



Shenzhen Belling Efficiency
www.bellingeel.com

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

Client:

LumCAT: LL4G-HO-5CCT(5000K)

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.060

LampCAT:

Current(A): 0.126

Lamp flux(lm): -1.0

Power (W): 14.944

Number of Lamps: 1

PF: 0.988

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1528.17, Efficiency(%): 0.00% , Luminous Efficacy(lm/W): 102.26

Central intensity(cd): 2419.842, Maximum intensity(cd): 2419.842

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=40.4

[C90/270]Total=41.4

Field angle(10%Imax): [C0/180]Total=76.9

[C90/270]Total=77.9

Maximum s/h(1/2): C0_180=0.59 C90_270=0.65

Maximum s/h(1/4): C0_180=0.66 C90_270=0.73

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 0.00%

Up flux rate of LUM(%): 0.10%

Down flux rate of LUM(%): 99.90%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 96.582%

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

Date:
Humidity(%): 58%

Operator: Sam

LL4G-HO-5CCT(5000K)

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 | 2419.842 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 2275.922 | 56.137 | 56.137 | 0.00% | 3.67% |
| 10.0 | 1950.976 | 151.209 | 207.346 | 0.00% | 13.57% |
| 15.0 | 1578.465 | 209.364 | 416.71 | 0.00% | 27.27% |
| 20.0 | 1243.178 | 232.543 | 649.253 | 0.00% | 42.49% |
| 25.0 | 935.726 | 228.527 | 877.78 | 0.00% | 57.44% |
| 30.0 | 613.889 | 196.105 | 1073.885 | 0.00% | 70.27% |
| 35.0 | 345.755 | 141.314 | 1215.199 | 0.00% | 79.52% |
| 40.0 | 203.868 | 91.700 | 1306.9 | 0.00% | 85.52% |
| 45.0 | 138.381 | 63.370 | 1370.27 | 0.00% | 89.67% |
| 50.0 | 93.243 | 46.803 | 1417.073 | 0.00% | 92.73% |
| 55.0 | 62.521 | 33.868 | 1450.941 | 0.00% | 94.95% |
| 60.0 | 45.598 | 24.992 | 1475.933 | 0.00% | 96.58% |
| 65.0 | 33.878 | 19.321 | 1495.254 | 0.00% | 97.85% |
| 70.0 | 22.220 | 14.204 | 1509.458 | 0.00% | 98.78% |
| 75.0 | 12.117 | 8.975 | 1518.433 | 0.00% | 99.36% |
| 80.0 | 6.106 | 4.876 | 1523.31 | 0.00% | 99.68% |
| 85.0 | 2.839 | 2.431 | 1525.74 | 0.00% | 99.84% |
| 90.0 | 0.555 | 0.929 | 1526.67 | 0.00% | 99.90% |
| 95.0 | 0.016 | 0.156 | 1526.826 | 0.00% | 99.91% |
| 100.0 | 0.032 | 0.013 | 1526.839 | 0.00% | 99.91% |
| 105.0 | 0.032 | 0.017 | 1526.856 | 0.00% | 99.91% |
| 110.0 | 0.016 | 0.012 | 1526.868 | 0.00% | 99.91% |
| 115.0 | 0.032 | 0.012 | 1526.88 | 0.00% | 99.92% |
| 120.0 | 0.016 | 0.012 | 1526.892 | 0.00% | 99.92% |
| 125.0 | 0.048 | 0.015 | 1526.907 | 0.00% | 99.92% |
| 130.0 | 0.111 | 0.035 | 1526.941 | 0.00% | 99.92% |
| 135.0 | 0.127 | 0.048 | 1526.989 | 0.00% | 99.92% |
| 140.0 | 0.175 | 0.056 | 1527.045 | 0.00% | 99.93% |
| 145.0 | 0.286 | 0.077 | 1527.122 | 0.00% | 99.93% |
| 150.0 | 0.666 | 0.140 | 1527.262 | 0.00% | 99.94% |
| 155.0 | 0.856 | 0.193 | 1527.455 | 0.00% | 99.95% |
| 160.0 | 1.126 | 0.208 | 1527.663 | 0.00% | 99.97% |
| 165.0 | 1.332 | 0.203 | 1527.865 | 0.00% | 99.98% |
| 170.0 | 1.428 | 0.164 | 1528.029 | 0.00% | 99.99% |
| 175.0 | 1.475 | 0.104 | 1528.133 | 0.00% | 100.00% |
| 180.0 | 1.567 | 0.036 | 1528.169 | 0.00% | 100.00% |

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

Date:
Humidity(%): 58%

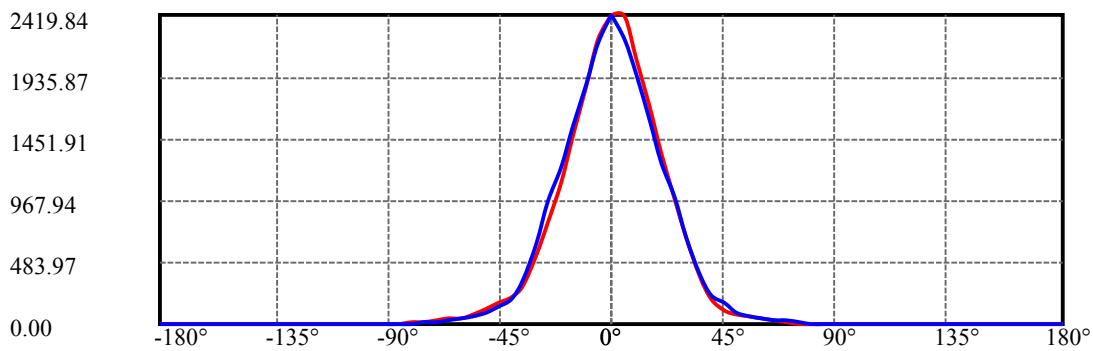
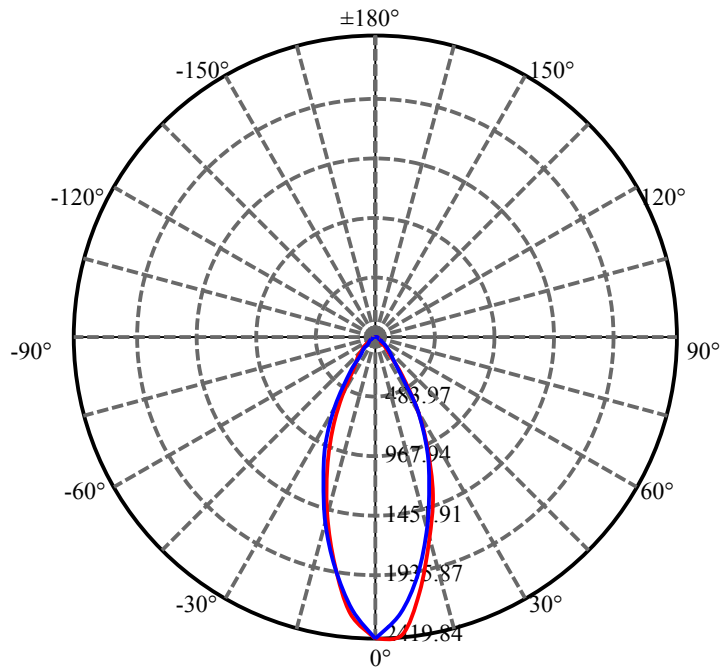
Operator: Sam

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|-------|---------|
| 0-30 | 1073.89 | N.A. | 70.27% |
| 0-40 | 1306.90 | N.A. | 85.52% |
| 0-60 | 1475.93 | N.A. | 96.58% |
| 0-90 | 1526.67 | N.A. | 99.90% |
| 0-120 | 1526.89 | N.A. | 99.92% |
| 0-180 | 1528.17 | N.A. | 100.00% |
| 60-90 | 50.74 | N.A. | 3.32% |
| 90-120 | 0.22 | N.A. | 0.01% |
| 90-130 | 0.27 | N.A. | 0.02% |
| 90-150 | 0.59 | N.A. | 0.04% |
| 90-180 | 1.46 | N.A. | 0.10% |
| 0-35.40 | 1222.54 | N.A. | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 207.35 |
| 10-20 | 441.91 |
| 20-30 | 424.63 |
| 30-40 | 233.01 |
| 40-50 | 110.17 |
| 50-60 | 58.86 |
| 60-70 | 33.53 |
| 70-80 | 13.85 |
| 80-90 | 3.36 |
| 90-100 | 0.17 |
| 100-110 | 0.03 |
| 110-120 | 0.02 |
| 120-130 | 0.05 |
| 130-140 | 0.10 |
| 140-150 | 0.22 |
| 150-160 | 0.40 |
| 160-170 | 0.37 |
| 170-180 | 0.10 |

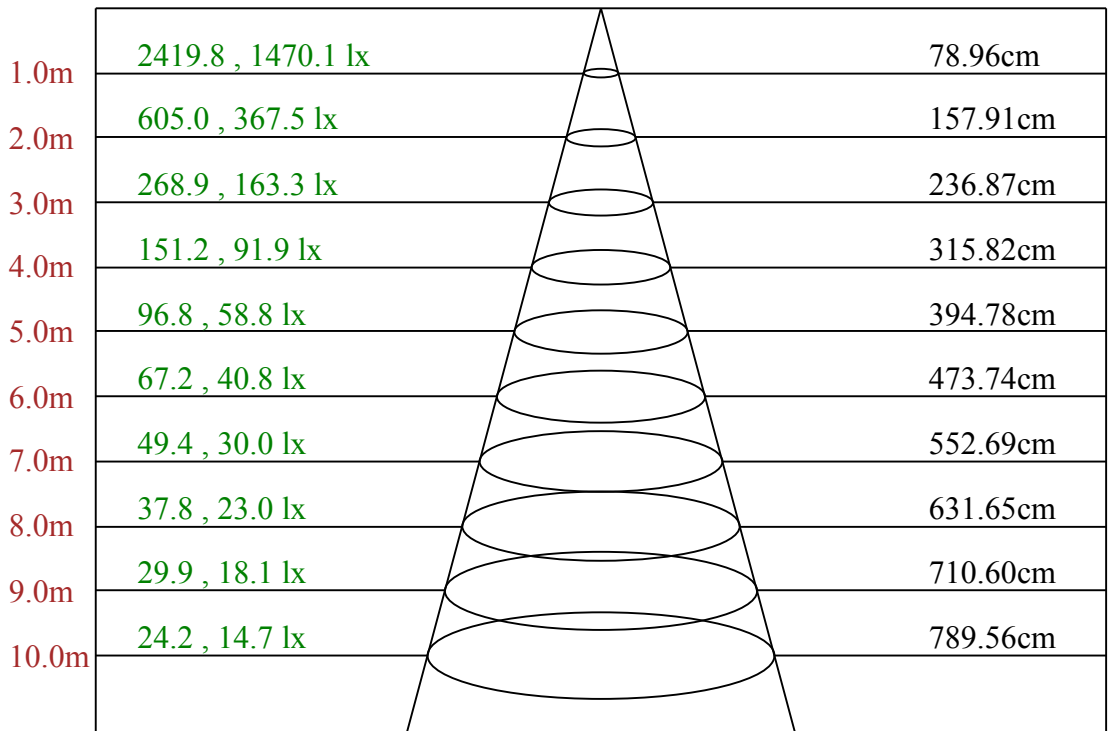


C0/C180: —

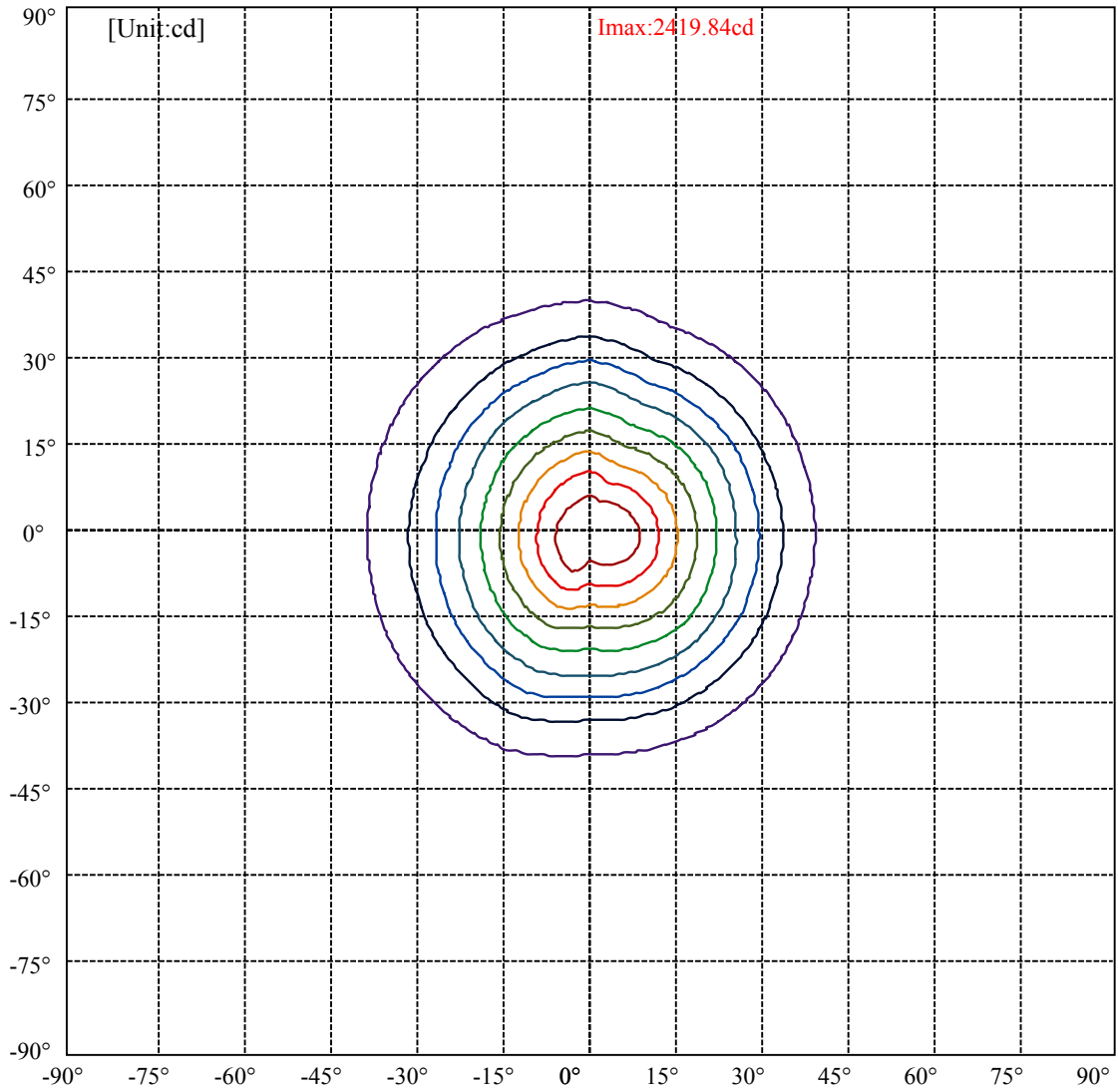
C90/C270: —

Field angle(10%I_{max}):C0/180Left:38.2 Right:38.7
:C90/270Left:38.5 Right:39.4

Beam Angle(50%I_{max}):C0/180Left:18.6 Right:21.8
:C90/270Left:20.4 Right:21.0



Max , Ave Beam angle of C0 plane 43.09



| | |
|-------------------|---|
| (10%Imax) 241.984 | — |
| (20%Imax) 483.968 | — |
| (30%Imax) 725.953 | — |
| (40%Imax) 967.937 | — |
| (50%Imax) 1209.92 | — |
| (60%Imax) 1451.91 | — |
| (70%Imax) 1693.89 | — |
| (80%Imax) 1935.87 | — |
| (90%Imax) 2177.86 | — |

LL4G-HO-5CCT(5000K)

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 | 2419.84 | 2397.57 | 2076.56 | 1694.90 | 1337.09 | 974.46 | 672.48 | 376.84 | 195.91 |
| 22.5 | 2419.84 | 2339.46 | 2016.92 | 1653.03 | 1312.47 | 974.71 | 620.46 | 329.64 | 186.26 |
| 45.0 | 2419.84 | 2260.03 | 1937.24 | 1577.15 | 1238.37 | 926.24 | 575.79 | 305.03 | 183.22 |
| 67.5 | 2419.84 | 2194.56 | 1849.69 | 1487.57 | 1169.35 | 871.18 | 539.25 | 291.83 | 184.49 |
| 90.0 | 2419.84 | 2231.10 | 1948.41 | 1586.28 | 1265.02 | 995.27 | 678.31 | 386.48 | 223.06 |
| 112.5 | 2419.84 | 2202.68 | 1904.51 | 1530.46 | 1205.89 | 917.87 | 586.96 | 333.70 | 211.39 |
| 135.0 | 2419.84 | 2195.07 | 1873.04 | 1489.85 | 1152.85 | 860.77 | 524.03 | 304.26 | 205.30 |
| 157.5 | 2419.84 | 2206.49 | 1859.84 | 1460.67 | 1108.19 | 809.51 | 510.58 | 298.43 | 204.28 |
| 180.0 | 2419.84 | 2224.50 | 1861.37 | 1476.15 | 1111.24 | 801.39 | 534.18 | 307.31 | 205.55 |
| 202.5 | 2419.84 | 2264.85 | 1904.25 | 1513.71 | 1161.48 | 850.62 | 561.58 | 321.77 | 209.10 |
| 225.0 | 2419.84 | 2315.61 | 1962.11 | 1578.67 | 1241.42 | 936.39 | 616.90 | 357.05 | 216.21 |
| 247.5 | 2419.84 | 2361.03 | 2027.07 | 1637.55 | 1308.67 | 1014.05 | 715.36 | 432.16 | 235.49 |
| 270.0 | 2419.84 | 2196.59 | 1881.67 | 1543.91 | 1231.27 | 960.75 | 636.70 | 345.37 | 196.92 |
| 292.5 | 2419.84 | 2261.30 | 1963.38 | 1622.83 | 1304.86 | 1003.39 | 677.05 | 379.13 | 203.27 |
| 315.0 | 2419.84 | 2351.39 | 2045.09 | 1686.78 | 1374.14 | 1050.84 | 683.64 | 379.89 | 203.27 |
| 337.5 | 2419.84 | 2412.54 | 2104.47 | 1715.96 | 1368.55 | 1024.20 | 688.97 | 383.19 | 198.19 |
| 360.0 | 2419.84 | 2397.57 | 2076.56 | 1694.90 | 1337.09 | 974.46 | 672.48 | 376.84 | 195.91 |

| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
|--------|--------|--------|-------|-------|-------|-------|-------|------|------|
| 0.0 | 110.90 | 70.29 | 53.54 | 37.81 | 26.90 | 14.47 | 6.60 | 2.79 | 0.00 |
| 22.5 | 109.12 | 68.77 | 52.28 | 37.30 | 26.90 | 13.70 | 6.60 | 3.05 | 0.00 |
| 45.0 | 109.88 | 69.79 | 52.02 | 37.81 | 27.41 | 14.47 | 6.60 | 3.30 | 0.25 |
| 67.5 | 111.15 | 71.82 | 52.28 | 38.32 | 27.66 | 15.48 | 7.11 | 3.55 | 0.51 |
| 90.0 | 160.63 | 95.42 | 63.95 | 49.23 | 35.78 | 24.87 | 13.20 | 7.36 | 3.81 |
| 112.5 | 158.86 | 104.04 | 68.01 | 49.23 | 37.05 | 26.39 | 14.72 | 7.61 | 4.31 |
| 135.0 | 160.13 | 110.90 | 69.02 | 50.25 | 38.32 | 26.90 | 17.00 | 8.37 | 4.82 |
| 157.5 | 157.33 | 114.45 | 70.29 | 51.01 | 39.33 | 27.91 | 18.02 | 8.88 | 5.84 |
| 180.0 | 158.86 | 116.22 | 70.80 | 51.77 | 40.10 | 29.18 | 18.53 | 9.14 | 6.34 |
| 202.5 | 161.39 | 118.00 | 72.07 | 53.29 | 40.86 | 29.44 | 18.53 | 8.63 | 6.09 |
| 225.0 | 164.19 | 116.73 | 73.08 | 53.54 | 40.86 | 29.44 | 18.53 | 8.88 | 5.33 |
| 247.5 | 167.99 | 115.46 | 74.10 | 53.29 | 40.10 | 28.42 | 17.76 | 8.12 | 4.82 |
| 270.0 | 132.97 | 84.76 | 58.62 | 44.41 | 32.23 | 21.57 | 8.88 | 6.09 | 2.03 |
| 292.5 | 121.55 | 85.27 | 58.87 | 42.63 | 30.96 | 19.79 | 7.87 | 4.57 | 0.76 |
| 315.0 | 115.97 | 77.40 | 56.84 | 41.11 | 29.44 | 17.76 | 7.36 | 4.06 | 0.51 |
| 337.5 | 113.18 | 72.58 | 54.56 | 38.57 | 28.17 | 15.73 | 6.60 | 3.30 | 0.00 |
| 360.0 | 110.90 | 70.29 | 53.54 | 37.81 | 26.90 | 14.47 | 6.60 | 2.79 | 0.00 |

| 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 | 0.25 |
| 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 | 1.27 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 157.5 | 1.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 180.0 | 1.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 202.5 | 1.78 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 225.0 | 1.52 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 247.5 | 0.76 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 270.0 | 0.25 | 0.25 | 0.25 | 0.51 | 0.25 | 0.51 | 0.25 | 0.51 | 0.51 |
| 292.5 | 0.00 | 0.00 | 0.25 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 | 0.51 |
| 315.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| 337.5 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.25 |
| 360.0 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |

LL4G-HO-5CCT(5000K)

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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 | 0.00 | 0.00 | 0.25 | 0.76 | 0.76 | 1.52 | 1.27 | 1.27 | 1.52 |
| 22.5 | 0.25 | 0.25 | 0.51 | 1.02 | 1.02 | 0.76 | 1.52 | 1.52 | 1.78 |
| 45.0 | 0.25 | 0.25 | 0.25 | 0.76 | 1.02 | 1.27 | 1.52 | 1.52 | 1.78 |
| 67.5 | 0.25 | 0.25 | 0.51 | 1.02 | 1.02 | 1.52 | 1.27 | 1.52 | 1.52 |
| 90.0 | 0.00 | 0.51 | 0.25 | 0.76 | 0.76 | 1.02 | 1.27 | 1.52 | 1.27 |
| 112.5 | 0.00 | 0.00 | 0.25 | 0.51 | 1.02 | 0.76 | 1.27 | 1.27 | 1.27 |
| 135.0 | 0.00 | 0.00 | 0.25 | 0.51 | 0.51 | 1.02 | 1.02 | 1.27 | 1.27 |
| 157.5 | 0.00 | 0.00 | 0.25 | 0.51 | 0.51 | 1.02 | 1.27 | 1.27 | 1.27 |
| 180.0 | 0.00 | 0.25 | 0.00 | 0.51 | 1.02 | 1.02 | 1.27 | 1.27 | 1.27 |
| 202.5 | 0.00 | 0.00 | 0.00 | 0.51 | 0.76 | 1.02 | 1.27 | 1.52 | 1.27 |
| 225.0 | 0.00 | 0.00 | 0.00 | 0.51 | 0.76 | 1.02 | 1.27 | 1.27 | 1.52 |
| 247.5 | 0.00 | 0.00 | 0.00 | 0.25 | 0.51 | 1.02 | 1.02 | 1.52 | 1.52 |
| 270.0 | 0.51 | 0.76 | 0.76 | 1.27 | 1.27 | 1.52 | 1.78 | 1.78 | 1.78 |
| 292.5 | 0.51 | 0.25 | 0.51 | 0.76 | 1.02 | 1.27 | 1.27 | 1.52 | 1.78 |
| 315.0 | 0.25 | 0.00 | 0.51 | 0.51 | 1.02 | 1.02 | 1.52 | 1.27 | 1.52 |
| 337.5 | 0.00 | 0.25 | 0.25 | 0.51 | 0.76 | 1.27 | 1.52 | 1.52 | 1.27 |
| 360.0 | 0.00 | 0.00 | 0.25 | 0.76 | 0.76 | 1.52 | 1.27 | 1.27 | 1.52 |
| C/γ(°) | 180.0 | | | | | | | | |
| 0.0 | 1.57 | | | | | | | | |
| 22.5 | 1.57 | | | | | | | | |
| 45.0 | 1.57 | | | | | | | | |
| 67.5 | 1.57 | | | | | | | | |
| 90.0 | 1.57 | | | | | | | | |
| 112.5 | 1.57 | | | | | | | | |
| 135.0 | 1.57 | | | | | | | | |
| 157.5 | 1.57 | | | | | | | | |
| 180.0 | 1.57 | | | | | | | | |
| 202.5 | 1.57 | | | | | | | | |
| 225.0 | 1.57 | | | | | | | | |
| 247.5 | 1.57 | | | | | | | | |
| 270.0 | 1.57 | | | | | | | | |
| 292.5 | 1.57 | | | | | | | | |
| 315.0 | 1.57 | | | | | | | | |
| 337.5 | 1.57 | | | | | | | | |
| 360.0 | 1.57 | | | | | | | | |