



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.05

LampCAT:

Current(A): 0.1340

Lamp flux(lm): -1.0

Power (W): 15.93

Number of Lamps: 1

PF: 0.9921

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 995.56, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.50

Central intensity(cd): 356.156, Maximum intensity(cd): 364.883

Angle of maximum intensity: C=90.0 $\gamma=5.0$

Beam Angle(50%Imax): [C0/180]Total=109.3

[C90/270]Total=113.1

Field angle(10%Imax): [C0/180]Total=156.9

[C90/270]Total=160.8

Maximum s/h(1/2): C0_180=1.22 C90_270=1.31

Maximum s/h(1/4): C0_180=1.34 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.45%

Down flux rate of LUM(%): 99.55%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.583%

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

Date:
Humidity(%): 58%

Operator: Tester

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	356.156	0.000	0	0.00%	0.00%
5.0	354.587	8.497	8.497	0.00%	0.85%
10.0	349.719	25.195	33.692	0.00%	3.38%
15.0	341.447	41.000	74.692	0.00%	7.50%
20.0	330.140	55.348	130.04	0.00%	13.06%
25.0	315.928	67.761	197.8	0.00%	19.87%
30.0	299.205	77.846	275.646	0.00%	27.69%
35.0	279.387	85.202	360.848	0.00%	36.25%
40.0	257.856	89.635	450.483	0.00%	45.25%
45.0	234.122	91.094	541.576	0.00%	54.40%
50.0	208.151	89.368	630.944	0.00%	63.38%
55.0	180.680	84.545	715.489	0.00%	71.87%
60.0	151.626	76.812	792.3	0.00%	79.58%
65.0	121.596	66.421	858.721	0.00%	86.26%
70.0	90.661	53.745	912.466	0.00%	91.65%
75.0	60.334	39.468	951.934	0.00%	95.62%
80.0	31.970	24.698	976.632	0.00%	98.10%
85.0	9.939	11.388	988.019	0.00%	99.24%
90.0	1.131	3.031	991.05	0.00%	99.55%
95.0	0.607	0.476	991.526	0.00%	99.59%
100.0	0.500	0.301	991.827	0.00%	99.63%
105.0	0.500	0.267	992.094	0.00%	99.65%
110.0	0.559	0.277	992.371	0.00%	99.68%
115.0	0.583	0.289	992.66	0.00%	99.71%
120.0	0.607	0.289	992.95	0.00%	99.74%
125.0	0.702	0.303	993.252	0.00%	99.77%
130.0	0.702	0.305	993.558	0.00%	99.80%
135.0	0.833	0.310	993.868	0.00%	99.83%
140.0	0.857	0.313	994.181	0.00%	99.86%
145.0	0.893	0.292	994.473	0.00%	99.89%
150.0	0.917	0.266	994.739	0.00%	99.92%
155.0	0.988	0.241	994.98	0.00%	99.94%
160.0	0.988	0.207	995.187	0.00%	99.96%
165.0	0.976	0.162	995.349	0.00%	99.98%
170.0	0.964	0.115	995.464	0.00%	99.99%
175.0	1.000	0.070	995.535	0.00%	100.00%
180.0	1.064	0.025	995.559	0.00%	100.00%

Equipment: GMS-3000
Temperature($^{\circ}\text{C}$): 25

Date:
Humidity(%): 58%

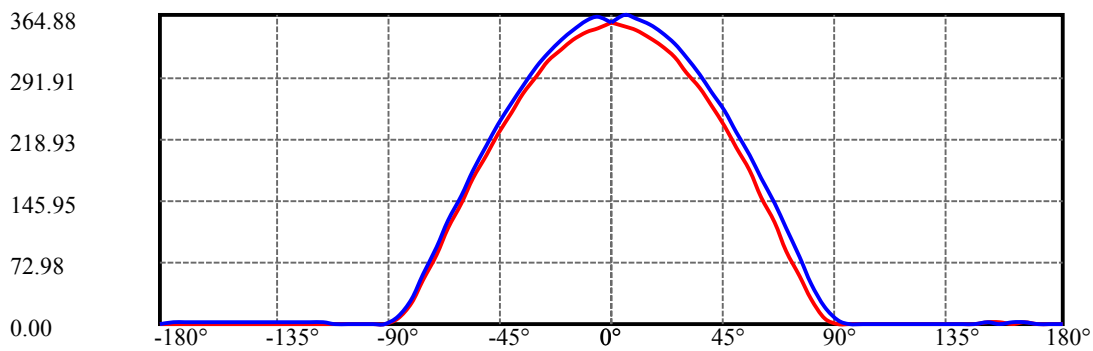
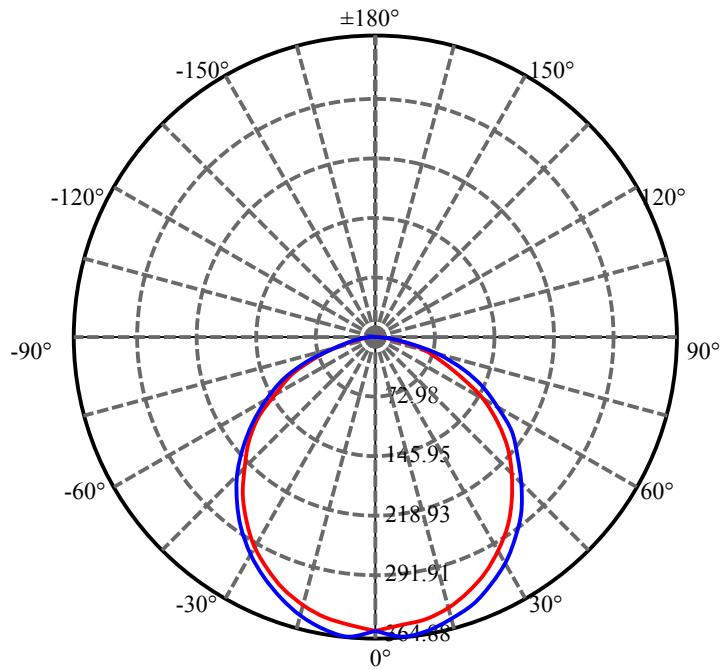
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	275.65	N.A.	27.69%
0-40	450.48	N.A.	45.25%
0-60	792.30	N.A.	79.58%
0-90	991.05	N.A.	99.55%
0-120	992.95	N.A.	99.74%
0-180	995.56	N.A.	100.00%
60-90	198.75	N.A.	19.96%
90-120	1.90	N.A.	0.19%
90-130	2.51	N.A.	0.25%
90-150	3.69	N.A.	0.37%
90-180	4.48	N.A.	0.45%
0-60.31	796.45	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	33.69
10-20	96.35
20-30	145.61
30-40	174.84
40-50	180.46
50-60	161.36
60-70	120.17
70-80	64.17
80-90	14.42
90-100	0.78
100-110	0.54
110-120	0.58
120-130	0.61
130-140	0.62
140-150	0.56
150-160	0.45
160-170	0.28
170-180	0.07

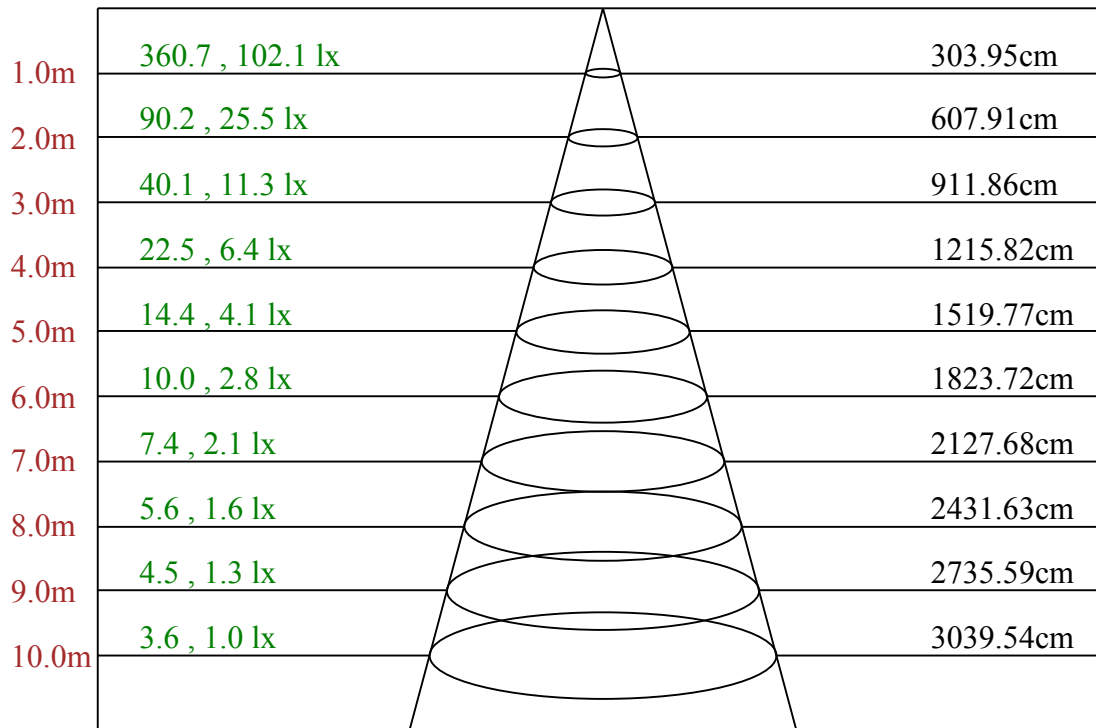


C0/C180: —

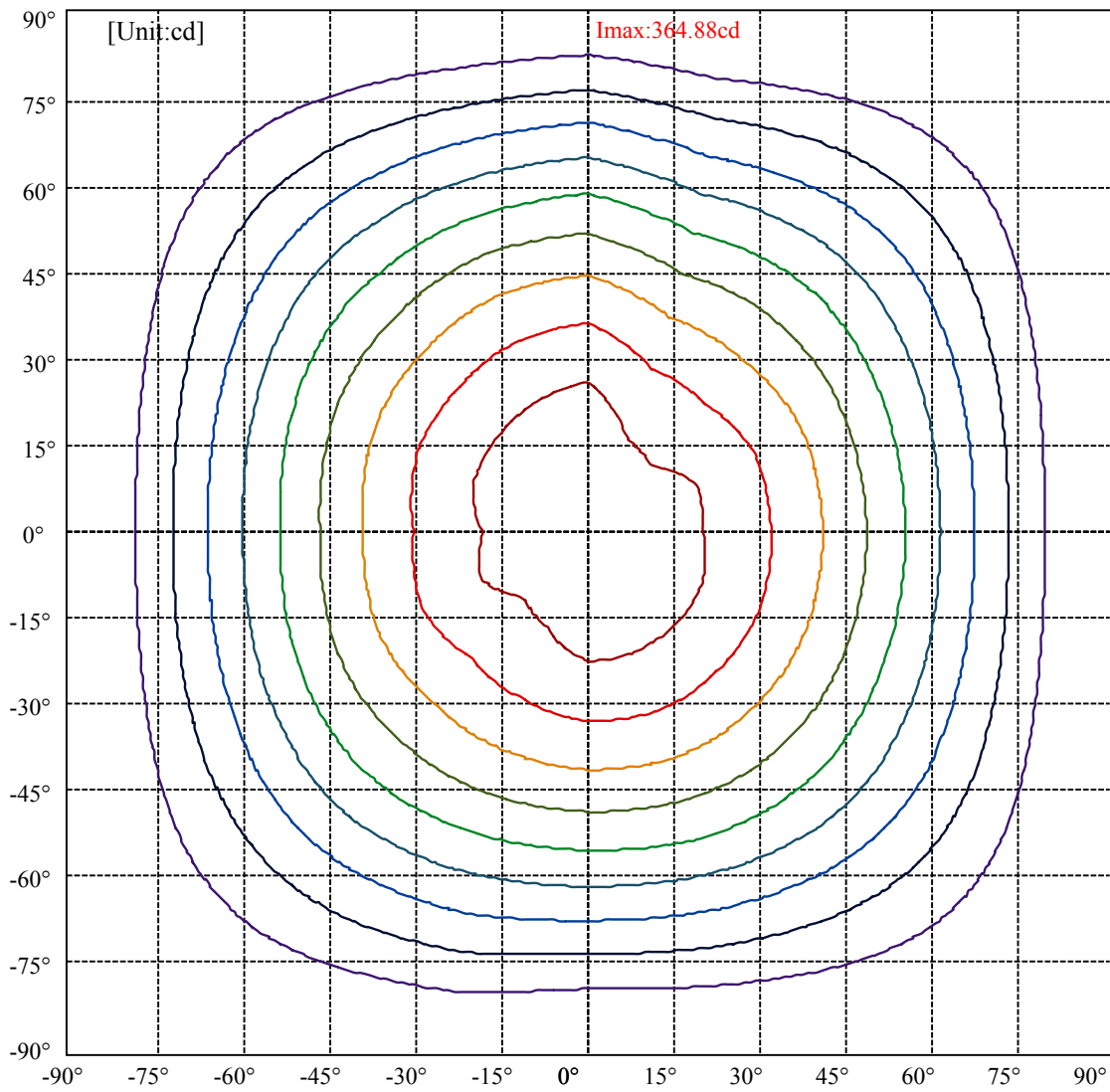
C90/C270: —

Field angle(10%Imax):C0/180Left:78.1 Right:78.8
 :C90/270Left:78.7 Right:82.1

Beam Angle(50%Imax):C0/180Left:53.9 Right:55.4
 :C90/270Left:54.9 Right:58.2



Max , Ave Beam angle of C90 plane 113.31

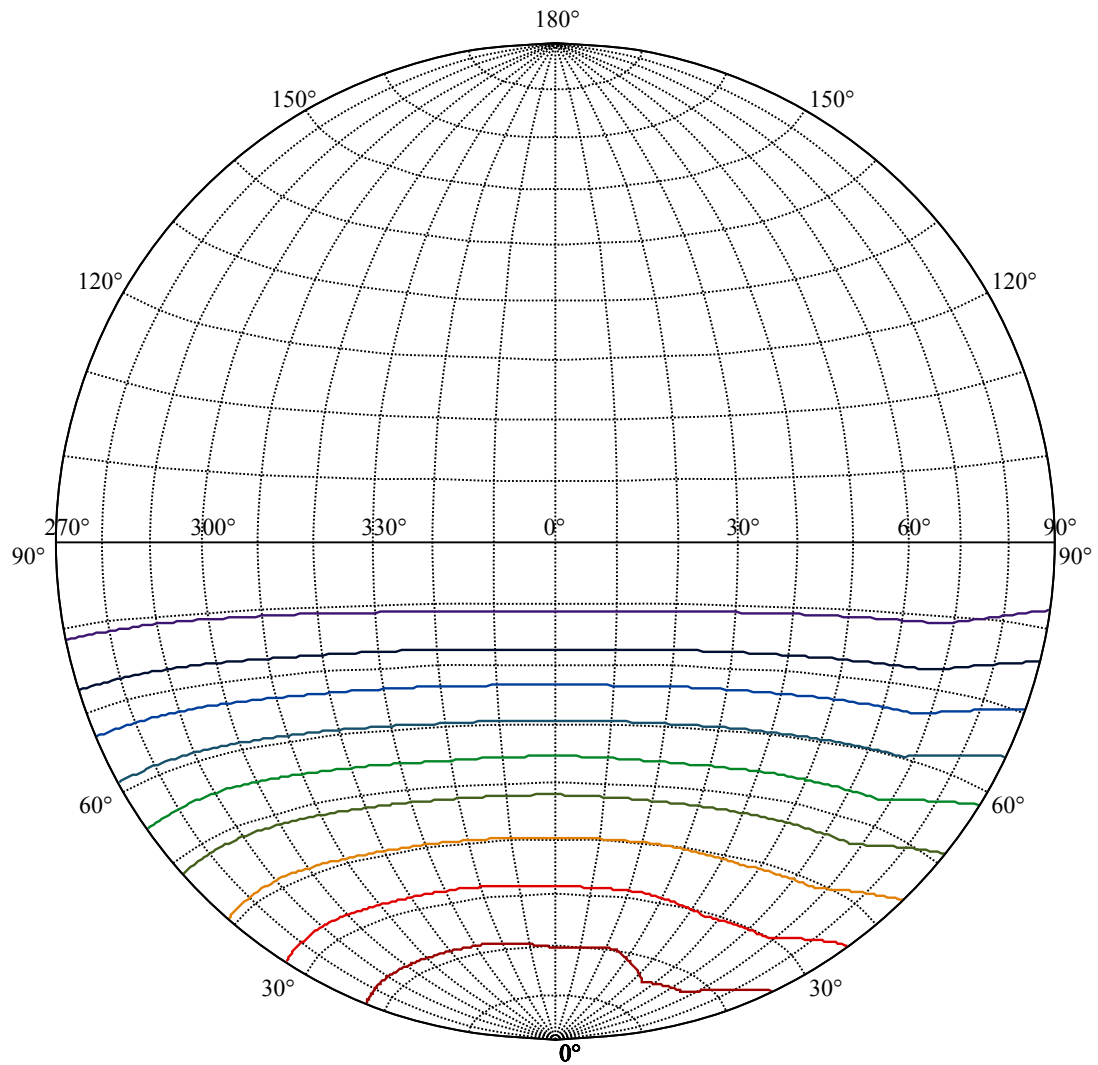


(10%Imax) 36.4883	—
(20%Imax) 72.9766	—
(30%Imax) 109.465	—
(40%Imax) 145.953	—
(50%Imax) 182.441	—
(60%Imax) 218.93	—
(70%Imax) 255.418	—
(80%Imax) 291.906	—
(90%Imax) 328.395	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

Imax:364.88

(10%Imax) 36.4883	—
(20%Imax) 72.9766	—
(30%Imax) 109.465	—
(40%Imax) 145.953	—
(50%Imax) 182.441	—
(60%Imax) 218.93	—
(70%Imax) 255.418	—
(80%Imax) 291.906	—
(90%Imax) 328.395	—

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	356.16	350.98	346.22	338.41	327.75	314.23	297.85	277.85	257.28
22.5	356.16	354.03	349.46	340.70	329.27	314.80	297.66	276.90	256.33
45.0	356.16	342.79	338.22	329.84	319.37	305.85	290.04	271.57	251.19
67.5	356.16	346.41	341.46	333.65	322.42	308.51	291.95	272.90	251.95
90.0	356.16	364.88	361.27	354.22	343.74	330.60	314.80	295.75	274.61
112.5	356.16	363.17	359.17	350.98	339.56	325.46	310.04	290.42	269.09
135.0	356.16	358.98	354.03	346.22	334.98	320.70	303.18	282.99	261.09
157.5	356.16	357.08	351.93	343.55	332.70	317.65	300.51	280.14	256.90
180.0	356.16	349.84	344.70	336.13	323.94	309.47	292.14	271.95	249.48
202.5	356.16	354.22	349.27	340.32	328.70	314.23	297.28	275.76	253.29
225.0	356.16	342.79	338.03	330.41	319.18	305.28	289.47	271.00	251.00
247.5	356.16	346.98	342.60	334.79	324.32	310.80	294.80	276.14	255.19
270.0	356.16	363.55	357.65	347.74	335.37	320.13	303.18	282.04	260.14
292.5	356.16	361.84	355.93	347.17	334.98	320.13	302.80	283.76	261.67
315.0	356.16	358.60	353.08	344.89	333.27	318.99	301.09	280.52	258.43
337.5	356.16	357.27	352.50	344.13	332.70	318.04	300.51	280.52	258.05
360.0	356.16	350.98	346.22	338.41	327.75	314.23	297.85	277.85	257.28
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	234.24	208.72	180.73	150.45	119.22	87.22	57.70	28.95	6.29
22.5	231.77	205.10	177.49	149.12	119.79	88.94	58.66	30.28	7.05
45.0	229.10	204.53	177.49	148.54	119.22	88.36	58.66	30.66	8.38
67.5	227.77	201.87	175.40	147.02	117.69	87.60	58.47	30.47	8.95
90.0	251.19	225.86	200.15	172.54	143.02	112.55	80.18	48.37	20.57
112.5	246.24	220.34	191.96	162.26	133.31	101.89	69.70	39.61	15.81
135.0	235.96	209.48	181.11	153.50	123.22	91.41	60.18	33.14	11.24
157.5	231.58	204.72	177.68	147.59	115.98	85.13	55.23	28.00	8.76
180.0	224.91	199.58	171.78	142.83	112.36	82.46	52.18	25.71	7.43
202.5	229.29	203.20	174.44	144.54	114.45	83.03	53.51	27.42	8.19
225.0	228.72	203.58	177.49	148.92	118.84	88.56	59.04	31.04	9.90
247.5	232.34	206.25	179.39	151.40	123.41	94.46	65.32	37.14	14.28
270.0	235.96	209.67	181.68	152.73	122.07	90.27	58.47	28.76	8.00
292.5	237.29	211.01	184.16	153.50	122.64	90.65	59.99	31.23	9.14
315.0	235.00	209.29	181.11	151.59	120.17	88.94	58.66	31.23	8.00
337.5	234.62	207.20	178.82	149.50	120.17	89.13	59.42	29.52	7.05
360.0	234.24	208.72	180.73	150.45	119.22	87.22	57.70	28.95	6.29
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.57	0.57	0.57	0.57	0.76	0.76	0.76	0.76	0.76
22.5	0.76	0.57	0.57	0.57	0.57	0.76	0.57	0.76	0.76
45.0	1.14	0.57	0.57	0.57	0.76	0.76	0.57	0.76	0.95
67.5	0.57	0.76	0.57	0.76	0.57	0.76	1.14	0.95	0.76
90.0	3.43	0.57	0.57	0.57	0.57	0.76	0.57	0.95	0.76
112.5	1.71	0.57	0.38	0.57	0.38	0.38	0.57	0.57	0.57
135.0	1.14	0.57	0.38	0.38	0.38	0.19	0.38	0.57	0.57
157.5	0.95	0.57	0.19	0.19	0.19	0.19	0.19	0.38	0.38
180.0	0.76	0.38	0.57	0.38	0.38	0.38	0.38	0.38	0.57
202.5	0.95	0.38	0.19	0.38	0.38	0.19	0.38	0.57	0.57
225.0	1.14	0.57	0.38	0.19	0.38	0.38	0.38	0.38	0.57
247.5	1.52	0.57	0.19	0.38	0.38	0.57	0.19	0.38	0.57
270.0	0.95	0.95	0.95	0.76	0.95	1.14	1.14	1.14	1.14
292.5	0.57	0.76	0.76	0.57	0.95	0.57	0.95	0.95	0.76
315.0	0.95	0.57	0.57	0.57	0.76	0.76	0.76	0.76	0.76
337.5	0.95	0.76	0.57	0.57	0.57	0.76	0.76	0.95	0.76
360.0	0.57	0.57	0.57	0.57	0.76	0.76	0.76	0.76	0.76

Intensity data(cd)

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	0.95	0.95	0.95	1.14	1.14	0.95	1.14	0.95	0.76
22.5	0.76	0.76	0.95	0.95	1.14	0.95	1.14	0.95	0.95
45.0	0.76	1.14	0.95	0.95	1.14	1.14	0.95	0.76	1.14
67.5	0.76	0.95	0.95	0.76	0.95	1.14	1.14	0.95	1.14
90.0	0.95	0.95	0.95	1.14	0.95	1.14	1.14	0.76	0.95
112.5	0.76	0.57	0.76	0.95	0.76	0.76	0.95	0.95	0.95
135.0	0.57	0.57	0.76	0.76	0.95	0.76	0.76	0.76	0.95
157.5	0.76	0.76	0.76	0.76	0.57	0.95	0.76	0.95	0.76
180.0	0.76	0.57	0.76	0.57	0.95	0.76	0.95	0.95	0.76
202.5	0.76	0.76	0.76	0.95	0.95	0.95	0.76	0.95	0.95
225.0	0.57	0.57	0.76	0.76	0.76	1.14	0.76	0.95	0.95
247.5	0.38	0.76	0.57	0.76	0.95	0.76	0.76	0.95	0.95
270.0	1.52	1.33	1.33	1.33	1.71	1.52	1.33	1.52	1.52
292.5	1.14	1.14	1.14	0.95	0.95	1.14	0.95	1.14	1.14
315.0	0.95	0.95	0.95	0.95	0.95	0.76	1.14	0.95	0.95
337.5	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	1.14
360.0	0.95	0.95	0.95	1.14	1.14	0.95	1.14	0.95	0.76

C/γ(°)	180.0
0.0	1.06
22.5	1.06
45.0	1.06
67.5	1.06
90.0	1.06
112.5	1.06
135.0	1.06
157.5	1.06
180.0	1.06
202.5	1.06
225.0	1.06
247.5	1.06
270.0	1.06
292.5	1.06
315.0	1.06
337.5	1.06
360.0	1.06