
LumCAT: 1-1009-M
Luminaire: 92.70.277.00
Report No: 221126-B005
Test No: 221130-C005
LampCAT: CREE CXA1512 LES8.5
Lamp flux(lm): 812.3
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 17.5500
Current(A): 0.3050
Power (W): 5.3520
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 648.89
Efficiency(%): 79.89%
Lumens(lm)/Power(W): 121.24
Central intensity(cd): 3263.704
Maximum intensity(cd): 3263.704
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.3
 [C90/270]Total=25.3
Field angle(10%Imax): [C0/180]Total=42.3
 [C90/270]Total=42.3
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 79.89%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.577%

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 3263.703 | 0.000 | 0 | .000% | .000% |
| 1.0 | 3252.948 | 3.118 | 3.118 | .384% | .481% |
| 2.0 | 3216.050 | 9.285 | 12.403 | 1.143% | 1.911% |
| 3.0 | 3156.895 | 15.242 | 27.645 | 1.876% | 4.260% |
| 4.0 | 3075.930 | 20.863 | 48.508 | 2.569% | 7.476% |
| 5.0 | 2975.844 | 26.034 | 74.543 | 3.205% | 11.488% |
| 6.0 | 2836.171 | 30.544 | 105.086 | 3.760% | 16.195% |
| 7.0 | 2691.793 | 34.312 | 139.398 | 4.224% | 21.482% |
| 8.0 | 2535.614 | 37.412 | 176.81 | 4.606% | 27.248% |
| 9.0 | 2357.625 | 39.657 | 216.467 | 4.882% | 33.359% |
| 10.0 | 2154.615 | 40.834 | 257.301 | 5.027% | 39.652% |
| 11.0 | 1968.485 | 41.198 | 298.499 | 5.072% | 46.001% |
| 12.0 | 1773.167 | 40.902 | 339.401 | 5.036% | 52.305% |
| 13.0 | 1553.658 | 39.481 | 378.882 | 4.861% | 58.389% |
| 14.0 | 1376.849 | 37.510 | 416.392 | 4.618% | 64.170% |
| 15.0 | 1186.708 | 35.194 | 451.586 | 4.333% | 69.593% |
| 16.0 | 1011.124 | 32.204 | 483.79 | 3.965% | 74.556% |
| 17.0 | 852.211 | 29.017 | 512.807 | 3.572% | 79.028% |
| 18.0 | 707.026 | 25.708 | 538.516 | 3.165% | 82.990% |
| 19.0 | 577.818 | 22.354 | 560.869 | 2.752% | 86.435% |
| 20.0 | 459.149 | 18.979 | 579.849 | 2.337% | 89.360% |
| 21.0 | 340.255 | 15.350 | 595.199 | 1.890% | 91.725% |
| 22.0 | 242.604 | 11.713 | 606.912 | 1.442% | 93.530% |
| 23.0 | 166.285 | 8.580 | 615.491 | 1.056% | 94.852% |
| 24.0 | 100.273 | 5.828 | 621.319 | .717% | 95.751% |
| 25.0 | 60.940 | 3.666 | 624.985 | .451% | 96.315% |
| 26.0 | 34.589 | 2.255 | 627.24 | .278% | 96.663% |
| 27.0 | 19.181 | 1.315 | 628.555 | .162% | 96.866% |
| 28.0 | 11.928 | 0.788 | 629.343 | .097% | 96.987% |
| 29.0 | 9.650 | 0.565 | 629.908 | .070% | 97.074% |
| 30.0 | 8.321 | 0.485 | 630.393 | .060% | 97.149% |
| 31.0 | 7.357 | 0.436 | 630.829 | .054% | 97.216% |
| 32.0 | 6.670 | 0.402 | 631.231 | .049% | 97.278% |
| 33.0 | 6.155 | 0.378 | 631.609 | .047% | 97.336% |
| 34.0 | 5.729 | 0.360 | 631.968 | .044% | 97.392% |
| 35.0 | 5.348 | 0.344 | 632.312 | .042% | 97.445% |
| 36.0 | 5.042 | 0.331 | 632.643 | .041% | 97.496% |
| 37.0 | 4.795 | 0.321 | 632.964 | .039% | 97.545% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 4.579 | 0.313 | 633.277 | .039% | 97.593% |
| 39.0 | 4.384 | 0.306 | 633.583 | .038% | 97.640% |
| 40.0 | 4.198 | 0.299 | 633.882 | .037% | 97.687% |
| 41.0 | 4.078 | 0.295 | 634.177 | .036% | 97.732% |
| 42.0 | 3.951 | 0.292 | 634.469 | .036% | 97.777% |
| 43.0 | 3.847 | 0.289 | 634.757 | .036% | 97.821% |
| 44.0 | 3.757 | 0.287 | 635.044 | .035% | 97.866% |
| 45.0 | 3.675 | 0.286 | 635.33 | .035% | 97.910% |
| 46.0 | 3.608 | 0.285 | 635.615 | .035% | 97.954% |
| 47.0 | 3.540 | 0.284 | 635.899 | .035% | 97.997% |
| 48.0 | 3.496 | 0.284 | 636.183 | .035% | 98.041% |
| 49.0 | 3.451 | 0.285 | 636.469 | .035% | 98.085% |
| 50.0 | 3.406 | 0.286 | 636.755 | .035% | 98.129% |
| 51.0 | 3.369 | 0.287 | 637.041 | .035% | 98.173% |
| 52.0 | 3.324 | 0.287 | 637.328 | .035% | 98.218% |
| 53.0 | 3.279 | 0.287 | 637.616 | .035% | 98.262% |
| 54.0 | 3.257 | 0.288 | 637.904 | .035% | 98.306% |
| 55.0 | 3.219 | 0.289 | 638.193 | .036% | 98.351% |
| 56.0 | 3.219 | 0.291 | 638.484 | .036% | 98.396% |
| 57.0 | 3.182 | 0.293 | 638.776 | .036% | 98.441% |
| 58.0 | 3.174 | 0.294 | 639.07 | .036% | 98.486% |
| 59.0 | 3.144 | 0.295 | 639.366 | .036% | 98.532% |
| 60.0 | 3.130 | 0.296 | 639.662 | .036% | 98.577% |
| 61.0 | 3.115 | 0.298 | 639.96 | .037% | 98.623% |
| 62.0 | 3.092 | 0.299 | 640.259 | .037% | 98.669% |
| 63.0 | 3.085 | 0.300 | 640.56 | .037% | 98.716% |
| 64.0 | 3.062 | 0.302 | 640.861 | .037% | 98.762% |
| 65.0 | 3.055 | 0.303 | 641.164 | .037% | 98.809% |
| 66.0 | 3.040 | 0.304 | 641.468 | .037% | 98.856% |
| 67.0 | 3.025 | 0.305 | 641.773 | .038% | 98.903% |
| 68.0 | 3.018 | 0.306 | 642.079 | .038% | 98.950% |
| 69.0 | 3.010 | 0.307 | 642.387 | .038% | 98.997% |
| 70.0 | 2.980 | 0.308 | 642.694 | .038% | 99.045% |
| 71.0 | 2.988 | 0.308 | 643.003 | .038% | 99.092% |
| 72.0 | 2.988 | 0.311 | 643.313 | .038% | 99.140% |
| 73.0 | 2.958 | 0.311 | 643.624 | .038% | 99.188% |
| 74.0 | 2.958 | 0.311 | 643.935 | .038% | 99.236% |
| 75.0 | 2.928 | 0.311 | 644.246 | .038% | 99.284% |

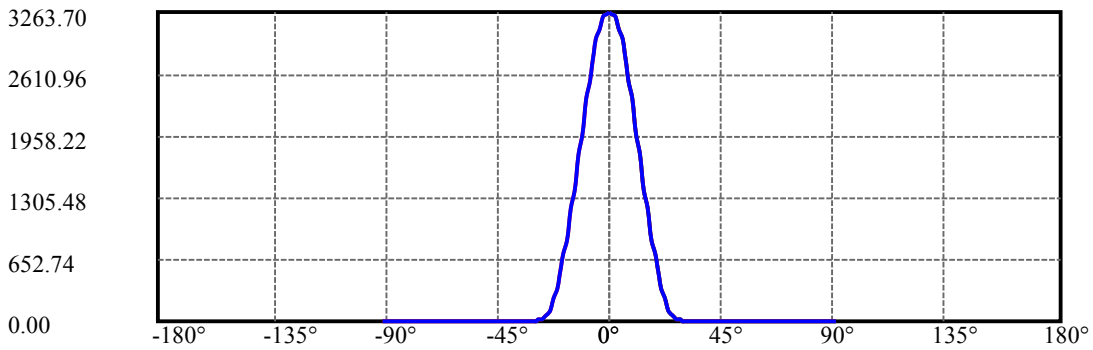
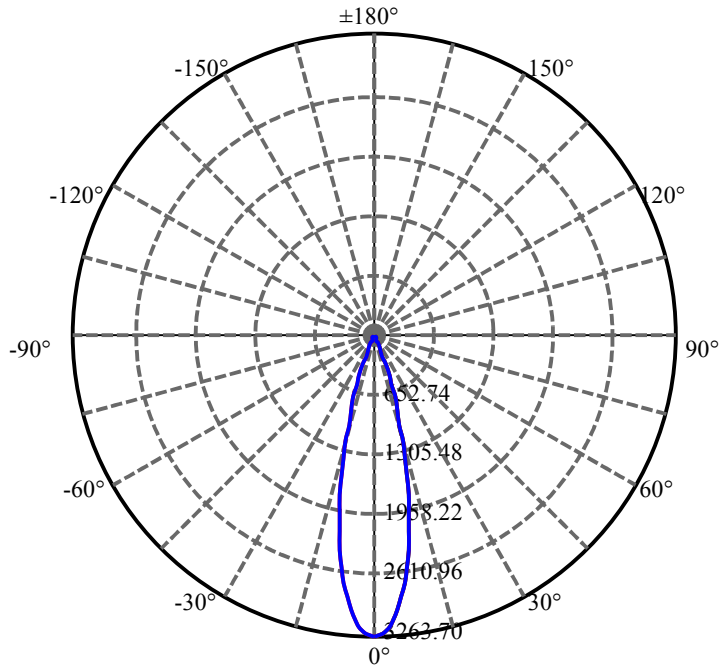
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 2.935 | 0.311 | 644.558 | .038% | 99.332% |
| 77.0 | 2.891 | 0.311 | 644.868 | .038% | 99.380% |
| 78.0 | 2.920 | 0.311 | 645.179 | .038% | 99.428% |
| 79.0 | 2.883 | 0.312 | 645.491 | .038% | 99.476% |
| 80.0 | 2.868 | 0.310 | 645.801 | .038% | 99.523% |
| 81.0 | 2.853 | 0.309 | 646.11 | .038% | 99.571% |
| 82.0 | 2.861 | 0.310 | 646.42 | .038% | 99.619% |
| 83.0 | 2.861 | 0.311 | 646.731 | .038% | 99.667% |
| 84.0 | 2.853 | 0.311 | 647.043 | .038% | 99.715% |
| 85.0 | 2.823 | 0.310 | 647.352 | .038% | 99.762% |
| 86.0 | 2.838 | 0.309 | 647.662 | .038% | 99.810% |
| 87.0 | 2.808 | 0.309 | 647.971 | .038% | 99.858% |
| 88.0 | 2.816 | 0.308 | 648.279 | .038% | 99.905% |
| 89.0 | 2.801 | 0.308 | 648.587 | .038% | 99.953% |
| 90.0 | 2.793 | 0.307 | 648.894 | .038% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|--------|--------|---------|
| 0-30 | 630.39 | 77.61% | 97.15% |
| 0-40 | 633.88 | 78.04% | 97.69% |
| 0-60 | 639.66 | 78.75% | 98.58% |
| 0-90 | 648.59 | 79.85% | 99.95% |
| 0-120 | 648.59 | 79.85% | 99.95% |
| 0-180 | 648.89 | 79.89% | 100.00% |
| 60-90 | 9.22 | 1.14% | 1.42% |
| 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% |
| 0-17.25 | 519.11 | 63.91% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 257.30 |
| 10-20 | 322.55 |
| 20-30 | 50.54 |
| 30-40 | 3.49 |
| 40-50 | 2.87 |
| 50-60 | 2.91 |
| 60-70 | 3.03 |
| 70-80 | 3.11 |
| 80-90 | 2.79 |
| 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: —————

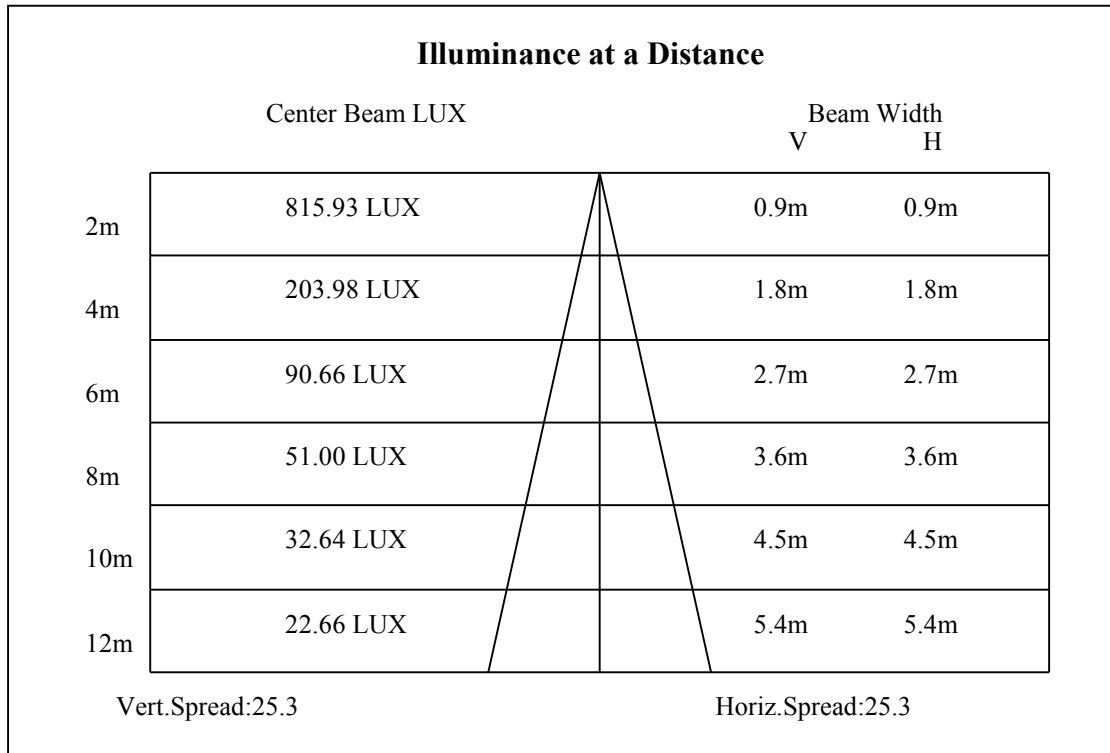
C90/C270: —————

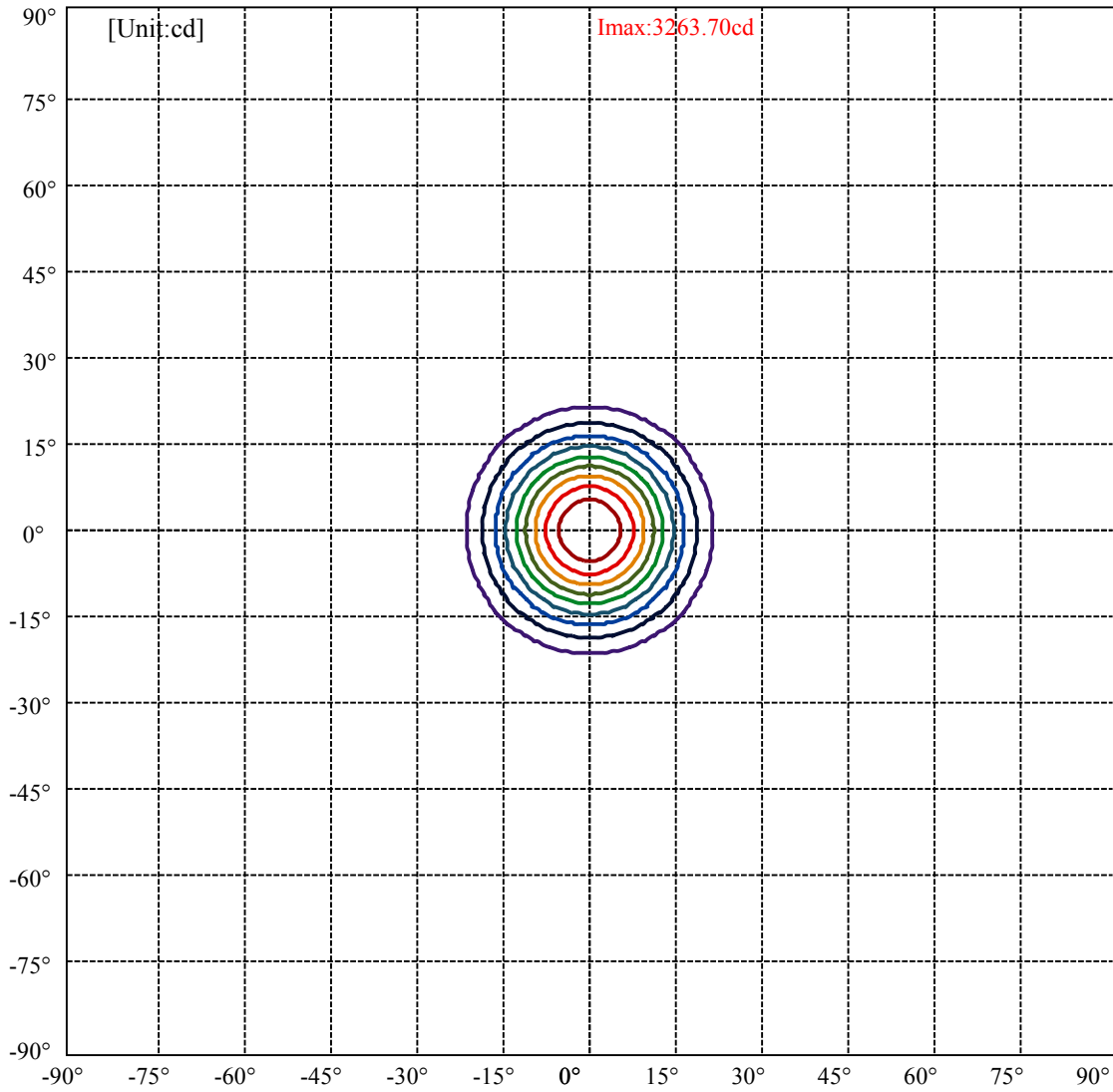
Field angle(10%Imax):C0/180Left:21.1 Right:21.1

:C90/270Left:21.1 Right:21.1

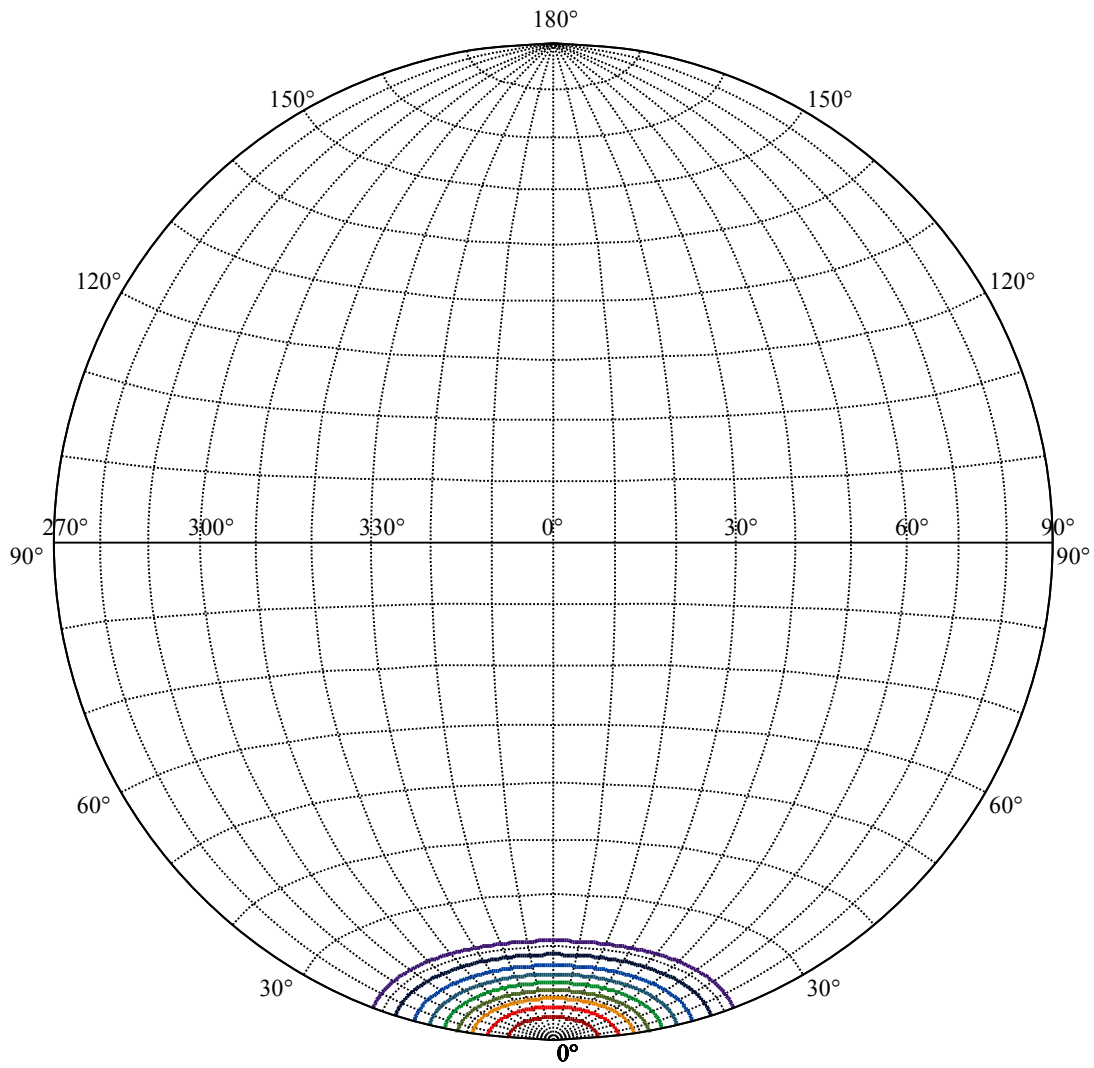
Beam Angle(50%Imax):C0/180Left:12.6 Right:12.6

:C90/270Left:12.6 Right:12.6





| | |
|-------------------|---|
| (10%Imax) 326.37 | — |
| (20%Imax) 652.741 | — |
| (30%Imax) 979.111 | — |
| (40%Imax) 1305.48 | — |
| (50%Imax) 1631.85 | — |
| (60%Imax) 1958.22 | — |
| (70%Imax) 2284.59 | — |
| (80%Imax) 2610.96 | — |
| (90%Imax) 2937.33 | — |



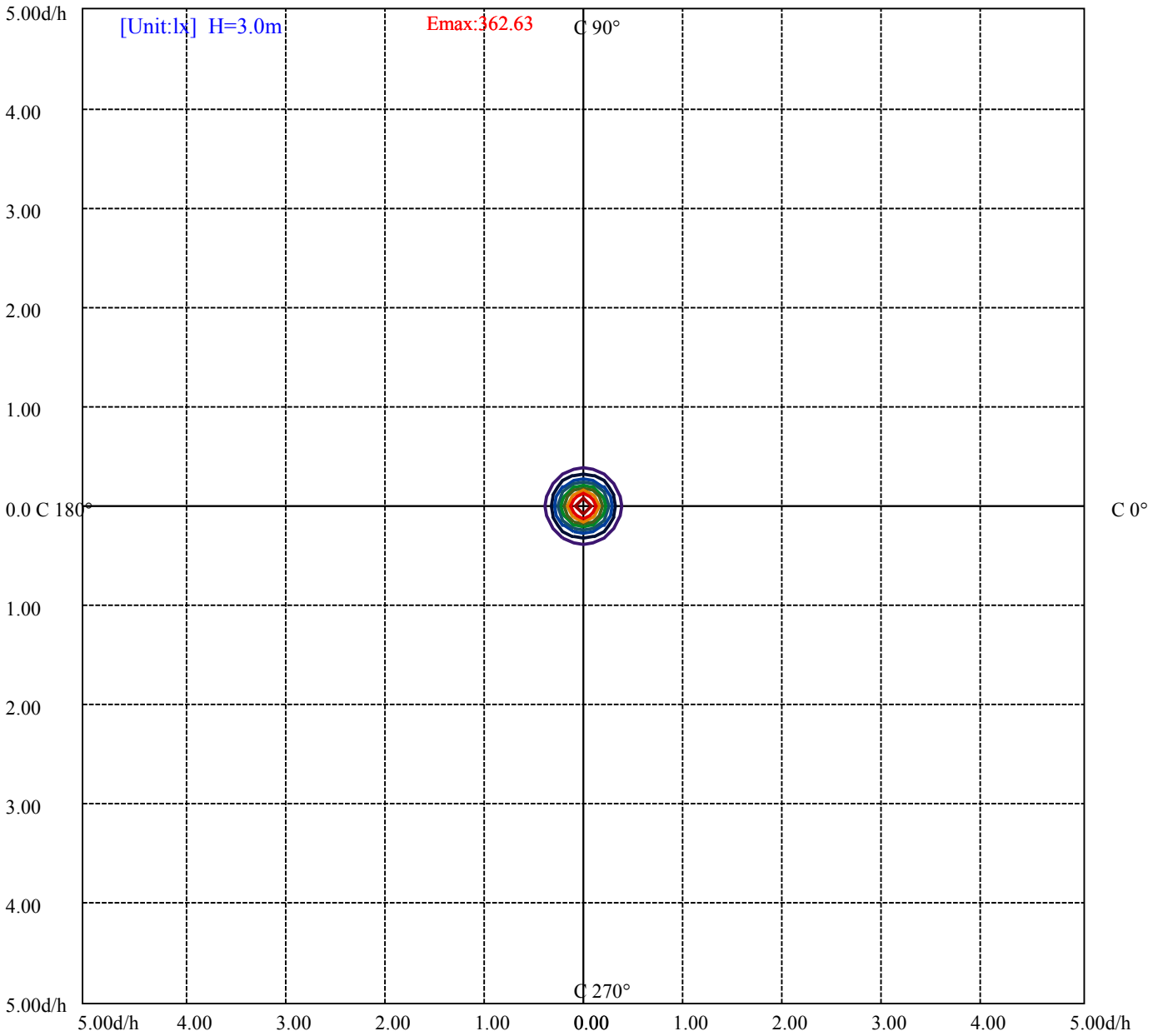
House

[Unit:cd]

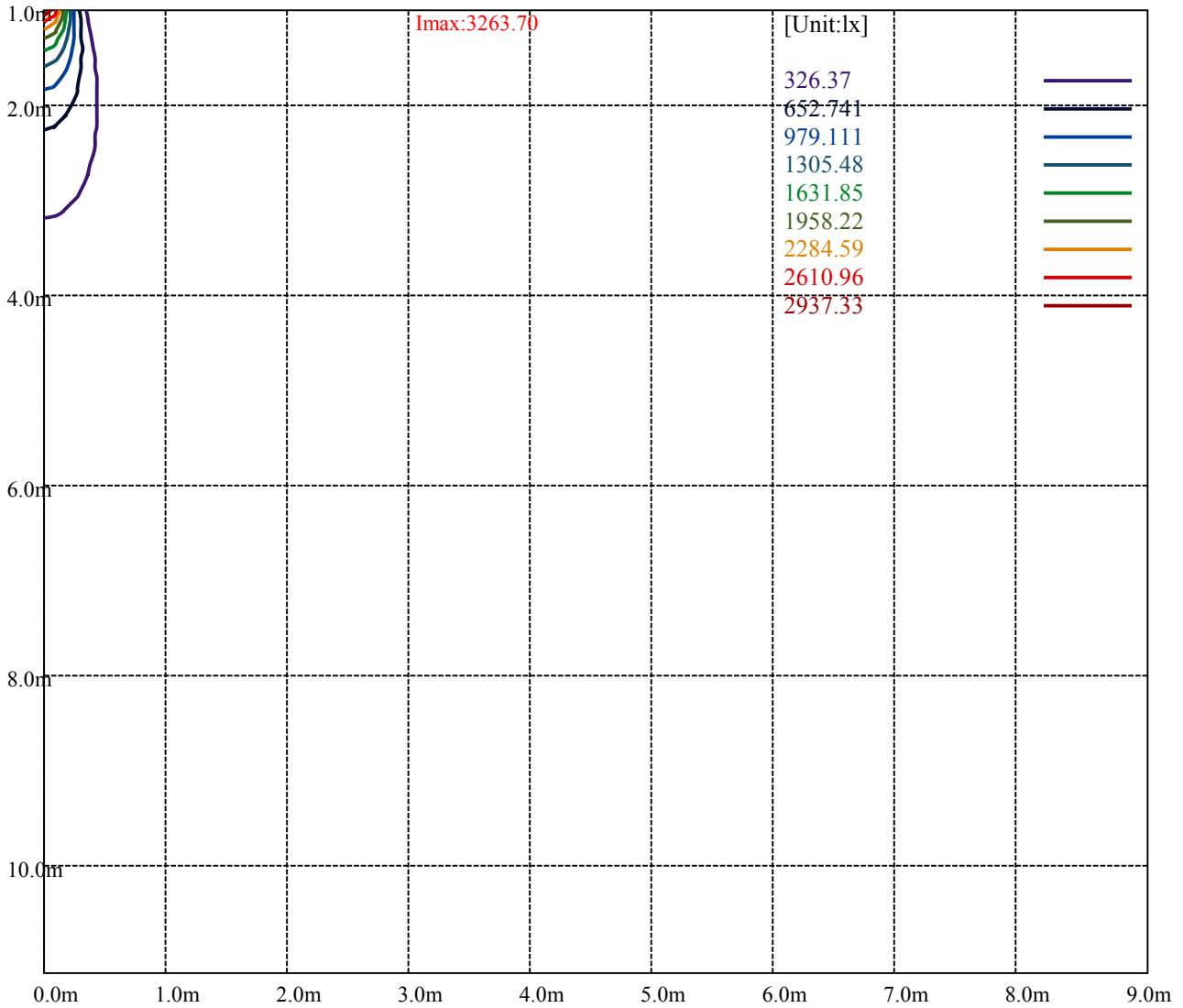
Road

Imax:3263.70

| | |
|-------------------|---|
| (10%Imax) 326.37 | — |
| (20%Imax) 652.741 | — |
| (30%Imax) 979.111 | — |
| (40%Imax) 1305.48 | — |
| (50%Imax) 1631.85 | — |
| (60%Imax) 1958.22 | — |
| (70%Imax) 2284.59 | — |
| (80%Imax) 2610.96 | — |
| (90%Imax) 2937.33 | — |



| | |
|--------------------|---|
| (10%Emax) 36.26333 | — |
| (20%Emax) 72.52666 | — |
| (30%Emax) 108.7901 | — |
| (40%Emax) 145.0533 | — |
| (50%Emax) 181.3167 | — |
| (60%Emax) 217.58 | — |
| (70%Emax) 253.8433 | — |
| (80%Emax) 290.1067 | — |
| (90%Emax) 326.37 | — |



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 |

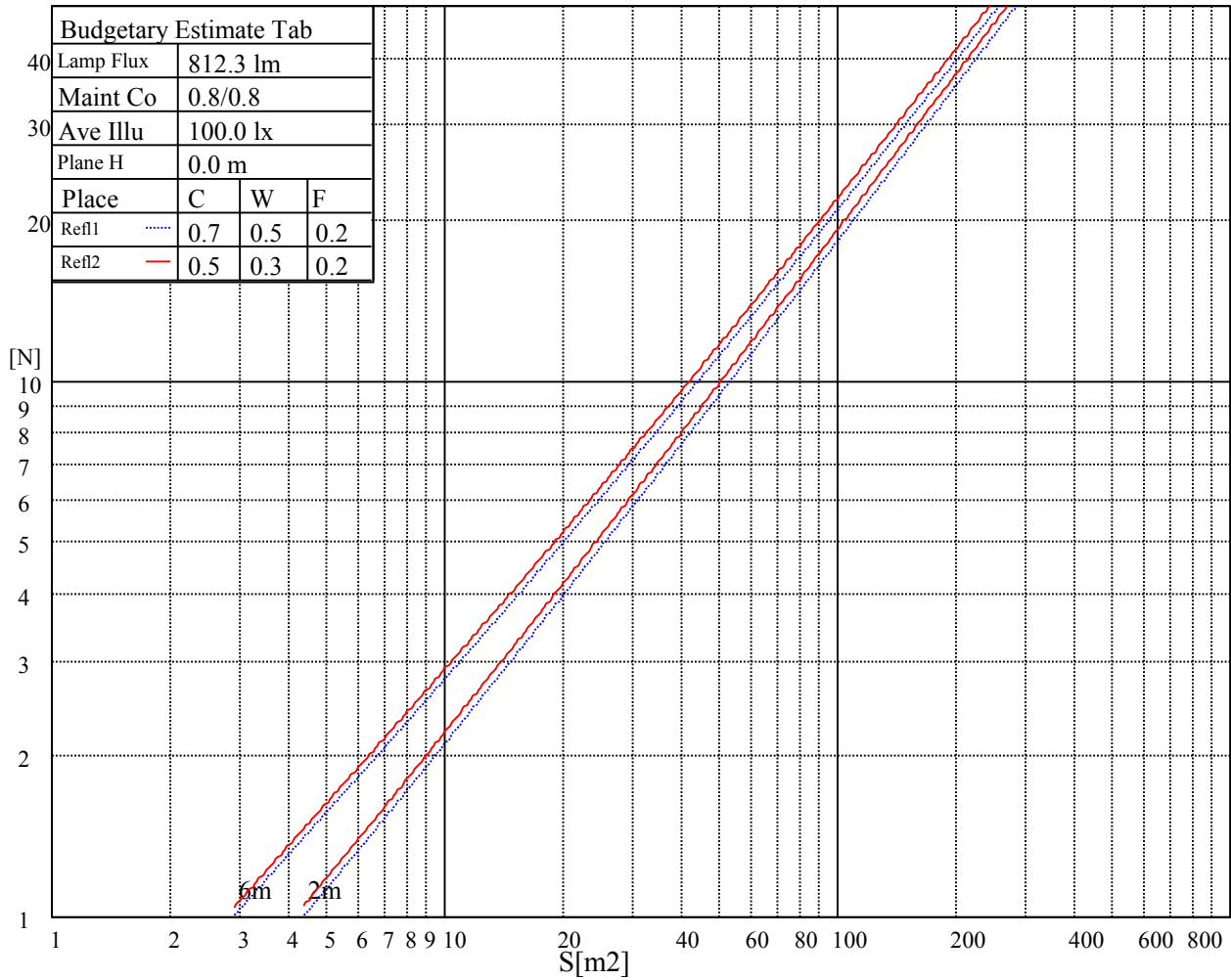
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Glare Table

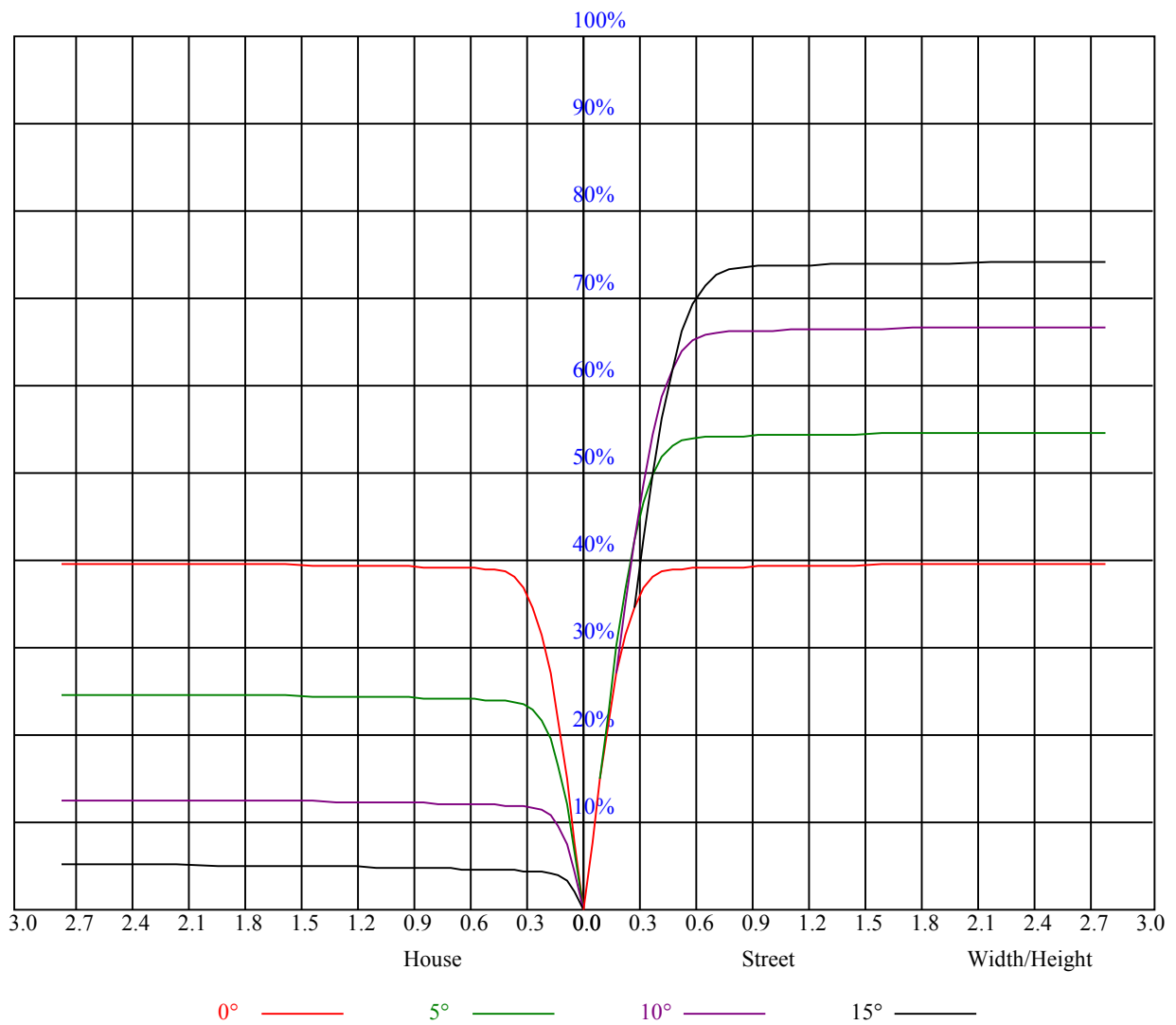
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 |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





| 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 | 0.95 | 0.95 | 0.95 | 0.93 | 0.93 | 0.93 | 0.89 | 0.89 | 0.89 | 0.85 | 0.85 | 0.85 | 0.82 | 0.82 | 0.82 | 0.80 |
| 1 | 0.90 | 0.89 | 0.87 | 0.88 | 0.87 | 0.86 | 0.85 | 0.84 | 0.83 | 0.82 | 0.82 | 0.81 | 0.80 | 0.79 | 0.78 | 0.77 |
| 2 | 0.86 | 0.84 | 0.82 | 0.85 | 0.83 | 0.81 | 0.82 | 0.81 | 0.79 | 0.80 | 0.79 | 0.78 | 0.78 | 0.77 | 0.76 | 0.75 |
| 3 | 0.83 | 0.80 | 0.78 | 0.82 | 0.79 | 0.77 | 0.80 | 0.78 | 0.76 | 0.78 | 0.76 | 0.75 | 0.76 | 0.75 | 0.74 | 0.73 |
| 4 | 0.80 | 0.77 | 0.75 | 0.79 | 0.76 | 0.74 | 0.77 | 0.75 | 0.73 | 0.76 | 0.74 | 0.72 | 0.75 | 0.73 | 0.72 | 0.71 |
| 5 | 0.77 | 0.74 | 0.72 | 0.77 | 0.74 | 0.72 | 0.75 | 0.73 | 0.71 | 0.74 | 0.72 | 0.70 | 0.73 | 0.71 | 0.70 | 0.69 |
| 6 | 0.75 | 0.72 | 0.70 | 0.74 | 0.72 | 0.69 | 0.73 | 0.71 | 0.69 | 0.72 | 0.70 | 0.69 | 0.72 | 0.70 | 0.68 | 0.67 |
| 7 | 0.73 | 0.70 | 0.68 | 0.72 | 0.70 | 0.67 | 0.72 | 0.69 | 0.67 | 0.71 | 0.69 | 0.67 | 0.70 | 0.68 | 0.67 | 0.66 |
| 8 | 0.71 | 0.68 | 0.66 | 0.71 | 0.68 | 0.66 | 0.70 | 0.67 | 0.65 | 0.69 | 0.67 | 0.65 | 0.69 | 0.67 | 0.65 | 0.64 |
| 9 | 0.69 | 0.66 | 0.64 | 0.69 | 0.66 | 0.64 | 0.68 | 0.66 | 0.64 | 0.68 | 0.65 | 0.64 | 0.67 | 0.65 | 0.64 | 0.63 |
| 10 | 0.68 | 0.65 | 0.63 | 0.67 | 0.65 | 0.63 | 0.67 | 0.64 | 0.62 | 0.66 | 0.64 | 0.62 | 0.66 | 0.64 | 0.62 | 0.62 |



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 | 3250.56 | 3283.42 | 3297.76 | 3286.41 | 3255.94 | 3197.38 | 3108.94 | 3006.77 | 2868.74 |
| 45.0 | 3282.82 | 3263.11 | 3218.29 | 3145.39 | 3056.96 | 2948.81 | 2784.49 | 2635.10 | 2472.58 |
| 90.0 | 3254.74 | 3196.78 | 3111.93 | 3014.53 | 2878.30 | 2738.48 | 2562.80 | 2373.98 | 2192.33 |
| 135.0 | 3266.69 | 3217.69 | 3146.59 | 3025.89 | 2906.38 | 2768.95 | 2578.34 | 2412.22 | 2234.76 |
| 180.0 | 3250.56 | 3199.77 | 3104.76 | 3004.97 | 2883.67 | 2722.94 | 2546.07 | 2378.17 | 2173.21 |
| 225.0 | 3282.82 | 3279.84 | 3254.14 | 3211.12 | 3136.43 | 3045.61 | 2915.94 | 2769.55 | 2621.36 |
| 270.0 | 3254.74 | 3283.42 | 3292.38 | 3278.04 | 3243.98 | 3189.61 | 3089.22 | 2985.85 | 2859.77 |
| 315.0 | 3266.69 | 3299.56 | 3302.54 | 3288.80 | 3245.78 | 3194.99 | 3103.57 | 2972.71 | 2862.16 |
| 360.0 | 3250.56 | 3283.42 | 3297.76 | 3286.41 | 3255.94 | 3197.38 | 3108.94 | 3006.77 | 2868.74 |
| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 2730.11 | 2556.83 | 2363.23 | 2182.18 | 1974.24 | 1758.53 | 1563.73 | 1371.33 | 1147.85 |
| 45.0 | 2275.99 | 2069.84 | 1882.22 | 1666.51 | 1450.20 | 1267.96 | 1082.13 | 925.57 | 759.46 |
| 90.0 | 2005.31 | 1766.30 | 1575.68 | 1388.06 | 1147.79 | 1010.00 | 861.46 | 726.66 | 573.51 |
| 135.0 | 2025.03 | 1808.72 | 1614.52 | 1400.61 | 1202.83 | 1040.90 | 872.99 | 734.96 | 601.11 |
| 180.0 | 1984.99 | 1771.67 | 1558.95 | 1372.52 | 1176.06 | 998.83 | 851.90 | 717.15 | 564.61 |
| 225.0 | 2435.53 | 2238.34 | 2054.90 | 1867.28 | 1633.05 | 1445.42 | 1175.22 | 1071.55 | 893.90 |
| 270.0 | 2702.62 | 2528.15 | 2357.25 | 2152.30 | 1944.96 | 1759.72 | 1544.61 | 1352.21 | 1152.04 |
| 315.0 | 2701.43 | 2497.07 | 2341.12 | 2155.88 | 1900.14 | 1733.43 | 1541.62 | 1189.56 | 1125.21 |
| 360.0 | 2730.11 | 2556.83 | 2363.23 | 2182.18 | 1974.24 | 1758.53 | 1563.73 | 1371.33 | 1147.85 |
| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 982.94 | 829.37 | 692.54 | 539.57 | 426.64 | 322.67 | 205.61 | 131.34 | 73.85 |
| 45.0 | 614.86 | 499.53 | 389.59 | 311.91 | 172.87 | 104.33 | 49.54 | 20.38 | 13.62 |
| 90.0 | 456.63 | 348.42 | 238.35 | 146.51 | 82.52 | 36.03 | 15.30 | 10.99 | 9.32 |
| 135.0 | 469.66 | 362.10 | 309.52 | 151.89 | 83.83 | 38.66 | 15.00 | 10.93 | 9.26 |
| 180.0 | 448.57 | 342.03 | 233.28 | 141.44 | 79.41 | 34.42 | 14.82 | 11.05 | 9.20 |
| 225.0 | 750.38 | 611.03 | 480.83 | 372.62 | 263.09 | 177.35 | 99.61 | 46.37 | 21.45 |
| 270.0 | 969.79 | 818.02 | 682.98 | 531.20 | 418.27 | 317.29 | 202.20 | 128.59 | 72.00 |
| 315.0 | 963.40 | 812.04 | 646.11 | 526.90 | 414.21 | 299.54 | 200.11 | 127.87 | 68.00 |
| 360.0 | 982.94 | 829.37 | 692.54 | 539.57 | 426.64 | 322.67 | 205.61 | 131.34 | 73.85 |
| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 33.40 | 17.51 | 13.21 | 10.58 | 9.20 | 8.19 | 7.35 | 6.75 | 6.27 |
| 45.0 | 10.99 | 8.90 | 8.01 | 7.41 | 6.69 | 6.15 | 5.74 | 5.38 | 5.02 |
| 90.0 | 8.31 | 7.41 | 6.69 | 6.21 | 5.74 | 5.38 | 5.08 | 4.84 | 4.54 |
| 135.0 | 8.07 | 7.23 | 6.69 | 6.21 | 5.74 | 5.38 | 5.08 | 4.84 | 4.60 |
| 180.0 | 8.25 | 7.41 | 6.75 | 6.27 | 5.86 | 5.44 | 5.20 | 4.96 | 4.72 |
| 225.0 | 13.56 | 10.46 | 9.14 | 8.19 | 7.29 | 6.69 | 6.15 | 5.68 | 5.32 |
| 270.0 | 35.97 | 17.39 | 12.97 | 10.64 | 9.08 | 8.01 | 7.29 | 6.63 | 6.15 |
| 315.0 | 34.90 | 19.12 | 13.74 | 11.05 | 9.26 | 8.13 | 7.35 | 6.75 | 6.15 |
| 360.0 | 33.40 | 17.51 | 13.21 | 10.58 | 9.20 | 8.19 | 7.35 | 6.75 | 6.27 |
| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 5.80 | 5.50 | 5.20 | 4.90 | 4.66 | 4.48 | 4.30 | 4.18 | 4.00 |
| 45.0 | 4.78 | 4.54 | 4.36 | 4.18 | 4.00 | 3.88 | 3.82 | 3.64 | 3.59 |
| 90.0 | 4.36 | 4.24 | 4.06 | 3.94 | 3.82 | 3.76 | 3.64 | 3.59 | 3.53 |
| 135.0 | 4.42 | 4.24 | 4.18 | 4.00 | 3.88 | 3.82 | 3.76 | 3.70 | 3.64 |
| 180.0 | 4.48 | 4.36 | 4.18 | 4.12 | 4.00 | 3.88 | 3.76 | 3.70 | 3.64 |
| 225.0 | 5.02 | 4.72 | 4.54 | 4.30 | 4.12 | 4.00 | 3.88 | 3.76 | 3.70 |
| 270.0 | 5.74 | 5.38 | 5.02 | 4.78 | 4.48 | 4.36 | 4.18 | 4.06 | 3.94 |
| 315.0 | 5.74 | 5.38 | 5.08 | 4.84 | 4.60 | 4.42 | 4.24 | 4.12 | 4.00 |
| 360.0 | 5.80 | 5.50 | 5.20 | 4.90 | 4.66 | 4.48 | 4.30 | 4.18 | 4.00 |

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 | 3.94 | 3.82 | 3.70 | 3.64 | 3.59 | 3.59 | 3.53 | 3.47 | 3.41 |
| 45.0 | 3.53 | 3.47 | 3.41 | 3.35 | 3.35 | 3.29 | 3.23 | 3.23 | 3.23 |
| 90.0 | 3.47 | 3.41 | 3.41 | 3.35 | 3.35 | 3.29 | 3.29 | 3.23 | 3.17 |
| 135.0 | 3.59 | 3.53 | 3.47 | 3.47 | 3.41 | 3.41 | 3.35 | 3.35 | 3.29 |
| 180.0 | 3.59 | 3.59 | 3.53 | 3.47 | 3.41 | 3.41 | 3.41 | 3.35 | 3.29 |
| 225.0 | 3.59 | 3.53 | 3.47 | 3.47 | 3.41 | 3.29 | 3.29 | 3.23 | 3.23 |
| 270.0 | 3.82 | 3.70 | 3.64 | 3.59 | 3.53 | 3.47 | 3.41 | 3.35 | 3.29 |
| 315.0 | 3.88 | 3.82 | 3.70 | 3.64 | 3.59 | 3.53 | 3.47 | 3.41 | 3.35 |
| 360.0 | 3.94 | 3.82 | 3.70 | 3.64 | 3.59 | 3.59 | 3.53 | 3.47 | 3.41 |
| C/ γ (°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 3.41 | 3.35 | 3.35 | 3.29 | 3.29 | 3.29 | 3.23 | 3.17 | 3.17 |
| 45.0 | 3.17 | 3.17 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 | 2.99 |
| 90.0 | 3.17 | 3.11 | 3.17 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 | 3.05 |
| 135.0 | 3.23 | 3.23 | 3.23 | 3.23 | 3.17 | 3.17 | 3.17 | 3.17 | 3.17 |
| 180.0 | 3.29 | 3.23 | 3.23 | 3.23 | 3.23 | 3.17 | 3.17 | 3.17 | 3.11 |
| 225.0 | 3.17 | 3.17 | 3.17 | 3.11 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 |
| 270.0 | 3.29 | 3.23 | 3.23 | 3.17 | 3.17 | 3.17 | 3.11 | 3.11 | 3.05 |
| 315.0 | 3.35 | 3.29 | 3.29 | 3.23 | 3.23 | 3.17 | 3.17 | 3.17 | 3.17 |
| 360.0 | 3.41 | 3.35 | 3.35 | 3.29 | 3.29 | 3.29 | 3.23 | 3.17 | 3.17 |
| C/ γ (°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 3.17 | 3.11 | 3.17 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 |
| 45.0 | 2.99 | 2.99 | 2.93 | 2.93 | 2.93 | 2.93 | 2.93 | 2.87 | 2.87 |
| 90.0 | 3.05 | 3.05 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.93 | 2.93 |
| 135.0 | 3.17 | 3.11 | 3.11 | 3.11 | 3.05 | 3.11 | 3.05 | 3.05 | 3.05 |
| 180.0 | 3.17 | 3.11 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 | 3.05 |
| 225.0 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 | 2.93 | 2.99 | 2.93 | 2.93 |
| 270.0 | 3.05 | 3.05 | 3.05 | 3.05 | 2.99 | 2.99 | 2.99 | 2.99 | 2.99 |
| 315.0 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 | 3.05 | 2.99 | 3.05 |
| 360.0 | 3.17 | 3.11 | 3.17 | 3.11 | 3.11 | 3.11 | 3.05 | 3.05 | 3.05 |
| C/ γ (°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 3.05 | 2.99 | 3.05 | 2.99 | 2.99 | 2.93 | 2.99 | 2.93 | 2.93 |
| 45.0 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.81 | 2.87 | 2.81 | 2.81 |
| 90.0 | 2.99 | 2.93 | 2.93 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.81 |
| 135.0 | 3.05 | 3.05 | 3.05 | 2.99 | 2.99 | 2.93 | 2.87 | 2.93 | 2.87 |
| 180.0 | 3.05 | 3.05 | 2.99 | 2.99 | 2.99 | 2.93 | 2.99 | 2.93 | 2.93 |
| 225.0 | 2.93 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.81 | 2.81 |
| 270.0 | 2.99 | 2.93 | 2.93 | 2.93 | 2.93 | 2.87 | 2.93 | 2.87 | 2.87 |
| 315.0 | 2.99 | 2.99 | 2.99 | 2.93 | 2.99 | 2.93 | 2.99 | 2.93 | 2.93 |
| 360.0 | 3.05 | 2.99 | 3.05 | 2.99 | 2.99 | 2.93 | 2.99 | 2.93 | 2.93 |
| C/ γ (°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 2.93 | 2.93 | 2.93 | 2.93 | 2.87 | 2.93 | 2.87 | 2.93 | 2.87 |
| 45.0 | 2.75 | 2.81 | 2.81 | 2.81 | 2.75 | 2.81 | 2.75 | 2.75 | 2.75 |
| 90.0 | 2.81 | 2.81 | 2.81 | 2.81 | 2.75 | 2.81 | 2.81 | 2.75 | 2.75 |
| 135.0 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 | 2.81 | 2.87 | 2.81 |
| 180.0 | 2.93 | 2.93 | 2.93 | 2.99 | 2.87 | 2.87 | 2.87 | 2.87 | 2.87 |
| 225.0 | 2.81 | 2.81 | 2.81 | 2.81 | 2.81 | 2.81 | 2.75 | 2.75 | 2.75 |
| 270.0 | 2.87 | 2.87 | 2.87 | 2.81 | 2.81 | 2.81 | 2.81 | 2.75 | 2.81 |
| 315.0 | 2.87 | 2.87 | 2.87 | 2.81 | 2.87 | 2.81 | 2.81 | 2.87 | 2.81 |
| 360.0 | 2.93 | 2.93 | 2.93 | 2.93 | 2.87 | 2.93 | 2.87 | 2.93 | 2.87 |

Intensity data(cd)

| | |
|--------|------|
| C/γ(°) | 90.0 |
| 0.0 | 2.87 |
| 45.0 | 2.75 |
| 90.0 | 2.75 |
| 135.0 | 2.81 |
| 180.0 | 2.87 |
| 225.0 | 2.75 |
| 270.0 | 2.75 |
| 315.0 | 2.81 |
| 360.0 | 2.87 |