



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

LumCAT:

Luminaire:

Report No:

Ballast type:

Test No:

Voltage(V): 120.15

LampCAT:

Current(A): 0.3290

Lamp flux(lm): 2500.0

Power (W): 39.14

Number of Lamps: 1

PF: 0.9906

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

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### Photometric Results

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Lumens(lm): 2499.51, Efficiency(%): 99.98% , Luminous Efficacy(lm/W): 63.86

Central intensity(cd): 766.055, Maximum intensity(cd): 775.298

Angle of maximum intensity: C=270.0  $\gamma$ =5.0

Beam Angle(50%Imax): [C0/180]Total=111.2

[C90/270]Total=110.5

Field angle(10%Imax): [C0/180]Total=190.6

[C90/270]Total=188.9

Maximum s/h(1/2): C0\_180=1.20 C90\_270=1.23

Maximum s/h(1/4): C0\_180=1.34 C90\_270=1.35

Up flux rate of lamp(%): 7.12%

Down flux rate of lamp(%): 92.86%

Up flux rate of LUM(%): 7.12%

Down flux rate of LUM(%): 92.88%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 66.512%

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

Date:  
Humidity(%): 59%

Operator: jarvis

## 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                | 766.055       | 0.000       | 0         | 0.00%       | 0.00%      |
| 5.0                | 763.175       | 18.282      | 18.282    | 0.73%       | 0.73%      |
| 10.0               | 733.136       | 53.528      | 71.809    | 2.14%       | 2.87%      |
| 15.0               | 704.615       | 85.286      | 157.096   | 3.41%       | 6.29%      |
| 20.0               | 680.883       | 114.184     | 271.28    | 4.57%       | 10.85%     |
| 25.0               | 655.194       | 140.130     | 411.41    | 5.61%       | 16.46%     |
| 30.0               | 623.327       | 161.798     | 573.208   | 6.47%       | 22.93%     |
| 35.0               | 584.563       | 177.870     | 751.078   | 7.11%       | 30.05%     |
| 40.0               | 539.955       | 187.617     | 938.695   | 7.50%       | 37.56%     |
| 45.0               | 490.662       | 190.827     | 1129.522  | 7.63%       | 45.19%     |
| 50.0               | 437.534       | 187.555     | 1317.078  | 7.50%       | 52.69%     |
| 55.0               | 384.663       | 178.773     | 1495.851  | 7.15%       | 59.85%     |
| 60.0               | 336.220       | 166.630     | 1662.481  | 6.67%       | 66.51%     |
| 65.0               | 290.814       | 152.433     | 1814.914  | 6.10%       | 72.61%     |
| 70.0               | 250.170       | 136.981     | 1951.895  | 5.48%       | 78.09%     |
| 75.0               | 210.530       | 120.420     | 2072.314  | 4.82%       | 82.91%     |
| 80.0               | 171.688       | 102.271     | 2174.585  | 4.09%       | 87.00%     |
| 85.0               | 134.261       | 83.134      | 2257.719  | 3.33%       | 90.33%     |
| 90.0               | 98.663        | 63.776      | 2321.495  | 2.55%       | 92.88%     |
| 95.0               | 76.243        | 47.890      | 2369.386  | 1.92%       | 94.79%     |
| 100.0              | 56.088        | 35.958      | 2405.343  | 1.44%       | 96.23%     |
| 105.0              | 37.735        | 25.105      | 2430.448  | 1.00%       | 97.24%     |
| 110.0              | 25.972        | 16.652      | 2447.1    | 0.67%       | 97.90%     |
| 115.0              | 19.511        | 11.517      | 2458.617  | 0.46%       | 98.36%     |
| 120.0              | 17.375        | 8.967       | 2467.584  | 0.36%       | 98.72%     |
| 125.0              | 14.595        | 7.390       | 2474.973  | 0.30%       | 99.02%     |
| 130.0              | 12.999        | 6.000       | 2480.973  | 0.24%       | 99.26%     |
| 135.0              | 11.197        | 4.889       | 2485.862  | 0.20%       | 99.45%     |
| 140.0              | 9.575         | 3.846       | 2489.708  | 0.15%       | 99.61%     |
| 145.0              | 8.880         | 3.079       | 2492.787  | 0.12%       | 99.73%     |
| 150.0              | 7.980         | 2.483       | 2495.27   | 0.10%       | 99.83%     |
| 155.0              | 6.461         | 1.827       | 2497.098  | 0.07%       | 99.90%     |
| 160.0              | 4.376         | 1.137       | 2498.234  | 0.05%       | 99.95%     |
| 165.0              | 3.784         | 0.672       | 2498.907  | 0.03%       | 99.98%     |
| 170.0              | 3.011         | 0.403       | 2499.31   | 0.02%       | 99.99%     |
| 175.0              | 1.518         | 0.162       | 2499.472  | 0.01%       | 100.00%    |
| 180.0              | 1.533         | 0.036       | 2499.508  | 0.00%       | 100.00%    |

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

Date:  
Humidity(%): 59%

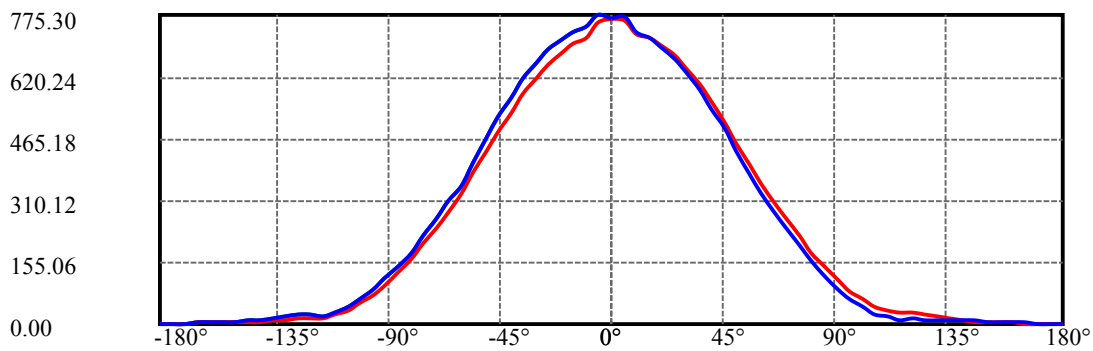
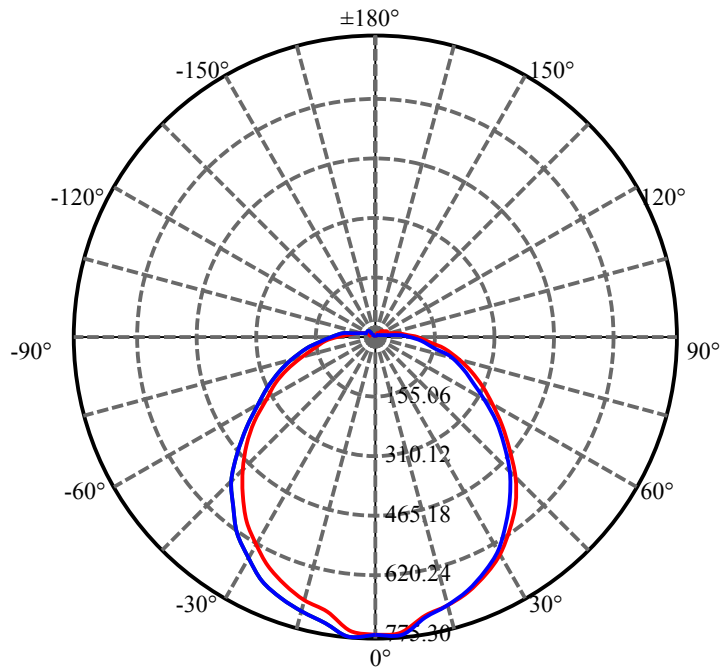
Operator: jarvis

ZONAL LUMEN SUMMARY

| Zone    | Lumens  | %Lamp  | %Fixt   |
|---------|---------|--------|---------|
| 0-30    | 573.21  | 22.93% | 22.93%  |
| 0-40    | 938.70  | 37.55% | 37.56%  |
| 0-60    | 1662.48 | 66.50% | 66.51%  |
| 0-90    | 2321.50 | 92.86% | 92.88%  |
| 0-120   | 2467.58 | 98.70% | 98.72%  |
| 0-180   | 2499.51 | 99.98% | 100.00% |
| 60-90   | 659.01  | 26.36% | 26.37%  |
| 90-120  | 146.09  | 5.84%  | 5.84%   |
| 90-130  | 159.48  | 6.38%  | 6.38%   |
| 90-150  | 173.77  | 6.95%  | 6.95%   |
| 90-180  | 177.98  | 7.12%  | 7.12%   |
| 0-71.98 | 1999.61 | 79.98% | 80.00%  |

ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 71.81  |
| 10-20   | 199.47 |
| 20-30   | 301.93 |
| 30-40   | 365.49 |
| 40-50   | 378.38 |
| 50-60   | 345.40 |
| 60-70   | 289.41 |
| 70-80   | 222.69 |
| 80-90   | 146.91 |
| 90-100  | 83.85  |
| 100-110 | 41.76  |
| 110-120 | 20.48  |
| 120-130 | 13.39  |
| 130-140 | 8.74   |
| 140-150 | 5.56   |
| 150-160 | 2.96   |
| 160-170 | 1.08   |
| 170-180 | 0.16   |



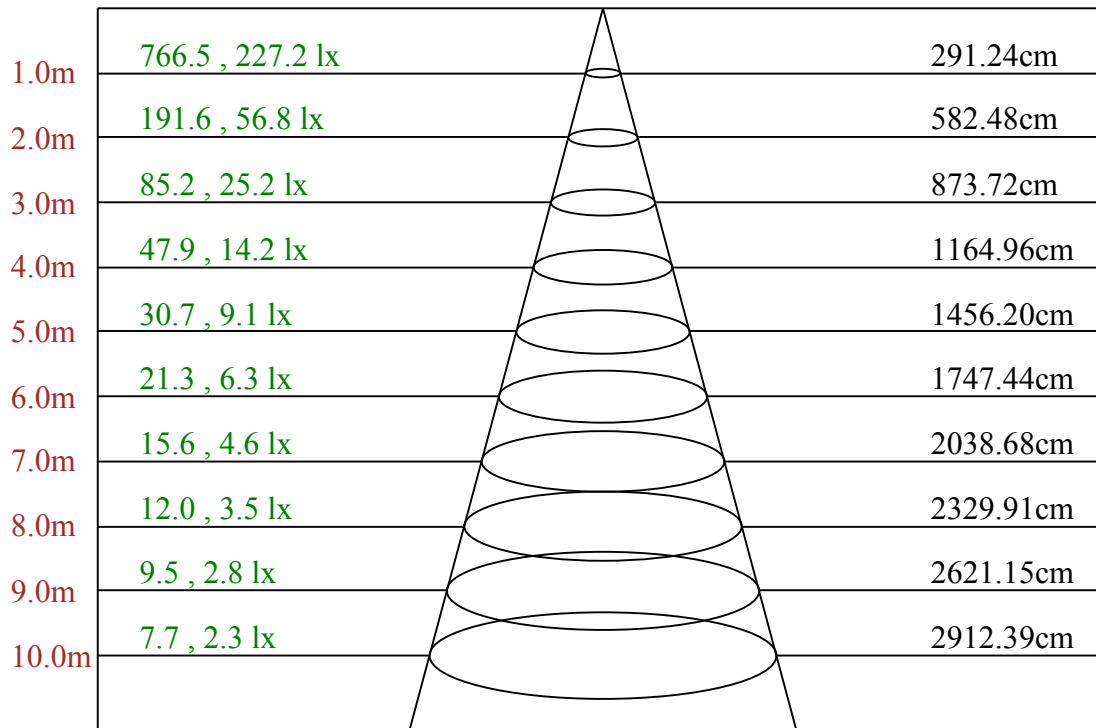
C270(Max): ———

C0/C180: ———

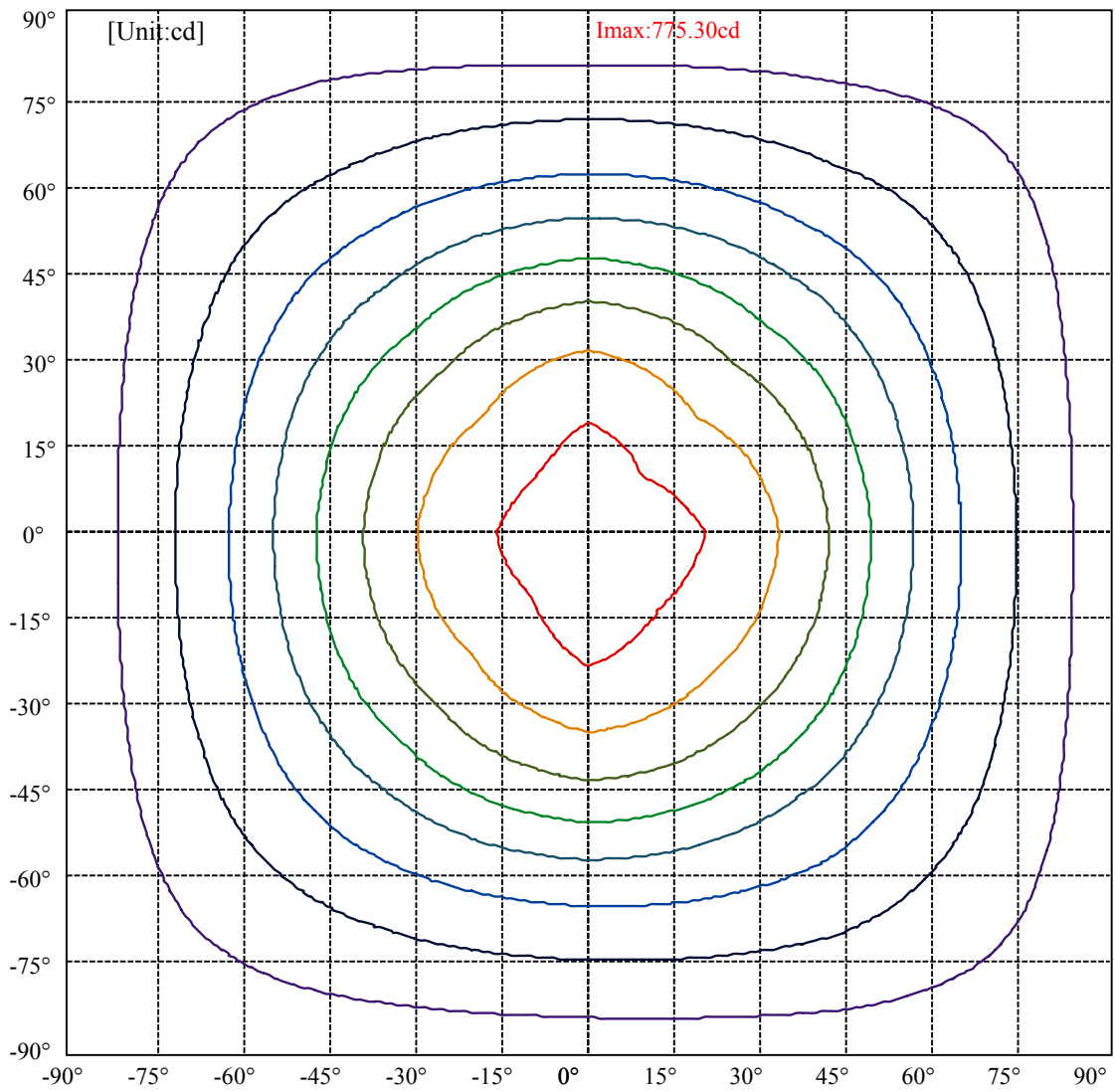
C90/C270: ———

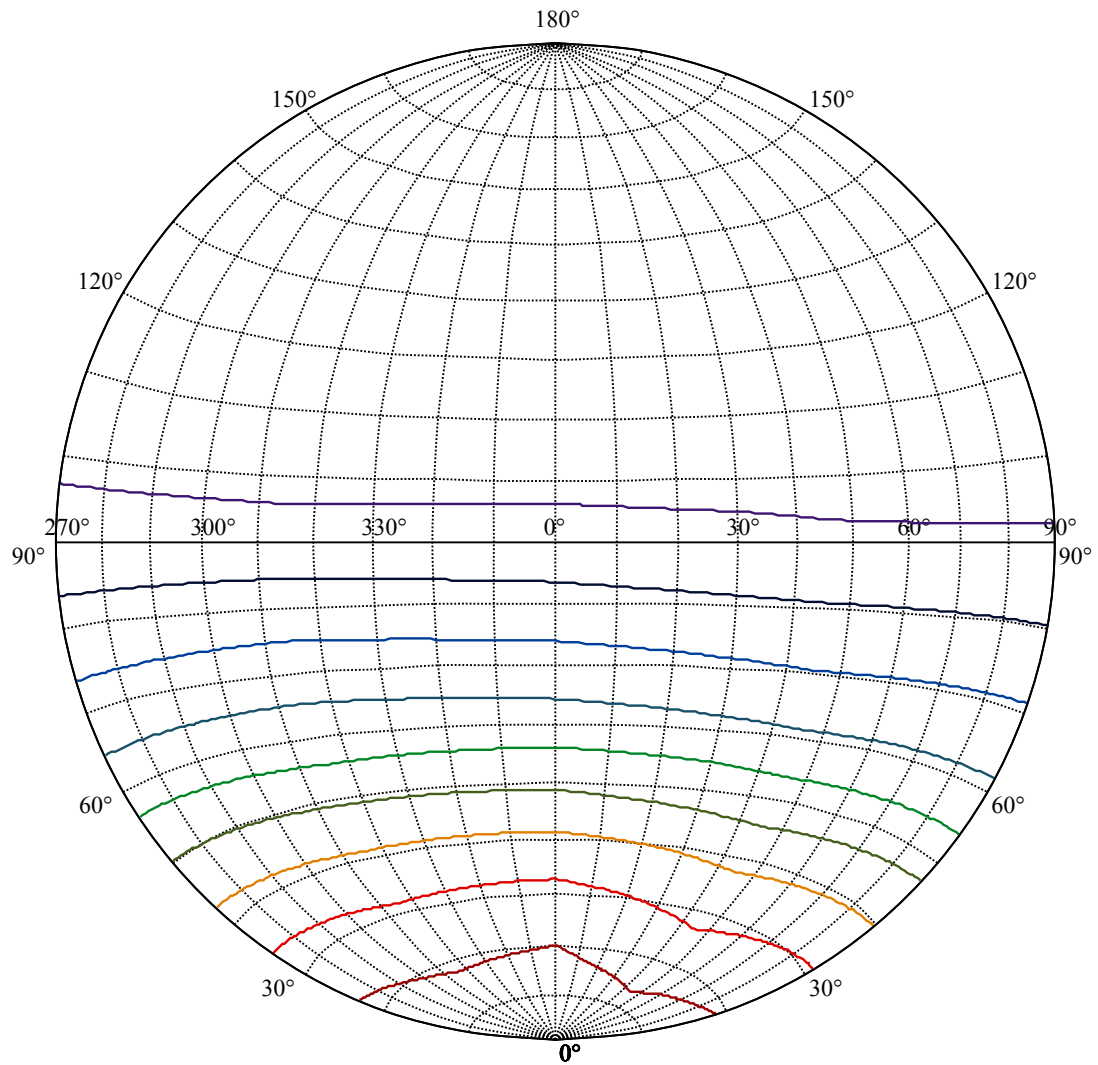
Field angle(10%Imax):C0/180Left:94.2 Right:96.4  
:C90/270Left:96.7 Right:92.2

Beam Angle(50%Imax):C0/180Left:54.6 Right:56.6  
:C90/270Left:56.5 Right:54.0



Max , Ave      Beam angle of C270 plane 111.04





House

[Unit:cd]

Road

**Imax:775.30**

(10%Imax) 77.5298

(20%Imax) 155.06

(30%Imax) 232.589

(40%Imax) 310.119

(50%Imax) 387.649

(60%Imax) 465.179

(70%Imax) 542.709

(80%Imax) 620.238

(90%Imax) 697.768



## Intensity data(cd)

| C/ $\gamma$ (°) | 0.0    | 5.0    | 10.0   | 15.0   | 20.0   | 25.0   | 30.0   | 35.0   | 40.0   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0             | 766.06 | 761.09 | 726.29 | 715.17 | 698.49 | 672.54 | 642.07 | 603.56 | 558.05 |
| 45.0            | 766.06 | 749.97 | 712.49 | 689.84 | 658.33 | 631.77 | 600.47 | 564.64 | 522.01 |
| 90.0            | 766.06 | 769.74 | 730.41 | 715.38 | 692.11 | 663.48 | 630.54 | 586.06 | 539.72 |
| 135.0           | 766.06 | 763.36 | 732.26 | 676.46 | 657.92 | 630.12 | 596.76 | 558.26 | 510.69 |
| 180.0           | 766.06 | 757.18 | 718.05 | 700.96 | 678.93 | 650.72 | 616.33 | 576.38 | 531.28 |
| 225.0           | 766.06 | 759.44 | 749.35 | 694.37 | 664.31 | 642.48 | 612.00 | 574.11 | 532.72 |
| 270.0           | 766.06 | 775.30 | 747.71 | 729.79 | 712.29 | 689.43 | 655.45 | 616.33 | 570.41 |
| 315.0           | 766.06 | 769.33 | 748.53 | 714.96 | 684.69 | 661.01 | 633.01 | 597.18 | 554.76 |
| 360.0           | 766.06 | 761.09 | 726.29 | 715.17 | 698.49 | 672.54 | 642.07 | 603.56 | 558.05 |

| C/ $\gamma$ (°) | 45.0   | 50.0   | 55.0   | 60.0   | 65.0   | 70.0   | 75.0   | 80.0   | 85.0   |
|-----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0             | 506.78 | 451.59 | 398.25 | 349.45 | 303.32 | 263.58 | 222.81 | 180.39 | 144.15 |
| 45.0            | 471.77 | 414.93 | 379.10 | 322.68 | 277.58 | 236.40 | 198.51 | 162.68 | 118.41 |
| 90.0            | 488.86 | 432.85 | 376.84 | 325.56 | 279.85 | 241.96 | 199.75 | 157.74 | 119.85 |
| 135.0           | 461.47 | 411.43 | 366.13 | 315.68 | 272.23 | 232.28 | 195.01 | 164.94 | 128.91 |
| 180.0           | 483.51 | 432.03 | 379.31 | 327.62 | 281.08 | 241.96 | 200.36 | 162.27 | 128.08 |
| 225.0           | 485.77 | 434.91 | 379.72 | 342.86 | 292.20 | 251.02 | 211.69 | 175.03 | 136.94 |
| 270.0           | 521.19 | 466.62 | 405.46 | 346.98 | 306.41 | 263.38 | 222.81 | 180.39 | 146.41 |
| 315.0           | 505.95 | 455.91 | 392.49 | 358.92 | 313.83 | 270.79 | 233.31 | 190.07 | 151.35 |
| 360.0           | 506.78 | 451.59 | 398.25 | 349.45 | 303.32 | 263.58 | 222.81 | 180.39 | 144.15 |

| C/ $\gamma$ (°) | 90.0   | 95.0  | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
|-----------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0             | 110.37 | 82.99 | 60.54 | 45.10 | 34.80 | 30.07 | 28.21 | 24.92 | 21.00 |
| 45.0            | 86.49  | 73.31 | 51.07 | 33.36 | 24.09 | 18.33 | 14.83 | 12.36 | 10.09 |
| 90.0            | 88.96  | 62.81 | 41.80 | 25.74 | 17.50 | 11.94 | 12.36 | 11.33 | 11.12 |
| 135.0           | 84.84  | 76.40 | 56.01 | 36.45 | 24.30 | 17.50 | 14.42 | 9.06  | 11.12 |
| 180.0           | 97.81  | 72.28 | 51.48 | 34.18 | 22.03 | 16.68 | 15.65 | 12.15 | 10.09 |
| 225.0           | 102.96 | 76.81 | 60.54 | 41.19 | 27.59 | 19.97 | 15.24 | 13.80 | 10.09 |
| 270.0           | 113.26 | 85.66 | 62.19 | 42.21 | 29.86 | 20.39 | 22.45 | 21.83 | 20.39 |
| 315.0           | 104.61 | 79.69 | 65.07 | 43.66 | 27.59 | 21.21 | 15.86 | 11.33 | 10.09 |
| 360.0           | 110.37 | 82.99 | 60.54 | 45.10 | 34.80 | 30.07 | 28.21 | 24.92 | 21.00 |

| C/ $\gamma$ (°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|-----------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0             | 14.62 | 9.68  | 7.00  | 6.18  | 5.15  | 4.32  | 2.06  | 1.85  | 1.65  |
| 45.0            | 8.44  | 9.68  | 9.88  | 9.27  | 8.03  | 5.35  | 4.94  | 4.74  | 1.44  |
| 90.0            | 10.09 | 8.86  | 7.62  | 6.38  | 4.94  | 3.30  | 2.47  | 2.27  | 1.44  |
| 135.0           | 11.12 | 10.50 | 10.09 | 10.09 | 5.77  | 3.30  | 5.97  | 2.06  | 1.44  |
| 180.0           | 7.83  | 6.80  | 7.00  | 6.59  | 5.97  | 4.94  | 2.47  | 1.85  | 1.65  |
| 225.0           | 9.06  | 9.47  | 10.09 | 9.27  | 8.24  | 6.18  | 5.56  | 4.94  | 1.24  |
| 270.0           | 16.06 | 10.71 | 9.88  | 7.21  | 5.15  | 4.32  | 3.09  | 2.27  | 1.65  |
| 315.0           | 12.36 | 10.91 | 9.47  | 8.86  | 8.44  | 3.30  | 3.71  | 4.12  | 1.65  |
| 360.0           | 14.62 | 9.68  | 7.00  | 6.18  | 5.15  | 4.32  | 2.06  | 1.85  | 1.65  |

| C/ $\gamma$ (°) | 180.0 |
|-----------------|-------|
| 0.0             | 1.53  |
| 45.0            | 1.53  |
| 90.0            | 1.53  |
| 135.0           | 1.53  |
| 180.0           | 1.53  |
| 225.0           | 1.53  |
| 270.0           | 1.53  |
| 315.0           | 1.53  |
| 360.0           | 1.53  |