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Tel:+86 0750-377 0000(10 lines) Fax:+86 0750-377 1111
Address:380JinOu Road,Gaoxin Zone,Jiang Men City,Guangdong,China

## Nata

Client: NT
LumCAT: 3-2997-LM2
Luminaire: BJB47.360.2100
Report No: 20260513-B008
Ballast type: DC

| | |
|---|---|
| Test No: 20260513-C008 | Voltage(V): 51.010 |
| LampCAT: Bridgelux V22 GEN8 | Current(A): 0.955 |
| Lamp flux(lm): 8107.8 | Power (W): 48.710 |
| Number of Lamps: 1 | PF: 0.000 |
| Length(mm): 92 | Width(mm): 92 |
| Phm Type: C | Height(mm): 49 |

## Photometric Results

Lumens(lm): 7669.43, Efficiency(%): 94.59% , Luminous Efficacy(lm/W): 157.45
Central intensity(cd): 14099.790, Maximum intensity(cd): 14099.790
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=40.8
[C90/270]Total=40.8
Field angle(10%Imax): [C0/180]Total=75.0
[C90/270]Total=75.0
Maximum s/h(1/2): C0_180=0.67 C90_270=0.67
Maximum s/h(1/4): C0_180=0.65 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 94.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.369%

| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2026/5/13 | Operator: YZQ |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 9.16 |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 14099.791 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 14083.114 | 13.485 | 13.485 | 0.17% | 0.18% |
| 2.0 | 14031.513 | 40.353 | 53.838 | 0.50% | 0.70% |
| 3.0 | 13952.536 | 66.929 | 120.766 | 0.83% | 1.57% |
| 4.0 | 13859.401 | 93.095 | 213.862 | 1.15% | 2.79% |
| 5.0 | 13739.626 | 118.730 | 332.591 | 1.46% | 4.34% |
| 6.0 | 13597.301 | 143.663 | 476.254 | 1.77% | 6.21% |
| 7.0 | 13435.258 | 167.791 | 644.045 | 2.07% | 8.40% |
| 8.0 | 13238.395 | 190.898 | 834.943 | 2.35% | 10.89% |
| 9.0 | 13020.765 | 212.816 | 1047.759 | 2.62% | 13.66% |
| 10.0 | 12734.227 | 233.073 | 1280.833 | 2.87% | 16.70% |
| 11.0 | 12416.330 | 251.306 | 1532.138 | 3.10% | 19.98% |
| 12.0 | 12026.064 | 267.190 | 1799.329 | 3.30% | 23.46% |
| 13.0 | 11574.127 | 280.075 | 2079.403 | 3.45% | 27.11% |
| 14.0 | 11101.529 | 290.246 | 2369.65 | 3.58% | 30.90% |
| 15.0 | 10570.511 | 297.523 | 2667.173 | 3.67% | 34.78% |
| 16.0 | 9955.693 | 300.766 | 2967.939 | 3.71% | 38.70% |
| 17.0 | 9336.260 | 300.427 | 3268.367 | 3.71% | 42.62% |
| 18.0 | 8664.281 | 296.790 | 3565.157 | 3.66% | 46.49% |
| 19.0 | 7995.973 | 289.854 | 3855.011 | 3.58% | 50.26% |
| 20.0 | 7330.077 | 280.509 | 4135.52 | 3.46% | 53.92% |
| 21.0 | 6683.060 | 269.081 | 4404.601 | 3.32% | 57.43% |
| 22.0 | 6044.329 | 255.762 | 4660.363 | 3.15% | 60.77% |
| 23.0 | 5464.017 | 241.476 | 4901.839 | 2.98% | 63.91% |
| 24.0 | 4960.373 | 227.915 | 5129.754 | 2.81% | 66.89% |
| 25.0 | 4482.321 | 214.706 | 5344.46 | 2.65% | 69.69% |
| 26.0 | 4059.961 | 201.642 | 5546.102 | 2.49% | 72.31% |
| 27.0 | 3713.116 | 190.170 | 5736.272 | 2.35% | 74.79% |
| 28.0 | 3405.288 | 180.223 | 5916.495 | 2.22% | 77.14% |
| 29.0 | 3145.285 | 171.381 | 6087.876 | 2.11% | 79.38% |
| 30.0 | 2912.552 | 163.560 | 6251.436 | 2.02% | 81.51% |
| 31.0 | 2709.396 | 156.451 | 6407.887 | 1.93% | 83.55% |
| 32.0 | 2511.064 | 149.560 | 6557.447 | 1.84% | 85.50% |
| 33.0 | 2252.561 | 140.338 | 6697.785 | 1.73% | 87.33% |
| 34.0 | 2105.307 | 131.882 | 6829.667 | 1.63% | 89.05% |
| 35.0 | 1858.236 | 123.093 | 6952.76 | 1.52% | 90.66% |
| 36.0 | 1671.211 | 112.378 | 7065.138 | 1.39% | 92.12% |
| 37.0 | 1507.605 | 103.675 | 7168.814 | 1.28% | 93.47% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 38.0 | 1291.160 | 93.419 | 7262.233 | 1.15% | 94.69% |
| 39.0 | 1068.297 | 80.535 | 7342.767 | 0.99% | 95.74% |
| 40.0 | 869.608 | 67.587 | 7410.355 | 0.83% | 96.62% |
| 41.0 | 681.848 | 55.247 | 7465.601 | 0.68% | 97.34% |
| 42.0 | 513.439 | 43.427 | 7509.028 | 0.54% | 97.91% |
| 43.0 | 395.206 | 33.659 | 7542.687 | 0.42% | 98.35% |
| 44.0 | 212.302 | 22.929 | 7565.616 | 0.28% | 98.65% |
| 45.0 | 169.112 | 14.658 | 7580.274 | 0.18% | 98.84% |
| 46.0 | 84.503 | 9.918 | 7590.192 | 0.12% | 98.97% |
| 47.0 | 42.477 | 5.050 | 7595.243 | 0.06% | 99.03% |
| 48.0 | 33.227 | 3.060 | 7598.303 | 0.04% | 99.07% |
| 49.0 | 28.486 | 2.534 | 7600.837 | 0.03% | 99.11% |
| 50.0 | 25.224 | 2.239 | 7603.077 | 0.03% | 99.13% |
| 51.0 | 23.053 | 2.043 | 7605.119 | 0.03% | 99.16% |
| 52.0 | 21.700 | 1.920 | 7607.04 | 0.02% | 99.19% |
| 53.0 | 20.851 | 1.851 | 7608.891 | 0.02% | 99.21% |
| 54.0 | 20.179 | 1.808 | 7610.699 | 0.02% | 99.23% |
| 55.0 | 19.571 | 1.774 | 7612.473 | 0.02% | 99.26% |
| 56.0 | 19.089 | 1.747 | 7614.22 | 0.02% | 99.28% |
| 57.0 | 18.669 | 1.726 | 7615.947 | 0.02% | 99.30% |
| 58.0 | 18.239 | 1.707 | 7617.653 | 0.02% | 99.32% |
| 59.0 | 17.903 | 1.690 | 7619.343 | 0.02% | 99.35% |
| 60.0 | 17.589 | 1.677 | 7621.02 | 0.02% | 99.37% |
| 61.0 | 17.327 | 1.666 | 7622.686 | 0.02% | 99.39% |
| 62.0 | 17.096 | 1.659 | 7624.345 | 0.02% | 99.41% |
| 63.0 | 16.907 | 1.654 | 7625.999 | 0.02% | 99.43% |
| 64.0 | 16.687 | 1.648 | 7627.647 | 0.02% | 99.46% |
| 65.0 | 16.550 | 1.645 | 7629.292 | 0.02% | 99.48% |
| 66.0 | 16.404 | 1.644 | 7630.936 | 0.02% | 99.50% |
| 67.0 | 16.246 | 1.642 | 7632.578 | 0.02% | 99.52% |
| 68.0 | 16.089 | 1.638 | 7634.216 | 0.02% | 99.54% |
| 69.0 | 15.953 | 1.635 | 7635.85 | 0.02% | 99.56% |
| 70.0 | 15.806 | 1.631 | 7637.481 | 0.02% | 99.58% |
| 71.0 | 15.680 | 1.627 | 7639.109 | 0.02% | 99.60% |
| 72.0 | 15.554 | 1.624 | 7640.733 | 0.02% | 99.63% |
| 73.0 | 15.449 | 1.621 | 7642.354 | 0.02% | 99.65% |
| 74.0 | 15.313 | 1.617 | 7643.971 | 0.02% | 99.67% |
| 75.0 | 15.218 | 1.613 | 7645.584 | 0.02% | 99.69% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 76.0 | 15.113 | 1.610 | 7647.195 | 0.02% | 99.71% |
| 77.0 | 15.040 | 1.608 | 7648.802 | 0.02% | 99.73% |
| 78.0 | 14.946 | 1.605 | 7650.407 | 0.02% | 99.75% |
| 79.0 | 14.872 | 1.602 | 7652.009 | 0.02% | 99.77% |
| 80.0 | 14.799 | 1.600 | 7653.609 | 0.02% | 99.79% |
| 81.0 | 14.736 | 1.597 | 7655.206 | 0.02% | 99.81% |
| 82.0 | 14.694 | 1.596 | 7656.802 | 0.02% | 99.84% |
| 83.0 | 14.610 | 1.593 | 7658.395 | 0.02% | 99.86% |
| 84.0 | 14.547 | 1.588 | 7659.984 | 0.02% | 99.88% |
| 85.0 | 14.474 | 1.584 | 7661.568 | 0.02% | 99.90% |
| 86.0 | 14.432 | 1.580 | 7663.148 | 0.02% | 99.92% |
| 87.0 | 14.369 | 1.576 | 7664.724 | 0.02% | 99.94% |
| 88.0 | 14.337 | 1.572 | 7666.296 | 0.02% | 99.96% |
| 89.0 | 14.295 | 1.569 | 7667.866 | 0.02% | 99.98% |
| 90.0 | 14.253 | 1.565 | 7669.431 | 0.02% | 100.00% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

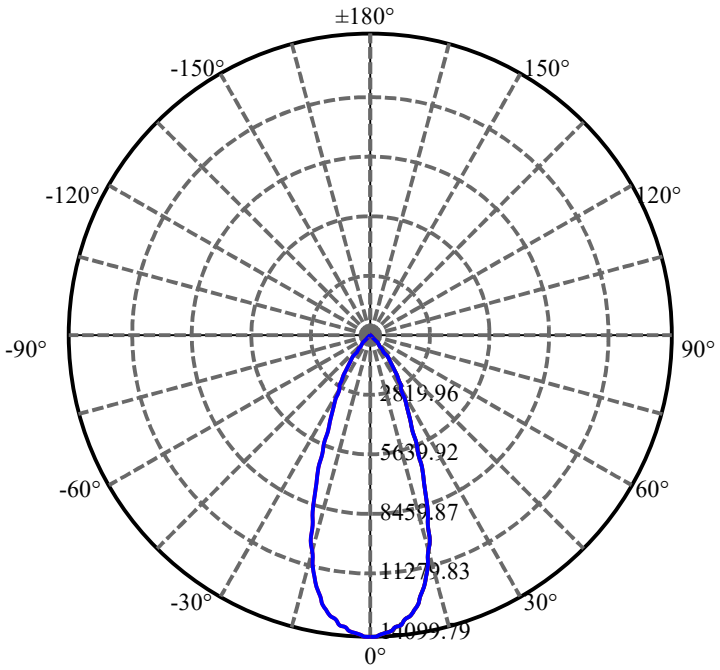
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 6251.44 | 77.10% | 81.51% |
| 0-40 | 7410.35 | 91.40% | 96.62% |
| 0-60 | 7621.02 | 94.00% | 99.37% |
| 0-90 | 7667.87 | 94.57% | 99.98% |
| 0-120 | 7667.87 | 94.57% | 99.98% |
| 0-180 | 7669.43 | 94.59% | 100.00% |
| 60-90 | 46.85 | 0.58% | 0.61% |
| 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% |
| 0-29.29 | 6135.55 | 75.68% | 80.00% |

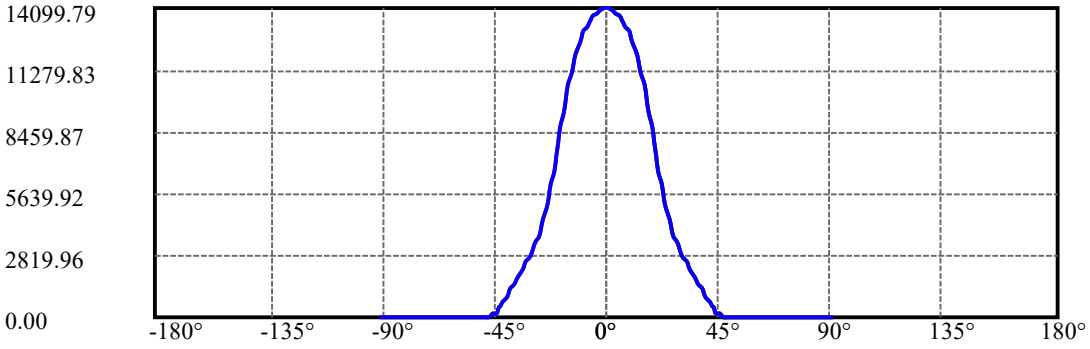
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 1280.83 |
| 10-20 | 2854.69 |
| 20-30 | 2115.92 |
| 30-40 | 1158.92 |
| 40-50 | 192.72 |
| 50-60 | 17.94 |
| 60-70 | 16.46 |
| 70-80 | 16.13 |
| 80-90 | 14.26 |
| 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 |

Light Distribution Curve [Unit:cd]






C0(Max):

C0/C180:

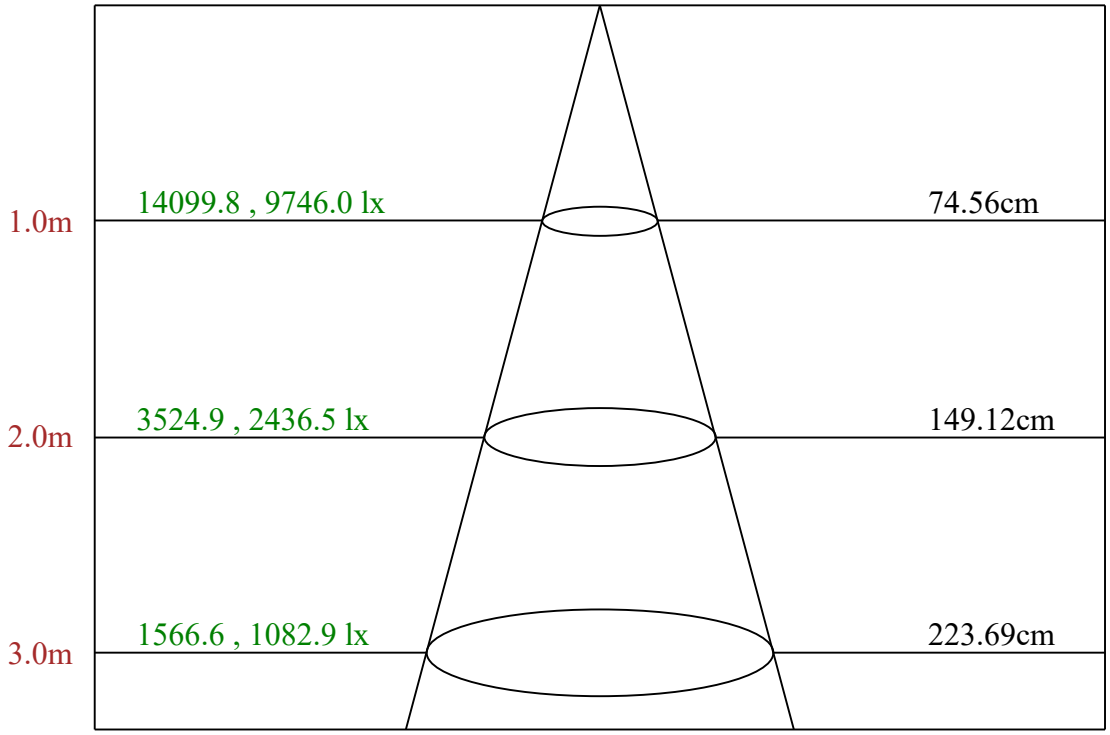
C90/C270:

Field angle(10%Imax):C0/180Left:37.5 Right:37.5
:C90/270Left:37.5 Right:37.5

Beam Angle(50%Imax):C0/180Left:20.4 Right:20.4
:C90/270Left:20.4 Right:20.4

Lux distance Curve






Max , Ave

Beam angle of C0 plane 40.89

| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2026/5/13 | Operator: YZQ |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 9.16 |

NT Nata 3-2997-LM2

## Luminance Limitting Curve(no luminous side)



Luminance Table

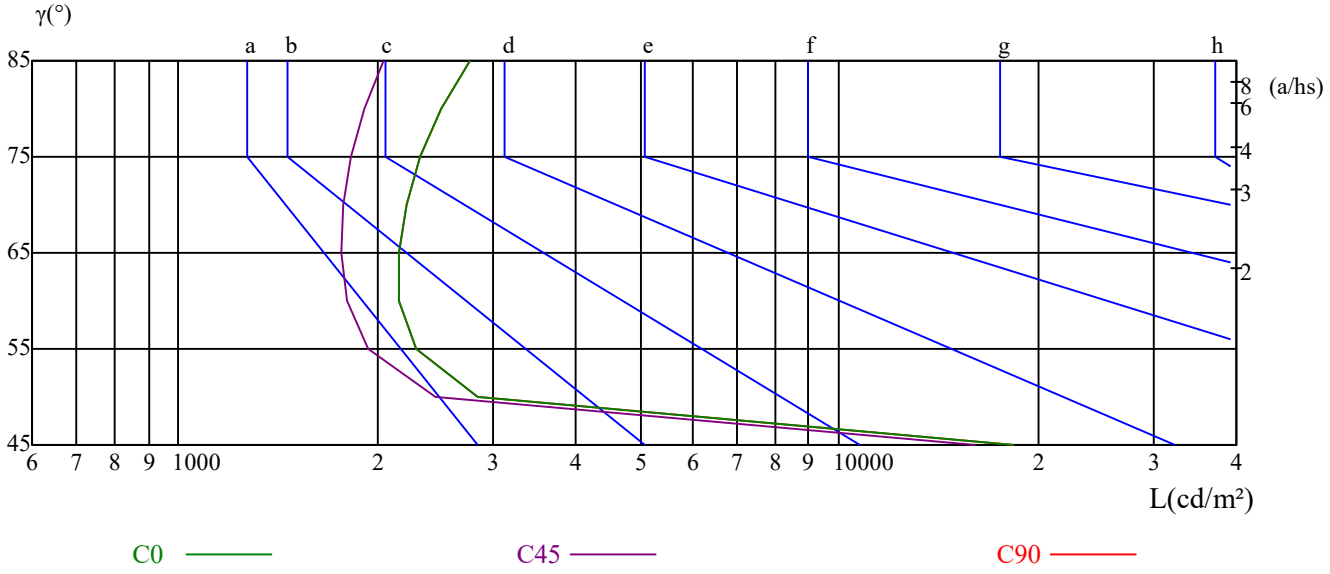
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 18437 | 2836 | 2290 | 2162 | 2160 | 2216 | 2325 | 2504 | 2768 |
| C45 | 16117 | 2443 | 1942 | 1803 | 1769 | 1779 | 1823 | 1910 | 2042 |
| C90 | 18437 | 2836 | 2290 | 2162 | 2160 | 2216 | 2325 | 2504 | 2768 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|---|---|---|---|---|---|---|---|---|
| 4627 | 4627 | 4627 | 6947 | 6947 | 6947 | 19620 | 19620 | 19620 |

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 Limitting Curve



UGR Glare

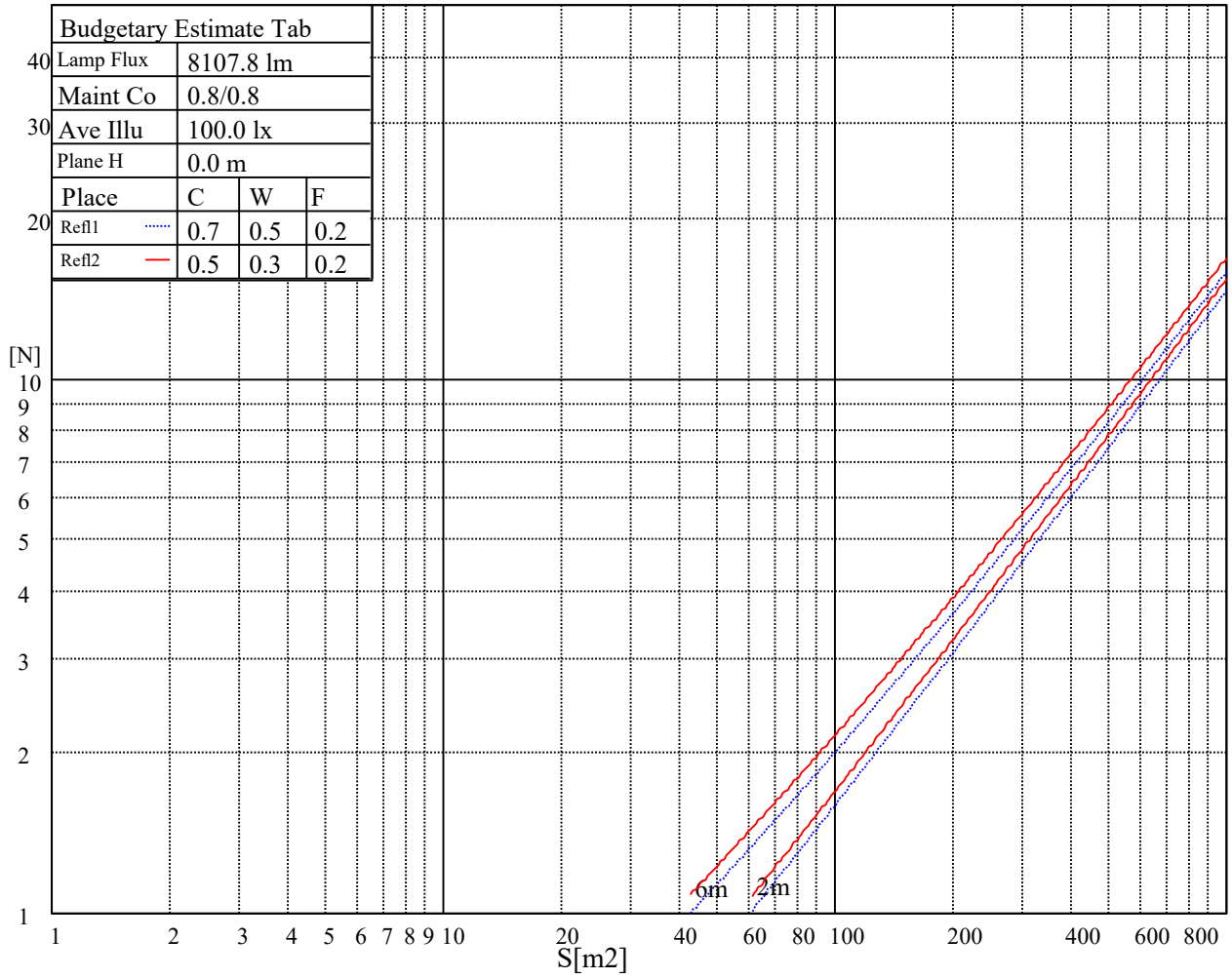


| Illumination assessment according UGR | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rf of Ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Rf of Wall | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Rf of Floor | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X | Y | | | | | | | | | | |
| 2H | 2H | 20.60 | 21.52 | 20.96 | 21.83 | 22.15 | 20.74 | 21.66 | 21.10 | 21.97 | 22.29 |
| | 3H | 20.39 | 21.21 | 20.78 | 21.55 | 21.89 | 20.53 | 21.35 | 20.92 | 21.69 | 22.04 |
| | 4H | 20.29 | 21.05 | 20.69 | 21.40 | 21.77 | 20.43 | 21.19 | 20.84 | 21.55 | 21.91 |
| | 6H | 20.22 | 20.91 | 20.64 | 21.29 | 21.69 | 20.36 | 21.05 | 20.78 | 21.43 | 21.83 |
| | 8H | 20.15 | 20.81 | 20.58 | 21.20 | 21.61 | 20.29 | 20.95 | 20.72 | 21.34 | 21.75 |
| | 12H | 20.10 | 20.72 | 20.52 | 21.12 | 21.54 | 20.24 | 20.86 | 20.66 | 21.26 | 21.67 |
| 4H | 2H | 20.27 | 21.03 | 20.67 | 21.38 | 21.75 | 20.41 | 21.17 | 20.81 | 21.53 | 21.89 |
| | 3H | 20.03 | 20.66 | 20.46 | 21.06 | 21.48 | 20.17 | 20.81 | 20.60 | 21.20 | 21.62 |
| | 4H | 19.97 | 20.51 | 20.41 | 20.94 | 21.39 | 20.11 | 20.65 | 20.55 | 21.08 | 21.53 |
| | 6H | 19.85 | 20.33 | 20.33 | 20.79 | 21.24 | 19.99 | 20.47 | 20.47 | 20.93 | 21.38 |
| | 8H | 19.81 | 20.26 | 20.30 | 20.72 | 21.20 | 19.95 | 20.40 | 20.44 | 20.86 | 21.33 |
| | 12H | 19.79 | 20.20 | 20.28 | 20.66 | 21.18 | 19.93 | 20.34 | 20.42 | 20.79 | 21.31 |
| 8H | 4H | 19.77 | 20.21 | 20.25 | 20.67 | 21.15 | 19.91 | 20.35 | 20.39 | 20.81 | 21.29 |
| | 6H | 19.65 | 20.02 | 20.16 | 20.50 | 21.01 | 19.79 | 20.15 | 20.30 | 20.63 | 21.15 |
| | 8H | 19.67 | 19.98 | 20.21 | 20.50 | 21.00 | 19.81 | 20.11 | 20.34 | 20.63 | 21.13 |
| | 12H | 19.67 | 19.90 | 20.22 | 20.42 | 20.94 | 19.80 | 20.03 | 20.35 | 20.55 | 21.07 |
| 12H | 4H | 19.71 | 20.12 | 20.21 | 20.58 | 21.10 | 19.85 | 20.26 | 20.35 | 20.72 | 21.24 |
| | 6H | 19.64 | 19.94 | 20.18 | 20.47 | 20.97 | 19.78 | 20.08 | 20.31 | 20.61 | 21.10 |
| | 8H | 19.63 | 19.86 | 20.18 | 20.38 | 20.90 | 19.77 | 19.99 | 20.31 | 20.51 | 21.04 |
| Variation with the observer position at spacings: | | | | | | | | | | | |
| S = 1.0H | | 5.2/-13.6 | | | | | 5.2/-13.6 | | | | |
| S = 1.5H | | 7.9/-11.8 | | | | | 7.9/-11.8 | | | | |
| S = 2.0H | | 9.8/-10.5 | | | | | 9.8/-10.5 | | | | |
| Standard tables: | | BK0 | | | | | BK0 | | | | |
| Uncorrected UGR | | 0.5 | | | | | 0.5 | | | | |

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

## Budgetary Estimate Table






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2026/5/13 | Operator: YZQ |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 9.16 |

## Utilization factor table for indoor luminaire



| 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 | COEFFCIENTS OF UTILIZATION RHOFC=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.13 | 1.13 | 1.13 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | 0.97 | 0.97 | 0.97 | 0.95 |
| 1 | 1.05 | 1.03 | 1.01 | 1.03 | 1.01 | 1.00 | 1.00 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.89 |
| 2 | 0.99 | 0.96 | 0.93 | 0.97 | 0.94 | 0.92 | 0.94 | 0.92 | 0.90 | 0.92 | 0.90 | 0.88 | 0.89 | 0.87 | 0.86 | 0.84 |
| 3 | 0.93 | 0.89 | 0.86 | 0.92 | 0.88 | 0.85 | 0.90 | 0.86 | 0.84 | 0.87 | 0.85 | 0.82 | 0.85 | 0.83 | 0.81 | 0.80 |
| 4 | 0.88 | 0.83 | 0.80 | 0.87 | 0.83 | 0.79 | 0.85 | 0.81 | 0.78 | 0.83 | 0.80 | 0.78 | 0.82 | 0.79 | 0.77 | 0.75 |
| 5 | 0.83 | 0.79 | 0.75 | 0.83 | 0.78 | 0.75 | 0.81 | 0.77 | 0.74 | 0.79 | 0.76 | 0.73 | 0.78 | 0.75 | 0.73 | 0.71 |
| 6 | 0.79 | 0.74 | 0.71 | 0.78 | 0.74 | 0.70 | 0.77 | 0.73 | 0.70 | 0.76 | 0.72 | 0.69 | 0.75 | 0.71 | 0.69 | 0.68 |
| 7 | 0.75 | 0.70 | 0.67 | 0.75 | 0.70 | 0.67 | 0.74 | 0.69 | 0.66 | 0.72 | 0.69 | 0.66 | 0.71 | 0.68 | 0.65 | 0.64 |
| 8 | 0.72 | 0.67 | 0.63 | 0.71 | 0.66 | 0.63 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.63 | 0.68 | 0.65 | 0.62 | 0.61 |
| 9 | 0.68 | 0.63 | 0.60 | 0.68 | 0.63 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.60 | 0.66 | 0.62 | 0.59 | 0.58 |
| 10 | 0.65 | 0.61 | 0.57 | 0.65 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.56 |

## 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 | 14129.79 | 14107.97 | 14027.42 | 13932.61 | 13815.98 | 13648.17 | 13497.98 | 13355.34 | 13215.22 |
| 45.0 | 14122.24 | 14133.98 | 14129.79 | 14072.73 | 13981.27 | 13881.43 | 13750.53 | 13591.11 | 13393.93 |
| 90.0 | 14113.84 | 14112.17 | 14073.57 | 14002.25 | 13911.63 | 13758.92 | 13618.80 | 13466.09 | 13269.75 |
| 135.0 | 14033.30 | 14085.32 | 14090.35 | 14072.73 | 14034.13 | 13951.91 | 13842.83 | 13727.04 | 13581.04 |
| 180.0 | 14129.79 | 14124.75 | 14081.12 | 14019.87 | 13917.51 | 13811.78 | 13709.42 | 13573.49 | 13357.86 |
| 225.0 | 14122.24 | 14056.79 | 13983.79 | 13877.23 | 13776.54 | 13653.20 | 13452.67 | 13246.26 | 12993.71 |
| 270.0 | 14113.84 | 14082.80 | 14030.78 | 13914.15 | 13821.01 | 13716.97 | 13600.34 | 13411.56 | 13215.22 |
| 315.0 | 14033.30 | 13961.14 | 13835.28 | 13728.72 | 13617.12 | 13494.62 | 13305.83 | 13111.17 | 12880.43 |
| 360.0 | 14129.79 | 14107.97 | 14027.42 | 13932.61 | 13815.98 | 13648.17 | 13497.98 | 13355.34 | 13215.22 |

| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 12976.08 | 12741.15 | 12470.97 | 12151.29 | 11674.71 | 11231.69 | 10786.15 | 10161.89 | 9626.57 |
| 45.0 | 13232.00 | 13046.57 | 12778.91 | 12522.16 | 12204.99 | 11757.78 | 11349.99 | 10898.58 | 10306.21 |
| 90.0 | 13074.25 | 12858.62 | 12526.35 | 12204.99 | 11841.68 | 11432.22 | 10880.96 | 10392.63 | 9869.90 |
| 135.0 | 13450.15 | 13287.37 | 13080.13 | 12772.19 | 12468.46 | 12107.66 | 11698.20 | 11116.74 | 10592.33 |
| 180.0 | 13148.09 | 12882.95 | 12560.75 | 12180.66 | 11635.27 | 11133.52 | 10592.33 | 9854.80 | 9210.40 |
| 225.0 | 12697.52 | 12246.95 | 11834.97 | 11367.61 | 10713.15 | 10133.36 | 9514.14 | 8862.19 | 8006.36 |
| 270.0 | 12983.64 | 12627.04 | 12281.35 | 11768.68 | 11302.17 | 10791.18 | 10239.08 | 9477.22 | 8842.06 |
| 315.0 | 12604.38 | 12183.18 | 11797.21 | 11240.92 | 10752.59 | 10224.82 | 9503.23 | 8881.49 | 8236.26 |
| 360.0 | 12976.08 | 12741.15 | 12470.97 | 12151.29 | 11674.71 | 11231.69 | 10786.15 | 10161.89 | 9626.57 |

| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 8906.66 | 8291.64 | 7674.09 | 7050.67 | 6286.29 | 5716.57 | 5207.27 | 4745.78 | 4237.32 |
| 45.0 | 9788.51 | 9251.52 | 8670.89 | 7926.65 | 7324.20 | 6730.99 | 6155.40 | 5500.10 | 5024.35 |
| 90.0 | 9178.52 | 8585.30 | 7973.63 | 7364.48 | 6614.36 | 6036.25 | 5513.52 | 4920.31 | 4510.01 |
| 135.0 | 10025.12 | 9269.14 | 8634.81 | 7990.41 | 7163.94 | 6525.42 | 5789.57 | 5260.13 | 4775.99 |
| 180.0 | 8352.89 | 7662.34 | 6994.45 | 6179.73 | 5587.36 | 5055.40 | 4583.85 | 4076.22 | 3721.30 |
| 225.0 | 7314.14 | 6648.76 | 5871.80 | 5318.02 | 4825.49 | 4282.63 | 3902.53 | 3570.27 | 3224.58 |
| 270.0 | 8184.24 | 7512.99 | 6705.82 | 6086.60 | 5513.52 | 4880.03 | 4438.69 | 4044.33 | 3614.74 |
| 315.0 | 7564.17 | 6746.09 | 6115.12 | 5547.92 | 5039.45 | 4484.84 | 4092.16 | 3741.43 | 3371.41 |
| 360.0 | 8906.66 | 8291.64 | 7674.09 | 7050.67 | 6286.29 | 5716.57 | 5207.27 | 4745.78 | 4237.32 |

| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 3879.04 | 3561.88 | 3283.31 | 2988.80 | 2810.08 | 2602.84 | 2424.12 | 2237.85 | 1653.19 |
| 45.0 | 4593.08 | 4112.30 | 3775.84 | 3411.69 | 3147.38 | 2932.58 | 2759.74 | 2535.71 | 2346.92 |
| 90.0 | 4042.66 | 3715.42 | 3427.63 | 3164.16 | 2903.22 | 2723.66 | 2529.00 | 2326.79 | 1924.88 |
| 135.0 | 4349.75 | 3878.20 | 3552.65 | 3270.72 | 3034.95 | 2810.08 | 2641.43 | 2461.87 | 2277.28 |
| 180.0 | 3405.81 | 3152.42 | 2887.28 | 2732.89 | 2581.86 | 2384.68 | 2209.32 | 2013.82 | 1783.92 |
| 225.0 | 2998.03 | 2820.99 | 2680.87 | 2490.40 | 2325.95 | 2153.94 | 1645.56 | 1645.56 | 1546.46 |
| 270.0 | 3319.39 | 3092.01 | 2845.32 | 2698.49 | 2545.78 | 2334.34 | 2164.85 | 1974.38 | 1778.88 |
| 315.0 | 3117.18 | 2909.09 | 2709.40 | 2543.26 | 2325.95 | 2146.39 | 1646.48 | 1646.48 | 1554.35 |
| 360.0 | 3879.04 | 3561.88 | 3283.31 | 2988.80 | 2810.08 | 2602.84 | 2424.12 | 2237.85 | 1653.19 |

| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1653.19 | 1606.37 | 1413.47 | 1165.78 | 971.96 | 787.37 | 606.30 | 402.66 | 263.80 |
| 45.0 | 2148.91 | 1950.89 | 1692.46 | 1477.66 | 1273.77 | 1071.56 | 826.55 | 643.64 | 440.59 |
| 90.0 | 1672.74 | 1672.74 | 1472.63 | 1218.81 | 1022.05 | 833.43 | 610.08 | 446.04 | 266.32 |
| 135.0 | 2043.19 | 1851.88 | 1601.84 | 1395.43 | 1193.22 | 958.29 | 778.73 | 602.53 | 435.55 |
| 180.0 | 1591.77 | 1383.69 | 1146.23 | 956.61 | 766.14 | 576.52 | 441.43 | 441.43 | 109.50 |
| 225.0 | 1344.25 | 1089.68 | 885.96 | 649.01 | 474.32 | 320.27 | 163.11 | 78.62 | 43.80 |
| 270.0 | 1552.34 | 1338.38 | 1145.40 | 951.57 | 706.57 | 520.30 | 434.71 | 434.71 | 86.09 |
| 315.0 | 1363.30 | 1167.21 | 971.29 | 731.49 | 548.83 | 387.06 | 246.60 | 112.01 | 52.78 |
| 360.0 | 1653.19 | 1606.37 | 1413.47 | 1165.78 | 971.96 | 787.37 | 606.30 | 402.66 | 263.80 |

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 | 151.87 | 61.42 | 43.71 | 37.17 | 30.63 | 25.51 | 23.24 | 21.98 | 21.23 |
| 45.0 | 440.59 | 269.67 | 69.47 | 46.06 | 39.02 | 31.97 | 26.93 | 23.83 | 22.49 |
| 90.0 | 148.26 | 72.66 | 47.49 | 38.76 | 33.06 | 28.02 | 25.17 | 23.58 | 22.65 |
| 135.0 | 435.55 | 132.07 | 60.83 | 42.54 | 34.49 | 29.45 | 25.26 | 23.16 | 21.82 |
| 180.0 | 51.69 | 38.26 | 32.89 | 27.60 | 22.99 | 21.73 | 20.98 | 20.22 | 19.63 |
| 225.0 | 37.09 | 31.55 | 25.17 | 22.82 | 21.65 | 20.98 | 20.22 | 19.63 | 19.13 |
| 270.0 | 47.99 | 38.09 | 32.39 | 27.27 | 24.08 | 22.99 | 22.15 | 21.40 | 20.56 |
| 315.0 | 39.86 | 32.30 | 27.86 | 23.58 | 21.98 | 21.14 | 20.47 | 19.80 | 19.30 |
| 360.0 | 151.87 | 61.42 | 43.71 | 37.17 | 30.63 | 25.51 | 23.24 | 21.98 | 21.23 |

| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 20.47 | 19.80 | 19.30 | 18.88 | 18.46 | 18.04 | 17.79 | 17.45 | 17.28 |
| 45.0 | 21.40 | 20.72 | 20.05 | 19.55 | 18.96 | 18.54 | 18.12 | 17.79 | 17.54 |
| 90.0 | 21.90 | 21.06 | 20.39 | 19.89 | 19.30 | 18.88 | 18.38 | 18.04 | 17.79 |
| 135.0 | 21.06 | 20.14 | 19.63 | 19.05 | 18.54 | 18.12 | 17.79 | 17.54 | 17.20 |
| 180.0 | 19.05 | 18.63 | 18.29 | 17.96 | 17.62 | 17.37 | 17.12 | 16.95 | 16.70 |
| 225.0 | 18.63 | 18.21 | 17.87 | 17.62 | 17.37 | 17.12 | 16.95 | 16.78 | 16.53 |
| 270.0 | 20.05 | 19.55 | 19.13 | 18.63 | 18.21 | 17.87 | 17.54 | 17.28 | 17.12 |
| 315.0 | 18.88 | 18.46 | 18.04 | 17.79 | 17.45 | 17.28 | 17.03 | 16.78 | 16.61 |
| 360.0 | 20.47 | 19.80 | 19.30 | 18.88 | 18.46 | 18.04 | 17.79 | 17.45 | 17.28 |

| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 17.03 | 16.87 | 16.78 | 16.61 | 16.45 | 16.28 | 16.11 | 16.03 | 15.86 |
| 45.0 | 17.28 | 17.03 | 16.87 | 16.70 | 16.53 | 16.36 | 16.28 | 16.11 | 15.94 |
| 90.0 | 17.54 | 17.20 | 17.03 | 16.87 | 16.70 | 16.45 | 16.28 | 16.11 | 15.94 |
| 135.0 | 16.95 | 16.70 | 16.61 | 16.45 | 16.28 | 16.11 | 15.94 | 15.77 | 15.69 |
| 180.0 | 16.61 | 16.45 | 16.28 | 16.19 | 16.03 | 15.86 | 15.77 | 15.61 | 15.52 |
| 225.0 | 16.45 | 16.28 | 16.11 | 16.03 | 15.86 | 15.77 | 15.69 | 15.52 | 15.35 |
| 270.0 | 16.95 | 16.70 | 16.61 | 16.36 | 16.28 | 16.11 | 15.94 | 15.77 | 15.69 |
| 315.0 | 16.45 | 16.28 | 16.11 | 16.03 | 15.86 | 15.77 | 15.61 | 15.52 | 15.44 |
| 360.0 | 17.03 | 16.87 | 16.78 | 16.61 | 16.45 | 16.28 | 16.11 | 16.03 | 15.86 |

| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 15.69 | 15.61 | 15.52 | 15.44 | 15.35 | 15.27 | 15.19 | 15.10 | 15.02 |
| 45.0 | 15.77 | 15.69 | 15.61 | 15.44 | 15.35 | 15.27 | 15.19 | 15.02 | 14.94 |
| 90.0 | 15.86 | 15.69 | 15.52 | 15.44 | 15.27 | 15.19 | 15.10 | 14.94 | 14.85 |
| 135.0 | 15.61 | 15.44 | 15.27 | 15.19 | 15.10 | 15.02 | 14.94 | 14.85 | 14.77 |
| 180.0 | 15.44 | 15.35 | 15.19 | 15.10 | 15.02 | 14.94 | 14.85 | 14.77 | 14.68 |
| 225.0 | 15.27 | 15.19 | 15.02 | 14.94 | 14.85 | 14.77 | 14.68 | 14.68 | 14.60 |
| 270.0 | 15.52 | 15.44 | 15.27 | 15.19 | 15.02 | 14.94 | 14.77 | 14.77 | 14.68 |
| 315.0 | 15.27 | 15.19 | 15.10 | 15.02 | 14.94 | 14.94 | 14.85 | 14.85 | 14.85 |
| 360.0 | 15.69 | 15.61 | 15.52 | 15.44 | 15.35 | 15.27 | 15.19 | 15.10 | 15.02 |

| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 14.94 | 14.94 | 14.85 | 14.85 | 14.77 | 14.60 | 14.60 | 14.60 | 14.52 |
| 45.0 | 14.85 | 14.85 | 14.68 | 14.68 | 14.60 | 14.60 | 14.52 | 14.43 | 14.43 |
| 90.0 | 14.77 | 14.68 | 14.68 | 14.60 | 14.52 | 14.43 | 14.43 | 14.43 | 14.35 |
| 135.0 | 14.68 | 14.68 | 14.60 | 14.52 | 14.43 | 14.35 | 14.35 | 14.35 | 14.26 |
| 180.0 | 14.68 | 14.68 | 14.60 | 14.52 | 14.52 | 14.52 | 14.43 | 14.35 | 14.35 |
| 225.0 | 14.60 | 14.52 | 14.43 | 14.43 | 14.35 | 14.35 | 14.26 | 14.26 | 14.26 |
| 270.0 | 14.68 | 14.60 | 14.52 | 14.43 | 14.35 | 14.35 | 14.26 | 14.18 | 14.10 |
| 315.0 | 14.68 | 14.60 | 14.52 | 14.35 | 14.26 | 14.26 | 14.10 | 14.10 | 14.10 |
| 360.0 | 14.94 | 14.94 | 14.85 | 14.85 | 14.77 | 14.60 | 14.60 | 14.60 | 14.52 |

## Intensity data(cd)

| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 14.43 |
| 45.0 | 14.35 |
| 90.0 | 14.18 |
| 135.0 | 14.18 |
| 180.0 | 14.35 |
| 225.0 | 14.26 |
| 270.0 | 14.18 |
| 315.0 | 14.10 |
| 360.0 | 14.43 |