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Nata

LumCAT: 1-0927-M
Luminaire: 99.02.73.179+92.76.853.00
Report No: 220606-B011
Test No: 220606-C011
LampCAT: CREE CXA1512
Lamp flux(lm): 1404.6
Number of Lamps: 1
Length(mm): 43
Phm Type: C

Voltage(V): 38.0100
Current(A): 0.3610
Power (W): 13.7210
PF: 0.0000
Ballast type: DC
Width(mm): 43
Height(mm): 0

Photometric Results

Lumens(lm): 1041.83
Efficiency(%): 74.17%
Lumens(lm)/Power(W): 75.93
Central intensity(cd): 6084.787
Maximum intensity(cd): 6084.787
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=22.9
 [C90/270]Total=22.9
Field angle(10%Imax): [C0/180]Total=40.0
 [C90/270]Total=40.0
Maximum s/h(1/2): C0_180=0.39 C90_270=0.39
Maximum s/h(1/4): C0_180=0.39 C90_270=0.39
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 74.17%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.525%

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 6084.787 | 0.000 | 0 | .000% | .000% |
| 1.0 | 6057.376 | 5.810 | 5.81 | .414% | .558% |
| 2.0 | 5956.767 | 17.244 | 23.054 | 1.228% | 2.213% |
| 3.0 | 5801.409 | 28.122 | 51.175 | 2.002% | 4.912% |
| 4.0 | 5610.723 | 38.200 | 89.375 | 2.720% | 8.579% |
| 5.0 | 5333.619 | 47.082 | 136.457 | 3.352% | 13.098% |
| 6.0 | 5028.655 | 54.457 | 190.914 | 3.877% | 18.325% |
| 7.0 | 4709.798 | 60.446 | 251.36 | 4.303% | 24.127% |
| 8.0 | 4333.878 | 64.724 | 316.084 | 4.608% | 30.339% |
| 9.0 | 3971.402 | 67.310 | 383.394 | 4.792% | 36.800% |
| 10.0 | 3591.224 | 68.439 | 451.833 | 4.872% | 43.369% |
| 11.0 | 3197.228 | 67.831 | 519.664 | 4.829% | 49.880% |
| 12.0 | 2839.308 | 65.988 | 585.651 | 4.698% | 56.214% |
| 13.0 | 2474.442 | 63.061 | 648.712 | 4.489% | 62.266% |
| 14.0 | 2112.340 | 58.710 | 707.423 | 4.180% | 67.902% |
| 15.0 | 1775.348 | 53.372 | 760.795 | 3.800% | 73.025% |
| 16.0 | 1530.279 | 48.437 | 809.231 | 3.448% | 77.674% |
| 17.0 | 1242.143 | 43.174 | 852.405 | 3.074% | 81.818% |
| 18.0 | 998.404 | 36.942 | 889.347 | 2.630% | 85.364% |
| 19.0 | 809.547 | 31.455 | 920.802 | 2.239% | 88.383% |
| 20.0 | 611.429 | 26.008 | 946.81 | 1.852% | 90.879% |
| 21.0 | 452.217 | 20.424 | 967.234 | 1.454% | 92.840% |
| 22.0 | 308.086 | 15.279 | 982.512 | 1.088% | 94.306% |
| 23.0 | 194.287 | 10.541 | 993.054 | .750% | 95.318% |
| 24.0 | 126.601 | 7.016 | 1000.069 | .499% | 95.991% |
| 25.0 | 66.311 | 4.386 | 1004.456 | .312% | 96.412% |
| 26.0 | 34.223 | 2.373 | 1006.829 | .169% | 96.640% |
| 27.0 | 22.146 | 1.379 | 1008.208 | .098% | 96.772% |
| 28.0 | 17.500 | 1.004 | 1009.212 | .071% | 96.869% |
| 29.0 | 14.886 | 0.847 | 1010.059 | .060% | 96.950% |
| 30.0 | 13.459 | 0.765 | 1010.824 | .054% | 97.024% |
| 31.0 | 12.399 | 0.720 | 1011.544 | .051% | 97.093% |
| 32.0 | 11.398 | 0.682 | 1012.226 | .049% | 97.158% |
| 33.0 | 10.606 | 0.648 | 1012.874 | .046% | 97.220% |
| 34.0 | 9.956 | 0.622 | 1013.496 | .044% | 97.280% |
| 35.0 | 9.314 | 0.598 | 1014.095 | .043% | 97.337% |
| 36.0 | 8.784 | 0.576 | 1014.671 | .041% | 97.393% |
| 37.0 | 8.373 | 0.560 | 1015.23 | .040% | 97.446% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 7.962 | 0.545 | 1015.776 | .039% | 97.499% |
| 39.0 | 7.574 | 0.530 | 1016.306 | .038% | 97.550% |
| 40.0 | 7.290 | 0.518 | 1016.824 | .037% | 97.599% |
| 41.0 | 7.028 | 0.510 | 1017.334 | .036% | 97.648% |
| 42.0 | 6.797 | 0.502 | 1017.836 | .036% | 97.697% |
| 43.0 | 6.610 | 0.497 | 1018.333 | .035% | 97.744% |
| 44.0 | 6.408 | 0.491 | 1018.824 | .035% | 97.791% |
| 45.0 | 6.252 | 0.487 | 1019.311 | .035% | 97.838% |
| 46.0 | 6.110 | 0.483 | 1019.794 | .034% | 97.885% |
| 47.0 | 5.975 | 0.481 | 1020.275 | .034% | 97.931% |
| 48.0 | 5.871 | 0.479 | 1020.754 | .034% | 97.977% |
| 49.0 | 5.751 | 0.477 | 1021.231 | .034% | 98.022% |
| 50.0 | 5.639 | 0.475 | 1021.706 | .034% | 98.068% |
| 51.0 | 5.557 | 0.474 | 1022.18 | .034% | 98.114% |
| 52.0 | 5.482 | 0.474 | 1022.654 | .034% | 98.159% |
| 53.0 | 5.408 | 0.474 | 1023.127 | .034% | 98.204% |
| 54.0 | 5.355 | 0.474 | 1023.602 | .034% | 98.250% |
| 55.0 | 5.288 | 0.475 | 1024.077 | .034% | 98.296% |
| 56.0 | 5.236 | 0.476 | 1024.552 | .034% | 98.341% |
| 57.0 | 5.176 | 0.476 | 1025.028 | .034% | 98.387% |
| 58.0 | 5.146 | 0.477 | 1025.506 | .034% | 98.433% |
| 59.0 | 5.094 | 0.479 | 1025.984 | .034% | 98.479% |
| 60.0 | 5.057 | 0.480 | 1026.464 | .034% | 98.525% |
| 61.0 | 5.012 | 0.480 | 1026.944 | .034% | 98.571% |
| 62.0 | 4.997 | 0.482 | 1027.427 | .034% | 98.617% |
| 63.0 | 4.967 | 0.485 | 1027.911 | .034% | 98.664% |
| 64.0 | 4.945 | 0.486 | 1028.398 | .035% | 98.710% |
| 65.0 | 4.922 | 0.488 | 1028.886 | .035% | 98.757% |
| 66.0 | 4.892 | 0.490 | 1029.376 | .035% | 98.804% |
| 67.0 | 4.877 | 0.491 | 1029.867 | .035% | 98.851% |
| 68.0 | 4.862 | 0.493 | 1030.36 | .035% | 98.899% |
| 69.0 | 4.840 | 0.495 | 1030.855 | .035% | 98.946% |
| 70.0 | 4.825 | 0.496 | 1031.352 | .035% | 98.994% |
| 71.0 | 4.847 | 0.500 | 1031.852 | .036% | 99.042% |
| 72.0 | 4.870 | 0.505 | 1032.357 | .036% | 99.090% |
| 73.0 | 4.892 | 0.510 | 1032.867 | .036% | 99.139% |
| 74.0 | 4.915 | 0.516 | 1033.383 | .037% | 99.189% |
| 75.0 | 4.982 | 0.523 | 1033.906 | .037% | 99.239% |

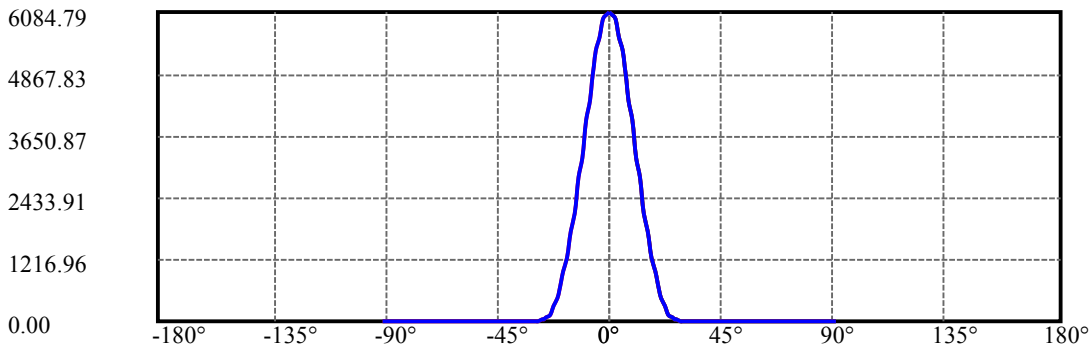
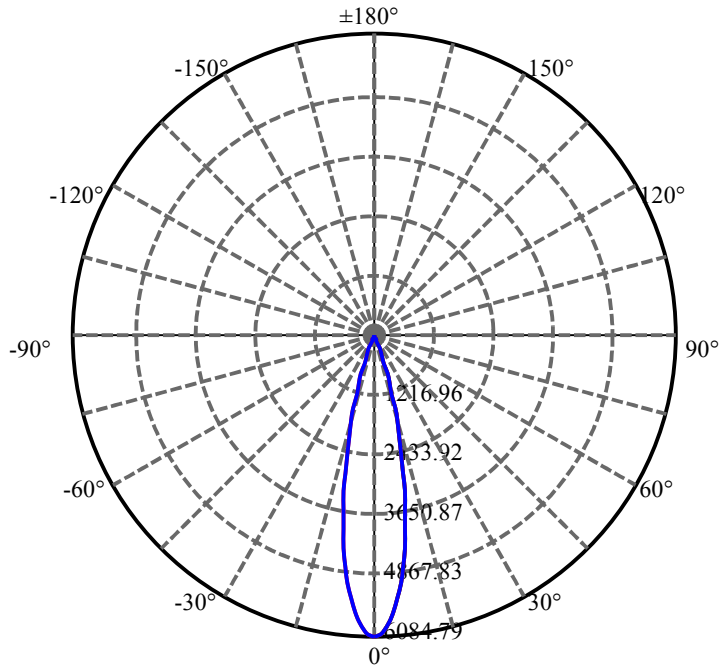
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 5.019 | 0.531 | 1034.437 | .038% | 99.290% |
| 77.0 | 5.064 | 0.538 | 1034.974 | .038% | 99.342% |
| 78.0 | 5.019 | 0.540 | 1035.514 | .038% | 99.393% |
| 79.0 | 4.907 | 0.533 | 1036.047 | .038% | 99.445% |
| 80.0 | 4.959 | 0.532 | 1036.579 | .038% | 99.496% |
| 81.0 | 5.042 | 0.541 | 1037.12 | .039% | 99.548% |
| 82.0 | 5.109 | 0.550 | 1037.671 | .039% | 99.600% |
| 83.0 | 5.169 | 0.559 | 1038.229 | .040% | 99.654% |
| 84.0 | 5.243 | 0.567 | 1038.797 | .040% | 99.708% |
| 85.0 | 5.131 | 0.566 | 1039.363 | .040% | 99.763% |
| 86.0 | 4.653 | 0.535 | 1039.898 | .038% | 99.814% |
| 87.0 | 4.414 | 0.496 | 1040.394 | .035% | 99.862% |
| 88.0 | 4.377 | 0.482 | 1040.875 | .034% | 99.908% |
| 89.0 | 4.369 | 0.479 | 1041.355 | .034% | 99.954% |
| 90.0 | 4.369 | 0.479 | 1041.834 | .034% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1010.82 | 71.96% | 97.02% |
| 0-40 | 1016.82 | 72.39% | 97.60% |
| 0-60 | 1026.46 | 73.08% | 98.52% |
| 0-90 | 1041.35 | 74.14% | 99.95% |
| 0-120 | 1041.35 | 74.14% | 99.95% |
| 0-180 | 1041.83 | 74.17% | 100.00% |
| 60-90 | 15.37 | 1.09% | 1.48% |
| 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% |
| 0-16.56 | 833.47 | 59.34% | 80.00% |

ZONAL LUMEN SUMMARY

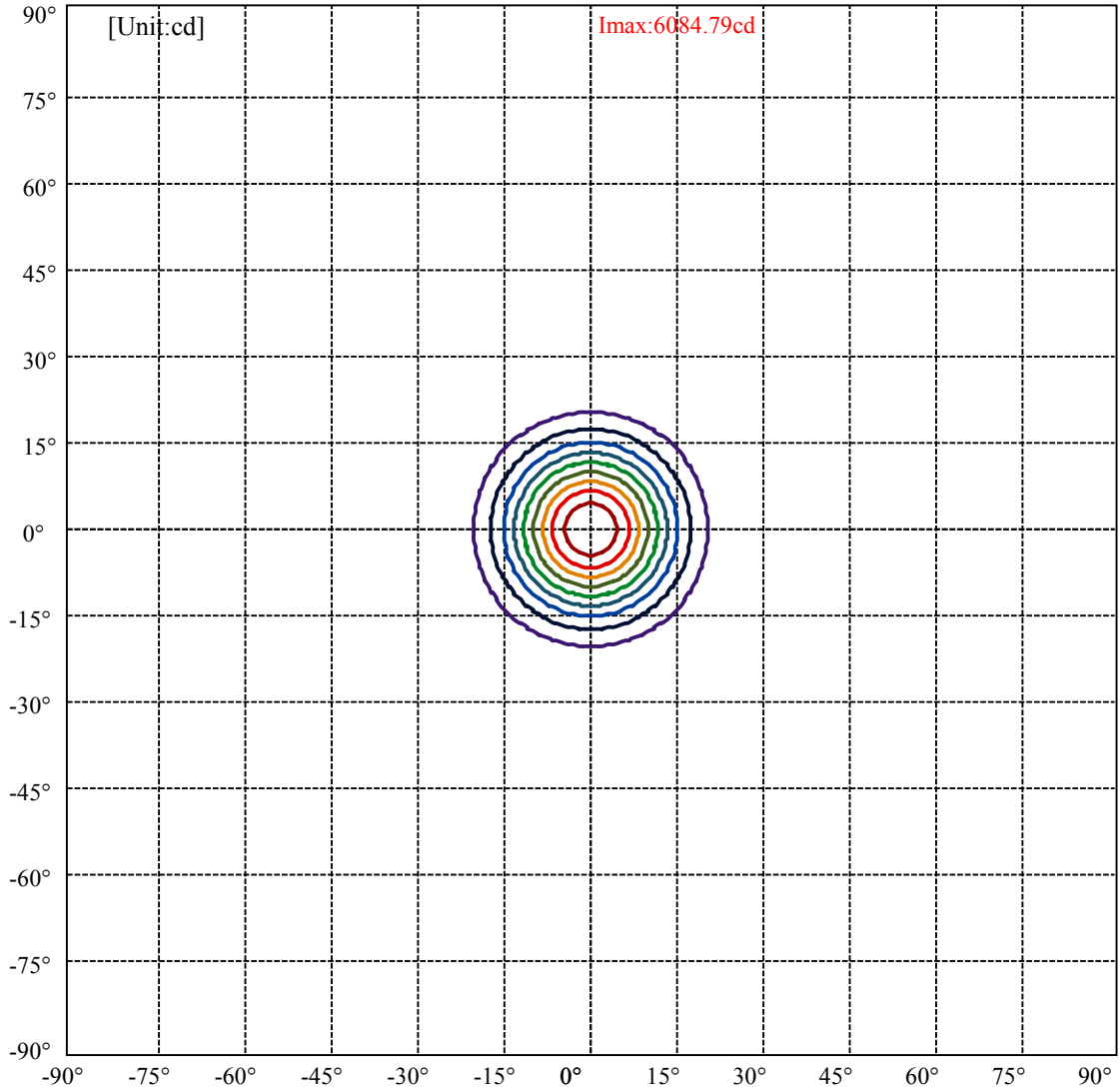
| | |
|---------|--------|
| 0-10 | 451.83 |
| 10-20 | 494.98 |
| 20-30 | 64.01 |
| 30-40 | 6.00 |
| 40-50 | 4.88 |
| 50-60 | 4.76 |
| 60-70 | 4.89 |
| 70-80 | 5.23 |
| 80-90 | 4.78 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |



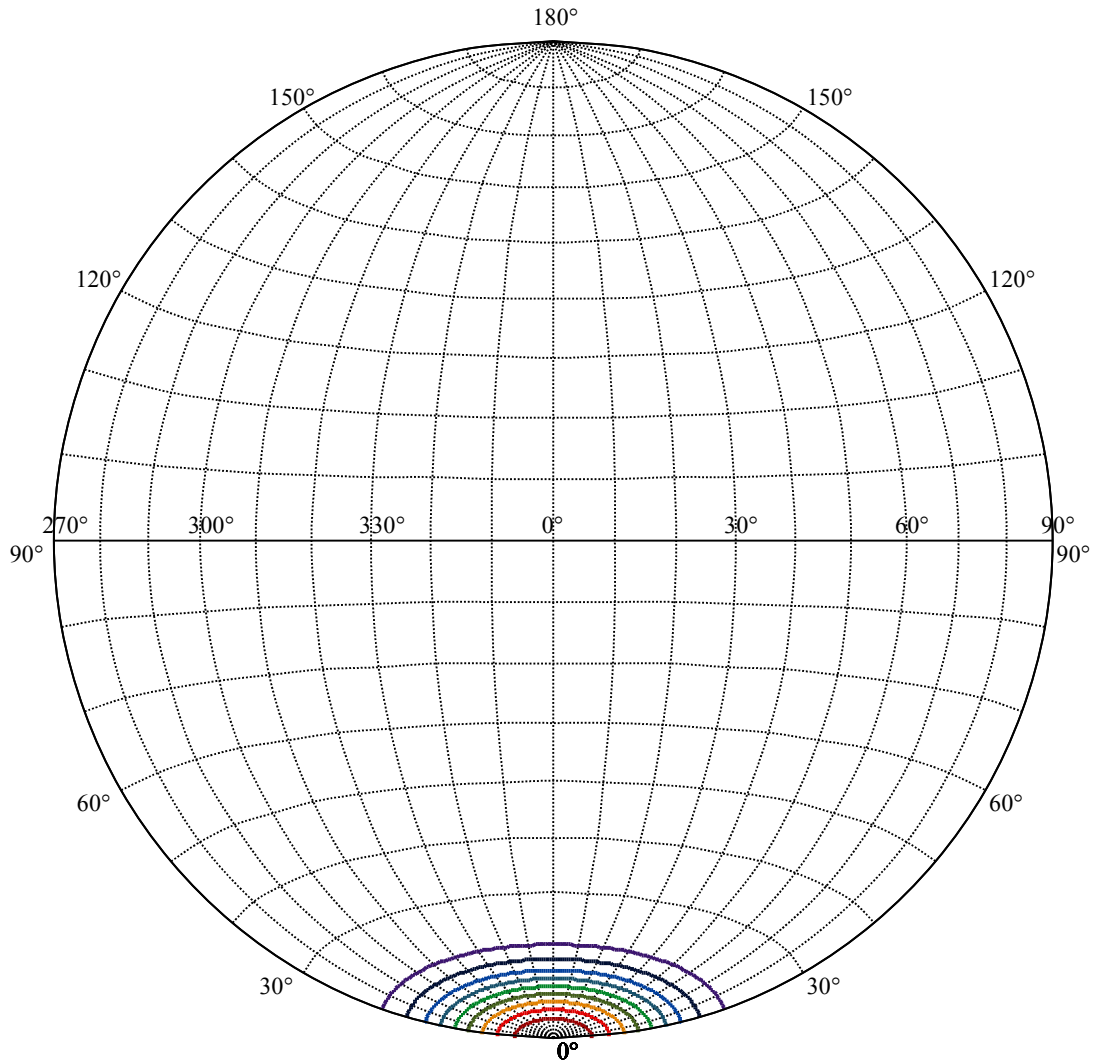
C0(Max): —————
C0/C180: —————
C90/C270: —————

Field angle(10%Imax):C0/180Left:20.0 Right:20.0
:C90/270Left:20.0 Right:20.0

Beam Angle(50%Imax):C0/180Left:11.4 Right:11.4
:C90/270Left:11.4 Right:11.4



| | |
|--------------------------------|---|
| (10%I _{max}) 608.479 | — |
| (20%I _{max}) 1216.96 | — |
| (30%I _{max}) 1825.44 | — |
| (40%I _{max}) 2433.91 | — |
| (50%I _{max}) 3042.39 | — |
| (60%I _{max}) 3650.87 | — |
| (70%I _{max}) 4259.35 | — |
| (80%I _{max}) 4867.83 | — |
| (90%I _{max}) 5476.31 | — |



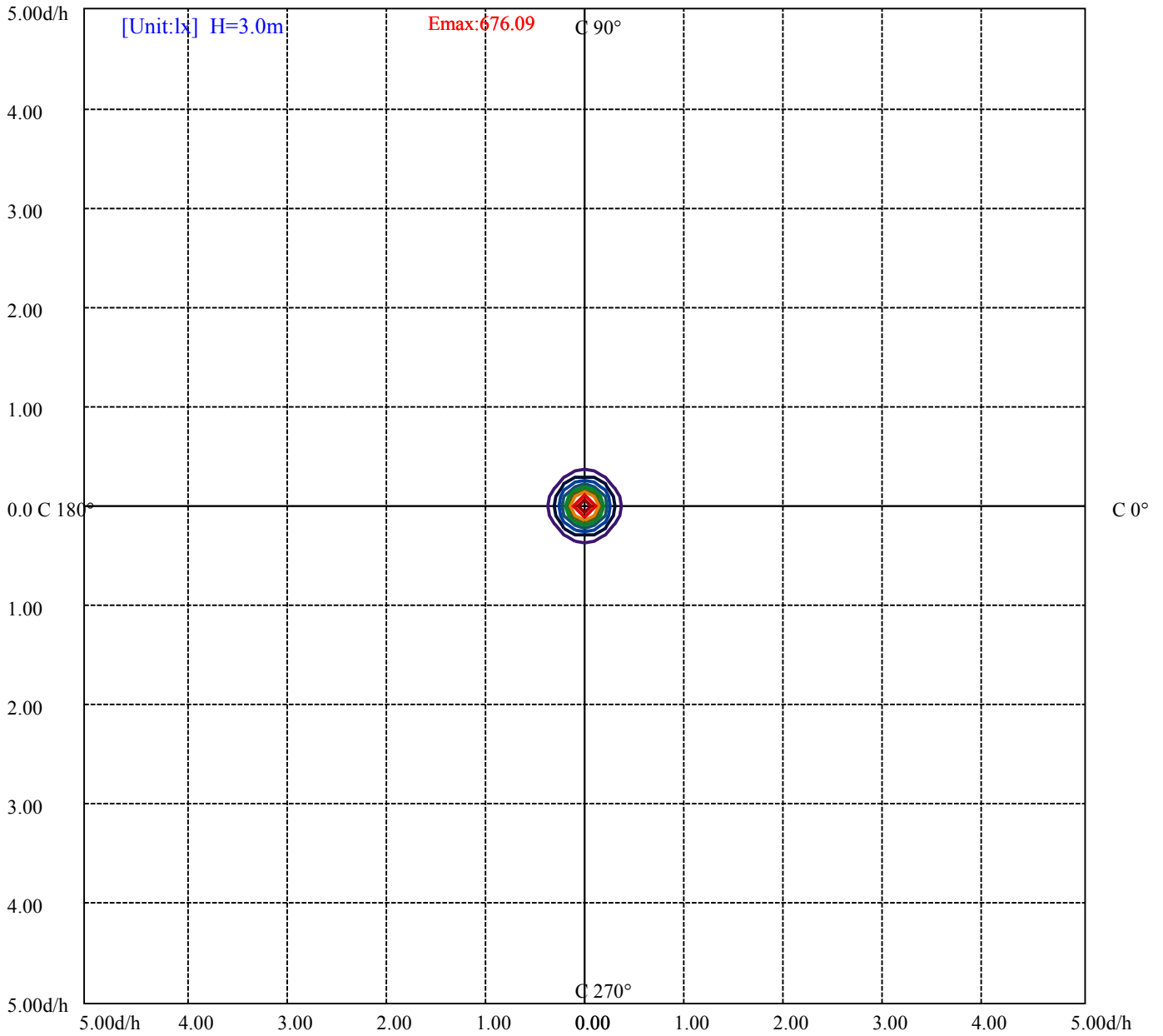
House

[Unit:cd]

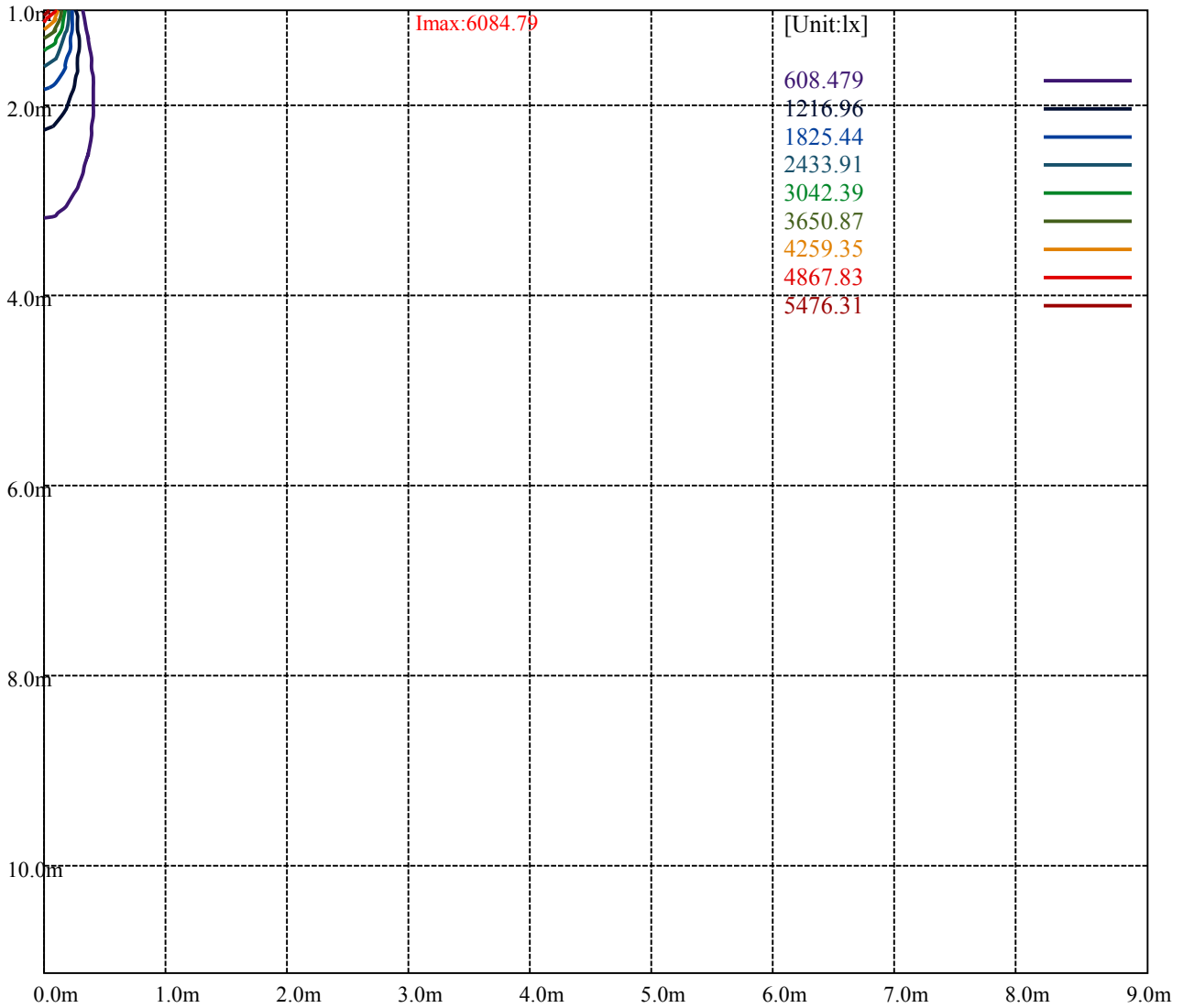
Road

Imax:6084.79

| | |
|-------------------|---|
| (10%Imax) 608.479 | — |
| (20%Imax) 1216.96 | — |
| (30%Imax) 1825.44 | — |
| (40%Imax) 2433.91 | — |
| (50%Imax) 3042.39 | — |
| (60%Imax) 3650.87 | — |
| (70%Imax) 4259.35 | — |
| (80%Imax) 4867.83 | — |
| (90%Imax) 5476.31 | — |



- (10%Emax) 67.60867
- (20%Emax) 135.2178
- (30%Emax) 202.8256
- (40%Emax) 270.4344
- (50%Emax) 338.0433
- (60%Emax) 405.6522
- (70%Emax) 473.2611
- (80%Emax) 540.87
- (90%Emax) 608.4778



Luminance Table

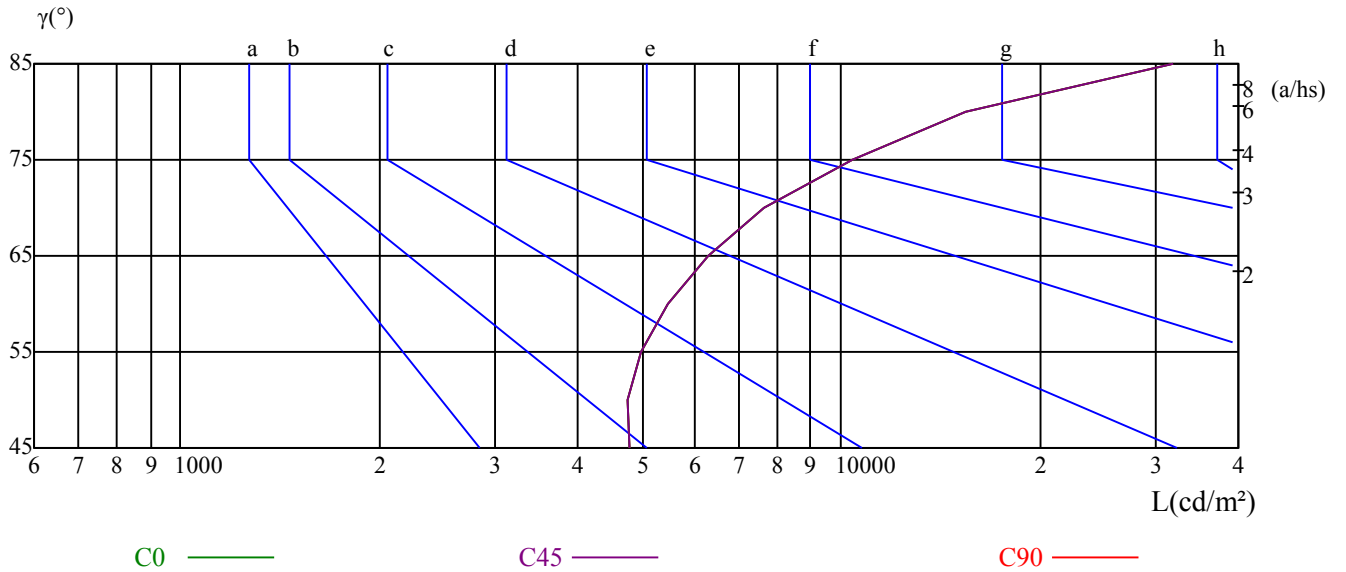
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|------|------|------|------|------|------|-------|-------|-------|
| C0 | 4782 | 4745 | 4986 | 5470 | 6299 | 7630 | 10410 | 15446 | 31841 |
| C45 | 4782 | 4745 | 4986 | 5470 | 6299 | 7630 | 10410 | 15446 | 31841 |
| C90 | 4782 | 4745 | 4986 | 5470 | 6299 | 7630 | 10410 | 15446 | 31841 |

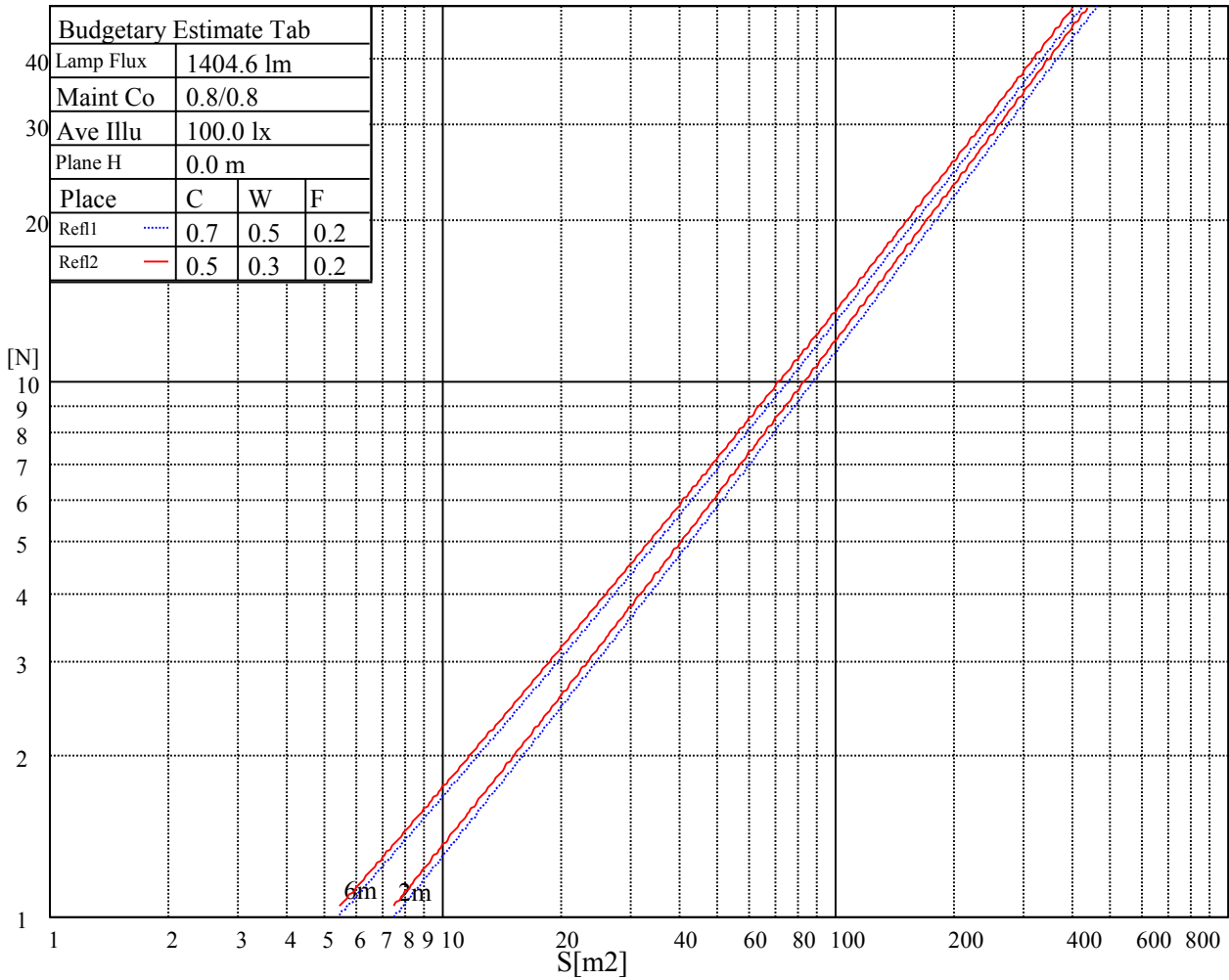
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 6299 | 6299 | 6299 | 10410 | 10410 | 10410 | 31841 | 31841 | 31841 |

Glare Table

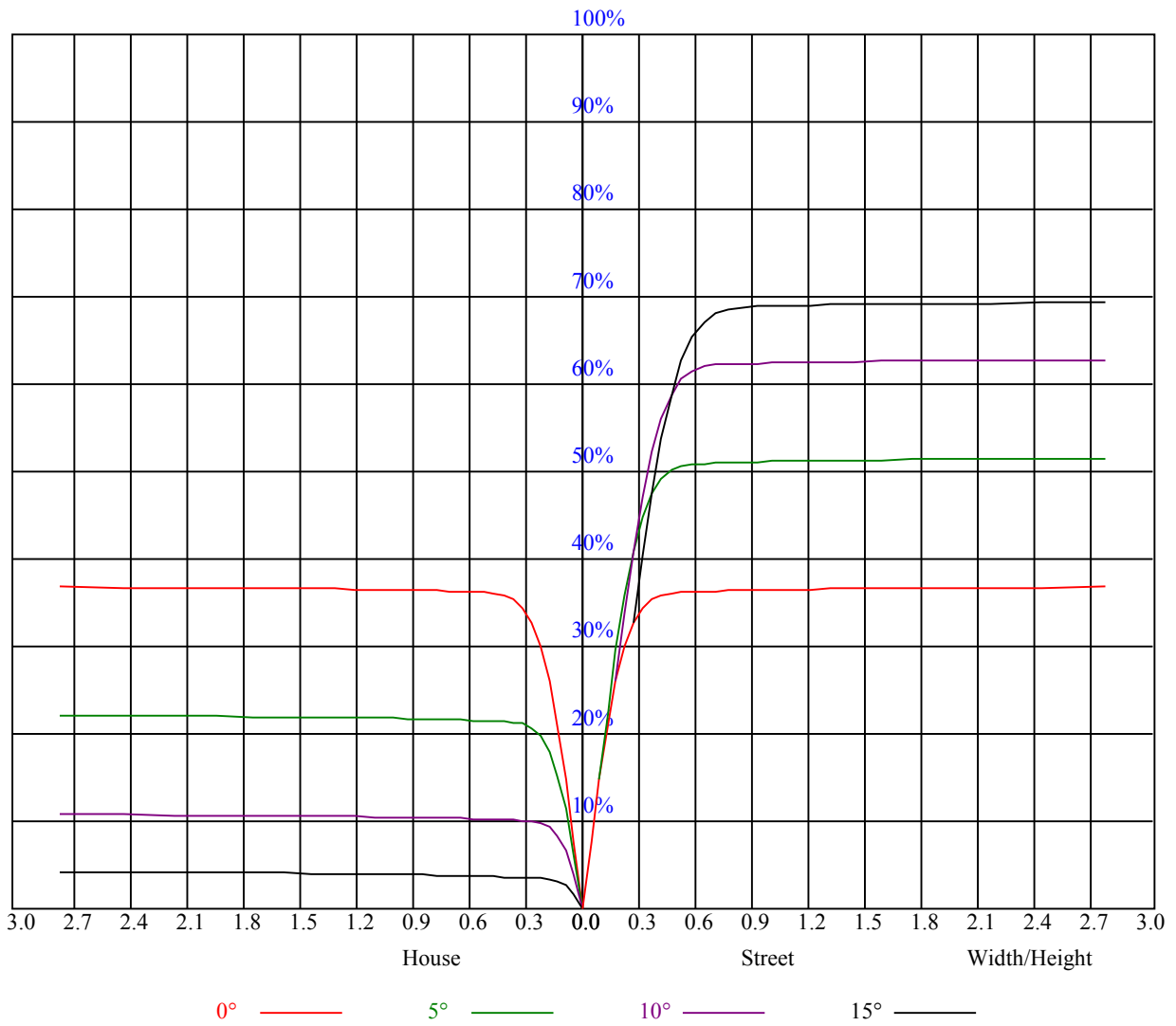
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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 | 0.88 | 0.88 | 0.88 | 0.86 | 0.86 | 0.86 | 0.82 | 0.82 | 0.82 | 0.79 | 0.79 | 0.79 | 0.76 | 0.76 | 0.76 | 0.74 |
| 1 | 0.84 | 0.82 | 0.81 | 0.82 | 0.81 | 0.80 | 0.79 | 0.78 | 0.77 | 0.77 | 0.76 | 0.75 | 0.74 | 0.73 | 0.73 | 0.72 |
| 2 | 0.80 | 0.78 | 0.76 | 0.79 | 0.77 | 0.75 | 0.77 | 0.75 | 0.74 | 0.75 | 0.73 | 0.72 | 0.73 | 0.72 | 0.71 | 0.70 |
| 3 | 0.77 | 0.75 | 0.73 | 0.76 | 0.74 | 0.72 | 0.74 | 0.72 | 0.71 | 0.73 | 0.71 | 0.70 | 0.71 | 0.70 | 0.69 | 0.68 |
| 4 | 0.75 | 0.72 | 0.70 | 0.74 | 0.71 | 0.69 | 0.72 | 0.70 | 0.69 | 0.71 | 0.69 | 0.68 | 0.70 | 0.68 | 0.67 | 0.66 |
| 5 | 0.72 | 0.69 | 0.67 | 0.72 | 0.69 | 0.67 | 0.70 | 0.68 | 0.67 | 0.69 | 0.67 | 0.66 | 0.68 | 0.67 | 0.65 | 0.65 |
| 6 | 0.70 | 0.67 | 0.65 | 0.70 | 0.67 | 0.65 | 0.69 | 0.66 | 0.65 | 0.68 | 0.66 | 0.64 | 0.67 | 0.65 | 0.64 | 0.63 |
| 7 | 0.68 | 0.66 | 0.64 | 0.68 | 0.65 | 0.63 | 0.67 | 0.65 | 0.63 | 0.66 | 0.64 | 0.63 | 0.66 | 0.64 | 0.63 | 0.62 |
| 8 | 0.67 | 0.64 | 0.62 | 0.66 | 0.64 | 0.62 | 0.66 | 0.63 | 0.62 | 0.65 | 0.63 | 0.61 | 0.64 | 0.63 | 0.61 | 0.61 |
| 9 | 0.65 | 0.62 | 0.61 | 0.65 | 0.62 | 0.61 | 0.64 | 0.62 | 0.60 | 0.64 | 0.62 | 0.60 | 0.63 | 0.61 | 0.60 | 0.59 |
| 10 | 0.64 | 0.61 | 0.59 | 0.63 | 0.61 | 0.59 | 0.63 | 0.61 | 0.59 | 0.63 | 0.60 | 0.59 | 0.62 | 0.60 | 0.59 | 0.58 |



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 | 6079.26 | 6140.81 | 6137.22 | 6067.91 | 5927.49 | 5715.96 | 5478.74 | 5166.24 | 4859.70 |
| 45.0 | 6118.70 | 6026.68 | 5862.36 | 5638.88 | 5396.88 | 5079.00 | 4720.48 | 4381.08 | 3988.51 |
| 90.0 | 6035.64 | 5888.65 | 5640.67 | 5388.52 | 5114.25 | 4712.71 | 4375.11 | 4023.16 | 3567.85 |
| 135.0 | 6105.55 | 6009.95 | 5784.68 | 5561.80 | 5334.74 | 4935.59 | 4599.18 | 4297.43 | 3851.67 |
| 180.0 | 6079.26 | 5962.14 | 5794.84 | 5524.75 | 5255.87 | 4955.91 | 4582.45 | 4191.67 | 3829.56 |
| 225.0 | 6118.70 | 6144.39 | 6113.32 | 6009.95 | 5861.16 | 5625.74 | 5335.34 | 5047.33 | 4685.82 |
| 270.0 | 6035.64 | 6130.05 | 6168.29 | 6136.03 | 6044.01 | 5874.31 | 5632.91 | 5375.97 | 5041.35 |
| 315.0 | 6105.55 | 6156.34 | 6152.76 | 6083.44 | 5951.39 | 5769.74 | 5505.03 | 5195.51 | 4846.56 |
| 360.0 | 6079.26 | 6140.81 | 6137.22 | 6067.91 | 5927.49 | 5715.96 | 5478.74 | 5166.24 | 4859.70 |
| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 4497.00 | 4111.00 | 3749.49 | 3387.99 | 2936.26 | 2585.51 | 2249.10 | 1863.69 | 1587.63 |
| 45.0 | 3632.98 | 3224.27 | 2824.52 | 2481.54 | 2157.08 | 1796.77 | 1535.05 | 1290.66 | 1022.97 |
| 90.0 | 3248.77 | 2850.21 | 2430.15 | 2146.92 | 1818.88 | 1495.62 | 1172.53 | 1068.80 | 846.76 |
| 135.0 | 3443.56 | 3126.87 | 2679.92 | 2338.13 | 2017.86 | 1663.52 | 1410.77 | 1172.95 | 912.43 |
| 180.0 | 3415.48 | 3013.34 | 2661.39 | 2281.37 | 1962.29 | 1646.79 | 1177.07 | 1120.01 | 911.41 |
| 225.0 | 4344.63 | 3945.48 | 3537.97 | 3168.70 | 2768.35 | 2376.37 | 2051.91 | 1762.11 | 1337.87 |
| 270.0 | 4681.64 | 4343.44 | 3941.90 | 3574.42 | 3163.92 | 2762.38 | 2412.82 | 2079.40 | 1709.53 |
| 315.0 | 4507.16 | 4115.18 | 3752.48 | 3335.41 | 2970.91 | 2571.76 | 2193.53 | 1884.61 | 1608.55 |
| 360.0 | 4497.00 | 4111.00 | 3749.49 | 3387.99 | 2936.26 | 2585.51 | 2249.10 | 1863.69 | 1587.63 |
| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 1333.68 | 1107.22 | 853.87 | 666.84 | 497.14 | 315.50 | 240.21 | 115.26 | 47.62 |
| 45.0 | 822.20 | 623.82 | 442.77 | 304.74 | 169.70 | 88.14 | 39.74 | 23.30 | 17.69 |
| 90.0 | 633.32 | 466.25 | 321.17 | 178.06 | 95.07 | 46.25 | 23.84 | 18.46 | 15.83 |
| 135.0 | 714.64 | 523.44 | 343.58 | 308.32 | 123.09 | 48.94 | 27.61 | 20.73 | 16.61 |
| 180.0 | 669.47 | 493.62 | 345.01 | 196.59 | 110.12 | 54.79 | 27.73 | 20.85 | 16.91 |
| 225.0 | 1188.13 | 977.92 | 762.33 | 561.80 | 406.80 | 259.33 | 144.66 | 72.90 | 34.60 |
| 270.0 | 1449.61 | 1212.98 | 951.27 | 763.04 | 587.97 | 411.10 | 311.31 | 158.23 | 74.63 |
| 315.0 | 1176.18 | 1071.13 | 871.44 | 638.34 | 474.80 | 330.25 | 197.72 | 100.74 | 49.89 |
| 360.0 | 1333.68 | 1107.22 | 853.87 | 666.84 | 497.14 | 315.50 | 240.21 | 115.26 | 47.62 |
| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 27.43 | 21.27 | 17.15 | 15.36 | 14.04 | 12.67 | 11.77 | 10.99 | 10.16 |
| 45.0 | 15.66 | 13.98 | 12.91 | 11.89 | 11.05 | 10.28 | 9.62 | 9.08 | 8.60 |
| 90.0 | 14.16 | 12.97 | 12.01 | 11.11 | 10.46 | 9.74 | 9.20 | 8.72 | 8.31 |
| 135.0 | 14.58 | 13.27 | 12.13 | 11.29 | 10.46 | 9.74 | 9.20 | 8.72 | 8.25 |
| 180.0 | 14.58 | 13.32 | 12.25 | 11.17 | 10.58 | 9.86 | 9.20 | 8.78 | 8.37 |
| 225.0 | 25.28 | 18.82 | 16.07 | 14.58 | 13.38 | 12.19 | 11.29 | 10.58 | 9.74 |
| 270.0 | 37.35 | 25.10 | 19.00 | 16.67 | 14.94 | 13.56 | 12.55 | 11.65 | 10.70 |
| 315.0 | 28.14 | 21.27 | 17.57 | 15.60 | 14.28 | 13.15 | 12.01 | 11.11 | 10.40 |
| 360.0 | 27.43 | 21.27 | 17.15 | 15.36 | 14.04 | 12.67 | 11.77 | 10.99 | 10.16 |
| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 9.56 | 9.08 | 8.48 | 8.07 | 7.71 | 7.35 | 7.11 | 6.87 | 6.63 |
| 45.0 | 8.19 | 7.89 | 7.53 | 7.17 | 6.93 | 6.69 | 6.51 | 6.33 | 6.21 |
| 90.0 | 7.95 | 7.59 | 7.35 | 7.05 | 6.81 | 6.63 | 6.45 | 6.33 | 6.21 |
| 135.0 | 7.89 | 7.59 | 7.23 | 6.99 | 6.81 | 6.57 | 6.39 | 6.27 | 6.09 |
| 180.0 | 7.89 | 7.59 | 7.29 | 6.93 | 6.75 | 6.57 | 6.39 | 6.21 | 6.04 |
| 225.0 | 9.20 | 8.72 | 8.31 | 7.89 | 7.53 | 7.23 | 6.99 | 6.75 | 6.51 |
| 270.0 | 10.04 | 9.50 | 8.96 | 8.43 | 8.07 | 7.71 | 7.35 | 7.17 | 6.87 |
| 315.0 | 9.56 | 9.02 | 8.54 | 8.07 | 7.71 | 7.47 | 7.17 | 6.93 | 6.69 |
| 360.0 | 9.56 | 9.08 | 8.48 | 8.07 | 7.71 | 7.35 | 7.11 | 6.87 | 6.63 |

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 | 6.45 | 6.33 | 6.15 | 6.04 | 5.92 | 5.80 | 5.74 | 5.56 | 5.50 |
| 45.0 | 6.04 | 5.92 | 5.80 | 5.68 | 5.56 | 5.50 | 5.38 | 5.32 | 5.26 |
| 90.0 | 6.09 | 5.98 | 5.92 | 5.86 | 5.74 | 5.68 | 5.62 | 5.56 | 5.50 |
| 135.0 | 5.98 | 5.86 | 5.80 | 5.74 | 5.62 | 5.50 | 5.44 | 5.38 | 5.32 |
| 180.0 | 5.92 | 5.80 | 5.68 | 5.62 | 5.50 | 5.38 | 5.32 | 5.26 | 5.20 |
| 225.0 | 6.33 | 6.15 | 5.98 | 5.86 | 5.74 | 5.62 | 5.56 | 5.50 | 5.38 |
| 270.0 | 6.69 | 6.45 | 6.27 | 6.15 | 6.04 | 5.86 | 5.74 | 5.68 | 5.56 |
| 315.0 | 6.51 | 6.39 | 6.21 | 6.04 | 5.92 | 5.80 | 5.68 | 5.62 | 5.56 |
| 360.0 | 6.45 | 6.33 | 6.15 | 6.04 | 5.92 | 5.80 | 5.74 | 5.56 | 5.50 |
| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 5.44 | 5.38 | 5.32 | 5.26 | 5.20 | 5.14 | 5.08 | 5.02 | 5.02 |
| 45.0 | 5.20 | 5.08 | 5.08 | 5.02 | 4.96 | 4.90 | 4.90 | 4.84 | 4.84 |
| 90.0 | 5.44 | 5.44 | 5.38 | 5.32 | 5.26 | 5.26 | 5.26 | 5.20 | 5.20 |
| 135.0 | 5.32 | 5.26 | 5.20 | 5.14 | 5.14 | 5.08 | 5.08 | 5.02 | 5.02 |
| 180.0 | 5.20 | 5.14 | 5.08 | 5.02 | 5.02 | 4.96 | 4.90 | 4.90 | 4.84 |
| 225.0 | 5.32 | 5.26 | 5.20 | 5.20 | 5.14 | 5.14 | 5.08 | 5.08 | 5.08 |
| 270.0 | 5.50 | 5.38 | 5.32 | 5.26 | 5.20 | 5.14 | 5.08 | 5.02 | 4.96 |
| 315.0 | 5.44 | 5.38 | 5.32 | 5.20 | 5.20 | 5.14 | 5.08 | 5.02 | 5.02 |
| 360.0 | 5.44 | 5.38 | 5.32 | 5.26 | 5.20 | 5.14 | 5.08 | 5.02 | 5.02 |
| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 4.96 | 4.96 | 4.90 | 4.84 | 4.84 | 4.84 | 4.84 | 4.78 | 4.78 |
| 45.0 | 4.78 | 4.72 | 4.72 | 4.72 | 4.66 | 4.66 | 4.60 | 4.60 | 4.60 |
| 90.0 | 5.20 | 5.20 | 5.20 | 5.14 | 5.14 | 5.20 | 5.20 | 5.26 | 5.44 |
| 135.0 | 5.02 | 5.02 | 4.96 | 4.96 | 4.96 | 4.90 | 4.90 | 4.90 | 4.90 |
| 180.0 | 4.84 | 4.84 | 4.84 | 4.78 | 4.78 | 4.78 | 4.72 | 4.72 | 4.72 |
| 225.0 | 5.02 | 5.02 | 5.02 | 5.02 | 5.02 | 4.96 | 4.96 | 4.90 | 4.90 |
| 270.0 | 4.96 | 4.90 | 4.90 | 4.84 | 4.78 | 4.78 | 4.78 | 4.72 | 4.72 |
| 315.0 | 4.96 | 4.90 | 4.84 | 4.84 | 4.84 | 4.78 | 4.72 | 4.72 | 4.72 |
| 360.0 | 4.96 | 4.96 | 4.90 | 4.84 | 4.84 | 4.84 | 4.84 | 4.78 | 4.78 |
| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 4.72 | 4.72 | 4.72 | 4.72 | 4.72 | 4.72 | 4.66 | 4.66 | 4.66 |
| 45.0 | 4.60 | 4.60 | 4.54 | 4.60 | 4.60 | 4.54 | 4.60 | 4.66 | 4.66 |
| 90.0 | 5.68 | 5.86 | 6.21 | 6.63 | 6.93 | 7.23 | 6.93 | 5.80 | 5.98 |
| 135.0 | 4.90 | 4.96 | 4.90 | 4.90 | 4.90 | 4.96 | 5.02 | 5.08 | 5.14 |
| 180.0 | 4.72 | 4.72 | 4.72 | 4.72 | 4.78 | 4.84 | 4.84 | 4.96 | 5.08 |
| 225.0 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.90 | 4.96 |
| 270.0 | 4.72 | 4.66 | 4.66 | 4.66 | 4.66 | 4.66 | 4.60 | 4.60 | 4.60 |
| 315.0 | 4.72 | 4.72 | 4.66 | 4.72 | 4.66 | 4.66 | 4.60 | 4.60 | 4.60 |
| 360.0 | 4.72 | 4.72 | 4.72 | 4.72 | 4.72 | 4.72 | 4.66 | 4.66 | 4.66 |
| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 4.72 | 4.72 | 4.78 | 4.78 | 4.84 | 4.90 | 4.72 | 4.48 | 4.42 |
| 45.0 | 4.78 | 4.78 | 4.72 | 4.78 | 4.90 | 4.30 | 4.30 | 4.30 | 4.30 |
| 90.0 | 6.21 | 6.21 | 6.09 | 6.04 | 4.90 | 4.36 | 4.36 | 4.30 | 4.30 |
| 135.0 | 5.26 | 5.44 | 5.62 | 5.86 | 5.98 | 4.42 | 4.42 | 4.42 | 4.42 |
| 180.0 | 5.20 | 5.44 | 5.68 | 5.98 | 5.80 | 4.42 | 4.42 | 4.42 | 4.42 |
| 225.0 | 4.96 | 5.02 | 5.14 | 5.26 | 5.38 | 5.44 | 4.30 | 4.30 | 4.30 |
| 270.0 | 4.60 | 4.60 | 4.60 | 4.60 | 4.60 | 4.66 | 4.36 | 4.36 | 4.36 |
| 315.0 | 4.60 | 4.66 | 4.72 | 4.66 | 4.66 | 4.72 | 4.42 | 4.42 | 4.42 |
| 360.0 | 4.72 | 4.72 | 4.78 | 4.78 | 4.84 | 4.90 | 4.72 | 4.48 | 4.42 |

Intensity data(cd)

| | |
|-----------------|------|
| C/ γ (°) | 90.0 |
| 0.0 | 4.48 |
| 45.0 | 4.30 |
| 90.0 | 4.36 |
| 135.0 | 4.36 |
| 180.0 | 4.42 |
| 225.0 | 4.30 |
| 270.0 | 4.36 |
| 315.0 | 4.36 |
| 360.0 | 4.48 |