

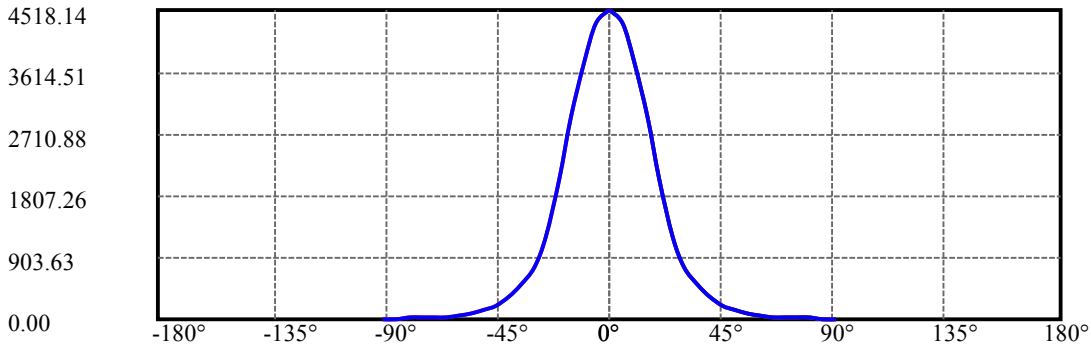
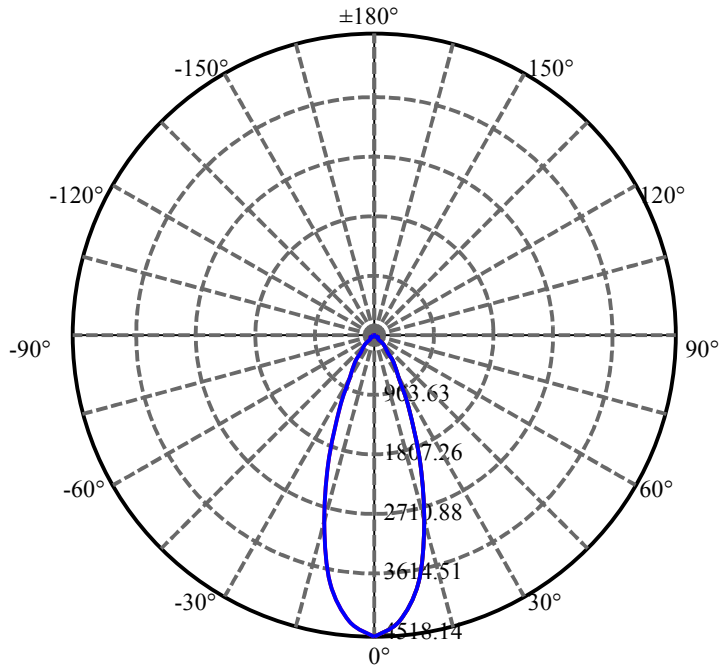
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 4518.141 | 27.019 | 27.019 | 1.017% | 1.118% |
| 5.0 | 4317.047 | 206.240 | 233.259 | 7.762% | 9.651% |
| 10.0 | 3758.203 | 357.717 | 590.976 | 13.463% | 24.451% |
| 15.0 | 2941.805 | 417.349 | 1008.325 | 15.708% | 41.719% |
| 20.0 | 2042.719 | 382.957 | 1391.282 | 14.413% | 57.564% |
| 25.0 | 1205.128 | 279.171 | 1670.454 | 10.507% | 69.114% |
| 30.0 | 767.306 | 210.295 | 1880.748 | 7.915% | 77.815% |
| 35.0 | 498.923 | 156.861 | 2037.609 | 5.904% | 84.305% |
| 40.0 | 333.183 | 117.392 | 2155.001 | 4.418% | 89.162% |
| 45.0 | 206.789 | 80.150 | 2235.151 | 3.017% | 92.478% |
| 50.0 | 129.593 | 54.416 | 2289.567 | 2.048% | 94.730% |
| 55.0 | 81.816 | 36.736 | 2326.303 | 1.383% | 96.250% |
| 60.0 | 53.353 | 25.327 | 2351.629 | .953% | 97.297% |
| 65.0 | 36.858 | 18.310 | 2369.94 | .689% | 98.055% |
| 70.0 | 29.524 | 15.207 | 2385.147 | .572% | 98.684% |
| 75.0 | 23.400 | 12.389 | 2397.536 | .466% | 99.197% |
| 80.0 | 17.979 | 9.705 | 2407.242 | .365% | 99.598% |
| 85.0 | 12.832 | 7.007 | 2414.249 | .264% | 99.888% |
| 90.0 | 9.858 | 2.702 | 2416.95 | .102% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1880.75 | 70.78% | 77.81% |
| 0-40 | 2155.00 | 81.11% | 89.16% |
| 0-60 | 2351.63 | 88.51% | 97.30% |
| 0-90 | 2414.25 | 90.86% | 99.89% |
| 0-120 | 2414.25 | 90.86% | 99.89% |
| 0-180 | 2416.95 | 90.97% | 100.00% |
| 60-90 | 87.95 | 3.31% | 3.64% |
| 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% |
| 0-31.68 | 1933.56 | 72.77% | 80.00% |

ZONAL LUMEN SUMMARY

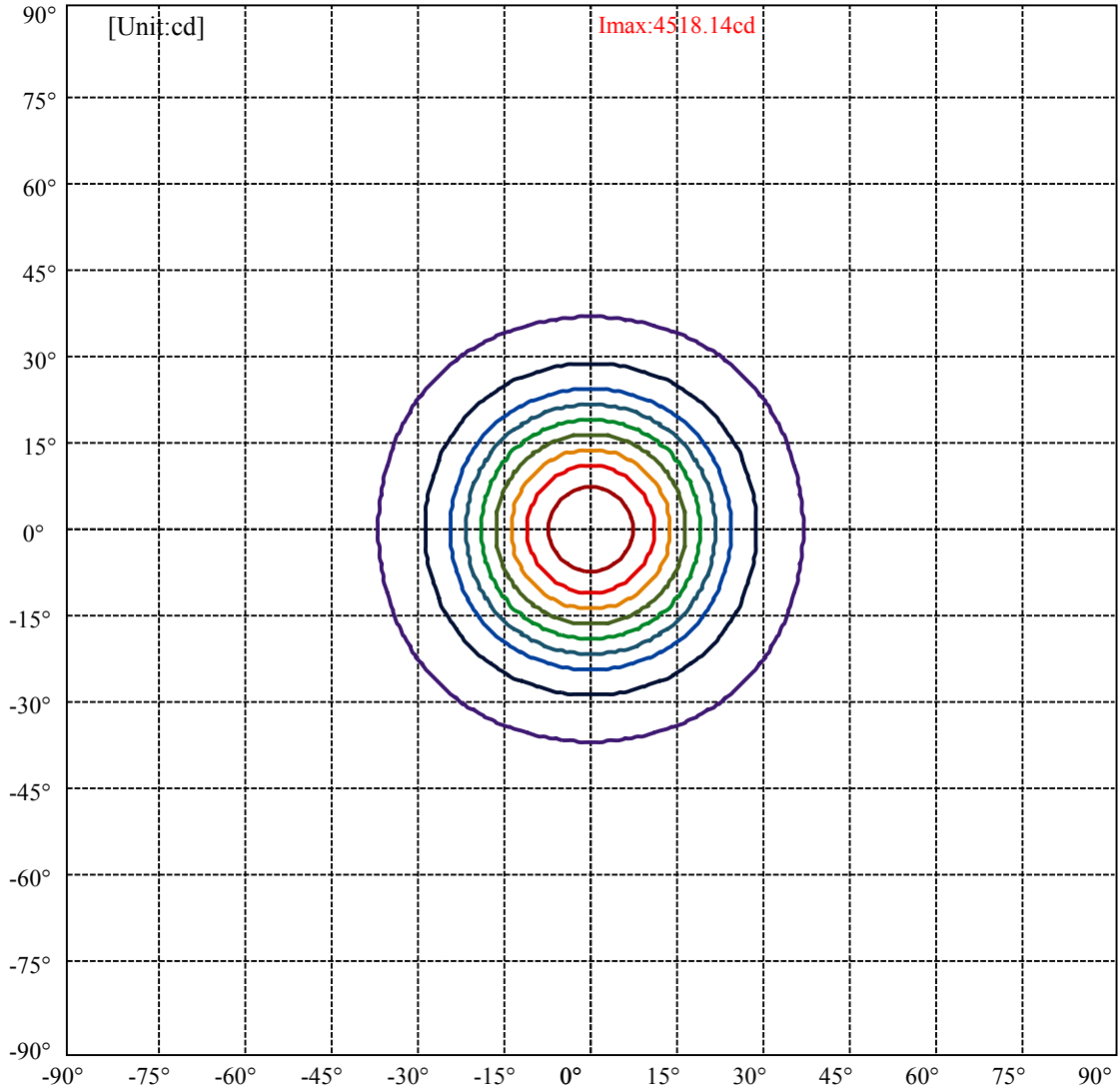
| | |
|---------|--------|
| 0-10 | 590.98 |
| 10-20 | 800.31 |
| 20-30 | 489.47 |
| 30-40 | 274.25 |
| 40-50 | 134.57 |
| 50-60 | 62.06 |
| 60-70 | 33.52 |
| 70-80 | 22.09 |
| 80-90 | 7.01 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |



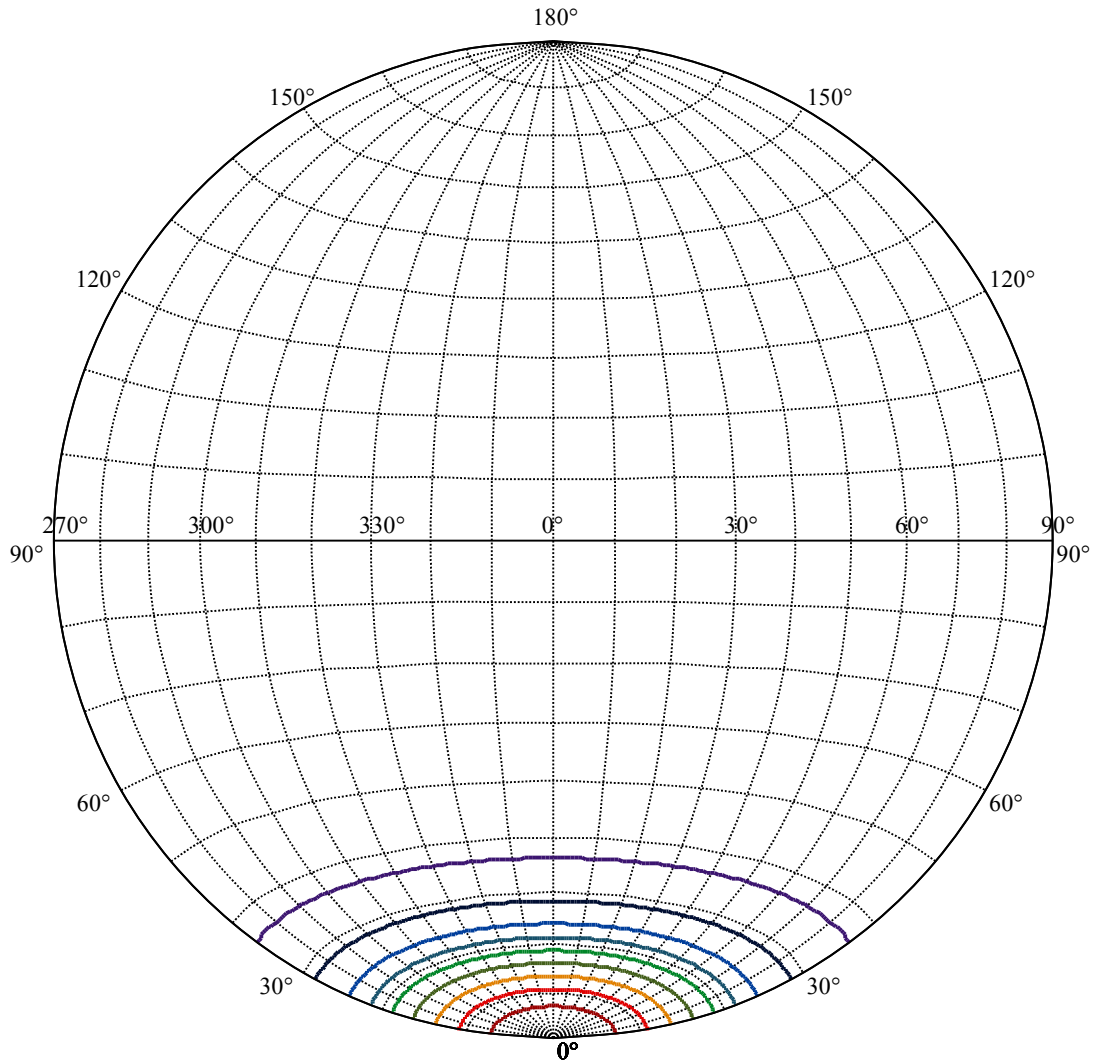
C0(Max): ———
C0/C180: ———
C90/C270: ———

Field angle(10%Imax):C0/180Left:36.4 Right:36.4
:C90/270Left:36.4 Right:36.4

Beam Angle(50%Imax):C0/180Left:18.8 Right:18.8
:C90/270Left:18.8 Right:18.8



| | |
|-------------------|---|
| (10%Imax) 451.814 | — |
| (20%Imax) 903.628 | — |
| (30%Imax) 1355.44 | — |
| (40%Imax) 1807.26 | — |
| (50%Imax) 2259.07 | — |
| (60%Imax) 2710.88 | — |
| (70%Imax) 3162.7 | — |
| (80%Imax) 3614.51 | — |
| (90%Imax) 4066.33 | — |



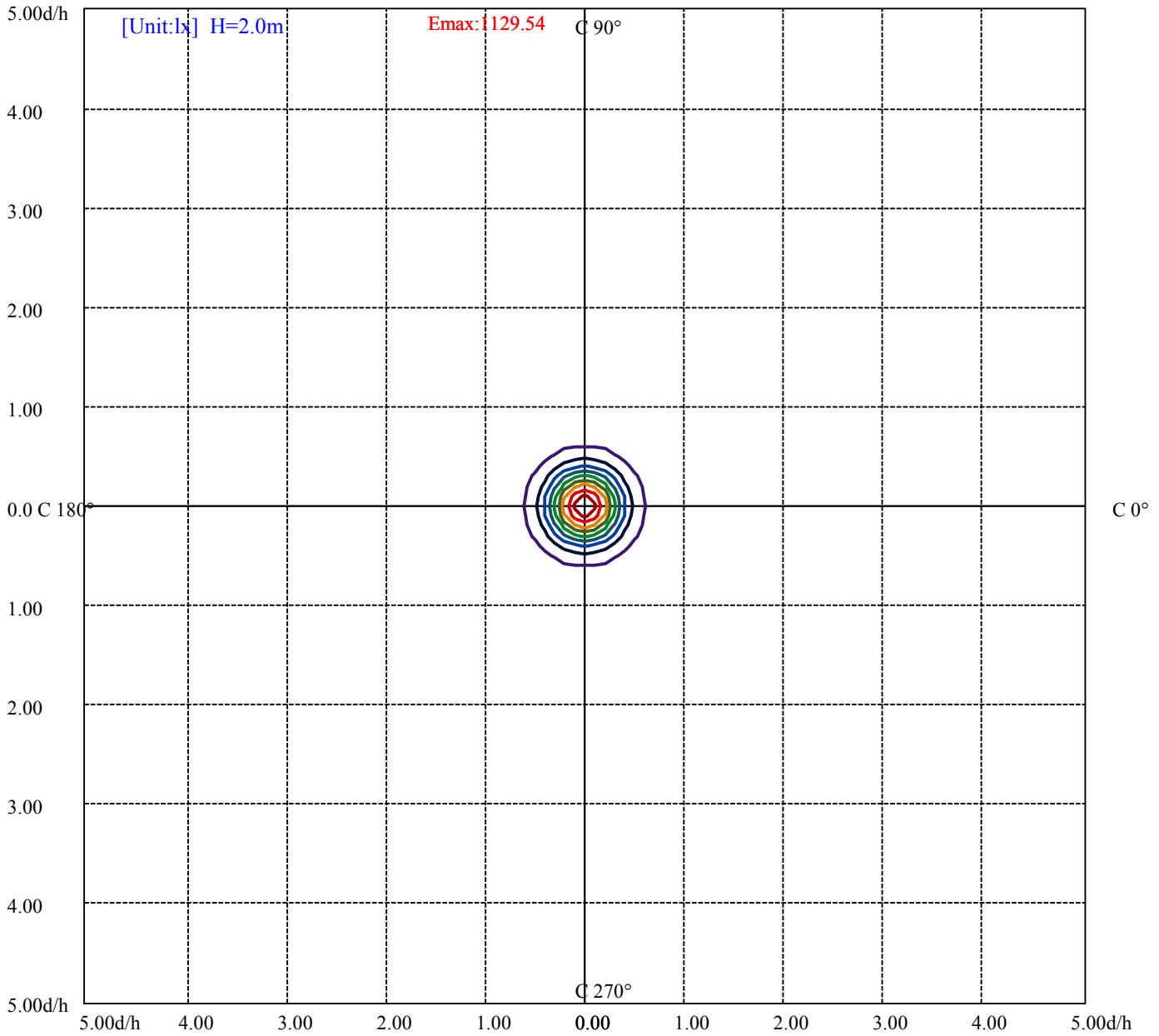
House

[Unit:cd]

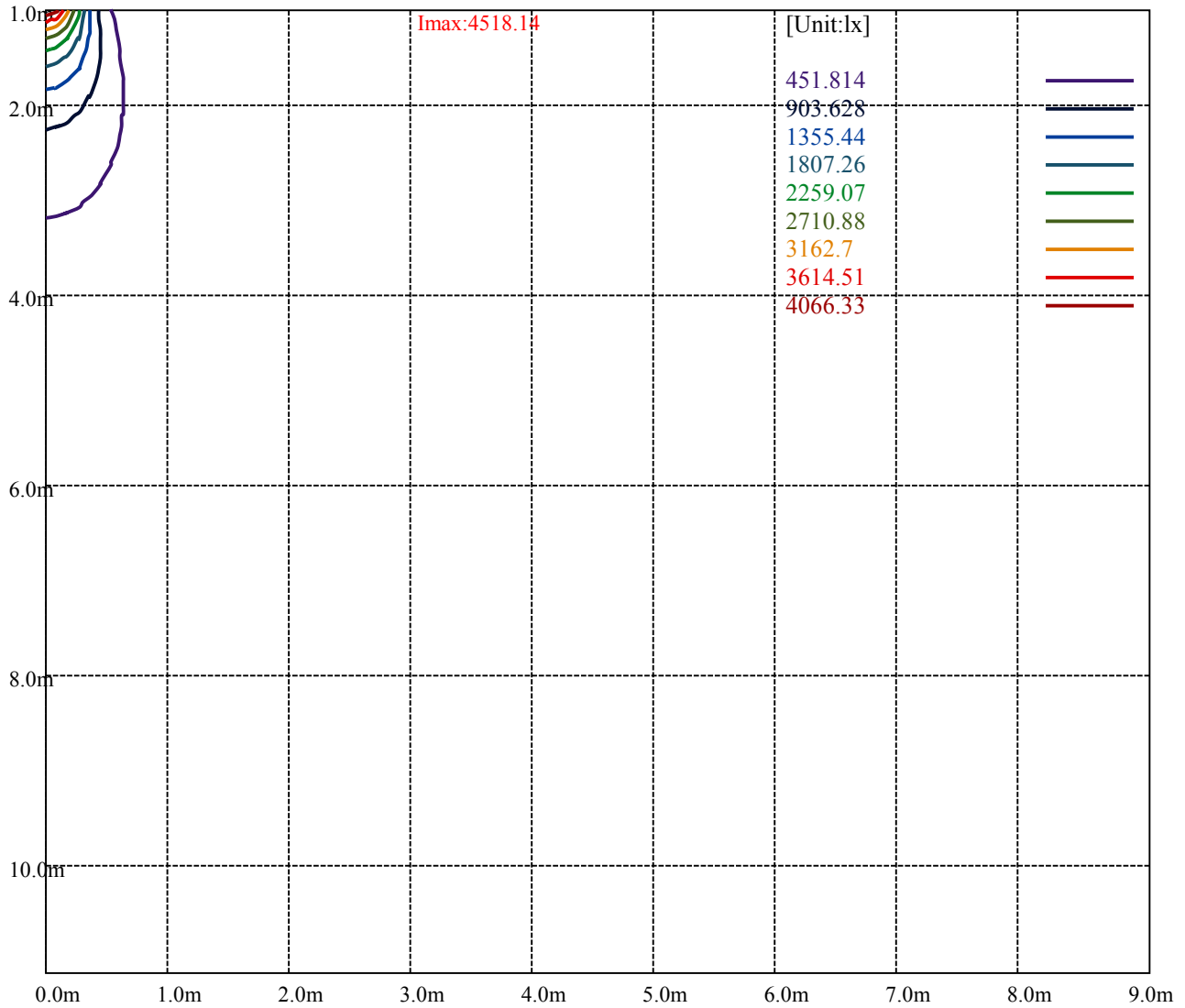
Road

Imax:4518.14

| | |
|-------------------|---|
| (10%Imax) 451.814 | — |
| (20%Imax) 903.628 | — |
| (30%Imax) 1355.44 | — |
| (40%Imax) 1807.26 | — |
| (50%Imax) 2259.07 | — |
| (60%Imax) 2710.88 | — |
| (70%Imax) 3162.7 | — |
| (80%Imax) 3614.51 | — |
| (90%Imax) 4066.33 | — |



- (10%Emax) 112.9532
- (20%Emax) 225.9068
- (30%Emax) 338.86
- (40%Emax) 451.8125
- (50%Emax) 564.7675
- (60%Emax) 677.72
- (70%Emax) 790.6725
- (80%Emax) 903.6275
- (90%Emax) 1016.58



Luminance Table

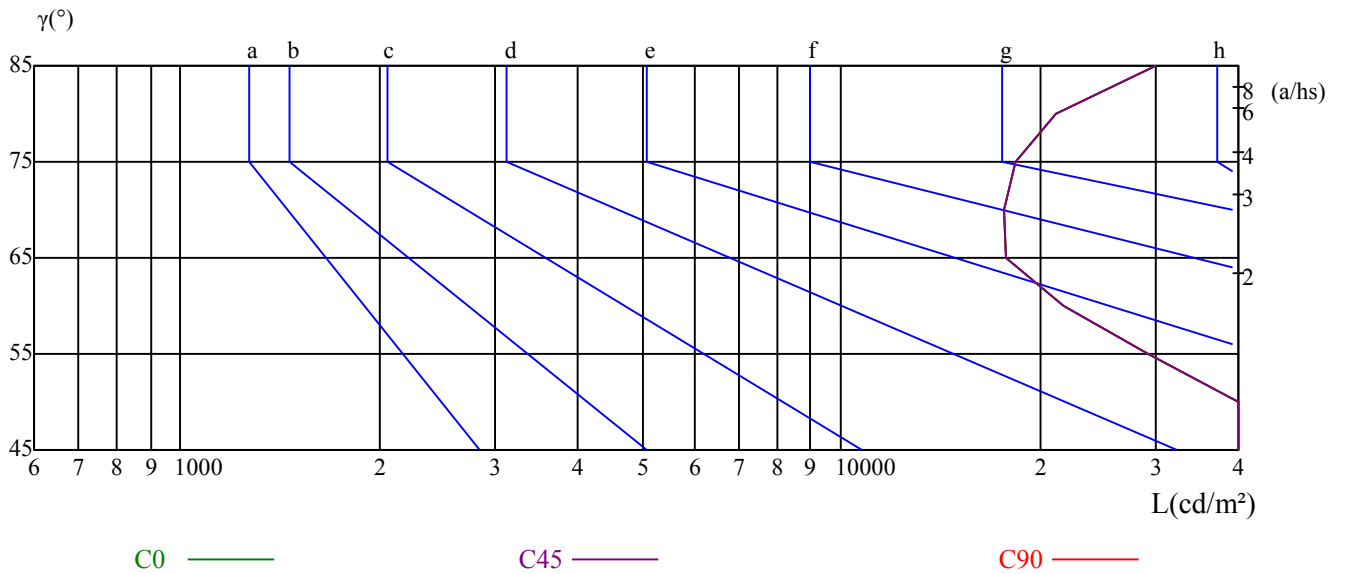
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| C0 | 59682 | 41145 | 29110 | 21777 | 17799 | 17617 | 18451 | 21130 | 30047 |
| C45 | 59682 | 41145 | 29110 | 21777 | 17799 | 17617 | 18451 | 21130 | 30047 |
| C90 | 59682 | 41145 | 29110 | 21777 | 17799 | 17617 | 18451 | 21130 | 30047 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 17799 | 17799 | 17799 | 18451 | 18451 | 18451 | 30047 | 30047 | 30047 |

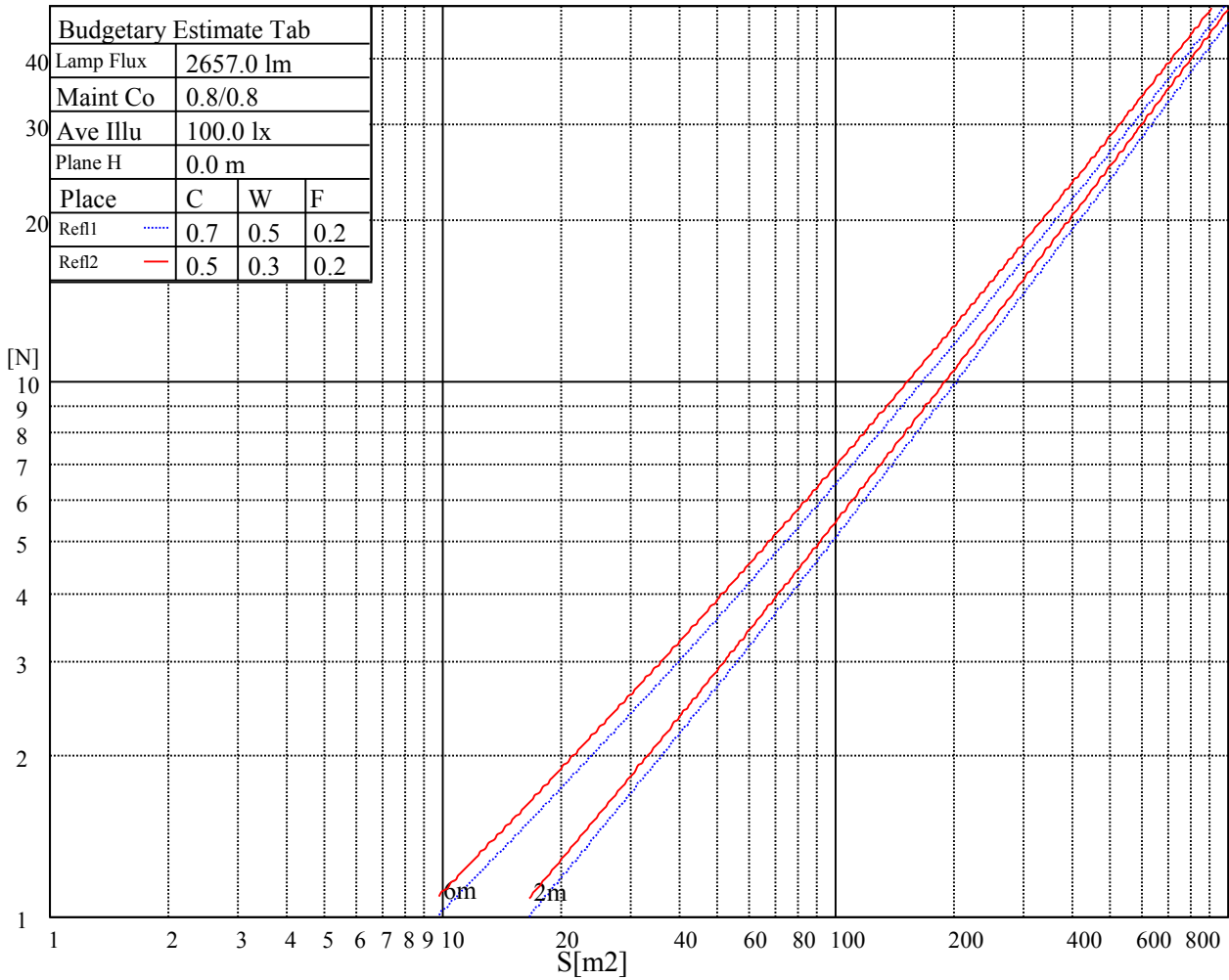
Glare Table

| 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 |

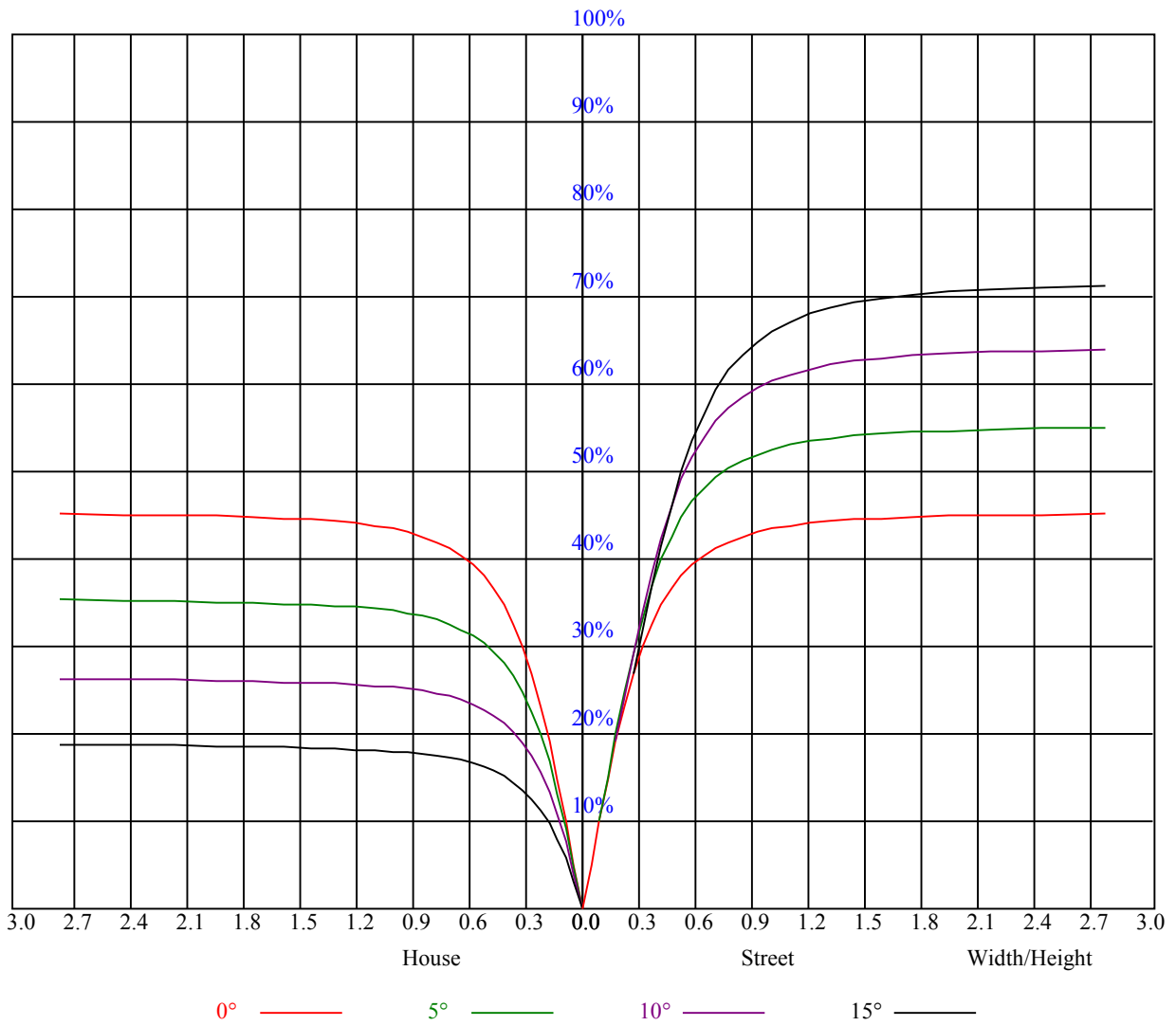
Luminance Limiting Curve



| 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 | 14.84 | 15.90 | 15.20 | 16.21 | 16.53 | 14.91 | 15.98 | 15.28 | 16.29 | 16.60 |
| | 3H | 15.90 | 16.84 | 16.28 | 17.17 | 17.54 | 15.98 | 16.92 | 16.36 | 17.25 | 17.62 |
| | 4H | 16.47 | 17.34 | 16.87 | 17.69 | 18.08 | 16.54 | 17.41 | 16.95 | 17.77 | 18.16 |
| | 6H | 17.07 | 17.87 | 17.49 | 18.25 | 18.64 | 17.14 | 17.94 | 17.56 | 18.32 | 18.71 |
| | 8H | 17.39 | 18.15 | 17.83 | 18.54 | 18.95 | 17.45 | 18.20 | 17.88 | 18.59 | 19.00 |
| | 12H | 17.95 | 18.67 | 18.38 | 19.05 | 19.48 | 17.98 | 18.70 | 18.41 | 19.08 | 19.51 |
| 4H | 2H | 15.04 | 15.91 | 15.44 | 16.26 | 16.65 | 15.10 | 15.97 | 15.51 | 16.33 | 16.71 |
| | 3H | 16.38 | 17.10 | 16.80 | 17.51 | 17.91 | 16.45 | 17.17 | 16.87 | 17.57 | 17.98 |
| | 4H | 17.13 | 17.77 | 17.57 | 18.19 | 18.64 | 17.19 | 17.83 | 17.63 | 18.25 | 18.70 |
| | 6H | 17.83 | 18.38 | 18.30 | 18.83 | 19.30 | 17.89 | 18.44 | 18.36 | 18.89 | 19.36 |
| | 8H | 18.27 | 18.78 | 18.74 | 19.23 | 19.70 | 18.31 | 18.82 | 18.78 | 19.27 | 19.75 |
| | 12H | 18.89 | 19.34 | 19.38 | 19.82 | 20.30 | 18.90 | 19.35 | 19.39 | 19.84 | 20.31 |
| 8H | 4H | 17.39 | 17.90 | 17.86 | 18.35 | 18.83 | 17.45 | 17.96 | 17.92 | 18.41 | 18.88 |
| | 6H | 18.32 | 18.73 | 18.83 | 19.23 | 19.72 | 18.37 | 18.78 | 18.88 | 19.28 | 19.76 |
| | 8H | 18.90 | 19.27 | 19.43 | 19.79 | 20.28 | 18.94 | 19.30 | 19.47 | 19.82 | 20.32 |
| | 12H | 19.91 | 20.23 | 20.43 | 20.72 | 21.30 | 19.91 | 20.23 | 20.43 | 20.73 | 21.31 |
| 12H | 4H | 17.42 | 17.87 | 17.91 | 18.36 | 18.83 | 17.48 | 17.92 | 17.97 | 18.41 | 18.89 |
| | 6H | 18.78 | 18.80 | 18.96 | 19.27 | 19.81 | 18.82 | 18.84 | 19.01 | 19.31 | 19.86 |
| | 8H | 19.10 | 19.42 | 19.63 | 19.92 | 20.50 | 19.14 | 19.46 | 19.66 | 19.95 | 20.53 |
| Variation with the observer position at spacings: | | | | | | | | | | | |
| S = 1.0H | 1.8/-2.1 | | | | | 1.8/-2.1 | | | | | |
| S = 1.5H | 3.2/-2.5 | | | | | 3.2/-2.5 | | | | | |
| S = 2.0H | 4.7/-2.3 | | | | | 4.7/-2.3 | | | | | |
| Standard tables: | BK3 | | | | | BK3 | | | | | |
| Uncorrected UGR | 5.4 | | | | | 5.4 | | | | | |



| 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 | 1.09 | 1.09 | 1.09 | 1.07 | 1.07 | 1.07 | 1.02 | 1.02 | 1.02 | 0.98 | 0.98 | 0.98 | 0.94 | 0.94 | 0.94 | 0.92 |
| 1 | 1.01 | 0.98 | 0.96 | 0.99 | 0.96 | 0.94 | 0.95 | 0.93 | 0.91 | 0.92 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 | 0.84 |
| 2 | 0.94 | 0.90 | 0.87 | 0.93 | 0.89 | 0.86 | 0.90 | 0.87 | 0.84 | 0.87 | 0.85 | 0.83 | 0.84 | 0.82 | 0.81 | 0.79 |
| 3 | 0.89 | 0.84 | 0.80 | 0.87 | 0.83 | 0.80 | 0.85 | 0.81 | 0.79 | 0.83 | 0.80 | 0.77 | 0.81 | 0.78 | 0.76 | 0.75 |
| 4 | 0.84 | 0.79 | 0.75 | 0.83 | 0.78 | 0.74 | 0.81 | 0.77 | 0.74 | 0.79 | 0.75 | 0.73 | 0.77 | 0.74 | 0.72 | 0.71 |
| 5 | 0.79 | 0.74 | 0.70 | 0.78 | 0.74 | 0.70 | 0.77 | 0.73 | 0.69 | 0.75 | 0.72 | 0.69 | 0.74 | 0.71 | 0.68 | 0.67 |
| 6 | 0.75 | 0.70 | 0.66 | 0.75 | 0.70 | 0.66 | 0.73 | 0.69 | 0.66 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.65 | 0.64 |
| 7 | 0.72 | 0.67 | 0.63 | 0.71 | 0.66 | 0.63 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.62 | 0.68 | 0.65 | 0.62 | 0.61 |
| 8 | 0.69 | 0.64 | 0.60 | 0.68 | 0.63 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.60 | 0.65 | 0.62 | 0.59 | 0.58 |
| 9 | 0.66 | 0.61 | 0.57 | 0.65 | 0.61 | 0.57 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.56 |
| 10 | 0.63 | 0.58 | 0.55 | 0.63 | 0.58 | 0.55 | 0.62 | 0.58 | 0.55 | 0.61 | 0.57 | 0.55 | 0.61 | 0.57 | 0.55 | 0.54 |



Intensity data(cd)

| | | | | | | | | | |
|---------------|----------------|----------------|----------------|----------------|----------------|----------------|---------------|---------------|---------------|
| C/γ(°) | 0.0 | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
| 0.0 | 4515.19 | 4419.00 | 3943.13 | 3159.00 | 2265.19 | 1418.63 | 874.69 | 551.81 | 383.06 |
| 45.0 | 4521.38 | 4350.94 | 3801.38 | 3017.25 | 2127.94 | 1276.31 | 785.81 | 505.69 | 348.19 |
| 90.0 | 4509.00 | 4231.13 | 3592.69 | 2730.38 | 1881.00 | 1099.29 | 699.92 | 463.22 | 301.11 |
| 135.0 | 4527.00 | 4280.63 | 3746.25 | 2880.56 | 1984.50 | 1225.13 | 748.69 | 477.56 | 316.69 |
| 180.0 | 4515.19 | 4221.00 | 3547.69 | 2700.00 | 1792.13 | 1064.19 | 675.90 | 448.93 | 290.31 |
| 225.0 | 4521.38 | 4277.25 | 3696.19 | 2865.38 | 1960.88 | 1093.16 | 731.31 | 485.33 | 321.98 |
| 270.0 | 4509.00 | 4403.25 | 3908.81 | 3142.13 | 2240.44 | 1362.38 | 830.25 | 543.38 | 369.00 |
| 315.0 | 4527.00 | 4353.19 | 3829.50 | 3039.75 | 2089.69 | 1101.94 | 791.89 | 515.48 | 335.14 |
| 360.0 | 4515.19 | 4419.00 | 3943.13 | 3159.00 | 2265.19 | 1418.63 | 874.69 | 551.81 | 383.06 |
| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 251.16 | 145.80 | 93.49 | 60.98 | 39.54 | 31.84 | 24.86 | 19.29 | 13.61 |
| 45.0 | 209.48 | 132.58 | 84.04 | 54.96 | 37.18 | 29.93 | 23.68 | 18.17 | 12.77 |
| 90.0 | 184.61 | 118.07 | 75.38 | 49.50 | 34.93 | 28.35 | 22.22 | 16.93 | 12.43 |
| 135.0 | 195.75 | 122.68 | 79.48 | 52.37 | 36.73 | 29.08 | 23.79 | 17.49 | 12.38 |
| 180.0 | 184.44 | 117.68 | 72.90 | 46.80 | 35.04 | 28.18 | 22.05 | 16.99 | 11.81 |
| 225.0 | 194.34 | 125.61 | 77.34 | 49.89 | 35.38 | 28.63 | 22.67 | 17.66 | 12.71 |
| 270.0 | 218.98 | 141.47 | 88.03 | 56.70 | 38.76 | 30.54 | 24.24 | 19.13 | 13.84 |
| 315.0 | 215.55 | 132.86 | 83.87 | 55.63 | 37.29 | 29.64 | 23.68 | 18.17 | 13.11 |
| 360.0 | 251.16 | 145.80 | 93.49 | 60.98 | 39.54 | 31.84 | 24.86 | 19.29 | 13.61 |
| C/γ(°) | 90.0 | | | | | | | | |
| 0.0 | 10.07 | | | | | | | | |
| 45.0 | 9.79 | | | | | | | | |
| 90.0 | 9.79 | | | | | | | | |
| 135.0 | 9.79 | | | | | | | | |
| 180.0 | 9.90 | | | | | | | | |
| 225.0 | 9.79 | | | | | | | | |
| 270.0 | 9.90 | | | | | | | | |
| 315.0 | 9.84 | | | | | | | | |
| 360.0 | 10.07 | | | | | | | | |