



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.02

LampCAT:

Current(A): 0.1330

Lamp flux(lm): -1.0

Power (W): 15.84

Number of Lamps: 1

PF: 0.9924

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1046.02, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 66.04

Central intensity(cd): 363.454, Maximum intensity(cd): 377.216

Angle of maximum intensity: C=180.0 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=108.6

[C90/270]Total=114.6

Field angle(10%Imax): [C0/180]Total=157.0

[C90/270]Total=161.7

Maximum s/h(1/2): C0_180=1.40 C90_270=1.30

Maximum s/h(1/4): C0_180=1.52 C90_270=1.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.93%

Down flux rate of LUM(%): 99.07%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 77.433%

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	363.454	0.000	0	0.00%	0.00%
5.0	362.071	8.673	8.673	0.00%	0.83%
10.0	355.995	25.687	34.361	0.00%	3.28%
15.0	348.001	41.761	76.121	0.00%	7.28%
20.0	336.343	56.400	132.521	0.00%	12.67%
25.0	322.143	69.063	201.584	0.00%	19.27%
30.0	305.195	79.390	280.974	0.00%	26.86%
35.0	284.802	86.881	367.855	0.00%	35.17%
40.0	263.668	91.508	459.363	0.00%	43.92%
45.0	239.322	93.133	552.496	0.00%	52.82%
50.0	213.521	91.504	643.999	0.00%	61.57%
55.0	185.716	86.807	730.807	0.00%	69.87%
60.0	156.747	79.159	809.966	0.00%	77.43%
65.0	126.485	68.854	878.82	0.00%	84.02%
70.0	95.830	56.292	935.112	0.00%	89.40%
75.0	67.487	42.688	977.8	0.00%	93.48%
80.0	43.765	29.768	1007.568	0.00%	96.32%
85.0	25.320	18.772	1026.34	0.00%	98.12%
90.0	11.178	9.993	1036.334	0.00%	99.07%
95.0	2.820	3.833	1040.166	0.00%	99.44%
100.0	0.901	1.011	1041.178	0.00%	99.54%
105.0	0.843	0.467	1041.644	0.00%	99.58%
110.0	0.785	0.426	1042.07	0.00%	99.62%
115.0	0.770	0.394	1042.464	0.00%	99.66%
120.0	0.858	0.396	1042.859	0.00%	99.70%
125.0	0.901	0.407	1043.266	0.00%	99.74%
130.0	0.974	0.408	1043.674	0.00%	99.78%
135.0	0.989	0.397	1044.07	0.00%	99.81%
140.0	1.003	0.369	1044.439	0.00%	99.85%
145.0	1.061	0.344	1044.783	0.00%	99.88%
150.0	1.047	0.310	1045.094	0.00%	99.91%
155.0	1.148	0.278	1045.371	0.00%	99.94%
160.0	1.076	0.233	1045.605	0.00%	99.96%
165.0	1.090	0.178	1045.783	0.00%	99.98%
170.0	1.119	0.131	1045.914	0.00%	99.99%
175.0	1.090	0.079	1045.993	0.00%	100.00%
180.0	1.149	0.027	1046.02	0.00%	100.00%

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

Date:
Humidity(%): 58%

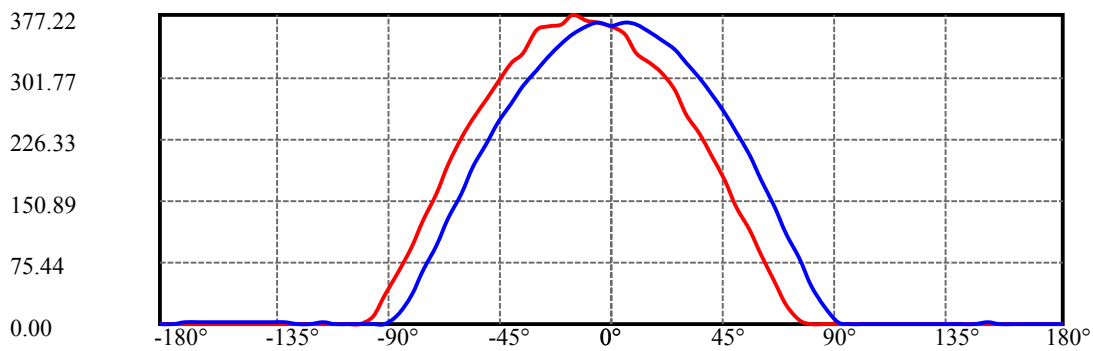
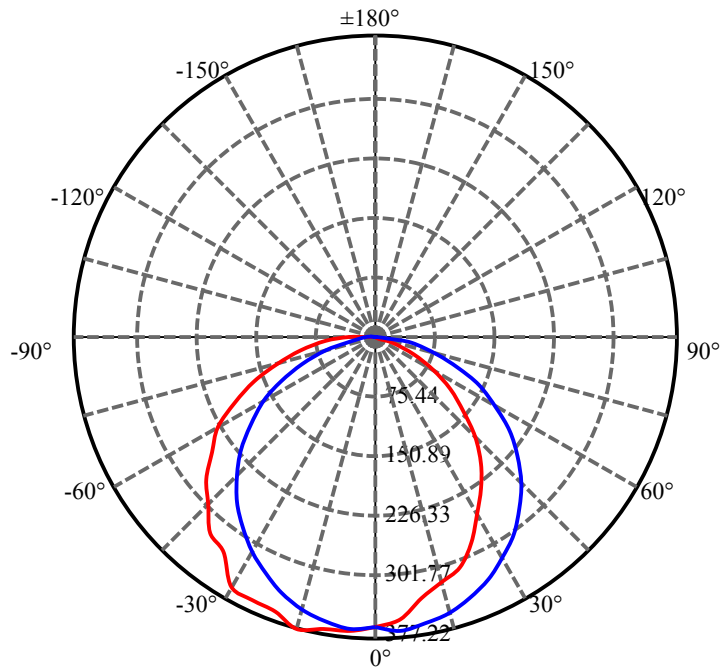
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	280.97	N.A.	26.86%
0-40	459.36	N.A.	43.92%
0-60	809.97	N.A.	77.43%
0-90	1036.33	N.A.	99.07%
0-120	1042.86	N.A.	99.70%
0-180	1046.02	N.A.	100.00%
60-90	226.37	N.A.	21.64%
90-120	6.53	N.A.	0.62%
90-130	7.34	N.A.	0.70%
90-150	8.76	N.A.	0.84%
90-180	9.66	N.A.	0.92%
0-61.95	836.82	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	34.36
10-20	98.16
20-30	148.45
30-40	178.39
40-50	184.64
50-60	165.97
60-70	125.15
70-80	72.46
80-90	28.77
90-100	4.84
100-110	0.89
110-120	0.79
120-130	0.81
130-140	0.77
140-150	0.65
150-160	0.51
160-170	0.31
170-180	0.08

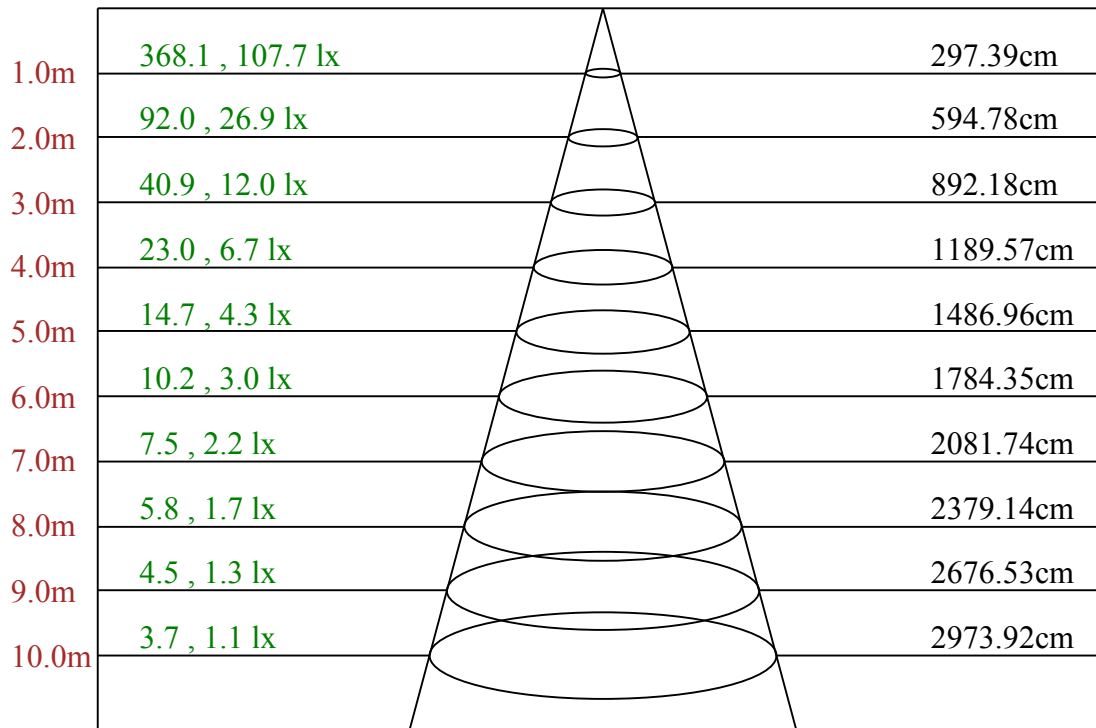


C0/C180: ———

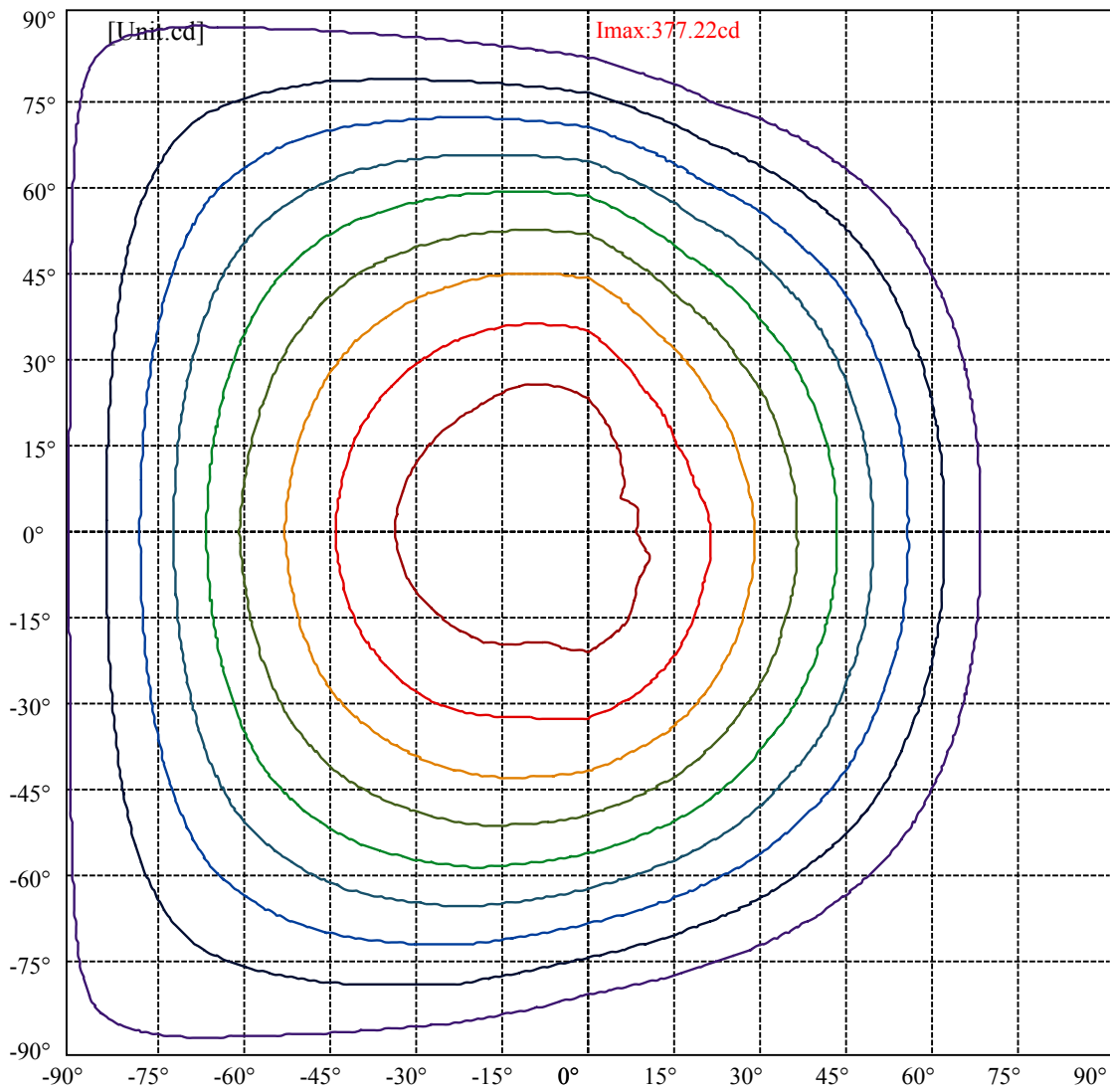
C90/C270: ———

Field angle(10%Imax):C0/180Left:89.4 Right:67.6
 :C90/270Left:79.8 Right:81.9

Beam Angle(50%Imax):C0/180Left:65.8 Right:42.8
 :C90/270Left:56.1 Right:58.5



Max , Ave Beam angle of C180 plane 112.16

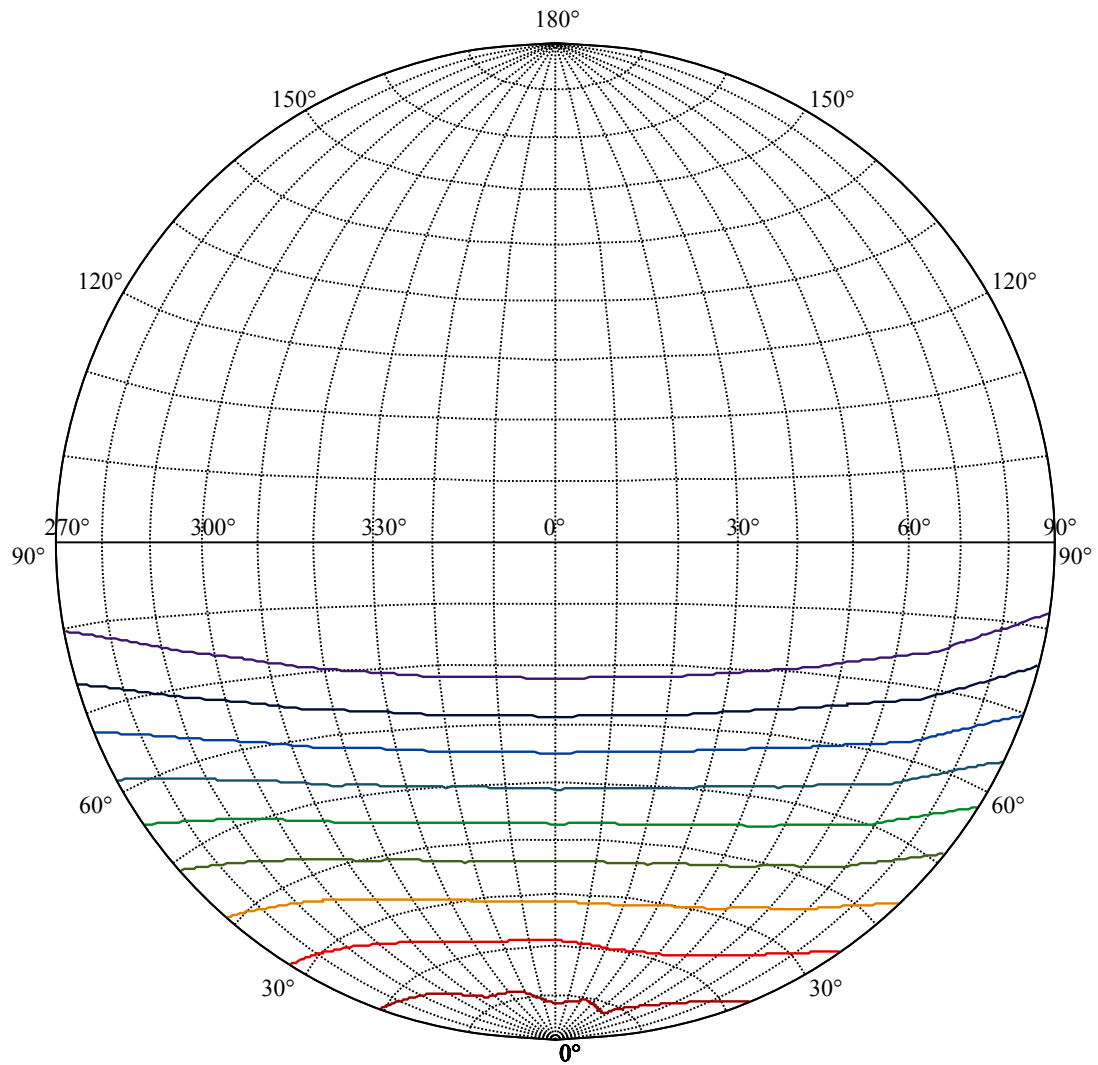


(10%I _{max}) 37.7216	—
(20%I _{max}) 75.4432	—
(30%I _{max}) 113.165	—
(40%I _{max}) 150.886	—
(50%I _{max}) 188.608	—
(60%I _{max}) 226.33	—
(70%I _{max}) 264.051	—
(80%I _{max}) 301.773	—
(90%I _{max}) 339.494	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:377.22

- (10%I_{max}) 37.7216
- (20%I_{max}) 75.4432
- (30%I_{max}) 113.165
- (40%I_{max}) 150.886
- (50%I_{max}) 188.608
- (60%I_{max}) 226.33
- (70%I_{max}) 264.051
- (80%I_{max}) 301.773
- (90%I_{max}) 339.494



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	363.45	354.66	330.94	319.31	306.98	284.89	255.35	231.40	205.59
22.5	363.45	352.80	338.15	321.63	302.33	280.94	257.68	233.73	208.14
45.0	363.45	345.12	335.36	322.56	306.75	288.61	267.91	244.66	218.84
67.5	363.45	355.59	348.61	337.68	323.03	306.05	287.22	266.05	241.17
90.0	363.45	368.84	364.66	357.22	347.45	333.96	318.38	300.70	280.47
112.5	363.45	371.64	370.94	366.75	358.84	346.52	331.17	312.33	292.80
135.0	363.45	372.33	372.33	367.91	359.77	349.54	335.36	319.54	301.87
157.5	363.45	372.33	371.64	367.91	362.10	353.73	343.26	328.61	311.17
180.0	363.45	368.15	370.94	377.22	365.59	363.73	359.31	329.54	319.77
202.5	363.45	370.71	371.40	367.22	359.77	350.70	339.77	325.82	309.08
225.0	363.45	355.59	356.98	355.59	350.94	341.63	330.01	314.89	297.68
247.5	363.45	357.91	354.89	349.31	340.47	327.68	313.96	297.91	281.17
270.0	363.45	367.22	362.10	353.03	341.17	326.75	309.77	290.70	269.77
292.5	363.45	365.12	357.45	345.36	330.70	313.49	295.12	273.26	247.68
315.0	363.45	358.38	345.59	330.70	316.29	299.08	276.75	251.87	224.19
337.5	363.45	356.75	343.96	328.61	309.31	286.98	262.10	235.82	209.31
360.0	363.45	354.66	330.94	319.31	306.98	284.89	255.35	231.40	205.59
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	175.59	143.96	113.72	83.26	52.56	23.72	4.65	0.93	0.70
22.5	179.31	149.77	119.07	88.61	57.68	29.07	7.21	1.16	0.93
45.0	191.86	163.26	133.72	103.49	73.72	43.02	17.91	2.33	1.40
67.5	214.89	187.45	157.45	126.98	96.28	66.51	37.68	13.72	1.63
90.0	257.68	233.26	205.59	175.59	143.72	110.93	79.07	46.98	20.23
112.5	270.70	246.28	219.07	190.00	160.70	131.17	98.14	66.51	37.21
135.0	281.17	257.91	232.33	204.66	176.52	145.82	113.96	82.79	50.93
157.5	290.70	268.38	243.26	216.75	187.21	156.05	125.58	92.33	61.63
180.0	294.66	275.12	250.47	226.98	193.73	160.24	127.44	94.89	62.56
202.5	290.47	267.91	243.73	216.75	188.14	156.75	125.12	93.49	62.09
225.0	275.82	253.49	229.54	204.19	175.59	145.35	114.19	83.26	51.86
247.5	262.33	240.47	215.35	187.68	159.07	128.61	98.61	67.68	37.68
270.0	246.28	220.00	191.17	160.00	129.54	96.98	65.12	35.82	12.79
292.5	220.93	193.03	162.10	130.47	98.84	66.98	39.07	14.42	1.63
315.0	195.82	165.35	135.12	103.96	72.56	43.26	18.61	2.56	0.93
337.5	180.93	150.70	119.77	88.61	57.91	28.84	7.44	1.40	0.93
360.0	175.59	143.96	113.72	83.26	52.56	23.72	4.65	0.93	0.70
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.93	0.70	0.70	1.16	1.16	0.70	0.93	0.93	1.16
22.5	0.47	0.70	0.70	0.70	0.93	1.16	0.93	1.16	0.93
45.0	0.70	0.47	0.70	0.93	0.70	0.93	1.16	1.16	0.93
67.5	0.70	0.70	0.70	0.70	0.70	0.70	1.16	0.93	1.16
90.0	3.49	0.47	0.47	0.47	0.47	0.47	0.93	0.93	0.93
112.5	13.02	1.16	0.70	0.70	0.47	0.47	0.47	0.93	0.70
135.0	23.49	3.95	0.93	0.93	0.47	0.70	0.70	0.70	0.93
157.5	30.93	9.07	1.63	0.93	0.93	0.70	0.70	0.70	0.70
180.0	34.19	10.00	0.93	0.70	0.93	0.70	0.93	0.93	0.93
202.5	31.16	8.61	1.40	0.93	0.93	0.47	0.70	0.23	0.70
225.0	23.26	4.42	1.16	0.93	0.70	0.70	0.47	0.70	0.70
247.5	13.02	1.16	0.70	0.47	0.23	0.47	0.47	0.70	0.70
270.0	1.16	1.16	1.16	1.16	0.93	1.40	1.16	1.16	1.40
292.5	0.93	0.93	0.93	0.93	0.93	0.93	1.16	1.40	1.40
315.0	0.70	0.93	0.93	0.93	0.93	0.93	0.93	0.70	1.16
337.5	0.70	0.70	0.70	0.93	1.16	0.93	0.93	1.16	1.16
360.0	0.93	0.70	0.70	1.16	1.16	0.70	0.93	0.93	1.16

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	1.16	1.16	1.16	1.16	1.16	1.16	0.93	1.16	1.16
22.5	1.16	1.16	1.16	1.16	1.16	0.93	1.16	1.16	0.93
45.0	1.16	1.16	1.16	1.16	1.16	0.93	1.16	1.16	1.16
67.5	1.16	1.16	1.16	1.16	1.40	0.93	1.16	0.93	1.16
90.0	0.93	1.16	1.16	1.40	1.16	1.16	1.16	1.16	0.93
112.5	0.70	0.70	0.93	0.93	0.93	1.16	1.16	0.93	1.16
135.0	0.70	0.93	0.93	0.70	0.93	0.70	0.93	1.16	1.16
157.5	0.70	0.70	0.93	0.93	0.93	1.16	0.93	0.93	1.16
180.0	0.70	0.93	0.93	0.70	1.16	0.93	0.93	1.16	1.16
202.5	0.93	0.70	0.70	0.93	0.93	0.93	0.93	0.93	1.16
225.0	0.70	0.70	0.70	0.70	0.93	0.93	0.93	1.16	1.16
247.5	0.93	0.70	0.93	0.70	1.16	1.16	0.93	1.16	0.93
270.0	1.40	1.40	1.63	1.63	1.63	1.40	1.63	1.63	1.16
292.5	1.16	1.40	1.16	0.93	1.16	1.16	1.16	1.16	0.93
315.0	1.16	1.16	1.16	1.16	1.16	1.40	1.16	0.93	1.16
337.5	1.16	0.93	1.16	1.40	1.40	1.16	1.16	1.16	0.93
360.0	1.16	1.16	1.16	1.16	1.16	1.16	0.93	1.16	1.16

C/γ(°)	180.0
0.0	1.15
22.5	1.15
45.0	1.15
67.5	1.15
90.0	1.15
112.5	1.15
135.0	1.15
157.5	1.15
180.0	1.15
202.5	1.15
225.0	1.15
247.5	1.15
270.0	1.15
292.5	1.15
315.0	1.15
337.5	1.15
360.0	1.15