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NT

Client: NT

LumCAT: 62-0106-1

Luminaire: 92.70.427.00

Report No: 20251212-B007

Ballast type: AC

Test No: 20251212-C007

LampCAT: CITIZEN CLU028

Lamp flux(lm): 1546.7

Number of Lamps: 1

Length(mm): 55

Phm Type: C

Voltage(V): 35.200

Current(A): 0.360

Power (W): 12.672

PF: 0.000

Width(mm): 55

Height(mm): 25

#### Photometric Results

Lumens(lm): 1320.07, Efficiency(%): 85.35% , Luminous Efficacy(lm/W): 104.17

Central intensity(cd): 1208.194, Maximum intensity(cd): 1208.194

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

Beam Angle(50%Imax): [C0/180]Total=60.0

[C90/270]Total=60.0

Field angle(10%Imax): [C0/180]Total=99.0

[C90/270]Total=99.0

Maximum s/h(1/2): C0\_180=0.91 C90\_270=0.91

Maximum s/h(1/4): C0\_180=0.91 C90\_270=0.91

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 85.35%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 94.716%

Equipment: GMS 1800  
Temperature(°C): 25.0

Date: 2025/12/12  
Humidity(%): 60.0%

Operator: 杨泽全  
Distance(m): 7.50

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 1208.194      | 0.000       | 0         | 0.00%       | 0.00%      |
| 1.0                | 1207.491      | 1.156       | 1.156     | 0.07%       | 0.09%      |
| 2.0                | 1204.889      | 3.462       | 4.618     | 0.22%       | 0.35%      |
| 3.0                | 1201.444      | 5.755       | 10.373    | 0.37%       | 0.79%      |
| 4.0                | 1196.873      | 8.028       | 18.401    | 0.52%       | 1.39%      |
| 5.0                | 1189.561      | 10.266      | 28.668    | 0.66%       | 2.17%      |
| 6.0                | 1182.319      | 12.465      | 41.133    | 0.81%       | 3.12%      |
| 7.0                | 1173.952      | 14.625      | 55.758    | 0.95%       | 4.22%      |
| 8.0                | 1164.108      | 16.733      | 72.491    | 1.08%       | 5.49%      |
| 9.0                | 1155.410      | 18.798      | 91.289    | 1.22%       | 6.92%      |
| 10.0               | 1136.735      | 20.743      | 112.032   | 1.34%       | 8.49%      |
| 11.0               | 1126.491      | 22.614      | 134.647   | 1.46%       | 10.20%     |
| 12.0               | 1114.594      | 24.498      | 159.145   | 1.58%       | 12.06%     |
| 13.0               | 1098.605      | 26.265      | 185.41    | 1.70%       | 14.05%     |
| 14.0               | 1081.652      | 27.907      | 213.317   | 1.80%       | 16.16%     |
| 15.0               | 1064.116      | 29.458      | 242.775   | 1.90%       | 18.39%     |
| 16.0               | 1045.350      | 30.910      | 273.685   | 2.00%       | 20.73%     |
| 17.0               | 1024.819      | 32.238      | 305.923   | 2.08%       | 23.17%     |
| 18.0               | 1002.277      | 33.422      | 339.345   | 2.16%       | 25.71%     |
| 19.0               | 979.024       | 34.471      | 373.816   | 2.23%       | 28.32%     |
| 20.0               | 953.873       | 35.377      | 409.193   | 2.29%       | 31.00%     |
| 21.0               | 924.764       | 36.074      | 445.267   | 2.33%       | 33.73%     |
| 22.0               | 895.148       | 36.572      | 481.839   | 2.36%       | 36.50%     |
| 23.0               | 858.853       | 36.804      | 518.643   | 2.38%       | 39.29%     |
| 24.0               | 823.366       | 36.779      | 555.422   | 2.38%       | 42.08%     |
| 25.0               | 787.036       | 36.617      | 592.039   | 2.37%       | 44.85%     |
| 26.0               | 750.607       | 36.296      | 628.335   | 2.35%       | 47.60%     |
| 27.0               | 714.431       | 35.842      | 664.178   | 2.32%       | 50.31%     |
| 28.0               | 678.073       | 35.255      | 699.433   | 2.28%       | 52.98%     |
| 29.0               | 641.946       | 34.535      | 733.968   | 2.23%       | 55.60%     |
| 30.0               | 605.159       | 33.672      | 767.64    | 2.18%       | 58.15%     |
| 31.0               | 569.243       | 32.682      | 800.322   | 2.11%       | 60.63%     |
| 32.0               | 534.769       | 31.629      | 831.95    | 2.04%       | 63.02%     |
| 33.0               | 501.075       | 30.516      | 862.467   | 1.97%       | 65.34%     |
| 34.0               | 465.427       | 29.249      | 891.716   | 1.89%       | 67.55%     |
| 35.0               | 427.838       | 27.741      | 919.457   | 1.79%       | 69.65%     |
| 36.0               | 398.391       | 26.307      | 945.765   | 1.70%       | 71.65%     |
| 37.0               | 367.242       | 24.971      | 970.735   | 1.61%       | 73.54%     |

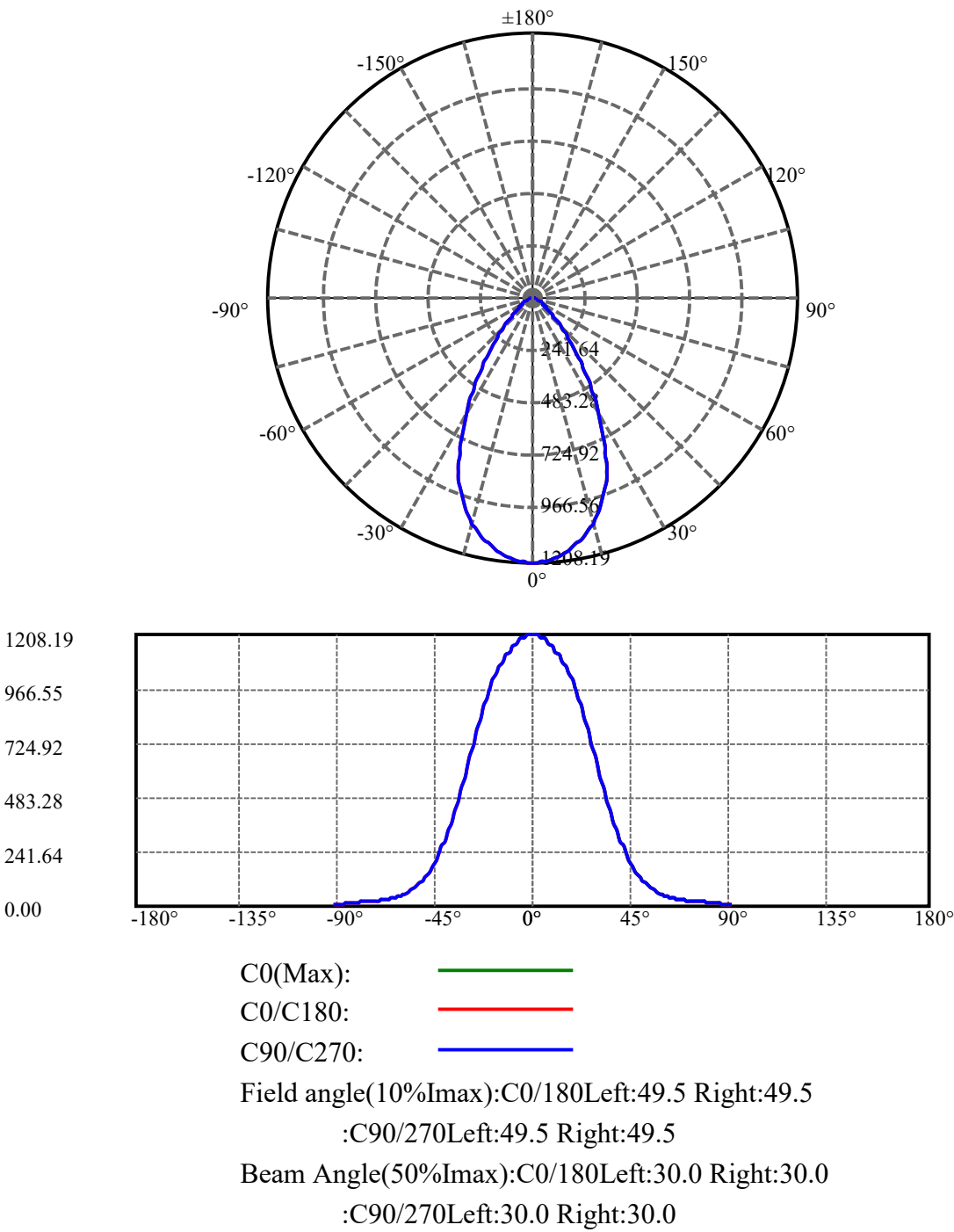
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0               | 340.193       | 23.613      | 994.349   | 1.53%       | 75.33%     |
| 39.0               | 311.189       | 22.233      | 1016.582  | 1.44%       | 77.01%     |
| 40.0               | 287.838       | 20.892      | 1037.474  | 1.35%       | 78.59%     |
| 41.0               | 271.519       | 19.918      | 1057.392  | 1.29%       | 80.10%     |
| 42.0               | 245.714       | 18.792      | 1076.184  | 1.22%       | 81.52%     |
| 43.0               | 224.051       | 17.401      | 1093.586  | 1.13%       | 82.84%     |
| 44.0               | 198.970       | 15.966      | 1109.552  | 1.03%       | 84.05%     |
| 45.0               | 183.755       | 14.709      | 1124.26   | 0.95%       | 85.17%     |
| 46.0               | 166.584       | 13.701      | 1137.961  | 0.89%       | 86.20%     |
| 47.0               | 151.144       | 12.637      | 1150.598  | 0.82%       | 87.16%     |
| 48.0               | 138.009       | 11.689      | 1162.287  | 0.76%       | 88.05%     |
| 49.0               | 125.557       | 10.824      | 1173.111  | 0.70%       | 88.87%     |
| 50.0               | 115.594       | 10.054      | 1183.165  | 0.65%       | 89.63%     |
| 51.0               | 104.730       | 9.322       | 1192.487  | 0.60%       | 90.34%     |
| 52.0               | 95.189        | 8.579       | 1201.066  | 0.55%       | 90.99%     |
| 53.0               | 87.019        | 7.926       | 1208.992  | 0.51%       | 91.59%     |
| 54.0               | 79.502        | 7.340       | 1216.331  | 0.47%       | 92.14%     |
| 55.0               | 72.570        | 6.788       | 1223.119  | 0.44%       | 92.66%     |
| 56.0               | 66.361        | 6.278       | 1229.397  | 0.41%       | 93.13%     |
| 57.0               | 60.785        | 5.813       | 1235.211  | 0.38%       | 93.57%     |
| 58.0               | 55.856        | 5.394       | 1240.605  | 0.35%       | 93.98%     |
| 59.0               | 51.462        | 5.017       | 1245.622  | 0.32%       | 94.36%     |
| 60.0               | 47.770        | 4.688       | 1250.31   | 0.30%       | 94.72%     |
| 61.0               | 44.016        | 4.380       | 1254.69   | 0.28%       | 95.05%     |
| 62.0               | 40.852        | 4.089       | 1258.779  | 0.26%       | 95.36%     |
| 63.0               | 38.208        | 3.845       | 1262.625  | 0.25%       | 95.65%     |
| 64.0               | 35.859        | 3.634       | 1266.259  | 0.23%       | 95.92%     |
| 65.0               | 33.687        | 3.442       | 1269.701  | 0.22%       | 96.18%     |
| 66.0               | 31.809        | 3.268       | 1272.969  | 0.21%       | 96.43%     |
| 67.0               | 29.981        | 3.107       | 1276.076  | 0.20%       | 96.67%     |
| 68.0               | 28.470        | 2.961       | 1279.036  | 0.19%       | 96.89%     |
| 69.0               | 27.049        | 2.832       | 1281.869  | 0.18%       | 97.11%     |
| 70.0               | 25.664        | 2.707       | 1284.576  | 0.18%       | 97.31%     |
| 71.0               | 24.497        | 2.593       | 1287.169  | 0.17%       | 97.51%     |
| 72.0               | 23.351        | 2.488       | 1289.657  | 0.16%       | 97.70%     |
| 73.0               | 22.268        | 2.386       | 1292.042  | 0.15%       | 97.88%     |
| 74.0               | 21.333        | 2.292       | 1294.334  | 0.15%       | 98.05%     |
| 75.0               | 20.461        | 2.208       | 1296.543  | 0.14%       | 98.22%     |

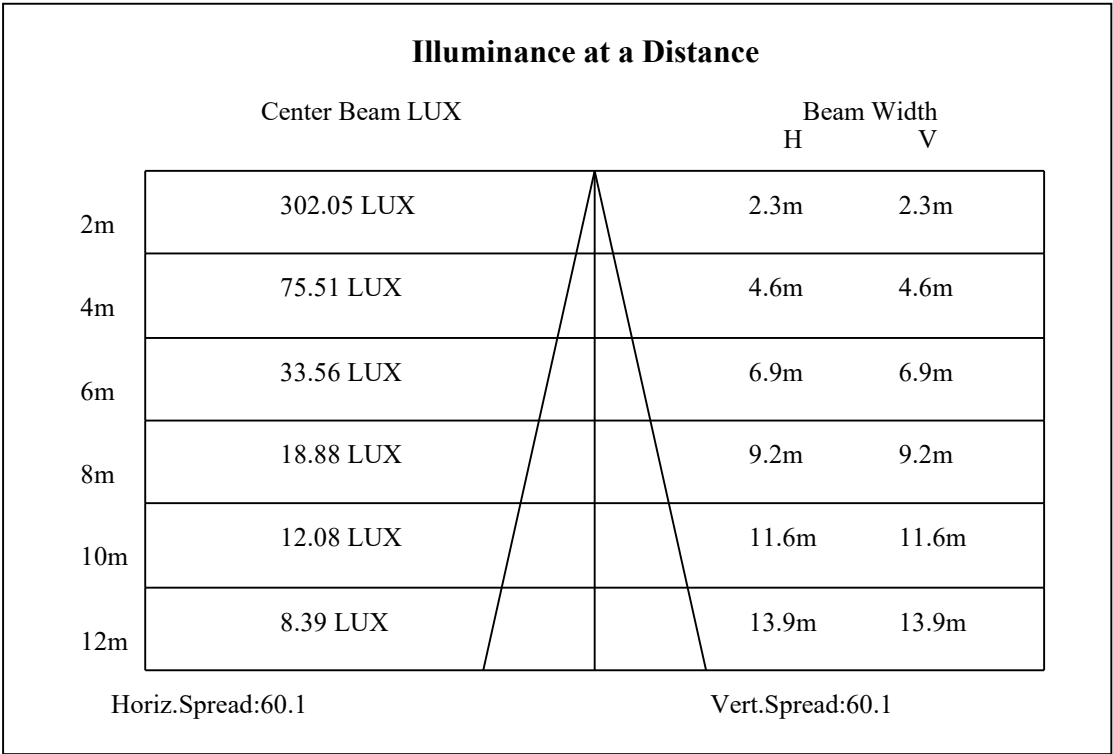
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0               | 19.927        | 2.144       | 1298.686  | 0.14%       | 98.38%     |
| 77.0               | 19.561        | 2.105       | 1300.792  | 0.14%       | 98.54%     |
| 78.0               | 19.336        | 2.082       | 1302.874  | 0.13%       | 98.70%     |
| 79.0               | 18.492        | 2.032       | 1304.906  | 0.13%       | 98.85%     |
| 80.0               | 17.438        | 1.937       | 1306.843  | 0.13%       | 99.00%     |
| 81.0               | 16.249        | 1.822       | 1308.665  | 0.12%       | 99.14%     |
| 82.0               | 15.075        | 1.699       | 1310.364  | 0.11%       | 99.26%     |
| 83.0               | 14.048        | 1.583       | 1311.947  | 0.10%       | 99.38%     |
| 84.0               | 13.078        | 1.478       | 1313.425  | 0.10%       | 99.50%     |
| 85.0               | 12.115        | 1.375       | 1314.8    | 0.09%       | 99.60%     |
| 86.0               | 11.102        | 1.269       | 1316.069  | 0.08%       | 99.70%     |
| 87.0               | 10.069        | 1.159       | 1317.228  | 0.07%       | 99.78%     |
| 88.0               | 8.993         | 1.044       | 1318.272  | 0.07%       | 99.86%     |
| 89.0               | 8.135         | 0.939       | 1319.211  | 0.06%       | 99.94%     |
| 90.0               | 7.502         | 0.857       | 1320.068  | 0.06%       | 100.00%    |

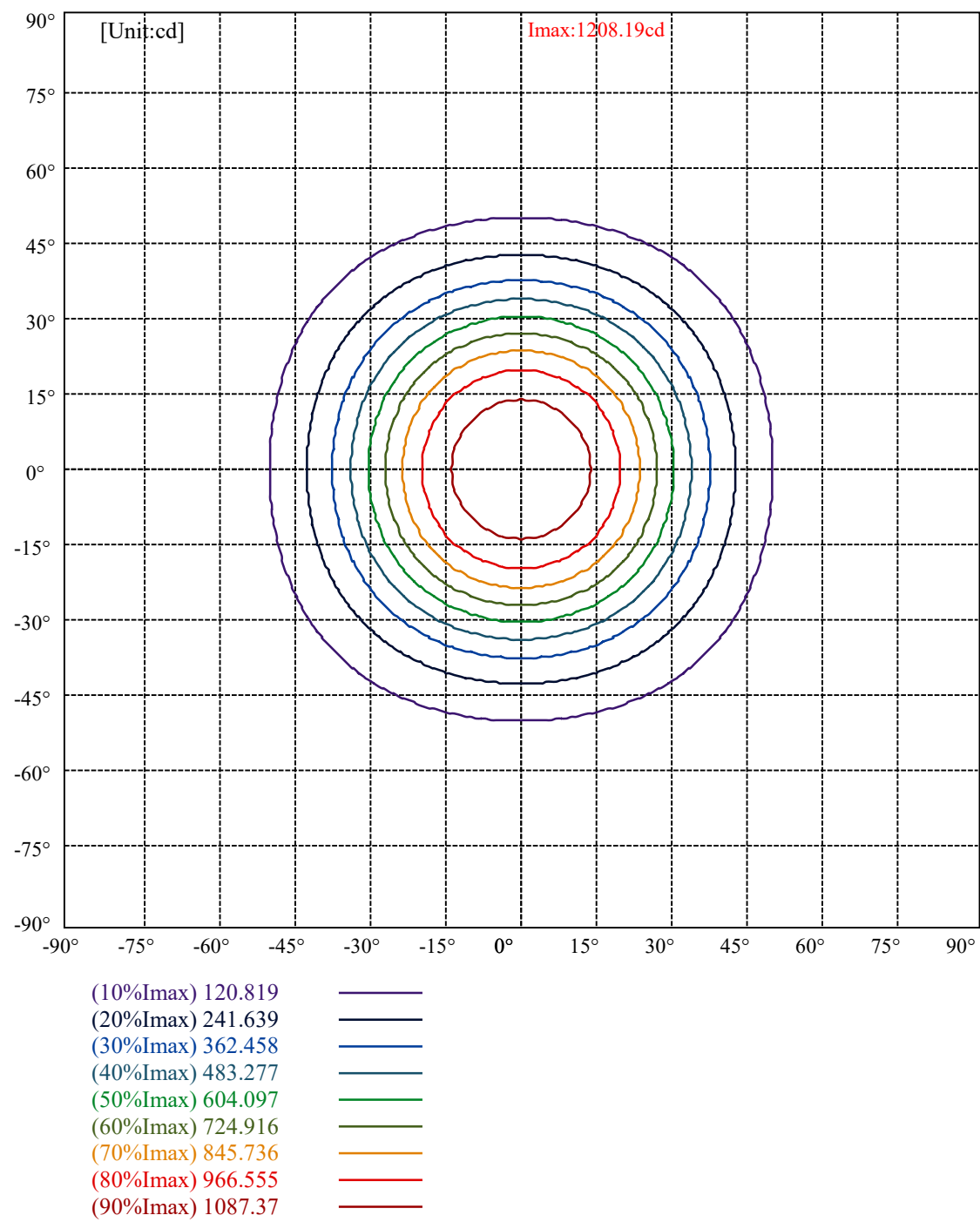
| ZONAL LUMEN SUMMARY |         |        |         |
|---------------------|---------|--------|---------|
| Zone                | Lumens  | %Lamp  | %Fixt   |
| 0-30                | 767.64  | 49.63% | 58.15%  |
| 0-40                | 1037.47 | 67.08% | 78.59%  |
| 0-60                | 1250.31 | 80.84% | 94.72%  |
| 0-90                | 1319.21 | 85.29% | 99.94%  |
| 0-120               | 1319.21 | 85.29% | 99.94%  |
| 0-180               | 1320.07 | 85.35% | 100.00% |
| 60-90               | 68.90   | 4.45%  | 5.22%   |
| 90-120              | 0.00    | 0.00%  | 0.00%   |
| 90-130              | 0.00    | 0.00%  | 0.00%   |
| 90-150              | 0.00    | 0.00%  | 0.00%   |
| 90-180              | 0.00    | 0.00%  | 0.00%   |
| 0-40.93             | 1056.05 | 68.28% | 80.00%  |

ZONAL LUMEN SUMMARY

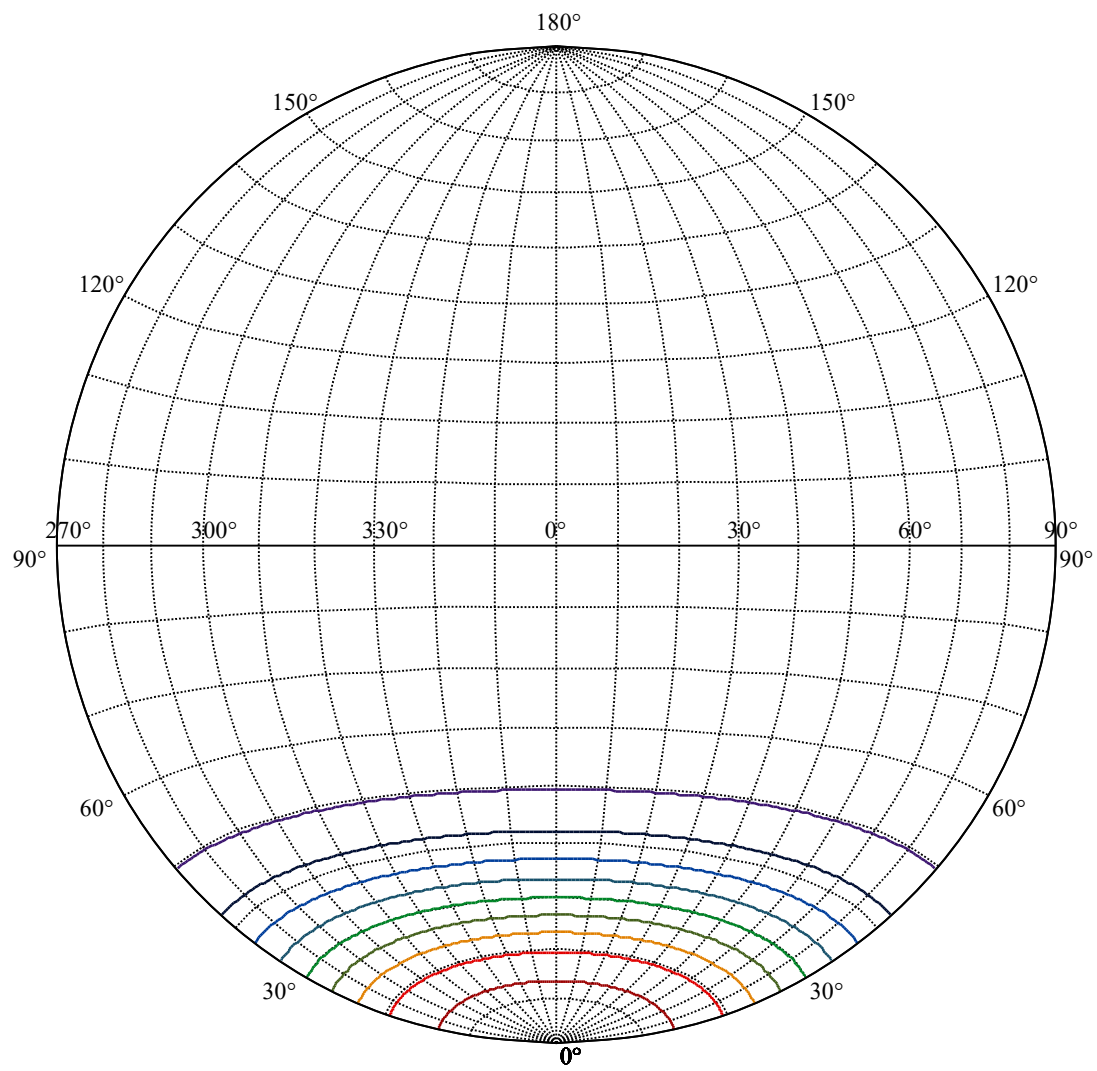
|         |        |
|---------|--------|
| 0-10    | 112.03 |
| 10-20   | 297.16 |
| 20-30   | 358.45 |
| 30-40   | 269.83 |
| 40-50   | 145.69 |
| 50-60   | 67.14  |
| 60-70   | 34.27  |
| 70-80   | 22.27  |
| 80-90   | 12.37  |
| 90-100  | 0.00   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |











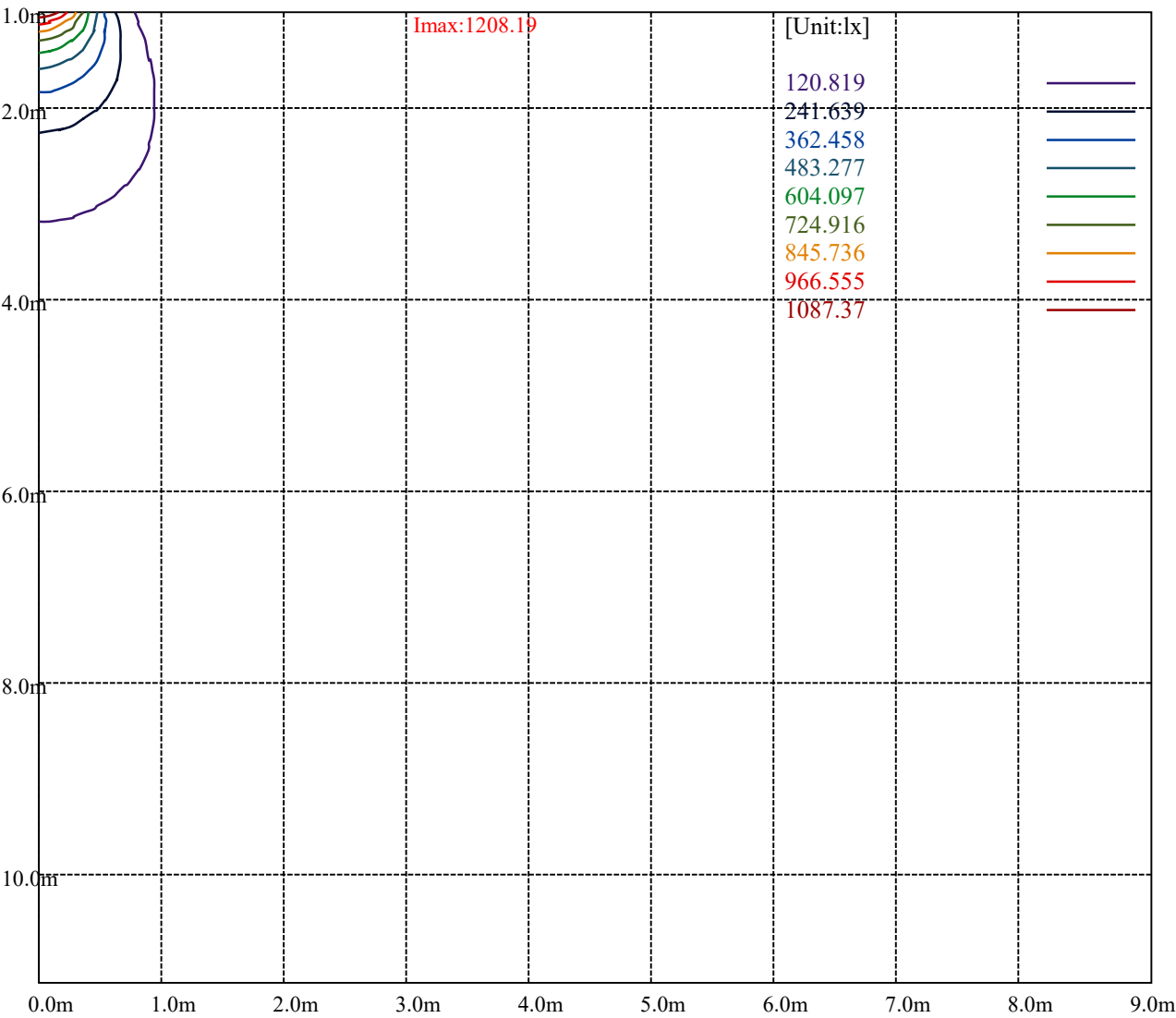
House

[Unit:cd]

Road

|                           |         |
|---------------------------|---------|
| I <sub>max</sub> :1208.19 |         |
| (10%I <sub>max</sub> )    | 120.819 |
| (20%I <sub>max</sub> )    | 241.639 |
| (30%I <sub>max</sub> )    | 362.458 |
| (40%I <sub>max</sub> )    | 483.277 |
| (50%I <sub>max</sub> )    | 604.097 |
| (60%I <sub>max</sub> )    | 724.916 |
| (70%I <sub>max</sub> )    | 845.736 |
| (80%I <sub>max</sub> )    | 966.555 |
| (90%I <sub>max</sub> )    | 1087.37 |





Luminance Table

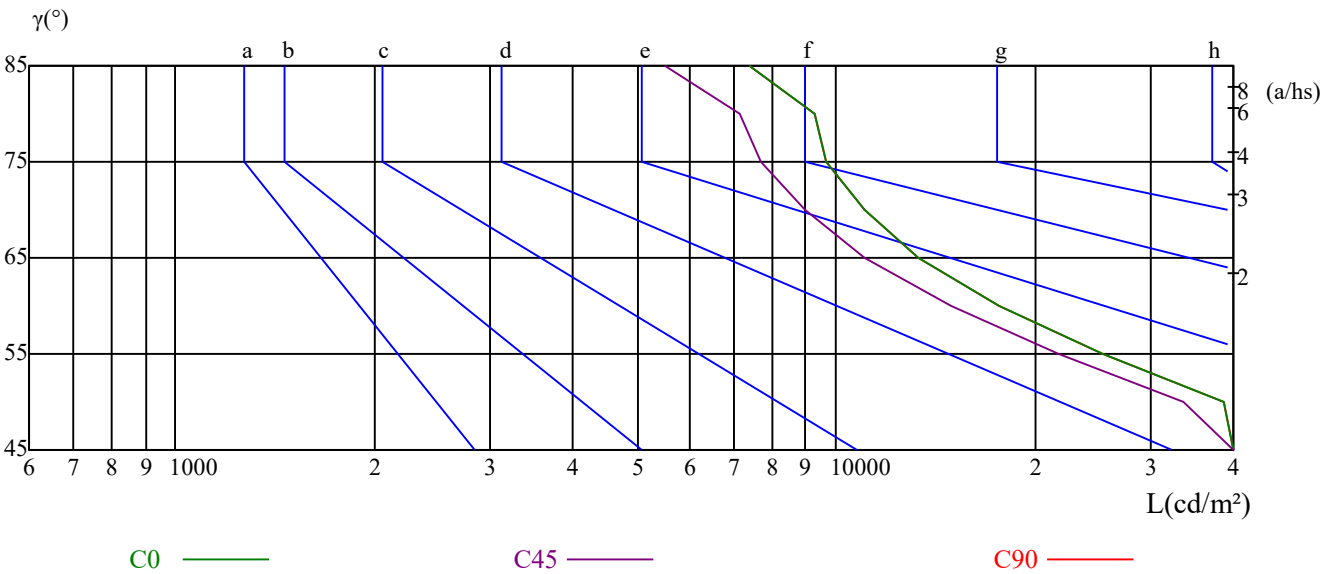
| $\gamma$ | 45    | 50    | 55    | 60    | 65    | 70    | 75   | 80   | 85   |
|----------|-------|-------|-------|-------|-------|-------|------|------|------|
| C0       | 59061 | 38560 | 25362 | 17671 | 13343 | 11030 | 9692 | 9278 | 7417 |
| C45      | 52292 | 33661 | 21806 | 14944 | 11078 | 8968  | 7689 | 7146 | 5505 |
| C90      | 59061 | 38560 | 25362 | 17671 | 13343 | 11030 | 9692 | 9278 | 7417 |

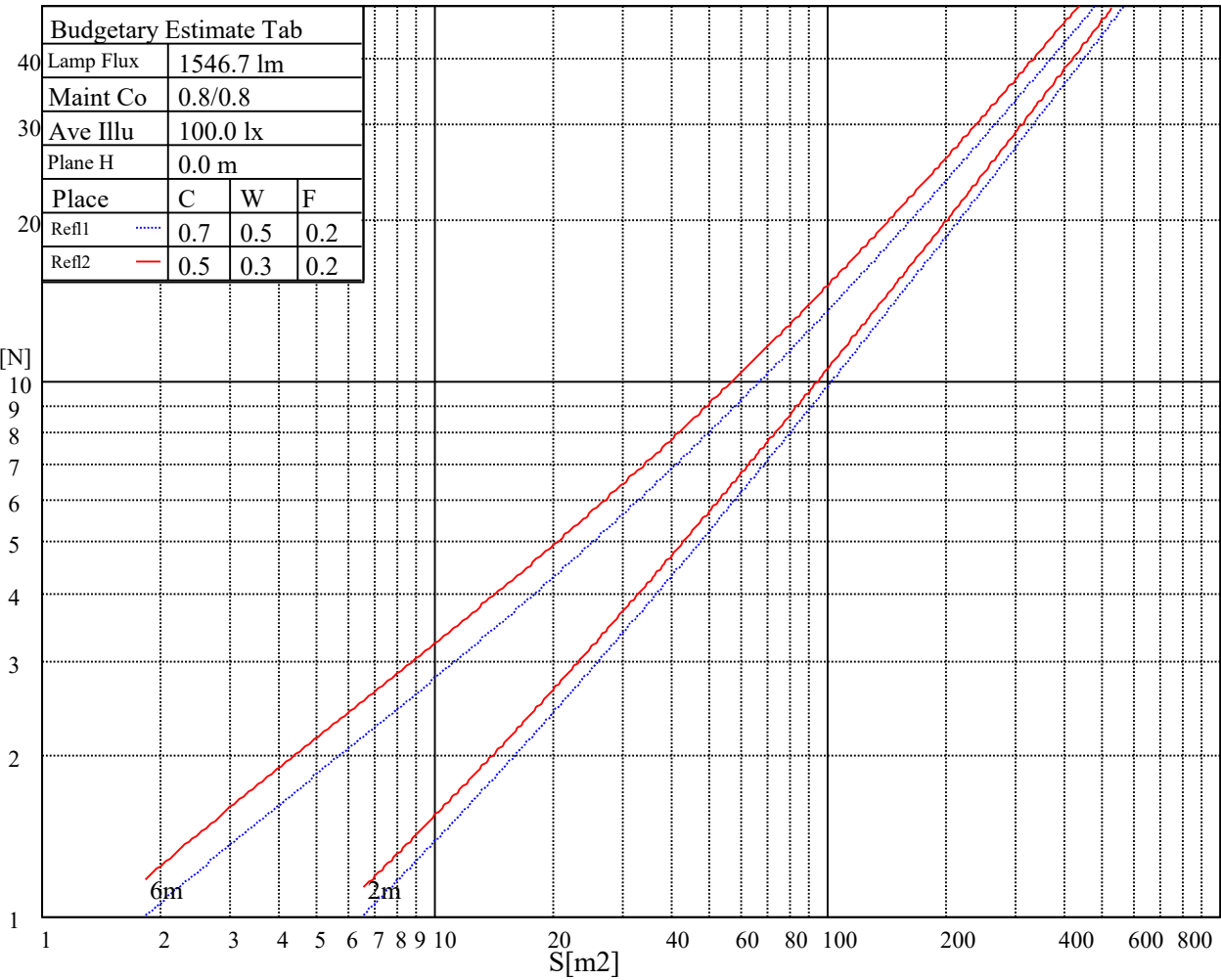
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 26350      | 26350      | 26350   | 26134      | 26134      | 26134   | 45951      | 45951      | 45951   |

Glare Table

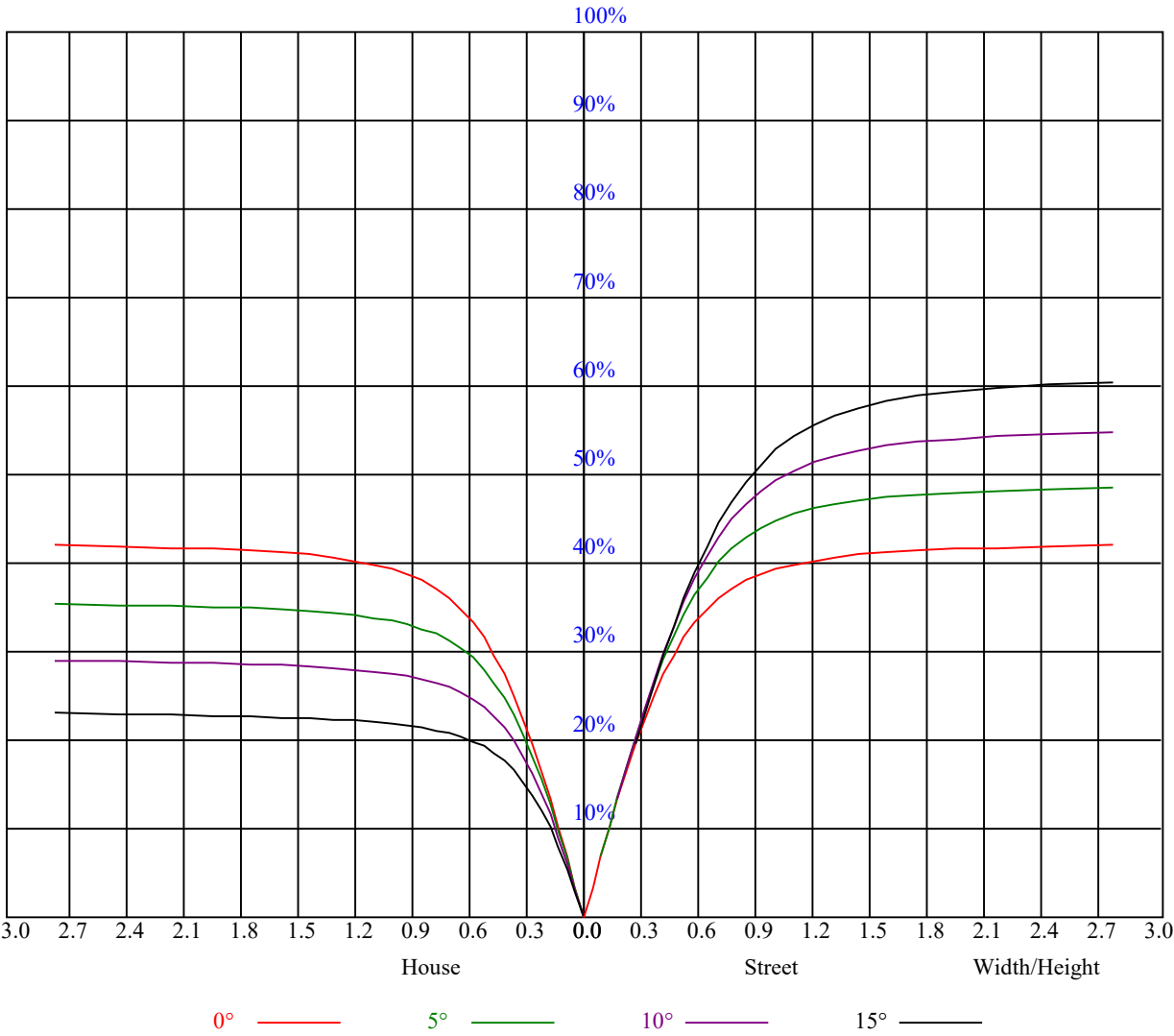
| Glare | Quality | Service Values Illuminance(lx) |      |      |       |       |       |       |       |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15  | A       | 2000                           | 1000 | 500  | <=300 |       |       |       |       |
| 1.5   | B       |                                | 2000 | 1000 | 500   | <=300 |       |       |       |
| 1.85  | C       |                                |      | 2000 | 1000  | 500   | <=300 |       |       |
| 2.2   | D       |                                |      |      | 2000  | 1000  | 500   | <=300 |       |
| 2.55  | E       |                                |      |      |       | 2000  | 1000  | 500   | <=300 |
|       |         | a                              | b    | c    | d     | e     | f     | g     | h     |

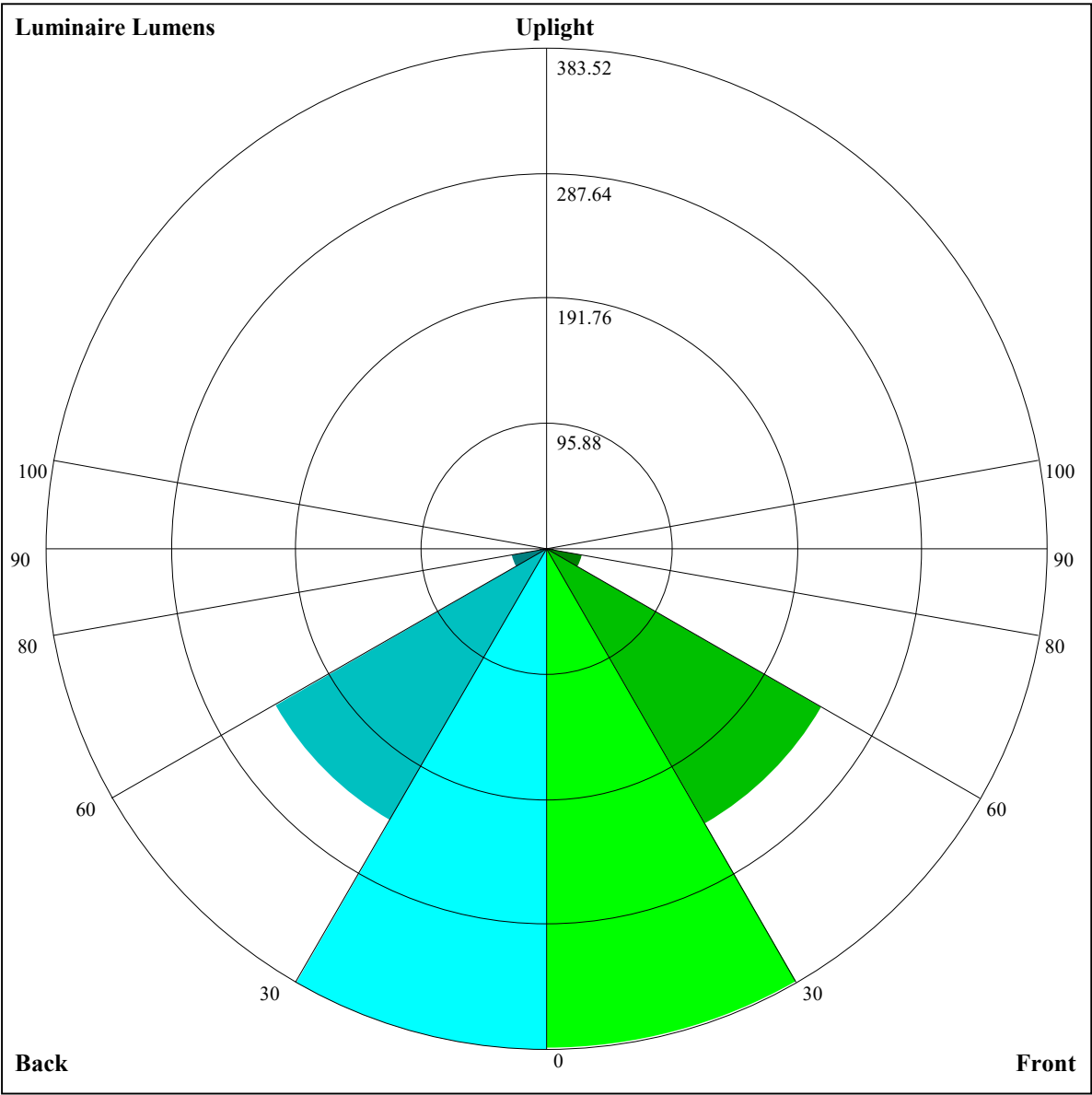
Luminance Limiting Curve





| RHOCC | 80                                     |      |      | 70   |      |      | 50   |      |      | 30   |      |      | 10   |      |      | 0    |
|-------|----------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| RHOW  | 50                                     | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 50   | 30   | 10   | 0    |
| RCR   | COEFFCIENTS OF UTILIZATION RHOFC=20 CU |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0     | 1.02                                   | 1.02 | 1.02 | 0.99 | 0.99 | 0.99 | 0.95 | 0.95 | 0.95 | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.85 |
| 1     | 0.93                                   | 0.90 | 0.88 | 0.91 | 0.89 | 0.87 | 0.87 | 0.86 | 0.84 | 0.84 | 0.83 | 0.81 | 0.81 | 0.80 | 0.79 | 0.77 |
| 2     | 0.85                                   | 0.81 | 0.77 | 0.83 | 0.80 | 0.77 | 0.81 | 0.78 | 0.75 | 0.78 | 0.75 | 0.73 | 0.76 | 0.74 | 0.72 | 0.70 |
| 3     | 0.78                                   | 0.73 | 0.69 | 0.77 | 0.72 | 0.69 | 0.75 | 0.71 | 0.67 | 0.72 | 0.69 | 0.66 | 0.70 | 0.68 | 0.65 | 0.64 |
| 4     | 0.72                                   | 0.67 | 0.62 | 0.71 | 0.66 | 0.62 | 0.69 | 0.65 | 0.61 | 0.67 | 0.64 | 0.61 | 0.66 | 0.62 | 0.60 | 0.58 |
| 5     | 0.67                                   | 0.61 | 0.57 | 0.66 | 0.61 | 0.57 | 0.64 | 0.60 | 0.56 | 0.63 | 0.59 | 0.55 | 0.61 | 0.58 | 0.55 | 0.54 |
| 6     | 0.62                                   | 0.56 | 0.52 | 0.61 | 0.56 | 0.52 | 0.60 | 0.55 | 0.51 | 0.59 | 0.54 | 0.51 | 0.57 | 0.54 | 0.51 | 0.49 |
| 7     | 0.58                                   | 0.52 | 0.48 | 0.57 | 0.52 | 0.48 | 0.56 | 0.51 | 0.48 | 0.55 | 0.51 | 0.47 | 0.54 | 0.50 | 0.47 | 0.46 |
| 8     | 0.54                                   | 0.48 | 0.44 | 0.54 | 0.48 | 0.44 | 0.53 | 0.48 | 0.44 | 0.52 | 0.47 | 0.44 | 0.51 | 0.47 | 0.44 | 0.42 |
| 9     | 0.51                                   | 0.45 | 0.41 | 0.50 | 0.45 | 0.41 | 0.49 | 0.45 | 0.41 | 0.49 | 0.44 | 0.41 | 0.48 | 0.44 | 0.41 | 0.40 |
| 10    | 0.48                                   | 0.42 | 0.39 | 0.47 | 0.42 | 0.39 | 0.47 | 0.42 | 0.38 | 0.46 | 0.41 | 0.38 | 0.45 | 0.41 | 0.38 | 0.37 |





Luminaire Lumens:

FL=382.4,FM=243.17,FH=28.34,FVH=6.57

BL=383.52,BM=239.92,BH=28.25,BVH=6.76

UL=0,UH=0

BUG Rating:B1-U0-G0



## Intensity data(cd)

Appendix Page: 17 Total:19

| C/γ(°) | 0.0     | 1.0     | 2.0     | 3.0     | 4.0     | 5.0     | 6.0     | 7.0     | 8.0     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1211.57 | 1211.01 | 1207.07 | 1204.82 | 1199.19 | 1187.38 | 1182.32 | 1173.32 | 1162.07 |
| 45.0   | 1207.63 | 1209.32 | 1209.88 | 1207.63 | 1204.82 | 1200.32 | 1194.13 | 1190.19 | 1180.07 |
| 90.0   | 1208.76 | 1209.32 | 1205.38 | 1203.13 | 1198.63 | 1193.57 | 1186.26 | 1176.13 | 1170.51 |
| 135.0  | 1204.82 | 1205.94 | 1205.38 | 1202.01 | 1199.19 | 1195.82 | 1189.07 | 1182.88 | 1174.44 |
| 180.0  | 1211.57 | 1211.01 | 1208.76 | 1206.51 | 1201.44 | 1195.26 | 1187.94 | 1180.07 | 1175.01 |
| 225.0  | 1207.63 | 1202.01 | 1198.63 | 1192.44 | 1188.51 | 1177.26 | 1165.44 | 1158.13 | 1145.76 |
| 270.0  | 1208.76 | 1207.63 | 1204.26 | 1200.32 | 1194.69 | 1188.51 | 1184.01 | 1172.19 | 1160.94 |
| 315.0  | 1204.82 | 1203.69 | 1199.76 | 1194.69 | 1188.51 | 1178.38 | 1169.38 | 1158.69 | 1144.07 |
| 360.0  | 1211.57 | 1211.01 | 1207.07 | 1204.82 | 1199.19 | 1187.38 | 1182.32 | 1173.32 | 1162.07 |
| C/γ(°) | 9.0     | 10.0    | 11.0    | 12.0    | 13.0    | 14.0    | 15.0    | 16.0    | 17.0    |
| 0.0    | 1149.69 | 1117.29 | 1117.29 | 1111.22 | 1092.09 | 1081.63 | 1063.69 | 1043.66 | 1021.78 |
| 45.0   | 1169.94 | 1159.26 | 1143.51 | 1137.88 | 1120.44 | 1097.94 | 1087.82 | 1067.57 | 1049.01 |
| 90.0   | 1159.26 | 1147.44 | 1117.13 | 1117.13 | 1107.06 | 1089.56 | 1066.61 | 1054.29 | 1032.92 |
| 135.0  | 1166.01 | 1153.63 | 1143.51 | 1131.69 | 1123.26 | 1106.38 | 1090.63 | 1073.19 | 1054.07 |
| 180.0  | 1163.76 | 1148.01 | 1140.69 | 1124.94 | 1111.44 | 1095.69 | 1078.26 | 1067.57 | 1043.94 |
| 225.0  | 1117.24 | 1117.24 | 1107.23 | 1089.62 | 1071.11 | 1047.54 | 1034.66 | 1011.99 | 988.37  |
| 270.0  | 1148.01 | 1135.07 | 1126.63 | 1107.51 | 1083.88 | 1073.19 | 1049.57 | 1028.76 | 1006.82 |
| 315.0  | 1169.38 | 1115.94 | 1115.94 | 1096.76 | 1079.55 | 1061.27 | 1041.69 | 1015.76 | 1001.64 |
| 360.0  | 1149.69 | 1117.29 | 1117.29 | 1111.22 | 1092.09 | 1081.63 | 1063.69 | 1043.66 | 1021.78 |
| C/γ(°) | 18.0    | 19.0    | 20.0    | 21.0    | 22.0    | 23.0    | 24.0    | 25.0    | 26.0    |
| 0.0    | 992.64  | 977.34  | 949.50  | 919.18  | 880.54  | 845.94  | 809.55  | 772.31  | 727.26  |
| 45.0   | 1028.76 | 1007.94 | 993.88  | 964.07  | 937.07  | 906.69  | 874.63  | 832.44  | 796.44  |
| 90.0   | 1010.25 | 985.67  | 953.83  | 937.07  | 895.95  | 857.42  | 836.89  | 800.55  | 762.69  |
| 135.0  | 1041.69 | 1014.69 | 990.51  | 963.51  | 934.82  | 915.69  | 862.26  | 826.82  | 804.32  |
| 180.0  | 1022.01 | 998.38  | 972.51  | 939.32  | 921.32  | 875.76  | 855.51  | 812.19  | 775.07  |
| 225.0  | 963.11  | 930.15  | 912.99  | 882.73  | 849.88  | 808.14  | 771.81  | 734.18  | 695.87  |
| 270.0  | 982.63  | 967.44  | 935.94  | 907.26  | 876.32  | 843.69  | 802.07  | 765.51  | 728.38  |
| 315.0  | 977.12  | 950.57  | 921.83  | 884.98  | 865.29  | 817.48  | 774.23  | 752.29  | 714.83  |
| 360.0  | 992.64  | 977.34  | 949.50  | 919.18  | 880.54  | 845.94  | 809.55  | 772.31  | 727.26  |
| C/γ(°) | 27.0    | 28.0    | 29.0    | 30.0    | 31.0    | 32.0    | 33.0    | 34.0    | 35.0    |
| 0.0    | 704.14  | 665.78  | 627.24  | 589.33  | 545.63  | 524.25  | 489.43  | 455.46  | 422.10  |
| 45.0   | 758.76  | 735.69  | 690.13  | 653.01  | 615.88  | 579.32  | 557.94  | 516.32  | 469.63  |
| 90.0   | 723.54  | 676.63  | 653.12  | 614.64  | 577.07  | 540.79  | 498.77  | 465.13  | 432.23  |
| 135.0  | 759.88  | 721.07  | 681.69  | 642.88  | 619.82  | 573.69  | 537.13  | 501.13  | 458.94  |
| 180.0  | 736.82  | 698.57  | 676.07  | 629.94  | 592.82  | 556.26  | 518.57  | 497.76  | 441.51  |
| 225.0  | 649.69  | 626.57  | 588.71  | 551.81  | 515.42  | 472.33  | 451.52  | 405.23  | 367.37  |
| 270.0  | 705.32  | 660.32  | 622.63  | 585.51  | 548.94  | 528.13  | 485.94  | 452.19  | 419.57  |
| 315.0  | 677.31  | 639.96  | 595.97  | 574.14  | 538.37  | 503.38  | 469.29  | 430.20  | 411.36  |
| 360.0  | 704.14  | 665.78  | 627.24  | 589.33  | 545.63  | 524.25  | 489.43  | 455.46  | 422.10  |
| C/γ(°) | 36.0    | 37.0    | 38.0    | 39.0    | 40.0    | 41.0    | 42.0    | 43.0    | 44.0    |
| 0.0    | 384.75  | 354.94  | 326.64  | 294.36  | 279.11  | 255.09  | 232.71  | 211.84  | 188.89  |
| 45.0   | 449.94  | 417.88  | 398.76  | 350.94  | 323.38  | 307.07  | 281.19  | 281.19  | 234.00  |
| 90.0   | 394.99  | 376.76  | 347.79  | 320.34  | 294.30  | 265.50  | 252.00  | 230.63  | 199.58  |
| 135.0  | 425.76  | 393.69  | 362.76  | 345.32  | 312.13  | 286.82  | 286.82  | 238.61  | 217.74  |
| 180.0  | 408.32  | 388.63  | 351.51  | 322.26  | 294.69  | 294.69  | 261.84  | 221.91  | 201.60  |
| 225.0  | 355.05  | 319.67  | 292.11  | 266.68  | 238.50  | 225.23  | 204.36  | 185.34  | 168.13  |
| 270.0  | 387.51  | 351.51  | 323.38  | 296.94  | 291.88  | 291.88  | 226.07  | 213.92  | 191.14  |
| 315.0  | 380.81  | 334.86  | 318.60  | 292.67  | 268.71  | 245.87  | 220.73  | 208.97  | 190.69  |
| 360.0  | 384.75  | 354.94  | 326.64  | 294.36  | 279.11  | 255.09  | 232.71  | 211.84  | 188.89  |

| Intensity data(cd) |        |        |        |        |        |        |        |        |       | Appendix Page: 18 Total:19 |  |
|--------------------|--------|--------|--------|--------|--------|--------|--------|--------|-------|----------------------------|--|
| C/γ(°)             | 45.0   | 46.0   | 47.0   | 48.0   | 49.0   | 50.0   | 51.0   | 52.0   | 53.0  |                            |  |
| 0.0                | 178.37 | 162.23 | 139.16 | 131.40 | 119.42 | 108.73 | 99.06  | 88.48  | 83.70 |                            |  |
| 45.0               | 213.47 | 190.86 | 173.76 | 158.01 | 149.18 | 133.09 | 120.83 | 109.69 | 99.45 |                            |  |
| 90.0               | 192.32 | 172.24 | 162.96 | 142.76 | 127.24 | 120.04 | 109.24 | 99.28  | 90.28 |                            |  |
| 135.0              | 198.56 | 180.90 | 171.17 | 152.83 | 139.22 | 126.84 | 115.48 | 109.18 | 93.83 |                            |  |
| 180.0              | 190.07 | 169.14 | 153.73 | 139.78 | 127.18 | 120.15 | 107.49 | 94.44  | 89.38 |                            |  |
| 225.0              | 149.51 | 140.96 | 123.08 | 109.63 | 103.56 | 94.39  | 86.06  | 78.58  | 70.59 |                            |  |
| 270.0              | 173.81 | 158.01 | 143.72 | 135.84 | 121.39 | 110.53 | 100.58 | 91.58  | 86.68 |                            |  |
| 315.0              | 173.93 | 158.34 | 141.58 | 133.82 | 117.28 | 110.98 | 99.11  | 90.28  | 82.24 |                            |  |
| 360.0              | 178.37 | 162.23 | 139.16 | 131.40 | 119.42 | 108.73 | 99.06  | 88.48  | 83.70 |                            |  |
| C/γ(°)             | 54.0   | 55.0   | 56.0   | 57.0   | 58.0   | 59.0   | 60.0   | 61.0   | 62.0  |                            |  |
| 0.0                | 76.22  | 69.58  | 63.62  | 57.15  | 54.39  | 50.01  | 46.07  | 42.13  | 39.09 |                            |  |
| 45.0               | 93.83  | 83.64  | 73.35  | 69.36  | 62.16  | 57.04  | 52.48  | 48.38  | 46.13 |                            |  |
| 90.0               | 80.72  | 76.28  | 69.69  | 63.68  | 57.21  | 52.54  | 49.89  | 44.66  | 40.78 |                            |  |
| 135.0              | 85.39  | 80.78  | 72.23  | 65.87  | 60.08  | 55.07  | 52.31  | 47.31  | 43.76 |                            |  |
| 180.0              | 80.16  | 73.24  | 66.99  | 61.43  | 58.33  | 52.88  | 48.66  | 45.00  | 41.79 |                            |  |
| 225.0              | 67.05  | 61.48  | 56.59  | 52.20  | 47.48  | 45.45  | 42.24  | 39.43  | 36.39 |                            |  |
| 270.0              | 77.57  | 68.18  | 64.63  | 58.16  | 53.49  | 49.28  | 45.51  | 43.48  | 39.94 |                            |  |
| 315.0              | 75.09  | 67.39  | 63.79  | 58.44  | 53.72  | 49.44  | 45.00  | 41.74  | 38.93 |                            |  |
| 360.0              | 76.22  | 69.58  | 63.62  | 57.15  | 54.39  | 50.01  | 46.07  | 42.13  | 39.09 |                            |  |
| C/γ(°)             | 63.0   | 64.0   | 65.0   | 66.0   | 67.0   | 68.0   | 69.0   | 70.0   | 71.0  |                            |  |
| 0.0                | 36.45  | 34.20  | 31.73  | 30.66  | 28.97  | 27.39  | 25.99  | 24.47  | 23.79 |                            |  |
| 45.0               | 42.08  | 39.09  | 36.56  | 34.20  | 32.96  | 30.66  | 29.03  | 27.51  | 25.82 |                            |  |
| 90.0               | 39.04  | 36.45  | 34.20  | 32.23  | 30.04  | 29.08  | 27.56  | 26.27  | 25.03 |                            |  |
| 135.0              | 40.56  | 37.74  | 36.28  | 33.58  | 30.88  | 29.87  | 28.07  | 26.72  | 25.43 |                            |  |
| 180.0              | 39.99  | 36.96  | 34.59  | 32.57  | 30.49  | 28.86  | 27.45  | 26.10  | 25.43 |                            |  |
| 225.0              | 34.26  | 32.29  | 30.54  | 28.58  | 27.68  | 26.33  | 25.03  | 23.85  | 22.56 |                            |  |
| 270.0              | 37.35  | 35.16  | 33.08  | 32.06  | 29.87  | 28.41  | 27.00  | 25.43  | 24.19 |                            |  |
| 315.0              | 35.94  | 34.99  | 32.51  | 30.60  | 28.97  | 27.17  | 26.27  | 24.98  | 23.74 |                            |  |
| 360.0              | 36.45  | 34.20  | 31.73  | 30.66  | 28.97  | 27.39  | 25.99  | 24.47  | 23.79 |                            |  |
| C/γ(°)             | 72.0   | 73.0   | 74.0   | 75.0   | 76.0   | 77.0   | 78.0   | 79.0   | 80.0  |                            |  |
| 0.0                | 22.67  | 21.54  | 20.53  | 19.41  | 18.51  | 17.55  | 16.48  | 15.92  | 15.08 |                            |  |
| 45.0               | 24.53  | 23.40  | 22.22  | 21.60  | 20.42  | 19.52  | 18.56  | 17.61  | 17.04 |                            |  |
| 90.0               | 23.57  | 22.56  | 21.60  | 20.42  | 19.97  | 19.24  | 18.56  | 18.90  | 18.84 |                            |  |
| 135.0              | 24.36  | 23.68  | 22.50  | 21.60  | 20.70  | 19.86  | 19.35  | 18.34  | 17.49 |                            |  |
| 180.0              | 24.13  | 23.12  | 22.11  | 21.21  | 20.70  | 19.74  | 19.29  | 20.70  | 22.56 |                            |  |
| 225.0              | 21.88  | 20.48  | 19.52  | 19.18  | 18.11  | 17.33  | 16.54  | 15.64  | 15.02 |                            |  |
| 270.0              | 23.18  | 22.11  | 21.54  | 20.42  | 19.52  | 18.62  | 17.78  | 17.21  | 16.14 |                            |  |
| 315.0              | 22.50  | 21.26  | 20.64  | 19.86  | 21.49  | 24.64  | 28.13  | 23.63  | 17.33 |                            |  |
| 360.0              | 22.67  | 21.54  | 20.53  | 19.41  | 18.51  | 17.55  | 16.48  | 15.92  | 15.08 |                            |  |
| C/γ(°)             | 81.0   | 82.0   | 83.0   | 84.0   | 85.0   | 86.0   | 87.0   | 88.0   | 89.0  |                            |  |
| 0.0                | 14.29  | 13.44  | 12.77  | 11.70  | 10.63  | 9.96   | 8.89   | 7.82   | 6.81  |                            |  |
| 45.0               | 15.86  | 15.13  | 14.29  | 13.67  | 12.71  | 11.81  | 10.86  | 9.84   | 8.94  |                            |  |
| 90.0               | 18.11  | 16.14  | 14.91  | 13.73  | 13.05  | 12.32  | 11.19  | 9.84   | 8.66  |                            |  |
| 135.0              | 16.82  | 15.92  | 14.85  | 13.89  | 13.28  | 12.26  | 11.31  | 9.84   | 8.66  |                            |  |
| 180.0              | 20.31  | 17.27  | 15.36  | 14.34  | 13.44  | 12.15  | 10.86  | 9.17   | 8.61  |                            |  |
| 225.0              | 14.18  | 12.99  | 12.49  | 11.42  | 10.24  | 9.39   | 8.21   | 7.14   | 6.30  |                            |  |
| 270.0              | 15.08  | 14.63  | 13.61  | 12.88  | 12.04  | 11.14  | 10.13  | 9.11   | 7.99  |                            |  |
| 315.0              | 15.36  | 15.08  | 14.12  | 12.99  | 11.53  | 9.79   | 9.11   | 9.17   | 9.11  |                            |  |
| 360.0              | 14.29  | 13.44  | 12.77  | 11.70  | 10.63  | 9.96   | 8.89   | 7.82   | 6.81  |                            |  |

Intensity data(cd)

|                       |      |
|-----------------------|------|
| C/ $\gamma(^{\circ})$ | 90.0 |
| 0.0                   | 6.19 |
| 45.0                  | 7.65 |
| 90.0                  | 8.04 |
| 135.0                 | 7.76 |
| 180.0                 | 8.27 |
| 225.0                 | 5.91 |
| 270.0                 | 7.14 |
| 315.0                 | 9.06 |
| 360.0                 | 6.19 |