



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.01

LampCAT:

Current(A): 0.0670

Lamp flux(lm): -1.0

Power (W): 7.88

Number of Lamps: 1

PF: 0.9748

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 494.65, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.77

Central intensity(cd): 176.049, Maximum intensity(cd): 180.403

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=156.5

[C90/270]Total=160.8

Maximum s/h(1/2): C0_180=1.25 C90_270=1.31

Maximum s/h(1/4): C0_180=1.38 C90_270=1.42

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.76%

Down flux rate of LUM(%): 99.24%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.300%

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	176.049	0.000	0	0.00%	0.00%
5.0	175.414	4.202	4.202	0.00%	0.85%
10.0	172.990	12.463	16.665	0.00%	3.37%
15.0	168.960	20.284	36.949	0.00%	7.47%
20.0	163.400	27.391	64.34	0.00%	13.01%
25.0	156.427	33.544	97.884	0.00%	19.79%
30.0	148.016	38.528	136.412	0.00%	27.58%
35.0	138.478	42.188	178.6	0.00%	36.11%
40.0	127.760	44.420	223.02	0.00%	45.09%
45.0	116.044	45.142	268.162	0.00%	54.21%
50.0	103.136	44.288	312.45	0.00%	63.17%
55.0	89.346	41.852	354.302	0.00%	71.63%
60.0	74.870	37.958	392.26	0.00%	79.30%
65.0	59.694	32.713	424.973	0.00%	85.91%
70.0	44.246	26.318	451.291	0.00%	91.23%
75.0	29.393	19.248	470.539	0.00%	95.13%
80.0	16.213	12.203	482.742	0.00%	97.59%
85.0	6.221	6.096	488.838	0.00%	98.82%
90.0	1.374	2.079	490.917	0.00%	99.24%
95.0	0.570	0.532	491.45	0.00%	99.35%
100.0	0.454	0.278	491.728	0.00%	99.41%
105.0	0.454	0.243	491.971	0.00%	99.46%
110.0	0.428	0.230	492.201	0.00%	99.50%
115.0	0.454	0.223	492.424	0.00%	99.55%
120.0	0.506	0.233	492.657	0.00%	99.60%
125.0	0.492	0.231	492.888	0.00%	99.64%
130.0	0.583	0.234	493.122	0.00%	99.69%
135.0	0.635	0.246	493.368	0.00%	99.74%
140.0	0.648	0.238	493.606	0.00%	99.79%
145.0	0.622	0.212	493.818	0.00%	99.83%
150.0	0.726	0.198	494.016	0.00%	99.87%
155.0	0.777	0.190	494.206	0.00%	99.91%
160.0	0.726	0.158	494.364	0.00%	99.94%
165.0	0.764	0.123	494.487	0.00%	99.97%
170.0	0.790	0.092	494.579	0.00%	99.99%
175.0	0.765	0.056	494.634	0.00%	100.00%
180.0	0.780	0.018	494.653	0.00%	100.00%

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

Date:
Humidity(%): 58%

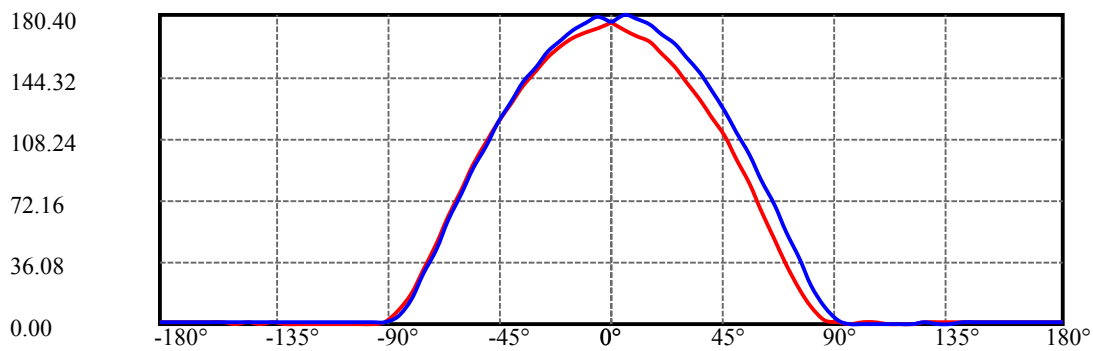
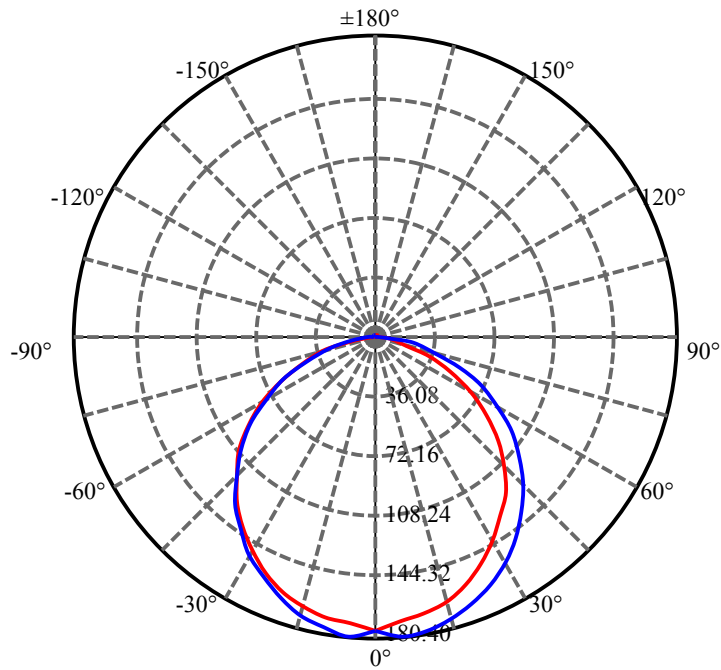
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	136.41	N.A.	27.58%
0-40	223.02	N.A.	45.09%
0-60	392.26	N.A.	79.30%
0-90	490.92	N.A.	99.24%
0-120	492.66	N.A.	99.60%
0-180	494.65	N.A.	100.00%
60-90	98.66	N.A.	19.94%
90-120	1.74	N.A.	0.35%
90-130	2.20	N.A.	0.45%
90-150	3.10	N.A.	0.63%
90-180	3.72	N.A.	0.75%
0-60.53	395.72	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	16.67
10-20	47.68
20-30	72.07
30-40	86.61
40-50	89.43
50-60	79.81
60-70	59.03
70-80	31.45
80-90	8.18
90-100	0.81
100-110	0.47
110-120	0.46
120-130	0.46
130-140	0.48
140-150	0.41
150-160	0.35
160-170	0.22
170-180	0.06



C0/C180: —

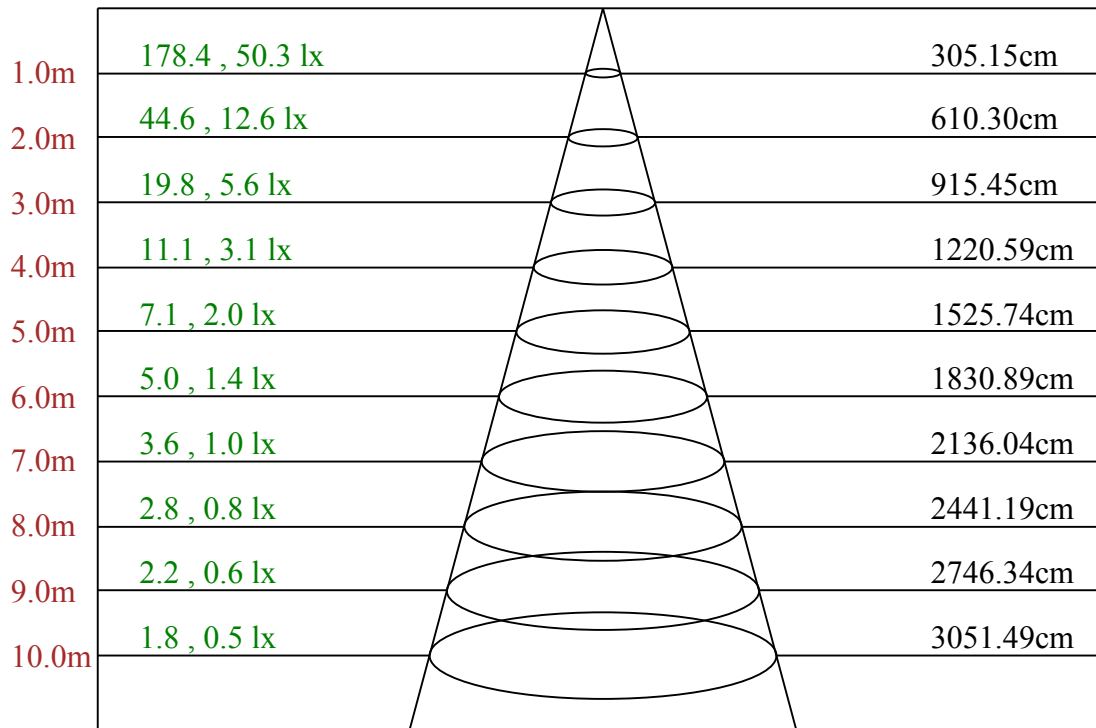
C90/C270: —

Field angle(10%Imax):C0/180Left:80.2 Right:76.3

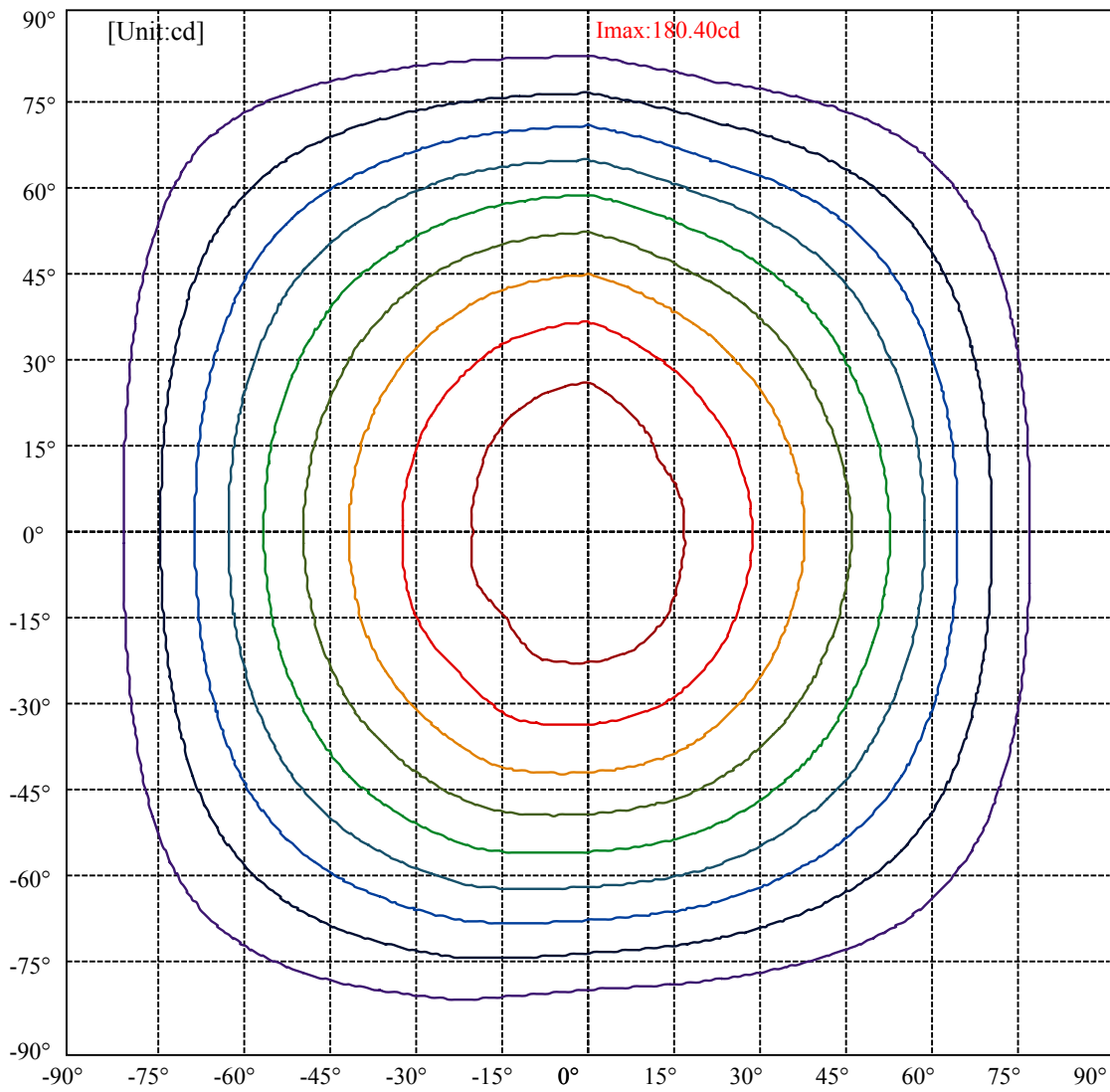
:C90/270Left:78.9 Right:81.9

Beam Angle(50%Imax):C0/180Left:56.6 Right:52.7

:C90/270Left:55.1 Right:58.0



Max , Ave Beam angle of C90 plane 113.52

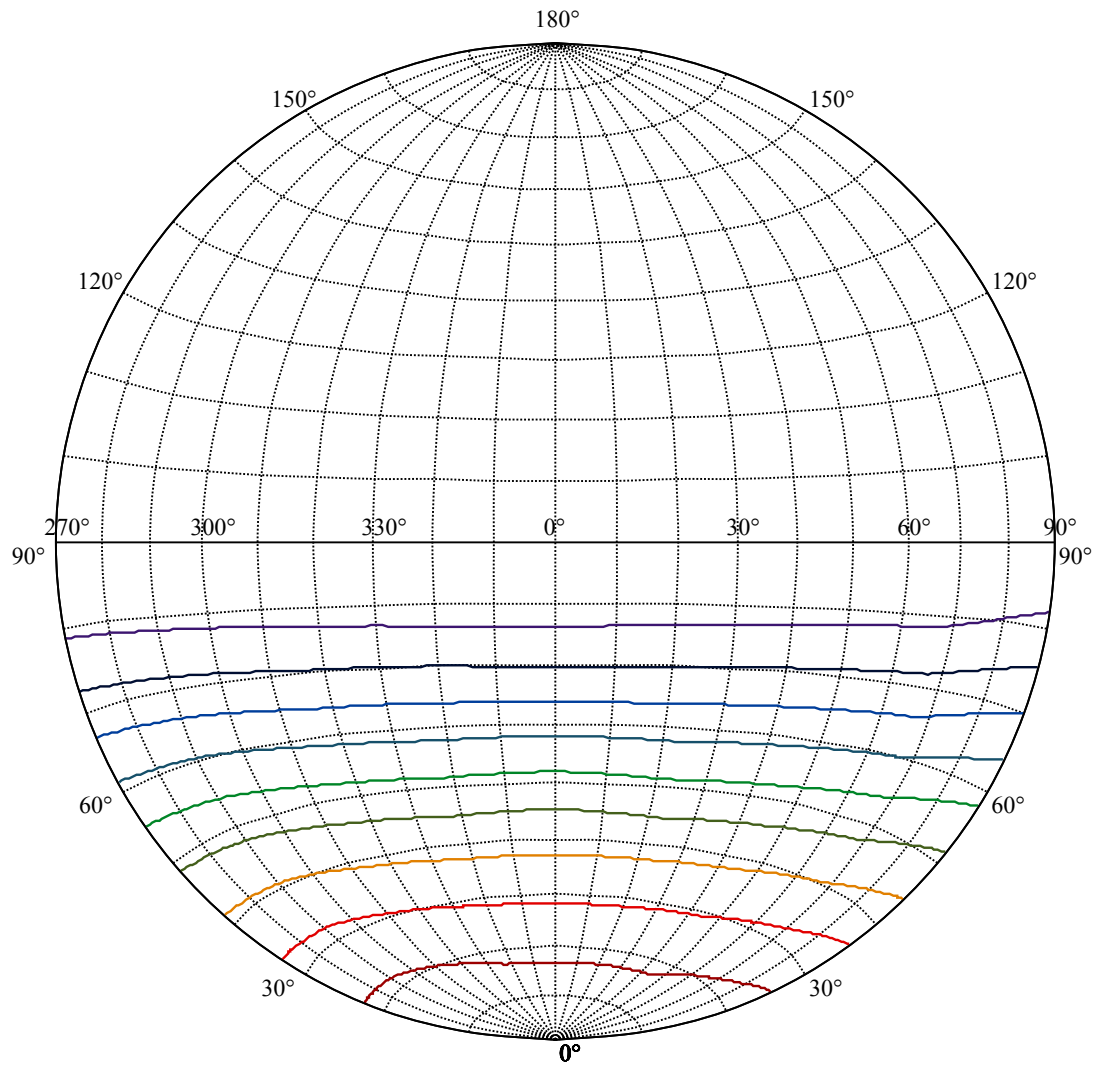


(10%I _{max}) 18.0403	—
(20%I _{max}) 36.0806	—
(30%I _{max}) 54.1209	—
(40%I _{max}) 72.1612	—
(50%I _{max}) 90.2015	—
(60%I _{max}) 108.242	—
(70%I _{max}) 126.282	—
(80%I _{max}) 144.322	—
(90%I _{max}) 162.363	—

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

Date:
Humidity(%): 58%

Operator: Tester












House

[Unit:cd]

Road

Imax:180.40

(10%Imax) 18.0403	
(20%Imax) 36.0806	
(30%Imax) 54.1209	
(40%Imax) 72.1612	
(50%Imax) 90.2015	
(60%Imax) 108.242	
(70%Imax) 126.282	
(80%Imax) 144.322	
(90%Imax) 162.363	

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	176.05	171.07	168.38	164.23	158.22	150.13	141.01	131.05	120.89
22.5	176.05	172.94	170.04	164.85	158.63	150.75	141.42	131.26	119.85
45.0	176.05	172.11	169.41	165.06	159.05	152.00	143.08	133.13	121.93
67.5	176.05	176.88	174.18	169.83	164.02	156.76	148.26	138.72	127.11
90.0	176.05	180.40	178.54	174.60	169.62	163.40	155.31	146.60	136.44
112.5	176.05	179.16	176.88	173.56	168.58	161.95	154.28	145.15	134.78
135.0	176.05	176.88	175.01	171.49	166.10	159.46	151.58	141.83	131.88
157.5	176.05	173.98	171.90	168.58	163.40	156.97	148.88	139.97	129.60
180.0	176.05	172.11	170.45	167.13	162.16	155.94	147.85	138.93	128.77
202.5	176.05	174.39	172.32	168.79	163.81	157.39	149.30	140.18	129.60
225.0	176.05	172.94	171.07	167.75	162.57	156.35	148.68	139.55	129.81
247.5	176.05	177.92	175.63	171.69	166.72	160.29	152.20	143.29	132.71
270.0	176.05	179.37	176.46	171.90	166.10	158.63	150.54	140.80	129.81
292.5	176.05	178.12	175.01	170.87	164.85	157.59	149.09	138.93	127.94
315.0	176.05	175.63	172.73	167.96	161.74	154.07	144.95	134.78	122.96
337.5	176.05	172.73	169.83	165.06	158.84	151.17	141.83	131.47	120.06
360.0	176.05	171.07	168.38	164.23	158.22	150.13	141.01	131.05	120.89
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	109.49	96.01	81.49	66.15	49.77	34.42	20.53	9.54	2.07
22.5	107.41	93.93	79.63	65.94	50.80	36.08	21.98	10.37	2.49
45.0	110.32	96.63	82.94	68.43	53.50	38.36	24.05	12.23	3.94
67.5	114.88	101.81	87.71	72.37	56.82	42.09	26.75	13.89	4.56
90.0	124.62	112.39	99.12	84.40	69.26	53.91	37.74	22.81	10.37
112.5	123.38	110.94	97.25	82.74	68.64	52.26	36.50	21.98	9.95
135.0	120.06	107.62	93.73	79.83	64.90	49.35	34.42	20.74	9.12
157.5	117.99	105.34	92.48	78.59	63.87	48.32	34.01	20.11	8.50
180.0	117.78	105.96	92.69	78.38	62.62	47.07	31.93	18.04	8.29
202.5	118.40	105.55	92.07	77.97	63.45	48.32	32.97	18.87	8.29
225.0	118.82	106.17	93.11	79.21	64.07	48.94	34.21	20.32	8.50
247.5	121.31	108.45	95.18	80.87	65.94	49.97	35.25	21.36	9.12
270.0	117.57	104.72	90.62	75.69	60.34	43.96	28.62	14.93	4.77
292.5	115.50	102.44	88.13	73.20	57.23	41.06	26.13	13.06	3.73
315.0	111.15	97.67	82.94	68.43	52.67	37.53	23.43	11.41	3.11
337.5	108.04	94.56	80.46	65.73	51.22	36.29	21.77	9.75	2.70
360.0	109.49	96.01	81.49	66.15	49.77	34.42	20.53	9.54	2.07
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.62	0.42	0.62	0.62	0.42	0.42	0.42	0.62	0.83
22.5	1.04	0.62	0.62	0.62	0.42	0.83	0.62	0.62	0.83
45.0	1.04	0.42	0.42	0.62	0.42	0.62	0.62	0.62	0.62
67.5	1.04	0.62	0.62	0.42	0.62	0.42	0.42	0.62	0.62
90.0	2.28	0.42	0.42	0.21	0.42	0.42	0.42	0.62	0.42
112.5	2.49	1.04	0.21	0.21	0.21	0.42	0.21	0.21	0.42
135.0	1.66	0.42	0.21	0.42	0.00	0.21	0.42	0.21	0.42
157.5	1.45	0.21	0.21	0.42	0.21	0.42	0.21	0.00	0.42
180.0	1.45	0.42	0.21	0.42	0.42	0.42	0.42	0.42	0.21
202.5	1.45	0.42	0.42	0.42	0.42	0.21	0.42	0.21	0.42
225.0	1.45	0.62	0.42	0.00	0.42	0.21	0.42	0.21	0.42
247.5	1.87	0.62	0.42	0.00	0.00	0.00	0.21	0.21	0.42
270.0	1.24	0.83	1.04	1.04	1.04	0.83	1.04	1.24	1.04
292.5	1.04	0.83	0.42	0.62	0.42	0.83	1.04	0.83	0.83
315.0	1.04	0.83	0.62	0.83	0.62	0.42	0.62	0.62	0.83
337.5	0.83	0.42	0.42	0.42	0.83	0.62	0.62	0.62	0.62
360.0	0.62	0.42	0.62	0.62	0.42	0.42	0.42	0.62	0.83

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	0.83	0.83	0.83	0.83	0.83	0.62	0.83	0.83	0.62
22.5	0.62	0.62	0.62	0.83	0.83	0.62	0.83	0.83	0.83
45.0	0.62	0.62	0.62	0.83	0.83	0.83	0.83	0.62	0.83
67.5	0.83	0.62	0.62	0.62	0.83	0.83	0.62	0.83	0.62
90.0	0.42	0.62	0.62	0.62	0.83	0.83	0.83	0.62	0.83
112.5	0.62	0.42	0.42	0.83	0.42	0.42	0.83	0.83	0.62
135.0	0.42	0.42	0.62	0.62	0.83	0.62	0.42	0.83	0.62
157.5	0.62	0.62	0.62	0.62	0.62	0.62	0.83	0.62	0.62
180.0	0.62	0.42	0.62	0.42	0.62	0.62	0.62	0.62	0.62
202.5	0.42	0.42	0.42	0.62	0.62	0.62	0.62	0.62	0.83
225.0	0.42	0.62	0.42	0.21	0.83	0.83	0.62	0.83	0.62
247.5	0.42	0.42	0.42	0.83	0.62	0.42	0.62	0.83	0.83
270.0	1.24	1.24	1.24	1.45	1.24	1.24	1.04	1.24	1.45
292.5	0.83	1.04	0.62	0.83	0.83	0.83	0.83	1.04	1.04
315.0	0.62	0.62	0.62	0.83	0.83	0.83	0.83	0.62	0.62
337.5	0.62	0.83	0.62	0.62	0.83	0.83	1.04	0.83	0.62
360.0	0.83	0.83	0.83	0.83	0.83	0.62	0.83	0.83	0.62

C/γ(°)	180.0
0.0	0.78
22.5	0.78
45.0	0.78
67.5	0.78
90.0	0.78
112.5	0.78
135.0	0.78
157.5	0.78
180.0	0.78
202.5	0.78
225.0	0.78
247.5	0.78
270.0	0.78
292.5	0.78
315.0	0.78
337.5	0.78
360.0	0.78