NATA LIGHTING CO.,LTD.
www.nata.cn
Email:info@nata.com
Tel:+86 571 85021543 Fax:+86 571 87977635
Address:Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

## Nata

Client: NT
LumCAT: 2-2870-L2
Luminaire: 92.70.412.00
Report No: 20260630-B003
Ballast type: DC

| | |
|---|---|
| Test No: 20260629-C003 | Voltage(V): 35.820 |
| LampCAT: CITIZEN CLU038 | Current(A): 0.723 |
| Lamp flux(lm): 3154.5 | Power (W): 25.897 |
| Number of Lamps: 1 | PF: 0.000 |
| Length(mm): 75 | Width(mm): 75 |
| Phm Type: C | Height(mm): 43 |

## Photometric Results

Lumens(lm): 3093.71, Efficiency(%): 98.07% , Luminous Efficacy(lm/W): 119.46
Central intensity(cd): 11702.190, Maximum intensity(cd): 11702.190
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=24.0
[C90/270]Total=24.0
Field angle(10%Imax): [C0/180]Total=57.2
[C90/270]Total=57.2
Maximum s/h(1/2): C0_180=0.41 C90_270=0.41
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(%): 98.07%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.380%

NT Nata 2-2870-L2

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 11702.188 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 11657.089 | 11.177 | 11.177 | 0.35% | 0.36% |
| 2.0 | 11513.820 | 33.257 | 44.434 | 1.05% | 1.44% |
| 3.0 | 11263.677 | 54.476 | 98.91 | 1.73% | 3.20% |
| 4.0 | 10937.598 | 74.315 | 173.225 | 2.36% | 5.60% |
| 5.0 | 10500.345 | 92.225 | 265.45 | 2.92% | 8.58% |
| 6.0 | 9975.306 | 107.605 | 373.055 | 3.41% | 12.06% |
| 7.0 | 9360.907 | 120.020 | 493.075 | 3.80% | 15.94% |
| 8.0 | 8734.867 | 129.508 | 622.583 | 4.11% | 20.12% |
| 9.0 | 8055.231 | 136.075 | 758.657 | 4.31% | 24.52% |
| 10.0 | 7293.683 | 138.902 | 897.559 | 4.40% | 29.01% |
| 11.0 | 6565.487 | 138.482 | 1036.041 | 4.39% | 33.49% |
| 12.0 | 5851.556 | 135.736 | 1171.777 | 4.30% | 37.88% |
| 13.0 | 5234.640 | 131.565 | 1303.342 | 4.17% | 42.13% |
| 14.0 | 4603.565 | 125.928 | 1429.27 | 3.99% | 46.20% |
| 15.0 | 4039.719 | 118.659 | 1547.929 | 3.76% | 50.03% |
| 16.0 | 3547.718 | 111.177 | 1659.106 | 3.52% | 53.63% |
| 17.0 | 3120.219 | 103.838 | 1762.944 | 3.29% | 56.98% |
| 18.0 | 2740.651 | 96.633 | 1859.577 | 3.06% | 60.11% |
| 19.0 | 2432.822 | 90.008 | 1949.585 | 2.85% | 63.02% |
| 20.0 | 2149.693 | 83.873 | 2033.457 | 2.66% | 65.73% |
| 21.0 | 1952.504 | 78.770 | 2112.228 | 2.50% | 68.27% |
| 22.0 | 1810.326 | 75.616 | 2187.843 | 2.40% | 70.72% |
| 23.0 | 1638.750 | 72.371 | 2260.214 | 2.29% | 73.06% |
| 24.0 | 1531.917 | 69.322 | 2329.536 | 2.20% | 75.30% |
| 25.0 | 1434.188 | 67.443 | 2396.979 | 2.14% | 77.48% |
| 26.0 | 1352.453 | 65.779 | 2462.758 | 2.09% | 79.61% |
| 27.0 | 1280.987 | 64.428 | 2527.186 | 2.04% | 81.69% |
| 28.0 | 1212.509 | 63.130 | 2590.316 | 2.00% | 83.73% |
| 29.0 | 1143.235 | 61.633 | 2651.949 | 1.95% | 85.72% |
| 30.0 | 1070.510 | 59.771 | 2711.719 | 1.89% | 87.65% |
| 31.0 | 982.094 | 57.121 | 2768.84 | 1.81% | 89.50% |
| 32.0 | 878.313 | 53.298 | 2822.139 | 1.69% | 91.22% |
| 33.0 | 764.569 | 48.400 | 2870.539 | 1.53% | 92.79% |
| 34.0 | 647.248 | 42.726 | 2913.265 | 1.35% | 94.17% |
| 35.0 | 532.538 | 36.640 | 2949.904 | 1.16% | 95.35% |
| 36.0 | 431.998 | 30.711 | 2980.615 | 0.97% | 96.34% |
| 37.0 | 323.876 | 24.652 | 3005.268 | 0.78% | 97.14% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 38.0 | 226.335 | 18.365 | 3023.633 | 0.58% | 97.73% |
| 39.0 | 146.216 | 12.716 | 3036.349 | 0.40% | 98.15% |
| 40.0 | 107.126 | 8.836 | 3045.185 | 0.28% | 98.43% |
| 41.0 | 51.728 | 5.657 | 3050.842 | 0.18% | 98.61% |
| 42.0 | 36.457 | 3.204 | 3054.046 | 0.10% | 98.72% |
| 43.0 | 29.545 | 2.445 | 3056.491 | 0.08% | 98.80% |
| 44.0 | 25.004 | 2.059 | 3058.549 | 0.07% | 98.86% |
| 45.0 | 21.564 | 1.790 | 3060.339 | 0.06% | 98.92% |
| 46.0 | 18.575 | 1.570 | 3061.909 | 0.05% | 98.97% |
| 47.0 | 16.362 | 1.390 | 3063.298 | 0.04% | 99.02% |
| 48.0 | 14.547 | 1.249 | 3064.548 | 0.04% | 99.06% |
| 49.0 | 13.068 | 1.134 | 3065.682 | 0.04% | 99.09% |
| 50.0 | 11.873 | 1.040 | 3066.722 | 0.03% | 99.13% |
| 51.0 | 10.866 | 0.962 | 3067.684 | 0.03% | 99.16% |
| 52.0 | 10.069 | 0.898 | 3068.582 | 0.03% | 99.19% |
| 53.0 | 9.334 | 0.844 | 3069.426 | 0.03% | 99.21% |
| 54.0 | 8.821 | 0.800 | 3070.226 | 0.03% | 99.24% |
| 55.0 | 8.422 | 0.770 | 3070.996 | 0.02% | 99.27% |
| 56.0 | 8.034 | 0.744 | 3071.74 | 0.02% | 99.29% |
| 57.0 | 7.730 | 0.721 | 3072.46 | 0.02% | 99.31% |
| 58.0 | 7.478 | 0.703 | 3073.164 | 0.02% | 99.34% |
| 59.0 | 7.268 | 0.689 | 3073.853 | 0.02% | 99.36% |
| 60.0 | 7.101 | 0.679 | 3074.532 | 0.02% | 99.38% |
| 61.0 | 6.922 | 0.669 | 3075.201 | 0.02% | 99.40% |
| 62.0 | 6.765 | 0.660 | 3075.86 | 0.02% | 99.42% |
| 63.0 | 6.681 | 0.654 | 3076.514 | 0.02% | 99.44% |
| 64.0 | 6.576 | 0.651 | 3077.165 | 0.02% | 99.47% |
| 65.0 | 6.482 | 0.646 | 3077.811 | 0.02% | 99.49% |
| 66.0 | 6.377 | 0.642 | 3078.453 | 0.02% | 99.51% |
| 67.0 | 6.345 | 0.640 | 3079.092 | 0.02% | 99.53% |
| 68.0 | 6.293 | 0.640 | 3079.733 | 0.02% | 99.55% |
| 69.0 | 6.220 | 0.638 | 3080.371 | 0.02% | 99.57% |
| 70.0 | 6.178 | 0.637 | 3081.008 | 0.02% | 99.59% |
| 71.0 | 6.125 | 0.636 | 3081.644 | 0.02% | 99.61% |
| 72.0 | 6.104 | 0.636 | 3082.279 | 0.02% | 99.63% |
| 73.0 | 6.052 | 0.636 | 3082.915 | 0.02% | 99.65% |
| 74.0 | 6.031 | 0.635 | 3083.55 | 0.02% | 99.67% |
| 75.0 | 6.020 | 0.637 | 3084.187 | 0.02% | 99.69% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 76.0 | 5.999 | 0.638 | 3084.825 | 0.02% | 99.71% |
| 77.0 | 5.957 | 0.637 | 3085.463 | 0.02% | 99.73% |
| 78.0 | 5.936 | 0.637 | 3086.099 | 0.02% | 99.75% |
| 79.0 | 5.915 | 0.637 | 3086.736 | 0.02% | 99.77% |
| 80.0 | 5.905 | 0.637 | 3087.373 | 0.02% | 99.80% |
| 81.0 | 5.905 | 0.639 | 3088.012 | 0.02% | 99.82% |
| 82.0 | 5.852 | 0.638 | 3088.649 | 0.02% | 99.84% |
| 83.0 | 5.842 | 0.636 | 3089.285 | 0.02% | 99.86% |
| 84.0 | 5.831 | 0.636 | 3089.921 | 0.02% | 99.88% |
| 85.0 | 5.821 | 0.636 | 3090.557 | 0.02% | 99.90% |
| 86.0 | 5.789 | 0.635 | 3091.192 | 0.02% | 99.92% |
| 87.0 | 5.758 | 0.632 | 3091.824 | 0.02% | 99.94% |
| 88.0 | 5.758 | 0.631 | 3092.455 | 0.02% | 99.96% |
| 89.0 | 5.737 | 0.630 | 3093.085 | 0.02% | 99.98% |
| 90.0 | 5.748 | 0.630 | 3093.714 | 0.02% | 100.00% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

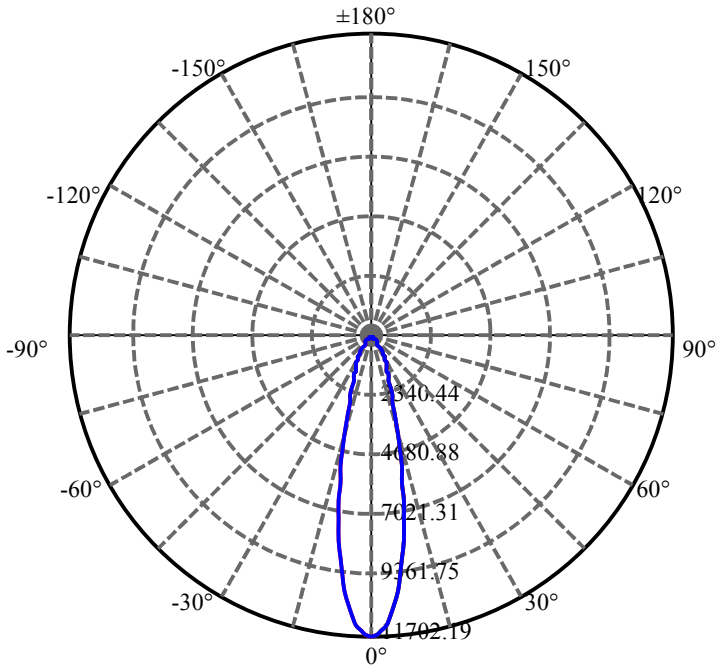
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 2711.72 | 85.96% | 87.65% |
| 0-40 | 3045.18 | 96.54% | 98.43% |
| 0-60 | 3074.53 | 97.47% | 99.38% |
| 0-90 | 3093.08 | 98.05% | 99.98% |
| 0-120 | 3093.08 | 98.05% | 99.98% |
| 0-180 | 3093.71 | 98.07% | 100.00% |
| 60-90 | 18.55 | 0.59% | 0.60% |
| 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% |
| 0-26.19 | 2474.97 | 78.46% | 80.00% |

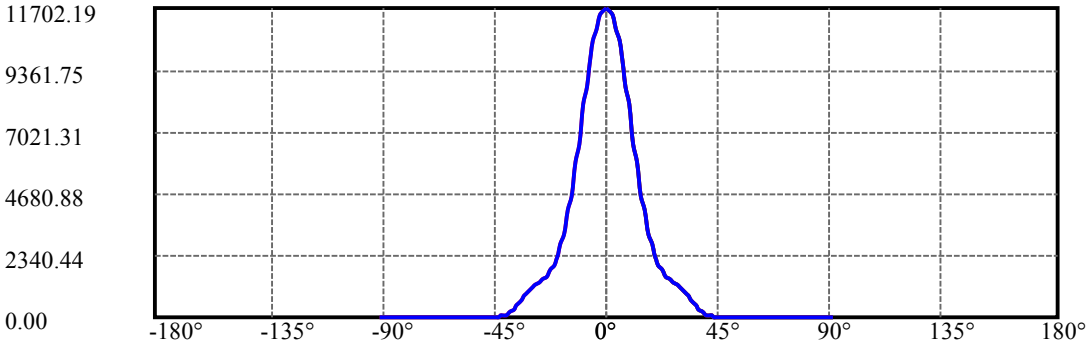
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 897.56 |
| 10-20 | 1135.90 |
| 20-30 | 678.26 |
| 30-40 | 333.47 |
| 40-50 | 21.54 |
| 50-60 | 7.81 |
| 60-70 | 6.48 |
| 70-80 | 6.37 |
| 80-90 | 5.71 |
| 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:

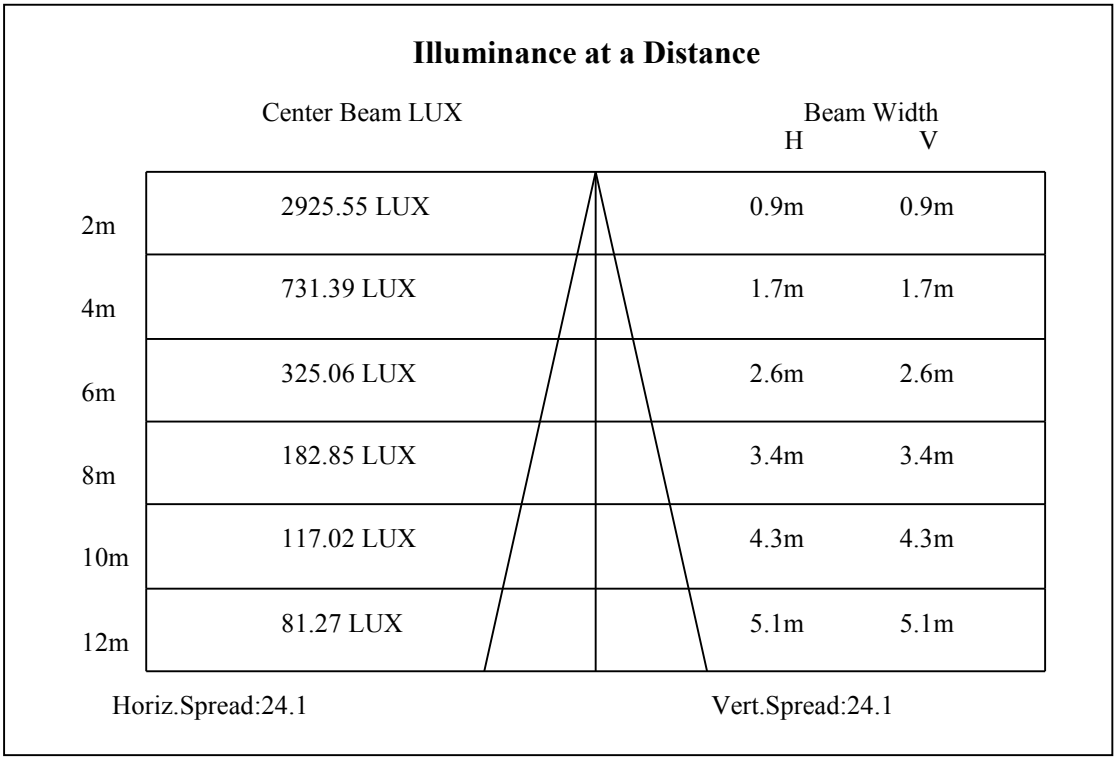
C90/C270:

Field angle(10%Imax):C0/180Left:28.6 Right:28.6
:C90/270Left:28.6 Right:28.6

Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0
:C90/270Left:12.0 Right:12.0

Lux distance Curve

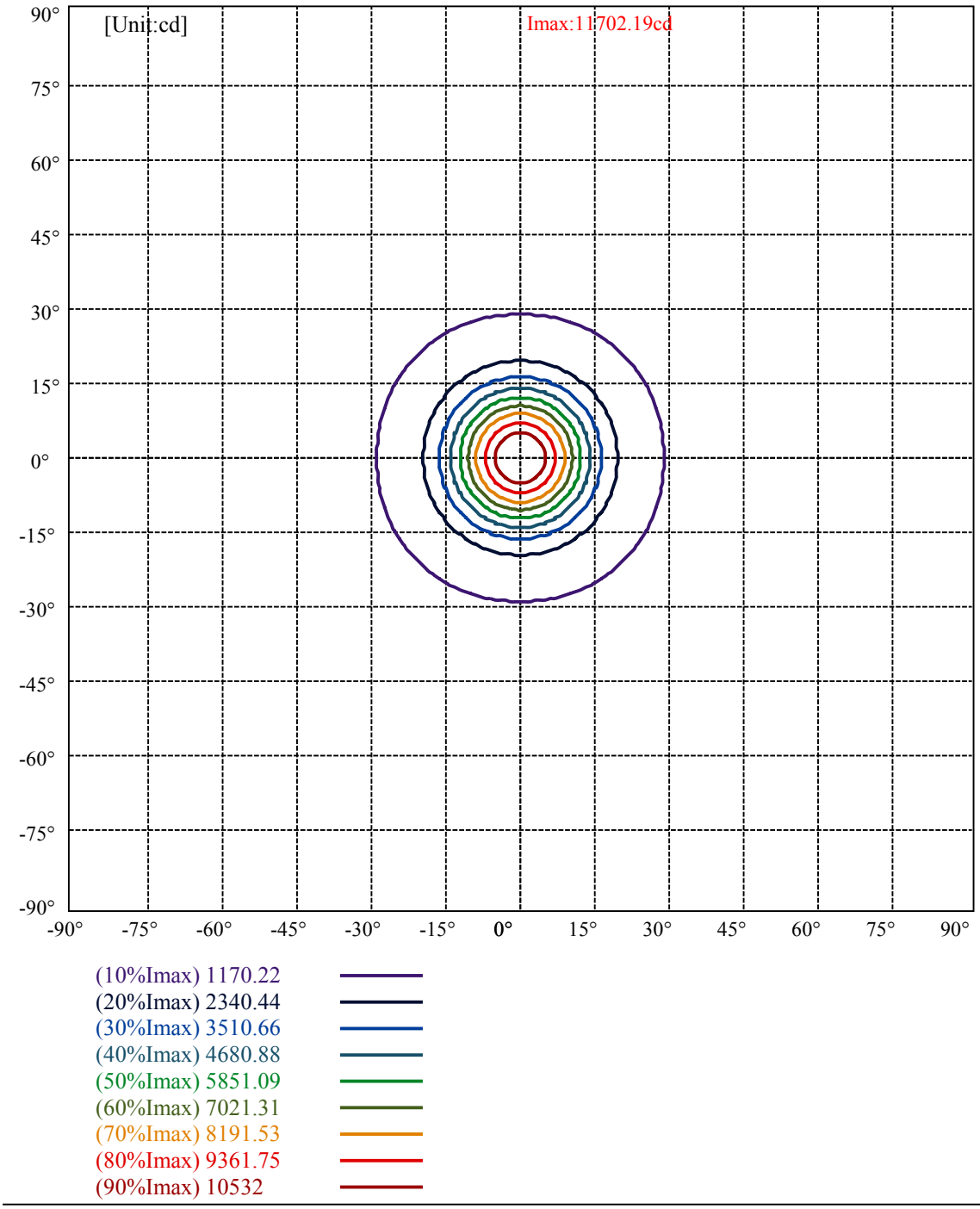





Equipment: GMS1980 Date: 2026/6/29 Operator: Y Z Q
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.16

ISO-Intensity(V-H)






(10%Imax) 1170.22
(20%Imax) 2340.44
(30%Imax) 3510.66
(40%Imax) 4680.88
(50%Imax) 5851.09
(60%Imax) 7021.31
(70%Imax) 8191.53
(80%Imax) 9361.75
(90%Imax) 10532

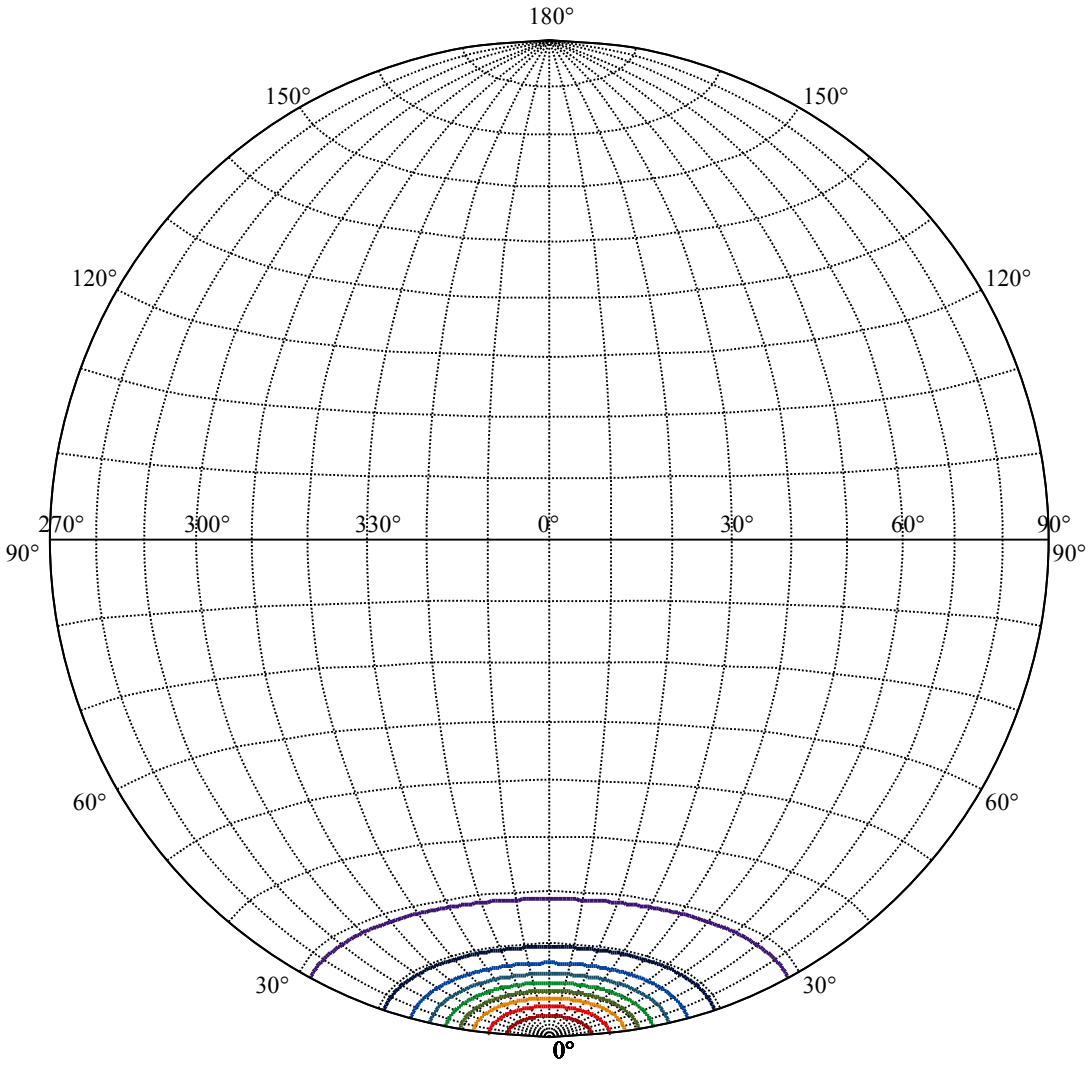
Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/6/29
Humidity(%): 60.0%

Operator: Y Z Q
Distance(m): 9.16

ISO candela diagram on circular web






[Unit:cd]

Imax:11702.19

(10%Imax) 1170.22
(20%Imax) 2340.44
(30%Imax) 3510.66
(40%Imax) 4680.88
(50%Imax) 5851.09
(60%Imax) 7021.31
(70%Imax) 8191.53
(80%Imax) 9361.75
(90%Imax) 10532

Equipment: GMS1980
Temperature(°C): 25.0

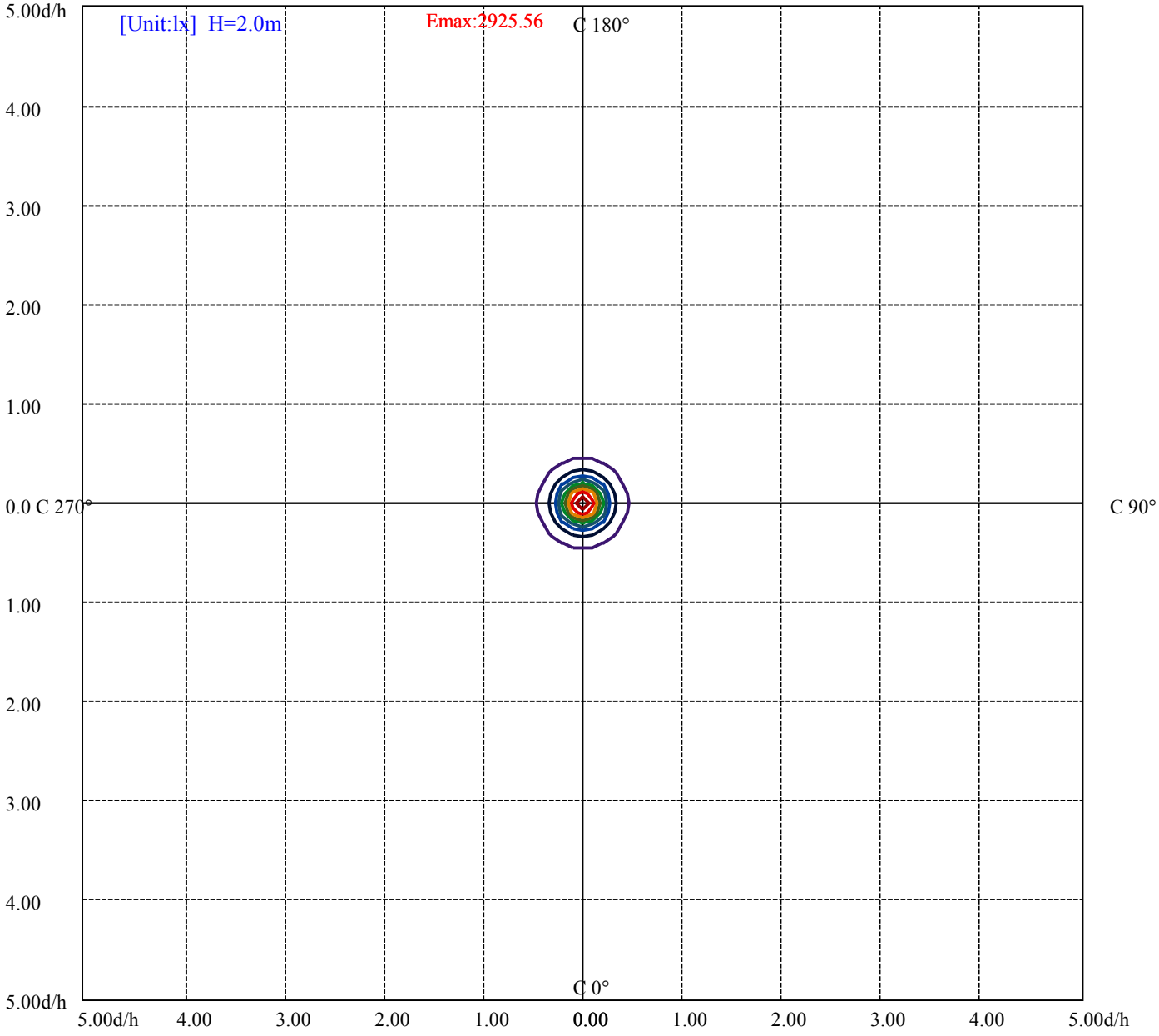
Date: 2026/6/29
Humidity(%): 60.0%

Operator: Y Z Q
Distance(m): 9.16

NT Nata 2-2870-L2

ISO illuminance diagram





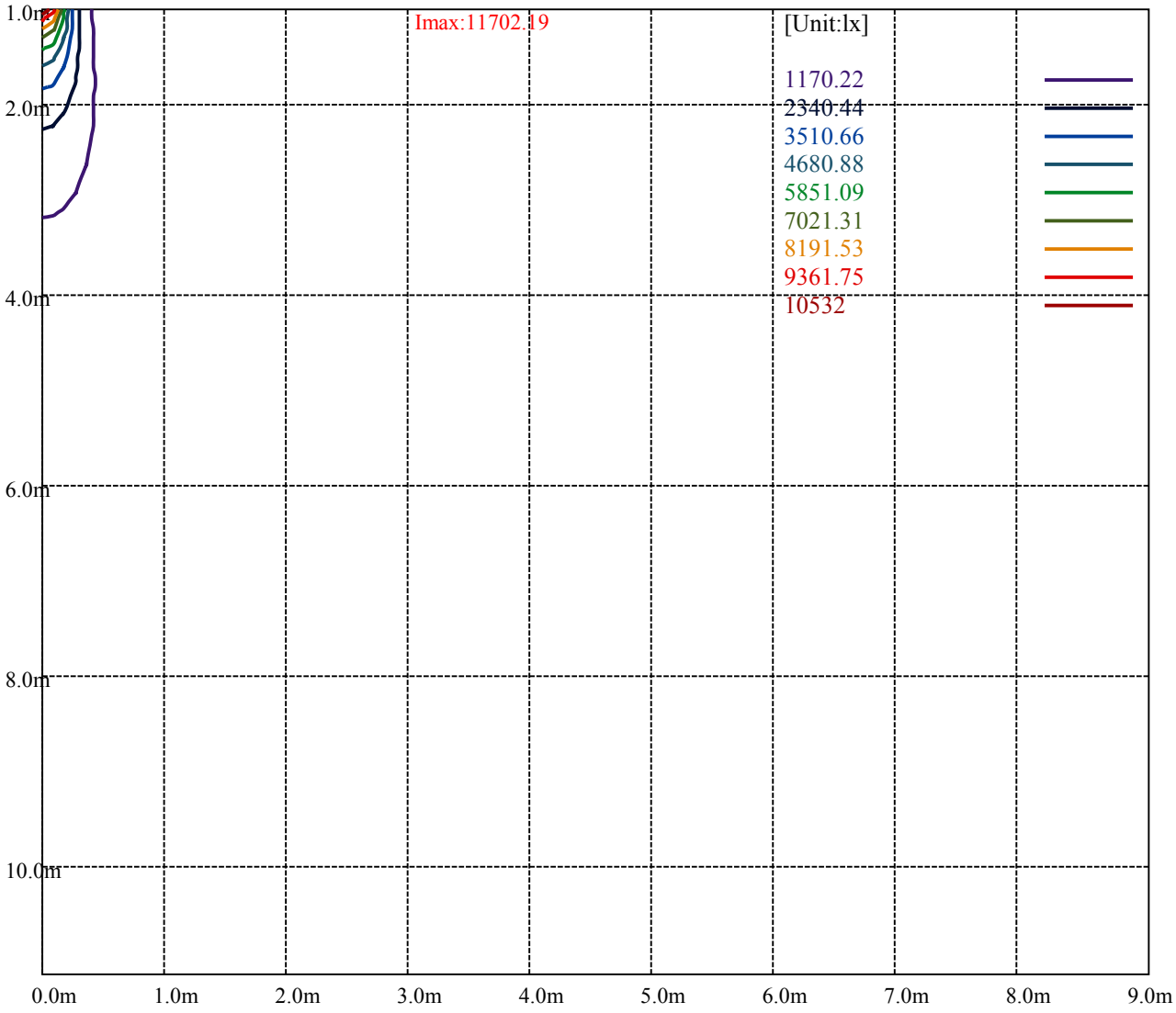

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/6/29
Humidity(%): 60.0%

Operator: Y Z Q
Distance(m): 9.16

Space ISO Lux diagram






Equipment: GMS1980
Temperature(°C): 25.0

Date: 2026/6/29
Humidity(%): 60.0%

Operator: Y Z Q
Distance(m): 9.16

NT Nata 2-2870-L2

## Luminance Limitting Curve(no luminous side)



Luminance Table

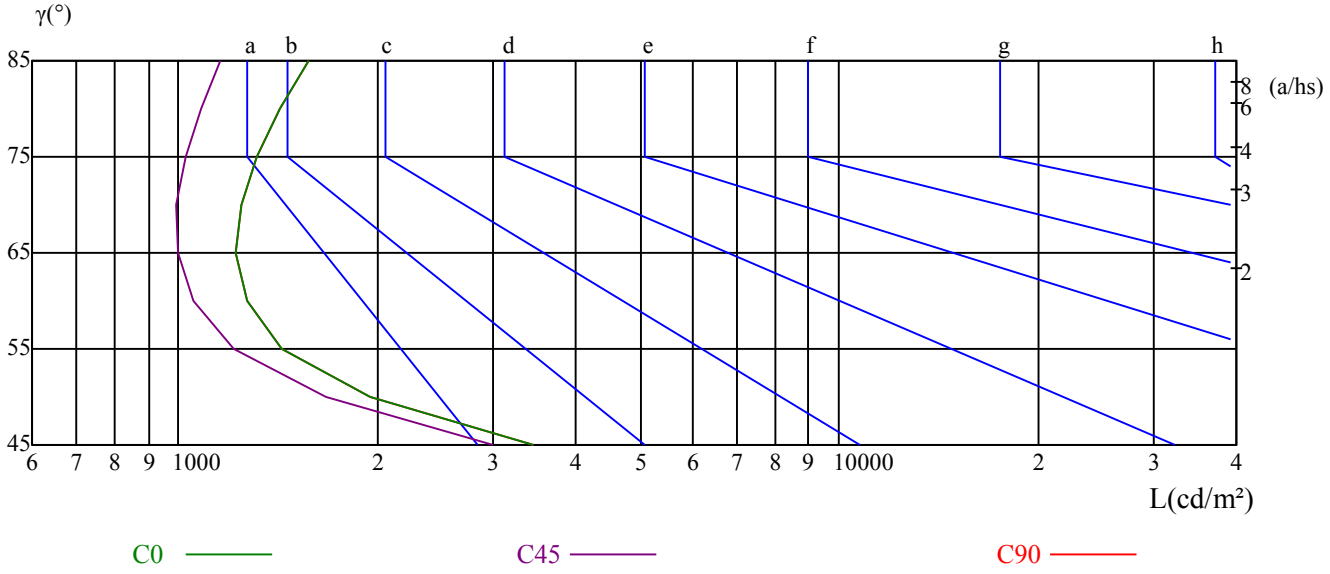
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 3446 | 1951 | 1435 | 1267 | 1223 | 1247 | 1317 | 1422 | 1572 |
| C45 | 2994 | 1670 | 1210 | 1050 | 996 | 995 | 1027 | 1080 | 1156 |
| C90 | 3446 | 1951 | 1435 | 1267 | 1223 | 1247 | 1317 | 1422 | 1572 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|---|---|---|---|---|---|---|---|---|
| 2727 | 2727 | 2727 | 4135 | 4135 | 4135 | 11873 | 11873 | 11873 |

Glare Table

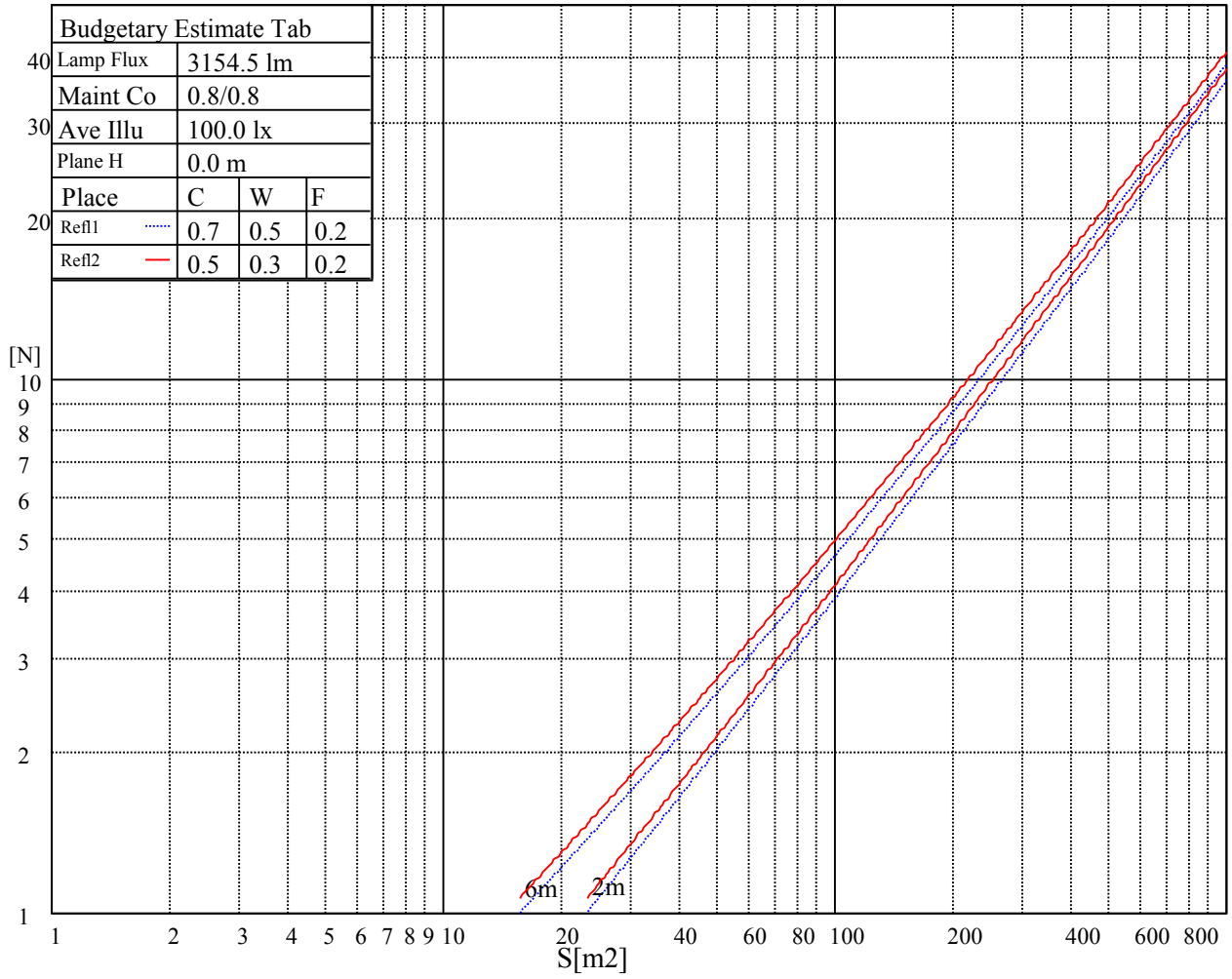
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.2 | D | | | | 2000 | 1000 | 500 | <=300 | |
| 2.55 | E | | | | | 2000 | 1000 | 500 | <=300 |
| | | a | b | c | d | e | f | g | h |

Luminance Limitting Curve



## Budgetary Estimate Table






Equipment: GMS1980 Date: 2026/6/29 Operator: Y Z Q
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 9.16

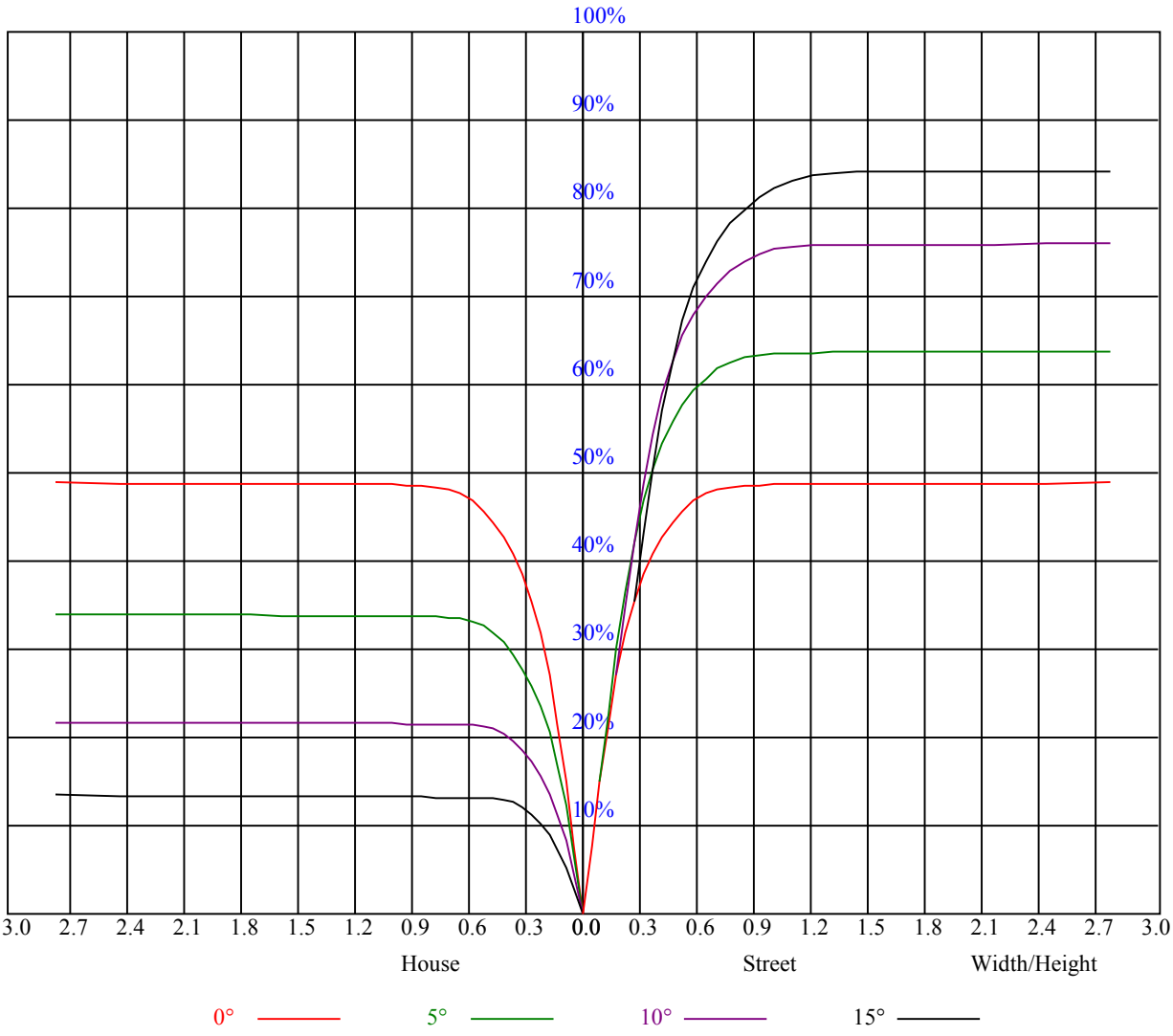
## Utilization factor table for indoor luminaire



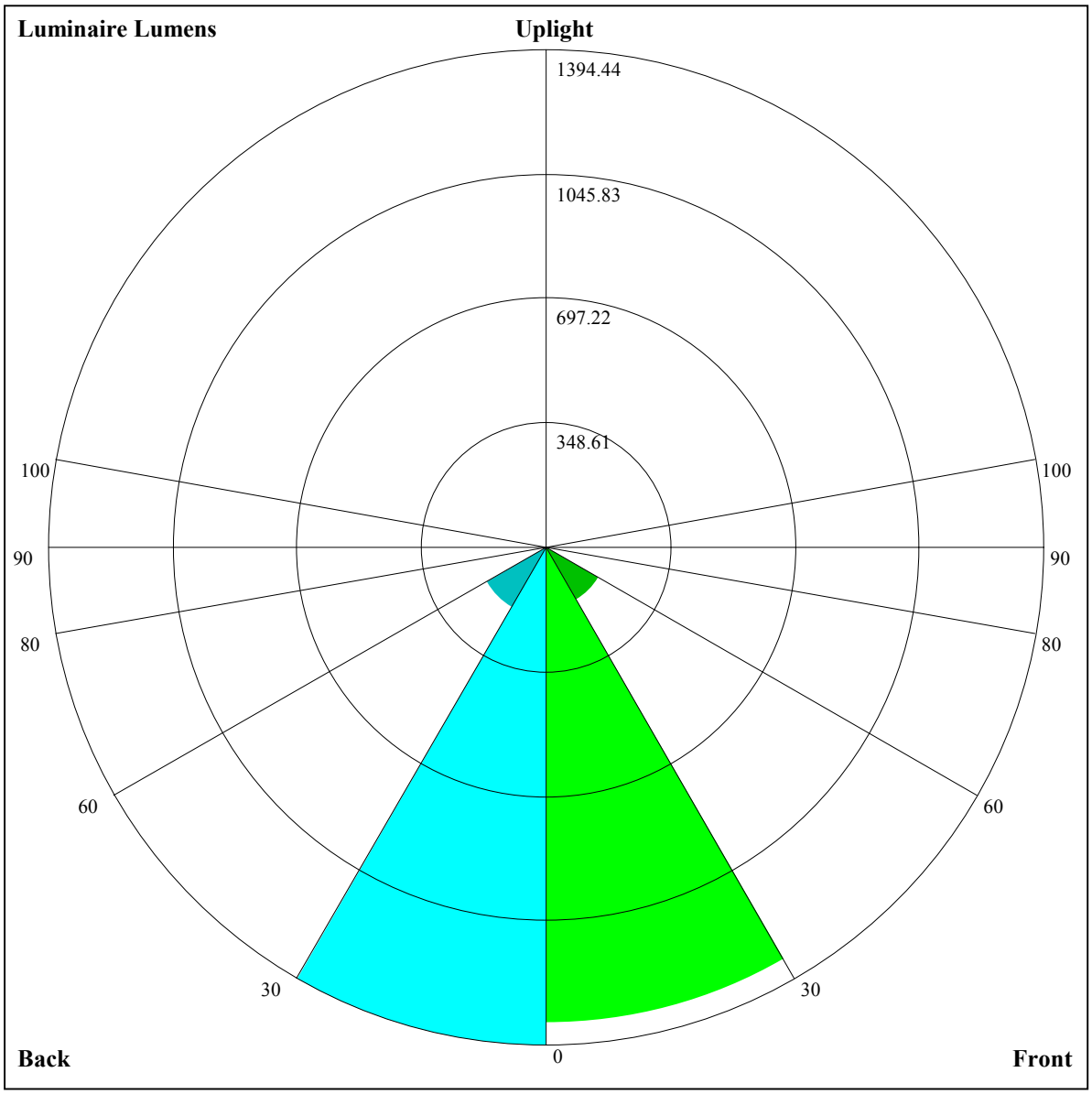
| RHOCC | 80 | | | 70 | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RHOW | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | COEFFCIENTS OF UTILIZATION RHOFC=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.17 | 1.17 | 1.17 | 1.14 | 1.14 | 1.14 | 1.09 | 1.09 | 1.09 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 | 0.98 |
| 1 | 1.10 | 1.08 | 1.06 | 1.08 | 1.06 | 1.04 | 1.04 | 1.03 | 1.01 | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 |
| 2 | 1.04 | 1.01 | 0.98 | 1.03 | 1.00 | 0.97 | 0.99 | 0.97 | 0.95 | 0.97 | 0.95 | 0.93 | 0.94 | 0.92 | 0.91 | 0.90 |
| 3 | 0.99 | 0.95 | 0.92 | 0.98 | 0.94 | 0.91 | 0.95 | 0.92 | 0.90 | 0.93 | 0.90 | 0.88 | 0.91 | 0.89 | 0.87 | 0.86 |
| 4 | 0.94 | 0.90 | 0.87 | 0.93 | 0.89 | 0.86 | 0.91 | 0.88 | 0.85 | 0.90 | 0.87 | 0.84 | 0.88 | 0.85 | 0.83 | 0.82 |
| 5 | 0.90 | 0.86 | 0.82 | 0.89 | 0.85 | 0.82 | 0.88 | 0.84 | 0.81 | 0.86 | 0.83 | 0.81 | 0.85 | 0.82 | 0.80 | 0.79 |
| 6 | 0.87 | 0.82 | 0.79 | 0.86 | 0.82 | 0.78 | 0.84 | 0.81 | 0.78 | 0.83 | 0.80 | 0.77 | 0.82 | 0.79 | 0.77 | 0.76 |
| 7 | 0.83 | 0.79 | 0.75 | 0.83 | 0.78 | 0.75 | 0.81 | 0.78 | 0.75 | 0.80 | 0.77 | 0.74 | 0.79 | 0.76 | 0.74 | 0.73 |
| 8 | 0.80 | 0.75 | 0.72 | 0.79 | 0.75 | 0.72 | 0.79 | 0.75 | 0.72 | 0.78 | 0.74 | 0.72 | 0.77 | 0.74 | 0.71 | 0.70 |
| 9 | 0.77 | 0.73 | 0.70 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.75 | 0.72 | 0.69 | 0.74 | 0.71 | 0.69 | 0.68 |
| 10 | 0.74 | 0.70 | 0.67 | 0.74 | 0.70 | 0.67 | 0.73 | 0.70 | 0.67 | 0.73 | 0.69 | 0.67 | 0.72 | 0.69 | 0.67 | 0.66 |

## Coefficient Utilization Curve






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2026/6/29 | Operator: Y Z Q |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 9.16 |




Luminaire Lumens:
FL=1333.34,FM=170.31,FH=6.38,FVH=3.16
BL=1394.44,BM=195.1,BH=6.44,BVH=3.17
UL=0,UH=0

BUG Rating:B3-U0-G0

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 | 11828.26 | 11751.90 | 11616.81 | 11382.72 | 11063.88 | 10578.90 | 10084.70 | 9346.33 | 8705.29 |
| 45.0 | 11705.75 | 11799.73 | 11798.89 | 11647.02 | 11448.16 | 11068.07 | 10666.16 | 10182.03 | 9453.73 |
| 90.0 | 11745.19 | 11784.63 | 11689.81 | 11447.32 | 11172.95 | 10812.16 | 10242.44 | 9720.55 | 9138.24 |
| 135.0 | 11529.55 | 11691.49 | 11776.23 | 11766.17 | 11640.31 | 11440.61 | 11069.75 | 10688.82 | 10234.89 |
| 180.0 | 11828.26 | 11799.73 | 11665.48 | 11450.68 | 11070.59 | 10669.52 | 10178.67 | 9445.34 | 8791.71 |
| 225.0 | 11705.75 | 11565.63 | 11245.11 | 10882.64 | 10425.35 | 9904.30 | 9134.05 | 8431.76 | 7722.76 |
| 270.0 | 11745.19 | 11643.66 | 11439.77 | 11072.27 | 10690.50 | 10229.85 | 9729.78 | 9001.48 | 8392.32 |
| 315.0 | 11529.55 | 11219.94 | 10878.44 | 10460.60 | 9989.05 | 9299.34 | 8696.90 | 8070.96 | 7439.99 |
| 360.0 | 11828.26 | 11751.90 | 11616.81 | 11382.72 | 11063.88 | 10578.90 | 10084.70 | 9346.33 | 8705.29 |

| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 8022.30 | 7124.51 | 6405.44 | 5685.53 | 5028.55 | 4261.65 | 3730.53 | 3259.82 | 2853.71 |
| 45.0 | 8806.82 | 8104.53 | 7186.60 | 6442.36 | 5717.41 | 5015.96 | 4217.18 | 3655.85 | 3173.39 |
| 90.0 | 8524.05 | 7705.14 | 7046.48 | 6398.72 | 5772.79 | 5036.94 | 4501.62 | 4014.97 | 3472.94 |
| 135.0 | 9588.82 | 9009.87 | 8405.75 | 7617.03 | 6991.10 | 6371.88 | 5781.18 | 5084.76 | 4572.10 |
| 180.0 | 8111.24 | 7193.31 | 6471.72 | 5607.50 | 4956.39 | 4346.39 | 3820.31 | 3242.20 | 2849.52 |
| 225.0 | 6970.96 | 6053.03 | 5354.94 | 4552.80 | 3965.46 | 3444.41 | 2904.06 | 2537.39 | 2240.36 |
| 270.0 | 7758.83 | 7106.05 | 6310.62 | 5693.08 | 5119.16 | 4572.10 | 3968.82 | 3540.90 | 3069.35 |
| 315.0 | 6658.83 | 6053.03 | 5342.35 | 4815.43 | 4326.26 | 3779.19 | 3394.07 | 3045.86 | 2730.37 |
| 360.0 | 8022.30 | 7124.51 | 6405.44 | 5685.53 | 5028.55 | 4261.65 | 3730.53 | 3259.82 | 2853.71 |

| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 2442.58 | 2178.27 | 1668.97 | 1668.97 | 1604.86 | 1492.01 | 1377.56 | 1298.86 | 1233.83 |
| 45.0 | 2763.10 | 2355.31 | 2096.05 | 1889.64 | 1685.75 | 1557.37 | 1434.87 | 1356.00 | 1285.52 |
| 90.0 | 3102.91 | 2715.27 | 2450.13 | 2217.71 | 2023.05 | 1655.79 | 1655.79 | 1572.31 | 1468.85 |
| 135.0 | 4104.75 | 3691.09 | 3241.36 | 2925.03 | 2650.66 | 2353.64 | 2153.10 | 1943.34 | 1799.86 |
| 180.0 | 2515.57 | 2238.69 | 1965.99 | 1784.76 | 1638.76 | 1521.29 | 1408.02 | 1327.47 | 1244.40 |
| 225.0 | 1856.91 | 1649.67 | 1616.53 | 1500.23 | 1409.45 | 1317.07 | 1250.03 | 1196.58 | 1155.30 |
| 270.0 | 2733.73 | 2454.32 | 2163.17 | 1964.31 | 1800.70 | 1662.25 | 1522.13 | 1425.64 | 1346.77 |
| 315.0 | 2405.66 | 2179.95 | 1995.36 | 1669.39 | 1669.39 | 1550.58 | 1453.83 | 1353.31 | 1285.10 |
| 360.0 | 2442.58 | 2178.27 | 1668.97 | 1668.97 | 1604.86 | 1492.01 | 1377.56 | 1298.86 | 1233.83 |

| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1168.81 | 1128.11 | 1081.88 | 1007.96 | 927.58 | 831.17 | 726.87 | 591.45 | 481.28 |
| 45.0 | 1224.27 | 1164.69 | 1126.10 | 1088.34 | 1043.87 | 957.45 | 868.51 | 769.50 | 667.13 |
| 90.0 | 1385.28 | 1296.59 | 1236.68 | 1177.11 | 1087.67 | 995.54 | 890.49 | 745.50 | 623.25 |
| 135.0 | 1671.48 | 1559.89 | 1447.46 | 1373.62 | 1303.14 | 1230.14 | 1119.38 | 1012.82 | 896.20 |
| 180.0 | 1194.06 | 1150.43 | 1095.05 | 1032.96 | 948.22 | 856.76 | 735.10 | 631.05 | 521.14 |
| 225.0 | 1106.55 | 1070.97 | 994.37 | 912.98 | 818.83 | 691.55 | 583.98 | 475.74 | 372.46 |
| 270.0 | 1277.97 | 1209.16 | 1145.40 | 1063.17 | 938.99 | 830.75 | 681.40 | 558.06 | 435.55 |
| 315.0 | 1219.48 | 1120.22 | 1018.95 | 907.94 | 788.46 | 633.15 | 510.82 | 393.85 | 263.30 |
| 360.0 | 1168.81 | 1128.11 | 1081.88 | 1007.96 | 927.58 | 831.17 | 726.87 | 591.45 | 481.28 |

| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 376.06 | 278.82 | 168.31 | 98.51 | 51.85 | 30.37 | 26.18 | 21.31 | 18.79 |
| 45.0 | 532.05 | 424.65 | 424.65 | 196.76 | 117.22 | 52.27 | 33.23 | 27.69 | 22.74 |
| 90.0 | 472.39 | 357.61 | 254.82 | 166.97 | 86.59 | 54.96 | 41.62 | 35.83 | 29.20 |
| 135.0 | 772.02 | 615.95 | 490.09 | 428.84 | 428.84 | 150.61 | 84.16 | 61.33 | 51.43 |
| 180.0 | 439.75 | 439.75 | 186.19 | 111.34 | 57.06 | 31.30 | 26.18 | 21.14 | 18.46 |
| 225.0 | 251.72 | 165.46 | 95.40 | 50.09 | 30.21 | 26.26 | 22.57 | 19.38 | 17.28 |
| 270.0 | 435.55 | 200.70 | 125.52 | 71.74 | 46.15 | 34.82 | 29.79 | 25.51 | 22.57 |
| 315.0 | 176.45 | 108.07 | 65.70 | 45.48 | 39.10 | 33.23 | 27.94 | 24.16 | 19.55 |
| 360.0 | 376.06 | 278.82 | 168.31 | 98.51 | 51.85 | 30.37 | 26.18 | 21.31 | 18.79 |

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 | 16.53 | 14.10 | 12.08 | 11.24 | 10.49 | 9.73 | 8.89 | 8.47 | 8.14 |
| 45.0 | 19.89 | 17.62 | 15.35 | 13.76 | 12.50 | 11.83 | 10.99 | 10.07 | 9.48 |
| 90.0 | 25.59 | 22.23 | 18.88 | 16.36 | 14.94 | 13.17 | 11.75 | 10.66 | 9.73 |
| 135.0 | 43.97 | 36.42 | 31.88 | 27.27 | 22.82 | 20.22 | 18.04 | 15.94 | 13.68 |
| 180.0 | 16.36 | 13.59 | 12.33 | 11.50 | 10.74 | 9.82 | 9.15 | 8.64 | 8.31 |
| 225.0 | 14.18 | 13.09 | 12.25 | 11.24 | 10.49 | 9.82 | 9.31 | 8.98 | 8.47 |
| 270.0 | 18.63 | 15.86 | 14.43 | 12.84 | 11.66 | 10.32 | 9.57 | 8.98 | 8.47 |
| 315.0 | 17.37 | 15.69 | 13.68 | 12.17 | 10.91 | 10.07 | 9.23 | 8.81 | 8.39 |
| 360.0 | 16.53 | 14.10 | 12.08 | 11.24 | 10.49 | 9.73 | 8.89 | 8.47 | 8.14 |

| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 7.89 | 7.64 | 7.38 | 7.22 | 7.05 | 6.96 | 6.80 | 6.71 | 6.63 |
| 45.0 | 9.06 | 8.56 | 8.31 | 8.05 | 7.72 | 7.55 | 7.38 | 7.22 | 7.05 |
| 90.0 | 9.23 | 8.73 | 8.22 | 7.89 | 7.64 | 7.38 | 7.13 | 6.96 | 6.80 |
| 135.0 | 12.25 | 11.33 | 10.32 | 9.57 | 8.98 | 8.39 | 8.05 | 7.72 | 7.38 |
| 180.0 | 7.89 | 7.72 | 7.47 | 7.30 | 7.13 | 6.96 | 6.88 | 6.71 | 6.63 |
| 225.0 | 8.22 | 7.97 | 7.72 | 7.47 | 7.30 | 7.13 | 7.05 | 6.88 | 6.71 |
| 270.0 | 8.14 | 7.80 | 7.55 | 7.22 | 7.05 | 6.96 | 6.80 | 6.63 | 6.54 |
| 315.0 | 7.89 | 7.64 | 7.30 | 7.13 | 6.96 | 6.80 | 6.71 | 6.54 | 6.38 |
| 360.0 | 7.89 | 7.64 | 7.38 | 7.22 | 7.05 | 6.96 | 6.80 | 6.71 | 6.63 |

| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 6.54 | 6.46 | 6.46 | 6.38 | 6.29 | 6.21 | 6.21 | 6.21 | 6.13 |
| 45.0 | 6.96 | 6.80 | 6.71 | 6.54 | 6.54 | 6.46 | 6.38 | 6.29 | 6.29 |
| 90.0 | 6.71 | 6.63 | 6.46 | 6.38 | 6.38 | 6.29 | 6.21 | 6.13 | 6.04 |
| 135.0 | 7.22 | 6.96 | 6.80 | 6.63 | 6.54 | 6.46 | 6.38 | 6.29 | 6.21 |
| 180.0 | 6.54 | 6.46 | 6.46 | 6.38 | 6.29 | 6.29 | 6.21 | 6.21 | 6.13 |
| 225.0 | 6.63 | 6.63 | 6.46 | 6.38 | 6.38 | 6.29 | 6.21 | 6.21 | 6.21 |
| 270.0 | 6.46 | 6.38 | 6.29 | 6.21 | 6.21 | 6.21 | 6.13 | 6.13 | 6.04 |
| 315.0 | 6.38 | 6.29 | 6.21 | 6.13 | 6.13 | 6.13 | 6.04 | 5.96 | 5.96 |
| 360.0 | 6.54 | 6.46 | 6.46 | 6.38 | 6.29 | 6.21 | 6.21 | 6.21 | 6.13 |

| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 6.13 | 6.13 | 6.04 | 6.04 | 6.04 | 5.96 | 5.96 | 5.96 | 5.96 |
| 45.0 | 6.21 | 6.13 | 6.13 | 6.13 | 6.04 | 6.04 | 6.04 | 5.96 | 5.96 |
| 90.0 | 6.04 | 5.96 | 6.04 | 5.96 | 5.96 | 5.96 | 5.87 | 5.87 | 5.79 |
| 135.0 | 6.21 | 6.13 | 6.04 | 6.13 | 6.04 | 6.04 | 5.96 | 5.96 | 5.96 |
| 180.0 | 6.13 | 6.04 | 6.04 | 6.04 | 6.04 | 5.96 | 5.96 | 5.96 | 5.96 |
| 225.0 | 6.13 | 6.13 | 6.04 | 6.04 | 6.04 | 5.96 | 5.96 | 5.96 | 5.96 |
| 270.0 | 6.04 | 5.96 | 5.96 | 5.96 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 |
| 315.0 | 5.96 | 5.96 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.79 |
| 360.0 | 6.13 | 6.13 | 6.04 | 6.04 | 6.04 | 5.96 | 5.96 | 5.96 | 5.96 |

| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.87 | 5.79 | 5.79 |
| 45.0 | 5.96 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.79 | 5.79 |
| 90.0 | 5.87 | 5.79 | 5.79 | 5.79 | 5.79 | 5.79 | 5.79 | 5.79 | 5.71 |
| 135.0 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.79 | 5.71 | 5.71 | 5.71 |
| 180.0 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.79 | 5.79 | 5.79 |
| 225.0 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.79 | 5.79 | 5.79 |
| 270.0 | 5.87 | 5.79 | 5.87 | 5.79 | 5.79 | 5.79 | 5.71 | 5.71 | 5.71 |
| 315.0 | 5.79 | 5.79 | 5.71 | 5.71 | 5.71 | 5.71 | 5.62 | 5.71 | 5.62 |
| 360.0 | 5.96 | 5.87 | 5.87 | 5.87 | 5.87 | 5.79 | 5.87 | 5.79 | 5.79 |

## Intensity data(cd)

| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 5.79 |
| 45.0 | 5.79 |
| 90.0 | 5.71 |
| 135.0 | 5.71 |
| 180.0 | 5.79 |
| 225.0 | 5.79 |
| 270.0 | 5.71 |
| 315.0 | 5.71 |
| 360.0 | 5.79 |