



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): 120.05

LampCAT:

Current(A): 0.2030

Lamp flux(lm): -1.0

Power (W): 22.91

Number of Lamps: 1

PF: 0.9410

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

---

### Photometric Results

---

Lumens(lm): 1576.39, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 68.81

Central intensity(cd): 594.921, Maximum intensity(cd): 602.717

Angle of maximum intensity: C=112.5  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=103.2

[C90/270]Total=108.3

Field angle(10%Imax): [C0/180]Total=156.4

[C90/270]Total=159.6

Maximum s/h(1/2): C0\_180=1.24 C90\_270=1.24

Maximum s/h(1/4): C0\_180=1.34 C90\_270=1.35

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.39%

Down flux rate of LUM(%): 99.61%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 80.151%

---

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

Date:  
Humidity(%): 59%

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	594.921	0.000	0	0.00%	0.00%
5.0	591.748	14.186	14.186	0.00%	0.90%
10.0	581.732	41.979	56.165	0.00%	3.56%
15.0	564.849	68.014	124.18	0.00%	7.88%
20.0	542.289	91.244	215.423	0.00%	13.67%
25.0	514.450	110.832	326.256	0.00%	20.70%
30.0	482.298	126.139	452.395	0.00%	28.70%
35.0	446.309	136.744	589.139	0.00%	37.37%
40.0	407.567	142.463	731.602	0.00%	46.41%
45.0	366.338	143.295	874.897	0.00%	55.50%
50.0	323.508	139.393	1014.29	0.00%	64.34%
55.0	278.773	130.956	1145.246	0.00%	72.65%
60.0	232.754	118.238	1263.484	0.00%	80.15%
65.0	186.417	101.901	1365.385	0.00%	86.61%
70.0	139.552	82.537	1447.922	0.00%	91.85%
75.0	93.784	60.990	1508.913	0.00%	95.72%
80.0	50.174	38.519	1547.432	0.00%	98.16%
85.0	16.275	18.056	1565.487	0.00%	99.31%
90.0	1.244	4.797	1570.284	0.00%	99.61%
95.0	0.582	0.500	1570.784	0.00%	99.64%
100.0	0.648	0.334	1571.118	0.00%	99.67%
105.0	0.609	0.336	1571.455	0.00%	99.69%
110.0	0.754	0.356	1571.811	0.00%	99.71%
115.0	0.781	0.389	1572.2	0.00%	99.73%
120.0	0.900	0.409	1572.608	0.00%	99.76%
125.0	1.006	0.440	1573.049	0.00%	99.79%
130.0	1.098	0.457	1573.506	0.00%	99.82%
135.0	1.178	0.460	1573.966	0.00%	99.85%
140.0	1.218	0.443	1574.41	0.00%	99.87%
145.0	1.231	0.408	1574.818	0.00%	99.90%
150.0	1.403	0.388	1575.206	0.00%	99.93%
155.0	1.376	0.352	1575.557	0.00%	99.95%
160.0	1.429	0.294	1575.852	0.00%	99.97%
165.0	1.363	0.230	1576.082	0.00%	99.98%
170.0	1.429	0.166	1576.247	0.00%	99.99%
175.0	1.495	0.105	1576.352	0.00%	100.00%
180.0	1.444	0.035	1576.387	0.00%	100.00%

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

Date:  
Humidity(%): 59%

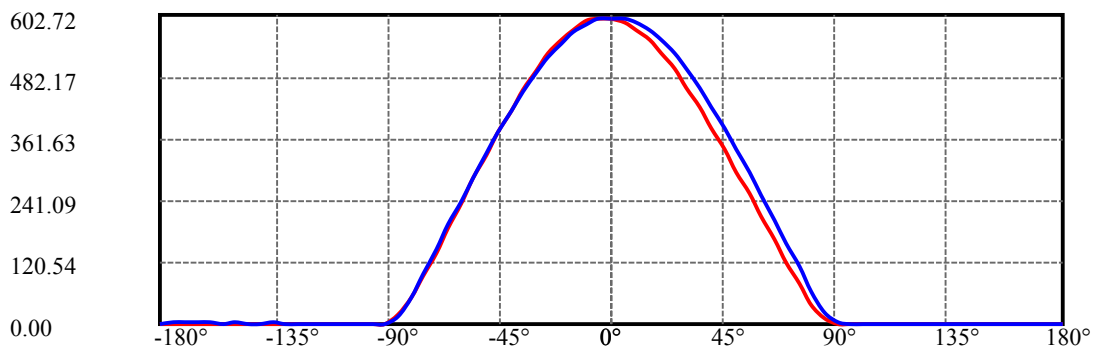
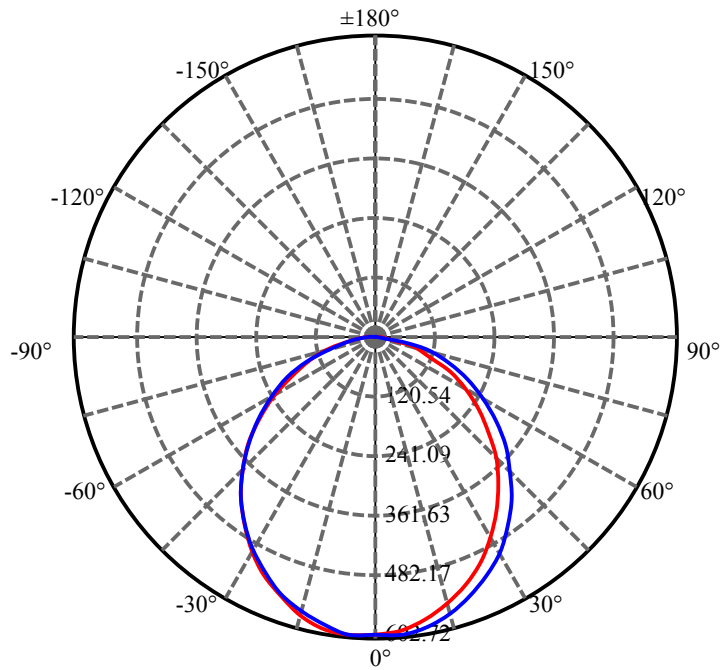
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	452.40	N.A.	28.70%
0-40	731.60	N.A.	46.41%
0-60	1263.48	N.A.	80.15%
0-90	1570.28	N.A.	99.61%
0-120	1572.61	N.A.	99.76%
0-180	1576.39	N.A.	100.00%
60-90	306.80	N.A.	19.46%
90-120	2.32	N.A.	0.15%
90-130	3.22	N.A.	0.20%
90-150	4.92	N.A.	0.31%
90-180	6.07	N.A.	0.38%
0-59.90	1261.11	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	56.17
10-20	159.26
20-30	236.97
30-40	279.21
40-50	282.69
50-60	249.19
60-70	184.44
70-80	99.51
80-90	22.85
90-100	0.83
100-110	0.69
110-120	0.80
120-130	0.90
130-140	0.90
140-150	0.80
150-160	0.65
160-170	0.40
170-180	0.10

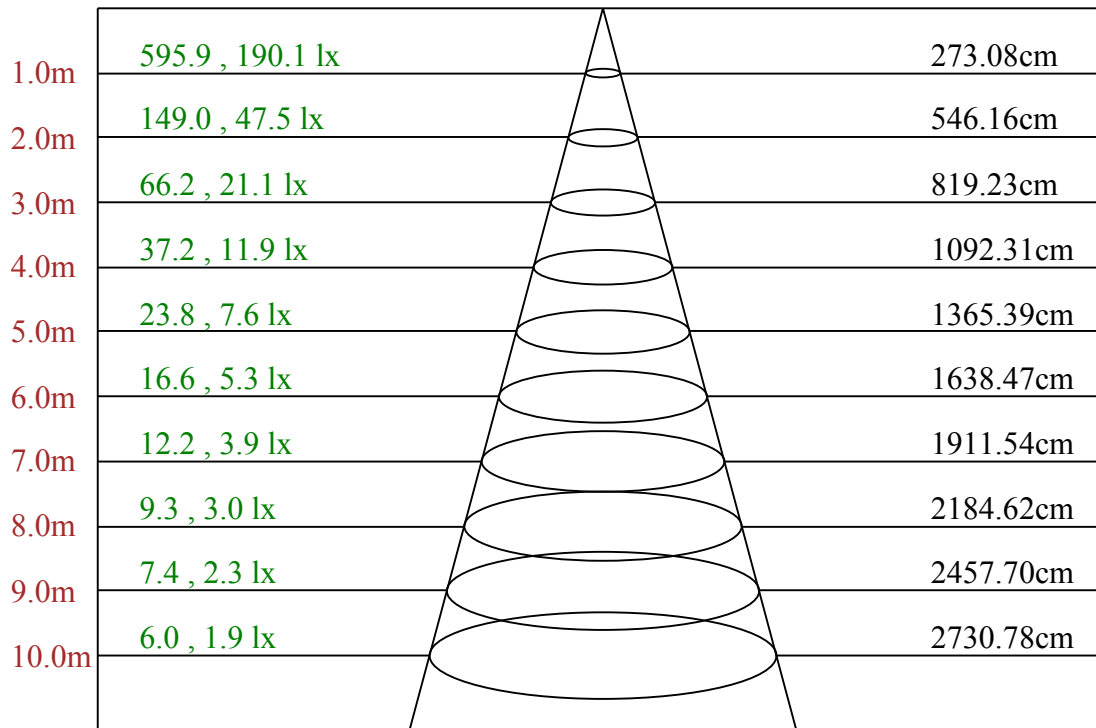


C0/C180: —

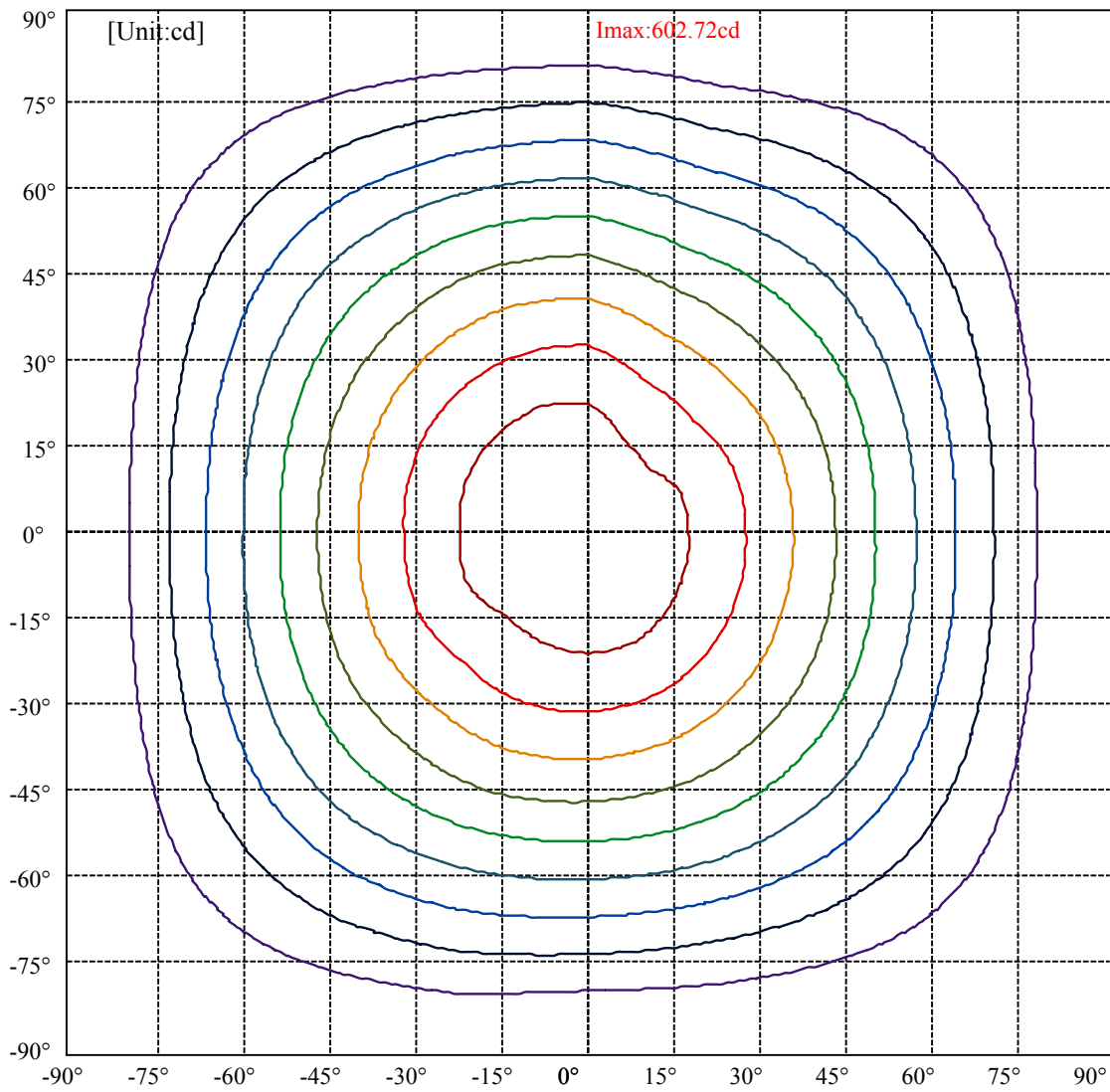
C90/C270: —










Field angle(10%Imax):C0/180Left:79.1 Right:77.3  
 :C90/270Left:79.1 Right:80.5

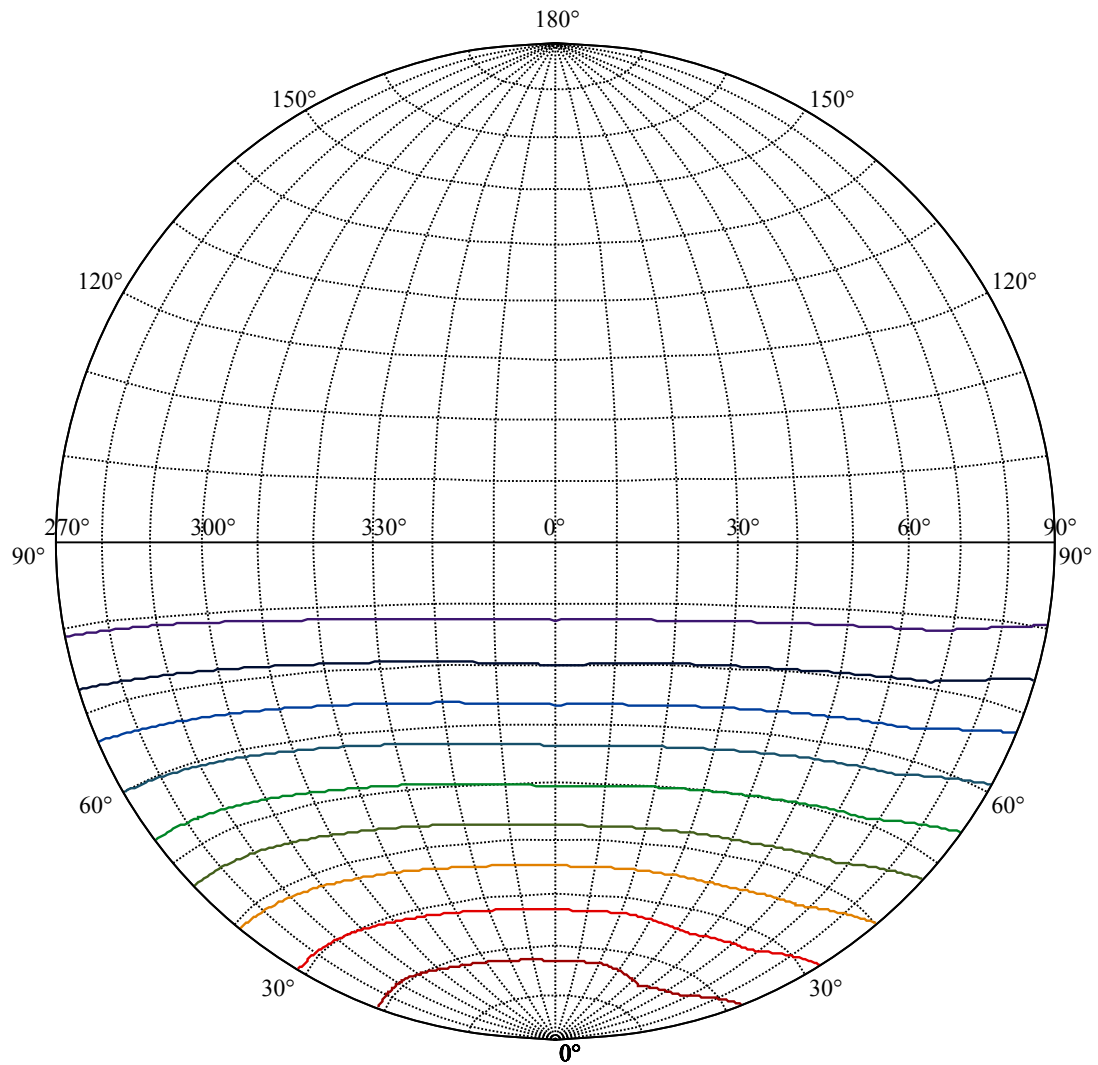
Beam Angle(50%Imax):C0/180Left:53.4 Right:49.8  
 :C90/270Left:53.6 Right:54.7



Max , Ave      Beam angle of C112.5 plane 107.56



(10%Imax)	60.1882	
(20%Imax)	120.376	
(30%Imax)	180.565	
(40%Imax)	240.753	
(50%Imax)	300.941	
(60%Imax)	361.129	
(70%Imax)	421.318	
(80%Imax)	481.506	
(90%Imax)	541.694	



House

[Unit:cd]

Road

**Imax:602.72**

(10%Imax) 60.2595	—
(20%Imax) 120.519	—
(30%Imax) 180.778	—
(40%Imax) 241.038	—
(50%Imax) 301.297	—
(60%Imax) 361.557	—
(70%Imax) 421.816	—
(80%Imax) 482.076	—
(90%Imax) 542.335	—

## 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	594.92	587.90	574.14	553.81	526.72	496.87	460.67	424.25	383.61
22.5	594.92	589.17	574.56	553.39	527.35	496.87	461.94	423.83	383.82
45.0	594.92	574.56	561.22	541.96	517.19	487.97	456.22	421.29	382.76
67.5	594.92	580.70	568.42	549.58	526.72	497.71	465.11	429.97	391.86
90.0	594.92	597.00	588.96	573.71	552.33	526.08	496.44	460.88	422.35
112.5	594.92	602.72	594.04	579.22	557.41	531.16	499.20	463.42	426.37
135.0	594.92	597.21	589.80	575.62	555.30	529.47	498.35	462.15	423.19
157.5	594.92	599.12	591.92	578.16	556.35	529.26	498.14	461.30	421.29
180.0	594.92	595.52	590.65	574.56	553.39	526.29	494.54	457.07	417.05
202.5	594.92	597.64	590.65	577.10	556.35	529.05	496.87	460.45	422.14
225.0	594.92	581.12	574.56	561.22	541.32	515.71	485.65	452.62	415.36
247.5	594.92	586.42	579.22	565.03	544.92	520.58	490.30	456.22	418.75
270.0	594.92	596.15	585.36	569.06	546.83	519.31	488.82	453.68	415.15
292.5	594.92	599.12	587.05	568.00	545.77	516.55	483.53	447.33	408.59
315.0	594.92	591.71	579.22	560.59	537.30	507.87	474.21	437.59	399.27
337.5	594.92	591.92	577.95	556.57	531.37	500.47	466.80	428.91	389.53
360.0	594.92	587.90	574.14	553.81	526.72	496.87	460.67	424.25	383.61
C/γ(°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	340.63	296.17	253.20	210.22	165.55	119.61	78.12	38.53	10.16
22.5	342.96	300.41	257.01	211.07	169.15	124.06	80.66	38.74	9.95
45.0	342.96	302.95	260.39	216.15	170.42	124.69	81.51	40.22	10.16
67.5	350.37	307.39	264.42	219.11	173.60	128.29	84.26	42.98	11.22
90.0	381.70	341.48	295.54	249.17	203.45	158.35	110.51	63.51	23.92
112.5	385.09	342.11	295.96	247.69	200.91	152.64	104.79	59.07	20.96
135.0	379.79	335.76	291.73	244.31	196.04	146.50	99.08	53.98	18.84
157.5	377.89	333.43	287.92	239.86	190.74	143.32	95.90	51.66	18.21
180.0	375.56	330.04	283.05	234.78	187.99	139.94	93.57	52.29	17.78
202.5	379.37	335.13	288.55	244.31	193.71	144.38	97.81	53.98	18.63
225.0	375.98	335.13	291.09	245.36	198.37	150.94	103.10	57.80	20.96
247.5	379.58	336.82	290.67	244.52	199.21	153.70	107.55	62.88	24.98
270.0	374.08	331.53	286.22	239.86	193.50	146.92	98.87	51.02	15.45
292.5	368.15	325.81	281.35	234.36	187.15	138.67	94.00	49.96	14.82
315.0	357.99	315.44	271.40	226.31	179.95	133.16	87.22	44.67	13.13
337.5	349.31	306.55	261.88	217.00	172.96	127.66	83.62	41.49	11.22
360.0	340.63	296.17	253.20	210.22	165.55	119.61	78.12	38.53	10.16
C/γ(°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.85	0.85	0.64	0.85	0.85	0.85	0.64	1.27	1.27
22.5	0.85	0.85	0.85	0.64	1.06	0.85	1.06	1.06	1.27
45.0	1.06	0.64	1.06	0.64	0.85	0.85	1.06	1.06	1.27
67.5	0.85	0.85	0.85	0.64	1.27	1.06	1.06	1.27	1.27
90.0	2.12	0.64	0.64	0.64	0.64	0.64	1.06	1.06	1.27
112.5	1.48	0.21	0.64	0.21	0.42	0.42	0.85	0.85	1.06
135.0	1.27	0.00	0.21	0.42	0.64	0.64	0.64	1.06	0.85
157.5	0.85	0.21	0.42	0.42	0.21	0.42	0.85	0.42	0.85
180.0	0.64	0.42	0.42	0.42	0.64	0.64	0.85	0.85	0.85
202.5	0.85	0.42	0.42	0.42	0.42	0.42	0.42	0.85	0.85
225.0	1.69	0.21	0.21	0.21	0.21	0.64	0.64	0.42	0.64
247.5	2.54	0.42	0.42	0.42	0.42	0.42	0.42	0.85	0.85
270.0	1.27	1.06	1.27	1.06	1.48	1.27	1.48	1.69	1.69
292.5	1.48	1.06	0.85	1.06	1.06	1.27	1.27	1.27	1.27
315.0	1.06	0.85	0.64	0.85	1.06	1.06	1.06	1.06	1.27
337.5	1.06	0.64	0.85	0.85	0.85	1.06	1.06	1.06	1.06
360.0	0.85	0.85	0.64	0.85	0.85	0.85	0.64	1.27	1.27



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	1.27	1.27	1.48	1.48	1.27	1.48	1.48	1.48	1.48
22.5	1.27	1.48	1.27	1.48	1.48	1.48	1.48	1.27	1.48
45.0	1.27	1.48	1.27	1.48	1.69	1.27	1.27	1.48	1.48
67.5	1.27	1.48	1.48	1.48	1.48	1.48	1.48	1.48	1.48
90.0	1.27	1.06	1.27	1.48	1.48	1.48	1.48	1.48	1.48
112.5	1.06	1.06	1.06	1.27	1.48	1.27	1.06	1.27	1.27
135.0	1.06	1.06	1.06	1.06	1.27	1.27	1.27	1.27	1.48
157.5	1.06	1.06	1.06	1.27	1.06	1.27	1.27	1.48	1.27
180.0	0.85	1.06	1.06	1.27	1.27	1.48	1.06	1.27	1.48
202.5	0.85	1.06	1.06	1.06	1.48	1.27	1.27	1.48	1.27
225.0	0.85	0.85	1.06	1.27	1.27	1.27	1.48	1.27	1.48
247.5	1.06	0.64	1.06	1.27	1.06	1.48	1.06	1.27	1.27
270.0	1.91	1.69	1.69	2.33	1.69	1.91	1.91	2.12	2.12
292.5	1.27	1.48	1.27	1.48	1.48	1.48	1.48	1.48	1.69
315.0	1.27	1.27	1.27	1.27	1.06	1.48	1.48	1.48	1.48
337.5	1.27	1.48	1.27	1.48	1.48	1.48	1.27	1.27	1.69
360.0	1.27	1.27	1.48	1.48	1.27	1.48	1.48	1.48	1.48

C/γ(°)	180.0
0.0	1.44
22.5	1.44
45.0	1.44
67.5	1.44
90.0	1.44
112.5	1.44
135.0	1.44
157.5	1.44
180.0	1.44
202.5	1.44
225.0	1.44
247.5	1.44
270.0	1.44
292.5	1.44
315.0	1.44
337.5	1.44
360.0	1.44