



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.04

LampCAT:

Current(A): 0.1670

Lamp flux(lm): -1.0

Power (W): 19.88

Number of Lamps: 1

PF: 0.9911

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1310.20, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 65.91

Central intensity(cd): 470.749, Maximum intensity(cd): 478.360

Angle of maximum intensity: C=157.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=108.8

[C90/270]Total=112.5

Field angle(10%Imax): [C0/180]Total=155.9

[C90/270]Total=160.5

Maximum s/h(1/2): C0_180=1.34 C90_270=1.27

Maximum s/h(1/4): C0_180=1.45 C90_270=1.39

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.49%

Down flux rate of LUM(%): 99.51%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 79.424%

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	470.749	0.000	0	0.00%	0.00%
5.0	468.662	11.230	11.23	0.00%	0.86%
10.0	461.830	33.287	44.517	0.00%	3.40%
15.0	450.820	54.138	98.655	0.00%	7.53%
20.0	435.558	73.050	171.705	0.00%	13.11%
25.0	416.387	89.353	261.058	0.00%	19.93%
30.0	393.859	102.537	363.595	0.00%	27.75%
35.0	367.796	112.159	475.754	0.00%	36.31%
40.0	339.077	117.936	593.691	0.00%	45.31%
45.0	306.942	119.616	713.306	0.00%	54.44%
50.0	272.285	117.041	830.347	0.00%	63.38%
55.0	235.420	110.392	940.739	0.00%	71.80%
60.0	196.676	99.878	1040.617	0.00%	79.42%
65.0	156.768	85.923	1126.54	0.00%	85.98%
70.0	116.323	69.148	1195.688	0.00%	91.26%
75.0	77.668	50.706	1246.394	0.00%	95.13%
80.0	43.936	32.538	1278.932	0.00%	97.61%
85.0	20.722	17.569	1296.501	0.00%	98.95%
90.0	5.983	7.312	1303.813	0.00%	99.51%
95.0	0.806	1.859	1305.672	0.00%	99.65%
100.0	0.597	0.381	1306.053	0.00%	99.68%
105.0	0.582	0.315	1306.368	0.00%	99.71%
110.0	0.582	0.304	1306.672	0.00%	99.73%
115.0	0.597	0.298	1306.971	0.00%	99.75%
120.0	0.641	0.301	1307.272	0.00%	99.78%
125.0	0.701	0.310	1307.582	0.00%	99.80%
130.0	0.806	0.328	1307.91	0.00%	99.83%
135.0	0.895	0.344	1308.254	0.00%	99.85%
140.0	0.940	0.340	1308.593	0.00%	99.88%
145.0	1.060	0.334	1308.927	0.00%	99.90%
150.0	1.104	0.319	1309.246	0.00%	99.93%
155.0	1.134	0.283	1309.529	0.00%	99.95%
160.0	1.074	0.232	1309.761	0.00%	99.97%
165.0	1.224	0.189	1309.95	0.00%	99.98%
170.0	1.149	0.141	1310.091	0.00%	99.99%
175.0	1.164	0.083	1310.173	0.00%	100.00%
180.0	1.222	0.029	1310.202	0.00%	100.00%

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

Date:
Humidity(%): 58%

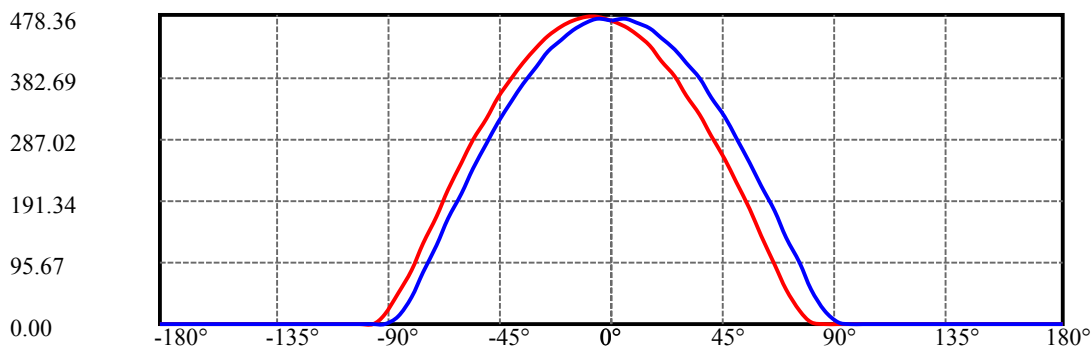
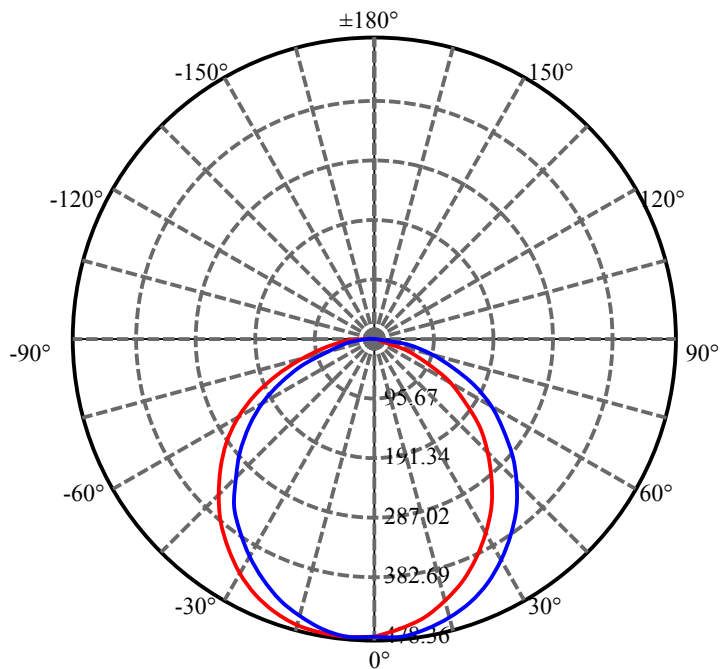
Operator: Tester

ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	363.60	N.A.	27.75%
0-40	593.69	N.A.	45.31%
0-60	1040.62	N.A.	79.42%
0-90	1303.81	N.A.	99.51%
0-120	1307.27	N.A.	99.78%
0-180	1310.20	N.A.	100.00%
60-90	263.20	N.A.	20.09%
90-120	3.46	N.A.	0.26%
90-130	4.10	N.A.	0.31%
90-150	5.43	N.A.	0.41%
90-180	6.36	N.A.	0.49%
0-60.44	1048.16	N.A.	80.00%

ZONAL LUMEN SUMMARY

0-10	44.52
10-20	127.19
20-30	191.89
30-40	230.10
40-50	236.66
50-60	210.27
60-70	155.07
70-80	83.24
80-90	24.88
90-100	2.24
100-110	0.62
110-120	0.60
120-130	0.64
130-140	0.68
140-150	0.65
150-160	0.51
160-170	0.33
170-180	0.08

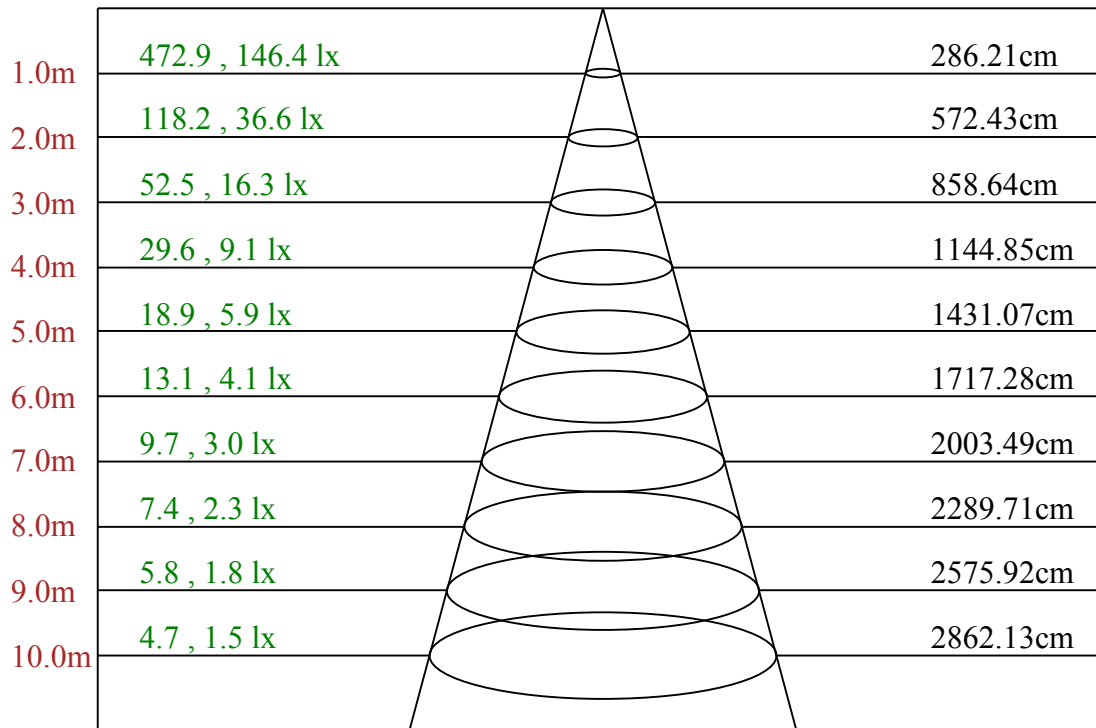


C0/C180: —

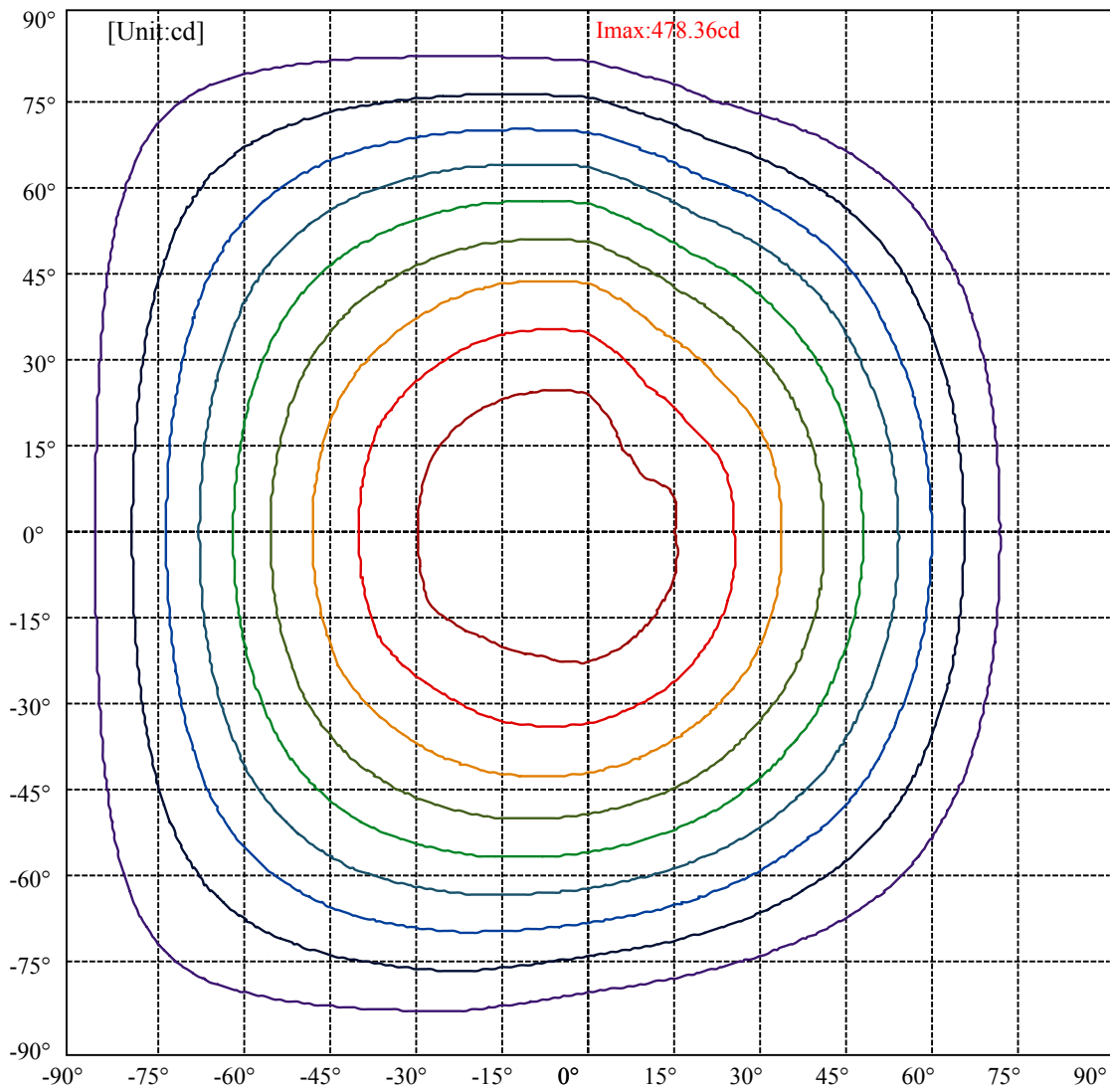
C90/C270: —

Field angle(10%Imax):C0/180Left:84.9 Right:71.0
:C90/270Left:79.4 Right:81.1

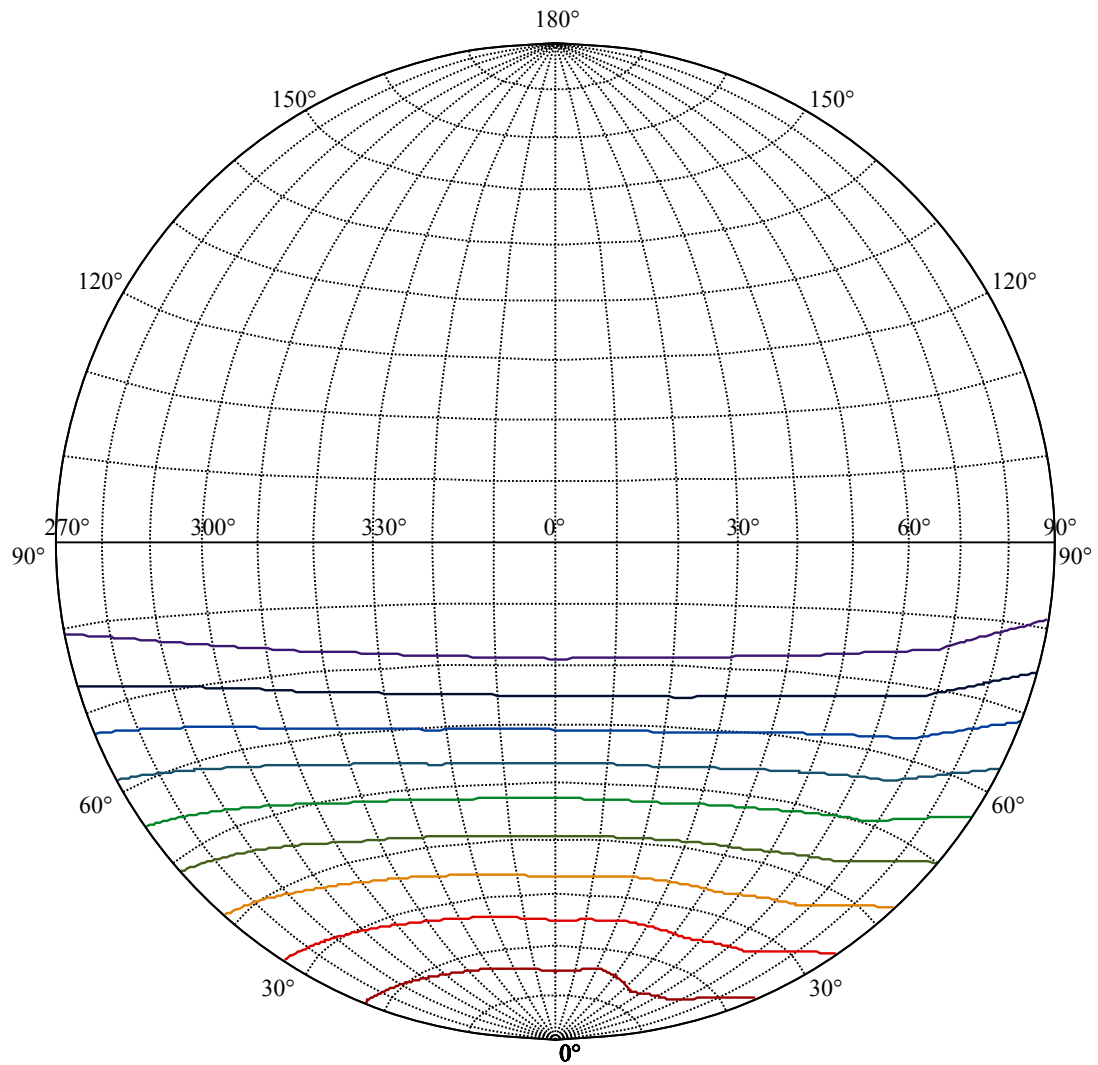
Beam Angle(50%Imax):C0/180Left:61.3 Right:47.5
:C90/270Left:55.6 Right:56.9



Max , Ave Beam angle of C157.5 plane 110.11



(10%Imax) 47.8191	—
(20%Imax) 95.6383	—
(30%Imax) 143.457	—
(40%Imax) 191.277	—
(50%Imax) 239.096	—
(60%Imax) 286.915	—
(70%Imax) 334.734	—
(80%Imax) 382.553	—
(90%Imax) 430.372	—



House

[Unit:cd]

Road

Imax:478.36

(10%Imax) 47.8312	
(20%Imax) 95.6624	
(30%Imax) 143.494	
(40%Imax) 191.325	
(50%Imax) 239.156	
(60%Imax) 286.987	
(70%Imax) 334.819	
(80%Imax) 382.65	
(90%Imax) 430.481	

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	470.75	461.89	447.81	429.90	407.70	382.88	354.47	323.92	290.50
22.5	470.75	465.23	451.86	434.92	412.96	386.94	359.49	328.22	293.84
45.0	470.75	453.06	440.88	425.13	406.51	382.88	356.86	327.98	297.90
67.5	470.75	455.21	445.66	431.57	413.67	392.19	368.32	341.58	311.75
90.0	470.75	473.82	467.86	457.59	443.99	425.61	403.65	379.06	351.85
112.5	470.75	477.88	473.35	464.75	451.63	433.72	412.72	390.28	363.31
135.0	470.75	476.21	474.30	467.62	455.68	441.12	422.98	398.87	371.42
157.5	470.75	478.36	477.41	471.68	461.65	447.57	428.95	406.03	381.69
180.0	470.75	475.50	474.78	469.77	460.22	445.90	427.76	404.84	379.78
202.5	470.75	477.88	477.41	472.39	462.37	448.28	429.90	407.47	382.16
225.0	470.75	463.08	461.65	455.92	445.66	431.10	412.72	391.23	366.41
247.5	470.75	461.89	458.55	451.15	439.21	424.17	405.79	383.60	357.82
270.0	470.75	473.11	466.19	454.97	439.93	421.07	398.16	372.38	344.93
292.5	470.75	471.92	462.61	448.52	430.38	409.38	384.79	355.91	326.55
315.0	470.75	467.14	455.68	441.12	421.55	398.39	372.62	342.54	308.17
337.5	470.75	466.43	453.30	436.11	415.82	391.00	362.59	330.84	297.19
360.0	470.75	461.89	447.81	429.90	407.70	382.88	354.47	323.92	290.50
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	256.13	219.61	178.79	135.82	93.09	53.95	20.29	1.91	0.72
22.5	256.84	217.70	178.31	136.54	95.72	56.81	23.63	3.10	1.43
45.0	264.01	227.72	189.29	150.14	108.37	68.27	32.94	8.12	1.91
67.5	279.04	242.04	203.61	164.94	126.51	87.37	49.89	17.90	2.63
90.0	320.82	286.92	250.88	213.88	174.73	134.15	94.53	54.90	22.20
112.5	333.47	300.05	264.48	227.25	188.10	147.04	105.75	65.64	29.84
135.0	340.87	308.40	272.84	236.55	198.60	157.07	115.06	74.24	38.67
157.5	350.89	317.71	282.39	245.63	205.28	163.75	122.69	82.11	44.64
180.0	350.89	319.15	285.49	248.25	208.15	165.42	124.36	83.55	47.02
202.5	351.61	320.10	285.01	247.30	207.43	167.09	124.60	83.55	46.55
225.0	339.44	309.36	275.46	239.18	201.23	160.89	119.11	78.29	41.30
247.5	328.46	295.99	260.90	223.19	185.95	147.28	110.04	70.90	34.61
270.0	312.22	277.85	241.09	203.14	163.51	121.74	79.97	42.73	12.89
292.5	293.37	256.84	218.89	178.79	138.93	96.91	56.81	22.92	3.58
315.0	272.36	234.88	197.17	155.87	113.86	74.24	37.24	9.55	2.15
337.5	260.66	222.23	182.13	140.36	98.82	59.20	25.78	3.58	1.43
360.0	256.13	219.61	178.79	135.82	93.09	53.95	20.29	1.91	0.72
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	0.72	0.48	0.48	0.48	0.72	0.96	0.96	0.96	1.19
22.5	0.96	0.72	0.48	0.72	0.96	0.72	0.72	1.19	0.96
45.0	1.19	0.72	0.48	0.72	0.96	0.72	0.96	0.96	0.96
67.5	0.96	0.48	0.48	0.72	0.72	0.96	0.96	0.72	0.72
90.0	2.39	0.48	0.48	0.48	0.24	0.48	0.48	0.72	0.72
112.5	6.68	0.96	0.48	0.24	0.24	0.48	0.48	0.48	0.48
135.0	10.98	0.72	0.48	0.48	0.48	0.72	0.48	0.48	0.72
157.5	14.32	0.72	0.48	0.48	0.48	0.72	0.48	0.24	0.48
180.0	15.75	0.72	1.19	0.72	0.48	0.48	0.24	0.24	0.72
202.5	15.99	1.43	0.72	0.48	0.48	0.24	0.48	0.48	0.72
225.0	12.65	1.19	0.72	0.72	0.24	0.00	0.48	0.24	0.48
247.5	8.59	1.67	0.72	0.24	0.24	0.24	0.24	0.48	0.72
270.0	0.96	0.96	0.72	0.72	0.72	0.96	0.96	1.19	1.19
292.5	1.19	0.48	0.72	0.72	0.96	0.72	0.96	1.19	0.96
315.0	1.19	0.48	0.48	0.72	0.72	0.72	0.72	0.72	0.96
337.5	1.19	0.72	0.48	0.72	0.72	0.72	0.72	0.96	0.96
360.0	0.72	0.48	0.48	0.48	0.72	0.96	0.96	0.96	1.19

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	1.19	1.43	1.19	1.19	0.96	0.96	1.19	1.19	1.19
22.5	1.19	1.19	1.19	1.19	1.19	1.19	0.96	1.19	1.19
45.0	1.19	1.43	1.19	1.43	0.96	1.19	1.43	1.19	1.19
67.5	0.96	0.96	1.19	1.19	1.43	1.19	1.19	1.19	1.19
90.0	0.72	0.72	0.96	0.96	0.96	0.96	1.19	1.19	1.19
112.5	0.96	0.72	0.96	0.96	1.19	1.19	1.19	1.43	1.19
135.0	0.72	0.72	0.96	0.96	0.96	0.96	1.19	1.19	0.96
157.5	0.72	0.96	0.72	0.96	1.19	0.96	1.19	1.19	0.96
180.0	0.72	0.72	0.96	1.19	1.19	1.19	1.19	1.19	0.96
202.5	0.72	0.48	0.72	0.96	1.19	0.96	1.19	1.19	1.19
225.0	0.48	0.72	0.96	0.96	0.96	0.96	1.19	0.96	1.19
247.5	0.48	0.48	0.96	0.96	0.96	0.96	1.19	1.19	1.19
270.0	1.19	1.19	1.19	1.19	1.19	1.43	1.19	0.96	1.19
292.5	1.19	0.96	1.19	1.19	1.19	0.96	1.43	0.96	1.19
315.0	0.96	1.19	1.43	1.19	1.43	1.19	1.43	1.19	1.43
337.5	0.96	1.19	1.19	1.19	1.19	0.96	1.19	0.96	1.19
360.0	1.19	1.43	1.19	1.19	0.96	0.96	1.19	1.19	1.19
C/γ(°)	180.0								
0.0	1.22								
22.5	1.22								
45.0	1.22								
67.5	1.22								
90.0	1.22								
112.5	1.22								
135.0	1.22								
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