



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

Luminaire:

Report No:

Test No:

LampCAT:

Lamp flux(lm): 1656.5

Number of Lamps: 1

Length(mm): 0

Phm Type: C

Voltage(V): 120.01

Current(A): 0.1014

Power (W): 11.9570

PF: 0.9829

Ballast type:

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 1656.50

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 138.54

Central intensity(cd): 596.549

Maximum intensity(cd): 596.549

Angle of maximum intensity: $C=0.0$ $\gamma=0.0$

Beam Angle(50%Imax): [C0/180]Total=101.0

[C90/270]Total=116.9

Field angle(10%Imax): [C0/180]Total=156.9

[C90/270]Total=162.0

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

Maximum s/h(1/4): C0_180=1.85 C90_270=1.41

Up flux rate of lamp(%): 0.83%

Down flux rate of lamp(%): 99.17%

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 : 79.889%

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

Date:
Humidity(%): 58%

Operator: Zac

Zonal flux distribution table

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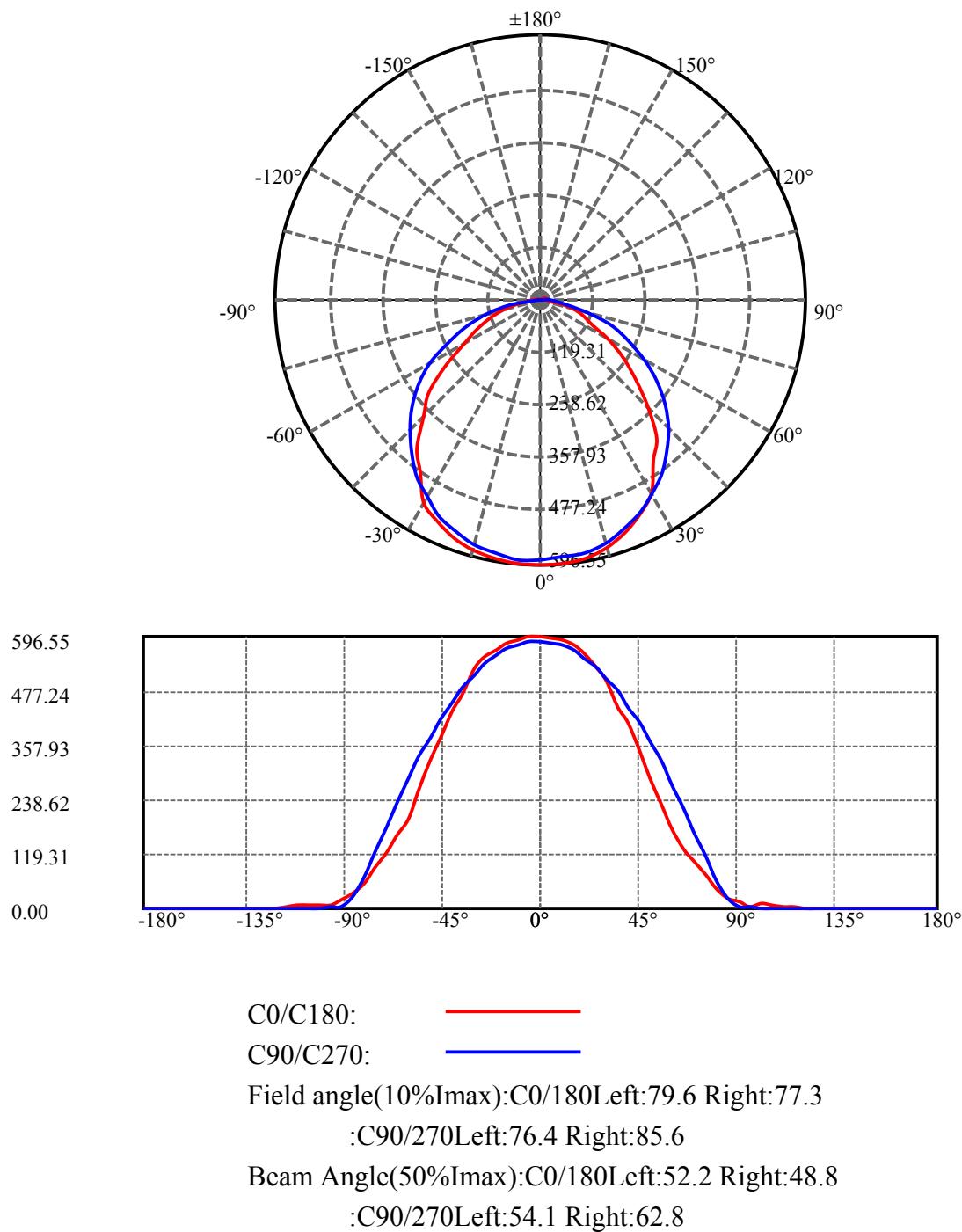
$\gamma(^{\circ})$	Average I(cd)	Zonal F(lm)	Sum F(lm)	Eff Flux(%)	Eff Sum(%)
0.0	591.668	.000	.000	.000%	.000%
5.0	589.958	14.126	14.126	.853%	.853%
10.0	584.451	42.012	56.138	2.536%	3.389%
15.0	574.089	68.724	124.862	4.149%	7.538%
20.0	558.468	93.339	218.201	5.635%	13.172%
25.0	538.019	115.001	333.202	6.942%	20.115%
30.0	512.519	132.946	466.149	8.026%	28.141%
35.0	474.673	145.371	611.519	8.776%	36.916%
40.0	437.350	152.164	763.684	9.186%	46.102%
45.0	390.709	153.322	917.005	9.256%	55.358%
50.0	342.227	148.100	1065.106	8.941%	64.299%
55.0	289.296	137.314	1202.420	8.289%	72.588%
60.0	233.950	120.947	1323.367	7.301%	79.889%
65.0	184.347	101.689	1425.056	6.139%	86.028%
70.0	138.449	81.734	1506.790	4.934%	90.962%
75.0	96.663	61.454	1568.244	3.710%	94.672%
80.0	57.525	41.256	1609.500	2.491%	97.163%
85.0	26.374	22.797	1632.298	1.376%	98.539%
90.0	11.667	10.416	1642.714	.629%	99.168%
95.0	3.993	4.288	1647.002	.259%	99.427%
100.0	3.654	2.078	1649.080	.125%	99.552%
105.0	3.706	1.969	1651.049	.119%	99.671%
110.0	2.597	1.648	1652.697	.099%	99.770%
115.0	1.305	.988	1653.685	.060%	99.830%
120.0	.613	.466	1654.151	.028%	99.858%
125.0	.535	.265	1654.416	.016%	99.874%
130.0	.587	.244	1654.660	.015%	99.889%
135.0	.692	.258	1654.919	.016%	99.905%
140.0	.705	.259	1655.177	.016%	99.920%
145.0	.887	.266	1655.443	.016%	99.936%
150.0	.848	.256	1655.698	.015%	99.952%
155.0	.926	.225	1655.923	.014%	99.965%
160.0	.979	.200	1656.123	.012%	99.977%
165.0	1.018	.165	1656.287	.010%	99.987%
170.0	.966	.118	1656.405	.007%	99.994%
175.0	1.018	.071	1656.476	.004%	99.999%
180.0	1.044	.025	1656.501	.001%	100.000%

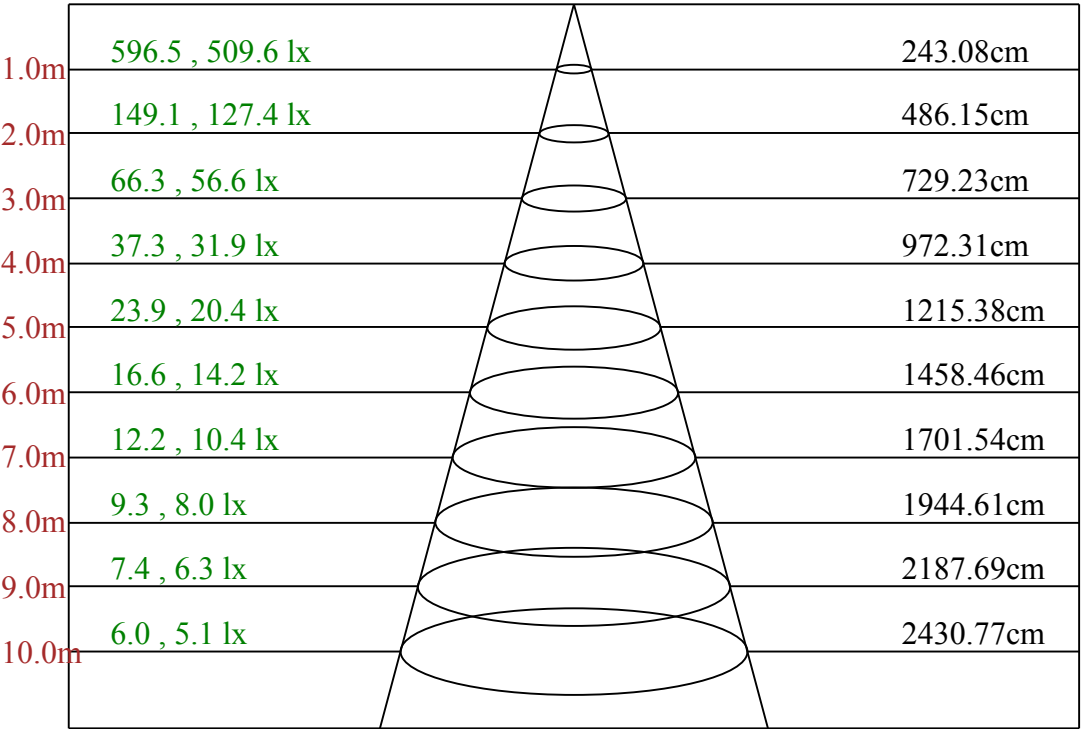
ZONAL LUMEN SUMMARY

Zone	Lumens	%Lamp	%Fixt
0-30	466.15	28.14%	28.14%
0-40	763.68	46.10%	46.10%
0-60	1323.37	79.89%	79.89%
0-90	1642.71	99.17%	99.17%
0-120	1654.15	99.86%	99.86%
0-180	1656.50	100.00%	100.00%
60-90	440.29	26.58%	26.58%
90-120	21.85	1.32%	1.32%
90-130	22.36	1.35%	1.35%
90-150	23.40	1.41%	1.41%
90-180	24.18	1.46%	1.46%
0-60.09	1325.20	80.00%	80.00%

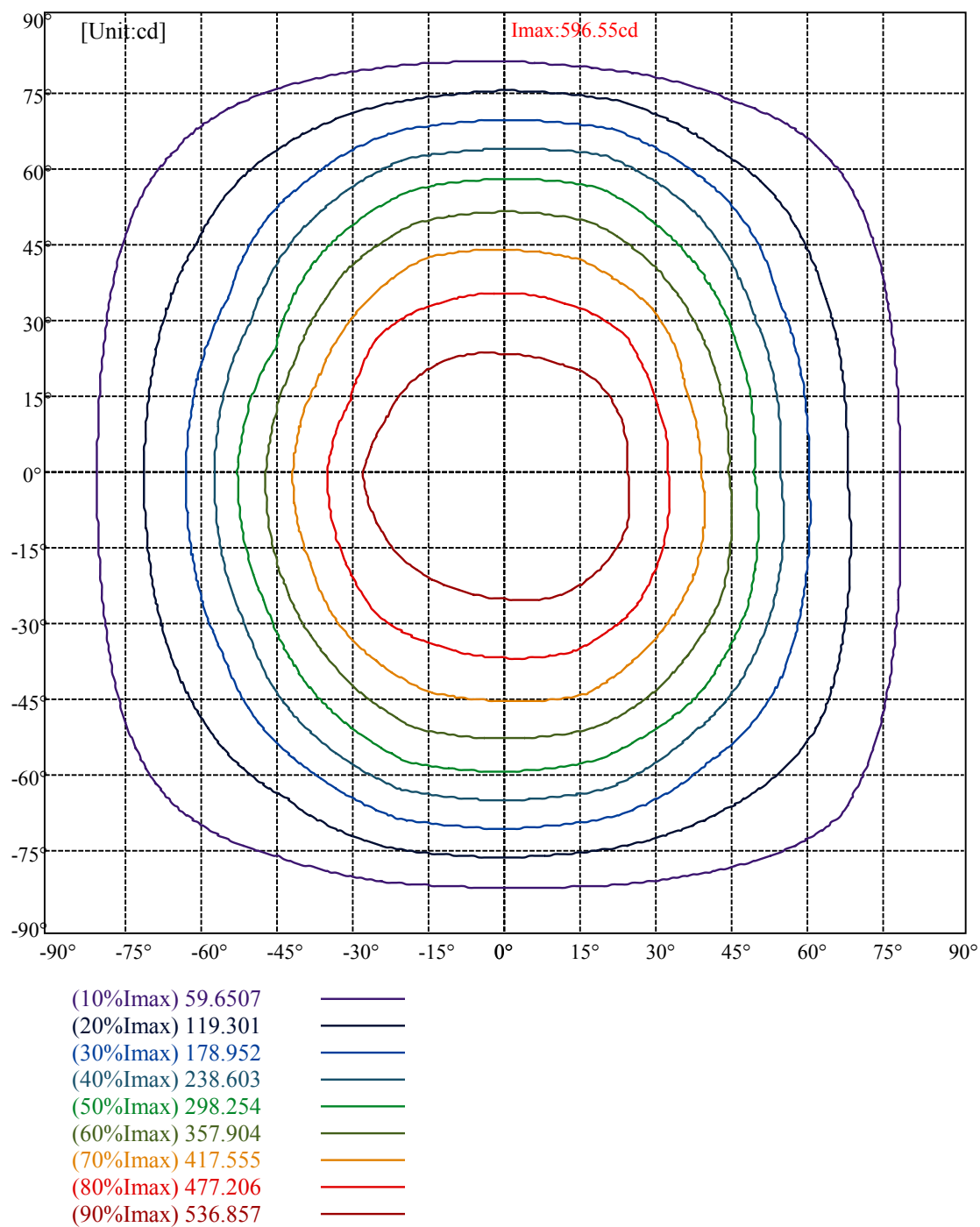
ZONAL LUMEN SUMMARY

0-10	56.14
10-20	162.06
20-30	247.95
30-40	297.54
40-50	301.42
50-60	258.26
60-70	183.42
70-80	102.71
80-90	33.21
90-100	6.37
100-110	3.62
110-120	1.45
120-130	0.51
130-140	0.52
140-150	0.52
150-160	0.42
160-170	0.28
170-180	0.07





Max , Ave Beam angle of C0plane100.99



Intensity data(cd)

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C/ γ (°)	0.0	5.0	10.0	15.0	20.0	25.0	30.0	35.0	40.0
0.0	596.55	594.25	588.82	576.71	559.38	531.40	501.34	441.83	406.75
22.5	593.42	592.79	586.32	575.04	558.96	537.04	509.48	446.84	406.54
45.0	590.91	589.66	583.19	570.87	557.50	537.04	511.36	477.95	444.54
67.5	587.15	584.02	576.92	566.48	550.61	529.73	504.88	476.49	442.66
90.0	585.27	581.10	578.17	566.90	549.36	528.90	503.42	477.53	441.62
112.5	590.70	589.66	583.39	570.45	553.74	534.12	510.11	477.95	446.84
135.0	593.83	590.08	585.69	574.00	558.96	536.62	512.19	483.17	430.97
157.5	595.51	593.63	588.61	575.88	560.01	538.92	503.63	457.90	418.65
180.0	596.55	596.34	590.08	582.98	568.15	550.40	525.14	472.10	434.31
202.5	593.42	592.37	587.99	578.38	563.35	544.56	520.75	477.74	429.51
225.0	590.91	588.82	583.81	573.79	558.34	538.71	518.67	487.76	457.28
247.5	587.15	584.65	577.97	569.61	553.95	535.37	513.24	483.59	452.89
270.0	585.27	585.90	577.76	569.82	555.62	536.00	510.73	486.30	451.64
292.5	590.70	590.29	584.65	575.04	559.80	542.89	519.50	492.36	458.53
315.0	593.83	590.91	586.11	577.34	562.10	543.93	517.83	488.60	444.96
337.5	595.51	594.88	591.75	582.14	565.65	542.68	518.04	466.67	429.92
360.0	596.55	594.25	588.82	576.71	559.38	531.40	501.34	441.83	406.75
C/ γ (°)	45.0	50.0	55.0	60.0	65.0	70.0	75.0	80.0	85.0
0.0	344.11	283.97	227.39	173.31	130.92	101.90	72.87	44.27	23.39
22.5	357.68	304.85	243.05	183.33	140.94	106.91	76.42	44.68	21.92
45.0	381.48	337.22	282.51	236.16	178.11	120.48	77.47	44.06	18.58
67.5	407.17	366.03	321.97	275.83	224.67	162.24	107.74	51.57	18.79
90.0	405.91	365.61	321.14	271.65	219.03	168.09	115.47	63.27	21.51
112.5	410.30	366.03	318.22	268.52	216.95	158.48	103.36	60.14	24.85
135.0	391.51	339.51	283.14	227.80	173.72	129.46	89.37	54.29	26.52
157.5	362.90	293.37	246.18	185.42	148.04	114.42	82.69	50.74	25.27
180.0	372.50	326.78	260.79	196.48	158.27	122.57	87.91	57.21	31.53
202.5	385.45	322.39	257.87	199.41	153.47	118.81	86.44	56.79	30.07
225.0	396.10	348.07	297.34	239.91	181.03	126.74	91.25	55.33	25.89
247.5	416.56	376.89	333.67	285.64	225.51	169.97	116.93	67.86	26.52
270.0	415.31	375.43	333.25	283.97	230.10	176.65	123.61	70.78	27.56
292.5	422.83	382.11	327.40	280.42	224.88	167.25	115.89	70.16	31.74
315.0	399.02	354.34	304.64	234.28	179.36	138.85	102.52	65.15	33.41
337.5	382.53	333.04	270.19	201.08	164.54	132.38	96.68	64.10	34.45
360.0	344.11	283.97	227.39	173.31	130.92	101.90	72.87	44.27	23.39
C/ γ (°)	90.0	95.0	100.0	105.0	110.0	115.0	120.0	125.0	130.0
0.0	15.87	1.88	11.28	8.77	5.22	1.88	0.21	0.42	0.63
22.5	14.83	1.67	5.22	1.88	1.67	0.84	0.63	0.63	0.63
45.0	11.07	4.59	1.88	3.97	2.30	1.04	0.84	0.84	0.63
67.5	5.85	4.18	0.42	1.46	1.25	0.63	0.63	0.63	0.63
90.0	3.34	2.30	0.63	0.63	0.63	0.63	0.84	0.84	1.04
112.5	9.19	5.43	0.63	3.34	2.09	0.84	0.63	0.84	0.84
135.0	13.16	1.88	6.06	2.30	1.25	0.84	0.84	0.63	1.04
157.5	15.45	0.84	4.80	6.47	5.22	2.51	0.63	0.84	0.84
180.0	16.91	5.85	9.19	8.98	6.47	3.13	0.84	0.21	0.42
202.5	15.03	3.55	8.56	4.39	1.88	0.63	0.00	0.21	0.42
225.0	11.28	7.73	0.21	4.59	3.13	2.09	1.25	0.42	0.21
247.5	5.85	4.39	0.84	0.63	1.67	0.84	0.42	0.63	0.42
270.0	4.18	1.88	0.42	0.00	0.42	0.63	0.42	0.63	0.42
292.5	11.07	6.26	0.42	2.51	2.51	1.25	0.63	0.21	0.42
315.0	15.66	7.10	3.97	5.43	2.30	1.46	0.63	0.42	0.42
337.5	17.96	4.39	3.97	3.97	3.55	1.67	0.42	0.21	0.42
360.0	15.87	1.88	11.28	8.77	5.22	1.88	0.21	0.42	0.63

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	0.42	0.21	0.84	0.42	0.63	0.63	0.63	0.84	0.84
22.5	0.84	0.63	1.04	0.84	1.04	1.04	1.04	1.04	1.04
45.0	0.63	1.04	1.04	1.04	1.04	1.04	1.04	0.84	1.04
67.5	0.84	1.04	1.25	1.04	1.25	1.25	1.04	1.04	1.04
90.0	1.04	1.04	1.04	1.04	1.04	1.04	1.04	0.84	1.25
112.5	1.25	0.84	1.04	1.04	1.04	1.25	1.25	1.04	1.04
135.0	0.84	1.04	1.25	1.25	1.04	1.25	1.25	1.25	1.25
157.5	0.84	0.84	0.84	1.04	1.25	1.04	1.25	1.04	1.25
180.0	0.63	0.63	0.84	0.63	0.84	0.63	0.84	1.04	0.84
202.5	0.63	0.63	0.84	0.84	0.84	1.04	1.04	0.84	1.04
225.0	0.42	0.42	0.63	0.63	0.84	0.84	1.25	0.84	1.04
247.5	0.63	0.63	0.63	0.84	0.84	0.84	0.84	1.04	0.84
270.0	0.63	0.63	0.63	0.63	0.84	1.04	1.04	0.84	0.84
292.5	0.42	0.42	0.84	0.63	0.84	0.84	0.84	1.04	0.84
315.0	0.42	0.63	0.63	0.84	0.84	0.84	0.84	0.84	1.04
337.5	0.63	0.63	0.84	0.84	0.63	1.04	1.04	1.04	1.04
360.0	0.42	0.21	0.84	0.42	0.63	0.63	0.63	0.84	0.84

C/γ(°) 180.0

0.0	0.63
22.5	1.04
45.0	1.04
67.5	1.25
90.0	1.04
112.5	1.25
135.0	1.04
157.5	1.04
180.0	0.63
202.5	1.04
225.0	1.04
247.5	1.25
270.0	1.04
292.5	1.25
315.0	1.04
337.5	1.04
360.0	0.63