.94	332.35	241.63	153.26	73.85	25.40
180.0	786.36	696.07	612.61	504.81	394.89	292.43	195.74	103.95	44.83
202.5	778.67	691.59	594.04	485.82	385.71	286.24	185.70	101.39	40.13
225.0	785.08	696.28	604.92	499.26	384.64	275.35	175.89	97.12	39.06
247.5	783.80	699.91	619.01	505.03	392.33	276.85	178.66	93.92	34.15
270.0	795.32	710.80	617.94	509.08	398.30	281.12	185.06	103.31	40.34
292.5	799.38	712.72	619.01	511.22	399.58	290.08	194.03	115.69	49.52
315.0	800.45	710.37	629.90	522.96	406.84	308.44	213.24	124.02	57.42
337.5	800.66	720.83	628.83	529.15	431.81	327.86	221.56	130.63	64.04
360.0	762.45	678.35	579.10	474.93	376.32	276.85	182.08	101.60	39.70
C/ $\gamma$ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	8.11	0.64	4.06	2.14	0.43	0.43	0.21	0.43	0.85
22.5	9.18	1.92	2.56	0.43	0.21	0.43	0.43	0.85	0.85
45.0	11.10	2.35	1.71	1.71	0.85	0.64	0.85	0.85	1.07
67.5	11.10	6.40	0.64	0.85	0.64	0.85	0.85	0.85	1.07
90.0	10.03	6.62	0.64	0.43	0.64	0.64	0.85	0.85	1.07
112.5	11.10	6.83	0.85	1.07	0.85	0.64	1.07	1.07	0.85
135.0	11.31	3.63	1.92	3.42	1.28	0.64	0.64	1.07	1.07
157.5	11.10	1.71	3.63	1.28	0.85	0.64	0.85	1.07	1.28
180.0	13.02	6.62	4.27	3.63	2.35	0.21	0.00	0.21	0.21
202.5	11.95	6.62	4.27	0.64	0.64	0.00	0.00	0.21	0.64
225.0	12.81	10.25	0.21	2.35	1.28	0.43	0.21	0.21	0.43
247.5	12.38	9.82	4.48	0.00	0.00	0.43	0.21	0.00	0.64
270.0	10.89	8.54	5.12	0.21	0.00	0.00	0.64	0.21	0.43
292.5	11.95	8.33	4.70	0.43	0.64	0.43	0.21	0.43	0.85
315.0	16.01	7.90	0.64	1.92	1.71	0.64	0.43	0.43	0.64
337.5	17.93	4.91	3.63	2.35	0.43	0.43	0.21	0.64	0.64
360.0	8.11	0.64	4.06	2.14	0.43	0.43	0.21	0.43	0.85

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.64	0.64	0.85	1.07	0.85	0.85	1.07	0.85	1.07
22.5	1.07	1.28	1.28	1.49	1.71	1.49	1.28	1.49	1.28
45.0	1.49	1.28	1.28	1.71	1.49	1.49	1.49	1.28	1.28
67.5	1.28	1.49	1.07	1.28	1.28	1.28	1.49	1.49	1.71
90.0	1.07	1.28	1.28	1.49	1.28	1.71	1.71	1.49	1.49
112.5	1.07	1.28	1.49	1.92	1.28	1.71	1.07	1.71	1.71
135.0	1.28	1.49	1.28	1.71	1.71	1.28	1.71	1.71	1.49
157.5	1.49	1.28	1.49	1.71	1.49	1.49	1.49	1.49	1.49
180.0	0.64	0.85	0.85	0.85	1.28	1.28	1.28	1.28	1.07
202.5	0.64	1.07	0.64	0.85	1.07	1.28	1.07	1.28	1.07
225.0	0.43	0.64	0.64	1.07	1.71	1.28	1.28	1.28	1.49
247.5	0.85	0.85	1.07	1.28	1.28	1.71	1.71	1.49	1.49
270.0	0.85	0.85	1.28	1.49	1.28	1.28	1.07	1.28	1.49
292.5	0.85	0.85	1.07	1.07	1.28	1.28	1.49	1.28	1.49
315.0	0.85	0.85	1.07	1.28	1.28	1.28	1.49	1.28	1.49
337.5	0.64	0.85	1.07	1.28	1.07	1.49	1.71	1.49	1.28
360.0	0.64	0.64	0.85	1.07	0.85	0.85	1.07	0.85	1.07

C/γ(°)	180.0
0.0	0.85
22.5	1.71
45.0	1.49
67.5	1.71
90.0	1.71
112.5	1.71
135.0	1.71
157.5	1.71
180.0	0.85
202.5	1.71
225.0	1.49
247.5	1.71
270.0	1.71
292.5	1.71
315.0	1.71
337.5	1.71
360.0	0.85