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NATA

Client:

LumCAT: 2-2641-L Luminaire:

92.70.411.00 Report No: 2023829-B002

Ballast type: AC

Test No: 2023829-C002

LampCAT: LUXEON CoB 1205 LES13

Voltage(V): 35.280

Lamp flux(lm): 1852.5 Number of Lamps:

Current(A): 0.433

1 Length(mm): 0

Power (W): 15.276

Phm Type: C

PF: 0.000

Width(mm): 0

Height(mm): 0

Photometric Results

Lumens(lm): 1691.85, Efficiency(%): 91.33% , Luminous Efficacy(lm/W): 110.75

Central intensity(cd): 3900.021, Maximum intensity(cd): 3900.021

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=35.6

[C90/270]Total=35.6

Field angle(10%Imax): [C0/180]Total=64.6

[C90/270]Total=64.6

Maximum s/h(1/2): C0_180=0.58 C90_270=0.58

Maximum s/h(1/4): C0_180=0.59 C90_270=0.59

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 91.33%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 97.874%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2023/8/29
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.44

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 3900.021 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 3893.102 | 3.729 | 3.729 | 0.20% | 0.22% |
| 2.0 | 3864.387 | 11.134 | 14.863 | 0.60% | 0.88% |
| 3.0 | 3821.211 | 18.381 | 33.245 | 0.99% | 1.96% |
| 4.0 | 3759.215 | 25.374 | 58.619 | 1.37% | 3.46% |
| 5.0 | 3684.695 | 32.023 | 90.642 | 1.73% | 5.36% |
| 6.0 | 3598.897 | 38.277 | 128.919 | 2.07% | 7.62% |
| 7.0 | 3501.475 | 44.072 | 172.991 | 2.38% | 10.22% |
| 8.0 | 3379.835 | 49.248 | 222.239 | 2.66% | 13.14% |
| 9.0 | 3257.642 | 53.793 | 276.032 | 2.90% | 16.32% |
| 10.0 | 3116.422 | 57.683 | 333.715 | 3.11% | 19.72% |
| 11.0 | 2983.434 | 60.950 | 394.666 | 3.29% | 23.33% |
| 12.0 | 2829.413 | 63.543 | 458.208 | 3.43% | 27.08% |
| 13.0 | 2682.173 | 65.409 | 523.617 | 3.53% | 30.95% |
| 14.0 | 2526.629 | 66.672 | 590.289 | 3.60% | 34.89% |
| 15.0 | 2384.093 | 67.417 | 657.706 | 3.64% | 38.87% |
| 16.0 | 2232.355 | 67.644 | 725.35 | 3.65% | 42.87% |
| 17.0 | 2076.881 | 67.106 | 792.456 | 3.62% | 46.84% |
| 18.0 | 1918.916 | 65.882 | 858.338 | 3.56% | 50.73% |
| 19.0 | 1771.191 | 64.200 | 922.538 | 3.47% | 54.53% |
| 20.0 | 1615.716 | 61.990 | 984.528 | 3.35% | 58.19% |
| 21.0 | 1445.511 | 58.782 | 1043.31 | 3.17% | 61.67% |
| 22.0 | 1282.612 | 54.823 | 1098.133 | 2.96% | 64.91% |
| 23.0 | 1191.396 | 51.911 | 1150.044 | 2.80% | 67.98% |
| 24.0 | 1108.497 | 50.284 | 1200.328 | 2.71% | 70.95% |
| 25.0 | 1010.508 | 48.182 | 1248.509 | 2.60% | 73.80% |
| 26.0 | 916.593 | 45.489 | 1293.999 | 2.46% | 76.48% |
| 27.0 | 825.634 | 42.624 | 1336.623 | 2.30% | 79.00% |
| 28.0 | 735.608 | 39.527 | 1376.15 | 2.13% | 81.34% |
| 29.0 | 647.125 | 36.176 | 1412.326 | 1.95% | 83.48% |
| 30.0 | 561.265 | 32.626 | 1444.953 | 1.76% | 85.41% |
| 31.0 | 483.590 | 29.077 | 1474.029 | 1.57% | 87.13% |
| 32.0 | 410.689 | 25.620 | 1499.649 | 1.38% | 88.64% |
| 33.0 | 340.971 | 22.144 | 1521.794 | 1.20% | 89.95% |
| 34.0 | 281.148 | 18.827 | 1540.621 | 1.02% | 91.06% |
| 35.0 | 240.608 | 16.204 | 1556.825 | 0.87% | 92.02% |
| 36.0 | 184.383 | 13.532 | 1570.356 | 0.73% | 92.82% |
| 37.0 | 125.909 | 10.120 | 1580.476 | 0.55% | 93.42% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 97.436 | 7.455 | 1587.931 | 0.40% | 93.86% |
| 39.0 | 77.502 | 5.971 | 1593.902 | 0.32% | 94.21% |
| 40.0 | 68.431 | 5.090 | 1598.992 | 0.27% | 94.51% |
| 41.0 | 61.878 | 4.640 | 1603.632 | 0.25% | 94.79% |
| 42.0 | 56.696 | 4.308 | 1607.94 | 0.23% | 95.04% |
| 43.0 | 51.686 | 4.015 | 1611.955 | 0.22% | 95.28% |
| 44.0 | 47.992 | 3.762 | 1615.717 | 0.20% | 95.50% |
| 45.0 | 44.525 | 3.556 | 1619.273 | 0.19% | 95.71% |
| 46.0 | 41.446 | 3.362 | 1622.635 | 0.18% | 95.91% |
| 47.0 | 38.485 | 3.179 | 1625.814 | 0.17% | 96.10% |
| 48.0 | 35.952 | 3.009 | 1628.823 | 0.16% | 96.27% |
| 49.0 | 33.697 | 2.860 | 1631.683 | 0.15% | 96.44% |
| 50.0 | 31.455 | 2.716 | 1634.4 | 0.15% | 96.60% |
| 51.0 | 29.476 | 2.578 | 1636.978 | 0.14% | 96.76% |
| 52.0 | 27.808 | 2.458 | 1639.436 | 0.13% | 96.90% |
| 53.0 | 26.265 | 2.352 | 1641.788 | 0.13% | 97.04% |
| 54.0 | 24.778 | 2.250 | 1644.038 | 0.12% | 97.17% |
| 55.0 | 23.491 | 2.155 | 1646.192 | 0.12% | 97.30% |
| 56.0 | 22.377 | 2.073 | 1648.265 | 0.11% | 97.42% |
| 57.0 | 21.353 | 1.999 | 1650.264 | 0.11% | 97.54% |
| 58.0 | 20.425 | 1.932 | 1652.196 | 0.10% | 97.66% |
| 59.0 | 19.581 | 1.870 | 1654.067 | 0.10% | 97.77% |
| 60.0 | 18.744 | 1.811 | 1655.877 | 0.10% | 97.87% |
| 61.0 | 18.004 | 1.754 | 1657.631 | 0.09% | 97.98% |
| 62.0 | 17.326 | 1.702 | 1659.333 | 0.09% | 98.08% |
| 63.0 | 16.703 | 1.655 | 1660.988 | 0.09% | 98.18% |
| 64.0 | 16.101 | 1.610 | 1662.598 | 0.09% | 98.27% |
| 65.0 | 15.568 | 1.567 | 1664.165 | 0.08% | 98.36% |
| 66.0 | 15.070 | 1.529 | 1665.694 | 0.08% | 98.45% |
| 67.0 | 14.516 | 1.488 | 1667.182 | 0.08% | 98.54% |
| 68.0 | 14.032 | 1.446 | 1668.628 | 0.08% | 98.63% |
| 69.0 | 13.555 | 1.407 | 1670.035 | 0.08% | 98.71% |
| 70.0 | 13.112 | 1.370 | 1671.405 | 0.07% | 98.79% |
| 71.0 | 12.669 | 1.332 | 1672.737 | 0.07% | 98.87% |
| 72.0 | 12.247 | 1.296 | 1674.033 | 0.07% | 98.95% |
| 73.0 | 11.846 | 1.260 | 1675.293 | 0.07% | 99.02% |
| 74.0 | 11.437 | 1.224 | 1676.517 | 0.07% | 99.09% |
| 75.0 | 11.050 | 1.188 | 1677.705 | 0.06% | 99.16% |

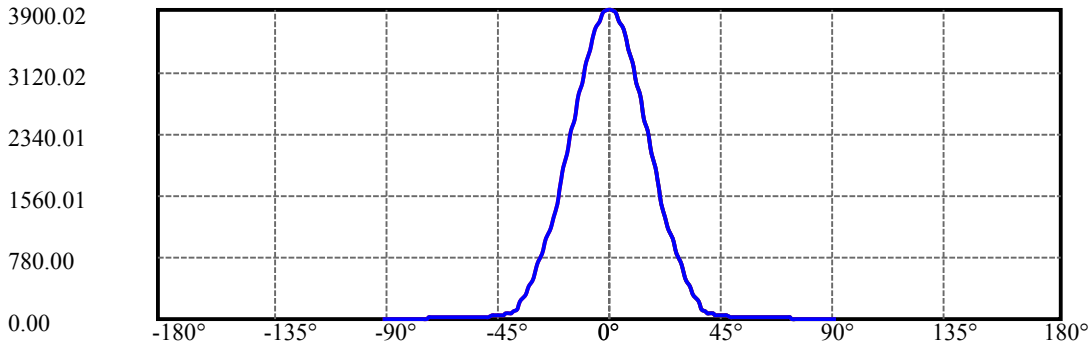
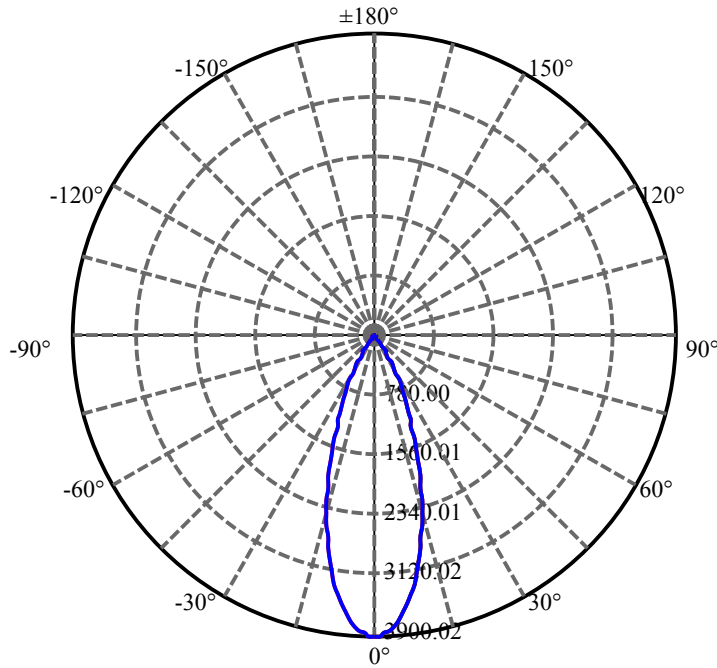
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 10.662 | 1.153 | 1678.857 | 0.06% | 99.23% |
| 77.0 | 10.310 | 1.118 | 1679.975 | 0.06% | 99.30% |
| 78.0 | 9.957 | 1.085 | 1681.06 | 0.06% | 99.36% |
| 79.0 | 9.638 | 1.053 | 1682.113 | 0.06% | 99.42% |
| 80.0 | 9.286 | 1.020 | 1683.133 | 0.06% | 99.48% |
| 81.0 | 8.988 | 0.988 | 1684.122 | 0.05% | 99.54% |
| 82.0 | 8.663 | 0.957 | 1685.079 | 0.05% | 99.60% |
| 83.0 | 8.365 | 0.926 | 1686.004 | 0.05% | 99.65% |
| 84.0 | 8.130 | 0.899 | 1686.903 | 0.05% | 99.71% |
| 85.0 | 7.895 | 0.875 | 1687.778 | 0.05% | 99.76% |
| 86.0 | 7.694 | 0.852 | 1688.63 | 0.05% | 99.81% |
| 87.0 | 7.493 | 0.831 | 1689.461 | 0.04% | 99.86% |
| 88.0 | 7.327 | 0.812 | 1690.273 | 0.04% | 99.91% |
| 89.0 | 7.189 | 0.796 | 1691.069 | 0.04% | 99.95% |
| 90.0 | 7.120 | 0.785 | 1691.853 | 0.04% | 100.00% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1444.95 | 78.00% | 85.41% |
| 0-40 | 1598.99 | 86.31% | 94.51% |
| 0-60 | 1655.88 | 89.38% | 97.87% |
| 0-90 | 1691.07 | 91.28% | 99.95% |
| 0-120 | 1691.07 | 91.28% | 99.95% |
| 0-180 | 1691.85 | 91.33% | 100.00% |
| 60-90 | 35.19 | 1.90% | 2.08% |
| 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% |
| 0-27.43 | 1353.48 | 73.06% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 333.72 |
| 10-20 | 650.81 |
| 20-30 | 460.42 |
| 30-40 | 154.04 |
| 40-50 | 35.41 |
| 50-60 | 21.48 |
| 60-70 | 15.53 |
| 70-80 | 11.73 |
| 80-90 | 7.94 |
| 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: —————

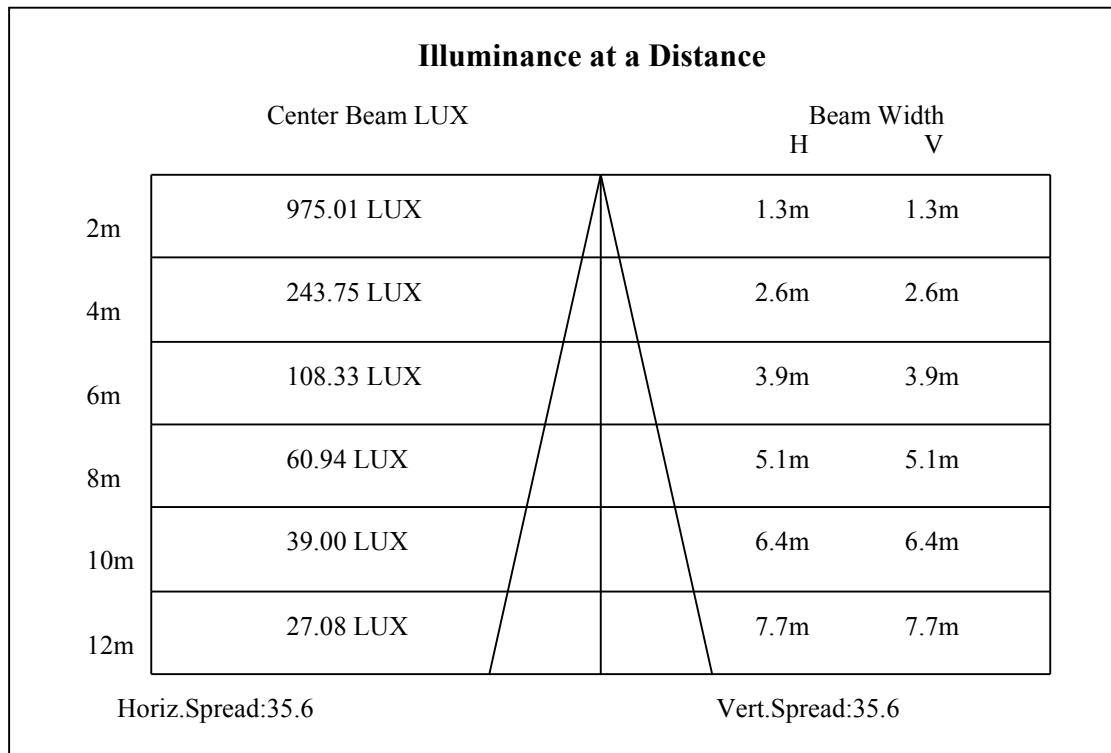
C90/C270: —————

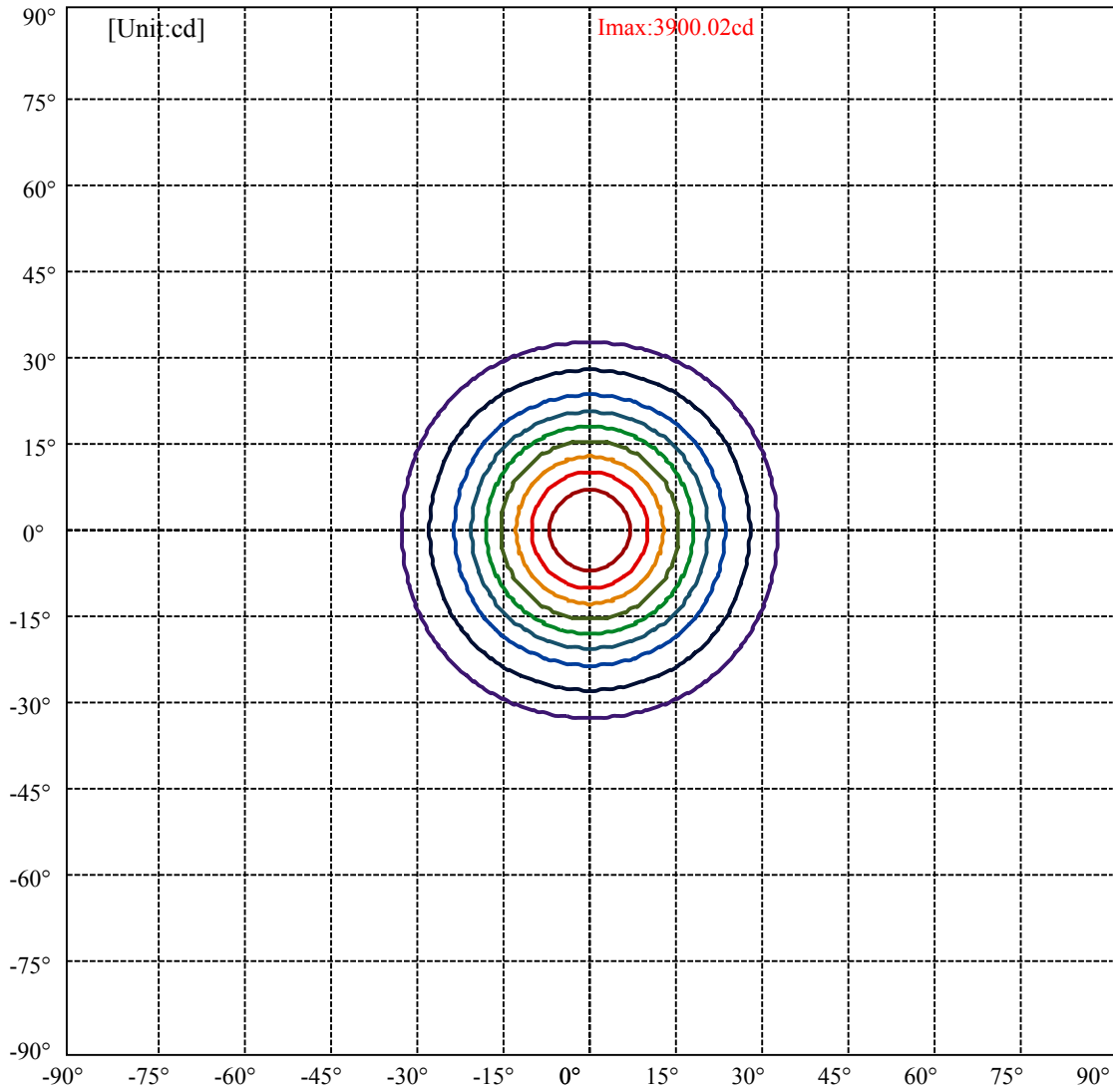
Field angle(10%Imax):C0/180Left:32.3 Right:32.3

:C90/270Left:32.3 Right:32.3

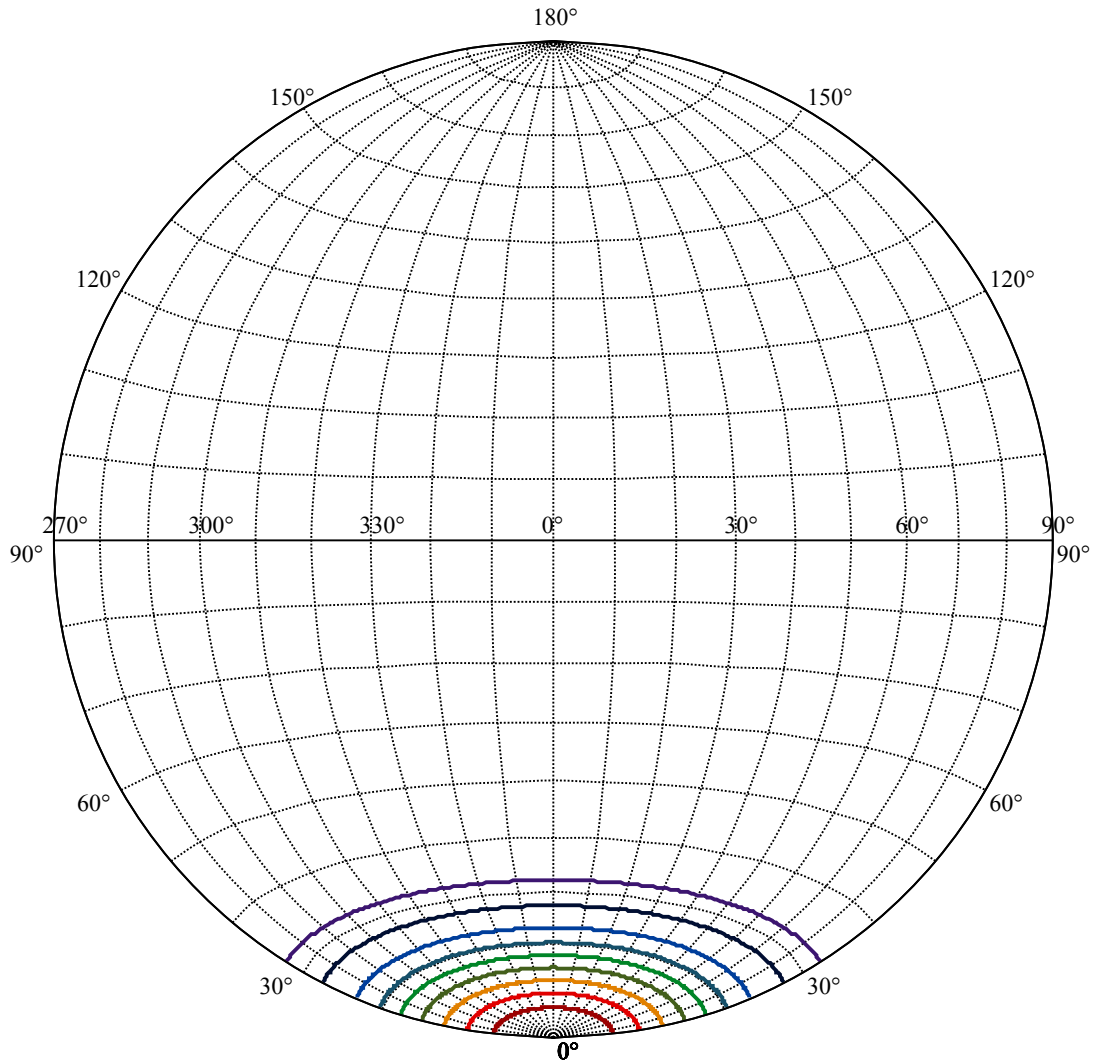
Beam Angle(50%Imax):C0/180Left:17.8 Right:17.8

:C90/270Left:17.8 Right:17.8





| | |
|-------------------|---|
| (10%Imax) 390.002 | — |
| (20%Imax) 780.004 | — |
| (30%Imax) 1170.01 | — |
| (40%Imax) 1560.01 | — |
| (50%Imax) 1950.01 | — |
| (60%Imax) 2340.01 | — |
| (70%Imax) 2730.01 | — |
| (80%Imax) 3120.02 | — |
| (90%Imax) 3510.02 | — |



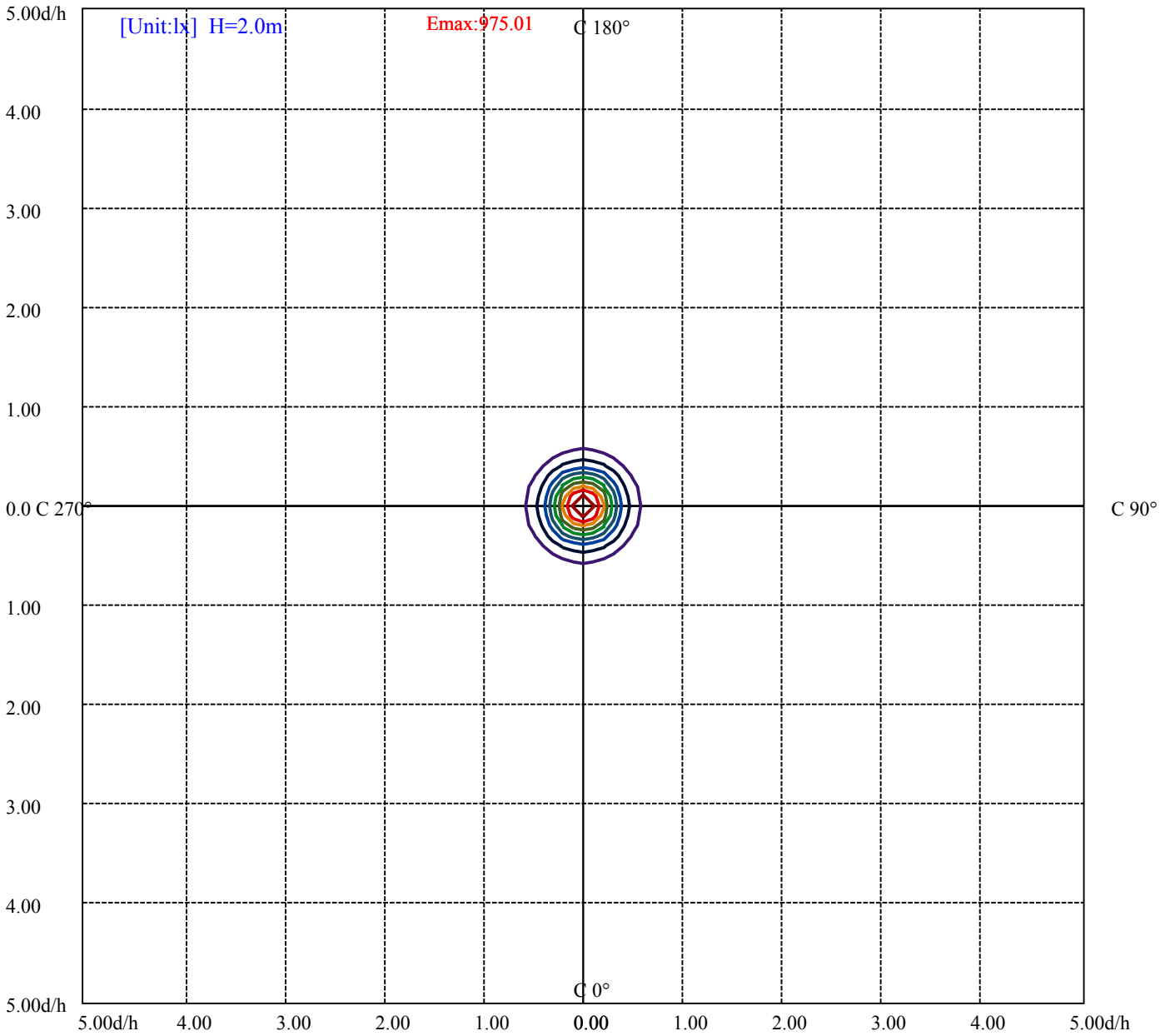
House

[Unit:cd]

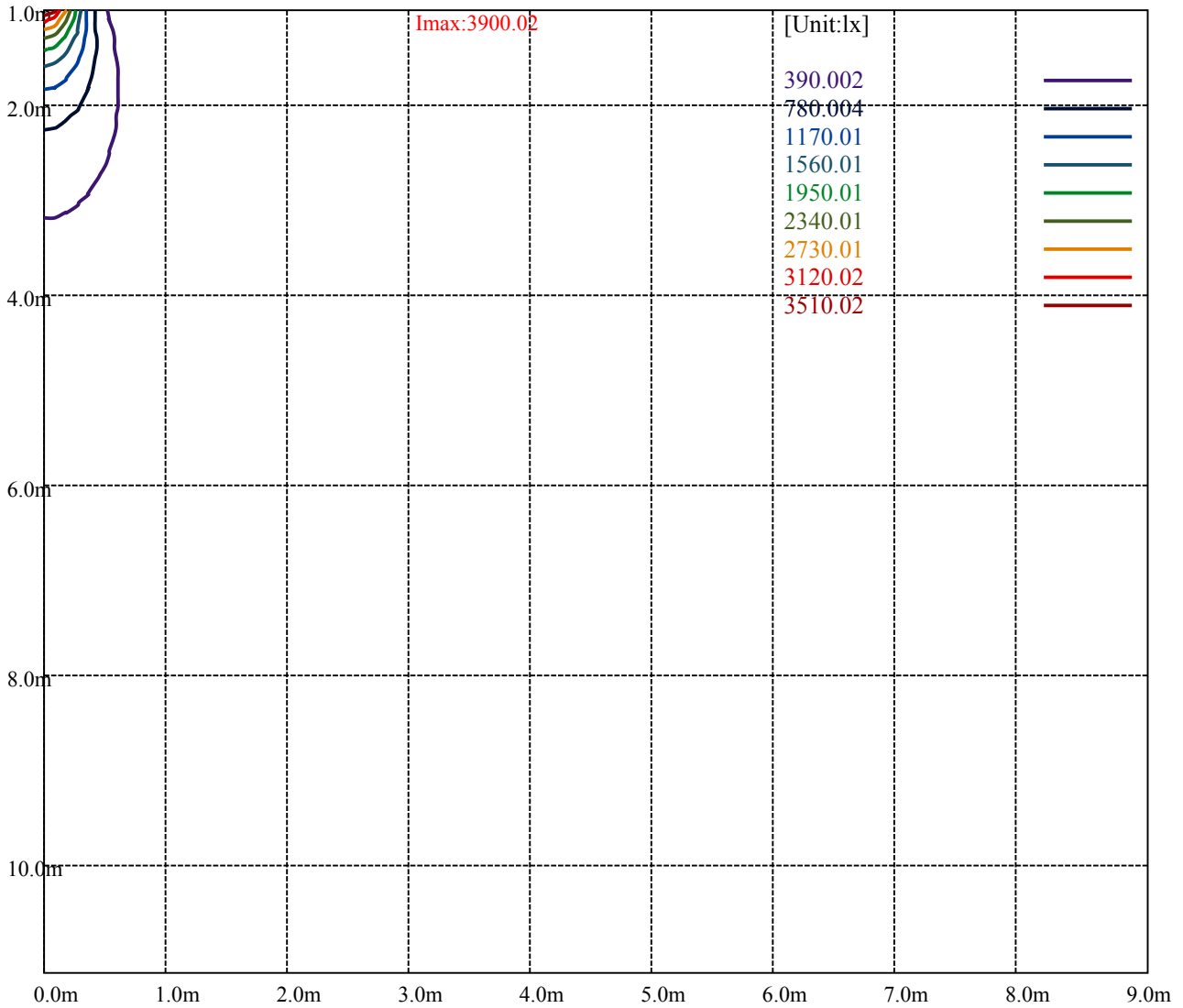
Road

Imax:3900.02

| | | |
|-----------|---------|---|
| (10%Imax) | 390.002 | — |
| (20%Imax) | 780.004 | — |
| (30%Imax) | 1170.01 | — |
| (40%Imax) | 1560.01 | — |
| (50%Imax) | 1950.01 | — |
| (60%Imax) | 2340.01 | — |
| (70%Imax) | 2730.01 | — |
| (80%Imax) | 3120.02 | — |
| (90%Imax) | 3510.02 | — |



| | |
|--------------------|---|
| (10%Emax) 97.5005 | — |
| (20%Emax) 195.001 | — |
| (30%Emax) 292.5025 | — |
| (40%Emax) 390.0025 | — |
| (50%Emax) 487.5025 | — |
| (60%Emax) 585.0025 | — |
| (70%Emax) 682.5025 | — |
| (80%Emax) 780.005 | — |
| (90%Emax) 877.505 | — |



Luminance Table

| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|----|----|----|----|----|----|----|----|----|
| C0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Glare Table

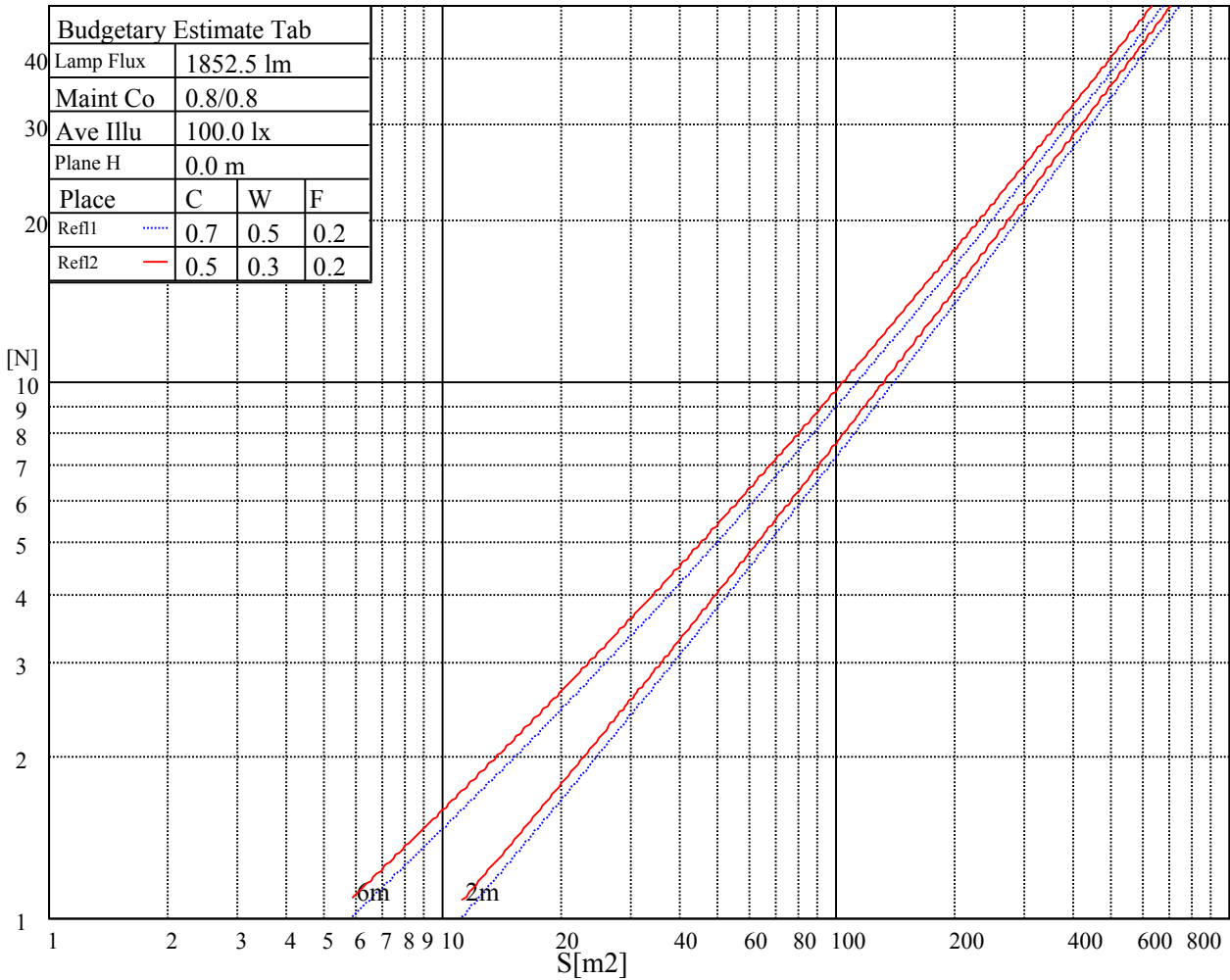
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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

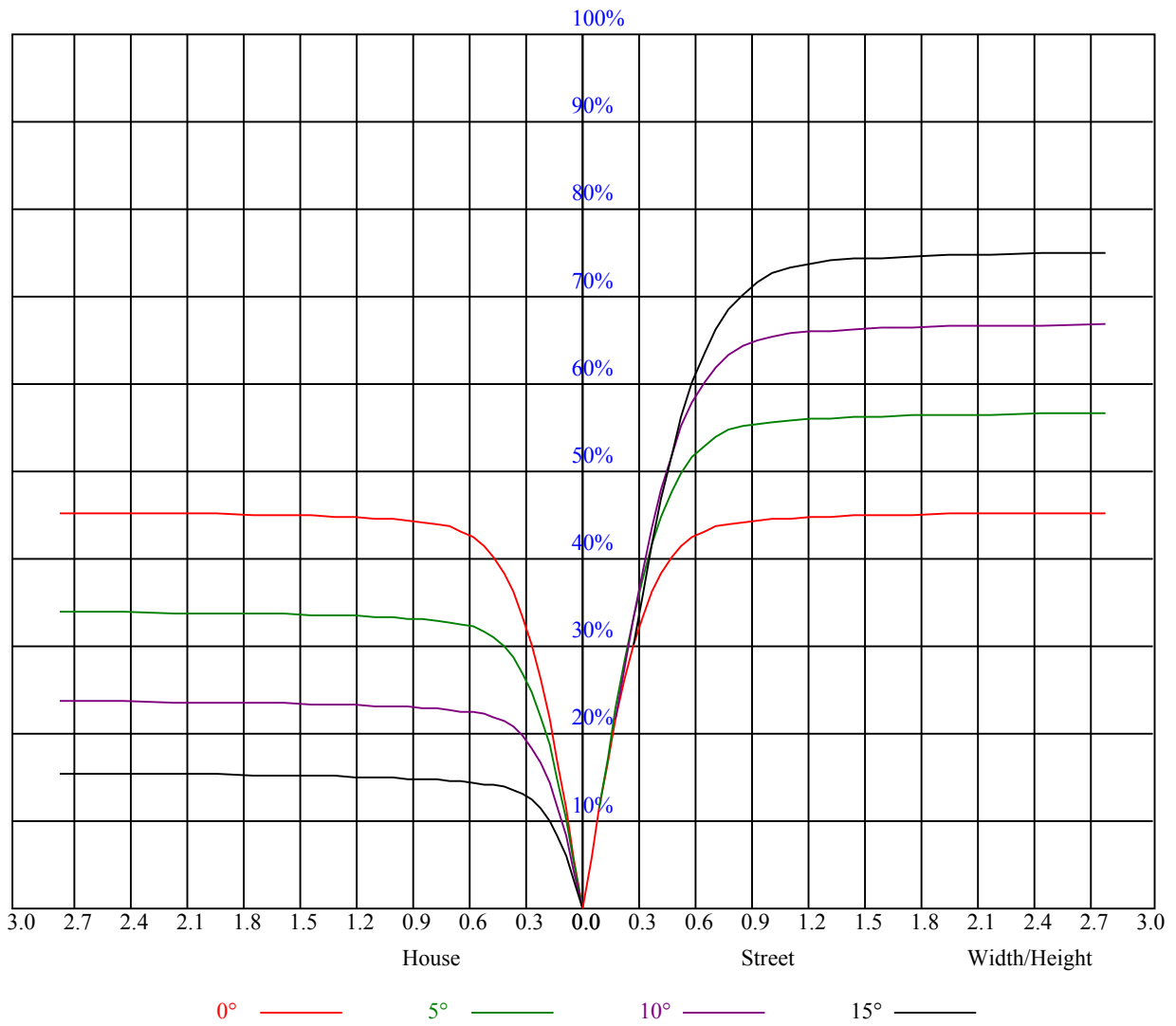


| Illumination assessment according UGR | | | | | | | | | | | |
|---|---------|------------------|-----|-----|-----|---------|----------------|-----|-----|-----|--|
| Rf of Ceiling | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 | |
| Rf of Wall | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 | |
| Rf of Floor | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X | Y | | | | | | | | | | |
| 2H | 2H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 3H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| 4H | 2H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 3H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| 8H | 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| 12H | 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| | 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | |
| Variation with the observer position at spacings: | | | | | | | | | | | |
| S = 1.0H | 非数字/非数字 | | | | | 非数字/非数字 | | | | | |
| S = 1.5H | 非数字/非数字 | | | | | 非数字/非数字 | | | | | |
| S = 2.0H | 非数字/非数字 | | | | | 非数字/非数字 | | | | | |
| Standard tables: | BK0 | | | | | BK0 | | | | | |
| Uncorrected UGR | 负无穷大 | | | | | 负无穷大 | | | | | |

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25



| 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 RHOF=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.09 | 1.09 | 1.09 | 1.06 | 1.06 | 1.06 | 1.01 | 1.01 | 1.01 | 0.97 | 0.97 | 0.97 | 0.93 | 0.93 | 0.93 | 0.91 |
| 1 | 1.02 | 0.99 | 0.98 | 1.00 | 0.98 | 0.96 | 0.96 | 0.94 | 0.93 | 0.93 | 0.91 | 0.90 | 0.89 | 0.89 | 0.88 | 0.86 |
| 2 | 0.95 | 0.92 | 0.89 | 0.94 | 0.91 | 0.88 | 0.91 | 0.88 | 0.86 | 0.88 | 0.86 | 0.84 | 0.86 | 0.84 | 0.83 | 0.81 |
| 3 | 0.90 | 0.86 | 0.83 | 0.89 | 0.85 | 0.82 | 0.86 | 0.83 | 0.81 | 0.84 | 0.82 | 0.80 | 0.82 | 0.80 | 0.78 | 0.77 |
| 4 | 0.85 | 0.81 | 0.77 | 0.84 | 0.80 | 0.77 | 0.82 | 0.79 | 0.76 | 0.81 | 0.78 | 0.75 | 0.79 | 0.76 | 0.74 | 0.73 |
| 5 | 0.81 | 0.76 | 0.73 | 0.80 | 0.76 | 0.73 | 0.79 | 0.75 | 0.72 | 0.77 | 0.74 | 0.71 | 0.76 | 0.73 | 0.71 | 0.70 |
| 6 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.75 | 0.71 | 0.68 | 0.74 | 0.70 | 0.68 | 0.73 | 0.70 | 0.67 | 0.66 |
| 7 | 0.74 | 0.69 | 0.66 | 0.73 | 0.69 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.65 | 0.70 | 0.67 | 0.64 | 0.63 |
| 8 | 0.70 | 0.66 | 0.62 | 0.70 | 0.65 | 0.62 | 0.69 | 0.65 | 0.62 | 0.68 | 0.64 | 0.62 | 0.67 | 0.64 | 0.62 | 0.61 |
| 9 | 0.67 | 0.63 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.59 | 0.65 | 0.62 | 0.59 | 0.65 | 0.61 | 0.59 | 0.58 |
| 10 | 0.65 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.62 | 0.59 | 0.57 | 0.56 |



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 | 3894.62 | 3874.14 | 3832.07 | 3776.72 | 3688.71 | 3604.02 | 3511.58 | 3405.30 | 3256.95 |
| 45.0 | 3905.69 | 3899.61 | 3864.18 | 3823.77 | 3745.72 | 3674.32 | 3599.59 | 3502.17 | 3369.32 |
| 90.0 | 3890.75 | 3855.88 | 3801.63 | 3740.74 | 3665.46 | 3563.06 | 3463.42 | 3333.89 | 3213.77 |
| 135.0 | 3909.02 | 3892.41 | 3862.52 | 3794.99 | 3731.33 | 3659.92 | 3555.31 | 3460.65 | 3319.50 |
| 180.0 | 3894.62 | 3904.59 | 3894.07 | 3850.89 | 3804.40 | 3742.40 | 3665.46 | 3581.88 | 3489.99 |
| 225.0 | 3905.69 | 3894.07 | 3853.11 | 3817.13 | 3764.54 | 3691.48 | 3598.48 | 3494.97 | 3388.14 |
| 270.0 | 3890.75 | 3909.02 | 3909.57 | 3896.84 | 3855.32 | 3801.08 | 3741.29 | 3668.78 | 3548.66 |
| 315.0 | 3909.02 | 3915.10 | 3897.95 | 3868.61 | 3818.24 | 3741.29 | 3656.05 | 3564.16 | 3452.35 |
| 360.0 | 3894.62 | 3874.14 | 3832.07 | 3776.72 | 3688.71 | 3604.02 | 3511.58 | 3405.30 | 3256.95 |
| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 3129.08 | 2997.34 | 2857.85 | 2682.93 | 2542.34 | 2366.86 | 2220.18 | 2067.40 | 1879.20 |
| 45.0 | 3255.29 | 3135.73 | 3002.32 | 2829.62 | 2690.68 | 2550.64 | 2376.27 | 2230.14 | 2090.10 |
| 90.0 | 3082.59 | 2915.42 | 2778.70 | 2639.76 | 2498.05 | 2327.01 | 2185.86 | 2044.15 | 1909.64 |
| 135.0 | 3206.03 | 3080.37 | 2949.74 | 2778.70 | 2636.44 | 2495.84 | 2359.67 | 2181.98 | 2041.94 |
| 180.0 | 3385.37 | 3242.00 | 3117.46 | 2987.38 | 2822.42 | 2682.93 | 2547.87 | 2415.02 | 2245.09 |
| 225.0 | 3266.36 | 3104.73 | 2972.99 | 2840.14 | 2701.75 | 2536.25 | 2403.95 | 2230.14 | 2086.22 |
| 270.0 | 3439.06 | 3291.27 | 3162.30 | 3023.91 | 2852.87 | 2714.49 | 2577.76 | 2437.72 | 2261.14 |
| 315.0 | 3297.36 | 3164.51 | 3026.13 | 2852.87 | 2712.82 | 2539.01 | 2401.18 | 2252.28 | 2101.72 |
| 360.0 | 3129.08 | 2997.34 | 2857.85 | 2682.93 | 2542.34 | 2366.86 | 2220.18 | 2067.40 | 1879.20 |
| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 1730.85 | 1589.70 | 1445.23 | 1089.91 | 1089.91 | 1064.62 | 969.91 | 868.22 | 788.24 |
| 45.0 | 1909.64 | 1770.15 | 1598.00 | 1470.69 | 1349.47 | 1238.20 | 1116.98 | 1026.75 | 940.40 |
| 90.0 | 1736.94 | 1611.29 | 1486.74 | 1344.48 | 1097.11 | 1097.11 | 1034.28 | 955.07 | 867.11 |
| 135.0 | 1905.77 | 1772.92 | 1610.18 | 1486.19 | 1342.82 | 1237.65 | 1141.89 | 1033.40 | 950.37 |
| 180.0 | 2109.47 | 1965.55 | 1782.88 | 1646.16 | 1483.42 | 1364.96 | 1251.49 | 1146.87 | 1039.49 |
| 225.0 | 1938.43 | 1752.44 | 1607.97 | 1466.82 | 1340.06 | 1096.17 | 1096.17 | 1001.07 | 916.99 |
| 270.0 | 2114.45 | 1957.25 | 1796.17 | 1605.75 | 1464.60 | 1338.95 | 1189.49 | 1081.00 | 961.99 |
| 315.0 | 1905.77 | 1750.23 | 1598.56 | 1454.08 | 1093.51 | 1093.51 | 1067.77 | 971.68 | 868.17 |
| 360.0 | 1730.85 | 1589.70 | 1445.23 | 1089.91 | 1089.91 | 1064.62 | 969.91 | 868.22 | 788.24 |
| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 704.10 | 605.51 | 534.11 | 464.75 | 385.32 | 324.43 | 268.85 | 202.54 | 156.60 |
| 45.0 | 854.60 | 743.34 | 651.46 | 566.21 | 493.70 | 406.24 | 338.71 | 294.43 | 294.43 |
| 90.0 | 749.04 | 654.94 | 566.49 | 469.12 | 394.62 | 329.96 | 268.24 | 202.15 | 155.93 |
| 135.0 | 861.25 | 767.15 | 651.46 | 565.66 | 488.16 | 413.44 | 331.51 | 287.23 | 287.23 |
| 180.0 | 952.03 | 865.67 | 772.68 | 660.31 | 575.62 | 498.13 | 427.83 | 345.90 | 287.23 |
| 225.0 | 814.53 | 729.23 | 649.30 | 577.28 | 484.73 | 414.16 | 335.11 | 278.32 | 227.06 |
| 270.0 | 874.53 | 800.36 | 723.42 | 630.42 | 557.91 | 488.72 | 407.90 | 345.90 | 290.55 |
| 315.0 | 794.99 | 718.66 | 628.10 | 556.36 | 488.66 | 410.45 | 349.61 | 292.71 | 225.84 |
| 360.0 | 704.10 | 605.51 | 534.11 | 464.75 | 385.32 | 324.43 | 268.85 | 202.54 | 156.60 |
| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 117.35 | 84.03 | 71.63 | 65.87 | 60.67 | 54.69 | 50.26 | 46.88 | 43.84 |
| 45.0 | 160.36 | 114.03 | 87.40 | 74.89 | 68.75 | 61.94 | 56.90 | 52.75 | 48.82 |
| 90.0 | 118.46 | 92.55 | 76.94 | 70.74 | 64.99 | 58.62 | 54.41 | 49.54 | 46.16 |
| 135.0 | 153.72 | 118.35 | 92.00 | 76.66 | 70.08 | 64.27 | 57.90 | 53.75 | 49.87 |
| 180.0 | 287.23 | 167.17 | 127.76 | 91.50 | 76.66 | 70.08 | 64.27 | 57.73 | 53.47 |
| 225.0 | 167.61 | 126.32 | 94.60 | 72.62 | 66.15 | 60.61 | 55.41 | 49.98 | 46.44 |
| 270.0 | 290.55 | 170.49 | 129.08 | 94.65 | 74.45 | 64.38 | 59.12 | 52.97 | 48.88 |
| 315.0 | 179.79 | 134.34 | 100.08 | 73.07 | 65.70 | 60.45 | 55.30 | 49.87 | 46.44 |
| 360.0 | 117.35 | 84.03 | 71.63 | 65.87 | 60.67 | 54.69 | 50.26 | 46.88 | 43.84 |

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 | 40.41 | 37.81 | 34.93 | 32.77 | 30.83 | 28.62 | 27.07 | 25.68 | 24.41 |
| 45.0 | 44.84 | 41.85 | 39.25 | 36.09 | 33.88 | 31.77 | 29.45 | 27.79 | 26.40 |
| 90.0 | 43.12 | 40.52 | 37.25 | 35.04 | 32.88 | 30.94 | 28.73 | 27.23 | 25.79 |
| 135.0 | 46.61 | 42.79 | 40.02 | 37.47 | 35.09 | 32.44 | 30.50 | 28.73 | 26.90 |
| 180.0 | 49.54 | 46.22 | 42.46 | 39.80 | 37.31 | 34.54 | 32.49 | 30.67 | 28.51 |
| 225.0 | 43.34 | 40.52 | 37.31 | 34.93 | 32.33 | 30.44 | 28.67 | 26.74 | 25.35 |
| 270.0 | 45.61 | 41.85 | 39.13 | 36.70 | 34.49 | 31.88 | 30.11 | 28.34 | 26.85 |
| 315.0 | 42.73 | 40.02 | 37.53 | 34.82 | 32.77 | 31.00 | 28.78 | 27.29 | 25.91 |
| 360.0 | 40.41 | 37.81 | 34.93 | 32.77 | 30.83 | 28.62 | 27.07 | 25.68 | 24.41 |
| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 23.03 | 21.92 | 20.98 | 20.15 | 19.15 | 18.43 | 17.77 | 17.05 | 16.50 |
| 45.0 | 24.69 | 23.53 | 22.42 | 21.26 | 20.31 | 19.48 | 18.76 | 17.88 | 17.21 |
| 90.0 | 24.19 | 23.14 | 22.03 | 20.92 | 20.04 | 19.26 | 18.38 | 17.71 | 17.10 |
| 135.0 | 25.46 | 23.97 | 22.92 | 21.86 | 20.92 | 19.93 | 19.15 | 18.38 | 17.55 |
| 180.0 | 27.07 | 25.35 | 24.19 | 23.14 | 22.09 | 21.20 | 20.09 | 19.37 | 18.65 |
| 225.0 | 24.08 | 22.97 | 21.64 | 20.76 | 19.93 | 19.15 | 18.27 | 17.60 | 16.99 |
| 270.0 | 25.13 | 23.86 | 22.69 | 21.48 | 20.59 | 19.76 | 18.82 | 18.16 | 17.33 |
| 315.0 | 24.58 | 23.19 | 22.14 | 21.26 | 20.37 | 19.43 | 18.71 | 17.88 | 17.27 |
| 360.0 | 23.03 | 21.92 | 20.98 | 20.15 | 19.15 | 18.43 | 17.77 | 17.05 | 16.50 |
| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 15.94 | 15.28 | 14.83 | 14.39 | 13.78 | 13.34 | 12.90 | 12.51 | 12.07 |
| 45.0 | 16.66 | 16.11 | 15.44 | 15.00 | 14.39 | 13.89 | 13.51 | 13.01 | 12.57 |
| 90.0 | 16.50 | 15.78 | 15.28 | 14.78 | 14.28 | 13.73 | 13.28 | 12.90 | 12.40 |
| 135.0 | 16.99 | 16.38 | 15.89 | 15.39 | 14.78 | 14.28 | 13.78 | 13.28 | 12.84 |
| 180.0 | 17.82 | 17.21 | 16.61 | 16.11 | 15.44 | 14.95 | 14.39 | 13.89 | 13.45 |
| 225.0 | 16.27 | 15.83 | 15.33 | 14.72 | 14.28 | 13.89 | 13.34 | 12.95 | 12.57 |
| 270.0 | 16.77 | 16.22 | 15.67 | 15.17 | 14.61 | 14.17 | 13.73 | 13.28 | 12.79 |
| 315.0 | 16.66 | 16.00 | 15.50 | 15.00 | 14.56 | 14.00 | 13.51 | 13.06 | 12.68 |
| 360.0 | 15.94 | 15.28 | 14.83 | 14.39 | 13.78 | 13.34 | 12.90 | 12.51 | 12.07 |
| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 11.68 | 11.35 | 10.96 | 10.57 | 10.24 | 9.85 | 9.52 | 9.30 | 8.86 |
| 45.0 | 12.23 | 11.85 | 11.35 | 11.02 | 10.68 | 10.35 | 9.96 | 9.63 | 9.35 |
| 90.0 | 11.96 | 11.51 | 11.13 | 10.85 | 10.41 | 10.07 | 9.74 | 9.47 | 9.08 |
| 135.0 | 12.40 | 12.01 | 11.62 | 11.18 | 10.79 | 10.46 | 10.13 | 9.74 | 9.47 |
| 180.0 | 12.95 | 12.51 | 12.12 | 11.73 | 11.24 | 10.90 | 10.52 | 10.19 | 9.80 |
| 225.0 | 12.18 | 11.73 | 11.35 | 10.96 | 10.63 | 10.19 | 9.91 | 9.58 | 9.19 |
| 270.0 | 12.40 | 12.01 | 11.57 | 11.18 | 10.74 | 10.41 | 10.07 | 9.69 | 9.41 |
| 315.0 | 12.18 | 11.79 | 11.40 | 10.90 | 10.57 | 10.24 | 9.80 | 9.52 | 9.13 |
| 360.0 | 11.68 | 11.35 | 10.96 | 10.57 | 10.24 | 9.85 | 9.52 | 9.30 | 8.86 |
| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 8.64 | 8.30 | 8.14 | 7.92 | 7.69 | 7.53 | 7.31 | 7.20 | 7.20 |
| 45.0 | 8.97 | 8.69 | 8.36 | 8.14 | 7.86 | 7.69 | 7.47 | 7.31 | 7.14 |
| 90.0 | 8.80 | 8.47 | 8.25 | 7.97 | 7.80 | 7.58 | 7.42 | 7.25 | 7.09 |
| 135.0 | 9.13 | 8.80 | 8.41 | 8.19 | 7.92 | 7.75 | 7.58 | 7.36 | 7.20 |
| 180.0 | 9.52 | 9.08 | 8.75 | 8.47 | 8.25 | 7.97 | 7.75 | 7.58 | 7.42 |
| 225.0 | 8.91 | 8.64 | 8.30 | 8.08 | 7.86 | 7.69 | 7.47 | 7.36 | 7.14 |
| 270.0 | 9.08 | 8.75 | 8.41 | 8.19 | 7.97 | 7.75 | 7.53 | 7.36 | 7.20 |
| 315.0 | 8.86 | 8.58 | 8.30 | 8.08 | 7.80 | 7.58 | 7.42 | 7.20 | 7.14 |
| 360.0 | 8.64 | 8.30 | 8.14 | 7.92 | 7.69 | 7.53 | 7.31 | 7.20 | 7.20 |

Intensity data(cd)

| | |
|---------------|-------------|
| C/γ(°) | 90.0 |
| 0.0 | 7.20 |
| 45.0 | 7.09 |
| 90.0 | 7.09 |
| 135.0 | 7.09 |
| 180.0 | 7.20 |
| 225.0 | 7.14 |
| 270.0 | 7.09 |
| 315.0 | 7.09 |
| 360.0 | 7.20 |