Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingeel.com

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Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

Client:
LumCAT:
Luminaire:
Report No:
Ballast type:

Test No:	Voltage(V): 120.09
LampCAT:	Current(A): 0.1340
Lamp flux(lm): -1.0	Power (W): 15.94
Number of Lamps: 1	PF: 0.9922
Length(mm): 0	Width(mm): 0
Phm Type: C	Height(mm): 0

Photometric Results

Lumens(lm): 1015.20, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 63.69
Central intensity(cd): 363.427, Maximum intensity(cd): 369.773
Angle of maximum intensity: C=112.5 γ=5.0
Beam Angle(50%Imax): [C0/180]Total=109.4
[C90/270]Total=112.9
Field angle(10%Imax): [C0/180]Total=157.0
[C90/270]Total=160.9
Maximum s/h(1/2): C0_180=1.23 C90_270=1.29
Maximum s/h(1/4): C0_180=1.35 C90_270=1.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 0.00%
Up flux rate of LUM(%): 0.41%
Down flux rate of LUM(%): 99.59%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 79.640%

Zonal flux distribution table

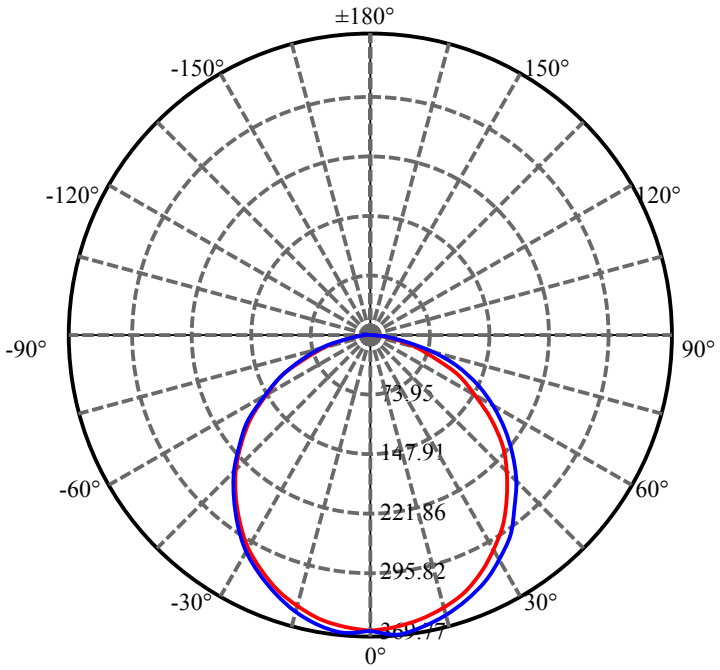
γ(°)	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	363.427	0.000	0	0.00%	0.00%
5.0	361.992	8.672	8.672	0.00%	0.85%
10.0	356.923	25.718	34.39	0.00%	3.39%
15.0	348.544	41.848	76.238	0.00%	7.51%
20.0	336.854	56.486	132.724	0.00%	13.07%
25.0	322.404	69.144	201.868	0.00%	19.88%
30.0	305.180	79.421	281.289	0.00%	27.71%
35.0	285.490	86.980	368.27	0.00%	36.28%
40.0	263.136	91.534	459.804	0.00%	45.29%
45.0	238.743	92.927	552.731	0.00%	54.45%
50.0	212.322	91.144	643.875	0.00%	63.42%
55.0	184.447	86.271	730.145	0.00%	71.92%
60.0	154.544	78.357	808.502	0.00%	79.64%
65.0	124.019	67.719	876.222	0.00%	86.31%
70.0	92.651	54.862	931.084	0.00%	91.71%
75.0	61.442	40.277	971.361	0.00%	95.68%
80.0	32.480	25.131	996.492	0.00%	98.16%
85.0	9.918	11.521	1008.013	0.00%	99.29%
90.0	1.050	3.003	1011.016	0.00%	99.59%
95.0	0.501	0.425	1011.441	0.00%	99.63%
100.0	0.440	0.256	1011.696	0.00%	99.66%
105.0	0.501	0.252	1011.948	0.00%	99.68%
110.0	0.488	0.259	1012.206	0.00%	99.71%
115.0	0.525	0.257	1012.463	0.00%	99.73%
120.0	0.537	0.258	1012.721	0.00%	99.76%
125.0	0.660	0.277	1012.998	0.00%	99.78%
130.0	0.684	0.292	1013.29	0.00%	99.81%
135.0	0.745	0.289	1013.579	0.00%	99.84%
140.0	0.806	0.287	1013.866	0.00%	99.87%
145.0	0.818	0.271	1014.137	0.00%	99.90%
150.0	0.941	0.259	1014.396	0.00%	99.92%
155.0	0.977	0.243	1014.639	0.00%	99.94%
160.0	0.928	0.200	1014.839	0.00%	99.96%
165.0	0.941	0.154	1014.993	0.00%	99.98%
170.0	0.953	0.112	1015.105	0.00%	99.99%
175.0	0.977	0.069	1015.174	0.00%	100.00%
180.0	0.977	0.023	1015.197	0.00%	100.00%

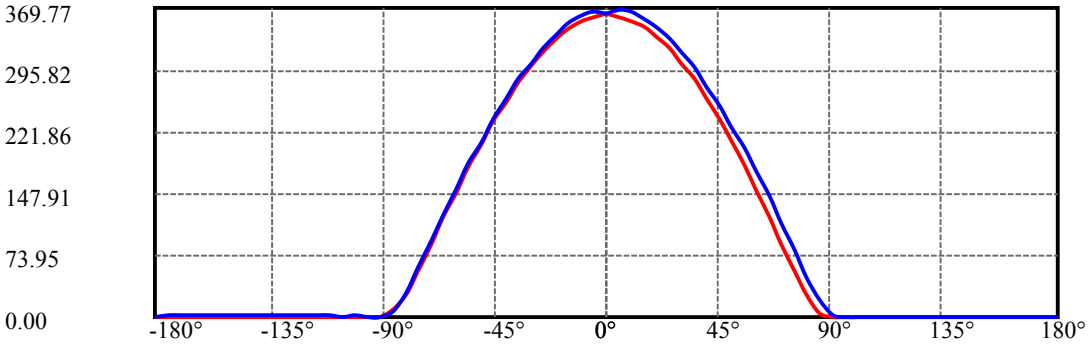
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	281.29	N.A.	27.71%
0-40	459.80	N.A.	45.29%
0-60	808.50	N.A.	79.64%
0-90	1011.02	N.A.	99.59%
0-120	1012.72	N.A.	99.76%
0-180	1015.20	N.A.	100.00%
60-90	202.51	N.A.	19.95%
90-120	1.71	N.A.	0.17%
90-130	2.27	N.A.	0.22%
90-150	3.38	N.A.	0.33%
90-180	4.16	N.A.	0.41%
0-60.27	812.16	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	34.39
10-20	98.33
20-30	148.57
30-40	178.51
40-50	184.07
50-60	164.63
60-70	122.58
70-80	65.41
80-90	14.52
90-100	0.68
100-110	0.51
110-120	0.51
120-130	0.57
130-140	0.58
140-150	0.53
150-160	0.44
160-170	0.27
170-180	0.07



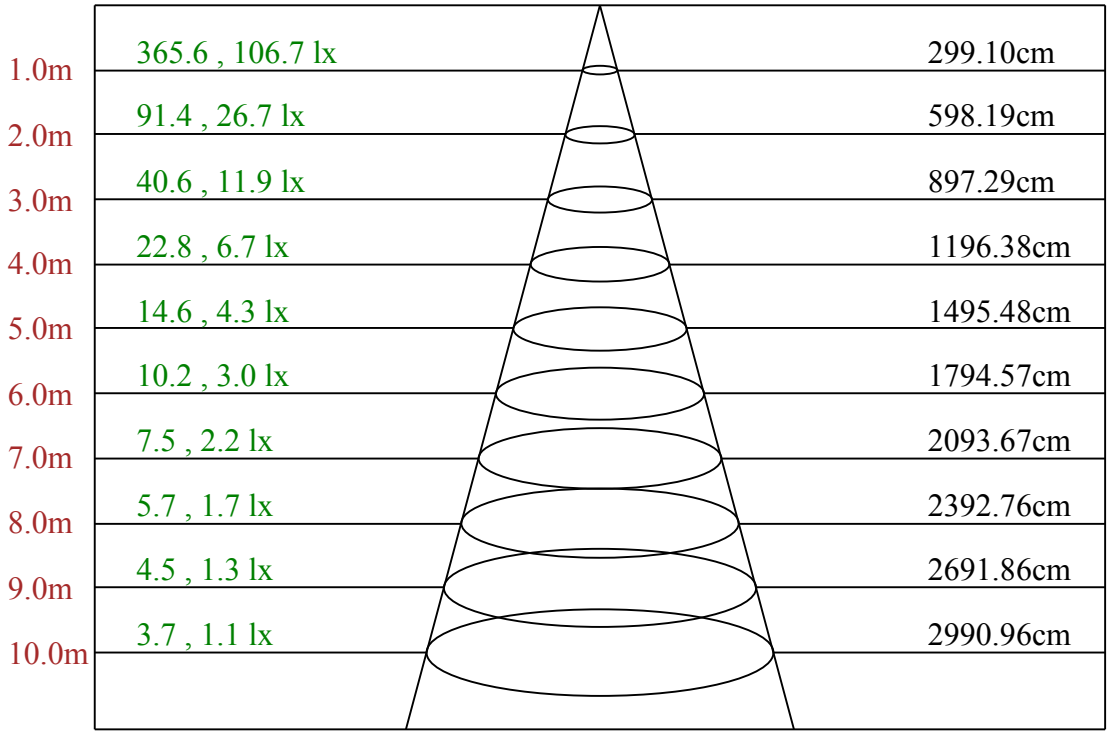


C0/C180:

C90/C270:

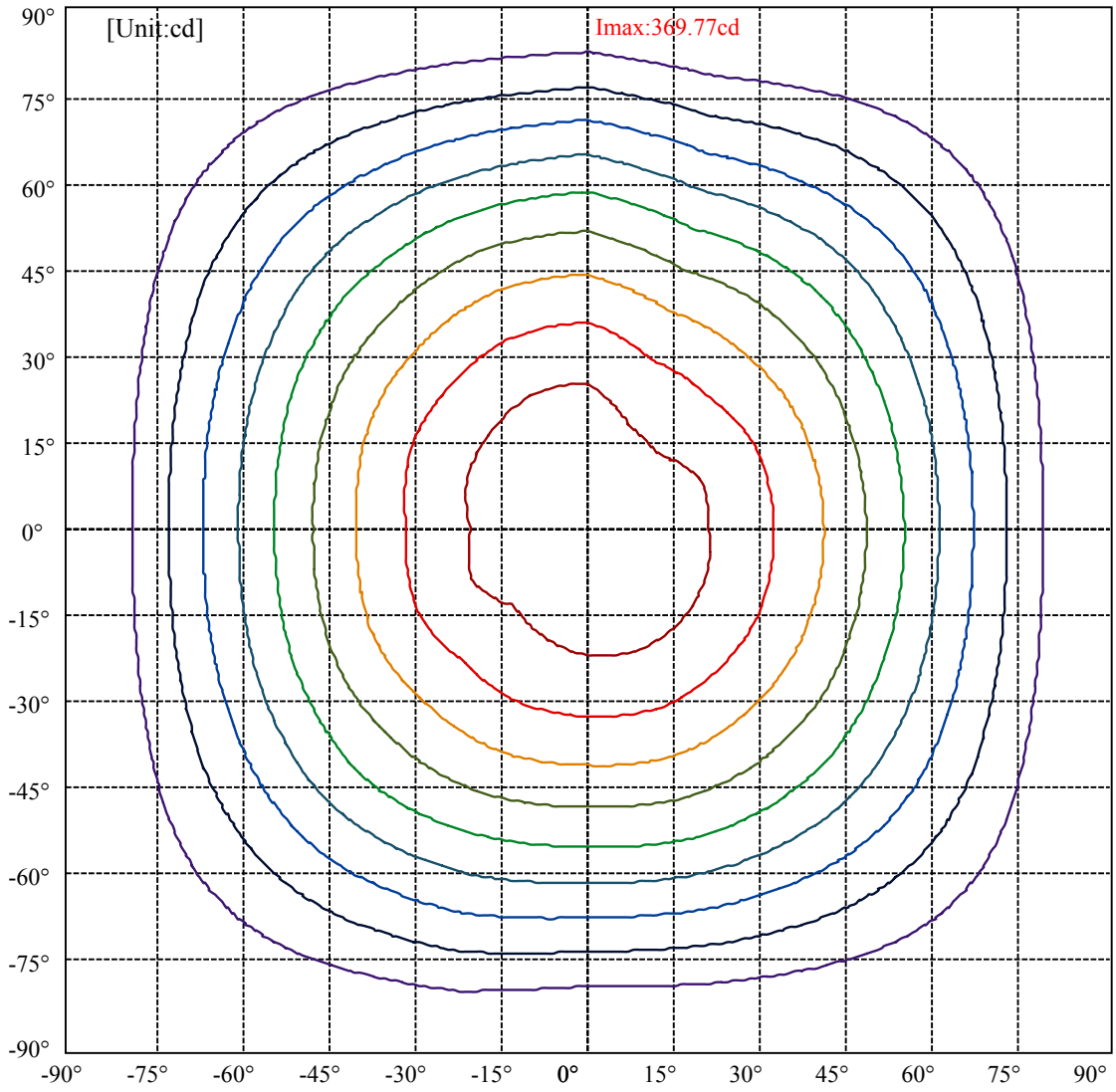
Field angle(10%Imax):C0/180Left:78.5 Right:78.5
:C90/270Left:78.7 Right:82.2

Beam Angle(50%Imax):C0/180Left:54.4 Right:55.0
:C90/270Left:54.7 Right:58.2



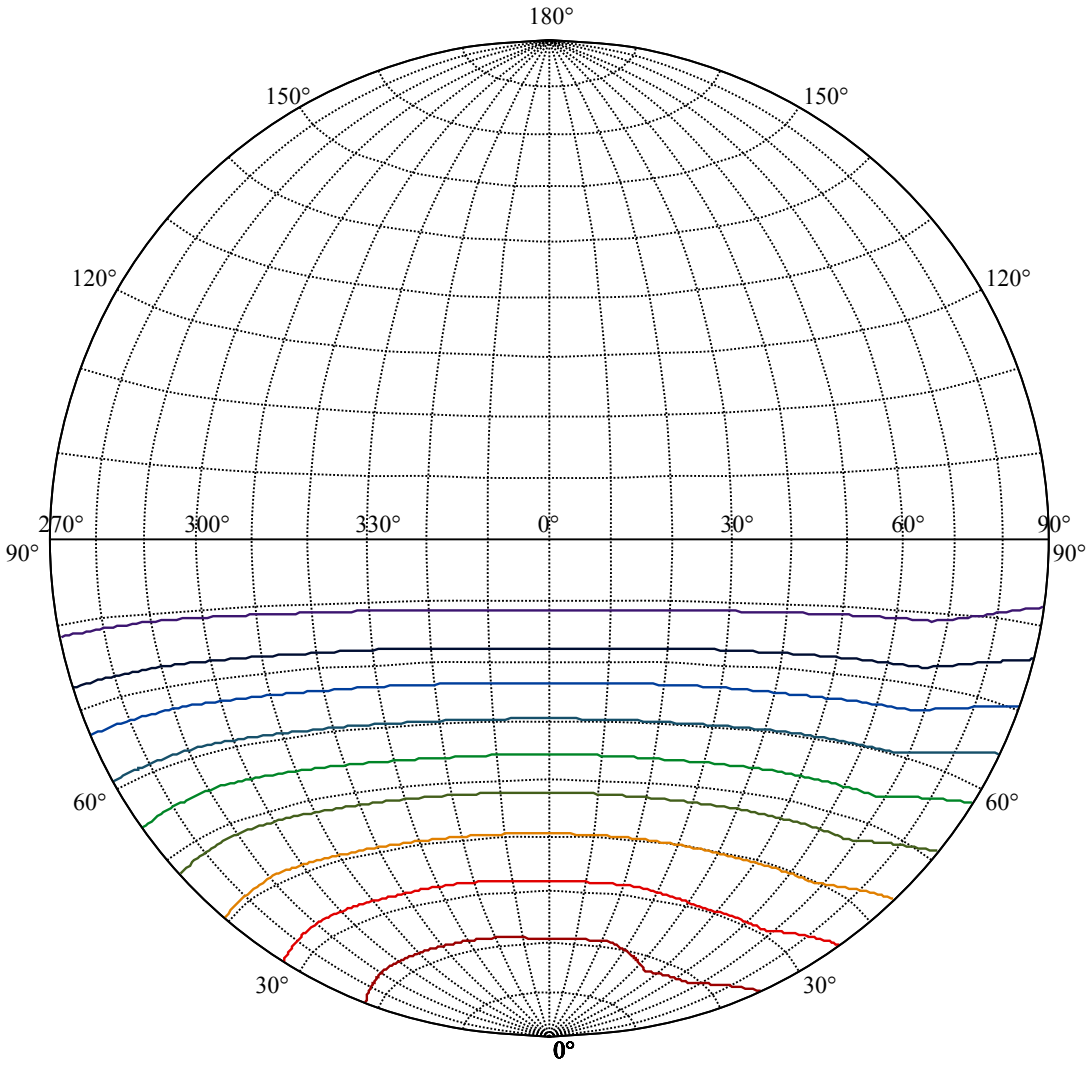
Max , Ave

Beam angle of C112.5 plane 112.46



(10%Imax) 36.9426
(20%Imax) 73.8853
(30%Imax) 110.828
(40%Imax) 147.771
(50%Imax) 184.713
(60%Imax) 221.656
(70%Imax) 258.598
(80%Imax) 295.541
(90%Imax) 332.484

ISO candela diagram on circular web



House [Unit:cd] Road

Imax:369.77

(10%Imax) 36.9738
(20%Imax) 73.9477
(30%Imax) 110.921
(40%Imax) 147.895
(50%Imax) 184.869
(60%Imax) 221.843
(70%Imax) 258.817
(80%Imax) 295.791
(90%Imax) 332.764

Equipment: GMS-3000 Date: Operator: Tester
Temperature(°C): 25 Humidity(%): 58%

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	363.43	359.22	354.33	346.13	334.99	320.52	303.32	284.17	261.89
22.5	363.43	362.54	357.46	348.28	336.16	321.30	303.52	283.00	260.33
45.0	363.43	351.60	346.13	338.31	326.78	312.90	297.27	277.92	256.81
67.5	363.43	354.92	349.64	341.83	330.10	315.83	298.83	280.26	257.40
90.0	363.43	368.21	364.30	357.07	346.32	332.64	317.00	297.85	276.55
112.5	363.43	369.77	365.86	357.66	346.32	332.64	315.83	296.48	274.01
135.0	363.43	365.86	360.98	353.36	342.22	327.75	310.16	290.03	267.75
157.5	363.43	365.47	359.81	351.79	339.87	325.41	308.21	288.08	264.24
180.0	363.43	359.02	353.75	344.95	332.84	317.79	300.20	279.68	257.20
202.5	363.43	363.13	358.05	349.64	337.72	322.87	305.28	283.98	261.50
225.0	363.43	351.99	347.49	339.48	328.34	314.46	298.05	280.07	258.76
247.5	363.43	355.31	351.40	343.39	332.44	319.35	302.74	283.78	262.09
270.0	363.43	366.26	360.20	350.62	337.72	322.48	304.30	284.37	261.70
292.5	363.43	368.21	362.15	352.57	340.26	325.02	306.84	287.69	265.21
315.0	363.43	365.47	359.61	350.62	339.28	324.24	305.47	285.34	262.67
337.5	363.43	364.89	359.61	351.01	338.31	323.26	305.86	285.15	262.09
360.0	363.43	359.22	354.33	346.13	334.99	320.52	303.32	284.17	261.89

C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	237.07	211.08	181.76	150.88	119.41	87.17	55.70	27.95	5.47
22.5	235.31	208.54	180.20	149.90	120.59	88.73	58.24	28.34	6.06
45.0	233.36	208.14	180.39	150.49	118.44	89.12	58.63	29.90	7.23
67.5	232.57	205.60	178.83	149.51	119.61	88.73	58.24	30.49	8.99
90.0	252.70	228.08	201.69	173.94	145.02	113.55	80.52	48.67	21.30
112.5	251.14	224.95	196.61	166.12	136.42	104.76	71.73	42.02	16.61
135.0	242.35	215.18	187.23	158.11	127.23	94.98	64.10	35.18	12.12
157.5	238.63	211.47	183.13	152.64	120.78	90.10	58.44	30.49	9.58
180.0	233.75	206.39	178.24	148.14	118.44	86.97	55.90	27.75	8.21
202.5	236.87	210.10	180.59	150.49	119.02	86.97	56.29	29.32	9.38
225.0	235.90	210.29	184.69	154.20	123.71	92.25	61.76	32.83	10.75
247.5	237.66	211.66	184.11	155.77	127.82	97.72	67.82	38.31	14.66
270.0	236.29	209.90	182.74	153.62	122.15	91.08	58.63	28.93	7.23
292.5	240.39	213.62	186.65	155.57	123.71	91.66	60.20	31.08	8.60
315.0	237.85	211.86	183.32	152.44	121.17	89.32	58.44	29.71	7.04
337.5	238.05	210.29	180.98	150.88	120.78	89.32	58.44	28.73	5.47
360.0	237.07	211.08	181.76	150.88	119.41	87.17	55.70	27.95	5.47

C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.59	0.59	0.39	0.39	0.78	0.59	0.59	0.59	0.98
22.5	0.78	0.39	0.59	0.59	0.59	0.78	0.78	0.59	0.78
45.0	0.98	0.59	0.39	0.78	0.59	0.78	0.78	0.78	0.98
67.5	0.78	0.59	0.78	0.59	0.59	0.39	0.59	0.78	0.59
90.0	3.32	0.39	0.39	0.59	0.59	0.39	0.59	0.78	0.59
112.5	1.95	0.59	0.39	0.39	0.39	0.39	0.39	0.59	0.39
135.0	0.98	0.39	0.20	0.39	0.20	0.39	0.20	0.39	0.39
157.5	0.78	0.39	0.00	0.39	0.39	0.20	0.20	0.39	0.39
180.0	0.78	0.20	0.00	0.20	0.20	0.39	0.39	0.39	0.59
202.5	0.59	0.39	0.20	0.20	0.39	0.39	0.39	0.39	0.39
225.0	0.78	0.39	0.39	0.39	0.20	0.20	0.39	0.39	0.39
247.5	1.17	0.39	0.39	0.39	0.00	0.39	0.20	0.59	0.59
270.0	0.98	0.98	1.17	0.98	1.17	1.17	1.17	1.37	1.37
292.5	0.59	0.78	0.78	0.59	0.59	0.59	0.78	0.78	0.98
315.0	0.98	0.39	0.59	0.59	0.59	0.78	0.59	0.98	0.78
337.5	0.78	0.59	0.39	0.59	0.59	0.59	0.59	0.78	0.78
360.0	0.59	0.59	0.39	0.39	0.78	0.59	0.59	0.59	0.98

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	0.98	0.98	0.78	0.98	0.98	0.78	0.98	0.78	0.98
22.5	0.78	0.98	0.78	1.17	0.98	0.98	0.98	0.98	0.98
45.0	0.78	0.78	0.98	0.98	0.98	0.98	0.98	0.98	0.98
67.5	0.98	0.98	0.78	0.98	1.17	0.98	0.98	0.98	0.98
90.0	0.59	0.59	0.98	0.98	0.98	0.98	0.98	0.98	0.98
112.5	0.59	0.59	0.78	0.78	0.98	0.78	0.98	0.78	0.78
135.0	0.78	0.78	0.59	0.78	0.59	0.98	0.98	0.98	0.78
157.5	0.59	0.59	0.59	0.78	0.98	0.98	0.78	0.98	0.98
180.0	0.39	0.59	0.59	0.98	0.78	0.78	0.59	0.78	0.98
202.5	0.59	0.59	0.59	0.78	0.78	0.78	0.78	0.98	0.98
225.0	0.39	0.59	0.59	0.78	0.98	0.78	0.98	0.98	1.17
247.5	0.59	0.39	0.78	0.78	0.98	0.78	0.78	0.78	0.78
270.0	1.37	1.56	1.37	1.76	1.56	1.56	1.37	1.56	1.37
292.5	0.98	0.98	0.98	0.78	0.98	0.78	1.17	0.98	0.98
315.0	0.78	0.98	0.98	0.98	0.98	0.98	0.98	0.98	1.17
337.5	0.78	0.98	0.98	0.78	0.98	0.98	0.78	0.78	0.78
360.0	0.98	0.98	0.78	0.98	0.98	0.78	0.98	0.78	0.98

C/γ(°)	180.0
0.0	0.98
22.5	0.98
45.0	0.98
67.5	0.98
90.0	0.98
112.5	0.98
135.0	0.98
157.5	0.98
180.0	0.98
202.5	0.98
225.0	0.98
247.5	0.98
270.0	0.98
292.5	0.98
315.0	0.98
337.5	0.98
360.0	0.98