



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

LumCAT: LL3G-50K

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.06

LampCAT:

Current(A): 0.0620

Lamp flux(lm): -1.0

Power (W): 7.20

Number of Lamps: 1

PF: 0.9628

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 661.66, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 91.90

Central intensity(cd): 973.569, Maximum intensity(cd): 1029.251

Angle of maximum intensity: C=247.5 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=46.5

[C90/270]Total=47.5

Field angle(10%Imax): [C0/180]Total=69.2

[C90/270]Total=69.7

Maximum s/h(1/2): C0_180=0.78 C90_270=0.75

Maximum s/h(1/4): C0_180=0.71 C90_270=0.67

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 : 96.706%

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

Date:
Humidity(%): 59%

Operator: jarvis

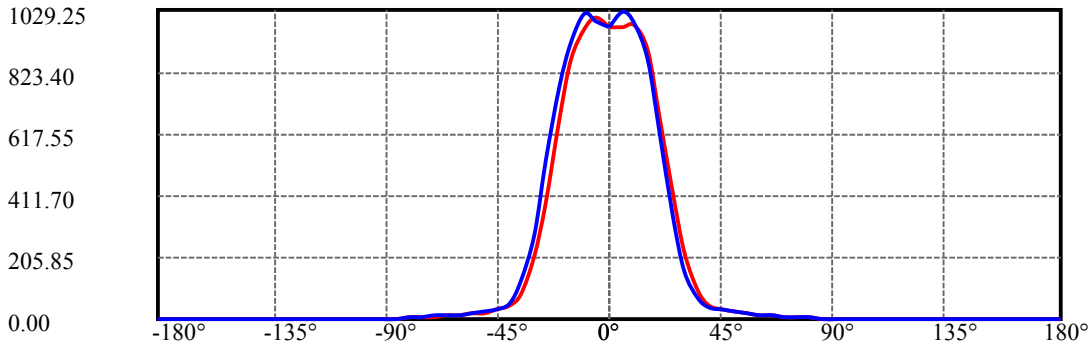
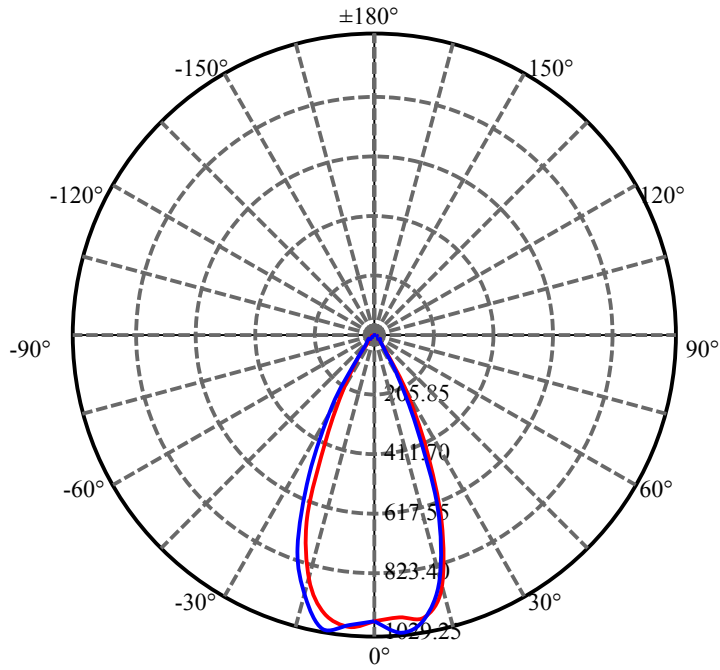
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 973.569 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 987.435 | 23.443 | 23.443 | 0.00% | 3.54% |
| 10.0 | 980.321 | 70.393 | 93.836 | 0.00% | 14.18% |
| 15.0 | 879.017 | 110.295 | 204.131 | 0.00% | 30.85% |
| 20.0 | 675.361 | 128.103 | 332.233 | 0.00% | 50.21% |
| 25.0 | 424.510 | 115.356 | 447.589 | 0.00% | 67.65% |
| 30.0 | 219.425 | 81.490 | 529.08 | 0.00% | 79.96% |
| 35.0 | 93.785 | 46.122 | 575.202 | 0.00% | 86.93% |
| 40.0 | 45.305 | 23.206 | 598.409 | 0.00% | 90.44% |
| 45.0 | 29.964 | 13.937 | 612.345 | 0.00% | 92.55% |
| 50.0 | 22.737 | 10.649 | 622.994 | 0.00% | 94.16% |
| 55.0 | 18.696 | 9.009 | 632.003 | 0.00% | 95.52% |
| 60.0 | 15.320 | 7.863 | 639.866 | 0.00% | 96.71% |
| 65.0 | 12.021 | 6.647 | 646.513 | 0.00% | 97.71% |
| 70.0 | 8.949 | 5.310 | 651.822 | 0.00% | 98.51% |
| 75.0 | 6.292 | 3.984 | 655.806 | 0.00% | 99.11% |
| 80.0 | 4.120 | 2.786 | 658.592 | 0.00% | 99.54% |
| 85.0 | 2.128 | 1.698 | 660.289 | 0.00% | 99.79% |
| 90.0 | 0.281 | 0.660 | 660.949 | 0.00% | 99.89% |
| 95.0 | 0.023 | 0.083 | 661.032 | 0.00% | 99.90% |
| 100.0 | 0.011 | 0.009 | 661.041 | 0.00% | 99.91% |
| 105.0 | 0.011 | 0.006 | 661.047 | 0.00% | 99.91% |
| 110.0 | 0.011 | 0.006 | 661.053 | 0.00% | 99.91% |
| 115.0 | 0.011 | 0.006 | 661.059 | 0.00% | 99.91% |
| 120.0 | 0.011 | 0.005 | 661.064 | 0.00% | 99.91% |
| 125.0 | 0.011 | 0.005 | 661.07 | 0.00% | 99.91% |
| 130.0 | 0.023 | 0.007 | 661.077 | 0.00% | 99.91% |
| 135.0 | 0.056 | 0.016 | 661.093 | 0.00% | 99.91% |
| 140.0 | 0.079 | 0.025 | 661.118 | 0.00% | 99.92% |
| 145.0 | 0.124 | 0.034 | 661.152 | 0.00% | 99.92% |
| 150.0 | 0.270 | 0.058 | 661.21 | 0.00% | 99.93% |
| 155.0 | 0.428 | 0.088 | 661.298 | 0.00% | 99.94% |
| 160.0 | 0.551 | 0.103 | 661.401 | 0.00% | 99.96% |
| 165.0 | 0.675 | 0.101 | 661.502 | 0.00% | 99.98% |
| 170.0 | 0.765 | 0.085 | 661.587 | 0.00% | 99.99% |
| 175.0 | 0.788 | 0.056 | 661.643 | 0.00% | 100.00% |
| 180.0 | 0.996 | 0.021 | 661.664 | 0.00% | 100.00% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|-------|---------|
| 0-30 | 529.08 | N.A. | 79.96% |
| 0-40 | 598.41 | N.A. | 90.44% |
| 0-60 | 639.87 | N.A. | 96.71% |
| 0-90 | 660.95 | N.A. | 99.89% |
| 0-120 | 661.06 | N.A. | 99.91% |
| 0-180 | 661.66 | N.A. | 100.00% |
| 60-90 | 21.08 | N.A. | 3.19% |
| 90-120 | 0.12 | N.A. | 0.02% |
| 90-130 | 0.13 | N.A. | 0.02% |
| 90-150 | 0.26 | N.A. | 0.04% |
| 90-180 | 0.69 | N.A. | 0.10% |
| 0-30.03 | 529.33 | N.A. | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 93.84 |
| 10-20 | 238.40 |
| 20-30 | 196.85 |
| 30-40 | 69.33 |
| 40-50 | 24.59 |
| 50-60 | 16.87 |
| 60-70 | 11.96 |
| 70-80 | 6.77 |
| 80-90 | 2.36 |
| 90-100 | 0.09 |
| 100-110 | 0.01 |
| 110-120 | 0.01 |
| 120-130 | 0.01 |
| 130-140 | 0.04 |
| 140-150 | 0.09 |
| 150-160 | 0.19 |
| 160-170 | 0.19 |
| 170-180 | 0.06 |



C0/C180: —

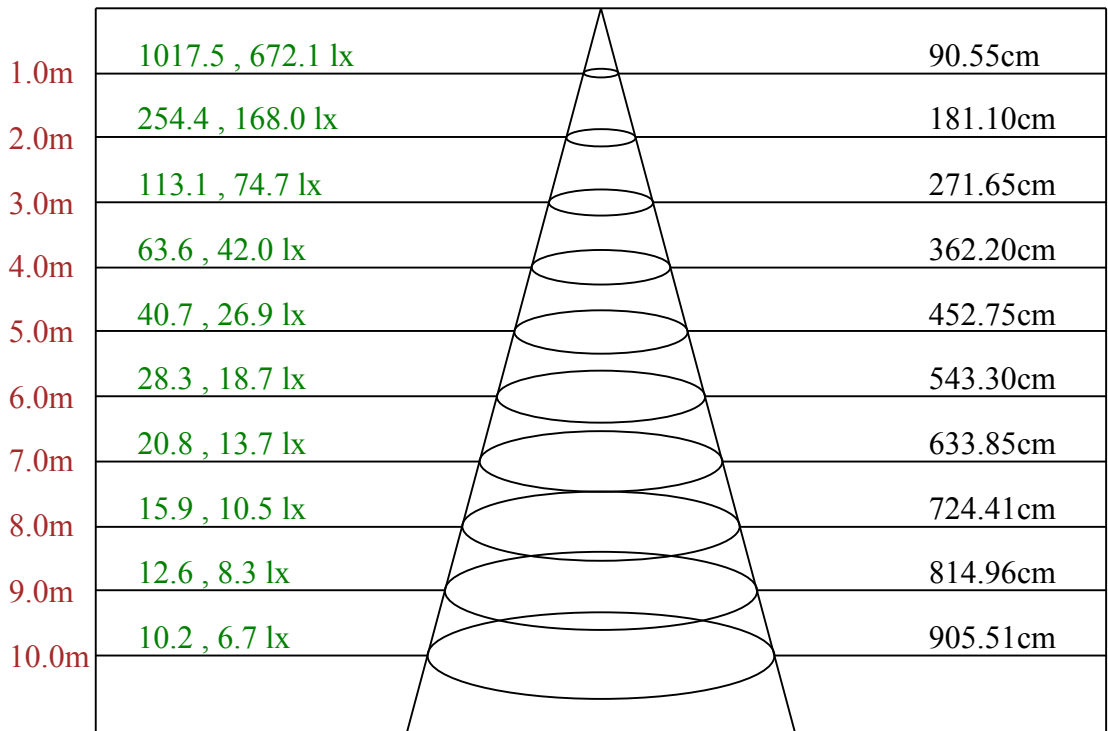
C90/C270: —

Field angle(10%Imax):C0/180Left:34.4 Right:34.8

:C90/270Left:36.5 Right:33.2

Beam Angle(50%Imax):C0/180Left:23.0 Right:23.5

:C90/270Left:25.4 Right:22.1



Max , Ave Beam angle of C247.5 plane 48.72

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 | 973.57 | 968.92 | 980.81 | 892.92 | 676.62 | 424.85 | 226.02 | 96.17 | 45.20 |
| 22.5 | 973.57 | 946.95 | 962.26 | 853.66 | 632.14 | 383.07 | 187.84 | 78.52 | 39.80 |
| 45.0 | 973.57 | 919.75 | 930.74 | 824.48 | 583.69 | 341.82 | 163.35 | 68.08 | 38.00 |
| 67.5 | 973.57 | 911.65 | 901.56 | 797.83 | 545.33 | 310.85 | 144.98 | 62.31 | 37.46 |
| 90.0 | 973.57 | 1020.79 | 985.67 | 862.30 | 627.28 | 348.13 | 160.29 | 70.42 | 38.90 |
| 112.5 | 973.57 | 1015.38 | 966.58 | 835.11 | 606.57 | 339.30 | 153.08 | 65.74 | 36.56 |
| 135.0 | 973.57 | 1004.22 | 951.81 | 826.82 | 615.39 | 342.72 | 160.65 | 68.44 | 39.08 |
| 157.5 | 973.57 | 992.15 | 954.87 | 838.71 | 635.38 | 371.72 | 179.38 | 77.98 | 43.22 |
| 180.0 | 973.57 | 1000.98 | 967.30 | 860.14 | 661.85 | 393.15 | 208.91 | 85.73 | 45.02 |
| 202.5 | 973.57 | 1012.50 | 986.21 | 888.78 | 691.93 | 441.06 | 237.55 | 95.99 | 47.55 |
| 225.0 | 973.57 | 1021.33 | 1008.72 | 922.27 | 736.77 | 496.35 | 274.65 | 110.58 | 53.31 |
| 247.5 | 973.57 | 1029.25 | 1027.27 | 955.77 | 776.94 | 536.69 | 313.19 | 134.71 | 58.53 |
| 270.0 | 973.57 | 992.87 | 1015.92 | 920.11 | 771.71 | 530.56 | 282.93 | 124.99 | 50.43 |
| 292.5 | 973.57 | 991.07 | 1022.95 | 932.36 | 774.96 | 529.84 | 285.09 | 125.35 | 50.97 |
| 315.0 | 973.57 | 987.65 | 1021.51 | 931.46 | 753.70 | 517.78 | 273.03 | 123.19 | 51.33 |
| 337.5 | 973.57 | 983.51 | 1000.98 | 921.55 | 715.52 | 484.28 | 259.88 | 112.38 | 49.53 |
| 360.0 | 973.57 | 968.92 | 980.81 | 892.92 | 676.62 | 424.85 | 226.02 | 96.17 | 45.20 |
| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 30.08 | 22.87 | 19.27 | 15.85 | 12.43 | 9.19 | 7.02 | 4.50 | 2.52 |
| 22.5 | 28.10 | 22.33 | 18.37 | 14.77 | 11.53 | 8.65 | 6.30 | 4.14 | 2.16 |
| 45.0 | 27.20 | 21.97 | 18.01 | 14.41 | 11.17 | 8.28 | 5.94 | 3.78 | 1.80 |
| 67.5 | 26.65 | 21.79 | 18.01 | 14.23 | 10.45 | 7.56 | 5.76 | 3.42 | 1.44 |
| 90.0 | 29.54 | 23.41 | 19.09 | 15.13 | 11.71 | 8.65 | 5.76 | 3.42 | 1.44 |
| 112.5 | 27.56 | 21.97 | 18.01 | 14.41 | 10.99 | 8.28 | 5.58 | 3.24 | 1.44 |
| 135.0 | 27.74 | 21.61 | 17.47 | 14.23 | 10.99 | 8.10 | 5.40 | 3.42 | 1.26 |
| 157.5 | 28.28 | 21.43 | 17.47 | 14.59 | 11.53 | 8.65 | 5.58 | 3.78 | 1.62 |
| 180.0 | 29.00 | 21.97 | 17.65 | 15.31 | 12.07 | 8.65 | 5.76 | 3.78 | 1.80 |
| 202.5 | 29.18 | 21.97 | 18.01 | 15.49 | 12.07 | 8.83 | 5.58 | 3.78 | 1.80 |
| 225.0 | 31.70 | 22.69 | 18.73 | 15.85 | 12.61 | 9.37 | 6.30 | 4.32 | 2.34 |
| 247.5 | 33.86 | 24.13 | 19.45 | 16.21 | 12.97 | 9.37 | 6.66 | 4.32 | 2.52 |
| 270.0 | 33.14 | 24.13 | 19.99 | 15.85 | 12.97 | 9.91 | 7.20 | 5.04 | 3.06 |
| 292.5 | 32.24 | 23.77 | 19.63 | 16.03 | 12.79 | 9.91 | 7.38 | 5.04 | 3.06 |
| 315.0 | 33.14 | 24.13 | 19.99 | 16.21 | 12.97 | 9.91 | 7.20 | 5.04 | 2.88 |
| 337.5 | 32.06 | 23.59 | 19.99 | 16.57 | 13.15 | 9.91 | 7.20 | 4.86 | 2.88 |
| 360.0 | 30.08 | 22.87 | 19.27 | 15.85 | 12.43 | 9.19 | 7.02 | 4.50 | 2.52 |
| 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 | 0.00 |
| 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 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 247.5 | 0.54 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 270.0 | 1.08 | 0.36 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.18 | 0.36 |
| 292.5 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 315.0 | 0.90 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 337.5 | 0.54 | 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 |

LL3G-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 | 0.00 | 0.00 | 0.18 | 0.36 | 0.54 | 0.36 | 0.72 | 0.72 | 0.72 |
| 22.5 | 0.00 | 0.18 | 0.18 | 0.36 | 0.54 | 0.72 | 0.72 | 0.90 | 0.72 |
| 45.0 | 0.00 | 0.18 | 0.18 | 0.36 | 0.72 | 0.54 | 0.72 | 0.90 | 0.72 |
| 67.5 | 0.18 | 0.18 | 0.36 | 0.54 | 0.54 | 0.54 | 0.72 | 0.90 | 0.90 |
| 90.0 | 0.00 | 0.00 | 0.18 | 0.18 | 0.18 | 0.54 | 0.54 | 0.72 | 0.72 |
| 112.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.36 | 0.36 | 0.72 | 0.72 | 0.90 |
| 135.0 | 0.00 | 0.00 | 0.00 | 0.18 | 0.36 | 0.54 | 0.72 | 0.72 | 0.72 |
| 157.5 | 0.00 | 0.00 | 0.00 | 0.18 | 0.36 | 0.72 | 0.54 | 0.72 | 0.90 |
| 180.0 | 0.00 | 0.00 | 0.00 | 0.18 | 0.36 | 0.54 | 0.72 | 0.72 | 0.72 |
| 202.5 | 0.00 | 0.00 | 0.00 | 0.18 | 0.36 | 0.36 | 0.54 | 0.72 | 0.72 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.54 | 0.72 | 0.90 | 0.72 |
| 247.5 | 0.00 | 0.00 | 0.00 | 0.18 | 0.18 | 0.54 | 0.54 | 0.72 | 0.54 |
| 270.0 | 0.36 | 0.54 | 0.36 | 0.72 | 0.90 | 0.90 | 0.90 | 0.90 | 1.26 |
| 292.5 | 0.18 | 0.00 | 0.36 | 0.18 | 0.36 | 0.54 | 0.72 | 0.54 | 0.72 |
| 315.0 | 0.00 | 0.18 | 0.00 | 0.36 | 0.36 | 0.54 | 0.54 | 0.90 | 0.72 |
| 337.5 | 0.18 | 0.00 | 0.18 | 0.18 | 0.54 | 0.54 | 0.72 | 0.54 | 0.90 |
| 360.0 | 0.00 | 0.00 | 0.18 | 0.36 | 0.54 | 0.36 | 0.72 | 0.72 | 0.72 |

| C/γ(°) | 180.0 |
|--------|-------|
| 0.0 | 1.00 |
| 22.5 | 1.00 |
| 45.0 | 1.00 |
| 67.5 | 1.00 |
| 90.0 | 1.00 |
| 112.5 | 1.00 |
| 135.0 | 1.00 |
| 157.5 | 1.00 |
| 180.0 | 1.00 |
| 202.5 | 1.00 |
| 225.0 | 1.00 |
| 247.5 | 1.00 |
| 270.0 | 1.00 |
| 292.5 | 1.00 |
| 315.0 | 1.00 |
| 337.5 | 1.00 |
| 360.0 | 1.00 |