



Shenzhen Belling Efficiency Testing Lab Co.,Ltd
www.bellingeel.com

Tel:0755-21038430

Address:1Floor, No.1 Building,Meibaohe Industrial Park,Dalang Street,Longhua District,Shenzhen,Guangdong Prov.518101 China

Client:

LumCAT:

Luminaire:MGGF12L30D1SN

Report No:

Ballast type:

Test No:

Voltage(V): 120.09

LampCAT:

Current(A): 0.1490

Lamp flux(lm): -1.0

Power (W): 17.69

Number of Lamps: 1

PF: 0.9895

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1356.95, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 76.73

Central intensity(cd): 279.437, Maximum intensity(cd): 487.007

Angle of maximum intensity: C=270.0 γ =15.0

Beam Angle(50%Imax): [C0/180]Total=103.0

[C90/270]Total=100.7

Field angle(10%Imax): [C0/180]Total=167.0

[C90/270]Total=166.1

Maximum s/h(1/2): C0_180=1.74 C90_270=1.68

Maximum s/h(1/4): C0_180=1.63 C90_270=1.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 7.17%

Down flux rate of LUM(%): 92.83%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 72.636%

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

Date:
Humidity(%): 58%

Operator: Jasper

Zonal flux distribution table

Appendix Page: 2 Total:7

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 286.902 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 390.764 | 8.101 | 8.101 | 0.00% | 0.60% |
| 10.0 | 386.774 | 27.815 | 35.916 | 0.00% | 2.65% |
| 15.0 | 437.869 | 48.917 | 84.833 | 0.00% | 6.25% |
| 20.0 | 445.462 | 72.799 | 157.632 | 0.00% | 11.62% |
| 25.0 | 420.597 | 90.834 | 248.466 | 0.00% | 18.31% |
| 30.0 | 390.120 | 102.597 | 351.063 | 0.00% | 25.87% |
| 35.0 | 373.518 | 112.451 | 463.514 | 0.00% | 34.16% |
| 40.0 | 323.427 | 116.280 | 579.794 | 0.00% | 42.73% |
| 45.0 | 282.371 | 112.168 | 691.962 | 0.00% | 50.99% |
| 50.0 | 243.967 | 106.354 | 798.317 | 0.00% | 58.83% |
| 55.0 | 210.376 | 98.789 | 897.106 | 0.00% | 66.11% |
| 60.0 | 172.615 | 88.527 | 985.633 | 0.00% | 72.64% |
| 65.0 | 138.045 | 75.522 | 1061.155 | 0.00% | 78.20% |
| 70.0 | 108.830 | 62.510 | 1123.665 | 0.00% | 82.81% |
| 75.0 | 82.935 | 50.124 | 1173.79 | 0.00% | 86.50% |
| 80.0 | 60.284 | 38.321 | 1212.111 | 0.00% | 89.33% |
| 85.0 | 41.571 | 27.676 | 1239.787 | 0.00% | 91.37% |
| 90.0 | 31.146 | 19.910 | 1259.698 | 0.00% | 92.83% |
| 95.0 | 25.972 | 15.639 | 1275.337 | 0.00% | 93.99% |
| 100.0 | 24.453 | 13.702 | 1289.039 | 0.00% | 95.00% |
| 105.0 | 19.486 | 11.757 | 1300.795 | 0.00% | 95.86% |
| 110.0 | 16.808 | 9.487 | 1310.282 | 0.00% | 96.56% |
| 115.0 | 13.282 | 7.619 | 1317.901 | 0.00% | 97.12% |
| 120.0 | 11.377 | 5.995 | 1323.896 | 0.00% | 97.56% |
| 125.0 | 11.043 | 5.182 | 1329.078 | 0.00% | 97.95% |
| 130.0 | 11.609 | 4.925 | 1334.003 | 0.00% | 98.31% |
| 135.0 | 12.124 | 4.796 | 1338.799 | 0.00% | 98.66% |
| 140.0 | 12.253 | 4.513 | 1343.312 | 0.00% | 98.99% |
| 145.0 | 11.763 | 4.007 | 1347.319 | 0.00% | 99.29% |
| 150.0 | 10.785 | 3.320 | 1350.64 | 0.00% | 99.53% |
| 155.0 | 9.498 | 2.567 | 1353.207 | 0.00% | 99.72% |
| 160.0 | 7.928 | 1.828 | 1355.034 | 0.00% | 99.86% |
| 165.0 | 5.920 | 1.141 | 1356.175 | 0.00% | 99.94% |
| 170.0 | 3.629 | 0.566 | 1356.742 | 0.00% | 99.98% |
| 175.0 | 1.493 | 0.183 | 1356.925 | 0.00% | 100.00% |
| 180.0 | 0.824 | 0.028 | 1356.953 | 0.00% | 100.00% |

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

Date:
Humidity(%): 58%

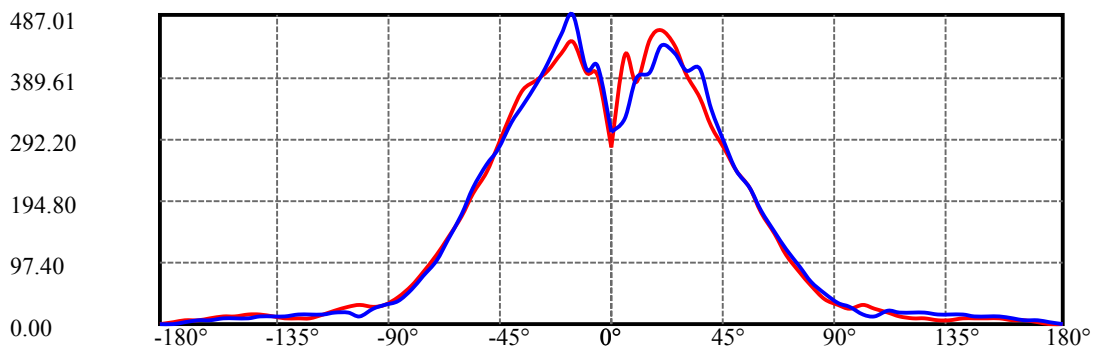
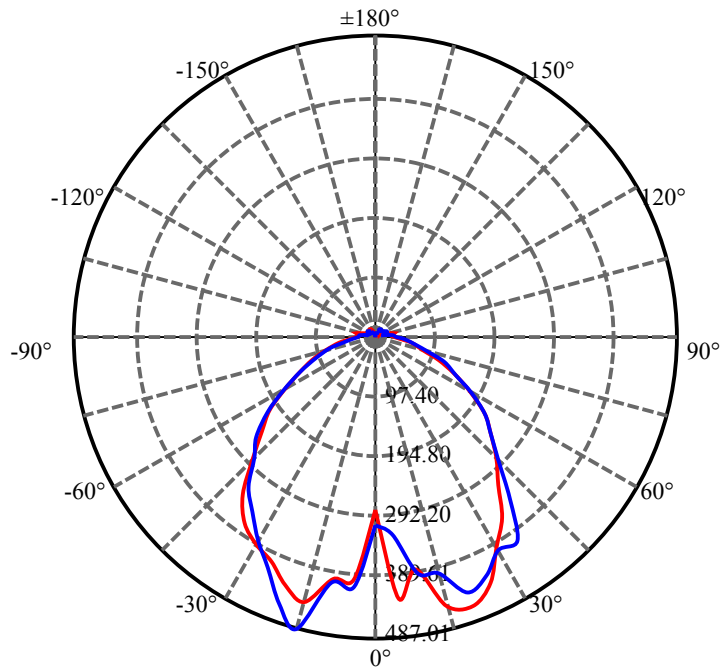
Operator: Jasper

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|---------|
| 0-30 | 351.06 | N.A. | 25.87% |
| 0-40 | 579.79 | N.A. | 42.73% |
| 0-60 | 985.63 | N.A. | 72.64% |
| 0-90 | 1259.70 | N.A. | 92.83% |
| 0-120 | 1323.90 | N.A. | 97.56% |
| 0-180 | 1356.95 | N.A. | 100.00% |
| 60-90 | 274.06 | N.A. | 20.20% |
| 90-120 | 64.20 | N.A. | 4.73% |
| 90-130 | 74.31 | N.A. | 5.48% |
| 90-150 | 90.94 | N.A. | 6.70% |
| 90-180 | 97.23 | N.A. | 7.17% |
| 0-66.95 | 1085.56 | N.A. | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 35.92 |
| 10-20 | 121.72 |
| 20-30 | 193.43 |
| 30-40 | 228.73 |
| 40-50 | 218.52 |
| 50-60 | 187.32 |
| 60-70 | 138.03 |
| 70-80 | 88.45 |
| 80-90 | 47.59 |
| 90-100 | 29.34 |
| 100-110 | 21.24 |
| 110-120 | 13.61 |
| 120-130 | 10.11 |
| 130-140 | 9.31 |
| 140-150 | 7.33 |
| 150-160 | 4.39 |
| 160-170 | 1.71 |
| 170-180 | 0.18 |

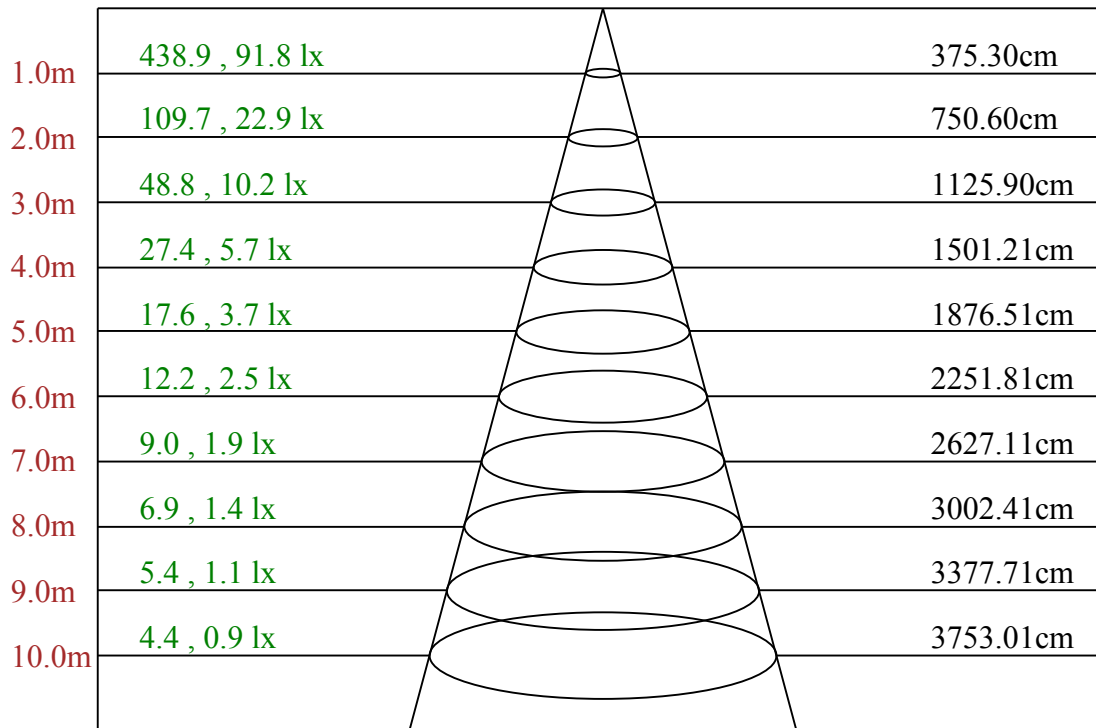


C0/C180: —

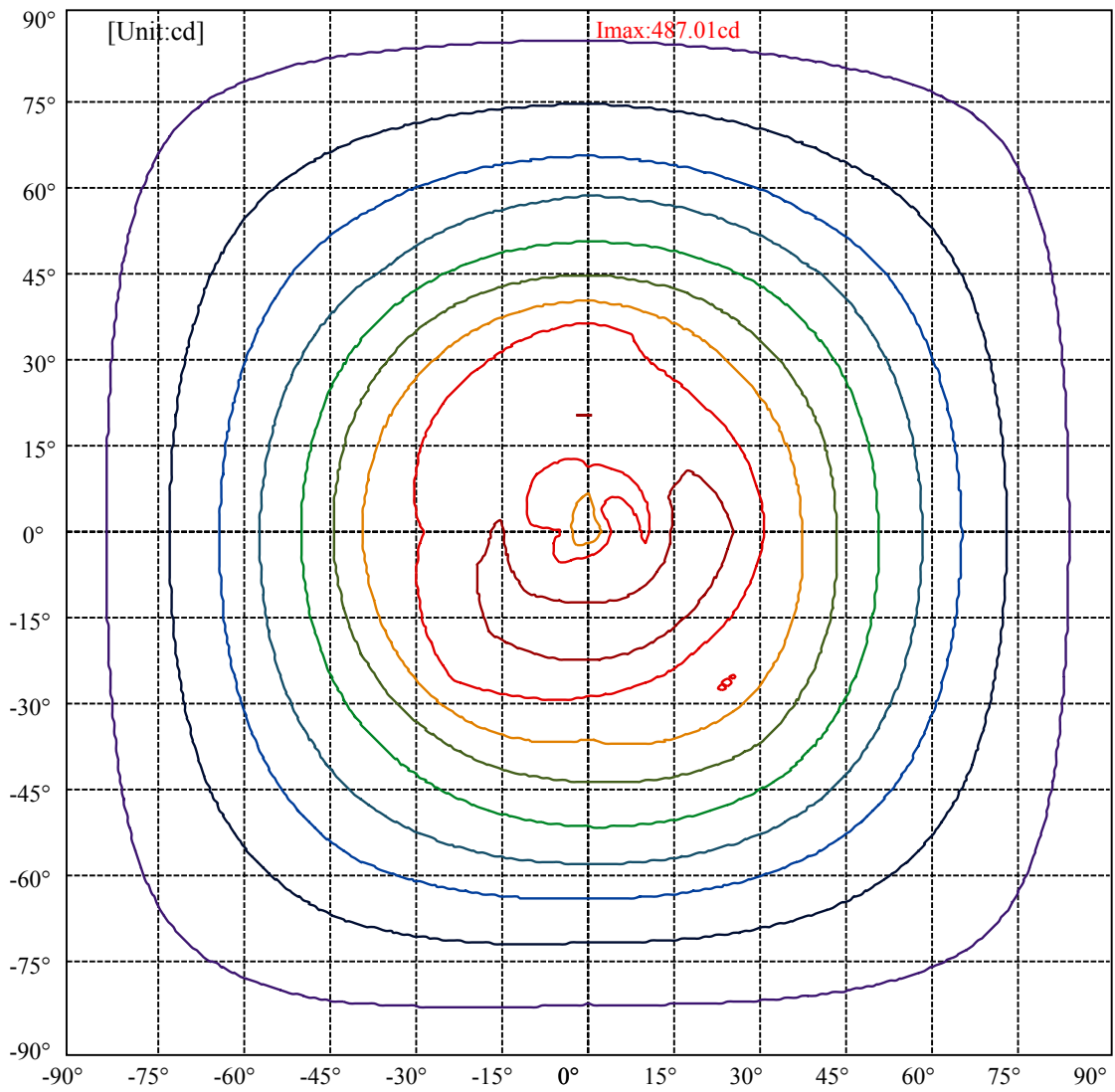
C90/C270: —

Field angle(10%Imax):C0/180Left:83.6 Right:83.4
 :C90/270Left:81.4 Right:84.7

Beam Angle(50%Imax):C0/180Left:51.0 Right:52.0
 :C90/270Left:50.8 Right:49.9



Max , Ave Beam angle of C270 plane 123.89



| | | |
|-----------|---------|---|
| (10%Imax) | 48.7007 | — |
| (20%Imax) | 97.4014 | — |
| (30%Imax) | 146.102 | — |
| (40%Imax) | 194.803 | — |
| (50%Imax) | 243.503 | — |
| (60%Imax) | 292.204 | — |
| (70%Imax) | 340.905 | — |
| (80%Imax) | 389.606 | — |
| (90%Imax) | 438.306 | — |

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

Date:
Humidity(%): 58%

Operator: Jasper

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 | 279.44 | 422.14 | 382.60 | 448.29 | 463.74 | 437.59 | 392.28 | 357.07 | 311.15 |
| 45.0 | 273.26 | 427.29 | 368.19 | 428.94 | 427.08 | 412.46 | 383.63 | 360.98 | 310.94 |
| 90.0 | 302.71 | 322.27 | 387.96 | 394.96 | 438.82 | 425.44 | 398.46 | 401.34 | 338.13 |
| 135.0 | 292.20 | 358.10 | 355.01 | 406.29 | 436.97 | 432.64 | 414.32 | 374.37 | 331.74 |
| 180.0 | 279.44 | 391.25 | 395.78 | 444.59 | 426.88 | 399.70 | 385.08 | 368.19 | 332.77 |
| 225.0 | 273.26 | 378.90 | 402.99 | 438.82 | 458.80 | 433.47 | 405.26 | 385.90 | 317.12 |
| 270.0 | 302.71 | 405.26 | 402.58 | 487.01 | 457.97 | 411.43 | 379.31 | 345.33 | 316.30 |
| 315.0 | 292.20 | 420.91 | 399.08 | 454.06 | 453.44 | 412.05 | 362.63 | 394.96 | 329.27 |
| 360.0 | 279.44 | 422.14 | 382.60 | 448.29 | 463.74 | 437.59 | 392.28 | 357.07 | 311.15 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 276.35 | 242.99 | 215.19 | 175.45 | 141.68 | 109.14 | 81.34 | 59.31 | 40.36 |
| 45.0 | 281.91 | 243.61 | 209.01 | 166.59 | 131.58 | 103.58 | 81.13 | 58.69 | 40.57 |
| 90.0 | 282.94 | 242.78 | 214.98 | 179.56 | 144.35 | 117.79 | 90.61 | 67.34 | 47.57 |
| 135.0 | 286.64 | 238.25 | 193.57 | 164.12 | 135.91 | 110.37 | 86.69 | 64.66 | 44.69 |
| 180.0 | 281.08 | 238.05 | 206.75 | 168.65 | 135.91 | 108.32 | 82.16 | 60.13 | 41.19 |
| 225.0 | 275.73 | 240.11 | 210.66 | 178.95 | 145.59 | 115.32 | 86.28 | 61.78 | 43.04 |
| 270.0 | 276.55 | 249.58 | 213.34 | 171.12 | 132.00 | 101.11 | 75.78 | 53.54 | 36.65 |
| 315.0 | 297.76 | 256.37 | 219.51 | 176.48 | 137.35 | 105.02 | 79.49 | 56.84 | 38.51 |
| 360.0 | 276.35 | 242.99 | 215.19 | 175.45 | 141.68 | 109.14 | 81.34 | 59.31 | 40.36 |
| C/ γ (°) | 90.0 | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
| 0.0 | 31.09 | 25.12 | 30.48 | 23.06 | 17.71 | 12.77 | 9.47 | 7.83 | 7.41 |
| 45.0 | 31.51 | 26.36 | 25.33 | 19.77 | 15.24 | 11.94 | 10.09 | 9.27 | 10.50 |
| 90.0 | 34.18 | 28.01 | 16.06 | 11.94 | 21.00 | 19.36 | 18.33 | 17.09 | 16.06 |
| 135.0 | 31.30 | 27.18 | 25.53 | 19.56 | 14.21 | 11.33 | 11.53 | 13.80 | 15.65 |
| 180.0 | 31.09 | 26.15 | 31.51 | 26.56 | 20.59 | 14.21 | 9.88 | 8.65 | 9.06 |
| 225.0 | 31.51 | 26.15 | 28.83 | 20.80 | 14.83 | 10.30 | 7.83 | 9.27 | 11.33 |
| 270.0 | 29.04 | 24.51 | 13.39 | 16.68 | 18.12 | 16.27 | 15.44 | 14.21 | 13.59 |
| 315.0 | 29.45 | 24.30 | 24.51 | 17.50 | 12.77 | 10.09 | 8.44 | 8.24 | 9.27 |
| 360.0 | 31.09 | 25.12 | 30.48 | 23.06 | 17.71 | 12.77 | 9.47 | 7.83 | 7.41 |
| C/ γ (°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
| 0.0 | 7.41 | 9.06 | 9.88 | 9.68 | 8.03 | 6.59 | 4.74 | 2.68 | 1.03 |
| 45.0 | 11.33 | 11.74 | 11.53 | 10.09 | 8.65 | 7.00 | 4.94 | 2.68 | 1.03 |
| 90.0 | 15.24 | 14.62 | 13.39 | 12.15 | 10.91 | 9.47 | 7.21 | 4.94 | 2.27 |
| 135.0 | 15.03 | 14.00 | 13.18 | 12.56 | 11.33 | 9.68 | 7.62 | 4.94 | 2.47 |
| 180.0 | 11.94 | 14.00 | 14.21 | 12.97 | 11.94 | 10.09 | 7.41 | 4.74 | 1.65 |
| 225.0 | 13.39 | 12.77 | 11.94 | 10.91 | 9.47 | 8.03 | 6.18 | 3.71 | 1.44 |
| 270.0 | 12.56 | 11.74 | 10.50 | 9.47 | 8.03 | 6.59 | 4.74 | 2.88 | 1.24 |
| 315.0 | 10.09 | 10.09 | 9.47 | 8.44 | 7.62 | 5.97 | 4.53 | 2.47 | 0.82 |
| 360.0 | 7.41 | 9.06 | 9.88 | 9.68 | 8.03 | 6.59 | 4.74 | 2.68 | 1.03 |
| C/ γ (°) | 180.0 | | | | | | | | |
| 0.0 | 0.62 | | | | | | | | |
| 45.0 | 0.62 | | | | | | | | |
| 90.0 | 1.24 | | | | | | | | |
| 135.0 | 0.82 | | | | | | | | |
| 180.0 | 0.62 | | | | | | | | |
| 225.0 | 0.62 | | | | | | | | |
| 270.0 | 1.24 | | | | | | | | |
| 315.0 | 0.82 | | | | | | | | |
| 360.0 | 0.62 | | | | | | | | |