



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

Tel:0755-21038430

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

---

LumCAT: LSG2-30K

Luminaire:

Report No:

Voltage(V): 120.02

Test No:

Current(A): 0.0436

LampCAT:

Power (W): 4.9430

Lamp flux(lm): 403.0

PF: 0.9446

Number of Lamps: 1

Ballast type:

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

---

### Photometric Results

Lumens(lm): 403.00

Efficiency(%): 100.00%

Lumens(lm)/Power(W): 81.53

Central intensity(cd): 1453.998

Maximum intensity(cd): 1454.267

Angle of maximum intensity: C=22.5  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=23.2

[C90/270]Total=23.1

Field angle(10%Imax): [C0/180]Total=52.2

[C90/270]Total=53.3

Maximum s/h(1/2): C0\_180=0.40 C90\_270=0.42

Maximum s/h(1/4): C0\_180=0.58 C90\_270=0.44

Up flux rate of lamp(%): 1.39%

Down flux rate of lamp(%): 98.61%

Up flux rate of LUM(%): 1.39%

Down flux rate of LUM(%): 98.61%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 96.572%

## Zonal flux distribution table

Page: 2 Total:8

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 1429.220      | .000        | .000      | .000%       | .000%      |
| 5.0                | 1247.033      | 31.994      | 31.994    | 7.939%      | 7.939%     |
| 10.0               | 829.607       | 74.288      | 106.282   | 18.434%     | 26.373%    |
| 15.0               | 475.942       | 77.444      | 183.726   | 19.217%     | 45.590%    |
| 20.0               | 277.230       | 62.072      | 245.798   | 15.403%     | 60.993%    |
| 25.0               | 163.141       | 46.187      | 291.985   | 11.461%     | 72.453%    |
| 30.0               | 91.362        | 32.208      | 324.193   | 7.992%      | 80.445%    |
| 35.0               | 52.699        | 21.214      | 345.407   | 5.264%      | 85.709%    |
| 40.0               | 34.057        | 14.475      | 359.881   | 3.592%      | 89.301%    |
| 45.0               | 24.190        | 10.785      | 370.666   | 2.676%      | 91.977%    |
| 50.0               | 16.356        | 8.193       | 378.859   | 2.033%      | 94.010%    |
| 55.0               | 11.196        | 5.991       | 384.850   | 1.487%      | 95.497%    |
| 60.0               | 7.548         | 4.332       | 389.182   | 1.075%      | 96.572%    |
| 65.0               | 4.639         | 2.963       | 392.145   | .735%       | 97.307%    |
| 70.0               | 2.942         | 1.920       | 394.064   | .476%       | 97.783%    |
| 75.0               | 1.833         | 1.248       | 395.312   | .310%       | 98.093%    |
| 80.0               | 1.580         | .913        | 396.225   | .227%       | 98.320%    |
| 85.0               | 1.026         | .708        | 396.934   | .176%       | 98.495%    |
| 90.0               | .689          | .470        | 397.403   | .117%       | 98.612%    |
| 95.0               | .757          | .396        | 397.799   | .098%       | 98.710%    |
| 100.0              | .689          | .393        | 398.192   | .097%       | 98.808%    |
| 105.0              | .790          | .396        | 398.588   | .098%       | 98.906%    |
| 110.0              | .773          | .409        | 398.996   | .101%       | 99.007%    |
| 115.0              | .841          | .409        | 399.405   | .101%       | 99.109%    |
| 120.0              | .807          | .401        | 399.806   | .099%       | 99.208%    |
| 125.0              | .908          | .396        | 400.202   | .098%       | 99.306%    |
| 130.0              | .891          | .391        | 400.593   | .097%       | 99.404%    |
| 135.0              | .908          | .364        | 400.957   | .090%       | 99.494%    |
| 140.0              | .942          | .342        | 401.299   | .085%       | 99.579%    |
| 145.0              | .975          | .320        | 401.619   | .079%       | 99.658%    |
| 150.0              | 1.160         | .314        | 401.933   | .078%       | 99.736%    |
| 155.0              | 1.211         | .300        | 402.233   | .074%       | 99.810%    |
| 160.0              | 1.278         | .261        | 402.494   | .065%       | 99.875%    |
| 165.0              | 1.328         | .215        | 402.709   | .053%       | 99.929%    |
| 170.0              | 1.379         | .161        | 402.870   | .040%       | 99.968%    |
| 175.0              | 1.278         | .095        | 402.965   | .024%       | 99.992%    |
| 180.0              | 1.446         | .033        | 402.997   | .008%       | 100.000%   |

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

Date:  
Humidity(%): 58%

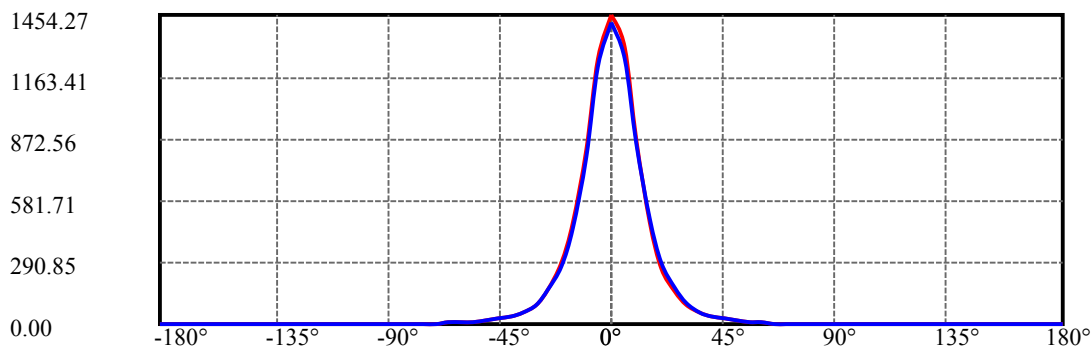
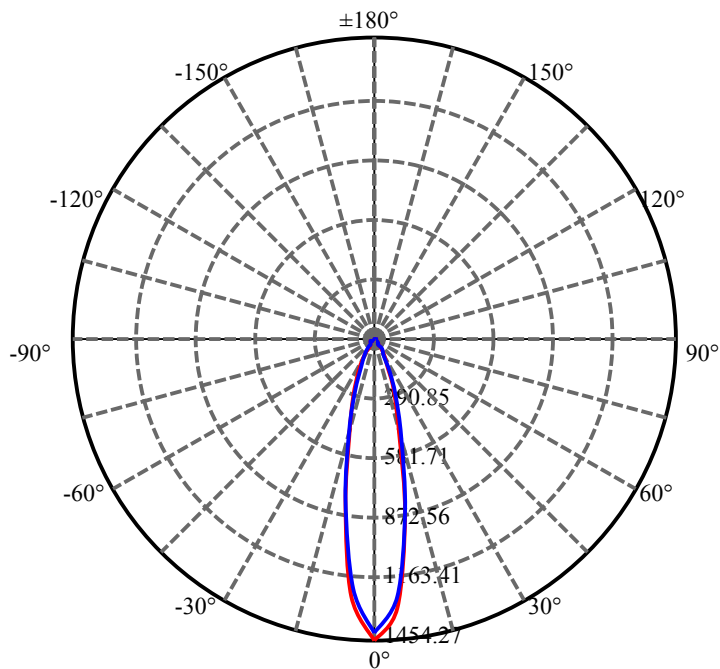
Operator: Zac

ZONAL LUMEN SUMMARY

| Zone    | Lumens | %Lamp   | %Fixt   |
|---------|--------|---------|---------|
| 0-30    | 324.19 | 80.45%  | 80.45%  |
| 0-40    | 359.88 | 89.30%  | 89.30%  |
| 0-60    | 389.18 | 96.57%  | 96.57%  |
| 0-90    | 397.40 | 98.61%  | 98.61%  |
| 0-120   | 399.81 | 99.21%  | 99.21%  |
| 0-180   | 403.00 | 100.00% | 100.00% |
| 60-90   | 12.55  | 3.12%   | 3.12%   |
| 90-120  | 2.87   | 0.71%   | 0.71%   |
| 90-130  | 3.66   | 0.91%   | 0.91%   |
| 90-150  | 5.00   | 1.24%   | 1.24%   |
| 90-180  | 6.03   | 1.50%   | 1.50%   |
| 0-29.72 | 322.40 | 80.00%  | 80.00%  |

ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 106.28 |
| 10-20   | 139.52 |
| 20-30   | 78.39  |
| 30-40   | 35.69  |
| 40-50   | 18.98  |
| 50-60   | 10.32  |
| 60-70   | 4.88   |
| 70-80   | 2.16   |
| 80-90   | 1.18   |
| 90-100  | 0.79   |
| 100-110 | 0.80   |
| 110-120 | 0.81   |
| 120-130 | 0.79   |
| 130-140 | 0.71   |
| 140-150 | 0.63   |
| 150-160 | 0.56   |
| 160-170 | 0.38   |
| 170-180 | 0.10   |

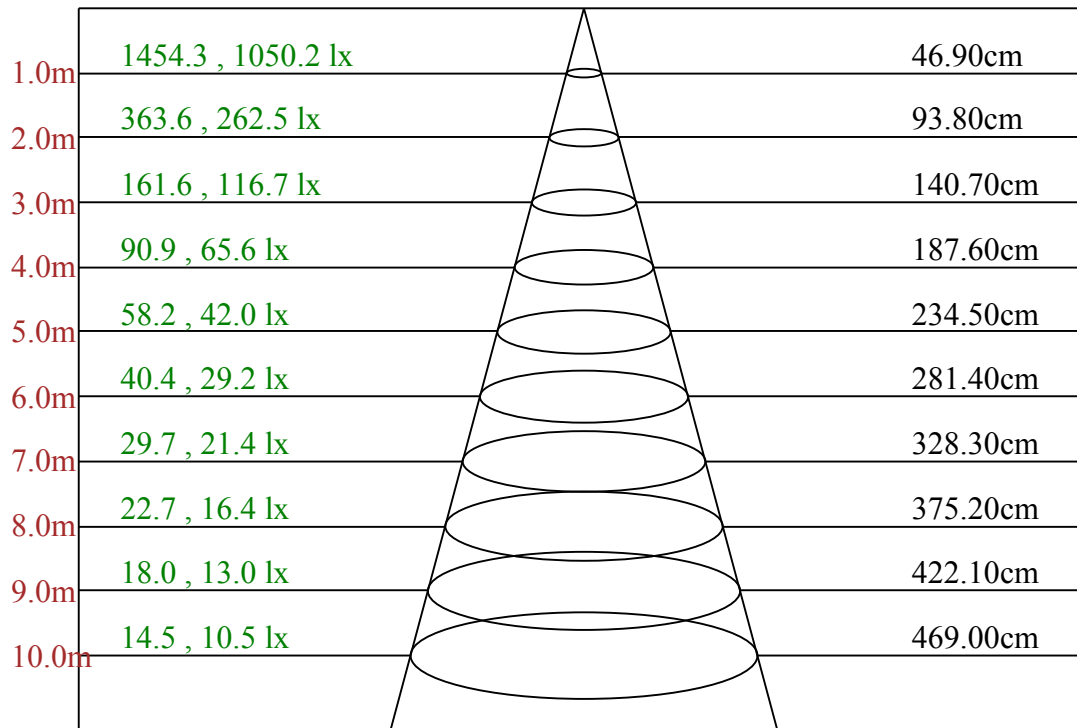


C0/C180: —

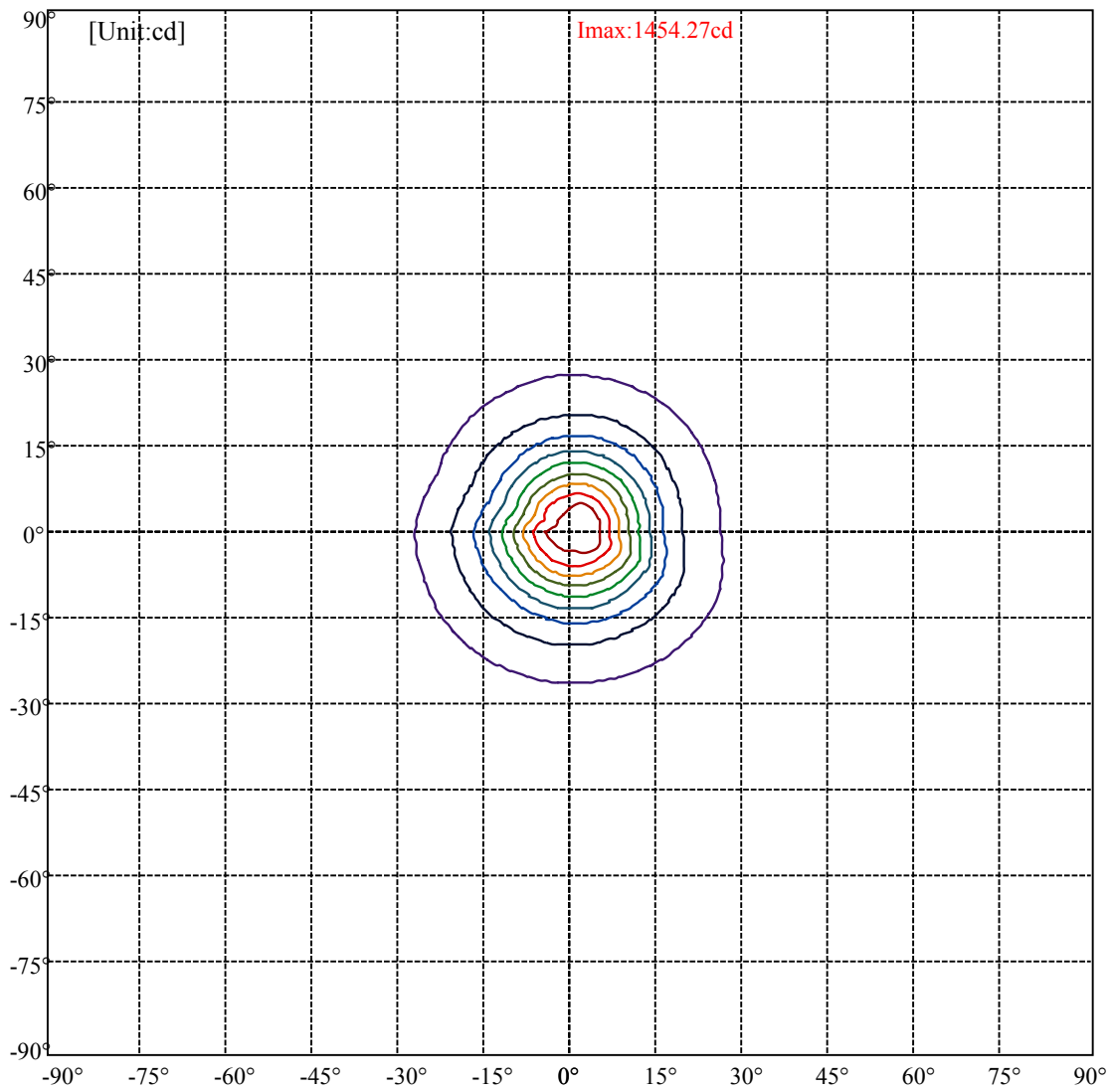
C90/C270: —

Field angle(10%Imax):C0/180Left:26.4 Right:25.8  
 :C90/270Left:26.2 Right:27.1

Beam Angle(50%Imax):C0/180Left:11.4 Right:11.8  
 :C90/270Left:11.2 Right:11.9



Max , Ave      Beam angle of C22.5plane26.39



|                   |   |
|-------------------|---|
| (10%Imax) 142.28  | — |
| (20%Imax) 284.56  | — |
| (30%Imax) 426.84  | — |
| (40%Imax) 569.119 | — |
| (50%Imax) 711.399 | — |
| (60%Imax) 853.679 | — |
| (70%Imax) 995.959 | — |
| (80%Imax) 1138.24 | — |
| (90%Imax) 1280.52 | — |

## Intensity data(cd)

Page: 7 Total:8

|        |         |         |        |        |        |        |        |       |       |
|--------|---------|---------|--------|--------|--------|--------|--------|-------|-------|
| C/γ(°) | 0.0     | 5.0     | 10.0   | 15.0   | 20.0   | 25.0   | 30.0   | 35.0  | 40.0  |
| 0.0    | 1454.00 | 1298.00 | 866.05 | 480.90 | 259.82 | 157.07 | 87.14  | 50.03 | 32.81 |
| 22.5   | 1454.27 | 1323.01 | 894.56 | 504.84 | 279.45 | 163.80 | 93.06  | 53.79 | 34.97 |
| 45.0   | 1446.74 | 1328.13 | 911.51 | 518.29 | 292.63 | 172.94 | 96.02  | 57.83 | 36.58 |
| 67.5   | 1439.74 | 1307.42 | 886.76 | 508.07 | 299.89 | 174.56 | 99.25  | 58.63 | 36.85 |
| 90.0   | 1416.07 | 1242.60 | 845.61 | 492.47 | 285.10 | 172.13 | 99.25  | 56.75 | 35.77 |
| 112.5  | 1407.47 | 1204.40 | 795.58 | 459.12 | 272.99 | 161.11 | 91.72  | 52.99 | 33.62 |
| 135.0  | 1404.78 | 1181.27 | 754.97 | 431.68 | 255.24 | 150.89 | 83.92  | 47.88 | 31.74 |
| 157.5  | 1410.70 | 1129.36 | 711.40 | 405.86 | 239.11 | 136.63 | 77.19  | 45.99 | 30.39 |
| 180.0  | 1454.00 | 1250.13 | 818.71 | 481.17 | 291.55 | 167.02 | 90.10  | 52.72 | 34.97 |
| 202.5  | 1454.27 | 1212.74 | 782.41 | 455.89 | 276.22 | 159.76 | 86.61  | 49.76 | 33.08 |
| 225.0  | 1446.74 | 1195.80 | 774.07 | 439.21 | 269.50 | 156.00 | 84.72  | 47.88 | 32.28 |
| 247.5  | 1439.74 | 1204.67 | 771.38 | 438.41 | 262.77 | 155.73 | 86.07  | 48.95 | 32.54 |
| 270.0  | 1416.07 | 1209.51 | 786.71 | 454.01 | 266.81 | 158.15 | 86.61  | 50.83 | 33.08 |
| 292.5  | 1407.47 | 1235.33 | 833.51 | 476.06 | 275.95 | 162.18 | 91.98  | 52.45 | 33.62 |
| 315.0  | 1404.78 | 1286.44 | 886.22 | 509.14 | 294.78 | 174.02 | 99.25  | 55.68 | 34.97 |
| 337.5  | 1410.70 | 1343.72 | 954.27 | 559.98 | 313.88 | 188.27 | 108.93 | 61.05 | 37.65 |
| 360.0  | 1454.00 | 1298.00 | 866.05 | 480.90 | 259.82 | 157.07 | 87.14  | 50.03 | 32.81 |
| C/γ(°) | 45.0    | 50.0    | 55.0   | 60.0   | 65.0   | 70.0   | 75.0   | 80.0  | 85.0  |
| 0.0    | 23.40   | 14.26   | 9.68   | 6.19   | 3.77   | 2.15   | 1.35   | 1.35  | 0.81  |
| 22.5   | 23.40   | 14.26   | 9.68   | 6.46   | 3.50   | 2.15   | 1.61   | 1.35  | 0.54  |
| 45.0   | 24.21   | 14.52   | 9.68   | 6.46   | 3.50   | 2.42   | 1.35   | 1.08  | 0.54  |
| 67.5   | 25.01   | 15.06   | 9.95   | 6.46   | 3.77   | 2.42   | 1.08   | 1.08  | 1.08  |
| 90.0   | 24.48   | 14.52   | 10.22  | 6.72   | 3.77   | 2.15   | 1.35   | 1.35  | 0.54  |
| 112.5  | 23.67   | 14.52   | 9.95   | 6.46   | 3.77   | 2.15   | 1.35   | 1.35  | 1.08  |
| 135.0  | 23.13   | 14.79   | 9.68   | 6.99   | 4.03   | 2.69   | 1.61   | 1.61  | 0.81  |
| 157.5  | 22.32   | 15.33   | 10.49  | 6.99   | 4.03   | 2.69   | 1.61   | 1.35  | 0.81  |
| 180.0  | 25.01   | 18.29   | 12.91  | 8.34   | 5.38   | 3.50   | 2.15   | 1.88  | 1.35  |
| 202.5  | 24.21   | 18.02   | 12.64  | 8.61   | 5.65   | 3.77   | 2.42   | 2.15  | 1.35  |
| 225.0  | 23.40   | 17.75   | 12.64  | 8.61   | 5.65   | 4.03   | 2.42   | 1.88  | 1.35  |
| 247.5  | 23.94   | 18.02   | 12.64  | 8.88   | 5.92   | 3.50   | 2.15   | 1.88  | 1.08  |
| 270.0  | 24.48   | 18.29   | 12.37  | 8.61   | 5.92   | 3.50   | 2.15   | 1.88  | 1.08  |
| 292.5  | 24.48   | 18.29   | 12.37  | 8.61   | 5.65   | 3.50   | 2.42   | 1.88  | 1.35  |
| 315.0  | 25.28   | 18.02   | 12.10  | 8.07   | 5.11   | 3.23   | 2.15   | 1.61  | 1.35  |
| 337.5  | 26.63   | 17.75   | 12.10  | 8.34   | 4.84   | 3.23   | 2.15   | 1.61  | 1.35  |
| 360.0  | 23.40   | 14.26   | 9.68   | 6.19   | 3.77   | 2.15   | 1.35   | 1.35  | 0.81  |
| C/γ(°) | 90.0    | 95.0    | 100.0  | 105.0  | 110.0  | 115.0  | 120.0  | 125.0 | 130.0 |
| 0.0    | 0.27    | 0.00    | 0.27   | 0.27   | 0.27   | 0.27   | 0.27   | 0.27  | 0.54  |
| 22.5   | 0.54    | 0.54    | 0.27   | 0.54   | 0.54   | 1.08   | 0.81   | 0.81  | 0.81  |
| 45.0   | 0.54    | 0.54    | 0.54   | 0.81   | 0.54   | 0.54   | 0.81   | 0.81  | 0.54  |
| 67.5   | 0.54    | 0.54    | 0.27   | 0.81   | 0.54   | 0.54   | 0.54   | 1.08  | 0.54  |
| 90.0   | 0.54    | 0.54    | 0.54   | 1.08   | 0.54   | 0.81   | 0.81   | 0.81  | 0.54  |
| 112.5  | 0.54    | 0.81    | 0.54   | 0.54   | 0.54   | 0.81   | 0.81   | 0.81  | 0.81  |
| 135.0  | 0.54    | 0.81    | 0.81   | 0.54   | 0.54   | 0.54   | 0.54   | 0.81  | 0.81  |
| 157.5  | 0.81    | 0.81    | 0.81   | 0.27   | 0.54   | 0.81   | 0.27   | 0.81  | 1.08  |
| 180.0  | 0.81    | 0.81    | 0.54   | 0.81   | 1.08   | 1.08   | 0.81   | 1.08  | 1.35  |
| 202.5  | 0.81    | 0.81    | 0.54   | 1.08   | 1.08   | 1.08   | 1.08   | 1.08  | 1.35  |
| 225.0  | 0.81    | 1.08    | 0.81   | 1.08   | 1.08   | 0.81   | 1.08   | 1.08  | 1.08  |
| 247.5  | 0.54    | 1.08    | 0.81   | 1.08   | 1.08   | 1.08   | 1.08   | 1.08  | 0.81  |
| 270.0  | 0.81    | 1.08    | 1.08   | 1.08   | 1.08   | 1.08   | 1.08   | 0.81  | 0.81  |
| 292.5  | 0.81    | 0.81    | 1.08   | 0.81   | 0.81   | 1.08   | 1.08   | 1.08  | 0.81  |
| 315.0  | 1.08    | 0.81    | 1.08   | 0.81   | 1.08   | 0.81   | 0.81   | 1.08  | 1.08  |
| 337.5  | 1.08    | 1.08    | 1.08   | 1.08   | 1.08   | 1.08   | 1.08   | 1.08  | 1.35  |
| 360.0  | 0.27    | 0.00    | 0.27   | 0.27   | 0.27   | 0.27   | 0.27   | 0.27  | 0.54  |

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    | 0.54  | 0.54  | 0.54  | 0.81  | 0.81  | 0.81  | 1.08  | 0.81  | 1.08  |
| 22.5   | 1.08  | 0.81  | 0.81  | 1.08  | 0.81  | 1.35  | 1.35  | 1.61  | 1.35  |
| 45.0   | 0.81  | 1.08  | 1.08  | 1.08  | 1.08  | 1.35  | 1.35  | 1.61  | 1.35  |
| 67.5   | 0.81  | 0.81  | 1.08  | 0.81  | 1.08  | 1.08  | 1.61  | 1.35  | 1.35  |
| 90.0   | 0.81  | 0.81  | 0.81  | 1.08  | 0.81  | 1.08  | 1.08  | 1.35  | 1.35  |
| 112.5  | 0.81  | 0.81  | 0.81  | 1.08  | 1.35  | 1.35  | 1.35  | 1.35  | 1.35  |
| 135.0  | 0.54  | 0.54  | 1.08  | 1.08  | 1.35  | 1.08  | 1.61  | 1.35  | 1.35  |
| 157.5  | 1.08  | 0.81  | 0.81  | 1.08  | 1.61  | 1.08  | 1.35  | 1.08  | 1.35  |
| 180.0  | 1.08  | 1.08  | 1.08  | 1.08  | 1.35  | 1.35  | 1.08  | 1.61  | 1.08  |
| 202.5  | 0.81  | 1.08  | 1.35  | 1.35  | 1.08  | 1.88  | 1.08  | 1.35  | 1.08  |
| 225.0  | 0.81  | 1.35  | 1.08  | 1.35  | 1.35  | 1.61  | 1.35  | 1.61  | 1.35  |
| 247.5  | 0.81  | 1.08  | 0.81  | 1.35  | 1.35  | 1.35  | 1.35  | 1.35  | 1.35  |
| 270.0  | 1.08  | 1.08  | 1.08  | 1.35  | 1.08  | 1.08  | 1.35  | 1.35  | 1.08  |
| 292.5  | 1.35  | 1.08  | 1.35  | 1.35  | 1.35  | 1.35  | 1.61  | 1.35  | 1.35  |
| 315.0  | 1.08  | 1.08  | 0.81  | 1.35  | 1.35  | 1.35  | 1.35  | 1.61  | 1.35  |
| 337.5  | 1.08  | 1.08  | 1.08  | 1.35  | 1.61  | 1.35  | 1.35  | 1.35  | 1.35  |
| 360.0  | 0.54  | 0.54  | 0.54  | 0.81  | 0.81  | 0.81  | 1.08  | 0.81  | 1.08  |

| C/γ(°) | 180.0 |
|--------|-------|
| 0.0    | 1.35  |
| 22.5   | 1.08  |
| 45.0   | 1.35  |
| 67.5   | 1.61  |
| 90.0   | 1.61  |
| 112.5  | 1.61  |
| 135.0  | 1.61  |
| 157.5  | 1.35  |
| 180.0  | 1.35  |
| 202.5  | 1.08  |
| 225.0  | 1.35  |
| 247.5  | 1.61  |
| 270.0  | 1.61  |
| 292.5  | 1.61  |
| 315.0  | 1.61  |
| 337.5  | 1.35  |
| 360.0  | 1.35  |