



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.0430

Lamp flux(lm): -1.0

Power (W): 4.95

Number of Lamps: 1

PF: 0.9620

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 307.28, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 62.08

Central intensity(cd): 111.712, Maximum intensity(cd): 114.744

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.6

[C90/270]Total=109.3

Field angle(10%Imax): [C0/180]Total=156.6

[C90/270]Total=159.9

Maximum s/h(1/2): C0_180=1.26 C90_270=1.30

Maximum s/h(1/4): C0_180=1.38 C90_270=1.40

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 1.07%

Down flux rate of LUM(%): 98.93%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.611%

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	111.712	0.000	0	0.00%	0.00%
5.0	111.109	2.664	2.664	0.00%	0.87%
10.0	109.622	7.896	10.56	0.00%	3.44%
15.0	106.796	12.838	23.398	0.00%	7.61%
20.0	103.326	17.317	40.715	0.00%	13.25%
25.0	98.617	21.180	61.895	0.00%	20.14%
30.0	93.312	24.289	86.184	0.00%	28.05%
35.0	86.653	26.501	112.685	0.00%	36.67%
40.0	79.498	27.721	140.406	0.00%	45.69%
45.0	71.947	28.041	168.447	0.00%	54.82%
50.0	63.337	27.336	195.783	0.00%	63.71%
55.0	54.827	25.693	221.476	0.00%	72.08%
60.0	45.342	23.154	244.63	0.00%	79.61%
65.0	36.039	19.784	264.414	0.00%	86.05%
70.0	26.439	15.820	280.234	0.00%	91.20%
75.0	17.466	11.476	291.71	0.00%	94.93%
80.0	9.617	7.247	298.956	0.00%	97.29%
85.0	3.883	3.668	302.625	0.00%	98.48%
90.0	1.091	1.362	303.987	0.00%	98.93%
95.0	0.380	0.403	304.389	0.00%	99.06%
100.0	0.397	0.211	304.6	0.00%	99.13%
105.0	0.364	0.203	304.804	0.00%	99.19%
110.0	0.380	0.194	304.998	0.00%	99.26%
115.0	0.397	0.197	305.195	0.00%	99.32%
120.0	0.397	0.193	305.388	0.00%	99.38%
125.0	0.529	0.214	305.601	0.00%	99.45%
130.0	0.529	0.230	305.831	0.00%	99.53%
135.0	0.595	0.227	306.058	0.00%	99.60%
140.0	0.611	0.223	306.282	0.00%	99.67%
145.0	0.661	0.212	306.494	0.00%	99.74%
150.0	0.628	0.190	306.684	0.00%	99.81%
155.0	0.744	0.174	306.857	0.00%	99.86%
160.0	0.711	0.153	307.01	0.00%	99.91%
165.0	0.777	0.123	307.132	0.00%	99.95%
170.0	0.645	0.084	307.217	0.00%	99.98%
175.0	0.711	0.048	307.265	0.00%	99.99%
180.0	0.747	0.017	307.283	0.00%	100.00%

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

Date:
Humidity(%): 58%

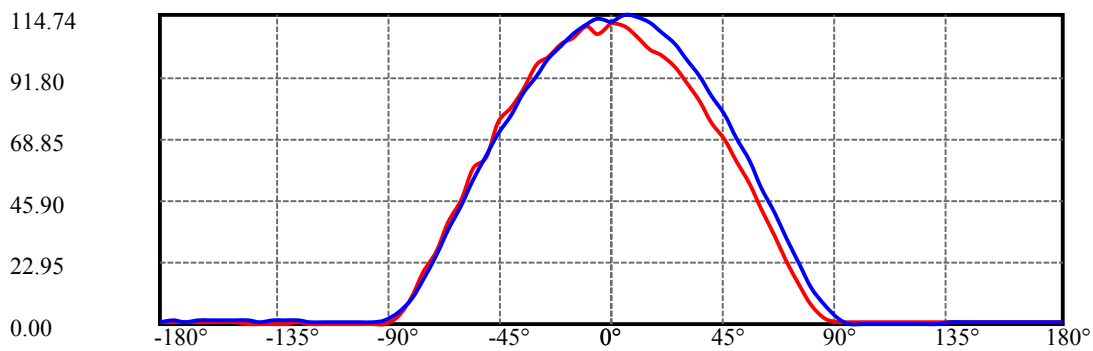
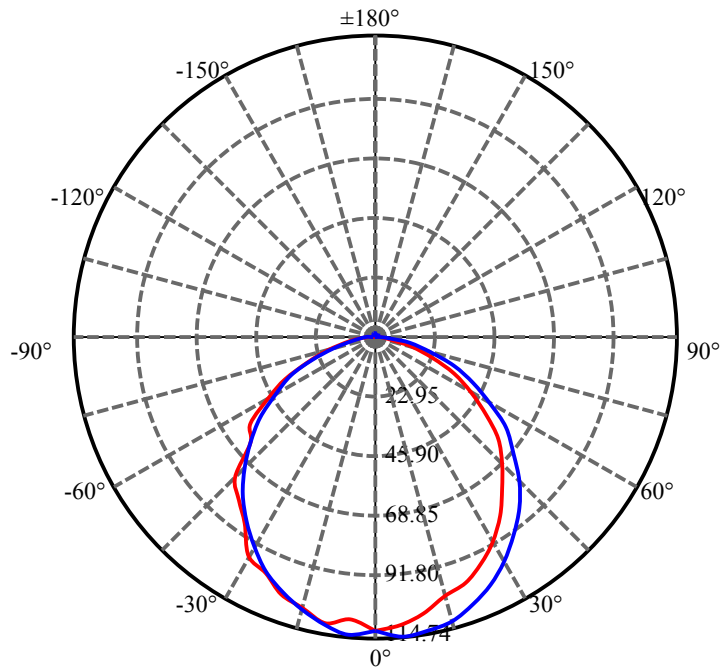
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	86.18	N.A.	28.05%
0-40	140.41	N.A.	45.69%
0-60	244.63	N.A.	79.61%
0-90	303.99	N.A.	98.93%
0-120	305.39	N.A.	99.38%
0-180	307.28	N.A.	100.00%
60-90	59.36	N.A.	19.32%
90-120	1.40	N.A.	0.46%
90-130	1.84	N.A.	0.60%
90-150	2.70	N.A.	0.88%
90-180	3.28	N.A.	1.07%
0-60.30	245.83	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	10.56
10-20	30.15
20-30	45.47
30-40	54.22
40-50	55.38
50-60	48.85
60-70	35.60
70-80	18.72
80-90	5.03
90-100	0.61
100-110	0.40
110-120	0.39
120-130	0.44
130-140	0.45
140-150	0.40
150-160	0.33
160-170	0.21
170-180	0.05

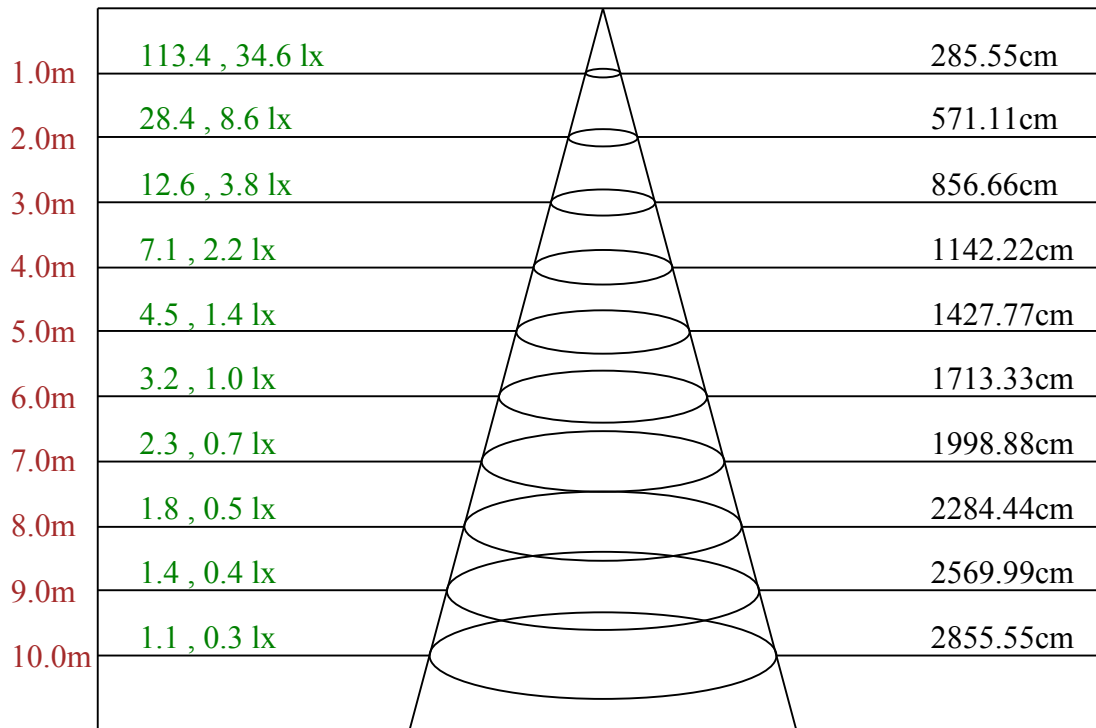


C0/C180: —

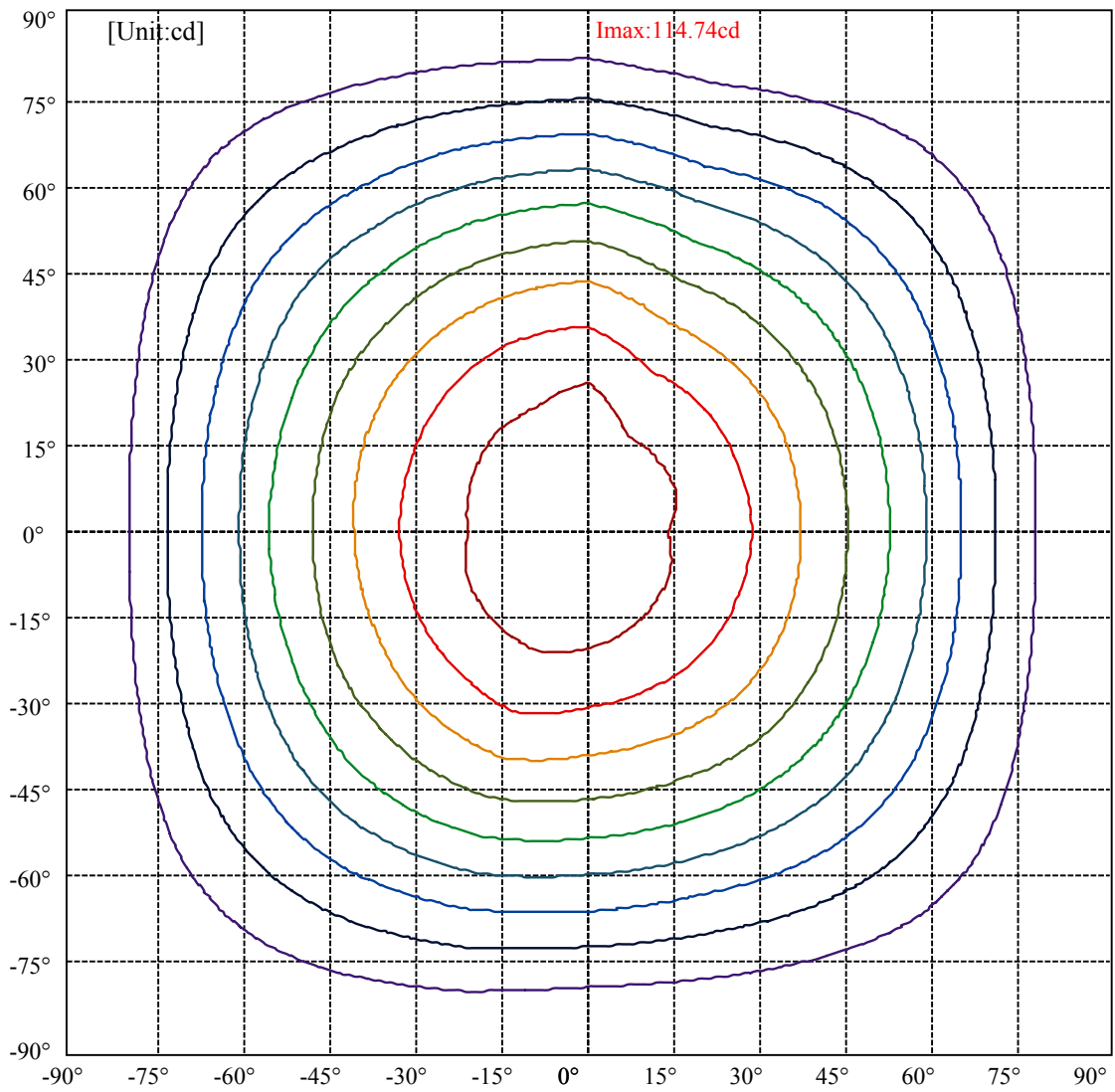
C90/C270: —

Field angle(10%Imax):C0/180Left:79.2 Right:77.4
:C90/270Left:78.4 Right:81.5

Beam Angle(50%Imax):C0/180Left:55.8 Right:52.8
:C90/270Left:52.8 Right:56.5



Max , Ave Beam angle of C90 plane 109.99

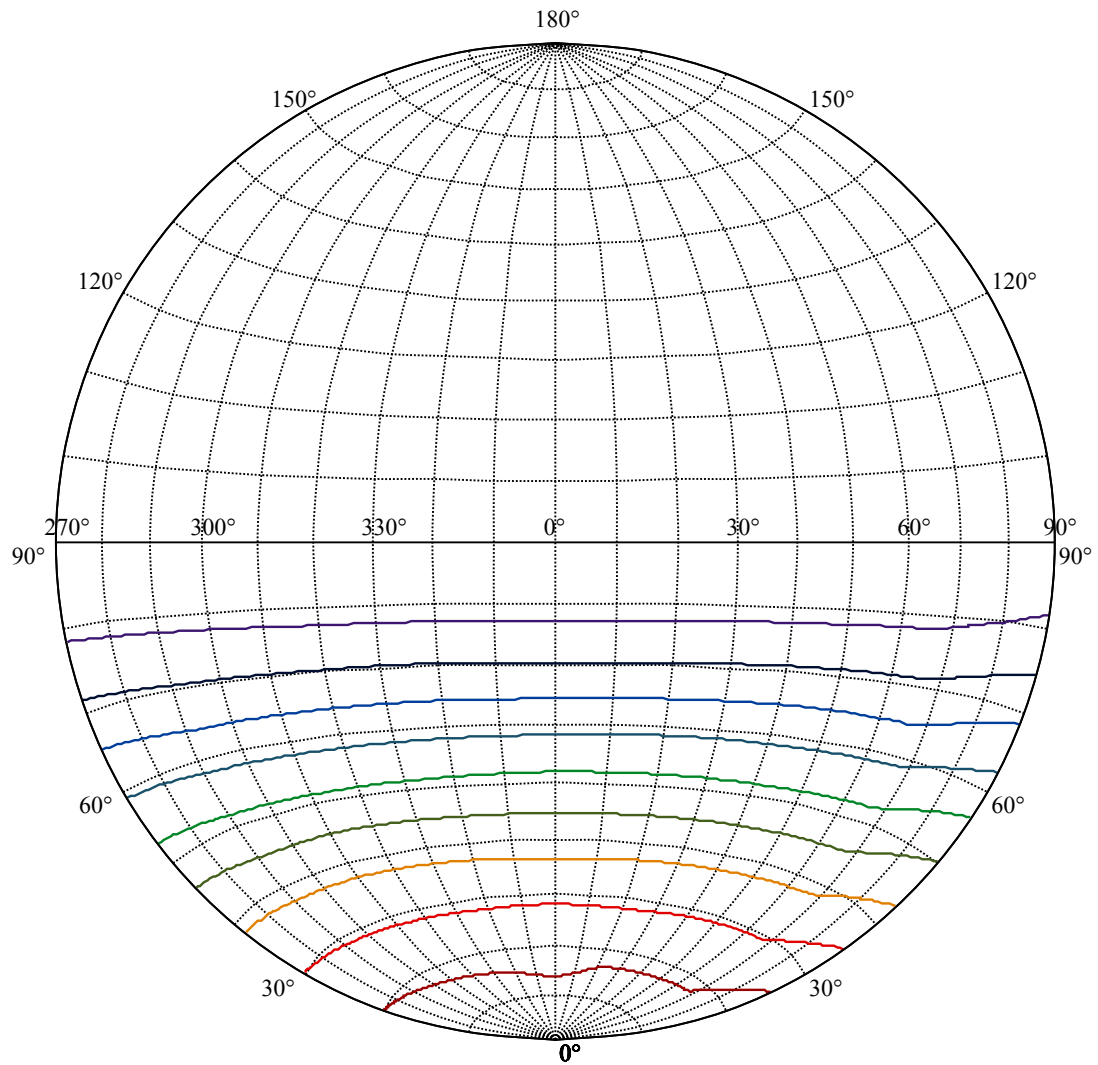


(10%Imax) 11.4744	—
(20%Imax) 22.9488	—
(30%Imax) 34.4232	—
(40%Imax) 45.8976	—
(50%Imax) 57.372	—
(60%Imax) 68.8464	—
(70%Imax) 80.3208	—
(80%Imax) 91.7952	—
(90%Imax) 103.27	—

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

Date:
Humidity(%): 58%

Operator: Tester



House

[Unit:cd]

Road

I_{max}:114.74

(10%I _{max}) 11.4744	—
(20%I _{max}) 22.9488	—
(30%I _{max}) 34.4232	—
(40%I _{max}) 45.8976	—
(50%I _{max}) 57.372	—
(60%I _{max}) 68.8464	—
(70%I _{max}) 80.3208	—
(80%I _{max}) 91.7952	—
(90%I _{max}) 103.27	—

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	111.71	110.25	107.08	102.05	99.94	95.18	89.89	82.75	75.09
22.5	111.71	108.66	107.08	104.43	100.73	95.44	89.36	83.02	76.41
45.0	111.71	109.46	108.14	104.96	101.00	95.97	90.42	83.81	76.67
67.5	111.71	112.10	109.19	105.76	101.26	96.77	91.21	84.60	77.73
90.0	111.71	114.74	113.69	111.84	108.40	103.90	98.35	92.27	85.13
112.5	111.71	112.63	111.57	109.19	106.02	101.79	97.56	91.74	84.08
135.0	111.71	111.84	110.25	108.40	105.76	101.53	96.50	90.16	83.02
157.5	111.71	110.78	109.19	107.34	104.96	100.47	94.92	89.10	82.23
180.0	111.71	107.61	110.51	106.55	103.90	99.41	96.50	86.98	80.64
202.5	111.71	109.19	108.93	108.14	105.49	100.73	94.92	88.04	80.11
225.0	111.71	112.10	111.31	109.46	105.49	100.47	94.92	88.04	81.17
247.5	111.71	112.89	111.31	108.93	105.23	101.00	96.50	89.36	82.23
270.0	111.71	113.42	111.31	107.61	103.38	98.09	92.01	85.40	77.99
292.5	111.71	111.31	108.66	105.76	101.79	96.77	90.42	84.08	76.67
315.0	111.71	111.04	108.66	104.70	100.47	95.44	89.89	83.81	76.67
337.5	111.71	109.72	107.08	103.64	99.41	94.92	89.63	83.28	76.14
360.0	111.71	110.25	107.08	102.05	99.94	95.18	89.89	82.75	75.09
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	68.48	60.81	52.08	42.57	33.05	23.27	14.54	7.40	2.38
22.5	68.74	60.81	52.61	43.36	33.84	24.06	15.07	7.67	2.64
45.0	69.01	60.81	52.35	43.36	34.37	24.85	15.60	7.93	2.91
67.5	69.53	61.60	52.88	43.62	33.84	25.12	16.13	8.73	3.44
90.0	77.47	69.01	60.28	50.50	41.24	31.73	22.21	13.48	6.87
112.5	76.41	67.68	58.96	49.18	40.19	30.14	20.89	12.69	6.08
135.0	75.09	65.83	56.84	47.59	37.54	28.03	18.77	11.10	4.76
157.5	74.03	65.57	56.58	47.06	37.81	27.76	19.04	10.31	3.97
180.0	75.09	62.13	57.64	46.00	37.81	26.97	19.04	9.78	3.17
202.5	72.97	65.30	56.05	46.53	37.28	28.03	18.77	9.78	3.44
225.0	73.50	65.04	56.84	47.06	37.81	28.03	19.04	11.10	4.23
247.5	74.03	65.57	56.84	47.33	37.54	28.29	19.04	11.37	4.76
270.0	70.59	62.40	53.41	44.15	35.16	25.65	16.39	9.25	3.97
292.5	68.74	60.55	51.29	42.57	32.78	23.80	15.60	8.20	3.44
315.0	69.01	60.02	51.29	42.04	33.05	23.53	14.54	7.67	3.17
337.5	68.48	60.28	51.29	42.57	33.31	23.80	14.81	7.40	2.91
360.0	68.48	60.81	52.08	42.57	33.05	23.27	14.54	7.40	2.38
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.79	0.53	0.53	0.79	0.79	0.79	0.53	0.79	0.79
22.5	1.06	0.79	0.53	1.06	0.53	0.53	0.53	0.53	0.53
45.0	1.06	0.79	0.79	0.79	0.79	0.53	0.53	0.53	0.53
67.5	1.32	0.53	0.79	0.53	0.26	0.26	0.53	0.79	0.53
90.0	1.85	0.26	0.26	0.00	0.26	0.26	0.26	0.26	0.26
112.5	1.32	0.00	0.00	0.00	0.00	0.26	0.26	0.26	0.53
135.0	1.06	0.00	0.00	0.00	0.00	0.26	0.26	0.26	0.26
157.5	0.79	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.00
180.0	0.26	0.26	0.26	0.00	0.26	0.00	0.26	0.53	0.26
202.5	0.79	0.00	0.00	0.00	0.00	0.26	0.00	0.26	0.26
225.0	1.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
247.5	1.32	0.00	0.00	0.00	0.00	0.00	0.26	0.26	0.26
270.0	1.32	0.53	1.06	0.79	1.06	1.06	0.79	1.32	1.32
292.5	1.32	1.06	0.79	0.53	0.53	0.79	0.79	0.53	1.06
315.0	1.06	0.53	0.53	0.53	0.79	0.79	0.53	0.79	0.79
337.5	1.06	0.79	0.79	0.79	0.79	0.53	0.53	1.06	1.06
360.0	0.79	0.53	0.53	0.79	0.79	0.79	0.53	0.79	0.79

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	1.06	0.79	0.79	0.79	1.06	0.79	0.53	0.53	0.53
22.5	0.79	0.79	0.79	0.79	1.06	0.79	0.79	0.79	0.79
45.0	0.53	0.53	0.79	0.79	0.79	0.53	0.79	0.53	0.79
67.5	0.79	0.79	1.06	0.79	0.79	0.53	0.79	0.53	0.53
90.0	0.53	0.53	0.53	0.53	0.53	0.79	1.06	0.53	0.53
112.5	0.53	0.26	0.53	0.26	0.53	0.79	0.79	0.53	0.53
135.0	0.26	0.26	0.53	0.26	0.53	0.53	0.53	0.53	0.53
157.5	0.26	0.53	0.26	0.26	0.79	0.53	0.53	0.53	0.53
180.0	0.26	0.26	0.00	0.53	0.53	0.79	0.53	0.53	0.79
202.5	0.26	0.53	0.53	0.26	0.53	0.53	0.79	0.79	0.79
225.0	0.26	0.53	0.53	0.53	0.53	0.53	0.53	0.79	0.53
247.5	0.26	0.53	0.26	0.53	0.53	0.53	0.53	0.79	0.79
270.0	1.32	1.06	1.59	1.32	1.32	1.59	1.32	1.06	1.32
292.5	0.79	0.79	0.79	0.79	0.79	0.79	1.06	0.79	0.79
315.0	0.79	0.79	0.79	0.79	0.79	0.79	1.06	0.53	0.79
337.5	0.79	0.79	0.79	0.79	0.79	0.53	0.79	0.53	0.79
360.0	1.06	0.79	0.79	0.79	1.06	0.79	0.53	0.53	0.53

C/γ(°)	180.0
0.0	0.75
22.5	0.75
45.0	0.75
67.5	0.75
90.0	0.75
112.5	0.75
135.0	0.75
157.5	0.75
180.0	0.75
202.5	0.75
225.0	0.75
247.5	0.75
270.0	0.75
292.5	0.75
315.0	0.75
337.5	0.75
360.0	0.75