



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.12

LampCAT:

Current(A): 0.0670

Lamp flux(lm): -1.0

Power (W): 7.87

Number of Lamps: 1

PF: 0.9752

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 518.09, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.83

Central intensity(cd): 185.792, Maximum intensity(cd): 187.927

Angle of maximum intensity: C=112.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.7

[C90/270]Total=113.6

Field angle(10%Imax): [C0/180]Total=154.6

[C90/270]Total=161.3

Maximum s/h(1/2): C0_180=1.22 C90_270=1.29

Maximum s/h(1/4): C0_180=1.35 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.83%

Down flux rate of LUM(%): 99.17%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.640%

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	185.792	0.000	0	0.00%	0.00%
5.0	184.930	4.432	4.432	0.00%	0.86%
10.0	182.241	13.135	17.567	0.00%	3.39%
15.0	178.045	21.372	38.939	0.00%	7.52%
20.0	172.067	28.854	67.793	0.00%	13.09%
25.0	164.550	35.305	103.098	0.00%	19.90%
30.0	155.672	40.524	143.622	0.00%	27.72%
35.0	145.433	44.340	187.962	0.00%	36.28%
40.0	134.206	46.656	234.617	0.00%	45.28%
45.0	121.861	47.413	282.03	0.00%	54.44%
50.0	108.398	46.527	328.558	0.00%	63.42%
55.0	94.142	44.039	372.597	0.00%	71.92%
60.0	78.962	40.012	412.609	0.00%	79.64%
65.0	63.102	34.536	447.145	0.00%	86.31%
70.0	46.723	27.808	474.953	0.00%	91.67%
75.0	30.554	20.199	495.152	0.00%	95.57%
80.0	15.083	12.211	507.363	0.00%	97.93%
85.0	3.856	5.146	512.509	0.00%	98.92%
90.0	0.875	1.295	513.805	0.00%	99.17%
95.0	0.518	0.381	514.186	0.00%	99.25%
100.0	0.486	0.273	514.459	0.00%	99.30%
105.0	0.551	0.277	514.736	0.00%	99.35%
110.0	0.421	0.254	514.99	0.00%	99.40%
115.0	0.567	0.250	515.241	0.00%	99.45%
120.0	0.648	0.295	515.536	0.00%	99.51%
125.0	0.680	0.307	515.843	0.00%	99.57%
130.0	0.794	0.321	516.164	0.00%	99.63%
135.0	0.794	0.321	516.484	0.00%	99.69%
140.0	0.842	0.303	516.787	0.00%	99.75%
145.0	0.875	0.287	517.074	0.00%	99.80%
150.0	0.843	0.253	517.327	0.00%	99.85%
155.0	0.907	0.221	517.548	0.00%	99.89%
160.0	0.924	0.192	517.74	0.00%	99.93%
165.0	0.972	0.156	517.897	0.00%	99.96%
170.0	0.875	0.110	518.006	0.00%	99.98%
175.0	0.924	0.064	518.071	0.00%	100.00%
180.0	1.067	0.024	518.094	0.00%	100.00%

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

Date:
Humidity(%): 58%

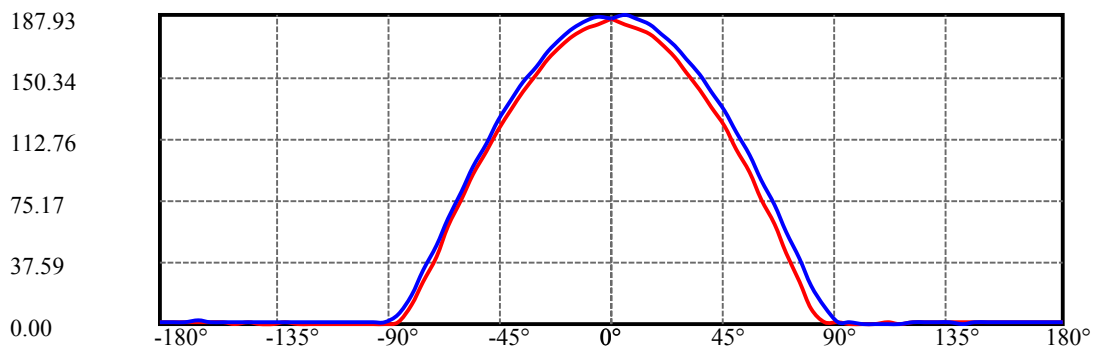
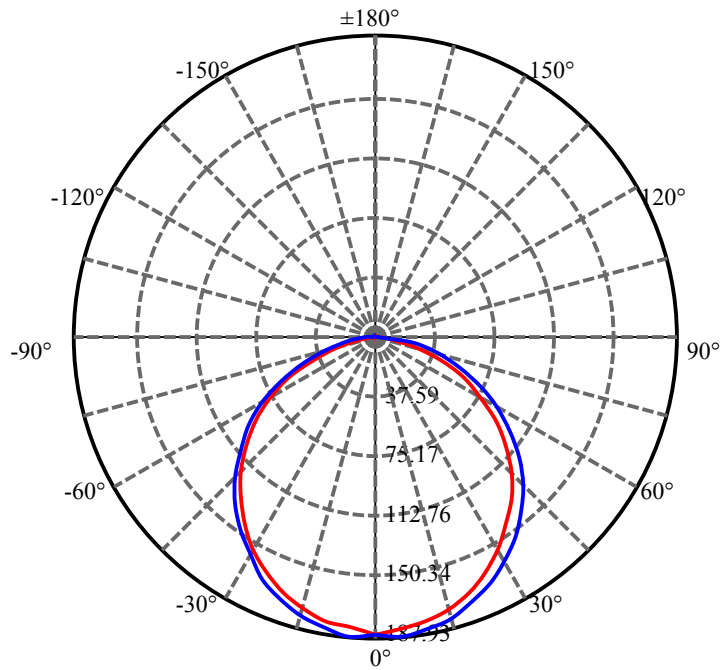
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	143.62	N.A.	27.72%
0-40	234.62	N.A.	45.28%
0-60	412.61	N.A.	79.64%
0-90	513.80	N.A.	99.17%
0-120	515.54	N.A.	99.51%
0-180	518.09	N.A.	100.00%
60-90	101.20	N.A.	19.53%
90-120	1.73	N.A.	0.33%
90-130	2.36	N.A.	0.46%
90-150	3.52	N.A.	0.68%
90-180	4.27	N.A.	0.82%
0-60.27	414.48	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	17.57
10-20	50.23
20-30	75.83
30-40	91.00
40-50	93.94
50-60	84.05
60-70	62.34
70-80	32.41
80-90	6.44
90-100	0.65
100-110	0.53
110-120	0.55
120-130	0.63
130-140	0.62
140-150	0.54
150-160	0.41
160-170	0.27
170-180	0.06



C0/C180: —

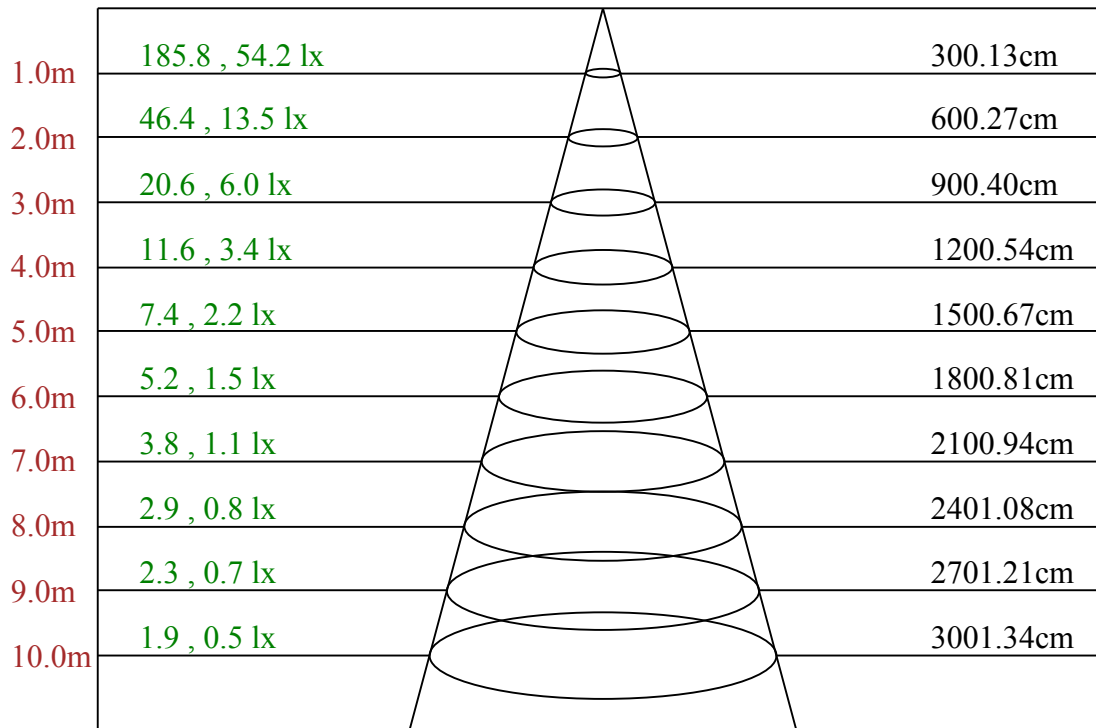
C90/C270: —

Field angle(10%Imax):C0/180Left:77.5 Right:77.1

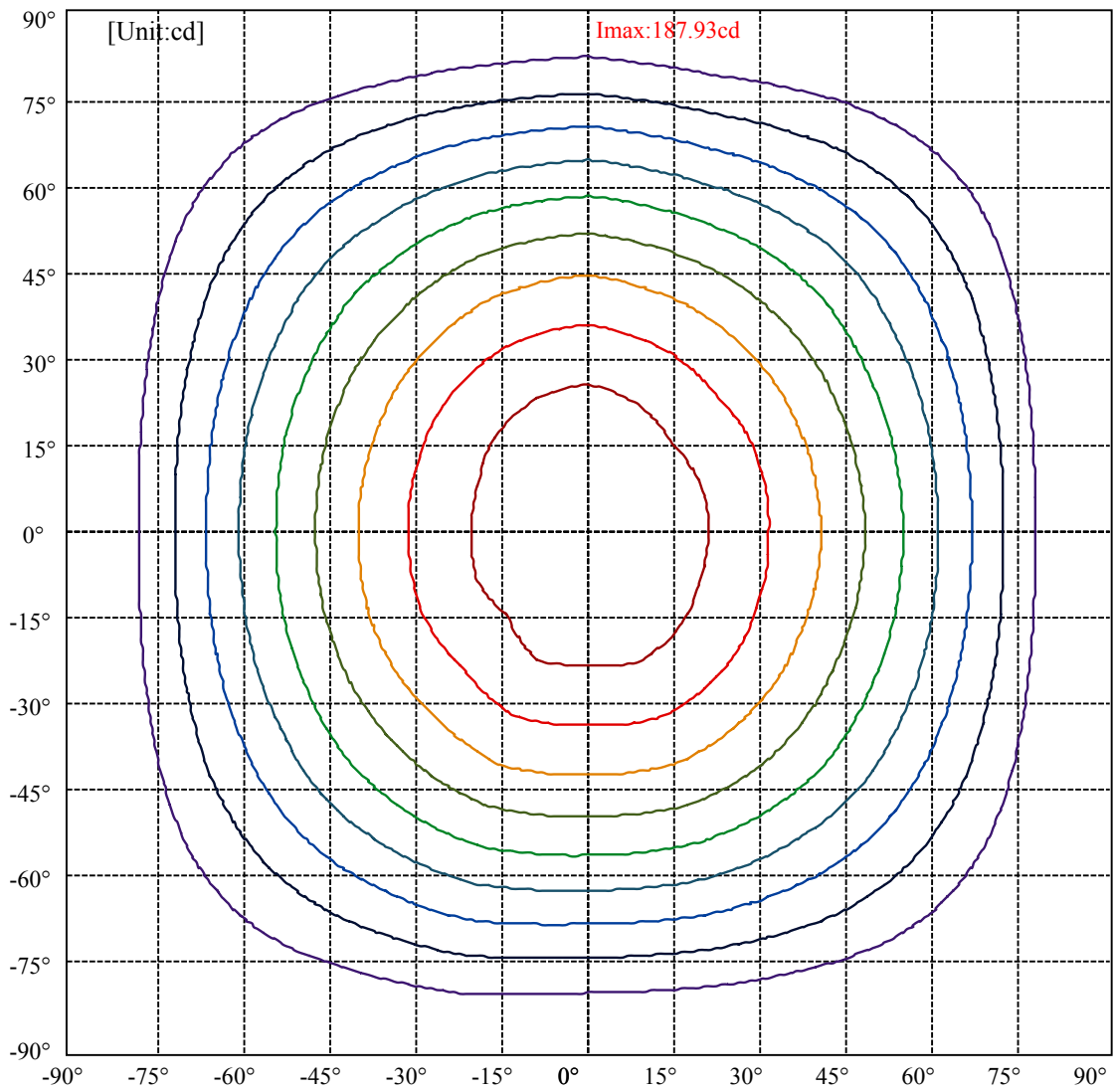
:C90/270Left:79.5 Right:81.8

Beam Angle(50%Imax):C0/180Left:54.1 Right:54.6

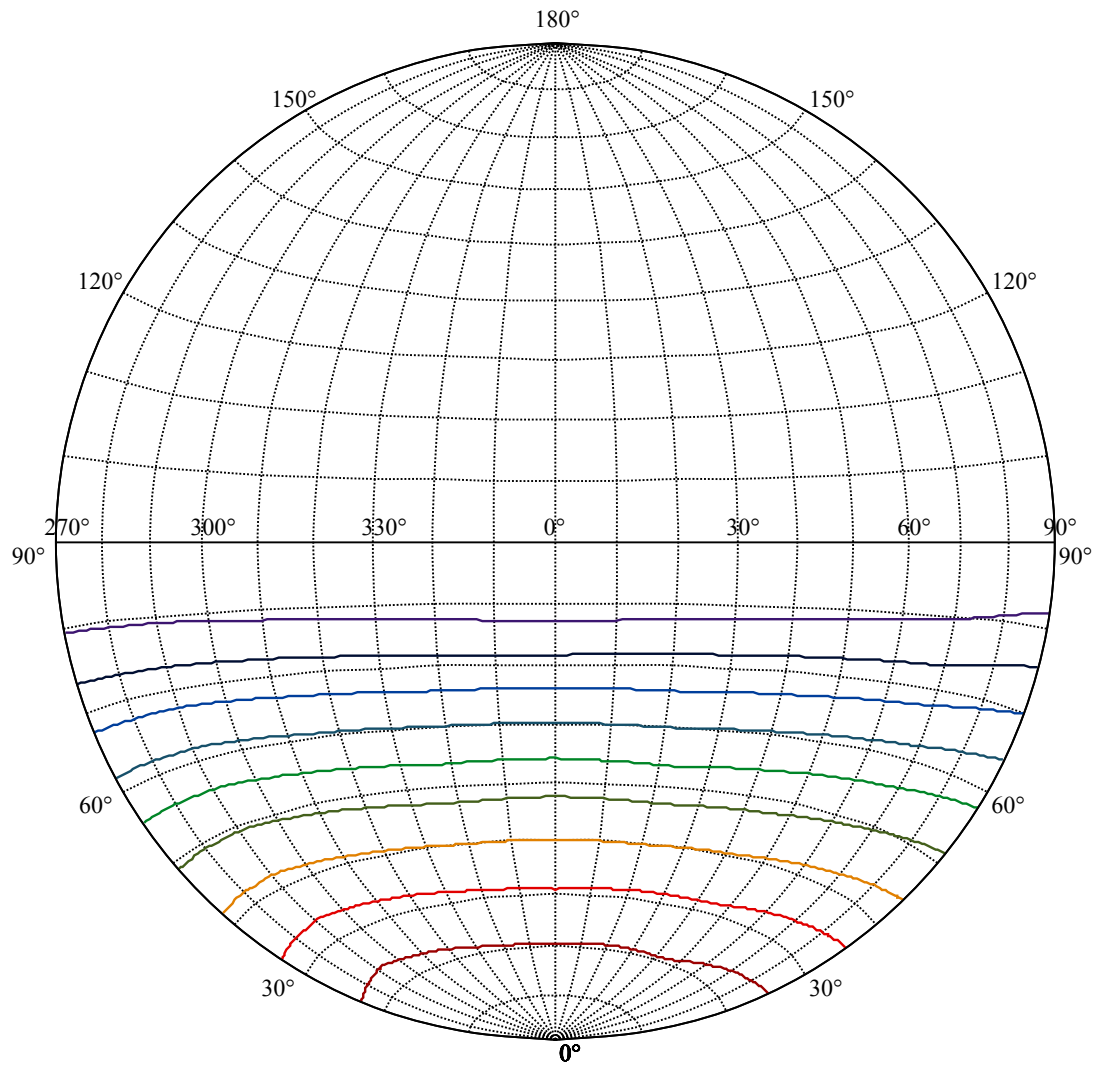
:C90/270Left:55.8 Right:57.8



Max , Ave Beam angle of C112.5 plane 112.64



(10%I _{max}) 18.7752	—
(20%I _{max}) 37.5505	—
(30%I _{max}) 56.3257	—
(40%I _{max}) 75.1009	—
(50%I _{max}) 93.8761	—
(60%I _{max}) 112.651	—
(70%I _{max}) 131.427	—
(80%I _{max}) 150.202	—
(90%I _{max}) 168.977	—



House

[Unit:cd]

Road

I_{max}:187.93

(10%I _{max}) 18.7921	—
(20%I _{max}) 37.5843	—
(30%I _{max}) 56.3764	—
(40%I _{max}) 75.1685	—
(50%I _{max}) 93.9606	—
(60%I _{max}) 112.753	—
(70%I _{max}) 131.545	—
(80%I _{max}) 150.337	—
(90%I _{max}) 169.129	—

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	185.79	182.23	179.63	176.00	170.04	162.01	152.42	142.05	131.68
22.5	185.79	183.78	181.19	176.52	170.56	162.53	153.71	143.08	131.16
45.0	185.79	181.97	179.37	175.49	170.04	162.53	153.71	143.86	132.72
67.5	185.79	186.89	184.04	180.15	173.93	166.67	158.38	147.75	137.12
90.0	185.79	187.67	185.34	181.71	176.26	169.52	161.49	151.64	141.27
112.5	185.79	187.93	185.59	181.19	175.49	168.23	159.67	149.56	138.94
135.0	185.79	185.85	183.52	179.11	173.15	165.38	156.56	145.94	134.01
157.5	185.79	183.52	180.67	176.00	169.78	162.27	153.45	142.83	130.90
180.0	185.79	181.97	179.63	174.97	169.01	161.23	152.16	141.53	130.38
202.5	185.79	183.52	180.67	176.52	170.30	162.27	153.19	143.08	131.42
225.0	185.79	181.97	179.11	174.45	168.75	161.75	152.93	143.34	132.20
247.5	185.79	186.89	184.30	180.15	174.19	167.19	158.12	148.01	137.38
270.0	185.79	187.15	184.04	179.63	173.41	165.89	156.56	146.97	136.09
292.5	185.79	187.67	184.56	180.67	174.97	167.45	158.64	148.27	138.86
315.0	185.79	186.11	183.26	179.37	172.89	165.12	156.30	145.68	133.75
337.5	185.79	183.78	180.93	176.78	170.30	162.78	153.45	143.34	131.42
360.0	185.79	182.23	179.63	176.00	170.04	162.01	152.42	142.05	131.68
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	120.01	106.54	91.76	76.21	60.14	43.03	25.40	9.07	1.30
22.5	118.46	104.72	89.69	74.91	59.36	44.07	27.74	10.89	1.30
45.0	120.53	106.80	93.06	77.76	61.69	45.62	30.07	14.00	2.07
67.5	124.42	110.94	96.43	81.39	65.32	48.47	31.88	17.11	4.93
90.0	129.61	116.65	102.39	87.10	72.32	55.73	39.14	23.85	10.11
112.5	126.75	113.53	99.28	84.24	68.43	52.10	35.77	20.22	7.26
135.0	121.57	107.83	94.09	78.80	62.99	47.18	31.36	15.81	4.15
157.5	118.72	105.24	90.72	75.69	60.14	43.81	28.00	13.48	2.59
180.0	117.68	104.72	90.46	75.69	59.10	41.21	25.66	11.66	1.56
202.5	118.20	104.72	90.46	75.17	59.36	43.55	27.48	13.22	2.33
225.0	120.27	107.31	93.58	78.54	62.47	46.66	30.59	15.55	4.41
247.5	125.20	111.46	97.72	82.95	67.40	51.32	34.73	19.44	7.00
270.0	123.90	109.91	96.17	80.87	64.54	48.21	32.66	17.11	5.44
292.5	124.42	110.94	96.43	80.87	65.06	47.95	31.36	16.07	3.63
315.0	121.31	108.35	93.32	77.50	61.69	45.36	29.81	12.96	2.07
337.5	118.72	104.72	90.72	75.69	59.62	43.29	27.22	10.89	1.56
360.0	120.01	106.54	91.76	76.21	60.14	43.03	25.40	9.07	1.30
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.78	0.52	0.52	0.52	0.78	0.52	0.78	0.78	0.78
22.5	0.78	0.78	0.52	0.78	0.52	0.78	1.04	0.78	1.04
45.0	1.04	0.52	0.78	0.78	0.26	1.04	0.78	0.78	1.04
67.5	0.78	0.52	0.26	0.52	0.52	0.78	1.04	0.78	1.04
90.0	1.56	0.78	0.52	0.52	0.26	0.52	0.78	0.78	0.78
112.5	0.78	0.26	0.26	0.26	0.00	0.26	0.26	0.52	0.52
135.0	0.78	0.26	0.26	0.00	0.00	0.26	0.26	0.26	0.26
157.5	0.52	0.26	0.26	0.26	0.52	0.26	0.52	0.26	0.52
180.0	0.52	0.26	0.00	0.26	0.00	0.00	0.52	0.52	0.78
202.5	0.78	0.00	0.26	0.00	0.00	0.00	0.00	0.26	0.78
225.0	0.52	0.26	0.26	0.26	0.26	0.26	0.00	0.52	0.52
247.5	1.04	0.26	0.26	0.26	0.26	0.26	0.26	0.52	0.26
270.0	1.56	1.30	1.30	1.30	1.30	1.56	1.30	1.56	1.56
292.5	0.78	0.78	0.78	1.04	0.78	1.04	1.04	1.04	1.04
315.0	1.04	0.78	0.78	1.04	0.78	0.78	0.78	0.78	1.04
337.5	0.78	0.78	0.78	1.04	0.52	0.78	1.04	0.78	0.78
360.0	0.78	0.52	0.52	0.52	0.78	0.52	0.78	0.78	0.78

Intensity data(cd)

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C/γ(°)	135.0	140.0	145.0	150.0	155.0	160.0	165.0	170.0	175.0
0.0	1.04	0.78	0.78	1.04	1.04	1.04	1.04	0.78	1.04
22.5	0.78	1.04	1.04	0.78	1.30	0.78	1.04	0.78	0.78
45.0	0.78	0.78	1.04	1.04	0.78	0.78	1.04	1.04	0.52
67.5	1.04	1.04	1.04	0.78	0.78	1.30	1.04	1.04	1.04
90.0	0.78	0.52	0.78	1.04	1.04	1.04	1.30	0.78	1.04
112.5	0.52	0.52	0.78	0.78	1.04	1.04	0.78	1.04	1.04
135.0	0.52	0.78	0.52	0.78	0.52	0.78	0.78	0.78	0.78
157.5	0.52	0.78	0.78	0.78	0.78	0.78	0.78	0.78	0.78
180.0	0.26	0.52	0.78	0.52	0.78	0.78	0.78	0.78	1.04
202.5	0.78	0.52	0.52	0.52	0.78	0.78	0.52	0.78	1.04
225.0	0.52	0.26	0.78	0.78	0.78	0.52	0.78	0.78	0.52
247.5	0.52	0.78	1.04	0.78	0.78	0.52	0.78	0.52	1.04
270.0	1.30	1.56	1.56	1.56	1.56	1.56	1.81	1.56	1.56
292.5	1.30	1.30	1.04	0.78	1.04	1.04	1.04	0.78	0.78
315.0	1.04	1.04	0.52	0.78	0.78	1.04	1.04	0.78	0.78
337.5	1.04	1.30	1.04	0.78	0.78	1.04	1.04	1.04	1.04
360.0	1.04	0.78	0.78	1.04	1.04	1.04	1.04	0.78	1.04

C/γ(°)	180.0
0.0	1.07
22.5	1.07
45.0	1.07
67.5	1.07
90.0	1.07
112.5	1.07
135.0	1.07
157.5	1.07
180.0	1.07
202.5	1.07
225.0	1.07
247.5	1.07
270.0	1.07
292.5	1.07
315.0	1.07
337.5	1.07
360.0	1.07