



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.03

LampCAT:

Current(A): 0.0940

Lamp flux(lm): -1.0

Power (W): 10.95

Number of Lamps: 0

PF: 0.9757

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 731.69, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 66.82

Central intensity(cd): 254.026, Maximum intensity(cd): 264.653

Angle of maximum intensity: C=112.5 $\gamma=0.0$

Beam Angle(50%Imax): [C0/180]Total=109.5

[C90/270]Total=114.4

Field angle(10%Imax): [C0/180]Total=157.5

[C90/270]Total=161.9

Maximum s/h(1/2): C0_180=1.33 C90_270=1.29

Maximum s/h(1/4): C0_180=1.43 C90_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.79%

Down flux rate of LUM(%): 99.21%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 78.482%

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

Date:
Humidity(%): 58%

Operator: Tester

Zonal flux distribution table

Appendix Page: 2 Total:9

$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	258.238	0.000	0	0.00%	0.00%
5.0	256.650	6.155	6.155	0.00%	0.84%
10.0	252.470	18.213	24.368	0.00%	3.33%
15.0	246.962	29.626	53.994	0.00%	7.38%
20.0	238.635	40.020	94.014	0.00%	12.85%
25.0	228.154	48.958	142.972	0.00%	19.54%
30.0	216.489	56.270	199.242	0.00%	27.23%
35.0	202.087	61.638	260.88	0.00%	35.65%
40.0	186.712	64.868	325.748	0.00%	44.52%
45.0	169.572	65.969	391.717	0.00%	53.54%
50.0	151.200	64.817	456.534	0.00%	62.39%
55.0	131.776	61.528	518.062	0.00%	70.80%
60.0	111.298	56.186	574.248	0.00%	78.48%
65.0	89.978	48.931	623.179	0.00%	85.17%
70.0	67.945	39.987	663.166	0.00%	90.63%
75.0	46.172	29.828	692.994	0.00%	94.71%
80.0	25.970	19.303	712.298	0.00%	97.35%
85.0	10.757	9.980	722.277	0.00%	98.71%
90.0	2.479	3.624	725.901	0.00%	99.21%
95.0	0.778	0.892	726.793	0.00%	99.33%
100.0	0.729	0.409	727.202	0.00%	99.39%
105.0	0.616	0.360	727.562	0.00%	99.44%
110.0	0.680	0.339	727.901	0.00%	99.48%
115.0	0.761	0.365	728.266	0.00%	99.53%
120.0	0.761	0.370	728.636	0.00%	99.58%
125.0	0.859	0.374	729.011	0.00%	99.63%
130.0	0.875	0.377	729.387	0.00%	99.69%
135.0	0.907	0.360	729.748	0.00%	99.73%
140.0	1.005	0.354	730.102	0.00%	99.78%
145.0	1.005	0.335	730.437	0.00%	99.83%
150.0	1.086	0.308	730.745	0.00%	99.87%
155.0	1.134	0.281	731.025	0.00%	99.91%
160.0	1.150	0.240	731.265	0.00%	99.94%
165.0	1.118	0.187	731.452	0.00%	99.97%
170.0	1.102	0.132	731.584	0.00%	99.99%
175.0	1.150	0.081	731.664	0.00%	100.00%
180.0	1.199	0.028	731.692	0.00%	100.00%

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

Date:
Humidity(%): 58%

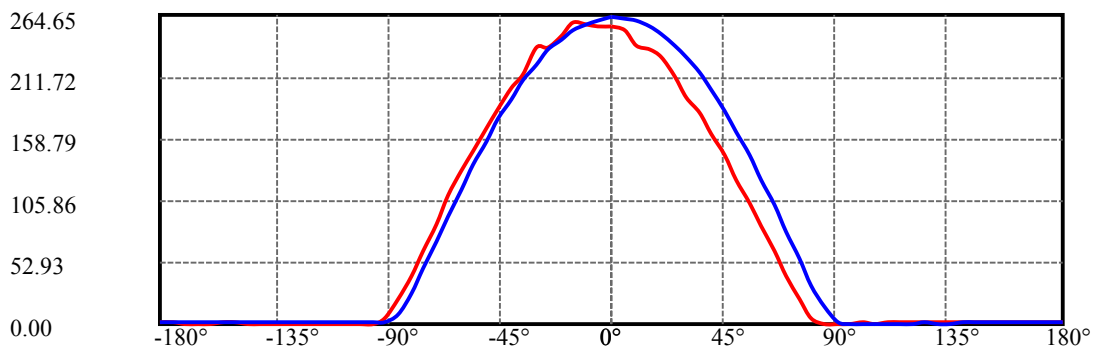
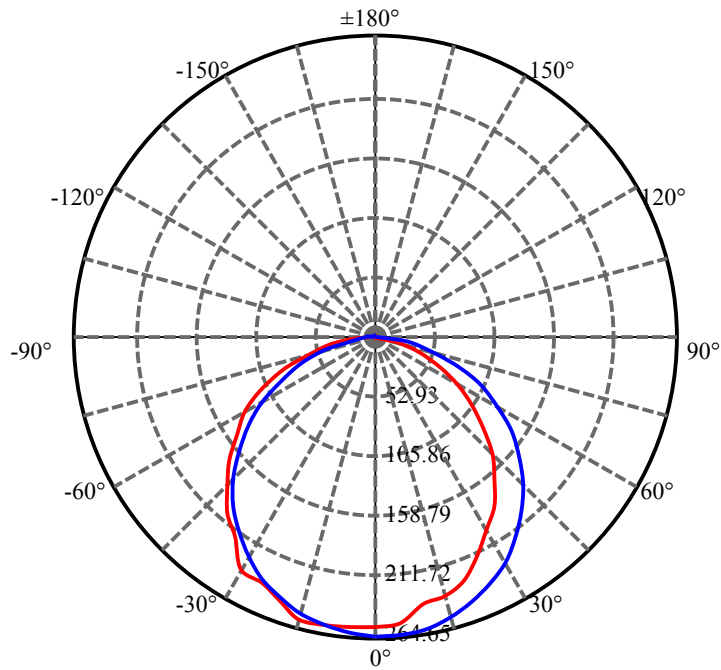
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	199.24	N.A.	27.23%
0-40	325.75	N.A.	44.52%
0-60	574.25	N.A.	78.48%
0-90	725.90	N.A.	99.21%
0-120	728.64	N.A.	99.58%
0-180	731.69	N.A.	100.00%
60-90	151.65	N.A.	20.73%
90-120	2.73	N.A.	0.37%
90-130	3.49	N.A.	0.48%
90-150	4.84	N.A.	0.66%
90-180	5.76	N.A.	0.79%
0-61.13	585.35	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	24.37
10-20	69.65
20-30	105.23
30-40	126.51
40-50	130.79
50-60	117.71
60-70	88.92
70-80	49.13
80-90	13.60
90-100	1.30
100-110	0.70
110-120	0.74
120-130	0.75
130-140	0.71
140-150	0.64
150-160	0.52
160-170	0.32
170-180	0.08

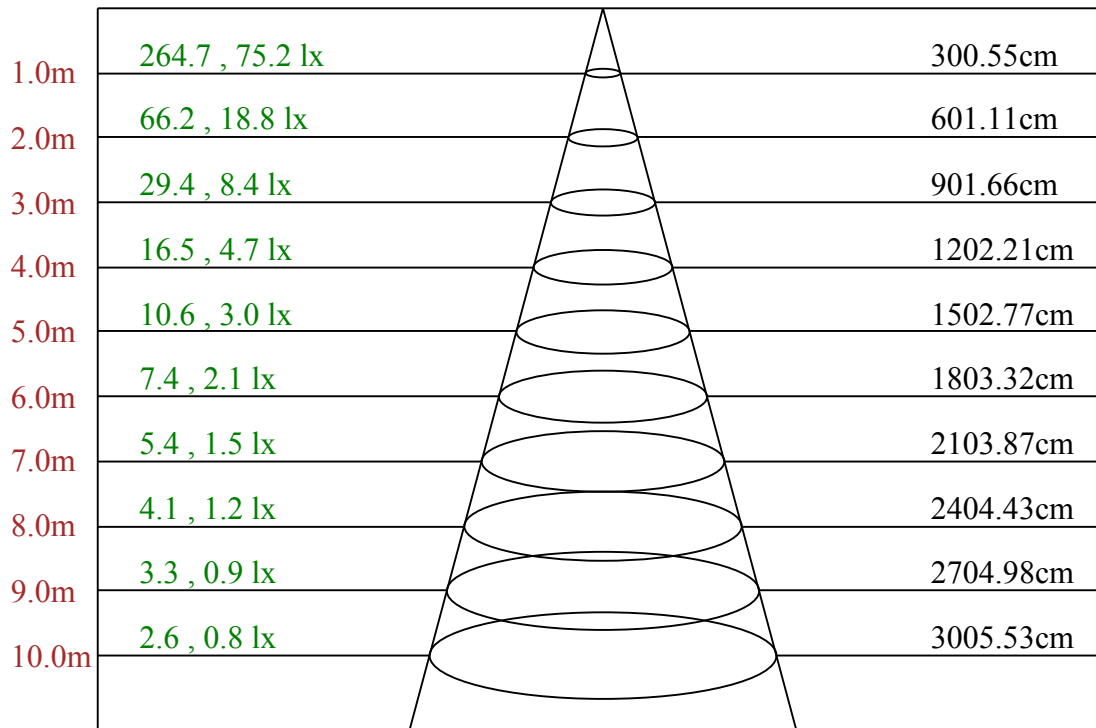


C0/C180: —

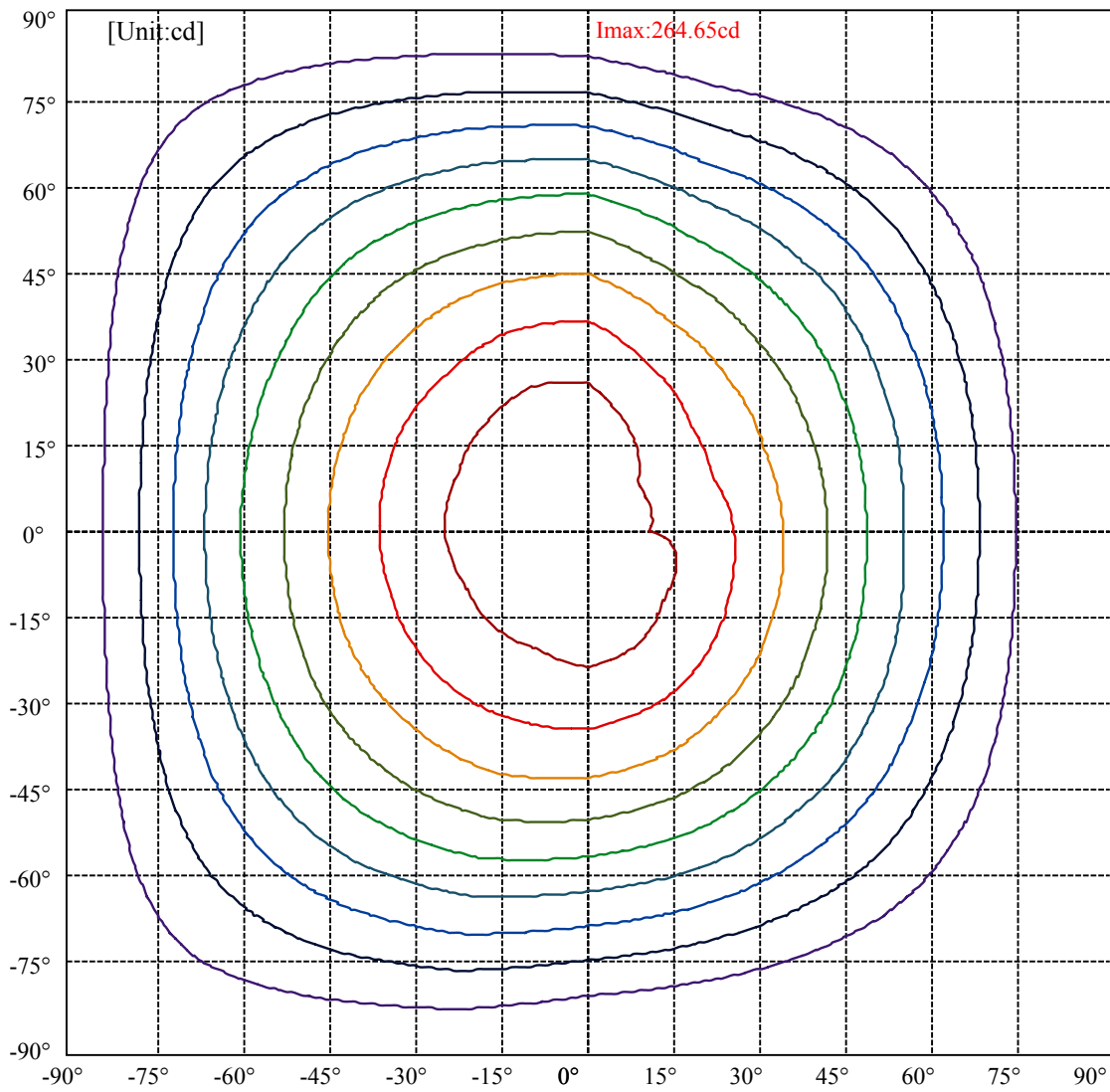
C90/C270: —

Field angle(10%Imax):C0/180Left:83.7 Right:73.8
 :C90/270Left:80.0 Right:81.9

Beam Angle(50%Imax):C0/180Left:60.8 Right:48.7
 :C90/270Left:56.1 Right:58.3



Max , Ave Beam angle of C112.5 plane 112.72

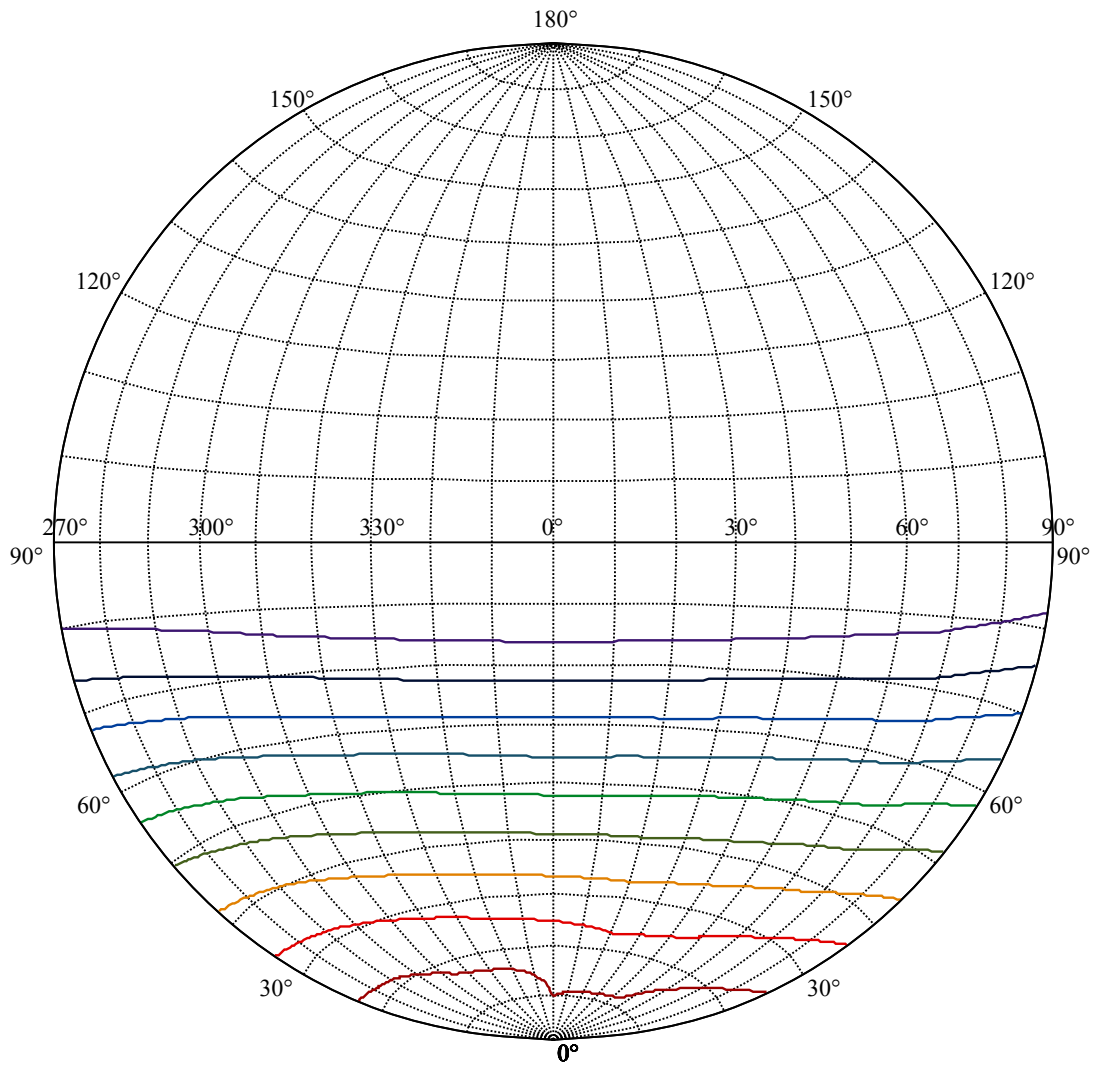


(10%Imax) 26.3935	—
(20%Imax) 52.7869	—
(30%Imax) 79.1804	—
(40%Imax) 105.574	—
(50%Imax) 131.967	—
(60%Imax) 158.361	—
(70%Imax) 184.754	—
(80%Imax) 211.148	—
(90%Imax) 237.541	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:264.65

(10%I _{max}) 26.4601	—
(20%I _{max}) 52.9202	—
(30%I _{max}) 79.3804	—
(40%I _{max}) 105.84	—
(50%I _{max}) 132.301	—
(60%I _{max}) 158.761	—
(70%I _{max}) 185.221	—
(80%I _{max}) 211.681	—
(90%I _{max}) 238.141	—

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	254.03	251.95	237.96	234.84	227.85	211.52	194.15	180.93	162.27
22.5	255.84	248.84	240.55	230.18	219.03	207.11	193.63	179.63	162.78
45.0	249.10	245.47	240.81	233.29	223.44	211.78	199.59	185.08	168.75
67.5	258.69	256.88	251.95	244.44	235.36	224.22	211.52	197.26	180.15
90.0	262.32	262.06	259.47	254.80	248.06	238.73	227.85	214.89	199.85
112.5	264.65	264.14	261.80	257.66	251.18	241.33	230.44	216.18	201.15
135.0	261.28	262.06	260.51	255.32	248.32	238.47	226.03	213.33	199.59
157.5	259.99	260.51	257.66	252.47	245.47	236.66	226.81	214.63	199.33
180.0	254.03	255.06	256.62	257.40	245.99	237.18	236.14	213.33	202.44
202.5	255.84	258.43	257.14	251.69	242.62	234.33	223.96	212.29	199.07
225.0	249.10	249.88	249.62	247.03	242.10	234.07	223.96	211.52	196.74
247.5	258.69	256.88	253.25	248.06	241.07	232.25	221.88	209.96	196.48
270.0	262.32	260.51	257.14	251.69	243.92	234.33	222.40	208.41	192.85
292.5	264.65	262.06	256.88	249.36	240.55	229.92	216.96	201.15	185.08
315.0	261.28	257.14	249.88	242.36	233.81	222.92	208.15	191.30	174.71
337.5	259.99	254.54	248.32	240.81	229.40	215.66	200.37	183.52	166.15
360.0	254.03	251.95	237.96	234.84	227.85	211.52	194.15	180.93	162.27
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	144.64	122.87	103.17	83.73	63.25	40.96	20.74	5.44	0.78
22.5	144.90	126.24	106.28	85.54	64.80	43.55	23.07	6.48	1.04
45.0	150.86	132.72	112.76	92.28	71.02	49.77	28.77	10.37	1.30
67.5	162.01	142.83	123.64	102.13	80.36	58.32	37.07	17.63	3.37
90.0	182.48	164.86	145.16	123.90	101.61	78.54	55.47	33.18	14.78
112.5	184.04	165.64	145.94	125.72	104.98	82.43	59.62	38.10	17.89
135.0	183.78	166.67	148.27	128.05	106.54	84.50	61.95	40.18	19.44
157.5	183.52	165.89	147.75	127.27	106.80	85.54	64.03	40.96	19.96
180.0	184.04	167.19	148.53	131.94	110.94	85.80	62.99	40.44	20.74
202.5	183.78	166.93	148.79	128.57	107.57	85.54	63.77	41.47	21.00
225.0	181.71	164.60	146.71	127.27	106.54	85.28	62.47	40.18	19.18
247.5	181.19	163.82	145.16	124.42	103.68	82.69	60.14	38.10	17.63
270.0	175.23	156.82	135.83	114.57	92.02	69.99	47.44	26.18	8.81
292.5	167.19	147.75	127.01	105.24	83.21	60.14	38.62	18.66	3.89
315.0	156.30	136.09	115.35	93.32	72.06	50.55	29.03	11.15	1.30
337.5	147.49	128.31	108.09	86.84	64.28	43.55	23.59	7.00	1.04
360.0	144.64	122.87	103.17	83.73	63.25	40.96	20.74	5.44	0.78
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.78	0.78	1.04	0.52	1.04	1.04	1.04	1.04	1.04
22.5	0.78	0.78	1.04	0.78	1.04	1.04	1.04	1.30	1.04
45.0	1.04	0.78	0.78	0.52	1.04	1.04	1.04	1.30	1.30
67.5	0.78	0.78	0.78	0.78	0.78	0.78	0.78	1.04	1.04
90.0	2.33	0.52	0.78	0.52	0.78	0.52	0.78	1.04	0.78
112.5	3.37	0.52	0.78	0.52	0.26	0.52	0.52	0.78	0.52
135.0	4.15	1.04	0.52	0.26	0.26	0.52	0.52	0.78	0.52
157.5	4.67	0.78	0.26	0.26	0.26	0.26	0.52	0.52	0.52
180.0	4.67	0.26	0.52	0.52	0.52	0.52	0.52	0.26	0.52
202.5	4.67	0.52	0.52	0.26	0.26	0.26	0.52	0.26	0.52
225.0	4.41	1.04	0.52	0.26	0.52	0.52	0.52	0.52	0.52
247.5	3.63	0.78	0.52	0.26	0.52	0.26	0.26	0.52	0.78
270.0	1.30	1.30	1.30	1.56	1.30	1.56	1.30	1.56	1.56
292.5	1.04	1.04	0.78	1.04	1.04	1.30	1.04	1.04	1.30
315.0	1.04	0.78	0.78	0.78	0.78	1.04	1.04	0.78	1.04
337.5	1.04	0.78	0.78	1.04	0.78	1.04	0.78	1.04	1.04
360.0	0.78	0.78	1.04	0.52	1.04	1.04	1.04	1.04	1.04

Intensity data(cd)

Appendix Page: 9 Total:9

C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.30	1.04	1.04	1.30	1.04	1.30	1.04	1.30	1.04
22.5	1.04	1.30	1.04	0.78	1.30	1.04	1.04	1.04	1.04
45.0	1.04	1.04	1.30	1.04	1.04	1.30	1.04	1.30	1.30
67.5	1.04	1.04	1.04	1.04	1.30	1.30	1.30	1.04	1.30
90.0	0.78	1.04	1.04	1.30	1.30	1.30	1.30	1.04	1.04
112.5	0.52	0.78	0.78	0.78	1.04	1.04	1.04	1.04	1.30
135.0	0.52	1.04	0.52	0.78	0.78	0.78	1.04	0.78	1.04
157.5	0.78	0.78	0.52	0.78	1.04	1.04	0.78	1.04	1.04
180.0	0.52	0.78	0.78	1.04	1.04	0.78	0.78	0.78	1.30
202.5	0.78	0.52	1.04	0.78	1.30	1.04	1.04	0.78	0.78
225.0	0.78	0.78	1.04	1.04	1.04	1.04	1.04	1.04	1.04
247.5	0.52	0.78	0.78	1.04	0.78	1.04	1.04	1.04	1.04
270.0	1.30	1.81	1.56	1.81	1.81	1.81	1.81	1.81	1.81
292.5	1.30	1.30	1.30	1.30	1.04	1.30	1.30	1.30	1.30
315.0	1.30	1.04	1.04	1.30	1.04	1.04	1.04	1.30	1.04
337.5	1.04	1.04	1.30	1.30	1.30	1.30	1.30	1.04	1.04
360.0	1.30	1.04	1.04	1.30	1.04	1.30	1.04	1.30	1.04
C/γ(°)	180.0								
0.0	1.04								
22.5	1.04								
45.0	1.04								
67.5	1.30								
90.0	1.81								
112.5	1.04								
135.0	1.04								
157.5	1.30								
180.0	1.04								
202.5	1.04								
225.0	1.04								
247.5	1.30								
270.0	1.81								
292.5	1.04								
315.0	1.04								
337.5	1.30								
360.0	1.04								