



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): 0.0430

Lamp flux(lm): -1.0

Power (W): 4.95

Number of Lamps: 1

PF: 0.9627

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 304.90, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 61.60

Central intensity(cd): 109.269, Maximum intensity(cd): 111.090

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.8

[C90/270]Total=112.8

Field angle(10%Imax): [C0/180]Total=154.3

[C90/270]Total=160.2

Maximum s/h(1/2): C0_180=1.28 C90_270=1.29

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

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.32%

Down flux rate of LUM(%): 98.68%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.507%

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	109.269	0.000	0	0.00%	0.00%
5.0	108.999	2.609	2.609	0.00%	0.86%
10.0	107.486	7.744	10.354	0.00%	3.40%
15.0	104.896	12.598	22.952	0.00%	7.53%
20.0	101.463	17.007	39.959	0.00%	13.11%
25.0	97.016	20.817	60.776	0.00%	19.93%
30.0	91.712	23.884	84.659	0.00%	27.77%
35.0	85.736	26.130	110.79	0.00%	36.34%
40.0	78.996	27.484	138.274	0.00%	45.35%
45.0	71.631	27.890	166.164	0.00%	54.50%
50.0	63.440	27.293	193.457	0.00%	63.45%
55.0	54.874	25.725	219.182	0.00%	71.89%
60.0	45.653	23.237	242.418	0.00%	79.51%
65.0	36.120	19.879	262.297	0.00%	86.03%
70.0	26.368	15.822	278.12	0.00%	91.22%
75.0	17.132	11.370	289.49	0.00%	94.95%
80.0	8.940	6.976	296.466	0.00%	97.23%
85.0	3.230	3.307	299.773	0.00%	98.32%
90.0	0.796	1.102	300.875	0.00%	98.68%
95.0	0.515	0.359	301.234	0.00%	98.80%
100.0	0.468	0.267	301.501	0.00%	98.88%
105.0	0.546	0.271	301.773	0.00%	98.97%
110.0	0.484	0.269	302.042	0.00%	99.06%
115.0	0.577	0.269	302.311	0.00%	99.15%
120.0	0.671	0.303	302.614	0.00%	99.25%
125.0	0.640	0.303	302.917	0.00%	99.35%
130.0	0.640	0.278	303.195	0.00%	99.44%
135.0	0.671	0.265	303.46	0.00%	99.53%
140.0	0.718	0.257	303.717	0.00%	99.61%
145.0	0.796	0.253	303.97	0.00%	99.69%
150.0	0.796	0.234	304.204	0.00%	99.77%
155.0	0.827	0.205	304.41	0.00%	99.84%
160.0	0.827	0.173	304.583	0.00%	99.90%
165.0	0.827	0.136	304.719	0.00%	99.94%
170.0	0.858	0.100	304.819	0.00%	99.97%
175.0	0.874	0.062	304.881	0.00%	99.99%
180.0	0.896	0.021	304.903	0.00%	100.00%

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

Date:
Humidity(%): 58%

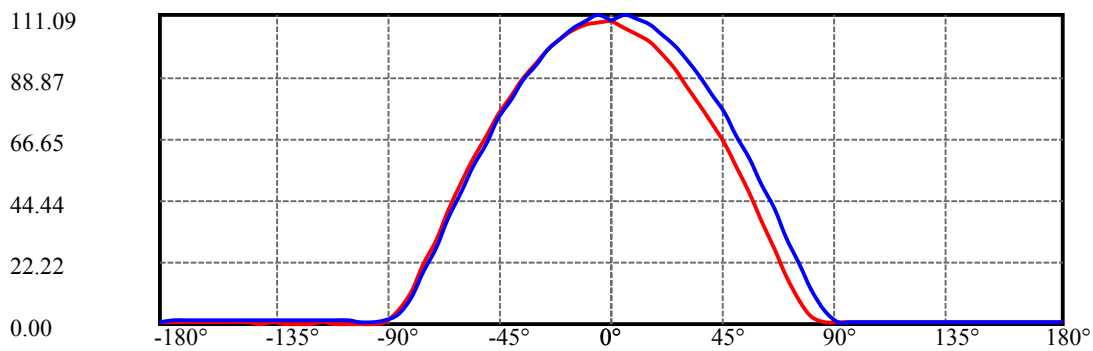
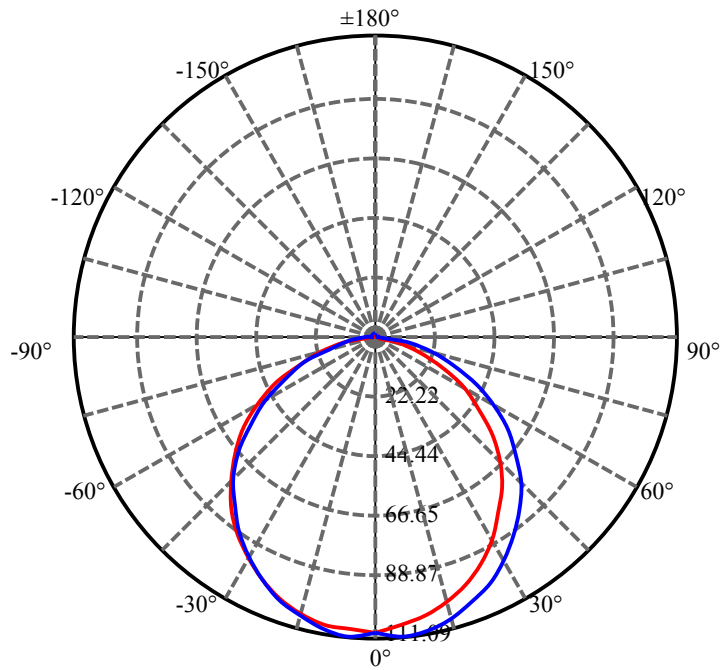
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	84.66	N.A.	27.77%
0-40	138.27	N.A.	45.35%
0-60	242.42	N.A.	79.51%
0-90	300.88	N.A.	98.68%
0-120	302.61	N.A.	99.25%
0-180	304.90	N.A.	100.00%
60-90	58.46	N.A.	19.17%
90-120	1.74	N.A.	0.57%
90-130	2.32	N.A.	0.76%
90-150	3.33	N.A.	1.09%
90-180	4.01	N.A.	1.31%
0-60.38	243.92	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.35
10-20	29.61
20-30	44.70
30-40	53.61
40-50	55.18
50-60	48.96
60-70	35.70
70-80	18.35
80-90	4.41
90-100	0.63
100-110	0.54
110-120	0.57
120-130	0.58
130-140	0.52
140-150	0.49
150-160	0.38
160-170	0.24
170-180	0.06

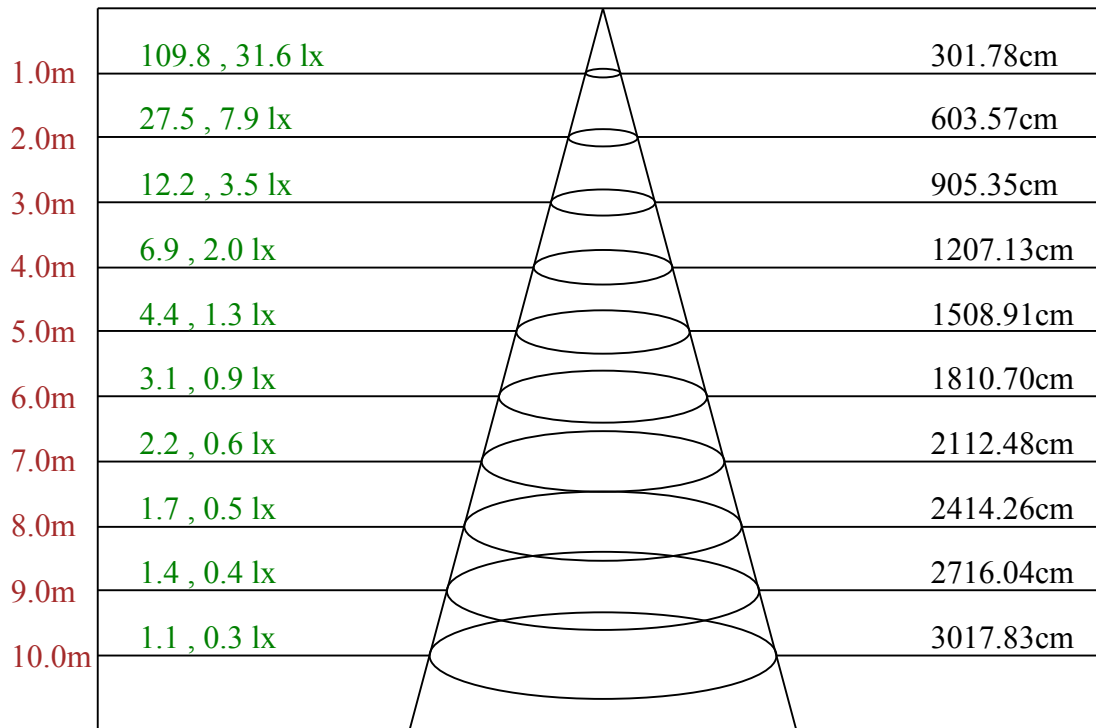


C0/C180: —

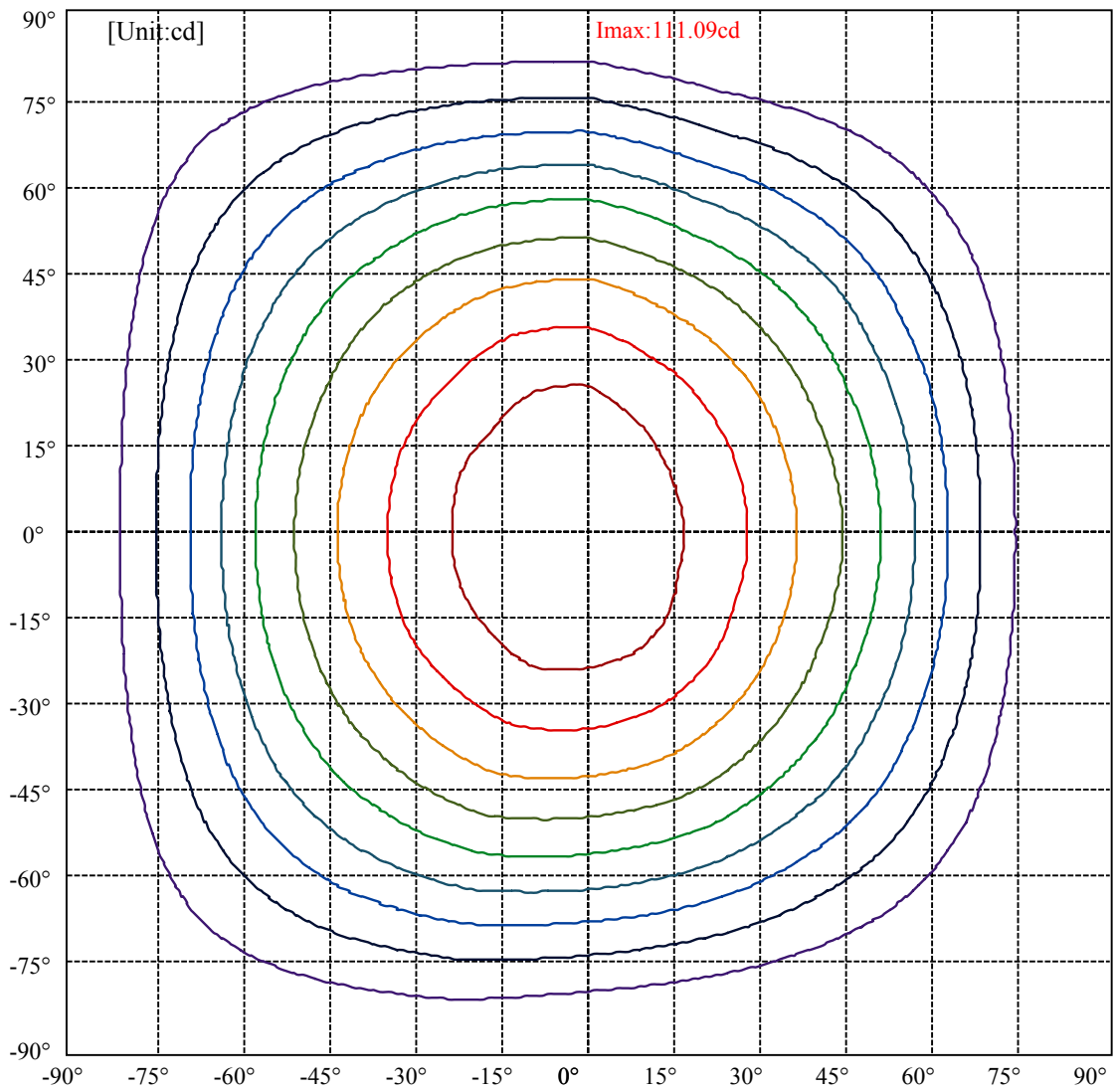
C90/C270: —

Field angle(10%Imax):C0/180Left:80.7 Right:73.6
:C90/270Left:79.2 Right:81.0

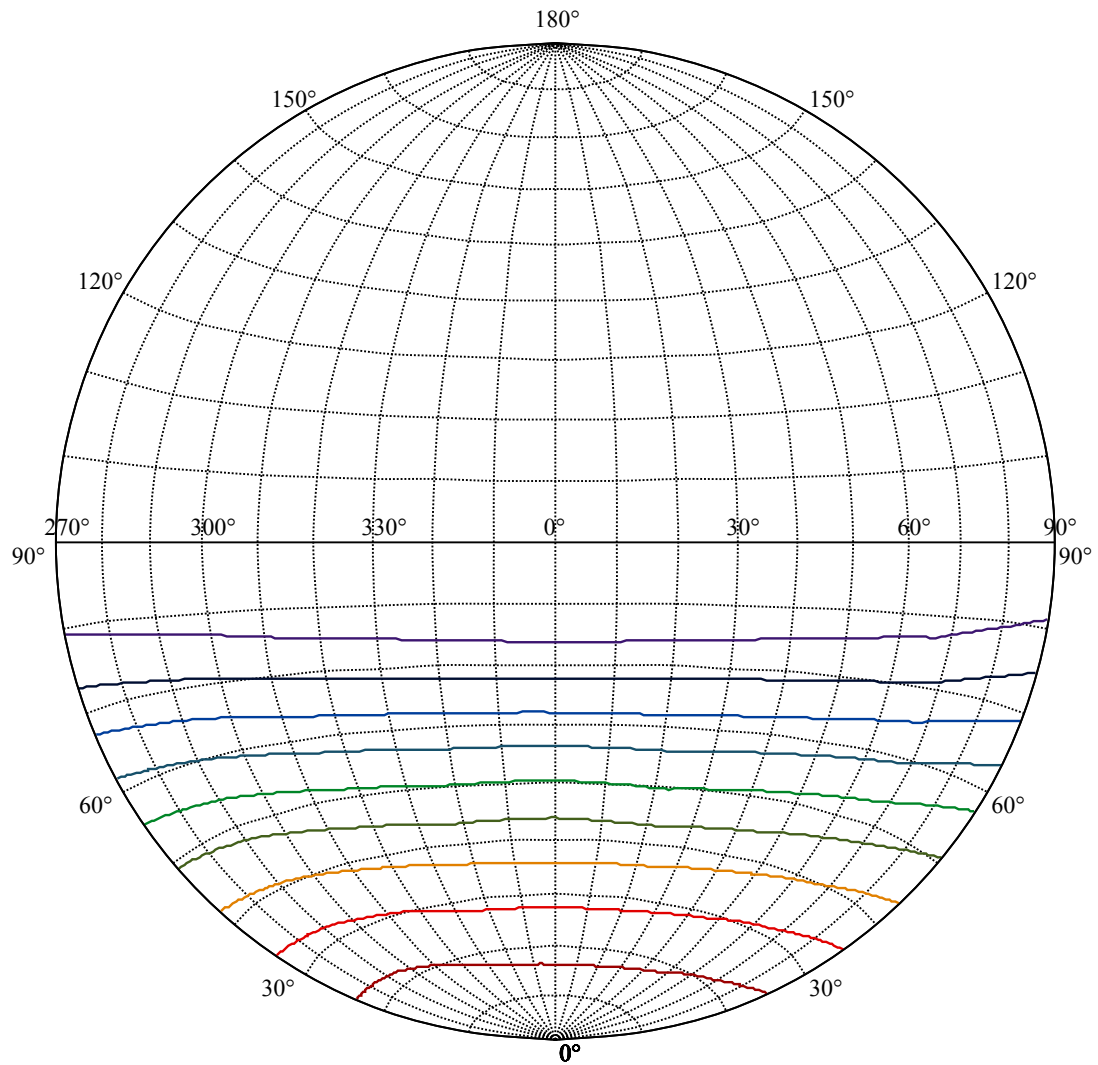
Beam Angle(50%Imax):C0/180Left:57.9 Right:50.9
:C90/270Left:55.5 Right:57.3



Max , Ave Beam angle of C90 plane 112.93



(10%Imax) 11.109	—
(20%Imax) 22.218	—
(30%Imax) 33.327	—
(40%Imax) 44.436	—
(50%Imax) 55.545	—
(60%Imax) 66.654	—
(70%Imax) 77.763	—
(80%Imax) 88.872	—
(90%Imax) 99.981	—



House

[Unit:cd]

Road

I_{max}:111.09

(10%I _{max}) 11.109	—
(20%I _{max}) 22.218	—
(30%I _{max}) 33.327	—
(40%I _{max}) 44.436	—
(50%I _{max}) 55.545	—
(60%I _{max}) 66.654	—
(70%I _{max}) 77.763	—
(80%I _{max}) 88.872	—
(90%I _{max}) 99.981	—

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	109.27	106.35	104.10	101.10	97.11	91.87	85.63	78.89	72.15
22.5	109.27	107.35	104.60	101.35	97.11	92.12	86.13	79.39	71.90
45.0	109.27	107.60	105.35	102.35	98.36	93.37	87.87	81.63	74.14
67.5	109.27	109.59	107.84	104.85	100.86	96.11	90.87	84.63	77.64
90.0	109.27	111.09	109.59	107.60	104.10	100.11	95.11	89.12	82.88
112.5	109.27	110.84	110.34	107.84	104.60	100.86	95.36	90.12	83.38
135.0	109.27	109.59	108.34	106.35	103.10	98.86	94.36	88.37	82.38
157.5	109.27	108.59	107.84	105.85	102.85	99.36	93.87	88.62	81.88
180.0	109.27	108.09	107.60	105.35	102.60	98.61	93.87	88.37	82.13
202.5	109.27	108.84	108.09	106.10	103.10	99.11	94.36	88.87	82.63
225.0	109.27	108.84	107.84	105.85	102.85	99.11	94.36	88.62	82.63
247.5	109.27	110.34	109.09	107.10	104.10	100.11	95.36	89.37	83.13
270.0	109.27	110.84	109.09	106.35	103.10	98.61	93.37	87.62	80.88
292.5	109.27	110.34	108.59	105.60	102.35	97.11	91.62	85.88	78.64
315.0	109.27	108.59	106.60	103.35	99.61	94.61	89.12	82.38	75.14
337.5	109.27	107.10	104.85	101.35	97.61	92.37	86.13	79.89	72.40
360.0	109.27	106.35	104.10	101.10	97.11	91.87	85.63	78.89	72.15
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	65.16	56.42	46.93	37.45	27.21	17.48	8.49	2.50	0.50
22.5	63.66	54.92	46.43	36.95	27.46	18.47	9.74	3.00	0.50
45.0	66.16	57.92	48.93	39.69	29.71	20.22	11.73	4.49	1.00
67.5	70.15	61.66	52.67	42.94	33.70	23.47	14.23	6.49	1.75
90.0	75.64	67.65	59.66	50.68	41.19	31.21	21.72	12.73	4.99
112.5	76.14	68.15	60.16	50.93	41.44	31.70	22.22	12.73	4.99
135.0	75.14	67.65	58.92	49.93	40.69	31.46	21.72	12.73	5.24
157.5	75.14	66.90	59.17	49.93	40.69	31.21	21.72	12.98	4.74
180.0	75.39	67.65	59.66	50.93	40.69	30.46	21.22	11.98	4.74
202.5	75.39	67.65	59.41	50.68	41.19	31.46	21.97	12.73	5.24
225.0	75.39	67.65	59.17	50.43	41.69	31.95	22.22	12.98	5.24
247.5	76.39	68.40	60.16	50.68	41.69	31.46	21.97	13.23	5.24
270.0	73.64	65.16	56.42	47.68	37.70	27.71	18.47	9.74	3.50
292.5	71.15	62.91	53.67	44.19	34.45	24.47	14.98	6.99	2.00
315.0	67.15	58.42	49.68	39.94	30.21	20.72	11.73	4.74	1.00
337.5	64.41	55.92	46.93	37.45	28.21	18.47	9.99	3.00	1.00
360.0	65.16	56.42	46.93	37.45	27.21	17.48	8.49	2.50	0.50
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.50	0.75	0.75	0.50	0.75	1.00	0.75	0.75	0.50
22.5	0.75	0.50	0.75	0.50	0.50	1.00	0.75	0.75	1.00
45.0	0.75	0.75	0.50	0.75	0.50	0.75	0.75	0.75	0.75
67.5	0.75	1.00	0.75	0.75	0.50	0.50	0.75	0.75	0.75
90.0	1.00	0.75	0.50	0.75	0.50	0.50	0.50	0.75	0.50
112.5	1.00	0.50	0.25	0.25	0.25	0.50	0.50	0.50	0.50
135.0	0.75	0.25	0.00	0.25	0.00	0.50	0.50	0.25	0.25
157.5	0.50	0.00	0.00	0.25	0.25	0.00	0.25	0.25	0.25
180.0	0.50	0.00	0.25	0.00	0.00	0.50	0.25	0.25	0.25
202.5	0.75	0.00	0.00	0.00	0.25	0.25	0.50	0.25	0.25
225.0	1.00	0.25	0.25	0.25	0.25	0.25	0.50	0.50	0.75
247.5	1.00	0.25	0.00	0.25	0.25	0.25	0.50	0.50	0.25
270.0	1.25	1.00	1.00	1.25	1.25	1.25	1.50	1.25	1.25
292.5	0.50	1.00	1.00	1.00	1.00	0.75	1.00	1.00	1.00
315.0	1.00	0.75	0.75	1.00	0.75	0.75	0.75	0.75	1.00
337.5	0.75	0.50	0.75	1.00	0.75	0.50	1.00	1.00	1.00
360.0	0.50	0.75	0.75	0.50	0.75	1.00	0.75	0.75	0.50

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	0.75	0.75	0.75	0.75	0.75	1.00	1.00	0.75	0.75
22.5	0.75	0.75	1.00	1.00	1.00	0.75	1.00	1.00	0.75
45.0	0.75	1.00	1.00	1.00	1.00	1.00	0.75	1.00	1.00
67.5	1.00	1.00	1.00	1.00	1.00	0.75	0.75	0.75	1.00
90.0	0.75	0.75	1.00	1.00	1.00	0.75	0.75	1.00	1.00
112.5	0.50	0.50	0.75	0.50	0.75	0.75	0.75	1.00	1.25
135.0	0.50	0.50	0.50	0.25	0.75	0.50	0.50	0.75	0.50
157.5	0.50	0.25	0.75	0.50	0.75	0.75	0.75	1.00	0.75
180.0	0.50	0.25	0.50	0.50	0.50	0.75	0.75	0.50	1.00
202.5	0.25	0.75	0.25	0.75	0.75	0.75	0.75	0.75	0.75
225.0	0.25	0.50	0.50	0.75	0.50	0.75	0.75	0.75	0.75
247.5	0.25	0.25	0.25	0.75	0.75	0.75	0.50	0.75	0.75
270.0	1.50	1.50	1.50	1.50	1.50	1.25	1.50	1.25	1.50
292.5	1.00	1.00	1.00	1.00	0.75	1.00	0.75	0.75	0.75
315.0	0.75	0.75	1.00	1.00	0.75	1.00	1.00	1.00	0.75
337.5	0.75	1.00	1.00	0.50	0.75	0.75	1.00	0.75	0.75
360.0	0.75	0.75	0.75	0.75	0.75	1.00	1.00	0.75	0.75

C/γ(°)	180.0
0.0	0.90
22.5	0.90
45.0	0.90
67.5	0.90
90.0	0.90
112.5	0.90
135.0	0.90
157.5	0.90
180.0	0.90
202.5	0.90
225.0	0.90
247.5	0.90
270.0	0.90
292.5	0.90
315.0	0.90
337.5	0.90
360.0	0.90