



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingeel.com

Tel:0755-21038430

Address:Rm. 108, No.1 Building, Meibaohe industrial park, No.14 Shilongzi Road, Dalang street, Longhua district, Shenzhen, China

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): 4.96

Number of Lamps: 1

PF: 0.9624

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 292.15, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 58.90

Central intensity(cd): 105.390, Maximum intensity(cd): 107.535

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=107.6

[C90/270]Total=112.9

Field angle(10%Imax): [C0/180]Total=154.2

[C90/270]Total=159.8

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(%): 1.27%

Down flux rate of LUM(%): 98.73%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.785%

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	105.390	0.000	0	0.00%	0.00%
5.0	105.024	2.515	2.515	0.00%	0.86%
10.0	103.485	7.459	9.974	0.00%	3.41%
15.0	100.989	12.129	22.104	0.00%	7.57%
20.0	97.606	16.367	38.471	0.00%	13.17%
25.0	93.339	20.027	58.497	0.00%	20.02%
30.0	88.287	22.985	81.482	0.00%	27.89%
35.0	82.568	25.160	106.642	0.00%	36.50%
40.0	75.963	26.450	133.091	0.00%	45.56%
45.0	68.792	26.802	159.894	0.00%	54.73%
50.0	60.924	26.211	186.105	0.00%	63.70%
55.0	52.679	24.701	210.806	0.00%	72.16%
60.0	43.723	22.283	233.089	0.00%	79.78%
65.0	34.476	19.010	252.099	0.00%	86.29%
70.0	25.287	15.132	267.231	0.00%	91.47%
75.0	16.156	10.833	278.064	0.00%	95.18%
80.0	8.202	6.517	284.582	0.00%	97.41%
85.0	2.628	2.943	287.524	0.00%	98.42%
90.0	0.712	0.914	288.438	0.00%	98.73%
95.0	0.465	0.322	288.76	0.00%	98.84%
100.0	0.450	0.249	289.009	0.00%	98.93%
105.0	0.479	0.249	289.258	0.00%	99.01%
110.0	0.523	0.262	289.519	0.00%	99.10%
115.0	0.508	0.261	289.78	0.00%	99.19%
120.0	0.523	0.251	290.031	0.00%	99.28%
125.0	0.566	0.252	290.283	0.00%	99.36%
130.0	0.624	0.259	290.542	0.00%	99.45%
135.0	0.683	0.264	290.806	0.00%	99.54%
140.0	0.683	0.253	291.058	0.00%	99.63%
145.0	0.697	0.230	291.289	0.00%	99.71%
150.0	0.726	0.210	291.498	0.00%	99.78%
155.0	0.755	0.187	291.686	0.00%	99.84%
160.0	0.770	0.160	291.845	0.00%	99.90%
165.0	0.813	0.130	291.976	0.00%	99.94%
170.0	0.799	0.096	292.071	0.00%	99.97%
175.0	0.784	0.057	292.128	0.00%	99.99%
180.0	0.888	0.020	292.148	0.00%	100.00%

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

Date:
Humidity(%): 58%

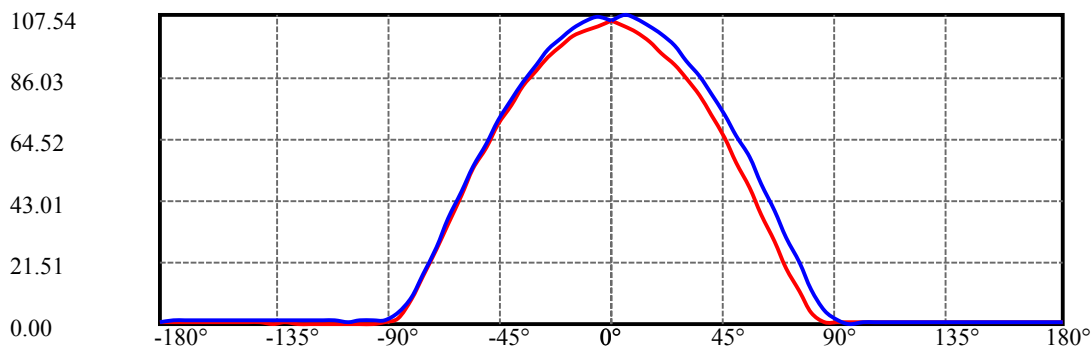
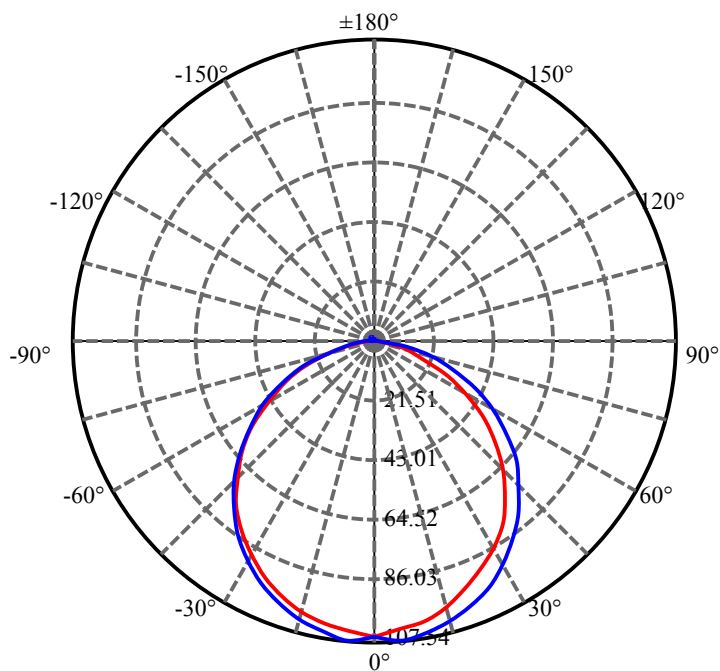
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	81.48	N.A.	27.89%
0-40	133.09	N.A.	45.56%
0-60	233.09	N.A.	79.78%
0-90	288.44	N.A.	98.73%
0-120	290.03	N.A.	99.28%
0-180	292.15	N.A.	100.00%
60-90	55.35	N.A.	18.95%
90-120	1.59	N.A.	0.55%
90-130	2.10	N.A.	0.72%
90-150	3.06	N.A.	1.05%
90-180	3.69	N.A.	1.26%
0-60.17	233.72	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	9.97
10-20	28.50
20-30	43.01
30-40	51.61
40-50	53.01
50-60	46.98
60-70	34.14
70-80	17.35
80-90	3.86
90-100	0.57
100-110	0.51
110-120	0.51
120-130	0.51
130-140	0.52
140-150	0.44
150-160	0.35
160-170	0.23
170-180	0.06

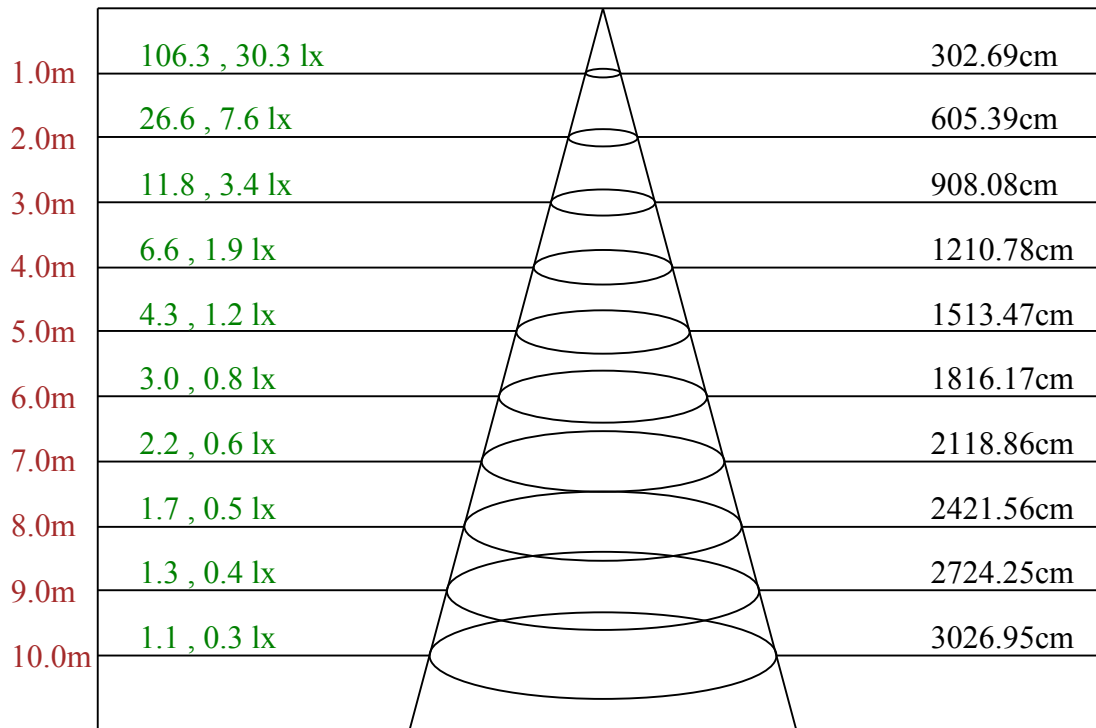


C0/C180: —

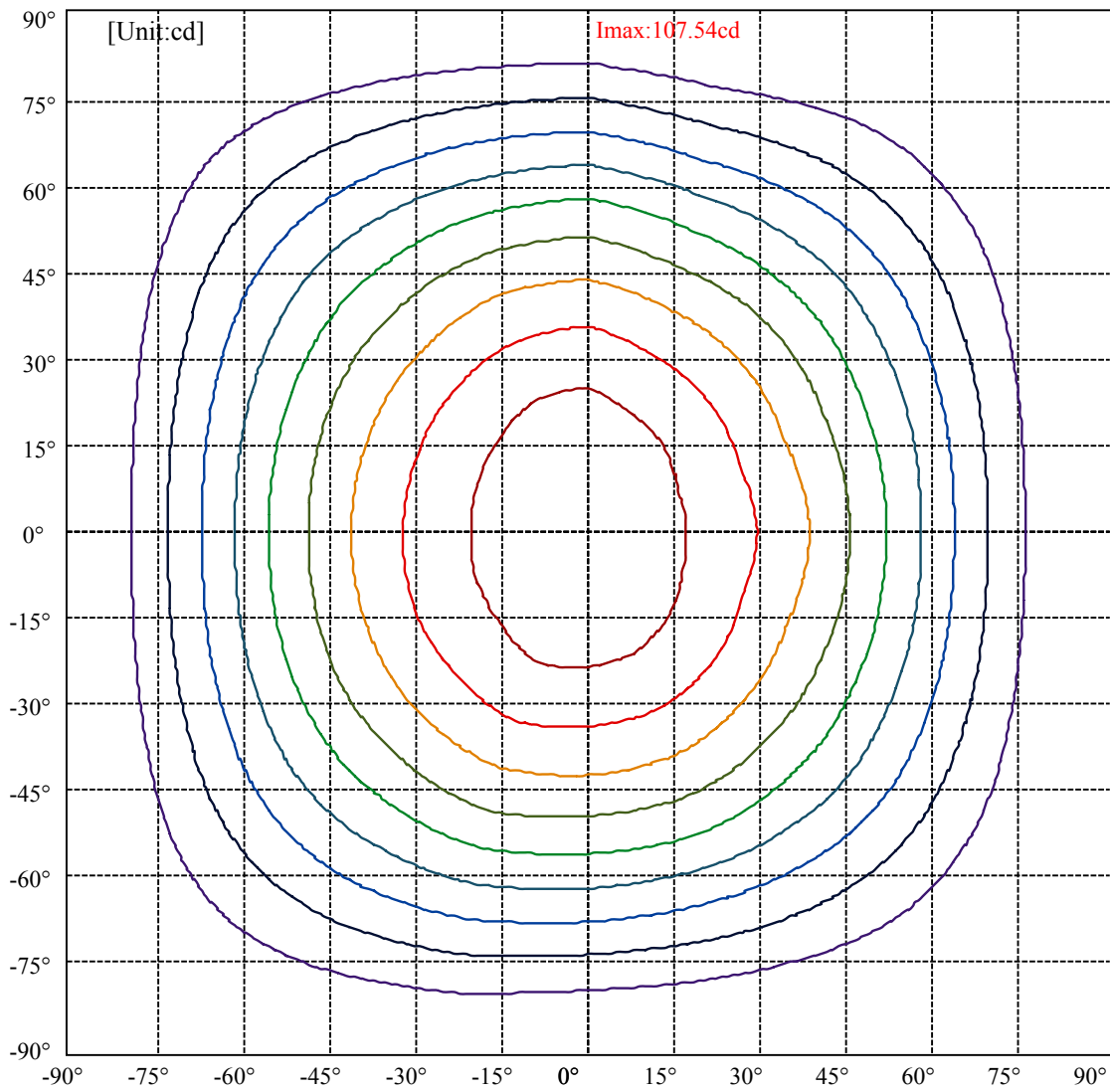
C90/C270: —

Field angle(10%Imax):C0/180Left:78.8 Right:75.4
 :C90/270Left:79.0 Right:80.8

Beam Angle(50%Imax):C0/180Left:55.6 Right:52.0
 :C90/270Left:55.5 Right:57.4



Max , Ave Beam angle of C90 plane 113.09

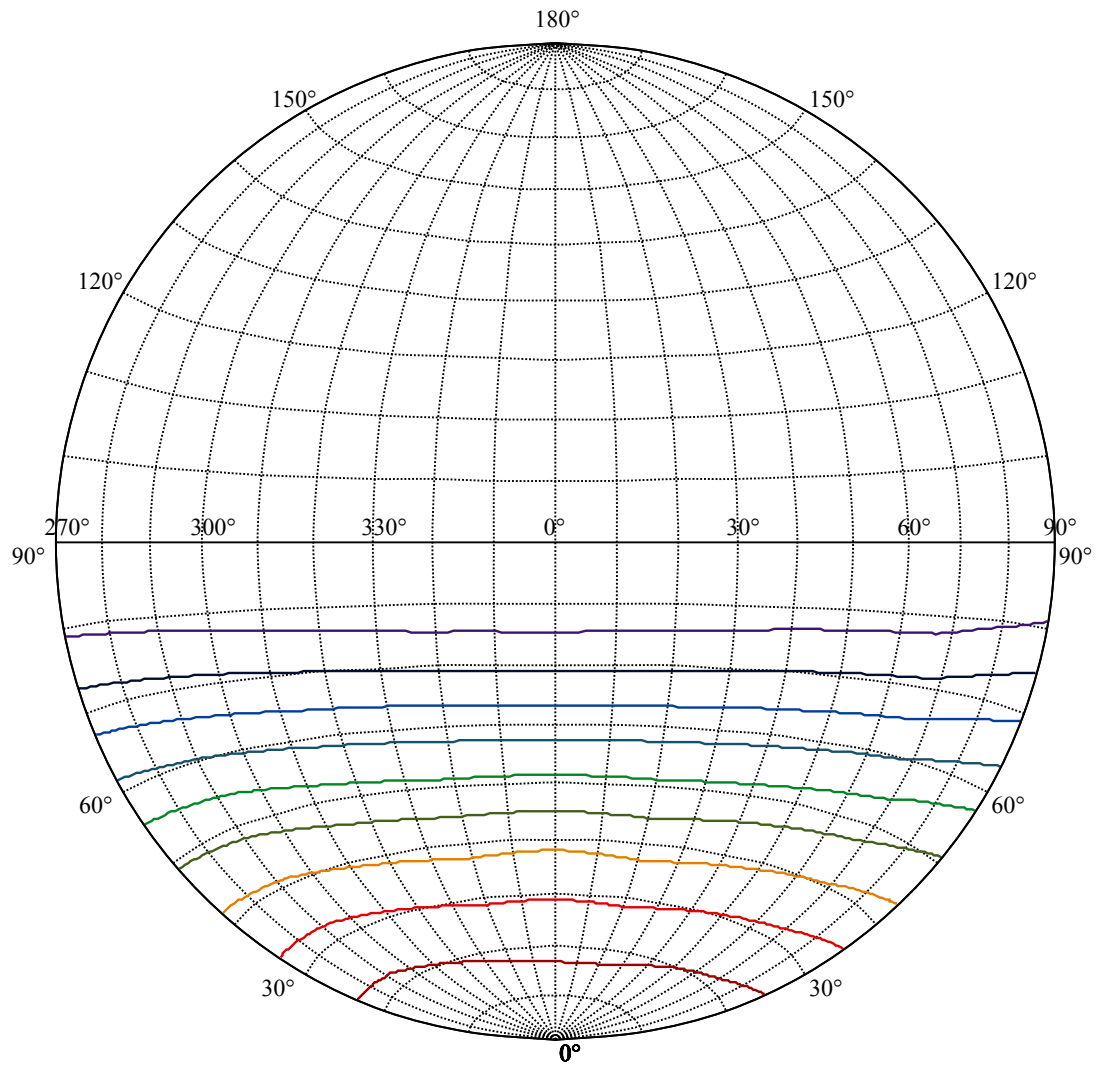


(10%Imax) 10.7535	—
(20%Imax) 21.507	—
(30%Imax) 32.2605	—
(40%Imax) 43.014	—
(50%Imax) 53.7675	—
(60%Imax) 64.521	—
(70%Imax) 75.2745	—
(80%Imax) 86.028	—
(90%Imax) 96.7815	—

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

Date:
Humidity(%): 58%

Operator: Tester












House

[Unit:cd]

Road

I_{max}:107.54

(10%I _{max}) 10.7535	
(20%I _{max}) 21.507	
(30%I _{max}) 32.2605	
(40%I _{max}) 43.014	
(50%I _{max}) 53.7675	
(60%I _{max}) 64.521	
(70%I _{max}) 75.2745	
(80%I _{max}) 86.028	
(90%I _{max}) 96.7815	

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	105.39	103.36	101.50	98.25	94.30	89.88	85.24	79.66	72.93
22.5	105.39	103.36	101.26	98.25	94.53	89.88	84.08	77.81	71.07
45.0	105.39	104.05	102.66	99.64	96.16	91.74	86.17	80.13	73.16
67.5	105.39	106.14	104.28	101.73	98.01	93.60	88.26	82.68	75.72
90.0	105.39	107.54	105.91	103.82	100.57	96.62	91.74	86.40	80.13
112.5	105.39	107.07	105.91	103.36	100.34	96.16	91.51	85.70	79.20
135.0	105.39	104.98	103.82	101.50	98.25	94.30	89.42	83.85	77.11
157.5	105.39	103.59	102.43	100.34	97.32	93.14	88.26	82.45	76.18
180.0	105.39	103.82	102.19	99.87	96.85	92.67	88.03	82.68	76.41
202.5	105.39	103.59	102.66	100.57	97.55	93.14	88.72	83.15	76.65
225.0	105.39	104.52	103.36	101.26	98.01	94.06	89.19	83.85	77.81
247.5	105.39	106.37	105.45	103.36	99.87	96.16	91.28	85.70	79.20
270.0	105.39	107.07	105.21	102.66	99.41	95.46	90.12	84.31	78.04
292.5	105.39	106.84	104.98	102.66	98.71	94.53	89.19	83.38	76.65
315.0	105.39	104.98	102.89	100.10	96.62	91.97	86.86	80.83	73.63
337.5	105.39	103.12	101.26	98.48	95.23	90.12	84.54	78.50	71.54
360.0	105.39	103.36	101.50	98.25	94.30	89.88	85.24	79.66	72.93
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	64.80	56.21	47.61	38.09	28.57	19.28	11.15	4.18	0.93
22.5	63.64	55.51	47.61	38.56	29.50	20.44	11.85	4.65	0.93
45.0	66.19	57.37	49.24	40.18	31.12	22.06	13.47	5.81	1.39
67.5	68.52	60.16	52.03	42.74	33.21	23.92	14.86	6.74	1.63
90.0	72.93	65.73	58.06	49.01	39.72	30.19	21.14	11.85	4.88
112.5	72.70	64.80	56.67	47.38	38.32	29.26	19.74	11.15	4.65
135.0	70.37	62.71	54.35	45.76	36.93	27.64	18.12	10.22	3.48
157.5	69.45	62.01	53.65	45.06	36.23	26.94	18.12	9.76	2.79
180.0	69.21	61.78	53.88	44.59	34.84	26.01	16.49	8.59	2.32
202.5	69.68	62.48	54.12	45.76	36.46	27.17	17.88	9.52	3.25
225.0	70.37	62.94	54.58	46.45	37.16	28.57	18.81	10.45	3.48
247.5	72.46	65.03	56.44	47.61	38.56	29.03	19.74	11.15	4.18
270.0	70.84	62.94	54.58	45.76	36.46	26.94	17.42	9.06	3.72
292.5	69.45	61.32	52.96	43.20	33.68	24.62	15.10	7.67	2.09
315.0	65.96	57.83	49.70	40.41	31.12	22.06	13.01	5.81	1.39
337.5	64.10	55.97	47.38	39.02	29.73	20.44	11.61	4.65	0.93
360.0	64.80	56.21	47.61	38.09	28.57	19.28	11.15	4.18	0.93
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.47	0.47	0.47	0.47	0.70	0.70	0.70	0.70	0.70
22.5	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.93
45.0	0.70	0.70	0.47	0.70	0.70	0.70	0.70	0.70	0.93
67.5	0.47	0.70	0.70	0.70	0.70	0.47	0.70	0.70	0.93
90.0	1.16	0.23	0.47	0.70	0.70	0.47	0.47	0.47	0.47
112.5	0.93	0.23	0.23	0.23	0.23	0.47	0.47	0.23	0.23
135.0	0.47	0.23	0.00	0.23	0.00	0.23	0.23	0.47	0.47
157.5	0.70	0.23	0.00	0.23	0.23	0.00	0.23	0.23	0.23
180.0	0.47	0.00	0.23	0.00	0.00	0.23	0.23	0.23	0.47
202.5	0.47	0.00	0.23	0.47	0.47	0.47	0.47	0.47	0.23
225.0	0.47	0.23	0.23	0.23	0.23	0.23	0.23	0.47	0.47
247.5	0.93	0.47	0.00	0.00	0.23	0.00	0.23	0.47	0.23
270.0	1.39	1.16	1.39	0.93	1.16	1.16	1.16	1.16	1.39
292.5	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.70	0.93
315.0	0.70	0.70	0.70	0.70	0.93	0.70	0.47	0.70	0.93
337.5	0.70	0.70	0.70	0.70	0.70	0.93	0.70	0.70	0.47
360.0	0.47	0.47	0.47	0.47	0.70	0.70	0.70	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	0.93	0.70	0.70	0.70	0.93	0.70	0.47
22.5	0.70	0.93	0.70	0.93	0.70	0.93	0.93	0.70	0.70
45.0	0.47	0.70	0.70	0.70	0.70	0.93	0.93	0.70	0.70
67.5	0.70	0.93	0.93	0.70	0.93	0.70	0.93	0.93	0.93
90.0	0.70	0.70	0.93	0.70	0.93	0.93	0.70	0.93	0.93
112.5	0.47	0.47	0.70	0.47	0.47	0.70	0.93	0.93	0.70
135.0	0.47	0.47	0.47	0.47	0.70	0.47	0.70	0.70	0.93
157.5	0.70	0.47	0.47	0.70	0.70	0.70	0.47	0.70	0.47
180.0	0.23	0.70	0.47	0.47	0.47	0.70	0.70	0.93	0.93
202.5	0.47	0.47	0.47	0.47	0.47	0.70	0.70	0.70	0.93
225.0	0.47	0.47	0.47	0.70	0.70	0.47	0.70	0.70	0.47
247.5	0.70	0.23	0.23	0.70	0.47	0.70	0.70	0.70	0.70
270.0	1.63	1.39	1.16	1.39	1.63	1.39	1.39	1.39	1.39
292.5	0.93	0.70	0.70	0.93	0.93	0.93	0.70	0.70	0.93
315.0	0.93	0.70	0.93	0.70	0.70	0.70	0.70	0.70	0.70
337.5	0.70	0.93	0.93	0.93	0.93	0.70	0.93	0.70	0.70
360.0	0.70	0.70	0.93	0.70	0.70	0.70	0.93	0.70	0.47

C/γ(°)	180.0
0.0	0.89
22.5	0.89
45.0	0.89
67.5	0.89
90.0	0.89
112.5	0.89
135.0	0.89
157.5	0.89
180.0	0.89
202.5	0.89
225.0	0.89
247.5	0.89
270.0	0.89
292.5	0.89
315.0	0.89
337.5	0.89
360.0	0.89