



NATA LIGHTING CO.,LTD.
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Nata

Client:

LumCAT: 2-1121-A4

Luminaire: 99.02.73.172+92.76.365.00

Report No:

Voltage(V): 34.0200

Test No: GC20190823010

Current(A): 0.4480

LampCAT: TRIDONIC SLE 15MM G7

Power (W): 15.2400

Lamp flux(lm): 2050.0

PF: 0.0000

Number of Lamps: 1

Ballast type: DC

Length(mm): 71

Width(mm): 71

Phm Type: C

Height(mm): 0

Photometric Results

Lumens(lm): 1737.19, Efficiency(%): 84.74% , Luminous Efficacy(lm/W): 113.99

Central intensity(cd): 5207.063, Maximum intensity(cd): 5207.063

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=28.4

[C90/270]Total=28.4

Field angle(10%Imax): [C0/180]Total=67.2

[C90/270]Total=67.2

Maximum s/h(1/2): C0_180=0.48 C90_270=0.48

Maximum s/h(1/4): C0_180=0.44 C90_270=0.44

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 84.74%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 98.553%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2019/8/24
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 5207.063 | 0.000 | 0 | .000% | .000% |
| 1.0 | 5195.602 | 4.977 | 4.977 | .243% | .287% |
| 2.0 | 5166.211 | 14.872 | 19.85 | .725% | 1.143% |
| 3.0 | 5121.211 | 24.604 | 44.454 | 1.200% | 2.559% |
| 4.0 | 5064.188 | 34.094 | 78.548 | 1.663% | 4.522% |
| 5.0 | 4984.805 | 43.230 | 121.778 | 2.109% | 7.010% |
| 6.0 | 4889.883 | 51.894 | 173.672 | 2.531% | 9.997% |
| 7.0 | 4755.938 | 59.871 | 233.543 | 2.921% | 13.444% |
| 8.0 | 4596.188 | 66.931 | 300.475 | 3.265% | 17.297% |
| 9.0 | 4381.453 | 72.759 | 373.234 | 3.549% | 21.485% |
| 10.0 | 4120.594 | 76.940 | 450.174 | 3.753% | 25.914% |
| 11.0 | 3825.492 | 79.398 | 529.572 | 3.873% | 30.484% |
| 12.0 | 3479.484 | 79.854 | 609.426 | 3.895% | 35.081% |
| 13.0 | 3084.539 | 77.898 | 687.324 | 3.800% | 39.565% |
| 14.0 | 2684.180 | 73.839 | 761.163 | 3.602% | 43.816% |
| 15.0 | 2290.570 | 68.296 | 829.459 | 3.331% | 47.747% |
| 16.0 | 1921.500 | 61.719 | 891.177 | 3.011% | 51.300% |
| 17.0 | 1615.992 | 55.088 | 946.266 | 2.687% | 54.471% |
| 18.0 | 1333.624 | 48.633 | 994.898 | 2.372% | 57.271% |
| 19.0 | 1129.732 | 42.857 | 1037.756 | 2.091% | 59.738% |
| 20.0 | 994.598 | 38.881 | 1076.637 | 1.897% | 61.976% |
| 21.0 | 886.936 | 36.129 | 1112.766 | 1.762% | 64.056% |
| 22.0 | 821.018 | 34.322 | 1147.088 | 1.674% | 66.031% |
| 23.0 | 774.485 | 33.478 | 1180.566 | 1.633% | 67.959% |
| 24.0 | 739.020 | 33.091 | 1213.657 | 1.614% | 69.863% |
| 25.0 | 713.081 | 33.018 | 1246.674 | 1.611% | 71.764% |
| 26.0 | 692.283 | 33.174 | 1279.848 | 1.618% | 73.674% |
| 27.0 | 672.110 | 33.380 | 1313.228 | 1.628% | 75.595% |
| 28.0 | 653.998 | 33.574 | 1346.803 | 1.638% | 77.528% |
| 29.0 | 636.462 | 33.762 | 1380.565 | 1.647% | 79.471% |
| 30.0 | 620.859 | 33.947 | 1414.512 | 1.656% | 81.425% |
| 31.0 | 605.791 | 34.136 | 1448.648 | 1.665% | 83.390% |
| 32.0 | 582.525 | 34.044 | 1482.692 | 1.661% | 85.350% |
| 33.0 | 549.281 | 33.343 | 1516.035 | 1.627% | 87.270% |
| 34.0 | 502.298 | 31.824 | 1547.859 | 1.552% | 89.102% |
| 35.0 | 449.747 | 29.567 | 1577.426 | 1.442% | 90.804% |
| 36.0 | 389.067 | 26.708 | 1604.134 | 1.303% | 92.341% |
| 37.0 | 331.763 | 23.509 | 1627.644 | 1.147% | 93.694% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 274.373 | 20.232 | 1647.876 | .987% | 94.859% |
| 39.0 | 207.492 | 16.447 | 1664.323 | .802% | 95.806% |
| 40.0 | 149.991 | 12.468 | 1676.791 | .608% | 96.523% |
| 41.0 | 100.005 | 8.902 | 1685.693 | .434% | 97.036% |
| 42.0 | 57.389 | 5.718 | 1691.411 | .279% | 97.365% |
| 43.0 | 31.261 | 3.284 | 1694.695 | .160% | 97.554% |
| 44.0 | 21.895 | 2.006 | 1696.702 | .098% | 97.670% |
| 45.0 | 18.267 | 1.543 | 1698.245 | .075% | 97.758% |
| 46.0 | 15.398 | 1.317 | 1699.562 | .064% | 97.834% |
| 47.0 | 13.514 | 1.150 | 1700.712 | .056% | 97.900% |
| 48.0 | 12.255 | 1.042 | 1701.753 | .051% | 97.960% |
| 49.0 | 11.018 | 0.956 | 1702.709 | .047% | 98.015% |
| 50.0 | 10.364 | 0.891 | 1703.601 | .043% | 98.067% |
| 51.0 | 10.111 | 0.866 | 1704.467 | .042% | 98.117% |
| 52.0 | 9.907 | 0.859 | 1705.326 | .042% | 98.166% |
| 53.0 | 9.696 | 0.853 | 1706.179 | .042% | 98.215% |
| 54.0 | 9.513 | 0.847 | 1707.025 | .041% | 98.264% |
| 55.0 | 9.373 | 0.843 | 1707.868 | .041% | 98.312% |
| 56.0 | 9.239 | 0.841 | 1708.709 | .041% | 98.361% |
| 57.0 | 9.105 | 0.839 | 1709.548 | .041% | 98.409% |
| 58.0 | 8.986 | 0.837 | 1710.385 | .041% | 98.457% |
| 59.0 | 8.880 | 0.835 | 1711.22 | .041% | 98.505% |
| 60.0 | 8.775 | 0.834 | 1712.054 | .041% | 98.553% |
| 61.0 | 8.677 | 0.833 | 1712.887 | .041% | 98.601% |
| 62.0 | 8.592 | 0.832 | 1713.719 | .041% | 98.649% |
| 63.0 | 8.515 | 0.832 | 1714.551 | .041% | 98.697% |
| 64.0 | 8.452 | 0.833 | 1715.383 | .041% | 98.745% |
| 65.0 | 8.395 | 0.834 | 1716.217 | .041% | 98.793% |
| 66.0 | 8.332 | 0.835 | 1717.052 | .041% | 98.841% |
| 67.0 | 8.276 | 0.835 | 1717.887 | .041% | 98.889% |
| 68.0 | 8.227 | 0.836 | 1718.723 | .041% | 98.937% |
| 69.0 | 8.163 | 0.836 | 1719.559 | .041% | 98.985% |
| 70.0 | 8.107 | 0.836 | 1720.395 | .041% | 99.033% |
| 71.0 | 8.072 | 0.836 | 1721.231 | .041% | 99.082% |
| 72.0 | 8.009 | 0.836 | 1722.067 | .041% | 99.130% |
| 73.0 | 7.988 | 0.836 | 1722.903 | .041% | 99.178% |
| 74.0 | 7.959 | 0.838 | 1723.742 | .041% | 99.226% |
| 75.0 | 7.917 | 0.839 | 1724.581 | .041% | 99.274% |

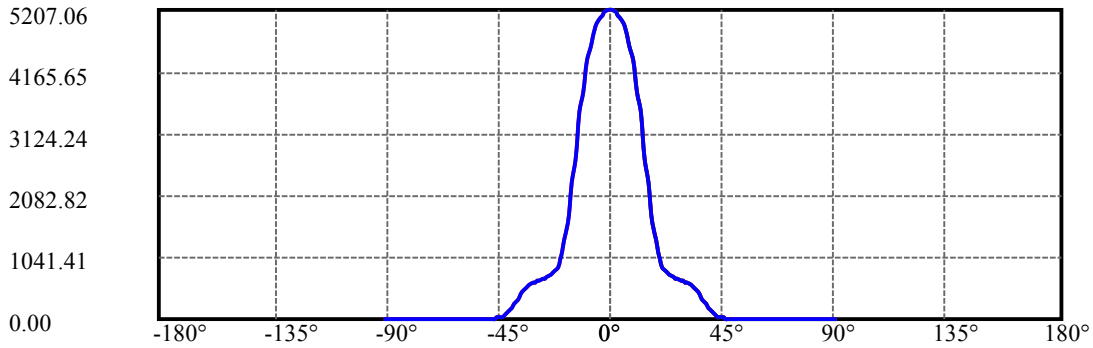
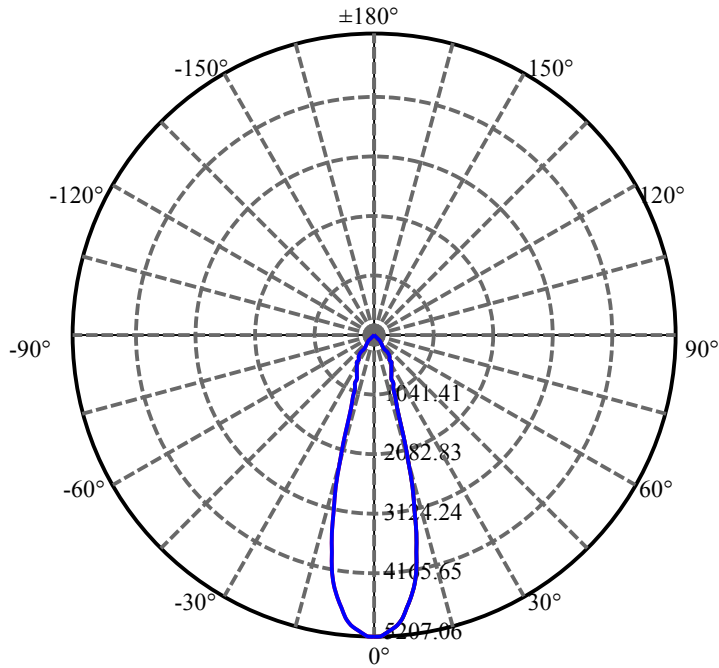
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 7.861 | 0.838 | 1725.418 | .041% | 99.323% |
| 77.0 | 7.840 | 0.837 | 1726.255 | .041% | 99.371% |
| 78.0 | 7.826 | 0.839 | 1727.094 | .041% | 99.419% |
| 79.0 | 7.812 | 0.840 | 1727.934 | .041% | 99.467% |
| 80.0 | 7.805 | 0.842 | 1728.776 | .041% | 99.516% |
| 81.0 | 7.784 | 0.843 | 1729.619 | .041% | 99.564% |
| 82.0 | 7.770 | 0.843 | 1730.462 | .041% | 99.613% |
| 83.0 | 7.755 | 0.844 | 1731.306 | .041% | 99.662% |
| 84.0 | 7.720 | 0.843 | 1732.149 | .041% | 99.710% |
| 85.0 | 7.713 | 0.842 | 1732.992 | .041% | 99.759% |
| 86.0 | 7.685 | 0.842 | 1733.833 | .041% | 99.807% |
| 87.0 | 7.706 | 0.842 | 1734.676 | .041% | 99.855% |
| 88.0 | 7.643 | 0.841 | 1735.517 | .041% | 99.904% |
| 89.0 | 7.608 | 0.836 | 1736.353 | .041% | 99.952% |
| 90.0 | 7.601 | 0.834 | 1737.186 | .041% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1414.51 | 69.00% | 81.43% |
| 0-40 | 1676.79 | 81.79% | 96.52% |
| 0-60 | 1712.05 | 83.51% | 98.55% |
| 0-90 | 1736.35 | 84.70% | 99.95% |
| 0-120 | 1736.35 | 84.70% | 99.95% |
| 0-180 | 1737.19 | 84.74% | 100.00% |
| 60-90 | 25.13 | 1.23% | 1.45% |
| 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% |
| 0-29.27 | 1389.75 | 67.79% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 450.17 |
| 10-20 | 626.46 |
| 20-30 | 337.88 |
| 30-40 | 262.28 |
| 40-50 | 26.81 |
| 50-60 | 8.45 |
| 60-70 | 8.34 |
| 70-80 | 8.38 |
| 80-90 | 7.58 |
| 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 |



C0(Max): —————

C0/C180: —————

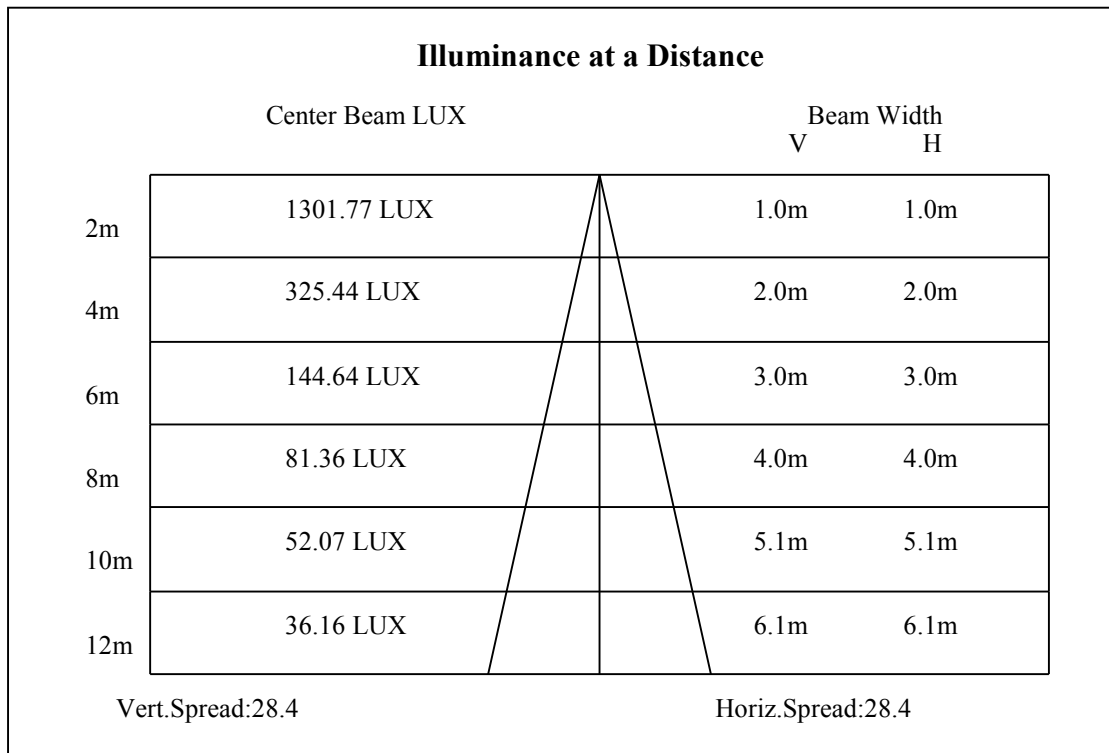
C90/C270: —————

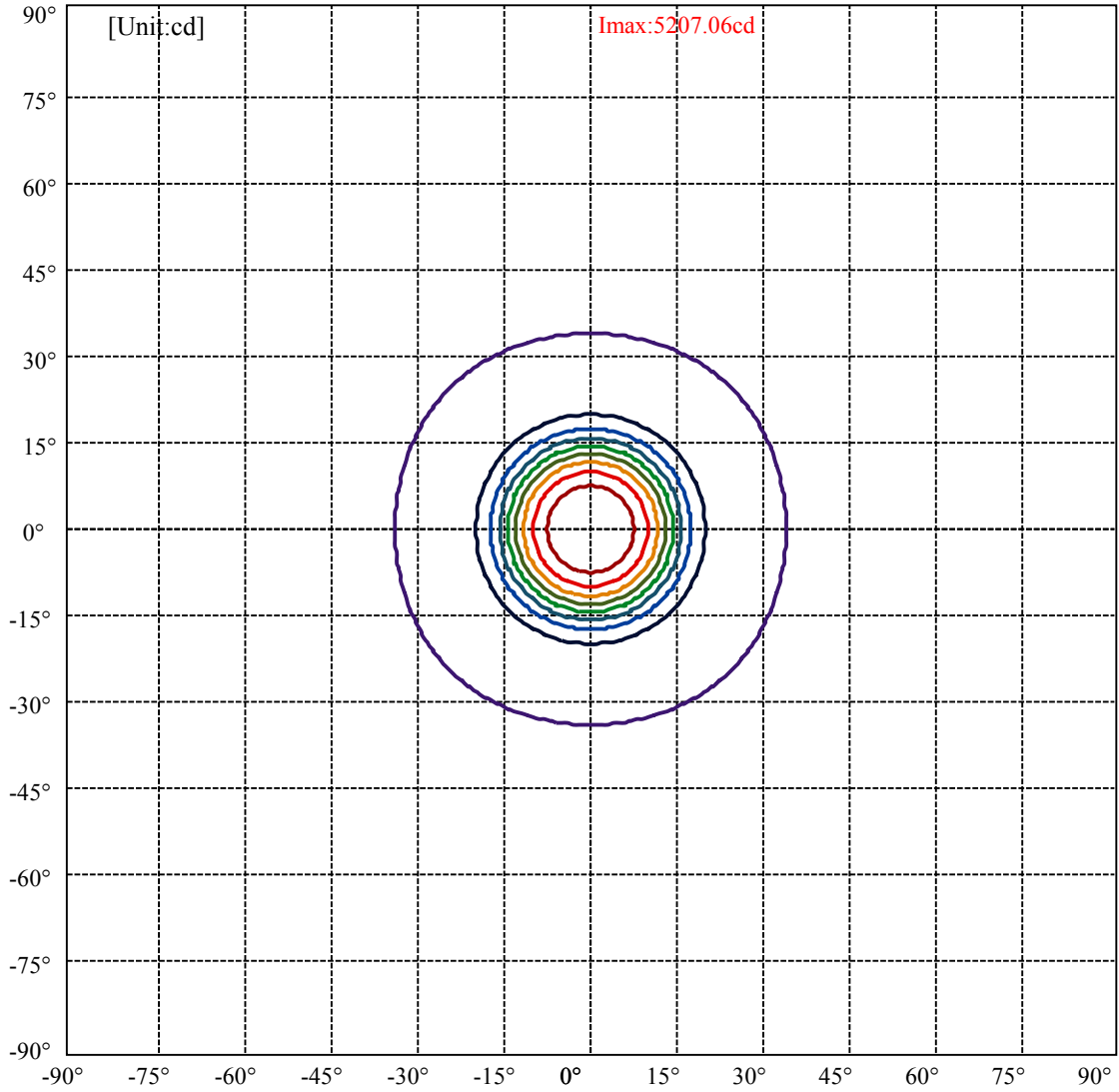
Field angle(10%Imax):C0/180Left:33.6 Right:33.6

:C90/270Left:33.6 Right:33.6

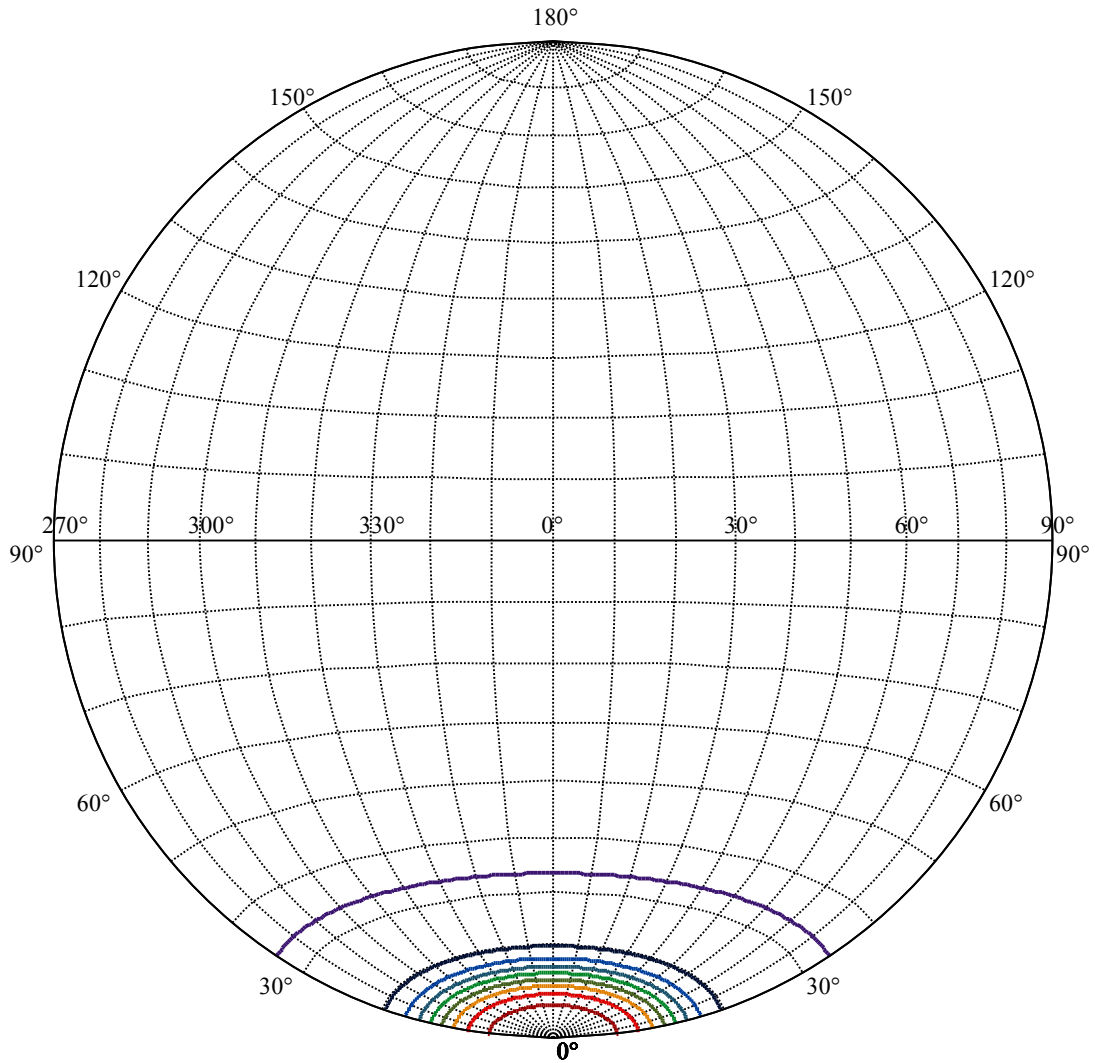
Beam Angle(50%Imax):C0/180Left:14.2 Right:14.2

:C90/270Left:14.2 Right:14.2





| | |
|-------------------|---|
| (10%Imax) 520.706 | — |
| (20%Imax) 1041.41 | — |
| (30%Imax) 1562.12 | — |
| (40%Imax) 2082.82 | — |
| (50%Imax) 2603.53 | — |
| (60%Imax) 3124.24 | — |
| (70%Imax) 3644.94 | — |
| (80%Imax) 4165.65 | — |
| (90%Imax) 4686.36 | — |



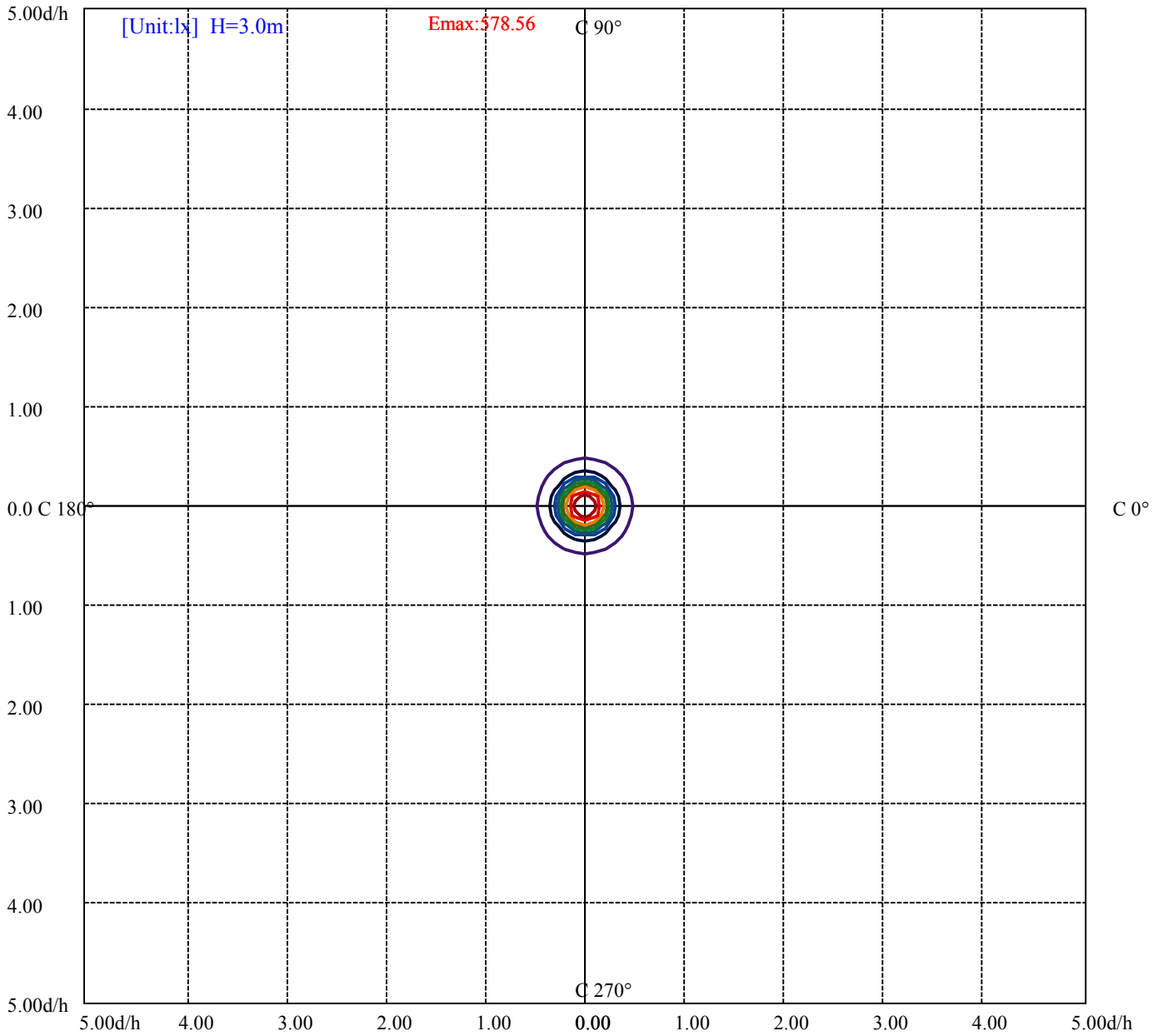
House

[Unit:cd]

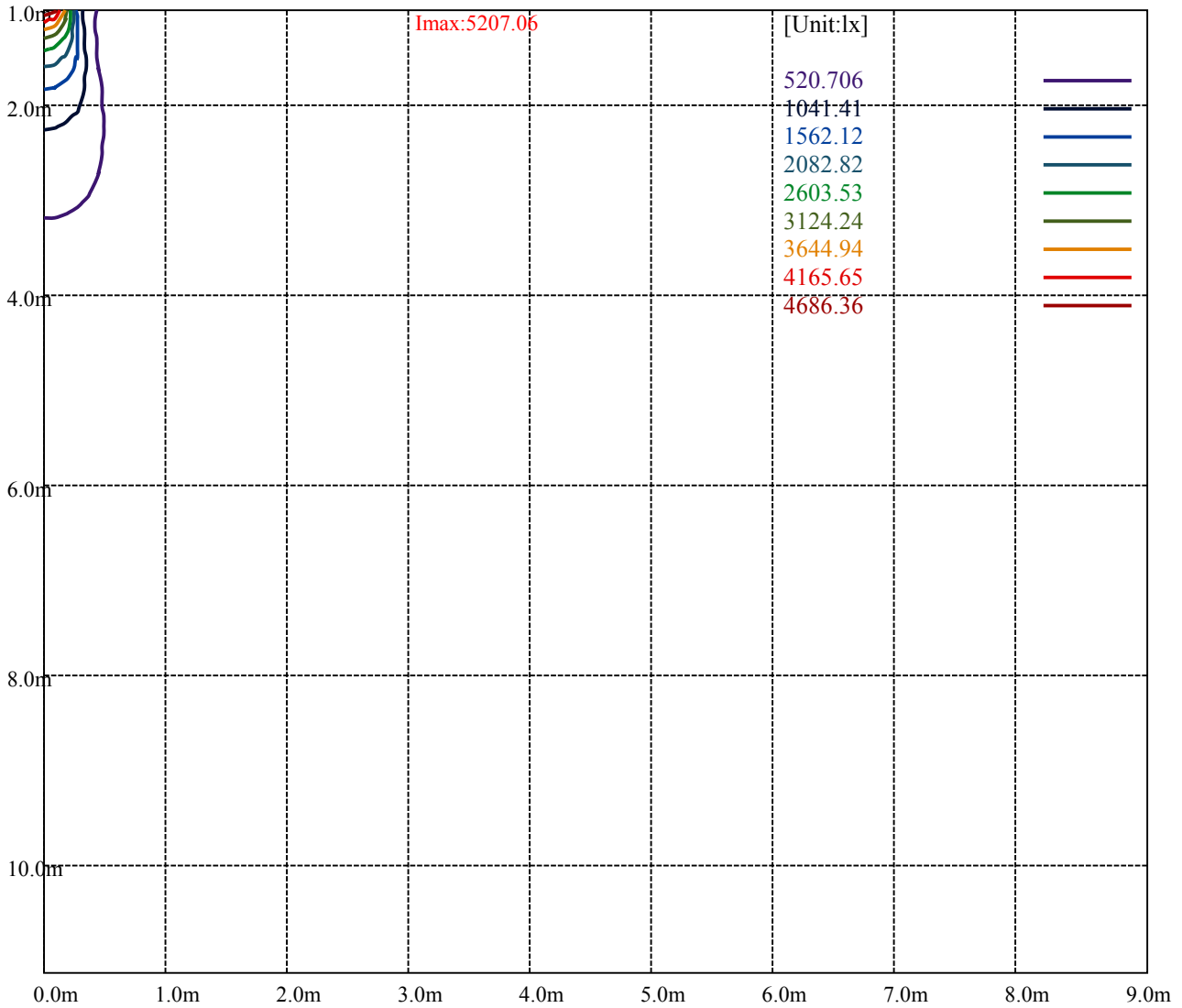
Road

Imax:5207.06

| | |
|-------------------|---|
| (10%Imax) 520.706 | — |
| (20%Imax) 1041.41 | — |
| (30%Imax) 1562.12 | — |
| (40%Imax) 2082.82 | — |
| (50%Imax) 2603.53 | — |
| (60%Imax) 3124.24 | — |
| (70%Imax) 3644.94 | — |
| (80%Imax) 4165.65 | — |
| (90%Imax) 4686.36 | — |



| | |
|--------------------|---|
| (10%Emax) 57.85622 | — |
| (20%Emax) 115.7122 | — |
| (30%Emax) 173.5689 | — |
| (40%Emax) 231.4245 | — |
| (50%Emax) 289.2811 | — |
| (60%Emax) 347.1378 | — |
| (70%Emax) 404.9933 | — |
| (80%Emax) 462.85 | — |
| (90%Emax) 520.7056 | — |



Luminance Table

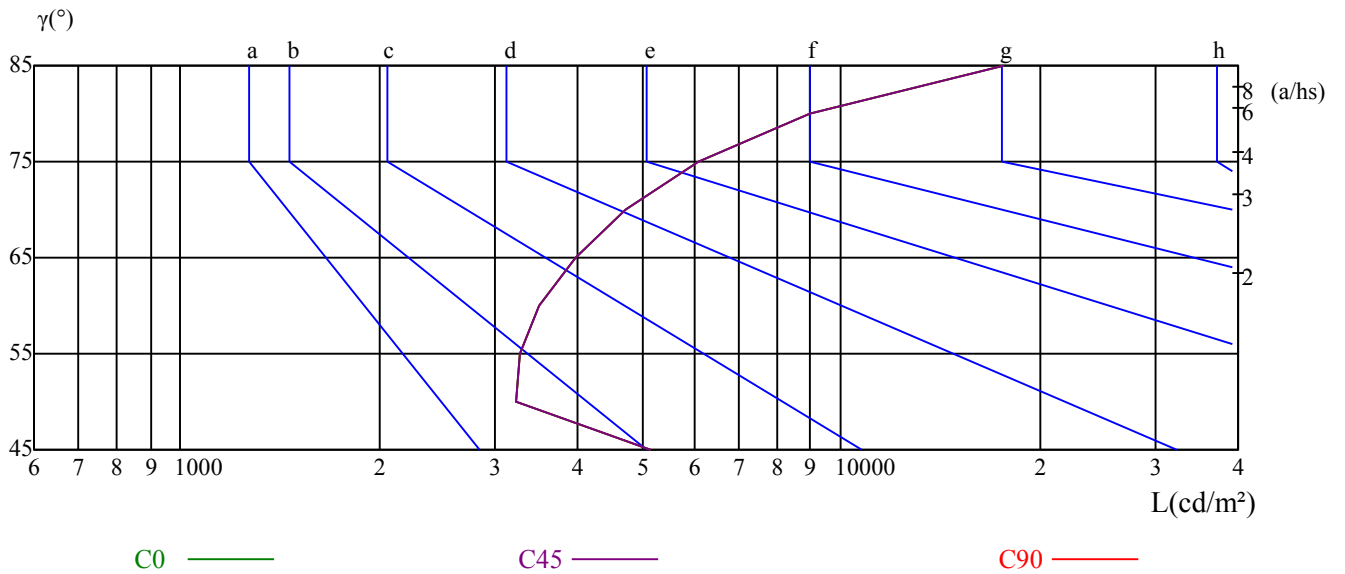
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|------|------|------|------|------|------|------|------|-------|
| C0 | 5154 | 3217 | 3260 | 3501 | 3963 | 4729 | 6103 | 8966 | 17655 |
| C45 | 5154 | 3217 | 3260 | 3501 | 3963 | 4729 | 6103 | 8966 | 17655 |
| C90 | 5154 | 3217 | 3260 | 3501 | 3963 | 4729 | 6103 | 8966 | 17655 |

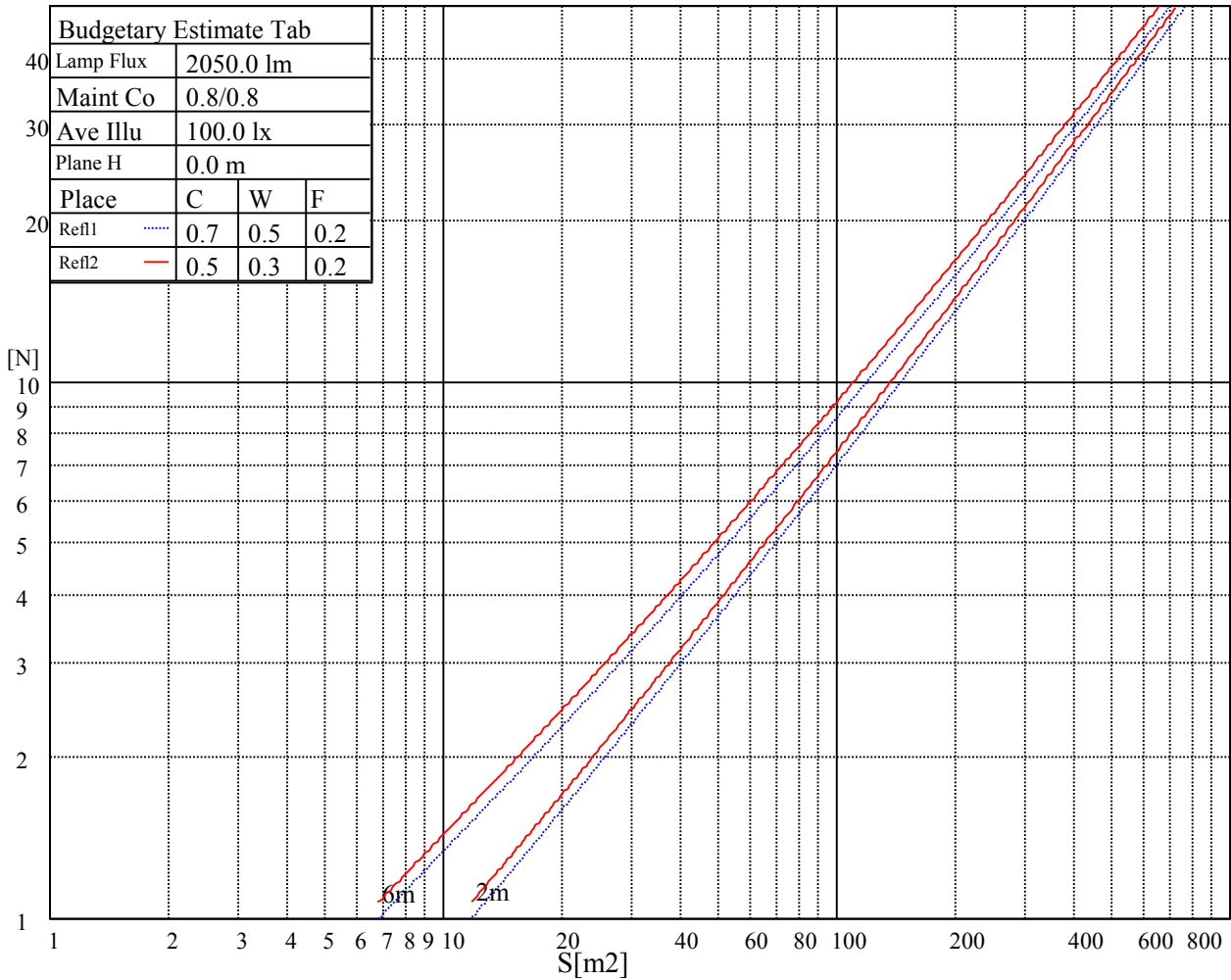
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 3963 | 3963 | 3963 | 6103 | 6103 | 6103 | 17655 | 17655 | 17655 |

Glare Table

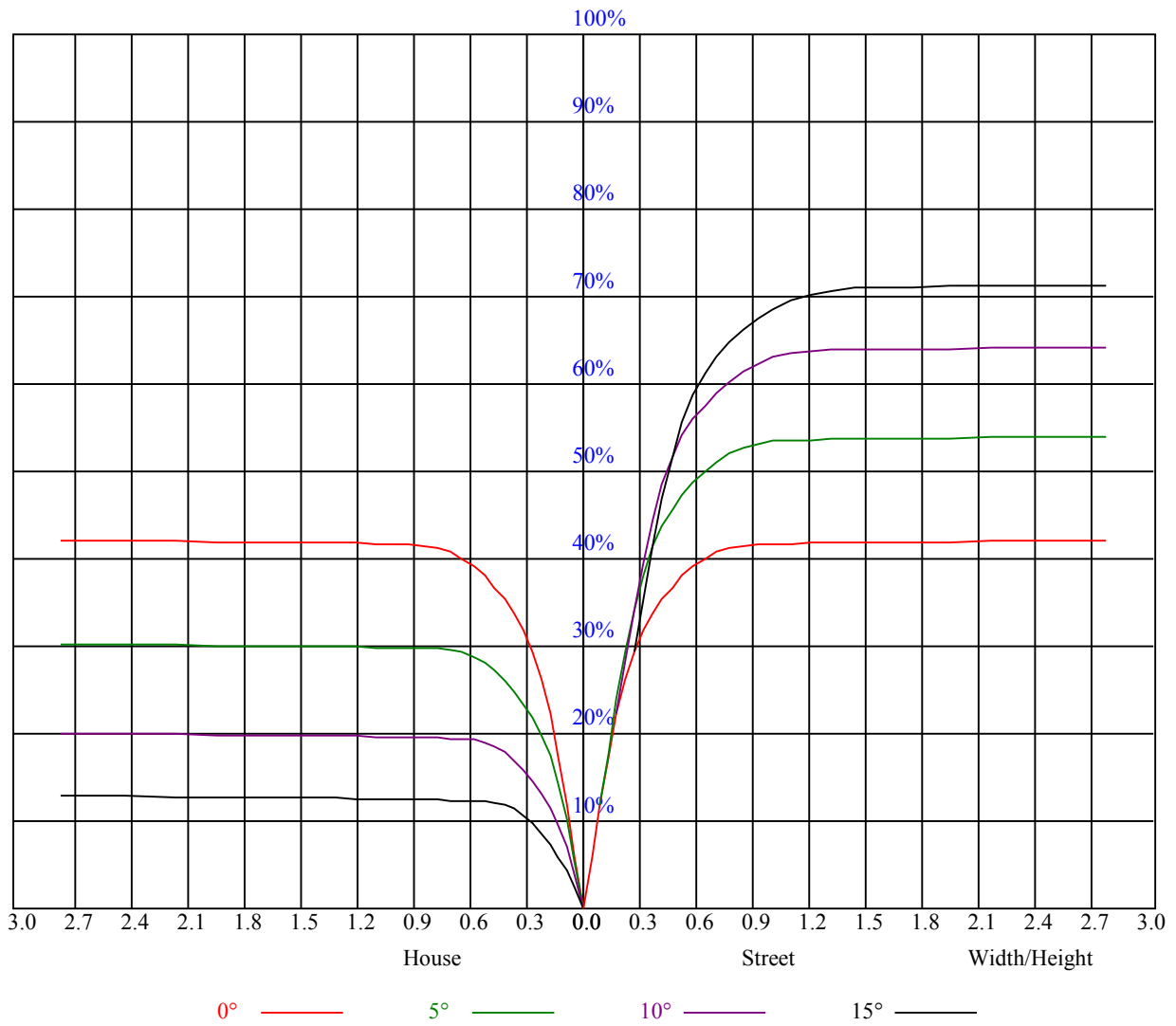
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 |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

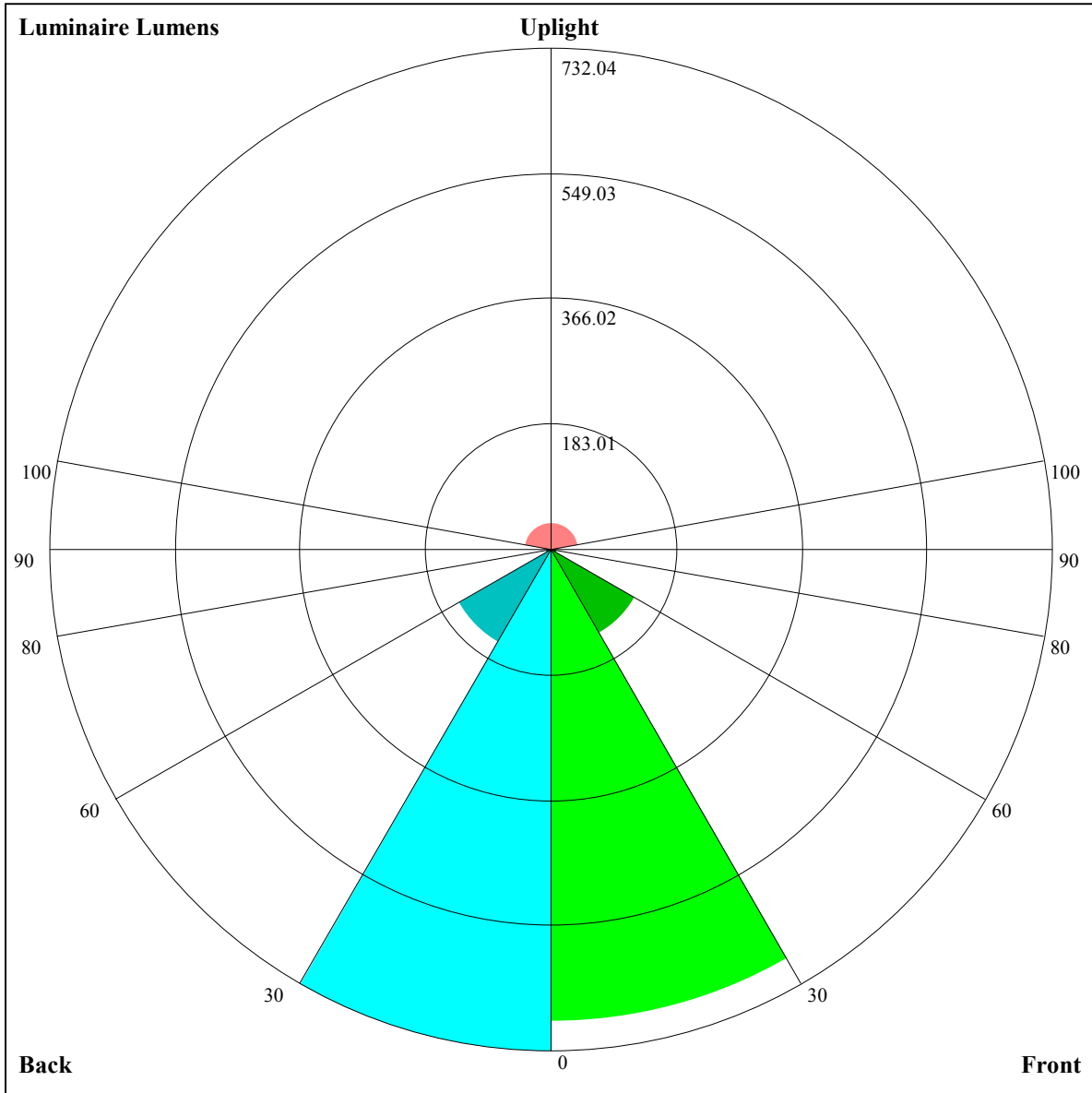
Luminance Limiting Curve





| 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 | COEFFICIENTS OF UTILIZATION RHOFC=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.01 | 1.01 | 1.01 | 0.99 | 0.99 | 0.99 | 0.94 | 0.94 | 0.94 | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.85 |
| 1 | 0.95 | 0.93 | 0.91 | 0.93 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 | 0.85 | 0.84 | 0.83 | 0.83 | 0.82 | 0.80 |
| 2 | 0.89 | 0.86 | 0.84 | 0.88 | 0.85 | 0.83 | 0.85 | 0.83 | 0.81 | 0.83 | 0.81 | 0.79 | 0.80 | 0.79 | 0.78 | 0.76 |
| 3 | 0.84 | 0.81 | 0.78 | 0.83 | 0.80 | 0.77 | 0.81 | 0.78 | 0.76 | 0.79 | 0.77 | 0.75 | 0.77 | 0.75 | 0.74 | 0.72 |
| 4 | 0.80 | 0.76 | 0.73 | 0.79 | 0.76 | 0.73 | 0.77 | 0.74 | 0.72 | 0.76 | 0.73 | 0.71 | 0.74 | 0.72 | 0.70 | 0.69 |
| 5 | 0.76 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.74 | 0.71 | 0.68 | 0.73 | 0.70 | 0.68 | 0.72 | 0.69 | 0.67 | 0.66 |
| 6 | 0.73 | 0.69 | 0.66 | 0.72 | 0.68 | 0.65 | 0.71 | 0.68 | 0.65 | 0.70 | 0.67 | 0.65 | 0.69 | 0.66 | 0.64 | 0.63 |
| 7 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.62 | 0.68 | 0.65 | 0.62 | 0.67 | 0.64 | 0.62 | 0.66 | 0.64 | 0.61 | 0.60 |
| 8 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.60 | 0.66 | 0.62 | 0.59 | 0.65 | 0.62 | 0.59 | 0.64 | 0.61 | 0.59 | 0.58 |
| 9 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.62 | 0.59 | 0.57 | 0.56 |
| 10 | 0.62 | 0.58 | 0.55 | 0.62 | 0.58 | 0.55 | 0.61 | 0.57 | 0.55 | 0.60 | 0.57 | 0.55 | 0.60 | 0.57 | 0.55 | 0.54 |





Luminaire Lumens:

FL=688.94,FM=140.12,FH=8.35,FVH=4.21

BL=732.04,BM=156.83,BH=8.39,BVH=4.2

UL=8.29,UH=39.46

BUG Rating:B2-U2-G0

Intensity data(cd)

| | | | | | | | | | |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| C/γ(°) | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 |
| 0.0 | 5208.75 | 5168.25 | 5091.19 | 5018.06 | 4926.94 | 4786.31 | 4649.63 | 4485.38 | 4264.31 |
| 45.0 | 5215.50 | 5190.19 | 5145.75 | 5071.50 | 4988.81 | 4887.56 | 4761.00 | 4635.00 | 4474.69 |
| 90.0 | 5208.75 | 5190.19 | 5156.44 | 5103.00 | 5033.81 | 4959.56 | 4863.94 | 4707.00 | 4540.50 |
| 135.0 | 5195.25 | 5214.94 | 5214.94 | 5193.00 | 5159.25 | 5109.19 | 5040.56 | 4946.63 | 4835.81 |
| 180.0 | 5208.75 | 5233.50 | 5234.63 | 5216.63 | 5188.50 | 5141.81 | 5079.38 | 4970.25 | 4815.00 |
| 225.0 | 5215.50 | 5217.19 | 5212.13 | 5194.69 | 5163.75 | 5114.25 | 5043.94 | 4912.88 | 4767.75 |
| 270.0 | 5208.75 | 5202.00 | 5176.69 | 5146.31 | 5105.81 | 5044.50 | 4967.44 | 4870.69 | 4742.44 |
| 315.0 | 5195.25 | 5148.56 | 5097.94 | 5026.50 | 4946.63 | 4835.25 | 4713.19 | 4519.69 | 4329.00 |
| 360.0 | 5208.75 | 5168.25 | 5091.19 | 5018.06 | 4926.94 | 4786.31 | 4649.63 | 4485.38 | 4264.31 |
| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 4010.63 | 3753.56 | 3422.81 | 3093.75 | 2706.19 | 2315.81 | 1985.06 | 1654.88 | 1380.94 |
| 45.0 | 4231.69 | 4005.56 | 3740.06 | 3399.75 | 3020.63 | 2673.56 | 2280.38 | 1941.19 | 1655.44 |
| 90.0 | 4336.31 | 4035.38 | 3757.50 | 3441.94 | 3009.38 | 2649.94 | 2296.69 | 1919.25 | 1622.25 |
| 135.0 | 4613.63 | 4399.88 | 4168.69 | 3781.69 | 3390.19 | 3061.69 | 2568.94 | 2176.88 | 1882.13 |
| 180.0 | 4640.06 | 4374.00 | 4042.13 | 3703.50 | 3336.19 | 2844.00 | 2448.56 | 2077.31 | 1707.19 |
| 225.0 | 4584.94 | 4281.19 | 3977.44 | 3624.75 | 3193.31 | 2745.00 | 2347.88 | 1929.94 | 1615.50 |
| 270.0 | 4534.31 | 4317.75 | 4055.63 | 3701.81 | 3292.88 | 2903.63 | 2460.38 | 2043.00 | 1718.44 |
| 315.0 | 4100.06 | 3797.44 | 3439.69 | 3088.69 | 2727.56 | 2279.81 | 1936.69 | 1629.56 | 1346.06 |
| 360.0 | 4010.63 | 3753.56 | 3422.81 | 3093.75 | 2706.19 | 2315.81 | 1985.06 | 1654.88 | 1380.94 |
| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 1190.25 | 1045.69 | 916.31 | 844.31 | 793.13 | 757.13 | 722.81 | 698.06 | 675.56 |
| 45.0 | 1371.38 | 1180.69 | 1020.94 | 901.69 | 825.75 | 770.63 | 724.50 | 698.06 | 676.13 |
| 90.0 | 1342.69 | 1114.26 | 1001.36 | 893.25 | 824.91 | 771.02 | 736.65 | 707.91 | 683.61 |
| 135.0 | 1508.63 | 1285.88 | 1106.44 | 946.13 | 861.75 | 804.38 | 753.75 | 726.75 | 705.38 |
| 180.0 | 1401.19 | 1117.13 | 1008.45 | 896.91 | 832.39 | 781.37 | 749.36 | 722.81 | 702.23 |
| 225.0 | 1329.19 | 1090.01 | 972.56 | 870.13 | 801.73 | 771.47 | 746.61 | 719.33 | 703.97 |
| 270.0 | 1418.06 | 1212.19 | 1042.31 | 924.75 | 853.31 | 798.75 | 760.50 | 735.19 | 714.38 |
| 315.0 | 1107.62 | 992.03 | 888.41 | 818.33 | 775.18 | 741.15 | 717.98 | 696.54 | 677.03 |
| 360.0 | 1190.25 | 1045.69 | 916.31 | 844.31 | 793.13 | 757.13 | 722.81 | 698.06 | 675.56 |
| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 653.06 | 636.75 | 622.13 | 608.06 | 595.13 | 570.94 | 525.94 | 470.25 | 415.69 |
| 45.0 | 651.94 | 635.63 | 620.44 | 606.38 | 592.31 | 572.06 | 534.38 | 479.81 | 427.50 |
| 90.0 | 663.53 | 642.49 | 623.48 | 608.85 | 594.96 | 563.91 | 522.34 | 475.93 | 418.67 |
| 135.0 | 682.88 | 666.56 | 649.69 | 630.56 | 613.69 | 599.63 | 584.44 | 546.75 | 500.06 |
| 180.0 | 686.53 | 669.77 | 648.51 | 633.83 | 617.74 | 595.80 | 582.19 | 550.24 | 503.38 |
| 225.0 | 687.38 | 668.42 | 650.48 | 635.23 | 619.71 | 599.85 | 568.01 | 520.20 | 470.08 |
| 270.0 | 691.31 | 672.75 | 654.75 | 636.19 | 618.19 | 602.44 | 565.88 | 514.69 | 464.06 |
| 315.0 | 660.26 | 639.62 | 622.24 | 607.78 | 594.62 | 555.58 | 511.09 | 460.52 | 398.53 |
| 360.0 | 653.06 | 636.75 | 622.13 | 608.06 | 595.13 | 570.94 | 525.94 | 470.25 | 415.69 |
| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 351.00 | 289.69 | 220.61 | 161.10 | 113.29 | 71.61 | 33.41 | 21.77 | 19.07 |
| 45.0 | 367.88 | 307.13 | 288.00 | 191.64 | 130.73 | 84.15 | 48.21 | 23.57 | 20.31 |
| 90.0 | 357.47 | 300.83 | 238.05 | 175.50 | 124.76 | 74.93 | 39.77 | 22.67 | 19.97 |
| 135.0 | 444.94 | 392.63 | 329.06 | 286.31 | 204.36 | 150.92 | 90.06 | 50.74 | 27.84 |
| 180.0 | 450.56 | 399.09 | 336.49 | 270.68 | 213.02 | 150.58 | 100.91 | 54.73 | 27.28 |
| 225.0 | 407.03 | 348.75 | 281.81 | 217.18 | 156.49 | 105.58 | 62.89 | 28.80 | 23.06 |
| 270.0 | 401.06 | 342.00 | 290.25 | 206.33 | 152.83 | 104.74 | 54.39 | 27.45 | 20.59 |
| 315.0 | 332.61 | 273.99 | 210.71 | 151.20 | 104.46 | 57.54 | 29.48 | 20.36 | 17.04 |
| 360.0 | 351.00 | 289.69 | 220.61 | 161.10 | 113.29 | 71.61 | 33.41 | 21.77 | 19.07 |

Intensity data(cd)

| | | | | | | | | | |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| C/γ(°) | 45.0 | 46.0 | 47.0 | 48.0 | 49.0 | 50.0 | 51.0 | 52.0 | 53.0 |
| 0.0 | 15.30 | 13.16 | 12.21 | 11.25 | 10.41 | 10.13 | 9.84 | 9.68 | 9.51 |
| 45.0 | 17.72 | 14.18 | 12.83 | 12.09 | 10.74 | 10.41 | 10.18 | 9.96 | 9.68 |
| 90.0 | 17.66 | 15.36 | 13.56 | 12.21 | 10.80 | 10.41 | 10.18 | 9.96 | 9.79 |
| 135.0 | 22.67 | 19.13 | 16.26 | 14.34 | 12.38 | 10.63 | 10.29 | 10.07 | 9.84 |
| 180.0 | 22.44 | 18.84 | 15.30 | 13.56 | 11.70 | 10.35 | 10.07 | 9.90 | 9.68 |
| 225.0 | 19.07 | 15.53 | 13.39 | 11.93 | 10.80 | 10.41 | 10.18 | 9.96 | 9.79 |
| 270.0 | 17.16 | 14.46 | 13.05 | 11.98 | 10.91 | 10.58 | 10.29 | 10.07 | 9.84 |
| 315.0 | 14.12 | 12.54 | 11.53 | 10.69 | 10.41 | 10.01 | 9.84 | 9.68 | 9.45 |
| 360.0 | 15.30 | 13.16 | 12.21 | 11.25 | 10.41 | 10.13 | 9.84 | 9.68 | 9.51 |
| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 9.34 | 9.17 | 9.06 | 8.94 | 8.83 | 8.72 | 8.61 | 8.55 | 8.44 |
| 45.0 | 9.51 | 9.39 | 9.28 | 9.11 | 9.00 | 8.94 | 8.78 | 8.72 | 8.66 |
| 90.0 | 9.62 | 9.45 | 9.34 | 9.17 | 9.06 | 8.94 | 8.83 | 8.72 | 8.66 |
| 135.0 | 9.68 | 9.51 | 9.39 | 9.23 | 9.11 | 9.00 | 8.89 | 8.78 | 8.72 |
| 180.0 | 9.51 | 9.39 | 9.28 | 9.17 | 9.00 | 8.94 | 8.78 | 8.72 | 8.61 |
| 225.0 | 9.56 | 9.45 | 9.28 | 9.11 | 9.00 | 8.89 | 8.83 | 8.66 | 8.61 |
| 270.0 | 9.62 | 9.45 | 9.28 | 9.17 | 9.06 | 8.94 | 8.83 | 8.72 | 8.61 |
| 315.0 | 9.28 | 9.17 | 9.00 | 8.94 | 8.83 | 8.66 | 8.66 | 8.55 | 8.44 |
| 360.0 | 9.34 | 9.17 | 9.06 | 8.94 | 8.83 | 8.72 | 8.61 | 8.55 | 8.44 |
| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 8.38 | 8.33 | 8.27 | 8.27 | 8.21 | 8.10 | 8.10 | 8.04 | 7.99 |
| 45.0 | 8.55 | 8.49 | 8.38 | 8.38 | 8.27 | 8.27 | 8.21 | 8.10 | 8.10 |
| 90.0 | 8.55 | 8.49 | 8.44 | 8.38 | 8.33 | 8.27 | 8.21 | 8.16 | 8.10 |
| 135.0 | 8.61 | 8.55 | 8.49 | 8.38 | 8.33 | 8.27 | 8.21 | 8.16 | 8.10 |
| 180.0 | 8.55 | 8.49 | 8.44 | 8.33 | 8.27 | 8.27 | 8.16 | 8.10 | 8.10 |
| 225.0 | 8.55 | 8.49 | 8.44 | 8.33 | 8.33 | 8.27 | 8.21 | 8.16 | 8.10 |
| 270.0 | 8.55 | 8.44 | 8.44 | 8.38 | 8.27 | 8.27 | 8.16 | 8.10 | 8.10 |
| 315.0 | 8.38 | 8.33 | 8.27 | 8.21 | 8.21 | 8.10 | 8.04 | 8.04 | 7.99 |
| 360.0 | 8.38 | 8.33 | 8.27 | 8.27 | 8.21 | 8.10 | 8.10 | 8.04 | 7.99 |
| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 7.93 | 7.93 | 7.88 | 7.88 | 7.82 | 7.76 | 7.76 | 7.76 | 7.76 |
| 45.0 | 8.04 | 8.04 | 7.99 | 7.99 | 7.88 | 7.88 | 7.88 | 7.88 | 7.82 |
| 90.0 | 8.04 | 7.99 | 7.99 | 7.93 | 7.88 | 7.88 | 7.82 | 7.82 | 7.82 |
| 135.0 | 8.04 | 7.99 | 7.99 | 7.93 | 7.88 | 7.88 | 7.82 | 7.82 | 7.82 |
| 180.0 | 7.99 | 7.99 | 7.93 | 7.88 | 7.82 | 7.76 | 7.76 | 7.76 | 7.76 |
| 225.0 | 8.04 | 7.99 | 7.99 | 7.93 | 7.93 | 7.88 | 7.88 | 7.82 | 7.88 |
| 270.0 | 8.04 | 8.04 | 7.99 | 7.93 | 7.88 | 7.88 | 7.88 | 7.88 | 7.82 |
| 315.0 | 7.93 | 7.93 | 7.93 | 7.88 | 7.82 | 7.82 | 7.82 | 7.76 | 7.76 |
| 360.0 | 7.93 | 7.93 | 7.88 | 7.88 | 7.82 | 7.76 | 7.76 | 7.76 | 7.76 |
| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 7.76 | 7.71 | 7.71 | 7.65 | 7.65 | 7.65 | 7.65 | 7.65 | 7.59 |
| 45.0 | 7.82 | 7.82 | 7.82 | 7.82 | 7.88 | 7.76 | 7.93 | 7.65 | 7.59 |
| 90.0 | 7.82 | 7.76 | 7.76 | 7.71 | 7.71 | 7.71 | 7.71 | 7.65 | 7.59 |
| 135.0 | 7.76 | 7.76 | 7.71 | 7.71 | 7.71 | 7.65 | 7.65 | 7.65 | 7.65 |
| 180.0 | 7.71 | 7.71 | 7.71 | 7.65 | 7.65 | 7.65 | 7.59 | 7.65 | 7.59 |
| 225.0 | 7.88 | 7.82 | 7.88 | 7.76 | 7.71 | 7.65 | 7.65 | 7.65 | 7.65 |
| 270.0 | 7.76 | 7.82 | 7.76 | 7.76 | 7.71 | 7.71 | 7.71 | 7.65 | 7.59 |
| 315.0 | 7.76 | 7.76 | 7.71 | 7.71 | 7.71 | 7.71 | 7.76 | 7.59 | 7.59 |
| 360.0 | 7.76 | 7.71 | 7.71 | 7.65 | 7.65 | 7.65 | 7.65 | 7.65 | 7.59 |

Intensity data(cd)

| | |
|----------------|-------------|
| <i>C/γ</i> (°) | 90.0 |
| 0.0 | 7.59 |
| 45.0 | 7.59 |
| 90.0 | 7.59 |
| 135.0 | 7.65 |
| 180.0 | 7.59 |
| 225.0 | 7.59 |
| 270.0 | 7.59 |
| 315.0 | 7.59 |
| 360.0 | 7.59 |