



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

LumCAT: LD8R-50K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 0.1460

Lamp flux(lm): -1.0

Power (W): 17.29

Number of Lamps: 1

PF: 0.9878

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1708.09, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 98.77

Central intensity(cd): 2763.742, Maximum intensity(cd): 2959.279

Angle of maximum intensity: C=180.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=41.8

[C90/270]Total=44.0

Field angle(10%Imax): [C0/180]Total=72.0

[C90/270]Total=73.4

Maximum s/h(1/2): C0_180=0.76 C90_270=0.74

Maximum s/h(1/4): C0_180=0.78 C90_270=0.77

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.11%

Down flux rate of LUM(%): 99.89%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.644%

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

Date:
Humidity(%): 59%

Operator: jarvis

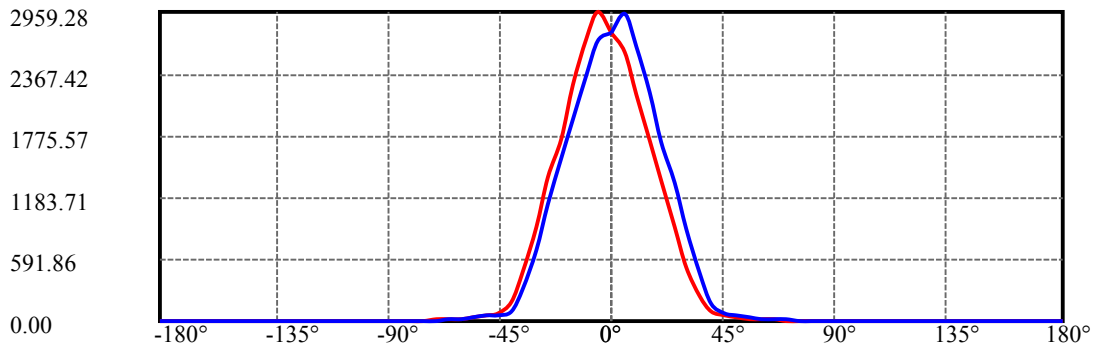
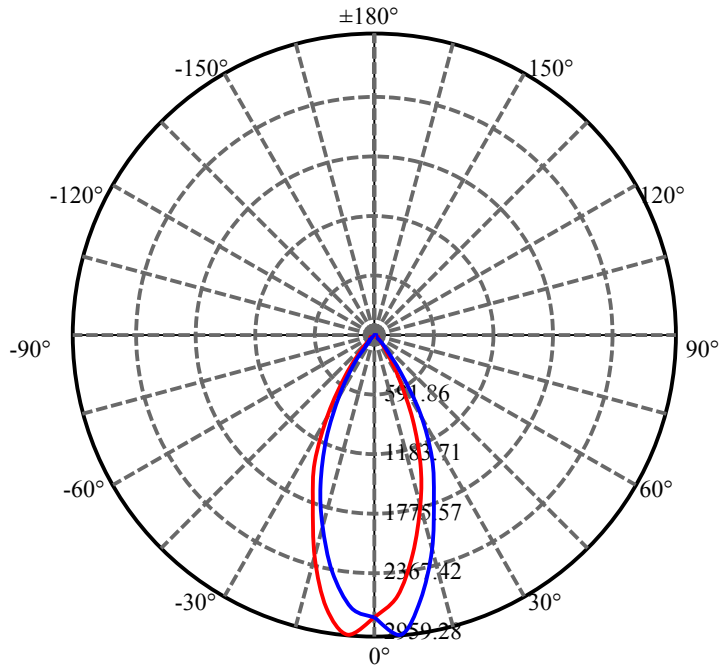
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 2763.742 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 2771.698 | 66.175 | 66.175 | 0.00% | 3.87% |
| 10.0 | 2452.808 | 186.897 | 253.072 | 0.00% | 14.82% |
| 15.0 | 2014.745 | 265.012 | 518.084 | 0.00% | 30.33% |
| 20.0 | 1580.320 | 296.284 | 814.368 | 0.00% | 47.68% |
| 25.0 | 1176.280 | 289.116 | 1103.484 | 0.00% | 64.60% |
| 30.0 | 739.887 | 242.493 | 1345.977 | 0.00% | 78.80% |
| 35.0 | 373.318 | 163.927 | 1509.904 | 0.00% | 88.40% |
| 40.0 | 139.915 | 85.629 | 1595.533 | 0.00% | 93.41% |
| 45.0 | 66.011 | 38.129 | 1633.662 | 0.00% | 95.64% |
| 50.0 | 47.141 | 22.864 | 1656.526 | 0.00% | 96.98% |
| 55.0 | 30.480 | 16.877 | 1673.403 | 0.00% | 97.97% |
| 60.0 | 19.409 | 11.532 | 1684.935 | 0.00% | 98.64% |
| 65.0 | 13.429 | 7.983 | 1692.918 | 0.00% | 99.11% |
| 70.0 | 8.971 | 5.672 | 1698.589 | 0.00% | 99.44% |
| 75.0 | 5.725 | 3.841 | 1702.43 | 0.00% | 99.67% |
| 80.0 | 3.125 | 2.368 | 1704.798 | 0.00% | 99.81% |
| 85.0 | 1.132 | 1.157 | 1705.955 | 0.00% | 99.87% |
| 90.0 | 0.027 | 0.317 | 1706.272 | 0.00% | 99.89% |
| 95.0 | 0.014 | 0.011 | 1706.283 | 0.00% | 99.89% |
| 100.0 | 0.014 | 0.007 | 1706.29 | 0.00% | 99.89% |
| 105.0 | 0.000 | 0.004 | 1706.294 | 0.00% | 99.89% |
| 110.0 | 0.027 | 0.007 | 1706.301 | 0.00% | 99.90% |
| 115.0 | 0.000 | 0.007 | 1706.308 | 0.00% | 99.90% |
| 120.0 | 0.014 | 0.003 | 1706.311 | 0.00% | 99.90% |
| 125.0 | 0.027 | 0.009 | 1706.32 | 0.00% | 99.90% |
| 130.0 | 0.067 | 0.021 | 1706.341 | 0.00% | 99.90% |
| 135.0 | 0.189 | 0.052 | 1706.393 | 0.00% | 99.90% |
| 140.0 | 0.323 | 0.095 | 1706.488 | 0.00% | 99.91% |
| 145.0 | 0.552 | 0.146 | 1706.634 | 0.00% | 99.91% |
| 150.0 | 0.943 | 0.220 | 1706.854 | 0.00% | 99.93% |
| 155.0 | 1.280 | 0.281 | 1707.135 | 0.00% | 99.94% |
| 160.0 | 1.590 | 0.301 | 1707.436 | 0.00% | 99.96% |
| 165.0 | 1.711 | 0.272 | 1707.708 | 0.00% | 99.98% |
| 170.0 | 1.738 | 0.205 | 1707.913 | 0.00% | 99.99% |
| 175.0 | 1.913 | 0.131 | 1708.043 | 0.00% | 100.00% |
| 180.0 | 2.067 | 0.048 | 1708.091 | 0.00% | 100.00% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|---------|
| 0-30 | 1345.98 | N.A. | 78.80% |
| 0-40 | 1595.53 | N.A. | 93.41% |
| 0-60 | 1684.93 | N.A. | 98.64% |
| 0-90 | 1706.27 | N.A. | 99.89% |
| 0-120 | 1706.31 | N.A. | 99.90% |
| 0-180 | 1708.09 | N.A. | 100.00% |
| 60-90 | 21.34 | N.A. | 1.25% |
| 90-120 | 0.04 | N.A. | 0.00% |
| 90-130 | 0.07 | N.A. | 0.00% |
| 90-150 | 0.58 | N.A. | 0.03% |
| 90-180 | 1.77 | N.A. | 0.10% |
| 0-30.63 | 1366.47 | N.A. | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 253.07 |
| 10-20 | 561.30 |
| 20-30 | 531.61 |
| 30-40 | 249.56 |
| 40-50 | 60.99 |
| 50-60 | 28.41 |
| 60-70 | 13.65 |
| 70-80 | 6.21 |
| 80-90 | 1.47 |
| 90-100 | 0.02 |
| 100-110 | 0.01 |
| 110-120 | 0.01 |
| 120-130 | 0.03 |
| 130-140 | 0.15 |
| 140-150 | 0.37 |
| 150-160 | 0.58 |
| 160-170 | 0.48 |
| 170-180 | 0.13 |

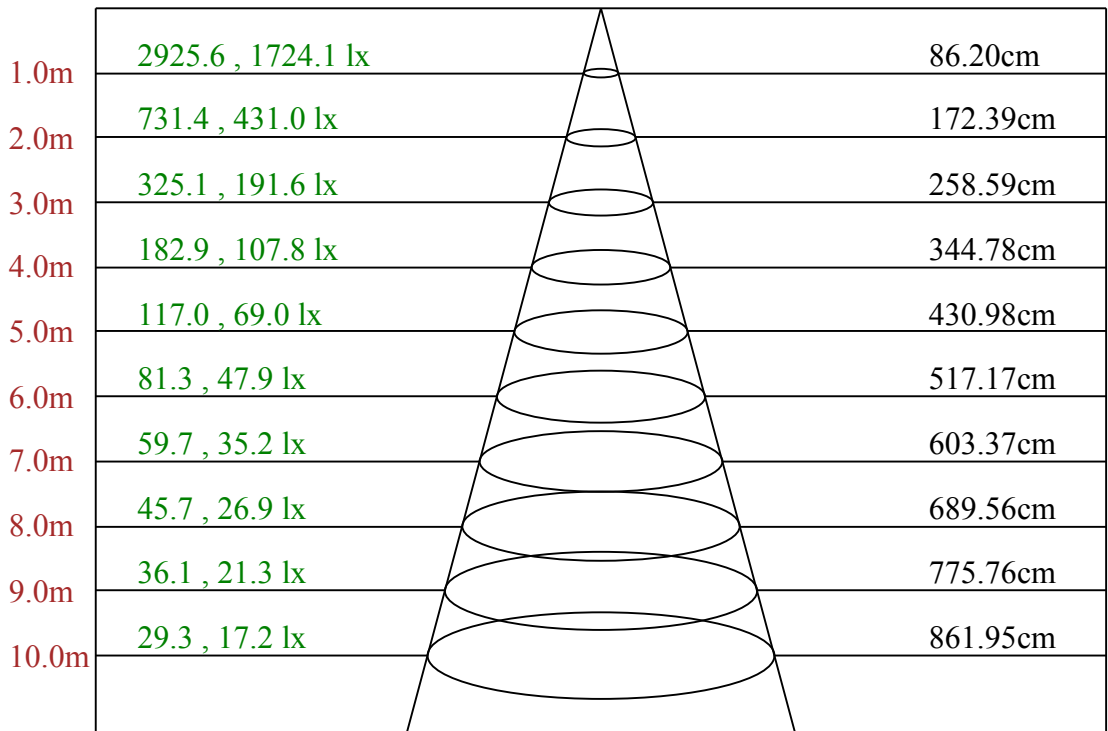


C0/C180: —

C90/C270: —

Field angle(10%Imax):C0/180Left:38.2 Right:33.8
:C90/270Left:35.5 Right:37.9

Beam Angle(50%Imax):C0/180Left:23.6 Right:18.2
:C90/270Left:21.0 Right:23.0



Max , Ave Beam angle of C180 plane 46.63

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 | 2763.74 | 2567.28 | 2172.91 | 1723.16 | 1344.74 | 905.54 | 506.86 | 230.80 | 84.05 |
| 22.5 | 2763.74 | 2553.27 | 2156.96 | 1708.72 | 1311.76 | 879.68 | 497.16 | 213.56 | 80.38 |
| 45.0 | 2763.74 | 2547.02 | 2144.47 | 1716.48 | 1322.75 | 901.66 | 492.85 | 198.69 | 78.87 |
| 67.5 | 2763.74 | 2550.47 | 2153.52 | 1750.10 | 1375.77 | 929.46 | 508.80 | 198.05 | 78.23 |
| 90.0 | 2763.74 | 2948.94 | 2635.38 | 2179.59 | 1708.50 | 1321.68 | 890.89 | 467.43 | 171.11 |
| 112.5 | 2763.74 | 2939.02 | 2619.65 | 2173.99 | 1707.64 | 1346.68 | 914.59 | 482.94 | 184.90 |
| 135.0 | 2763.74 | 2941.61 | 2654.99 | 2202.22 | 1719.06 | 1351.20 | 918.26 | 495.01 | 185.33 |
| 157.5 | 2763.74 | 2954.32 | 2693.78 | 2251.79 | 1748.80 | 1364.56 | 907.05 | 477.55 | 185.98 |
| 180.0 | 2763.74 | 2959.28 | 2710.59 | 2260.19 | 1753.33 | 1371.67 | 900.59 | 480.36 | 190.94 |
| 202.5 | 2763.74 | 2953.46 | 2723.74 | 2270.32 | 1778.11 | 1381.16 | 904.68 | 505.14 | 199.12 |
| 225.0 | 2763.74 | 2945.27 | 2726.75 | 2294.02 | 1781.77 | 1411.54 | 941.32 | 526.69 | 204.08 |
| 247.5 | 2763.74 | 2931.48 | 2706.50 | 2289.93 | 1809.14 | 1443.00 | 974.72 | 552.33 | 213.56 |
| 270.0 | 2763.74 | 2684.73 | 2360.40 | 1931.98 | 1565.41 | 1127.08 | 673.01 | 316.79 | 100.86 |
| 292.5 | 2763.74 | 2653.48 | 2305.45 | 1869.27 | 1509.81 | 1098.42 | 654.48 | 301.06 | 99.13 |
| 315.0 | 2763.74 | 2622.88 | 2265.36 | 1829.18 | 1449.90 | 1036.57 | 605.13 | 274.98 | 93.10 |
| 337.5 | 2763.74 | 2594.65 | 2214.50 | 1785.01 | 1398.61 | 950.58 | 547.81 | 251.71 | 89.00 |
| 360.0 | 2763.74 | 2567.28 | 2172.91 | 1723.16 | 1344.74 | 905.54 | 506.86 | 230.80 | 84.05 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 57.54 | 41.59 | 24.57 | 16.81 | 11.85 | 7.97 | 4.96 | 2.59 | 0.65 |
| 22.5 | 55.17 | 40.30 | 23.92 | 16.38 | 11.42 | 7.54 | 4.74 | 2.37 | 0.43 |
| 45.0 | 54.31 | 39.22 | 23.27 | 16.38 | 11.21 | 7.33 | 4.74 | 2.16 | 0.65 |
| 67.5 | 53.66 | 38.36 | 22.84 | 15.95 | 10.99 | 7.33 | 4.53 | 2.16 | 0.65 |
| 90.0 | 71.76 | 50.43 | 33.19 | 20.69 | 14.44 | 9.70 | 6.03 | 3.66 | 1.29 |
| 112.5 | 71.55 | 49.78 | 33.40 | 20.90 | 14.22 | 9.48 | 6.03 | 3.45 | 1.29 |
| 135.0 | 71.33 | 50.43 | 33.62 | 20.69 | 14.22 | 9.70 | 6.03 | 3.45 | 1.08 |
| 157.5 | 71.76 | 51.29 | 34.70 | 20.90 | 14.44 | 9.70 | 6.25 | 3.45 | 1.29 |
| 180.0 | 73.92 | 52.58 | 35.77 | 21.34 | 14.65 | 10.13 | 6.68 | 3.66 | 1.72 |
| 202.5 | 75.43 | 53.45 | 37.28 | 22.20 | 15.09 | 10.34 | 6.68 | 3.45 | 1.72 |
| 225.0 | 76.50 | 54.09 | 38.36 | 22.41 | 15.73 | 10.56 | 6.68 | 3.88 | 1.72 |
| 247.5 | 78.23 | 54.31 | 39.22 | 22.84 | 15.73 | 10.56 | 7.11 | 3.88 | 1.72 |
| 270.0 | 62.71 | 46.12 | 28.23 | 18.75 | 13.15 | 8.41 | 5.60 | 3.23 | 1.29 |
| 292.5 | 62.28 | 45.04 | 27.58 | 18.53 | 12.93 | 8.41 | 5.39 | 3.02 | 1.08 |
| 315.0 | 61.20 | 44.18 | 26.51 | 18.32 | 12.50 | 8.41 | 5.17 | 2.80 | 0.65 |
| 337.5 | 58.83 | 43.10 | 25.21 | 17.46 | 12.28 | 7.97 | 4.96 | 2.80 | 0.86 |
| 360.0 | 57.54 | 41.59 | 24.57 | 16.81 | 11.85 | 7.97 | 4.96 | 2.59 | 0.65 |
| C/ γ (°) | 90.0 | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
| 0.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 22.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 |
| 45.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 67.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 90.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 112.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 135.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 157.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 202.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 247.5 | 0.22 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 270.0 | 0.22 | 0.22 | 0.22 | 0.00 | 0.22 | 0.00 | 0.22 | 0.43 | 0.43 |
| 292.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 | 0.00 | 0.00 | 0.00 | 0.22 |
| 315.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.22 |
| 337.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 360.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LD8R-50K

Intensity data(cd)

Appendix Page: 7 Total:7

| C/ γ (°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.22 | 0.43 | 0.65 | 1.29 | 1.51 | 1.51 | 1.72 | 1.72 | 2.16 |
| 22.5 | 0.43 | 0.43 | 0.86 | 1.29 | 1.51 | 1.72 | 1.72 | 1.94 | 2.16 |
| 45.0 | 0.22 | 0.43 | 0.86 | 1.29 | 1.51 | 1.72 | 1.94 | 1.72 | 1.72 |
| 67.5 | 0.43 | 0.65 | 0.86 | 1.29 | 1.51 | 1.72 | 1.94 | 1.72 | 1.94 |
| 90.0 | 0.00 | 0.22 | 0.43 | 0.86 | 1.29 | 1.51 | 1.72 | 1.72 | 1.94 |
| 112.5 | 0.00 | 0.22 | 0.22 | 0.86 | 1.08 | 1.51 | 1.72 | 1.72 | 1.72 |
| 135.0 | 0.00 | 0.22 | 0.43 | 0.65 | 1.08 | 1.51 | 1.51 | 1.51 | 1.72 |
| 157.5 | 0.00 | 0.22 | 0.22 | 0.65 | 1.08 | 1.29 | 1.29 | 1.72 | 1.94 |
| 180.0 | 0.00 | 0.00 | 0.43 | 0.65 | 0.86 | 1.51 | 1.72 | 1.51 | 1.94 |
| 202.5 | 0.00 | 0.00 | 0.22 | 0.65 | 1.08 | 1.51 | 1.51 | 1.72 | 1.72 |
| 225.0 | 0.00 | 0.00 | 0.22 | 0.43 | 1.08 | 1.29 | 1.51 | 1.51 | 1.72 |
| 247.5 | 0.00 | 0.00 | 0.00 | 0.22 | 1.08 | 1.08 | 1.29 | 1.51 | 1.72 |
| 270.0 | 0.65 | 0.86 | 1.29 | 1.72 | 1.94 | 2.16 | 2.37 | 2.37 | 2.37 |
| 292.5 | 0.22 | 0.65 | 0.65 | 1.08 | 1.29 | 1.94 | 1.94 | 1.94 | 1.94 |
| 315.0 | 0.43 | 0.43 | 0.65 | 1.08 | 1.51 | 1.94 | 1.72 | 1.72 | 2.16 |
| 337.5 | 0.43 | 0.43 | 0.86 | 1.08 | 1.08 | 1.51 | 1.72 | 1.72 | 1.72 |
| 360.0 | 0.22 | 0.43 | 0.65 | 1.29 | 1.51 | 1.51 | 1.72 | 1.72 | 2.16 |
| C/ γ (°) | 180.0 | | | | | | | | |
| 0.0 | 2.07 | | | | | | | | |
| 22.5 | 2.07 | | | | | | | | |
| 45.0 | 2.07 | | | | | | | | |
| 67.5 | 2.07 | | | | | | | | |
| 90.0 | 2.07 | | | | | | | | |
| 112.5 | 2.07 | | | | | | | | |
| 135.0 | 2.07 | | | | | | | | |
| 157.5 | 2.07 | | | | | | | | |
| 180.0 | 2.07 | | | | | | | | |
| 202.5 | 2.07 | | | | | | | | |
| 225.0 | 2.07 | | | | | | | | |
| 247.5 | 2.07 | | | | | | | | |
| 270.0 | 2.07 | | | | | | | | |
| 292.5 | 2.07 | | | | | | | | |
| 315.0 | 2.07 | | | | | | | | |
| 337.5 | 2.07 | | | | | | | | |
| 360.0 | 2.07 | | | | | | | | |