



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.05

LampCAT:

Current(A): 0.1680

Lamp flux(lm): -1.0

Power (W): 19.94

Number of Lamps: 1

PF: 0.9913

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1299.01, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.15

Central intensity(cd): 469.753, Maximum intensity(cd): 477.405

Angle of maximum intensity: C=90.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=107.7

[C90/270]Total=112.4

Field angle(10%Imax): [C0/180]Total=156.0

[C90/270]Total=160.7

Maximum s/h(1/2): C0_180=1.15 C90_270=1.30

Maximum s/h(1/4): C0_180=1.28 C90_270=1.41

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.41%

Down flux rate of LUM(%): 99.59%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.943%

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	469.753	0.000	0	0.00%	0.00%
5.0	468.290	11.214	11.214	0.00%	0.86%
10.0	462.143	33.285	44.499	0.00%	3.43%
15.0	451.103	54.173	98.672	0.00%	7.60%
20.0	435.587	73.076	171.747	0.00%	13.22%
25.0	416.432	89.361	261.108	0.00%	20.10%
30.0	393.442	102.490	363.599	0.00%	27.99%
35.0	367.020	111.983	475.582	0.00%	36.61%
40.0	337.719	117.580	593.162	0.00%	45.66%
45.0	305.897	119.171	712.333	0.00%	54.84%
50.0	271.106	116.592	828.925	0.00%	63.81%
55.0	234.704	109.980	938.905	0.00%	72.28%
60.0	196.049	99.567	1038.473	0.00%	79.94%
65.0	156.067	85.600	1124.073	0.00%	86.53%
70.0	115.278	68.706	1192.779	0.00%	91.82%
75.0	75.952	49.985	1242.764	0.00%	95.67%
80.0	40.460	31.149	1273.912	0.00%	98.07%
85.0	14.889	15.040	1288.952	0.00%	99.23%
90.0	2.641	4.800	1293.752	0.00%	99.59%
95.0	0.671	0.907	1294.659	0.00%	99.66%
100.0	0.552	0.332	1294.991	0.00%	99.69%
105.0	0.463	0.272	1295.263	0.00%	99.71%
110.0	0.537	0.261	1295.524	0.00%	99.73%
115.0	0.537	0.272	1295.796	0.00%	99.75%
120.0	0.671	0.294	1296.09	0.00%	99.77%
125.0	0.716	0.321	1296.411	0.00%	99.80%
130.0	0.806	0.331	1296.741	0.00%	99.83%
135.0	0.895	0.344	1297.085	0.00%	99.85%
140.0	0.955	0.343	1297.428	0.00%	99.88%
145.0	1.045	0.334	1297.761	0.00%	99.90%
150.0	1.104	0.316	1298.078	0.00%	99.93%
155.0	1.119	0.281	1298.359	0.00%	99.95%
160.0	1.089	0.232	1298.591	0.00%	99.97%
165.0	1.104	0.181	1298.771	0.00%	99.98%
170.0	1.149	0.134	1298.905	0.00%	99.99%
175.0	1.134	0.082	1298.987	0.00%	100.00%
180.0	1.152	0.027	1299.014	0.00%	100.00%

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

Date:
Humidity(%): 58%

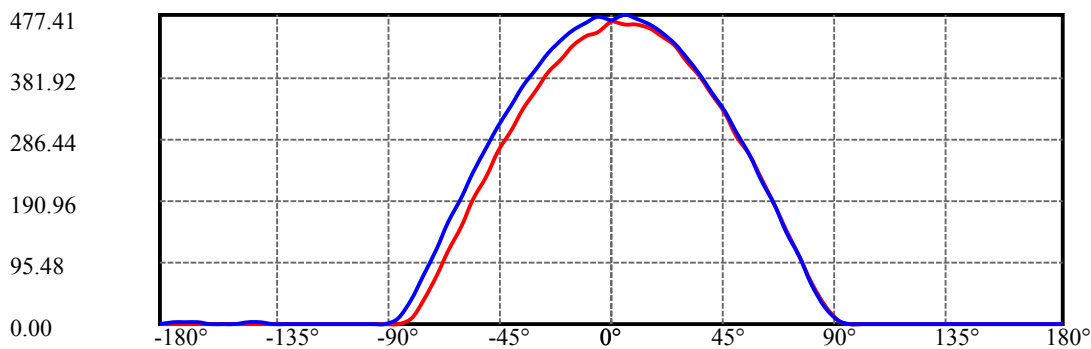
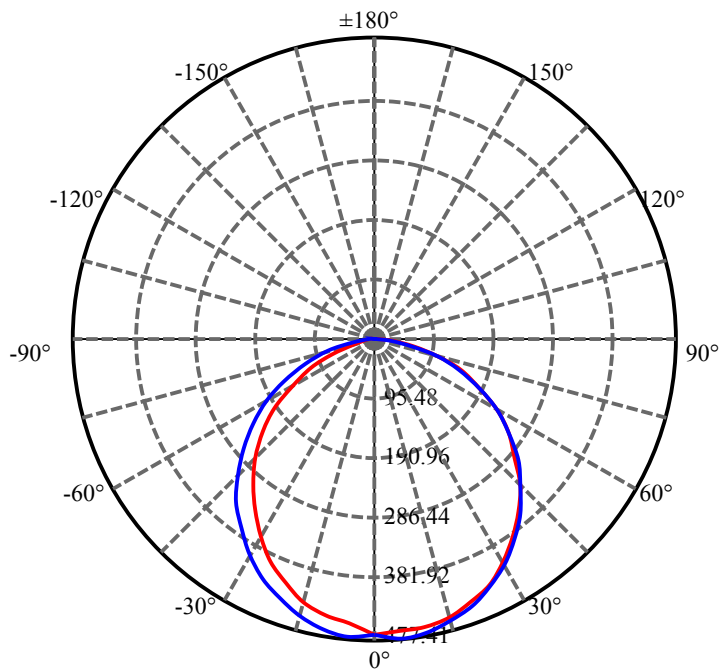
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	363.60	N.A.	27.99%
0-40	593.16	N.A.	45.66%
0-60	1038.47	N.A.	79.94%
0-90	1293.75	N.A.	99.59%
0-120	1296.09	N.A.	99.77%
0-180	1299.01	N.A.	100.00%
60-90	255.28	N.A.	19.65%
90-120	2.34	N.A.	0.18%
90-130	2.99	N.A.	0.23%
90-150	4.33	N.A.	0.33%
90-180	5.23	N.A.	0.40%
0-60.04	1039.21	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	44.50
10-20	127.25
20-30	191.85
30-40	229.56
40-50	235.76
50-60	209.55
60-70	154.31
70-80	81.13
80-90	19.84
90-100	1.24
100-110	0.53
110-120	0.57
120-130	0.65
130-140	0.69
140-150	0.65
150-160	0.51
160-170	0.31
170-180	0.08

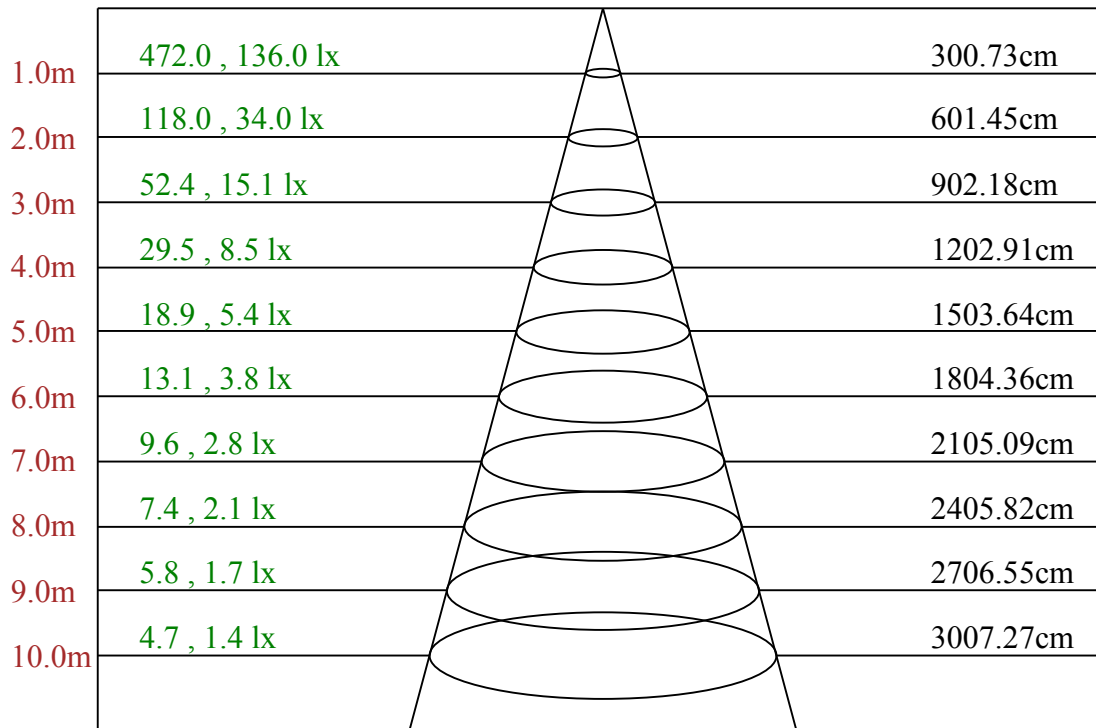


C0/C180: —

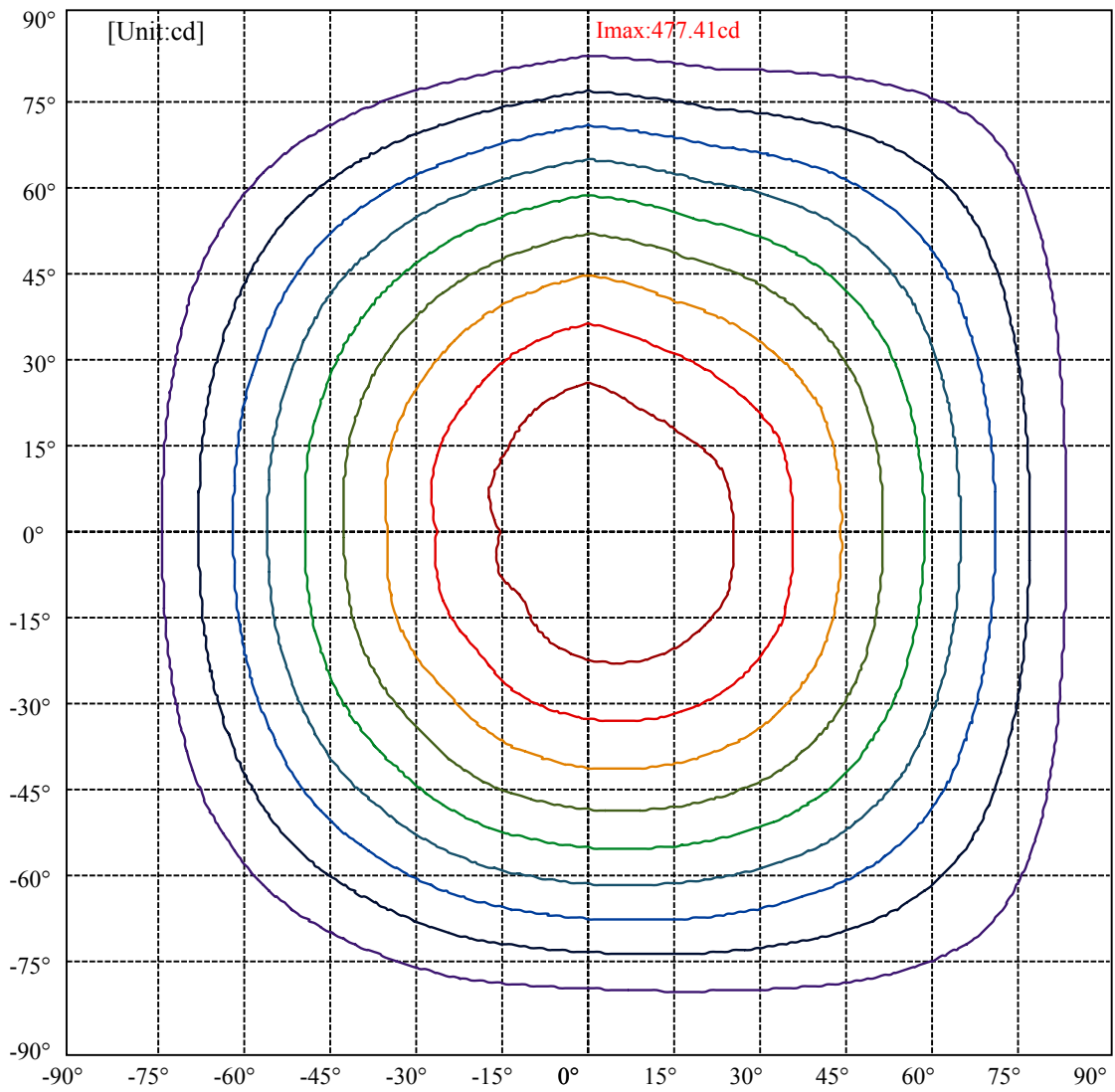
C90/C270: —

Field angle(10%Imax):C0/180Left:73.5 Right:82.5
 :C90/270Left:78.7 Right:82.0

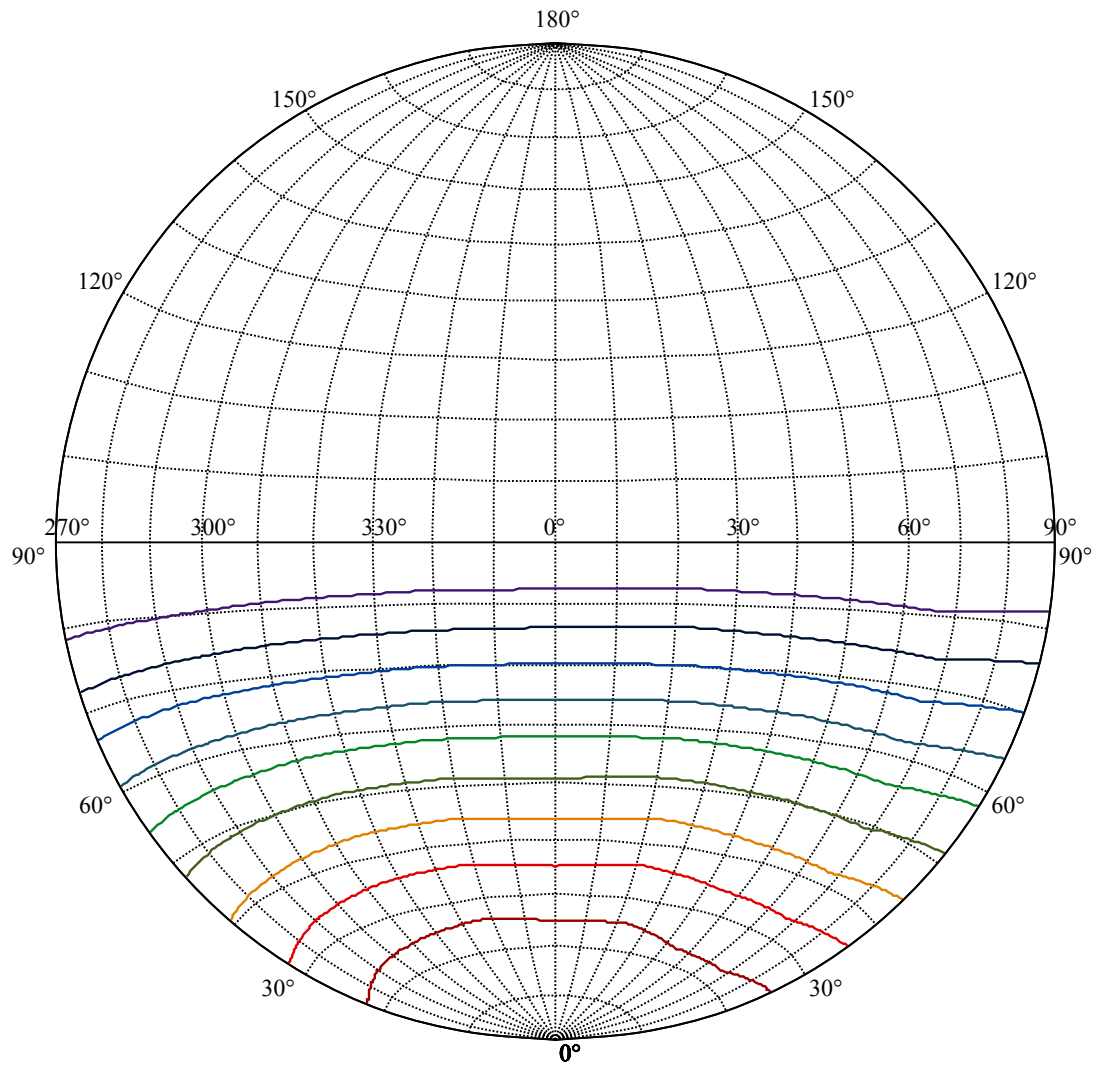
Beam Angle(50%Imax):C0/180Left:49.2 Right:58.5
 :C90/270Left:54.4 Right:58.0



Max , Ave Beam angle of C90 plane 112.75



(10%Imax) 47.7405	—
(20%Imax) 95.481	—
(30%Imax) 143.221	—
(40%Imax) 190.962	—
(50%Imax) 238.702	—
(60%Imax) 286.443	—
(70%Imax) 334.184	—
(80%Imax) 381.924	—
(90%Imax) 429.664	—



House

[Unit:cd]

Road

Imax:477.41	
(10%Imax) 47.7405	—
(20%Imax) 95.481	—
(30%Imax) 143.221	—
(40%Imax) 190.962	—
(50%Imax) 238.702	—
(60%Imax) 286.443	—
(70%Imax) 334.184	—
(80%Imax) 381.924	—
(90%Imax) 429.664	—

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	469.75	463.80	464.04	456.64	444.46	429.43	407.23	383.36	355.43
22.5	469.75	470.72	467.86	459.98	448.05	431.34	411.05	388.13	360.68
45.0	469.75	463.32	459.74	451.63	438.97	422.74	402.21	378.11	351.37
67.5	469.75	468.33	463.32	453.77	439.45	422.03	400.78	375.24	345.40
90.0	469.75	477.41	472.87	463.32	449.95	432.29	410.81	386.22	359.25
112.5	469.75	475.97	468.81	457.83	442.08	422.03	398.63	372.14	342.78
135.0	469.75	468.10	459.50	446.61	428.47	407.47	383.12	355.91	325.35
157.5	469.75	469.53	458.55	443.51	424.17	402.21	375.72	345.16	313.42
180.0	469.75	451.15	444.94	430.38	410.33	387.89	361.16	331.32	300.05
202.5	469.75	462.13	452.10	436.83	417.49	394.34	369.27	339.91	306.73
225.0	469.75	456.88	447.33	433.01	415.82	394.81	369.51	340.87	309.60
247.5	469.75	465.47	456.64	444.94	428.47	407.70	384.31	357.10	327.26
270.0	469.75	474.54	466.43	454.49	437.78	418.21	394.34	366.89	338.48
292.5	469.75	476.69	470.48	459.50	444.23	425.85	403.41	377.15	347.79
315.0	469.75	473.35	469.29	460.94	447.81	430.14	409.14	385.51	357.82
337.5	469.75	475.26	472.39	464.28	451.86	434.44	414.39	389.32	362.11
360.0	469.75	463.80	464.04	456.64	444.46	429.43	407.23	383.36	355.43
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	325.59	291.46	259.47	223.90	184.04	144.42	104.07	63.97	29.36
22.5	331.32	297.19	262.81	224.86	185.95	145.13	105.98	65.88	30.08
45.0	322.01	289.55	254.46	217.94	179.27	137.97	97.39	58.48	26.26
67.5	316.04	282.39	246.10	208.63	168.76	127.95	88.08	50.61	20.29
90.0	328.93	295.75	261.14	223.43	184.28	143.22	102.64	61.82	26.26
112.5	310.08	274.75	238.70	198.60	157.31	116.01	76.39	38.43	10.50
135.0	293.13	256.61	217.22	176.16	135.34	93.57	53.95	21.01	3.34
157.5	278.81	240.85	201.23	161.12	119.11	77.82	40.34	12.41	1.67
180.0	265.44	229.15	192.39	152.05	111.47	72.80	35.81	8.12	0.72
202.5	271.41	236.08	196.69	155.87	115.06	75.91	38.19	10.50	1.43
225.0	277.61	241.81	204.81	166.14	126.75	86.41	48.93	18.38	2.39
247.5	295.04	260.19	223.43	184.28	144.42	104.79	67.55	34.13	7.40
270.0	305.54	271.41	234.17	196.45	157.07	115.29	74.48	38.19	10.26
292.5	316.28	281.91	244.91	205.76	167.81	126.27	85.22	47.02	17.19
315.0	326.55	292.65	257.08	217.70	176.64	134.39	94.53	55.86	22.68
337.5	330.60	295.99	260.66	223.90	183.80	142.51	101.69	62.54	28.41
360.0	325.59	291.46	259.47	223.90	184.04	144.42	104.07	63.97	29.36
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	5.97	0.72	1.19	0.96	0.96	0.96	0.96	0.96	0.96
22.5	5.73	1.43	0.96	0.48	0.72	0.72	0.72	0.72	1.19
45.0	4.54	1.19	0.96	0.96	0.72	0.72	0.96	0.72	0.72
67.5	2.63	1.43	0.72	0.72	0.72	0.48	0.48	0.96	0.96
90.0	4.54	0.48	0.24	0.24	0.24	0.24	0.72	0.48	0.72
112.5	1.67	0.24	0.48	0.24	0.48	0.24	0.48	0.48	0.48
135.0	0.96	0.24	0.00	0.24	0.24	0.24	0.24	0.48	0.72
157.5	1.19	0.48	0.00	0.24	0.24	0.24	0.48	0.72	0.48
180.0	0.24	0.00	0.24	0.24	0.24	0.24	0.24	0.48	0.48
202.5	0.72	0.00	0.24	0.00	0.24	0.24	0.48	0.48	0.48
225.0	1.19	0.24	0.24	0.00	0.24	0.24	0.48	0.48	0.72
247.5	1.19	0.24	0.24	0.24	0.24	0.24	0.48	0.48	0.72
270.0	0.96	0.96	0.96	0.72	1.19	1.19	1.43	1.19	1.19
292.5	2.39	1.19	0.48	0.48	0.72	0.96	0.96	1.19	1.19
315.0	3.10	1.19	0.72	0.72	0.72	0.96	0.72	0.96	0.96
337.5	5.25	0.72	1.19	0.96	0.72	0.72	0.96	0.72	0.96
360.0	5.97	0.72	1.19	0.96	0.96	0.96	0.96	0.96	0.96

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	0.96	0.96	1.43	1.43	0.96	1.43	1.43	1.19	1.19
22.5	1.19	1.19	0.96	0.96	1.43	1.19	0.96	1.19	0.96
45.0	1.43	1.19	1.19	1.19	1.19	1.19	1.43	1.19	1.19
67.5	0.96	0.96	1.19	1.19	1.19	1.43	1.19	1.19	1.19
90.0	0.72	0.72	1.19	0.96	1.19	0.96	0.96	0.96	0.96
112.5	0.72	0.96	0.72	0.96	1.19	0.96	0.96	0.96	1.43
135.0	0.48	0.72	0.72	0.96	0.72	0.72	0.96	1.19	0.96
157.5	0.72	0.48	0.96	1.19	1.19	0.72	0.96	0.96	1.19
180.0	0.72	0.72	0.72	1.19	1.19	0.96	1.19	0.96	0.96
202.5	0.96	0.72	0.72	0.96	0.96	1.19	0.72	1.19	0.96
225.0	0.72	0.72	0.96	0.96	0.96	1.19	1.19	0.96	0.96
247.5	0.48	0.72	0.96	0.72	0.96	0.96	0.96	0.96	0.96
270.0	1.43	1.67	1.91	1.43	1.43	1.19	1.67	1.67	1.67
292.5	0.96	1.19	0.96	1.43	1.19	0.96	1.19	1.43	1.19
315.0	0.72	1.43	0.96	1.19	1.19	1.19	0.96	0.96	1.19
337.5	1.19	0.96	1.19	0.96	0.96	1.19	0.96	1.43	1.19
360.0	0.96	0.96	1.43	1.43	0.96	1.43	1.43	1.19	1.19

C/γ(°)	180.0
0.0	1.15
22.5	1.15
45.0	1.15
67.5	1.15
90.0	1.15
112.5	1.15
135.0	1.15
157.5	1.15
180.0	1.15
202.5	1.15
225.0	1.15
247.5	1.15
270.0	1.15
292.5	1.15
315.0	1.15
337.5	1.15
360.0	1.15