



Shenzhen Belling Efficiency Testing Laboratory Co.,Ltd.
www.bellingtest.com

Tel:0755-29351191 Fax:0755-29351120

Address:1 F,No.1 building,Meibaoh industrial park,Dalang street,Longhua district,Shenzhen,China

LumCAT: LL4SRG-41K

Luminaire:

Report No:

Voltage(V): 120.02

Test No:

Current(A): 0.1172

LampCAT:

Power (W): 13.8760

Lamp flux(lm): 902.7

PF: 0.9866

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 902.66

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 65.05

Central intensity(cd): 424.196

Maximum intensity(cd): 447.128

Angle of maximum intensity: C=180.0 γ =5.0

Beam Angle(50%Imax): [C0/180]Total=88.8

[C90/270]Total=88.2

Field angle(10%Imax): [C0/180]Total=142.0

[C90/270]Total=142.1

Maximum s/h(1/2): C0_180=1.26 C90_270=1.00

Maximum s/h(1/4): C0_180=1.32 C90_270=1.11

Up flux rate of lamp(%): 0.27%

Down flux rate of lamp(%): 98.69%

Up flux rate of LUM(%): -0.78%

Down flux rate of LUM(%): 99.73%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 87.358%

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

Date:
Humidity(%): 58%

Operator: Sam

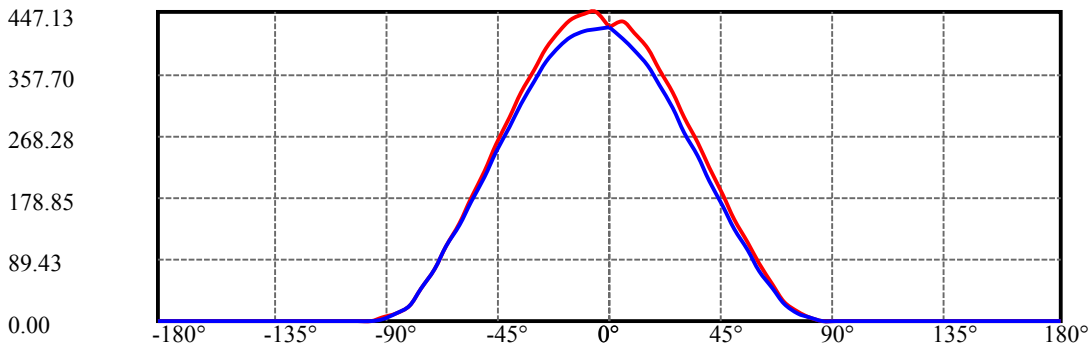
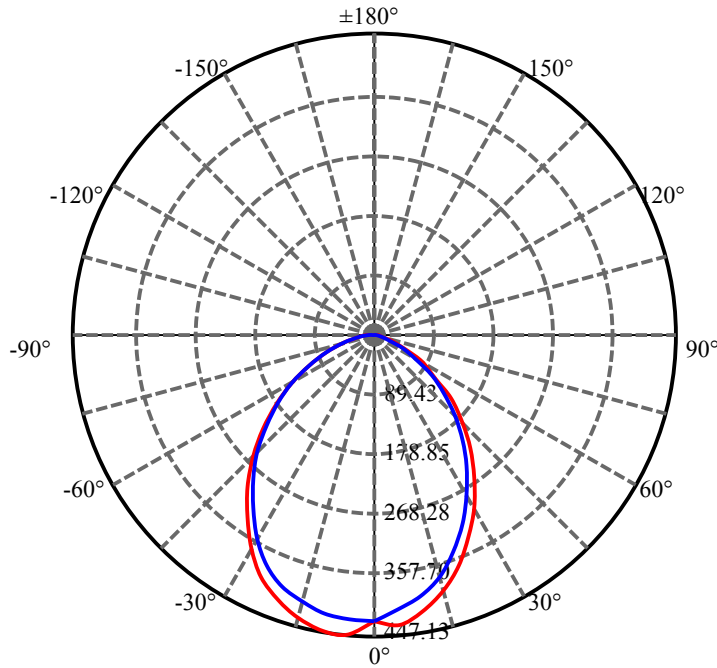
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 424.196 | 0.000 | 0 | .000% | .000% |
| 5.0 | 420.043 | 10.098 | 10.098 | 1.119% | 1.119% |
| 10.0 | 410.608 | 29.763 | 39.861 | 3.297% | 4.416% |
| 15.0 | 395.317 | 47.937 | 87.797 | 5.311% | 9.726% |
| 20.0 | 374.170 | 63.662 | 151.46 | 7.053% | 16.779% |
| 25.0 | 347.279 | 76.053 | 227.513 | 8.426% | 25.205% |
| 30.0 | 315.934 | 84.458 | 311.971 | 9.357% | 34.561% |
| 35.0 | 281.717 | 88.662 | 400.633 | 9.822% | 44.383% |
| 40.0 | 246.320 | 88.858 | 489.491 | 9.844% | 54.227% |
| 45.0 | 209.883 | 85.307 | 574.798 | 9.451% | 63.678% |
| 50.0 | 174.125 | 78.480 | 653.279 | 8.694% | 72.372% |
| 55.0 | 139.575 | 69.122 | 722.4 | 7.658% | 80.030% |
| 60.0 | 106.981 | 57.900 | 780.3 | 6.414% | 86.444% |
| 65.0 | 76.802 | 45.546 | 825.847 | 5.046% | 91.490% |
| 70.0 | 50.105 | 32.945 | 858.792 | 3.650% | 95.140% |
| 75.0 | 29.361 | 21.444 | 880.236 | 2.376% | 97.515% |
| 80.0 | 14.431 | 12.133 | 892.369 | 1.344% | 98.859% |
| 85.0 | 5.425 | 5.616 | 897.985 | .622% | 99.482% |
| 90.0 | 2.289 | 2.234 | 900.219 | .247% | 99.729% |
| 95.0 | 0.222 | 0.722 | 900.94 | .080% | 99.809% |
| 100.0 | 0.222 | 0.121 | 901.061 | .013% | 99.822% |
| 105.0 | 0.222 | 0.119 | 901.18 | .013% | 99.836% |
| 110.0 | 0.222 | 0.116 | 901.296 | .013% | 99.848% |
| 115.0 | 0.222 | 0.112 | 901.408 | .012% | 99.861% |
| 120.0 | 0.222 | 0.108 | 901.516 | .012% | 99.873% |
| 125.0 | 0.222 | 0.103 | 901.619 | .011% | 99.884% |
| 130.0 | 0.319 | 0.118 | 901.737 | .013% | 99.897% |
| 135.0 | 0.333 | 0.130 | 901.867 | .014% | 99.912% |
| 140.0 | 0.444 | 0.143 | 902.01 | .016% | 99.927% |
| 145.0 | 0.444 | 0.148 | 902.158 | .016% | 99.944% |
| 150.0 | 0.444 | 0.131 | 902.288 | .014% | 99.958% |
| 155.0 | 0.444 | 0.112 | 902.401 | .012% | 99.971% |
| 160.0 | 0.444 | 0.093 | 902.494 | .010% | 99.981% |
| 165.0 | 0.444 | 0.073 | 902.567 | .008% | 99.989% |
| 170.0 | 0.444 | 0.053 | 902.62 | .006% | 99.995% |
| 175.0 | 0.486 | 0.033 | 902.653 | .004% | 99.999% |
| 180.0 | 0.444 | 0.011 | 902.664 | .001% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|---------|---------|
| 0-30 | 311.97 | 34.56% | 34.56% |
| 0-40 | 489.49 | 54.23% | 54.23% |
| 0-60 | 780.30 | 86.45% | 86.44% |
| 0-90 | 900.22 | 99.73% | 99.73% |
| 0-120 | 901.52 | 99.87% | 99.87% |
| 0-180 | 902.66 | 100.00% | 100.00% |
| 60-90 | 177.82 | 19.70% | 19.70% |
| 90-120 | 3.53 | 0.39% | 0.39% |
| 90-130 | 3.75 | 0.42% | 0.42% |
| 90-150 | 4.30 | 0.48% | 0.48% |
| 90-180 | 4.67 | 0.52% | 0.52% |
| 0-54.98 | 722.13 | 80.00% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 39.86 |
| 10-20 | 111.60 |
| 20-30 | 160.51 |
| 30-40 | 177.52 |
| 40-50 | 163.79 |
| 50-60 | 127.02 |
| 60-70 | 78.49 |
| 70-80 | 33.58 |
| 80-90 | 7.85 |
| 90-100 | 0.84 |
| 100-110 | 0.23 |
| 110-120 | 0.22 |
| 120-130 | 0.22 |
| 130-140 | 0.27 |
| 140-150 | 0.28 |
| 150-160 | 0.21 |
| 160-170 | 0.13 |
| 170-180 | 0.03 |

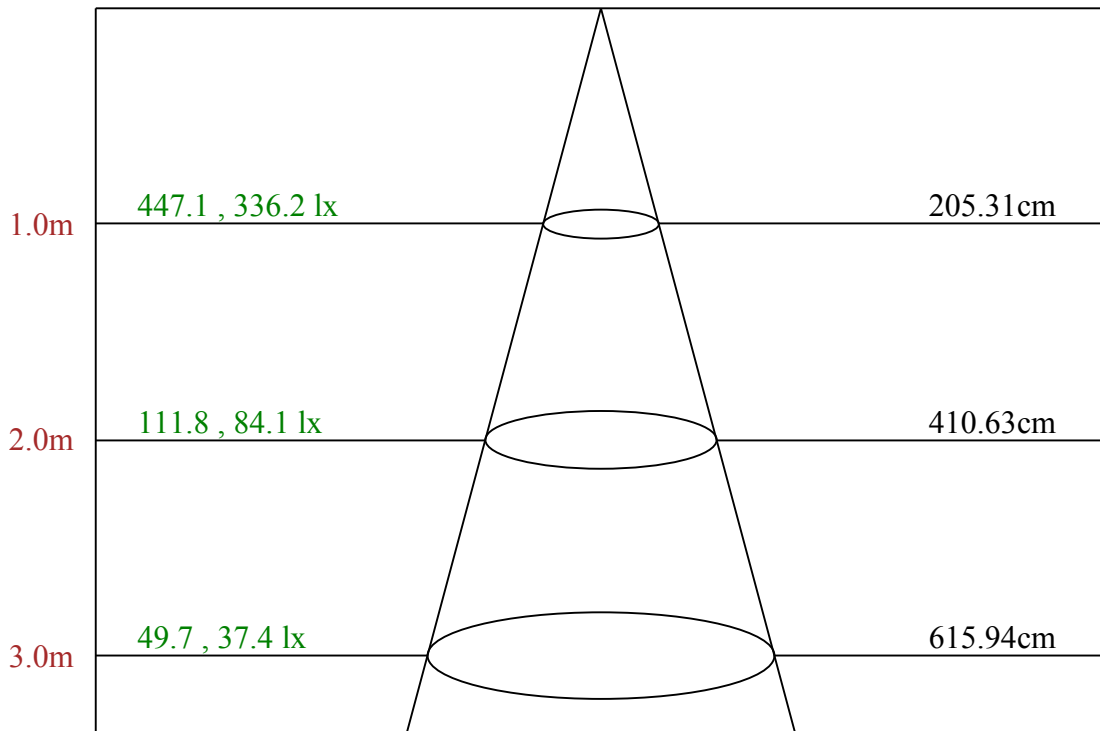


C0/C180: —

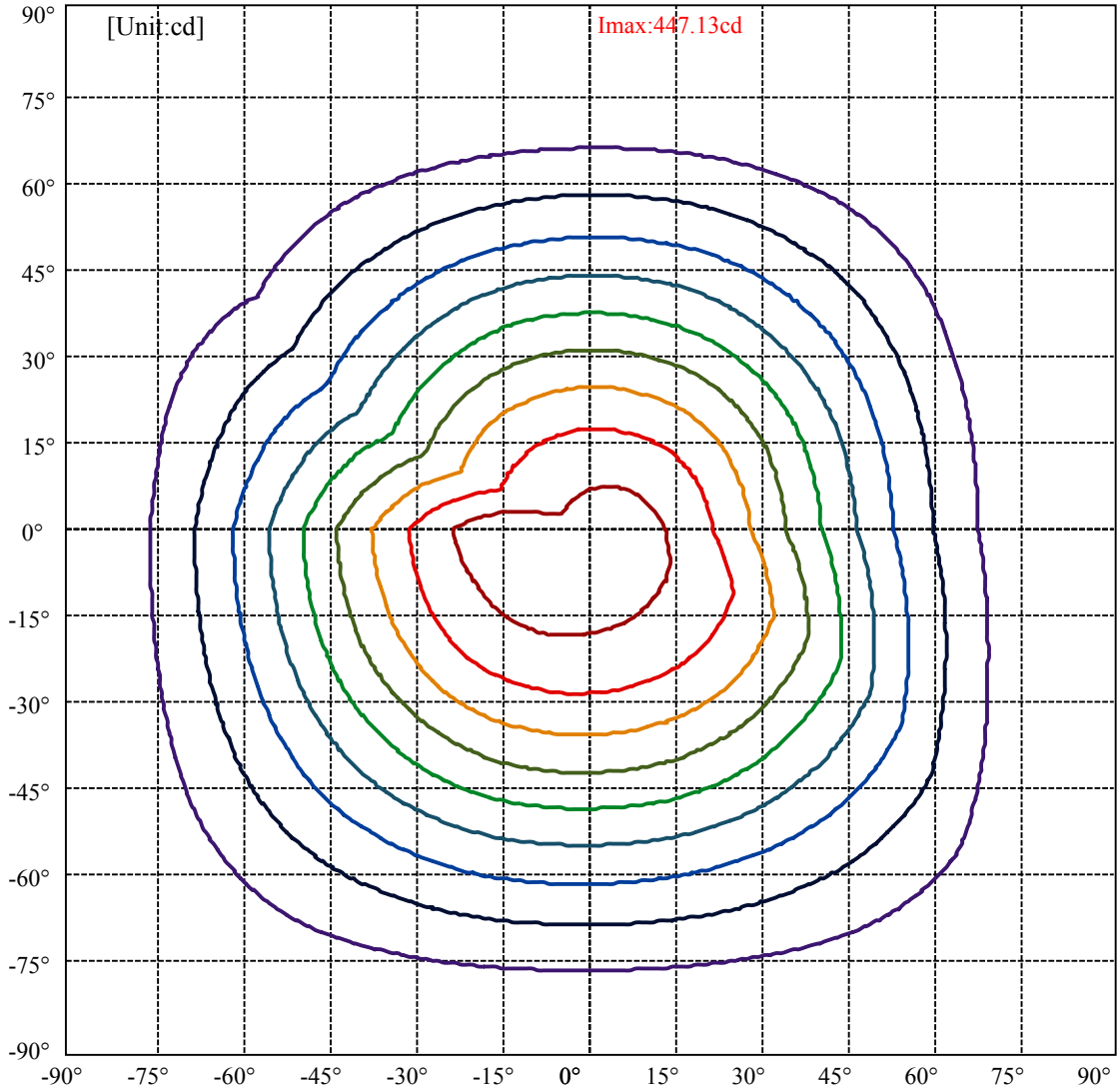
C90/C270: —

Field angle(10%Imax):C0/180Left:70.4 Right:71.6
:C90/270Left:76.2 Right:65.9

Beam Angle(50%Imax):C0/180Left:44.1 Right:44.7
:C90/270Left:49.5 Right:38.7



Max , Ave Beam angle of C180 plane 90.71

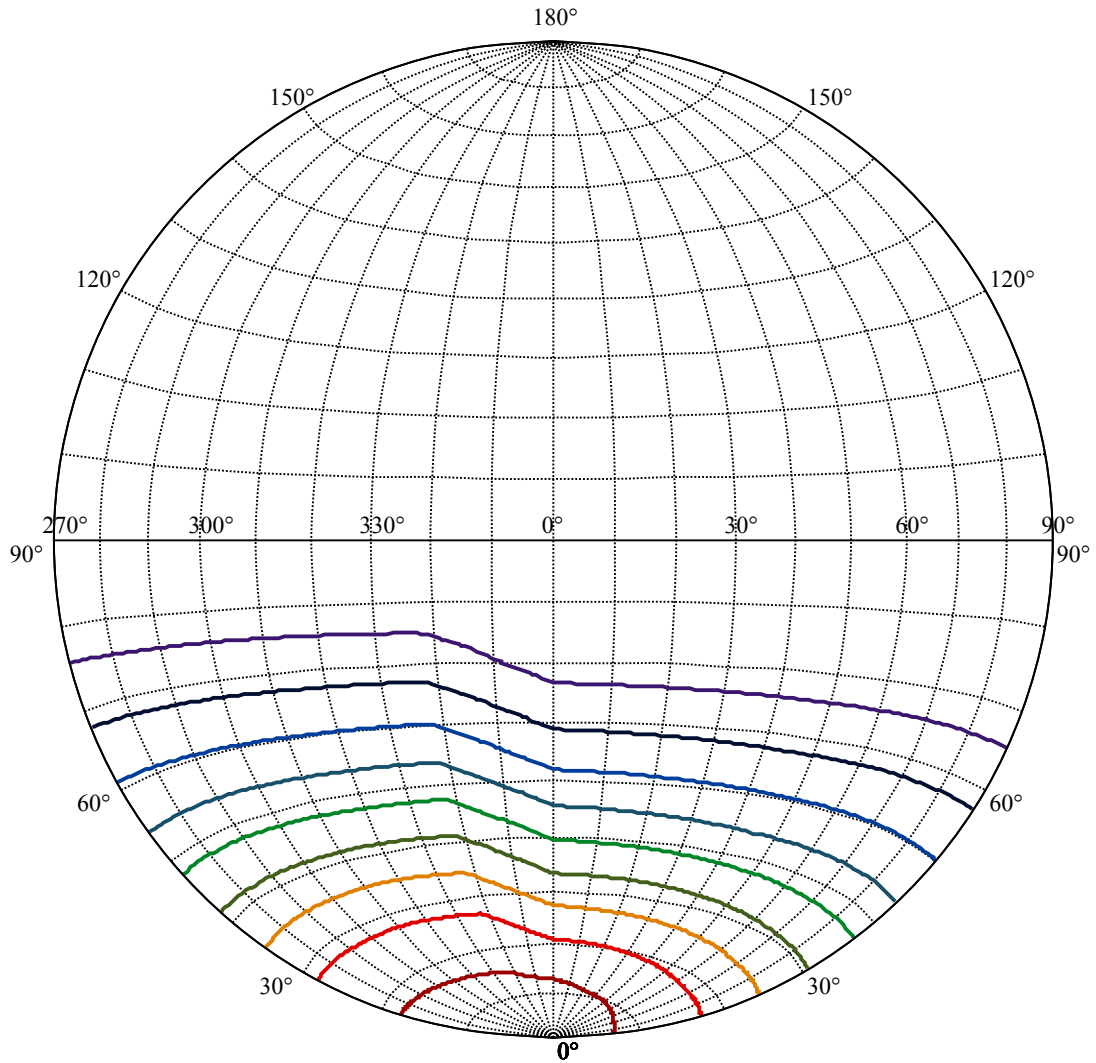


| | | |
|-----------|---------|---|
| (10%Imax) | 44.7128 | — |
| (20%Imax) | 89.4256 | — |
| (30%Imax) | 134.138 | — |
| (40%Imax) | 178.851 | — |
| (50%Imax) | 223.564 | — |
| (60%Imax) | 268.277 | — |
| (70%Imax) | 312.99 | — |
| (80%Imax) | 357.702 | — |
| (90%Imax) | 402.415 | — |

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

Date:
Humidity(%): 58%

Operator: Sam



House

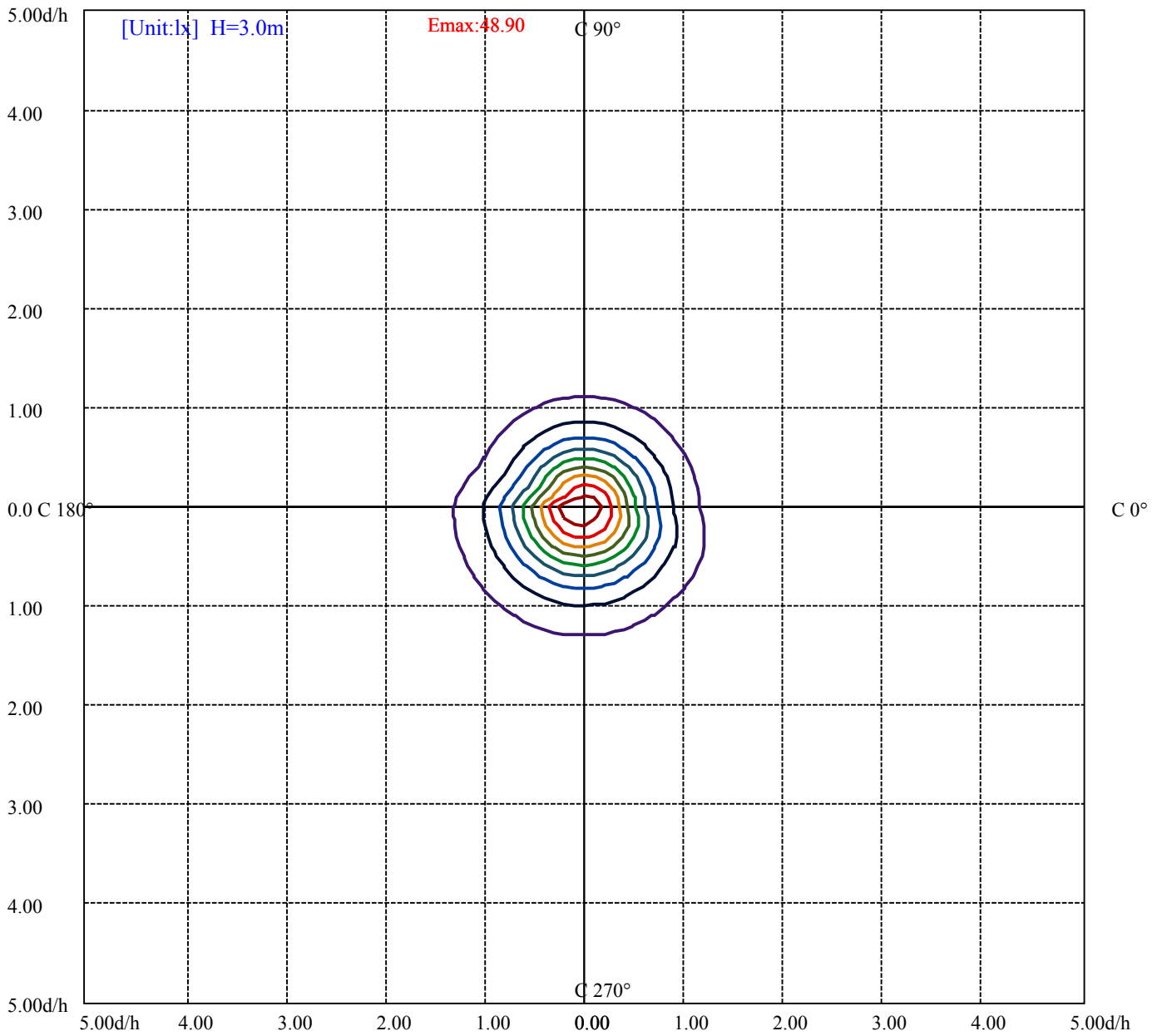
[Unit:cd]

Road

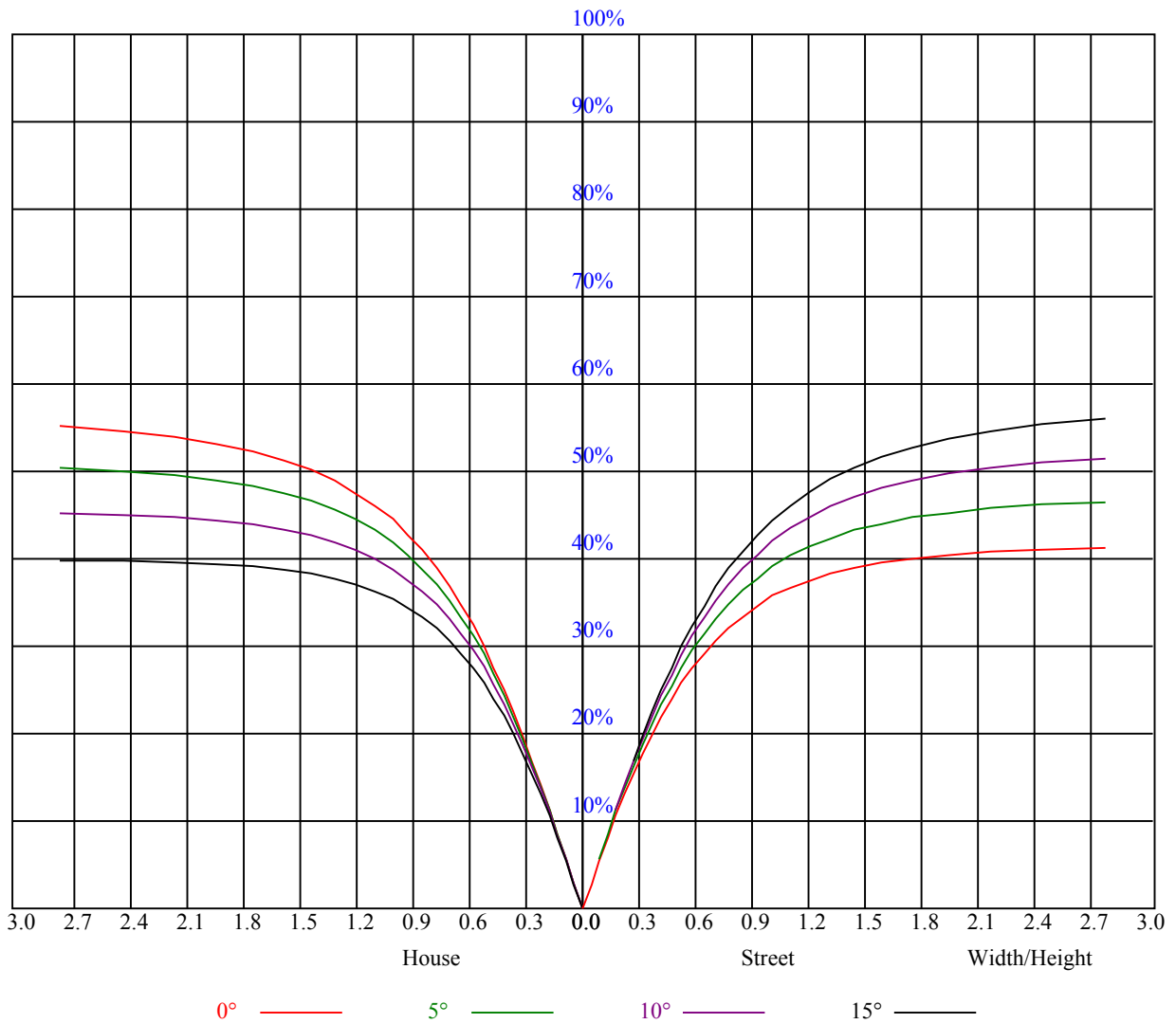
Imax:447.13

- (10%Imax) 44.7128
- (20%Imax) 89.4256
- (30%Imax) 134.138
- (40%Imax) 178.851
- (50%Imax) 223.564
- (60%Imax) 268.277
- (70%Imax) 312.99
- (80%Imax) 357.702
- (90%Imax) 402.415





| | |
|--------------------|---|
| (10%Emax) 4.889622 | — |
| (20%Emax) 9.779233 | — |
| (30%Emax) 14.66889 | — |
| (40%Emax) 19.55844 | — |
| (50%Emax) 24.44811 | — |
| (60%Emax) 29.33767 | — |
| (70%Emax) 34.22733 | — |
| (80%Emax) 39.11689 | — |
| (90%Emax) 44.00655 | — |



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 | 424.20 | 432.70 | 415.60 | 393.18 | 364.76 | 331.24 | 295.05 | 257.31 | 221.12 |
| 22.5 | 424.20 | 423.60 | 406.50 | 384.97 | 358.32 | 325.25 | 289.72 | 253.54 | 215.35 |
| 45.0 | 424.20 | 416.71 | 400.28 | 378.53 | 351.66 | 319.03 | 283.73 | 246.21 | 208.69 |
| 67.5 | 424.20 | 410.94 | 395.18 | 373.20 | 343.89 | 311.70 | 276.40 | 240.44 | 204.69 |
| 90.0 | 424.20 | 408.28 | 392.29 | 370.54 | 341.90 | 308.59 | 272.85 | 237.55 | 203.36 |
| 112.5 | 424.20 | 405.17 | 388.96 | 367.65 | 340.56 | 308.15 | 274.18 | 238.88 | 203.58 |
| 135.0 | 424.20 | 404.06 | 388.30 | 367.21 | 342.34 | 310.59 | 275.07 | 238.00 | 202.47 |
| 157.5 | 424.20 | 403.39 | 388.07 | 367.21 | 340.34 | 307.71 | 274.40 | 238.88 | 204.47 |
| 180.0 | 424.20 | 447.13 | 444.02 | 434.70 | 418.71 | 395.18 | 364.54 | 329.91 | 294.16 |
| 202.5 | 424.20 | 437.58 | 434.92 | 425.59 | 410.05 | 388.96 | 360.54 | 327.47 | 291.28 |
| 225.0 | 424.20 | 431.14 | 429.15 | 420.04 | 404.72 | 384.08 | 357.66 | 325.69 | 289.06 |
| 247.5 | 424.20 | 425.82 | 423.37 | 414.49 | 400.73 | 379.64 | 351.22 | 319.25 | 285.28 |
| 270.0 | 424.20 | 422.04 | 419.60 | 410.94 | 395.84 | 375.64 | 347.00 | 314.59 | 280.40 |
| 292.5 | 424.20 | 419.38 | 416.71 | 408.28 | 393.62 | 372.76 | 345.45 | 314.81 | 280.18 |
| 315.0 | 424.20 | 417.16 | 414.49 | 405.61 | 390.96 | 370.76 | 346.11 | 315.25 | 280.18 |
| 337.5 | 424.20 | 415.60 | 412.27 | 402.95 | 388.30 | 367.21 | 341.01 | 309.70 | 276.85 |
| 360.0 | 424.20 | 432.70 | 415.60 | 393.18 | 364.76 | 331.24 | 295.05 | 257.31 | 221.12 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 183.82 | 148.30 | 112.78 | 82.59 | 52.84 | 27.09 | 12.88 | 6.22 | 0.44 |
| 22.5 | 178.05 | 142.31 | 109.23 | 77.70 | 49.95 | 26.86 | 12.66 | 5.77 | 0.22 |
| 45.0 | 171.84 | 138.09 | 105.01 | 74.60 | 47.73 | 26.42 | 11.99 | 5.11 | 0.22 |
| 67.5 | 170.95 | 136.54 | 104.12 | 74.82 | 47.51 | 24.64 | 11.32 | 4.66 | 0.22 |
| 90.0 | 167.62 | 134.09 | 103.24 | 73.49 | 46.40 | 24.20 | 10.88 | 4.22 | 0.22 |
| 112.5 | 167.84 | 133.43 | 101.24 | 71.71 | 45.51 | 24.64 | 11.10 | 4.44 | 0.22 |
| 135.0 | 166.51 | 132.32 | 100.13 | 70.60 | 45.96 | 24.87 | 11.10 | 4.88 | 0.22 |
| 157.5 | 169.17 | 134.76 | 103.46 | 73.26 | 46.18 | 23.76 | 11.55 | 5.11 | 0.22 |
| 180.0 | 255.53 | 216.90 | 178.50 | 142.75 | 107.01 | 75.48 | 46.84 | 21.98 | 10.66 |
| 202.5 | 253.76 | 214.68 | 176.50 | 139.64 | 106.12 | 74.60 | 46.40 | 23.76 | 10.66 |
| 225.0 | 250.43 | 213.35 | 175.83 | 139.64 | 105.68 | 75.48 | 47.73 | 24.87 | 10.88 |
| 247.5 | 248.21 | 211.80 | 175.39 | 141.20 | 107.90 | 76.37 | 48.40 | 23.98 | 10.21 |
| 270.0 | 244.43 | 208.47 | 173.17 | 140.09 | 107.45 | 76.37 | 48.18 | 23.53 | 9.99 |
| 292.5 | 245.10 | 208.69 | 172.72 | 137.65 | 105.90 | 75.04 | 47.07 | 24.87 | 10.66 |
| 315.0 | 243.32 | 206.47 | 171.17 | 136.31 | 103.24 | 73.71 | 46.40 | 25.09 | 10.88 |
| 337.5 | 241.55 | 205.80 | 170.73 | 135.65 | 103.46 | 72.15 | 45.29 | 22.42 | 10.88 |
| 360.0 | 183.82 | 148.30 | 112.78 | 82.59 | 52.84 | 27.09 | 12.88 | 6.22 | 0.44 |
| C/ γ (°) | 90.0 | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
| 0.0 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 22.5 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 45.0 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 67.5 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 90.0 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 112.5 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 135.0 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 157.5 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.44 |
| 180.0 | 4.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 202.5 | 4.44 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 225.0 | 4.44 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 247.5 | 4.00 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 270.0 | 3.77 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 292.5 | 4.44 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 315.0 | 4.88 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 337.5 | 4.66 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |
| 360.0 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 | 0.22 |

LL4SRG-41K

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 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 22.5 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.67 |
| 45.0 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.67 |
| 67.5 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.67 |
| 90.0 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 112.5 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 135.0 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 157.5 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 180.0 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 202.5 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 225.0 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 247.5 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 270.0 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 292.5 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 315.0 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 337.5 | 0.22 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| 360.0 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 | 0.44 |
| C/γ(°) | 180.0 | | | | | | | | |
| 0.0 | 0.44 | | | | | | | | |
| 22.5 | 0.44 | | | | | | | | |
| 45.0 | 0.44 | | | | | | | | |
| 67.5 | 0.44 | | | | | | | | |
| 90.0 | 0.44 | | | | | | | | |
| 112.5 | 0.44 | | | | | | | | |
| 135.0 | 0.44 | | | | | | | | |
| 157.5 | 0.44 | | | | | | | | |
| 180.0 | 0.44 | | | | | | | | |
| 202.5 | 0.44 | | | | | | | | |
| 225.0 | 0.44 | | | | | | | | |
| 247.5 | 0.44 | | | | | | | | |
| 270.0 | 0.44 | | | | | | | | |
| 292.5 | 0.44 | | | | | | | | |
| 315.0 | 0.44 | | | | | | | | |
| 337.5 | 0.44 | | | | | | | | |
| 360.0 | 0.44 | | | | | | | | |