



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): 0.0430

Lamp flux(lm): -1.0

Power (W): 4.93

Number of Lamps: 1

PF: 0.9627

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 293.22, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 59.48

Central intensity(cd): 105.822, Maximum intensity(cd): 107.213

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=107.8

[C90/270]Total=112.7

Field angle(10%Imax): [C0/180]Total=153.9

[C90/270]Total=160.1

Maximum s/h(1/2): C0_180=1.25 C90_270=1.29

Maximum s/h(1/4): C0_180=1.37 C90_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.18%

Down flux rate of LUM(%): 98.82%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.856%

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	105.822	0.000	0	0.00%	0.00%
5.0	105.355	2.525	2.525	0.00%	0.86%
10.0	103.980	7.489	10.013	0.00%	3.41%
15.0	101.493	12.188	22.202	0.00%	7.57%
20.0	98.055	16.445	38.647	0.00%	13.18%
25.0	93.768	20.119	58.766	0.00%	20.04%
30.0	88.691	23.090	81.856	0.00%	27.92%
35.0	82.868	25.263	107.119	0.00%	36.53%
40.0	76.387	26.570	133.69	0.00%	45.59%
45.0	69.100	26.938	160.628	0.00%	54.78%
50.0	61.332	26.356	186.983	0.00%	63.77%
55.0	52.787	24.813	211.797	0.00%	72.23%
60.0	43.921	22.354	234.15	0.00%	79.86%
65.0	34.704	19.114	253.264	0.00%	86.37%
70.0	25.267	15.185	268.449	0.00%	91.55%
75.0	16.299	10.865	279.314	0.00%	95.26%
80.0	8.325	6.589	285.902	0.00%	97.51%
85.0	2.633	2.978	288.88	0.00%	98.52%
90.0	0.614	0.889	289.769	0.00%	98.82%
95.0	0.439	0.288	290.058	0.00%	98.92%
100.0	0.380	0.223	290.28	0.00%	99.00%
105.0	0.380	0.203	290.484	0.00%	99.07%
110.0	0.380	0.199	290.682	0.00%	99.14%
115.0	0.512	0.226	290.908	0.00%	99.21%
120.0	0.527	0.252	291.161	0.00%	99.30%
125.0	0.556	0.250	291.411	0.00%	99.38%
130.0	0.629	0.258	291.668	0.00%	99.47%
135.0	0.600	0.248	291.917	0.00%	99.56%
140.0	0.629	0.227	292.144	0.00%	99.63%
145.0	0.717	0.225	292.369	0.00%	99.71%
150.0	0.687	0.207	292.575	0.00%	99.78%
155.0	0.804	0.189	292.764	0.00%	99.85%
160.0	0.717	0.160	292.924	0.00%	99.90%
165.0	0.775	0.123	293.047	0.00%	99.94%
170.0	0.804	0.094	293.14	0.00%	99.97%
175.0	0.790	0.057	293.197	0.00%	99.99%
180.0	0.840	0.019	293.217	0.00%	100.00%

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

Date:
Humidity(%): 58%

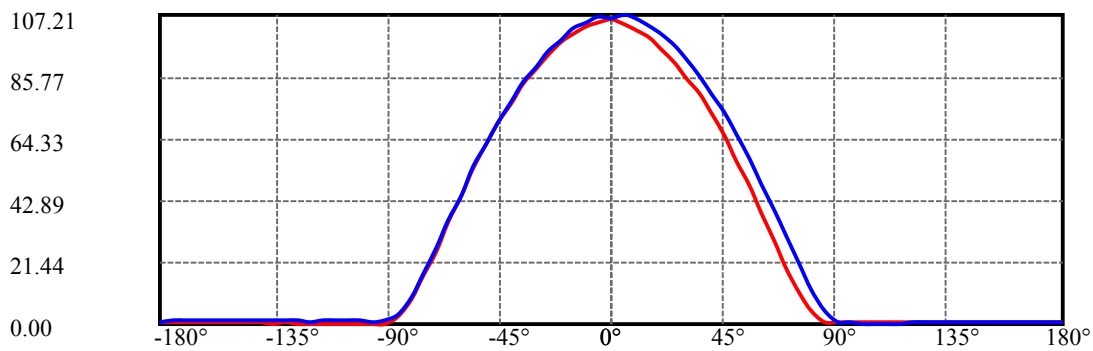
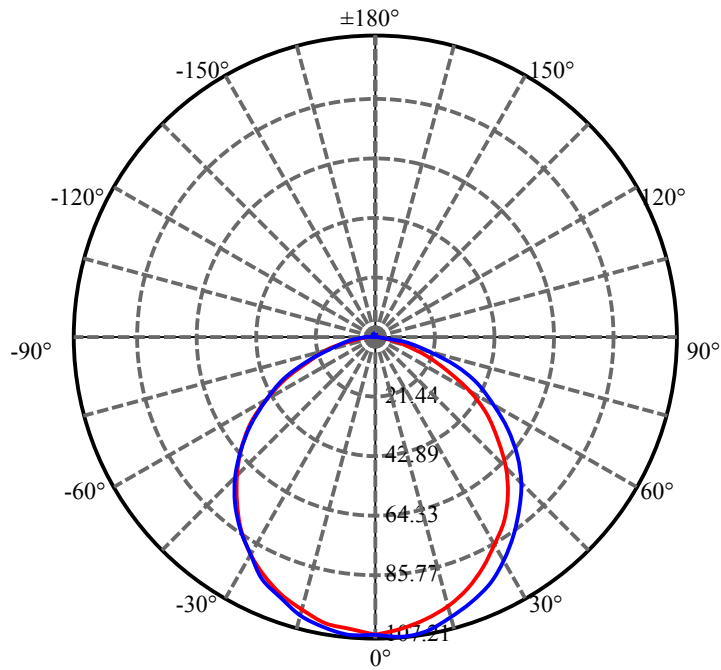
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	81.86	N.A.	27.92%
0-40	133.69	N.A.	45.59%
0-60	234.15	N.A.	79.86%
0-90	289.77	N.A.	98.82%
0-120	291.16	N.A.	99.30%
0-180	293.22	N.A.	100.00%
60-90	55.62	N.A.	18.97%
90-120	1.39	N.A.	0.47%
90-130	1.90	N.A.	0.65%
90-150	2.81	N.A.	0.96%
90-180	3.43	N.A.	1.17%
0-60.11	234.57	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.01
10-20	28.63
20-30	43.21
30-40	51.83
40-50	53.29
50-60	47.17
60-70	34.30
70-80	17.45
80-90	3.87
90-100	0.51
100-110	0.40
110-120	0.48
120-130	0.51
130-140	0.48
140-150	0.43
150-160	0.35
160-170	0.22
170-180	0.06

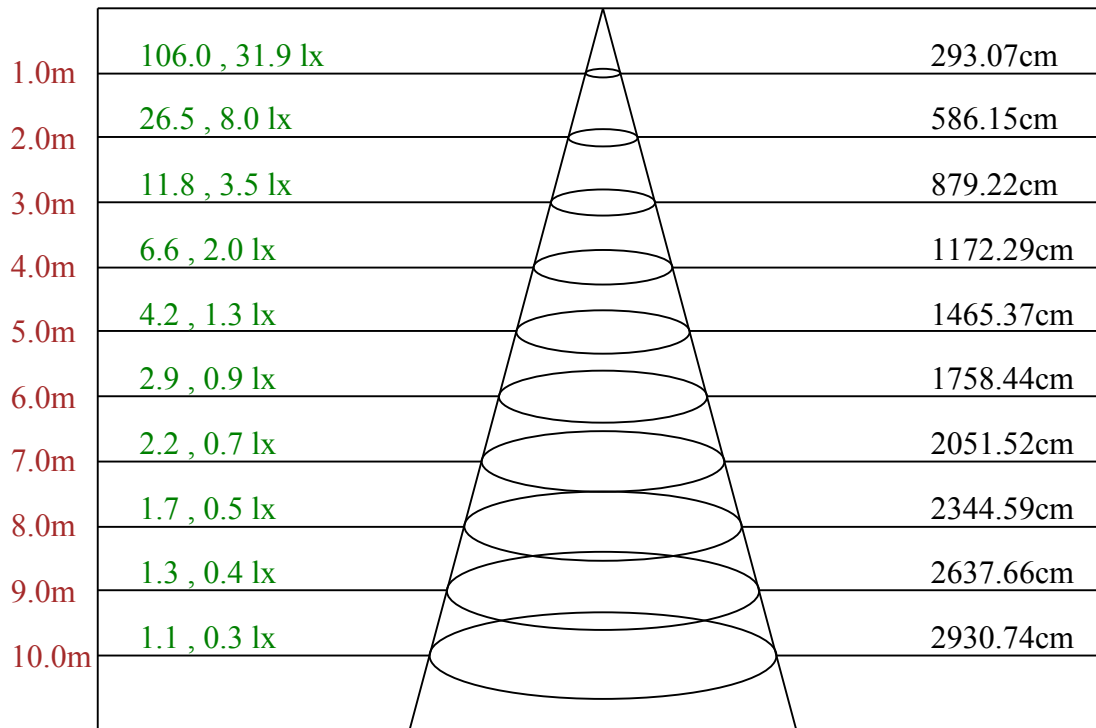


C0/C180: —

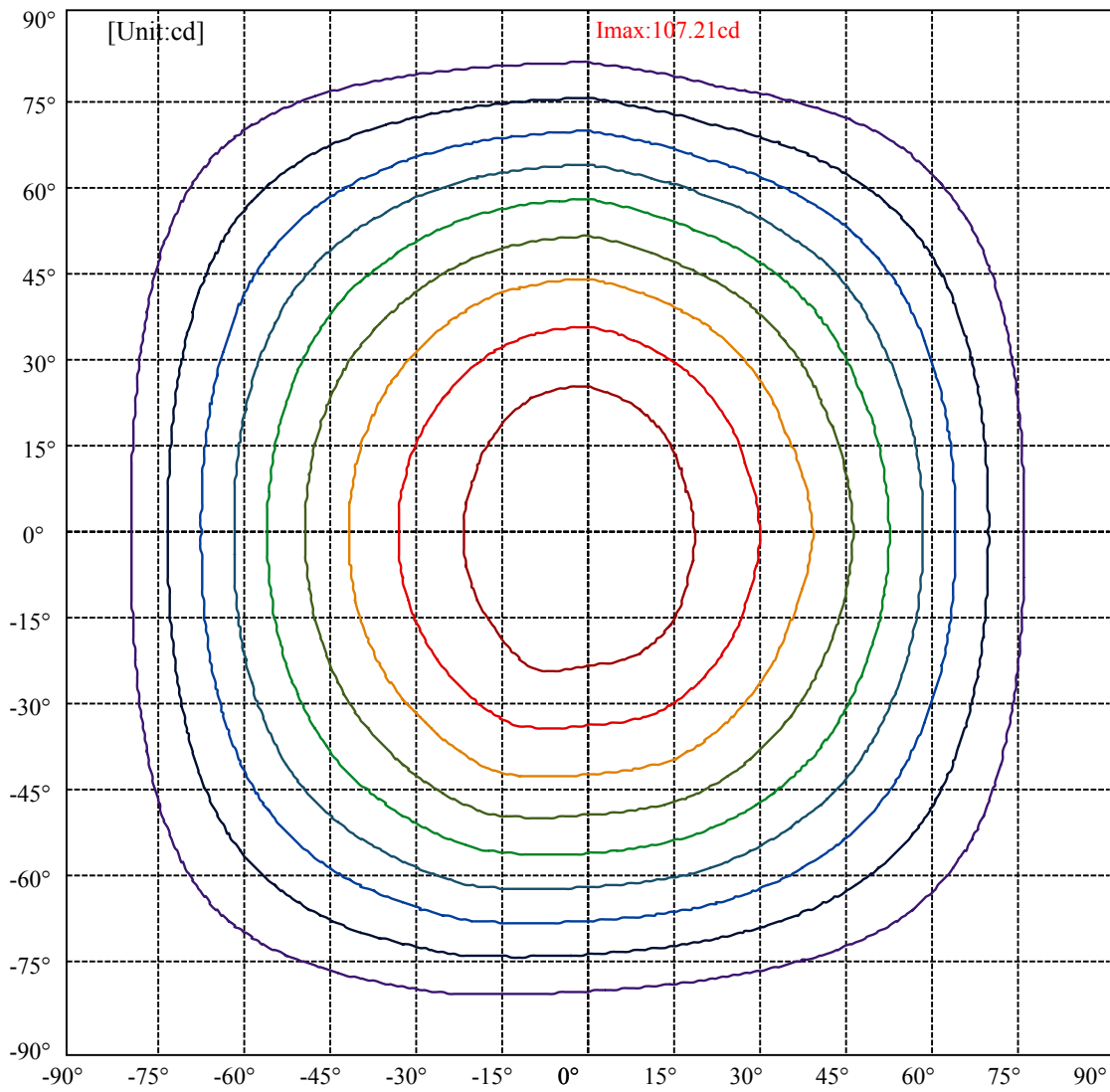
C90/C270: —

Field angle(10%Imax):C0/180Left:78.8 Right:75.1
:C90/270Left:79.2 Right:80.9

Beam Angle(50%Imax):C0/180Left:55.6 Right:52.2
:C90/270Left:55.4 Right:57.3



Max , Ave Beam angle of C112.5 plane 111.38

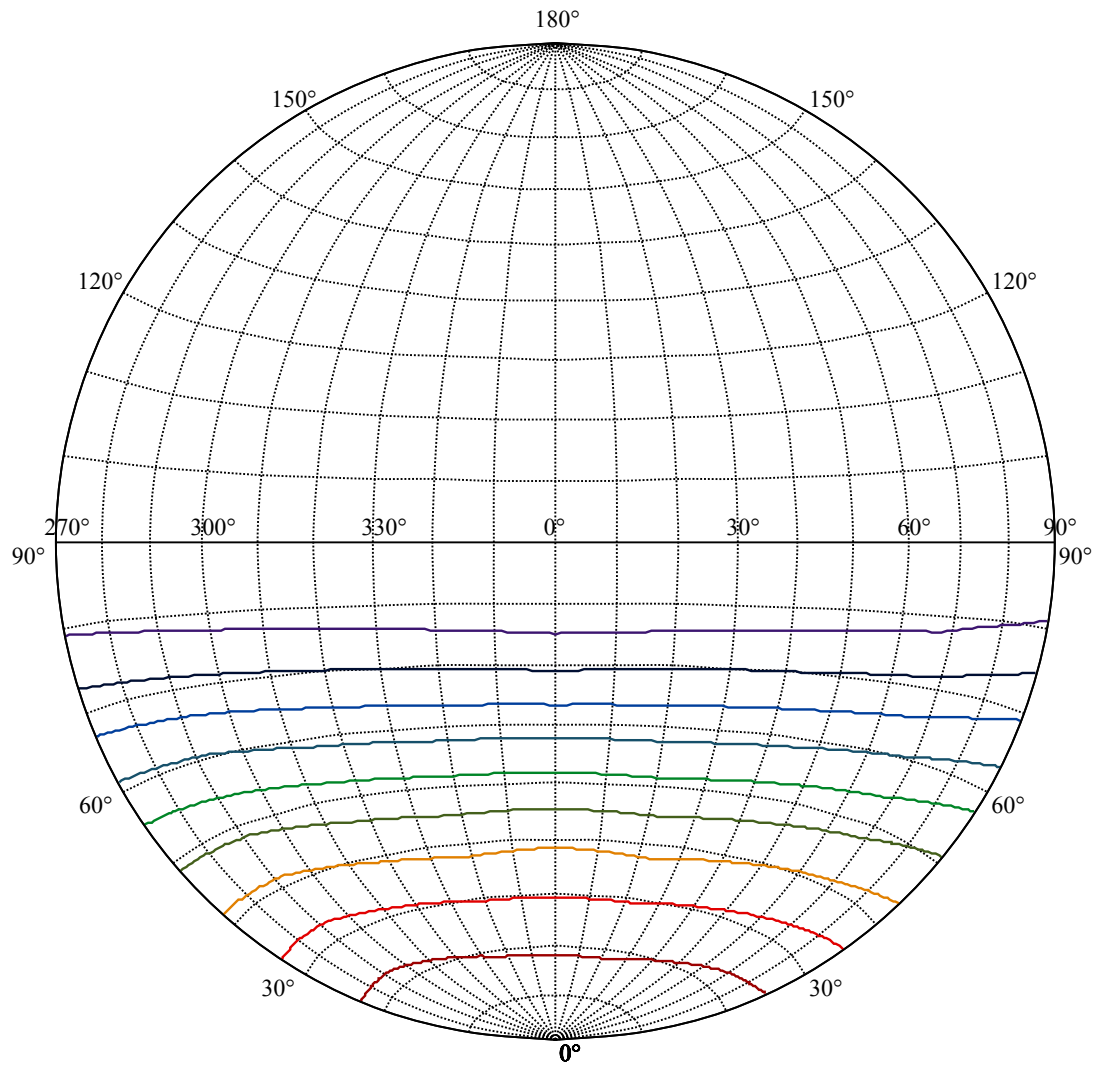


(10%Imax) 10.7116	—
(20%Imax) 21.4232	—
(30%Imax) 32.1349	—
(40%Imax) 42.8465	—
(50%Imax) 53.5581	—
(60%Imax) 64.2697	—
(70%Imax) 74.9813	—
(80%Imax) 85.6929	—
(90%Imax) 96.4046	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:107.21	
(10%I _{max}) 10.7208	—
(20%I _{max}) 21.4416	—
(30%I _{max}) 32.1623	—
(40%I _{max}) 42.8831	—
(50%I _{max}) 53.6039	—
(60%I _{max}) 64.3247	—
(70%I _{max}) 75.0455	—
(80%I _{max}) 85.7662	—
(90%I _{max}) 96.487	—

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	105.82	104.17	101.83	99.02	95.04	90.36	85.21	80.06	73.27
22.5	105.82	103.47	101.83	99.02	95.04	90.36	84.98	78.42	71.63
45.0	105.82	104.87	103.47	100.43	96.68	92.23	86.85	80.76	73.97
67.5	105.82	106.75	105.11	102.53	99.02	94.57	89.19	83.34	76.55
90.0	105.82	106.98	105.81	103.47	100.43	96.45	91.76	86.15	79.59
112.5	105.82	107.21	106.04	103.70	100.66	96.45	91.30	85.68	79.59
135.0	105.82	105.34	104.17	101.83	98.79	94.81	89.42	84.27	77.72
157.5	105.82	104.17	103.00	100.89	97.62	93.87	89.19	83.10	77.02
180.0	105.82	104.40	103.00	100.43	97.62	93.40	88.72	83.10	76.55
202.5	105.82	104.40	103.47	101.36	98.08	93.87	89.19	83.34	77.25
225.0	105.82	105.34	104.40	102.06	98.79	94.57	89.89	84.51	78.19
247.5	105.82	107.21	106.04	104.17	100.66	96.91	92.00	86.15	80.53
270.0	105.82	106.28	104.87	102.53	98.79	94.81	89.42	83.80	77.48
292.5	105.82	106.75	105.34	102.53	99.02	94.34	89.42	83.57	77.25
315.0	105.82	105.11	103.47	100.66	97.15	92.93	87.32	80.76	73.97
337.5	105.82	103.23	101.83	99.25	95.51	90.36	85.21	78.89	71.63
360.0	105.82	104.17	101.83	99.02	95.04	90.36	85.21	80.06	73.27
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	65.31	56.88	47.99	38.63	28.79	19.43	10.77	4.45	0.70
22.5	64.14	55.95	47.52	38.39	29.73	20.83	11.71	4.68	1.17
45.0	66.25	58.29	49.63	40.26	31.13	21.77	13.34	5.85	1.17
67.5	69.06	60.86	52.20	43.31	33.71	24.35	14.75	7.49	2.11
90.0	73.04	65.78	57.59	48.69	39.56	30.43	20.83	11.94	4.92
112.5	72.57	64.84	56.65	47.99	38.63	29.03	19.90	11.24	4.45
135.0	70.70	62.74	54.54	46.12	36.99	27.62	18.73	10.53	3.28
157.5	69.76	62.74	54.08	45.65	36.52	26.92	18.03	9.60	2.81
180.0	69.99	62.27	54.08	44.71	35.35	25.52	16.85	8.66	2.81
202.5	70.23	62.50	54.31	46.35	36.75	27.15	18.26	9.60	3.04
225.0	70.93	63.44	55.01	46.58	37.45	28.09	19.20	10.30	3.75
247.5	73.27	65.78	56.88	47.99	39.09	29.26	19.90	11.47	4.45
270.0	70.23	62.27	54.31	44.95	36.05	26.45	17.56	9.36	3.28
292.5	69.53	61.57	52.44	43.78	34.41	24.35	15.22	7.49	2.11
315.0	66.25	58.52	49.86	40.26	31.60	22.24	13.58	5.85	1.17
337.5	64.38	56.88	47.52	39.09	29.50	20.83	12.17	4.68	0.94
360.0	65.31	56.88	47.99	38.63	28.79	19.43	10.77	4.45	0.70
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.70	0.70	0.70	0.70	0.70	0.70	0.94	0.70	0.70
22.5	0.94	0.70	0.47	0.70	0.47	0.70	0.70	0.70	0.70
45.0	0.70	0.70	0.47	0.47	0.70	0.70	0.70	0.70	0.94
67.5	0.70	0.47	0.47	0.70	0.47	0.94	0.70	0.70	0.47
90.0	0.70	0.47	0.23	0.23	0.23	0.23	0.47	0.47	0.47
112.5	0.70	0.23	0.23	0.23	0.00	0.23	0.23	0.47	0.23
135.0	0.47	0.23	0.23	0.00	0.23	0.23	0.47	0.23	0.47
157.5	0.47	0.00	0.23	0.00	0.23	0.23	0.23	0.23	0.47
180.0	0.23	0.00	0.23	0.00	0.00	0.00	0.00	0.23	0.47
202.5	0.00	0.23	0.23	0.23	0.00	0.23	0.23	0.47	0.47
225.0	0.47	0.23	0.00	0.00	0.23	0.23	0.23	0.23	0.47
247.5	0.47	0.23	0.00	0.00	0.00	0.23	0.47	0.47	0.47
270.0	1.17	0.94	1.17	1.17	1.17	1.17	0.94	1.17	1.17
292.5	0.94	0.70	0.47	0.47	0.70	0.94	0.70	0.70	0.94
315.0	0.70	0.47	0.47	0.47	0.47	0.70	0.70	0.70	0.94
337.5	0.47	0.70	0.47	0.70	0.47	0.70	0.70	0.70	0.70
360.0	0.70	0.70	0.70	0.70	0.70	0.70	0.94	0.70	0.70

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	0.70	0.70	0.94	0.70	0.94	0.70	0.70	0.94	0.70
22.5	0.70	0.70	0.70	0.70	0.94	0.94	0.70	0.94	0.94
45.0	0.70	0.70	0.70	0.70	0.94	0.47	0.70	0.70	0.70
67.5	0.94	0.70	0.70	0.70	0.94	0.70	0.70	0.94	0.70
90.0	0.47	0.47	0.70	0.70	0.70	0.70	0.70	0.70	0.70
112.5	0.23	0.47	0.70	0.47	0.47	0.47	0.94	0.94	0.70
135.0	0.47	0.47	0.47	0.70	0.47	0.70	0.70	0.47	0.70
157.5	0.23	0.70	0.47	0.47	0.70	0.70	0.70	0.70	0.70
180.0	0.23	0.47	0.47	0.70	0.70	0.47	0.70	0.94	0.94
202.5	0.47	0.23	0.70	0.47	0.94	0.94	0.70	0.94	0.70
225.0	0.23	0.47	0.47	0.47	0.47	0.47	0.70	0.70	0.94
247.5	0.47	0.47	0.47	0.70	0.70	0.47	0.47	0.47	0.70
270.0	1.17	1.41	1.41	1.17	1.41	1.17	1.41	1.17	1.17
292.5	0.94	0.70	0.94	0.94	0.70	0.94	0.94	0.70	0.70
315.0	0.70	0.70	0.94	0.70	0.94	0.94	0.70	0.70	0.94
337.5	0.94	0.70	0.70	0.70	0.94	0.70	0.94	0.94	0.70
360.0	0.70	0.70	0.94	0.70	0.94	0.70	0.70	0.94	0.70

C/γ(°)	180.0
0.0	0.84
22.5	0.84
45.0	0.84
67.5	0.84
90.0	0.84
112.5	0.84
135.0	0.84
157.5	0.84
180.0	0.84
202.5	0.84
225.0	0.84
247.5	0.84
270.0	0.84
292.5	0.84
315.0	0.84
337.5	0.84
360.0	0.84