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Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

NT

LumCAT: 2-2641-L
Luminaire: 92.70.411.00
LampCAT: Fortimo_SLM_C_1208
Ballast type: AC

| | |
|---|---|
| Report No: 20231027-B007 | Voltage(V): 34.5900 |
| Test No: 20231027-C007 | Current(A): 0.6000 |
| Number of Lamps: 1 | Power (W): 20.7540 |
| Lamp flux(lm): 3391.2 | PF: 0.0000 |
| Length(mm): 0 | Width(mm): 0 |
| Phm Type: C | Height(mm): 0 |

## Photometric Results

Lumens(lm): 3106.00, Efficiency(%): 91.59% , Luminous Efficacy(lm/W): 149.66
Central intensity(cd): 6761.719, Maximum intensity(cd): 6761.719
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=37.4
[C90/270]Total=37.4
Field angle(10%Imax): [C0/180]Total=65.6
[C90/270]Total=65.6
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.62 C90_270=0.62
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.59%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 97.984%

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 6761.719 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 6748.503 | 6.464 | 6.464 | 0.19% | 0.21% |
| 2.0 | 6713.561 | 19.322 | 25.786 | 0.57% | 0.83% |
| 3.0 | 6646.929 | 31.954 | 57.74 | 0.94% | 1.86% |
| 4.0 | 6548.054 | 44.168 | 101.908 | 1.30% | 3.28% |
| 5.0 | 6428.144 | 55.823 | 157.731 | 1.65% | 5.08% |
| 6.0 | 6288.100 | 66.827 | 224.558 | 1.97% | 7.23% |
| 7.0 | 6116.227 | 76.993 | 301.552 | 2.27% | 9.71% |
| 8.0 | 5936.812 | 86.261 | 387.813 | 2.54% | 12.49% |
| 9.0 | 5733.318 | 94.580 | 482.393 | 2.79% | 15.53% |
| 10.0 | 5519.377 | 101.833 | 584.226 | 3.00% | 18.81% |
| 11.0 | 5296.924 | 108.077 | 692.303 | 3.19% | 22.29% |
| 12.0 | 5056.621 | 113.179 | 805.482 | 3.34% | 25.93% |
| 13.0 | 4819.361 | 117.203 | 922.685 | 3.46% | 29.71% |
| 14.0 | 4578.850 | 120.296 | 1042.981 | 3.55% | 33.58% |
| 15.0 | 4321.386 | 122.186 | 1165.168 | 3.60% | 37.51% |
| 16.0 | 4069.804 | 122.954 | 1288.122 | 3.63% | 41.47% |
| 17.0 | 3801.824 | 122.582 | 1410.705 | 3.61% | 45.42% |
| 18.0 | 3550.795 | 121.229 | 1531.933 | 3.57% | 49.32% |
| 19.0 | 3291.394 | 119.040 | 1650.973 | 3.51% | 53.15% |
| 20.0 | 3022.860 | 115.568 | 1766.542 | 3.41% | 56.88% |
| 21.0 | 2776.260 | 111.355 | 1877.897 | 3.28% | 60.46% |
| 22.0 | 2534.295 | 106.718 | 1984.614 | 3.15% | 63.90% |
| 23.0 | 2316.341 | 101.779 | 2086.394 | 3.00% | 67.17% |
| 24.0 | 2096.794 | 96.487 | 2182.881 | 2.85% | 70.28% |
| 25.0 | 1891.363 | 90.682 | 2273.563 | 2.67% | 73.20% |
| 26.0 | 1703.369 | 84.854 | 2358.417 | 2.50% | 75.93% |
| 27.0 | 1464.808 | 77.510 | 2435.927 | 2.29% | 78.43% |
| 28.0 | 1291.891 | 69.794 | 2505.721 | 2.06% | 80.67% |
| 29.0 | 1169.684 | 64.402 | 2570.123 | 1.90% | 82.75% |
| 30.0 | 1049.048 | 59.905 | 2630.028 | 1.77% | 84.68% |
| 31.0 | 903.890 | 54.347 | 2684.375 | 1.60% | 86.43% |
| 32.0 | 774.992 | 48.098 | 2732.473 | 1.42% | 87.97% |
| 33.0 | 657.753 | 42.209 | 2774.682 | 1.24% | 89.33% |
| 34.0 | 553.294 | 36.650 | 2811.332 | 1.08% | 90.51% |
| 35.0 | 463.586 | 31.581 | 2842.913 | 0.93% | 91.53% |
| 36.0 | 377.892 | 26.793 | 2869.706 | 0.79% | 92.39% |
| 37.0 | 311.419 | 22.481 | 2892.187 | 0.66% | 93.12% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 38.0 | 263.103 | 19.177 | 2911.364 | 0.57% | 93.73% |
| 39.0 | 223.110 | 16.596 | 2927.96 | 0.49% | 94.27% |
| 40.0 | 183.331 | 14.175 | 2942.135 | 0.42% | 94.72% |
| 41.0 | 134.578 | 11.321 | 2953.456 | 0.33% | 95.09% |
| 42.0 | 112.056 | 8.961 | 2962.416 | 0.26% | 95.38% |
| 43.0 | 96.834 | 7.738 | 2970.154 | 0.23% | 95.63% |
| 44.0 | 85.120 | 6.867 | 2977.022 | 0.20% | 95.85% |
| 45.0 | 76.000 | 6.192 | 2983.214 | 0.18% | 96.05% |
| 46.0 | 69.358 | 5.685 | 2988.898 | 0.17% | 96.23% |
| 47.0 | 63.740 | 5.294 | 2994.192 | 0.16% | 96.40% |
| 48.0 | 58.820 | 4.955 | 2999.146 | 0.15% | 96.56% |
| 49.0 | 54.682 | 4.661 | 3003.807 | 0.14% | 96.71% |
| 50.0 | 51.181 | 4.414 | 3008.221 | 0.13% | 96.85% |
| 51.0 | 48.054 | 4.198 | 3012.42 | 0.12% | 96.99% |
| 52.0 | 45.314 | 4.006 | 3016.426 | 0.12% | 97.12% |
| 53.0 | 42.664 | 3.827 | 3020.253 | 0.11% | 97.24% |
| 54.0 | 40.519 | 3.666 | 3023.92 | 0.11% | 97.36% |
| 55.0 | 38.478 | 3.526 | 3027.446 | 0.10% | 97.47% |
| 56.0 | 36.699 | 3.397 | 3030.843 | 0.10% | 97.58% |
| 57.0 | 35.087 | 3.282 | 3034.125 | 0.10% | 97.69% |
| 58.0 | 33.613 | 3.177 | 3037.302 | 0.09% | 97.79% |
| 59.0 | 32.243 | 3.079 | 3040.381 | 0.09% | 97.89% |
| 60.0 | 31.012 | 2.988 | 3043.369 | 0.09% | 97.98% |
| 61.0 | 29.919 | 2.908 | 3046.277 | 0.09% | 98.08% |
| 62.0 | 28.908 | 2.835 | 3049.112 | 0.08% | 98.17% |
| 63.0 | 27.974 | 2.767 | 3051.878 | 0.08% | 98.26% |
| 64.0 | 27.082 | 2.702 | 3054.58 | 0.08% | 98.34% |
| 65.0 | 26.321 | 2.643 | 3057.223 | 0.08% | 98.43% |
| 66.0 | 25.511 | 2.586 | 3059.809 | 0.08% | 98.51% |
| 67.0 | 24.764 | 2.528 | 3062.337 | 0.07% | 98.59% |
| 68.0 | 24.037 | 2.472 | 3064.809 | 0.07% | 98.67% |
| 69.0 | 23.366 | 2.418 | 3067.227 | 0.07% | 98.75% |
| 70.0 | 22.674 | 2.365 | 3069.592 | 0.07% | 98.83% |
| 71.0 | 22.010 | 2.310 | 3071.901 | 0.07% | 98.90% |
| 72.0 | 21.339 | 2.254 | 3074.155 | 0.07% | 98.97% |
| 73.0 | 20.695 | 2.198 | 3076.353 | 0.06% | 99.05% |
| 74.0 | 20.080 | 2.144 | 3078.497 | 0.06% | 99.11% |
| 75.0 | 19.464 | 2.089 | 3080.586 | 0.06% | 99.18% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 76.0 | 18.889 | 2.036 | 3082.622 | 0.06% | 99.25% |
| 77.0 | 18.267 | 1.981 | 3084.603 | 0.06% | 99.31% |
| 78.0 | 17.713 | 1.926 | 3086.529 | 0.06% | 99.37% |
| 79.0 | 17.194 | 1.876 | 3088.405 | 0.06% | 99.43% |
| 80.0 | 16.655 | 1.825 | 3090.23 | 0.05% | 99.49% |
| 81.0 | 16.122 | 1.772 | 3092.002 | 0.05% | 99.55% |
| 82.0 | 15.610 | 1.721 | 3093.723 | 0.05% | 99.60% |
| 83.0 | 15.125 | 1.671 | 3095.394 | 0.05% | 99.66% |
| 84.0 | 14.696 | 1.625 | 3097.018 | 0.05% | 99.71% |
| 85.0 | 14.316 | 1.583 | 3098.602 | 0.05% | 99.76% |
| 86.0 | 13.984 | 1.547 | 3100.149 | 0.05% | 99.81% |
| 87.0 | 13.638 | 1.512 | 3101.66 | 0.04% | 99.86% |
| 88.0 | 13.278 | 1.474 | 3103.135 | 0.04% | 99.91% |
| 89.0 | 13.029 | 1.442 | 3104.577 | 0.04% | 99.95% |
| 90.0 | 12.890 | 1.421 | 3105.998 | 0.04% | 100.00% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

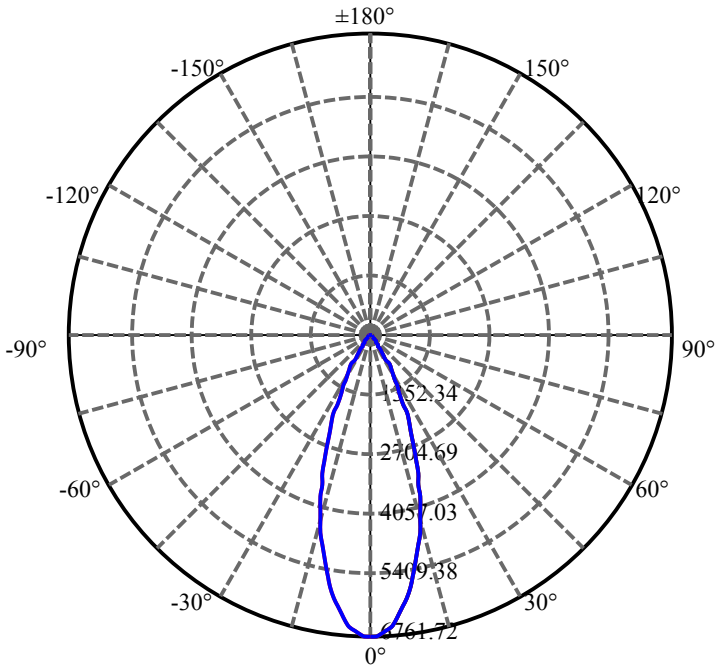
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 2630.03 | 77.55% | 84.68% |
| 0-40 | 2942.13 | 86.76% | 94.72% |
| 0-60 | 3043.37 | 89.74% | 97.98% |
| 0-90 | 3104.58 | 91.55% | 99.95% |
| 0-120 | 3104.58 | 91.55% | 99.95% |
| 0-180 | 3106.00 | 91.59% | 100.00% |
| 60-90 | 61.21 | 1.80% | 1.97% |
| 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% |
| 0-27.70 | 2484.80 | 73.27% | 80.00% |

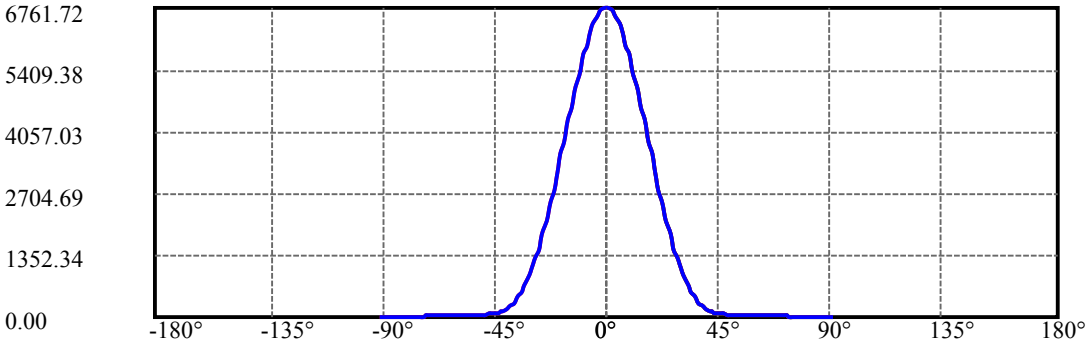
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 584.23 |
| 10-20 | 1182.32 |
| 20-30 | 863.49 |
| 30-40 | 312.11 |
| 40-50 | 66.09 |
| 50-60 | 35.15 |
| 60-70 | 26.22 |
| 70-80 | 20.64 |
| 80-90 | 14.35 |
| 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:

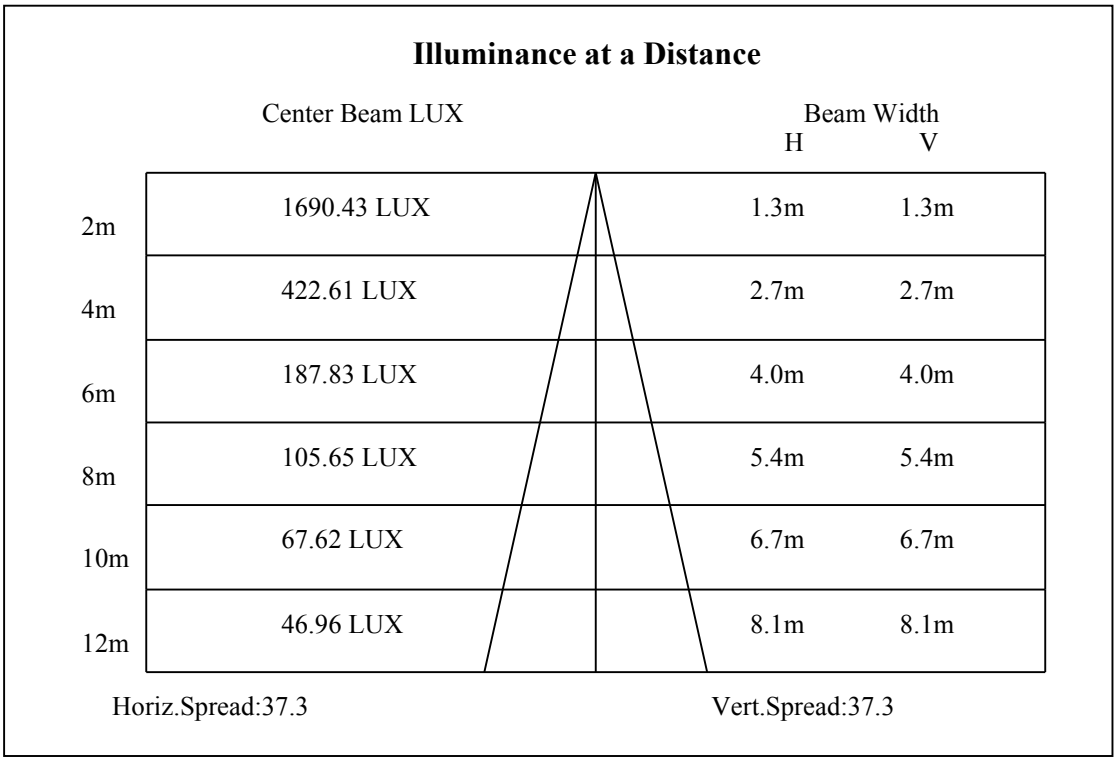
C90/C270:

Field angle(10%Imax):C0/180Left:32.8 Right:32.8
:C90/270Left:32.8 Right:32.8

Beam Angle(50%Imax):C0/180Left:18.7 Right:18.7
:C90/270Left:18.7 Right:18.7

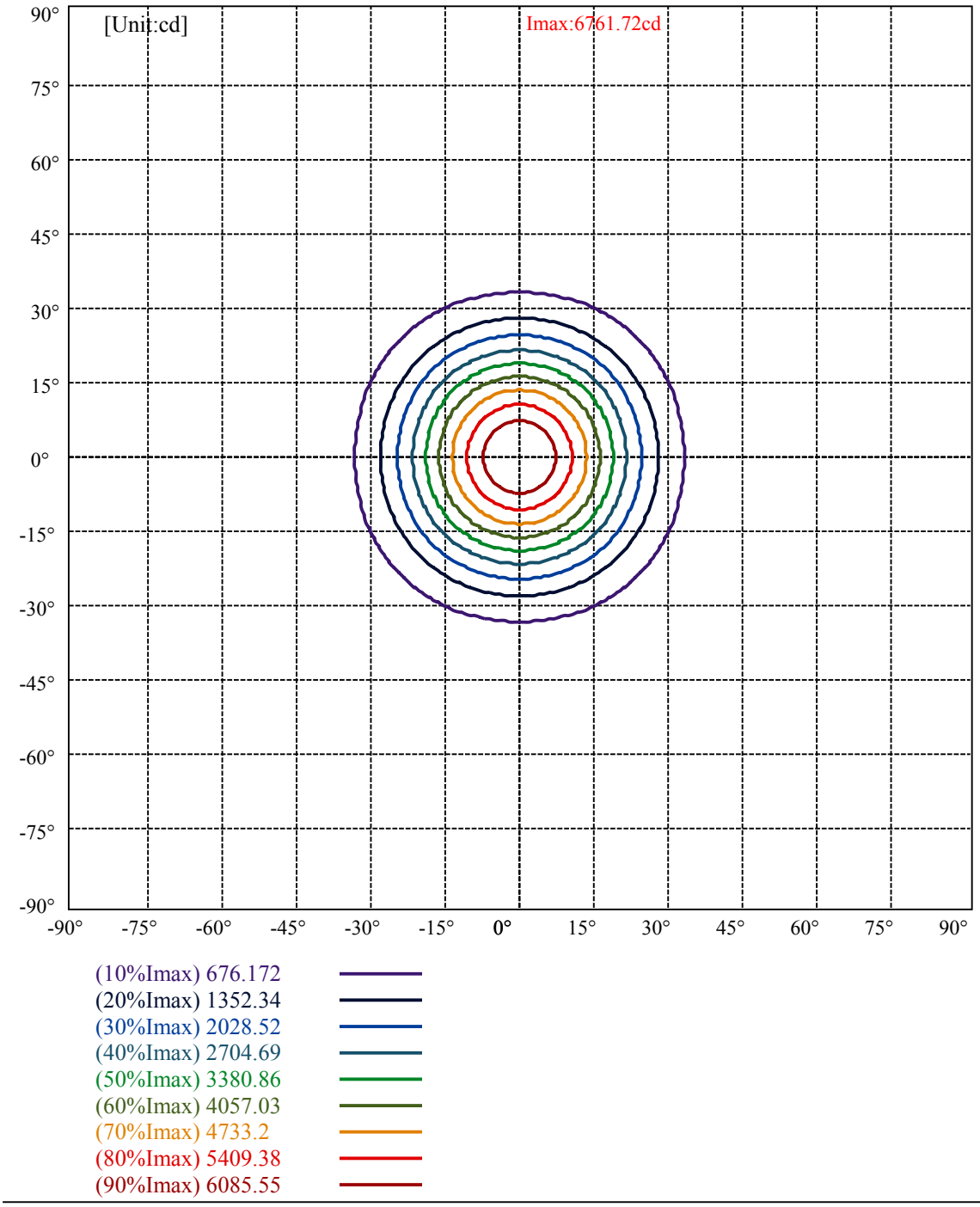
Lux distance Curve





ISO-Intensity(V-H)





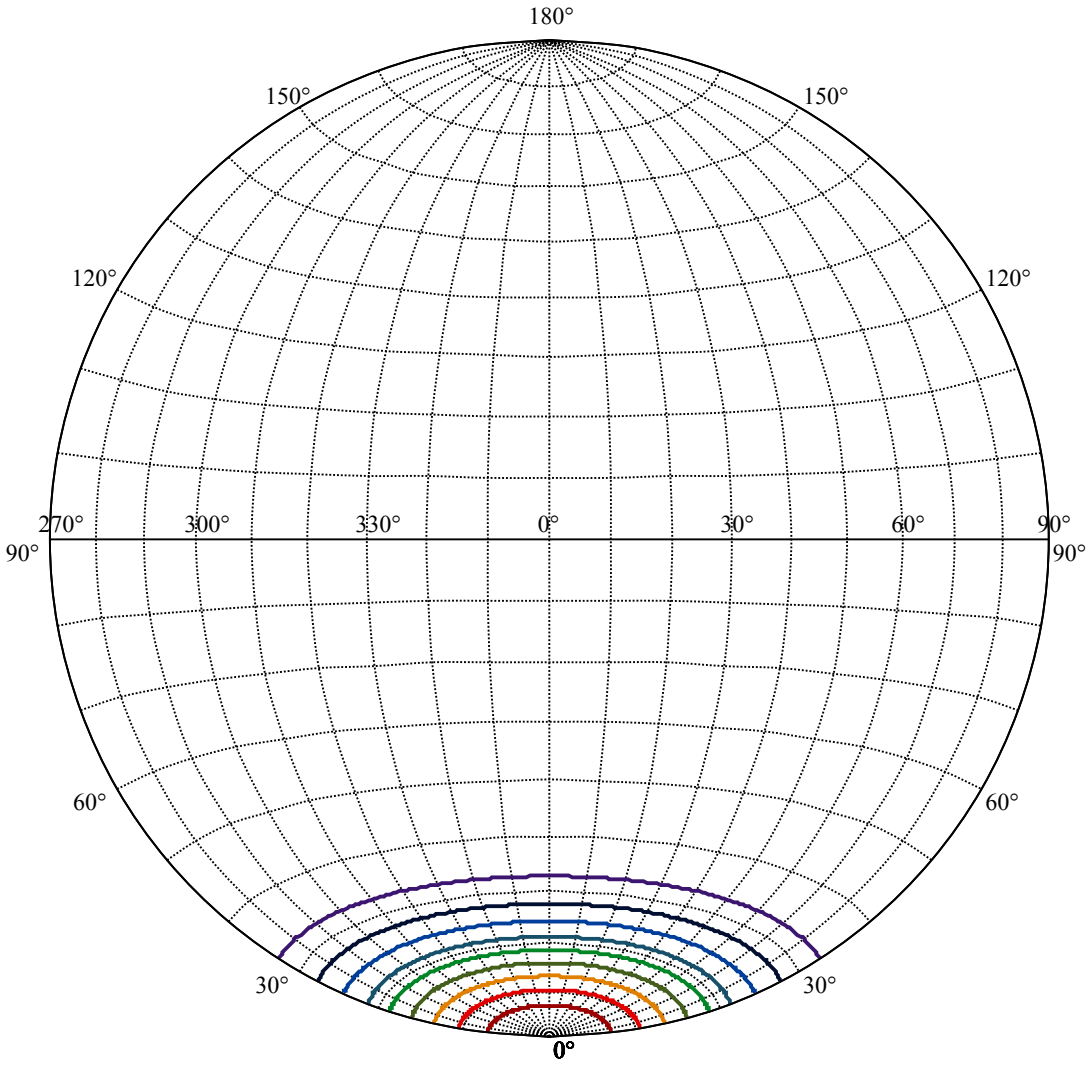

Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/27
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

## ISO candela diagram on circular web






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2023/10/27 | Operator: NT07 |
| Temperature(°C): 0.0 | Humidity(%): 0.0% | Distance(m): 7.44 |

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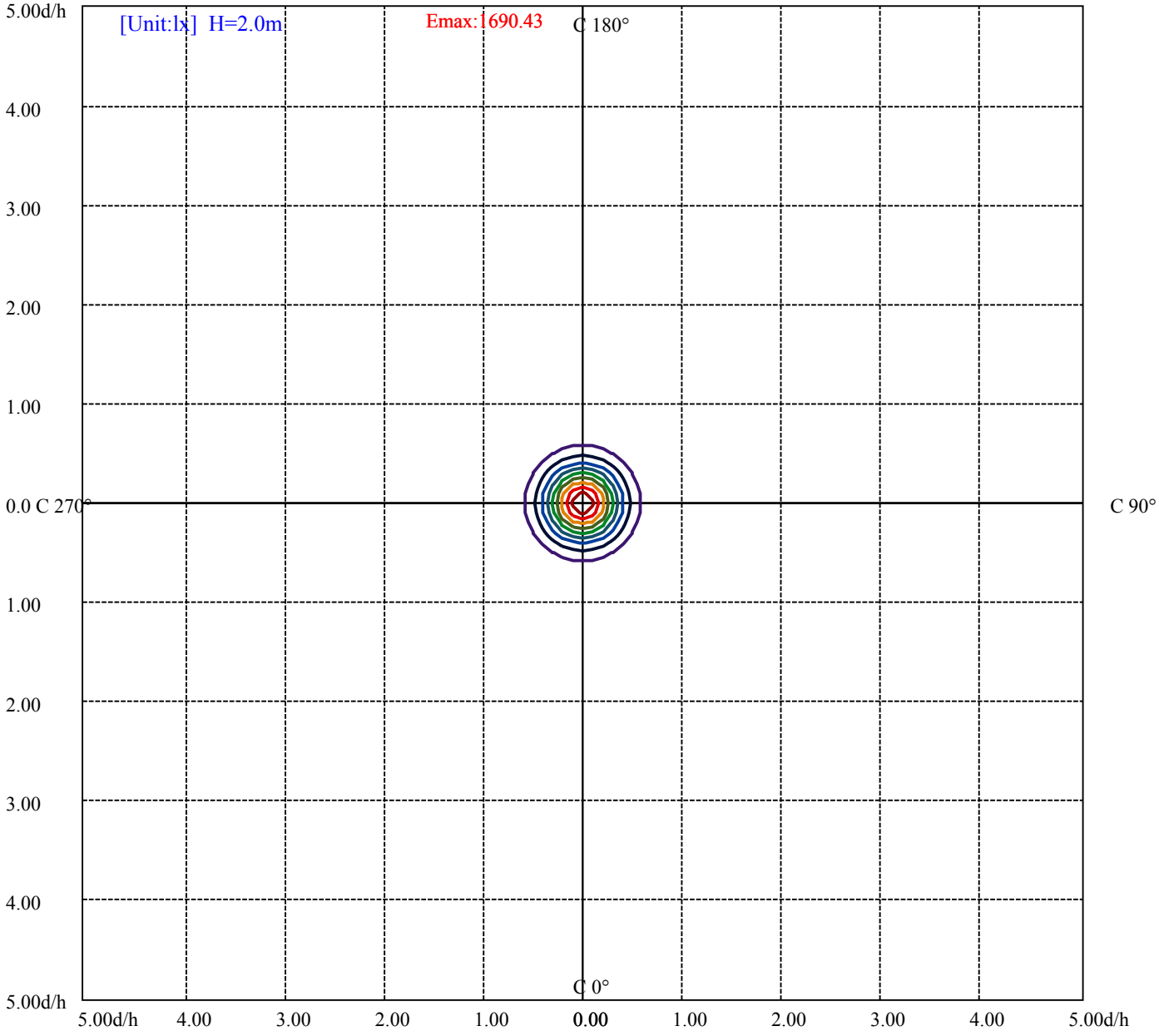
## ISO illuminance diagram





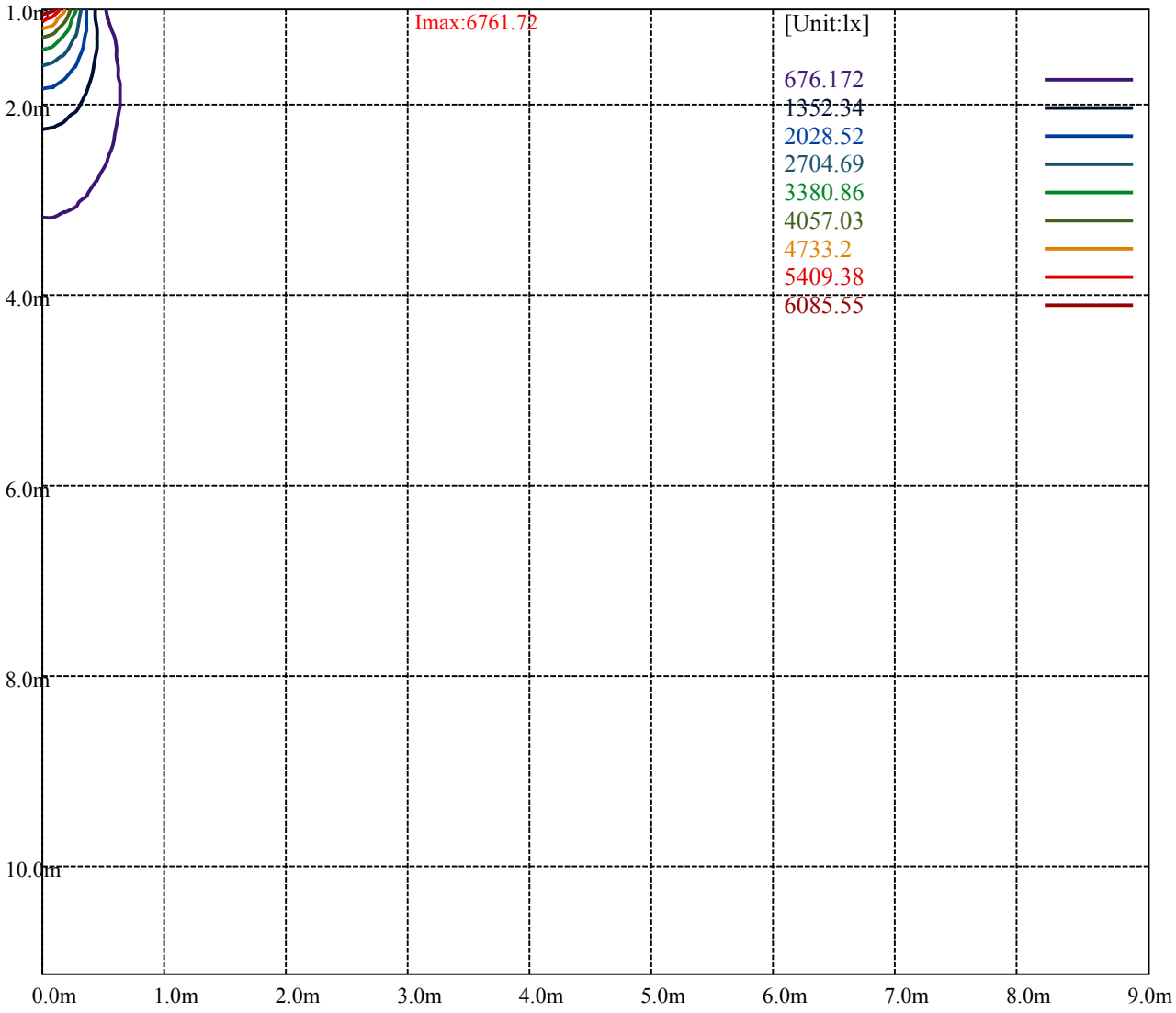

Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/27
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

Space ISO Lux diagram






Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/27
Humidity(%): 0.0%

Operator: NT07
Distance(m): 7.44

NT 2-2641-L

## Luminance Limitting Curve(no luminous side)



Luminance Table

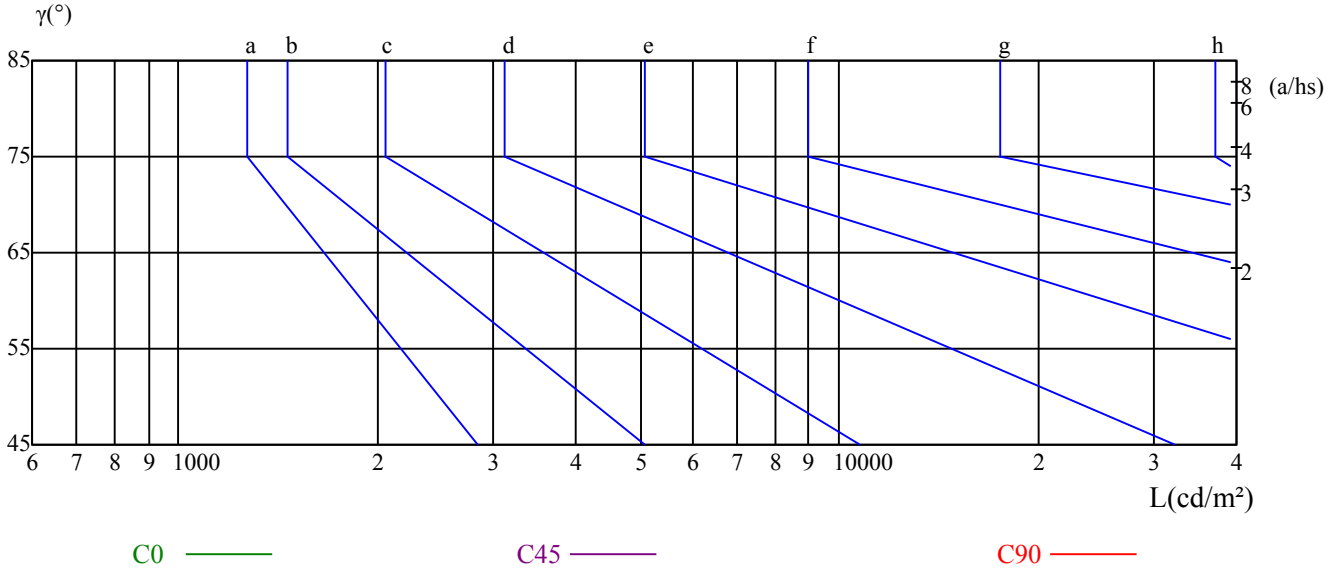
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| 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 Limitting Curve




Equipment: GMS1980
Temperature(°C): 0.0

Date: 2023/10/27
Humidity(%): 0.0%

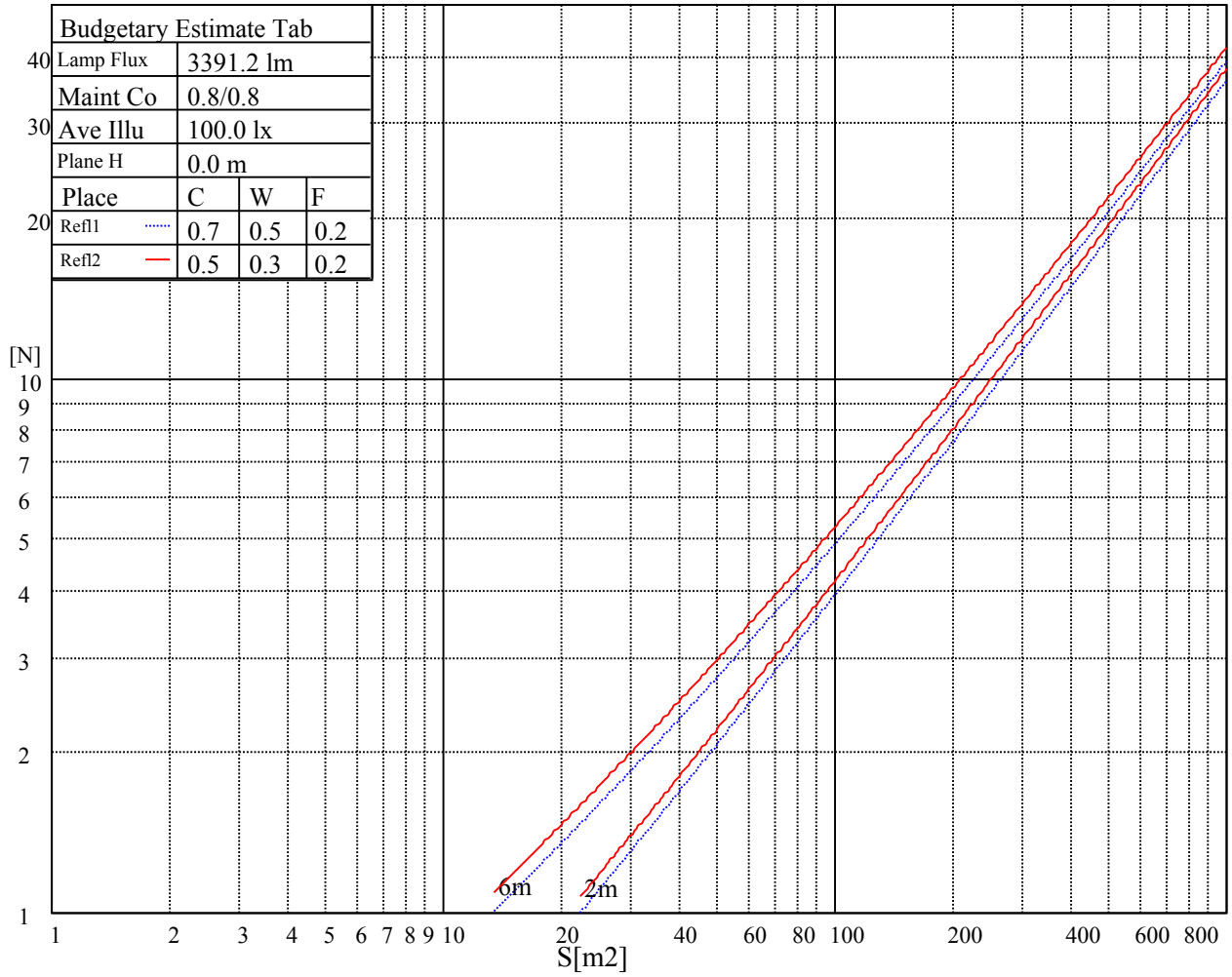
Operator: NT07
Distance(m): 7.44

| 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 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 3H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 4H 2H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 3H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 8H 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 12H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 12H 4H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 6H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| 8H | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 | 非数字 |
| Variation with the observer position at spacings: | | | | | | | | | | |
| S = 1.0H | 非数字/非数字 | | | | | 非数字/非数字 | | | | |
| S = 1.5H | 非数字/非数字 | | | | | 非数字/非数字 | | | | |
| S = 2.0H | 非数字/非数字 | | | | | 非数字/非数字 | | | | |
| Standard tables: | BK0 | | | | | BK0 | | | | |
| Uncorrected UGR | 负无穷大 | | | | | 负无穷大 | | | | |

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

## Budgetary Estimate Table






Equipment: GMS1980 Date: 2023/10/27 Operator: NT07
Temperature(°C): 0.0 Humidity(%): 0.0% Distance(m): 7.44

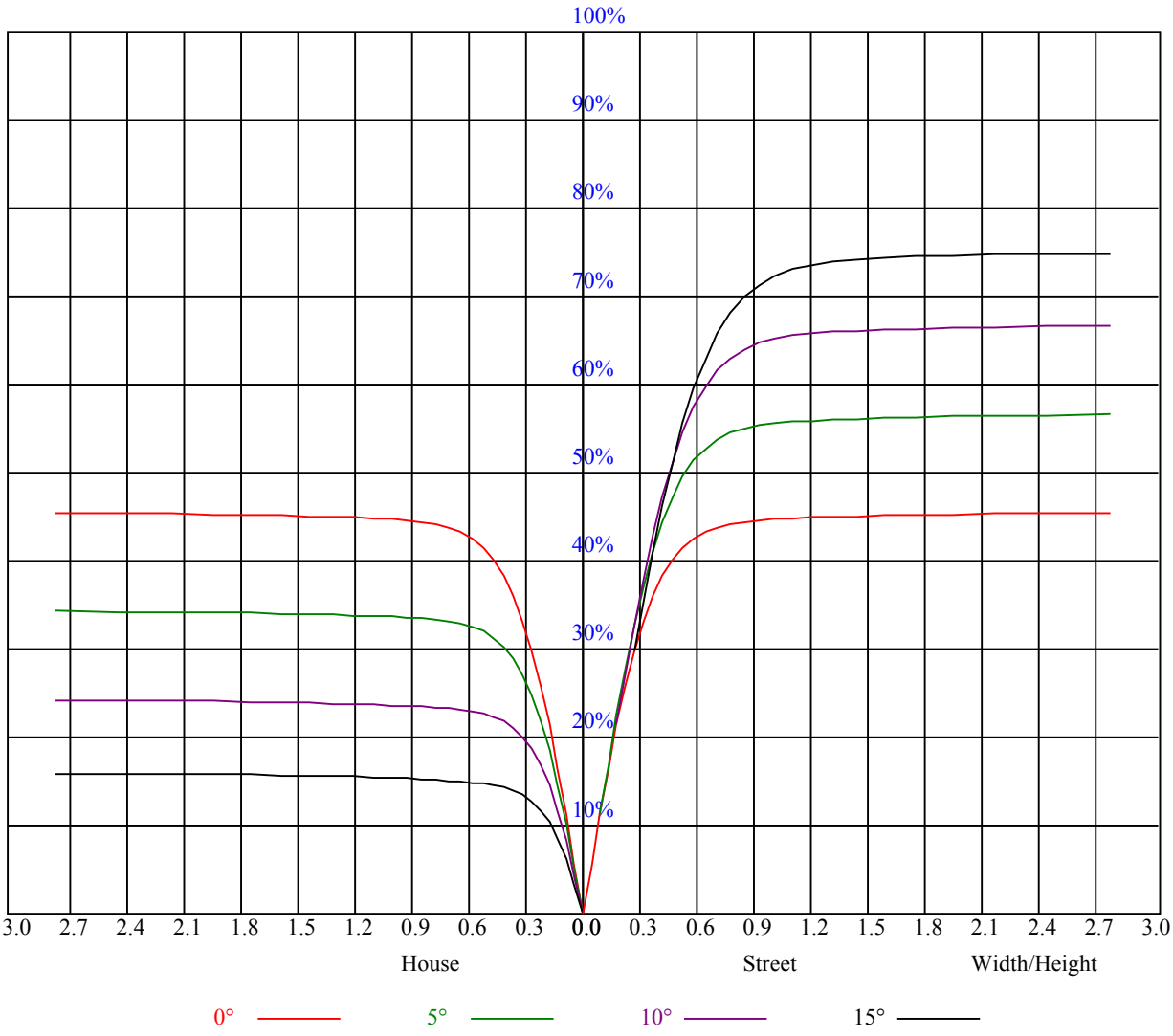
Utilization factor table for indoor luminaire



| 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 | 1.09 | 1.09 | 1.09 | 1.06 | 1.06 | 1.06 | 1.02 | 1.02 | 1.02 | 0.97 | 0.97 | 0.97 | 0.93 | 0.93 | 0.93 | 0.92 |
| 1 | 1.02 | 1.00 | 0.98 | 1.00 | 0.98 | 0.96 | 0.96 | 0.95 | 0.93 | 0.93 | 0.92 | 0.90 | 0.90 | 0.89 | 0.88 | 0.86 |
| 2 | 0.96 | 0.92 | 0.89 | 0.94 | 0.91 | 0.88 | 0.91 | 0.89 | 0.86 | 0.88 | 0.86 | 0.85 | 0.86 | 0.84 | 0.83 | 0.81 |
| 3 | 0.90 | 0.86 | 0.83 | 0.89 | 0.85 | 0.82 | 0.87 | 0.83 | 0.81 | 0.84 | 0.82 | 0.80 | 0.82 | 0.80 | 0.78 | 0.77 |
| 4 | 0.85 | 0.81 | 0.77 | 0.84 | 0.80 | 0.77 | 0.82 | 0.79 | 0.76 | 0.81 | 0.78 | 0.75 | 0.79 | 0.76 | 0.74 | 0.73 |
| 5 | 0.81 | 0.76 | 0.73 | 0.80 | 0.76 | 0.72 | 0.79 | 0.75 | 0.72 | 0.77 | 0.74 | 0.71 | 0.76 | 0.73 | 0.71 | 0.69 |
| 6 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.75 | 0.71 | 0.68 | 0.74 | 0.70 | 0.68 | 0.73 | 0.70 | 0.67 | 0.66 |
| 7 | 0.73 | 0.69 | 0.65 | 0.73 | 0.68 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.64 | 0.70 | 0.67 | 0.64 | 0.63 |
| 8 | 0.70 | 0.65 | 0.62 | 0.70 | 0.65 | 0.62 | 0.69 | 0.65 | 0.62 | 0.68 | 0.64 | 0.62 | 0.67 | 0.64 | 0.61 | 0.60 |
| 9 | 0.67 | 0.62 | 0.59 | 0.67 | 0.62 | 0.59 | 0.66 | 0.62 | 0.59 | 0.65 | 0.61 | 0.59 | 0.64 | 0.61 | 0.59 | 0.58 |
| 10 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.63 | 0.59 | 0.56 | 0.62 | 0.59 | 0.56 | 0.55 |

## Coefficient Utilization Curve






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2023/10/27 | Operator: NT07 |
| Temperature(°C): 0.0 | Humidity(%): 0.0% | Distance(m): 7.44 |

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 | 6750.93 | 6682.29 | 6625.27 | 6531.17 | 6398.88 | 6233.92 | 6086.68 | 5904.57 | 5667.10 |
| 45.0 | 6762.00 | 6760.34 | 6718.82 | 6645.75 | 6537.81 | 6415.48 | 6286.51 | 6085.57 | 5900.69 |
| 90.0 | 6771.41 | 6728.23 | 6648.52 | 6572.69 | 6404.41 | 6280.42 | 6128.75 | 5891.84 | 5708.06 |
| 135.0 | 6762.55 | 6766.98 | 6740.41 | 6657.38 | 6578.78 | 6454.23 | 6290.38 | 6144.25 | 5962.14 |
| 180.0 | 6750.93 | 6768.08 | 6755.91 | 6727.68 | 6675.64 | 6574.35 | 6459.21 | 6311.97 | 6174.14 |
| 225.0 | 6762.00 | 6751.48 | 6735.43 | 6651.84 | 6562.72 | 6468.62 | 6280.97 | 6130.96 | 5952.73 |
| 270.0 | 6771.41 | 6773.62 | 6765.87 | 6731.55 | 6660.15 | 6576.56 | 6480.80 | 6315.29 | 6160.30 |
| 315.0 | 6762.55 | 6757.01 | 6718.27 | 6657.38 | 6566.04 | 6421.57 | 6291.49 | 6145.36 | 5969.33 |
| 360.0 | 6750.93 | 6682.29 | 6625.27 | 6531.17 | 6398.88 | 6233.92 | 6086.68 | 5904.57 | 5667.10 |

| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 5467.83 | 5258.59 | 5032.75 | 4752.11 | 4523.50 | 4299.87 | 3998.19 | 3752.97 | 3455.17 |
| 45.0 | 5721.90 | 5524.84 | 5266.90 | 5039.39 | 4827.39 | 4598.22 | 4303.19 | 4070.15 | 3822.17 |
| 90.0 | 5514.88 | 5301.77 | 5017.80 | 4794.73 | 4560.03 | 4331.97 | 4034.17 | 3796.70 | 3502.78 |
| 135.0 | 5719.13 | 5527.06 | 5332.77 | 5041.61 | 4822.96 | 4597.12 | 4361.31 | 4069.60 | 3830.47 |
| 180.0 | 5964.35 | 5775.04 | 5580.20 | 5378.16 | 5110.80 | 4878.87 | 4654.13 | 4429.95 | 4139.90 |
| 225.0 | 5749.58 | 5496.06 | 5298.45 | 5078.14 | 4846.76 | 4572.21 | 4339.72 | 4105.02 | 3803.90 |
| 270.0 | 6004.20 | 5755.11 | 5539.23 | 5332.77 | 5051.57 | 4815.21 | 4581.06 | 4283.82 | 4051.33 |
| 315.0 | 5724.67 | 5516.54 | 5307.30 | 5036.07 | 4811.89 | 4537.33 | 4299.31 | 4050.22 | 3808.88 |
| 360.0 | 5467.83 | 5258.59 | 5032.75 | 4752.11 | 4523.50 | 4299.87 | 3998.19 | 3752.97 | 3455.17 |

| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 3209.96 | 2963.63 | 2732.25 | 2450.50 | 2232.96 | 2024.83 | 1831.65 | 1614.11 | 1453.59 |
| 45.0 | 3525.47 | 3283.02 | 2991.31 | 2758.27 | 2535.75 | 2326.51 | 2068.56 | 1874.27 | 1689.95 |
| 90.0 | 3322.88 | 3027.84 | 2800.34 | 2523.02 | 2312.67 | 2110.63 | 1875.93 | 1702.68 | 1492.33 |
| 135.0 | 3589.68 | 3354.43 | 3056.07 | 2828.57 | 2552.91 | 2340.35 | 2139.42 | 1899.74 | 1718.18 |
| 180.0 | 3901.32 | 3662.19 | 3351.11 | 3108.66 | 2820.27 | 2594.98 | 2381.87 | 2176.50 | 1938.48 |
| 225.0 | 3560.34 | 3247.60 | 3011.79 | 2778.75 | 2563.43 | 2308.25 | 2115.06 | 1928.52 | 1751.94 |
| 270.0 | 3802.24 | 3544.84 | 3230.44 | 2992.97 | 2764.36 | 2544.60 | 2282.23 | 2085.17 | 1904.72 |
| 315.0 | 3494.47 | 3247.60 | 3009.58 | 2769.34 | 2492.02 | 2280.57 | 2079.63 | 1849.92 | 1677.77 |
| 360.0 | 3209.96 | 2963.63 | 2732.25 | 2450.50 | 2232.96 | 2024.83 | 1831.65 | 1614.11 | 1453.59 |

| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1076.74 | 1076.74 | 975.77 | 850.23 | 707.25 | 606.07 | 516.45 | 419.03 | 349.45 |
| 45.0 | 1517.80 | 1313.54 | 1161.32 | 1021.27 | 890.09 | 738.42 | 631.03 | 515.34 | 435.63 |
| 90.0 | 1073.86 | 1073.86 | 1040.65 | 909.24 | 755.47 | 646.70 | 548.50 | 462.87 | 369.43 |
| 135.0 | 1550.45 | 1390.48 | 1199.51 | 1063.34 | 930.49 | 804.84 | 663.69 | 564.05 | 477.70 |
| 180.0 | 1759.69 | 1590.31 | 1429.78 | 1245.46 | 1106.52 | 968.69 | 833.07 | 693.03 | 592.84 |
| 225.0 | 1539.94 | 1265.38 | 1083.38 | 1083.38 | 917.49 | 793.94 | 655.11 | 559.13 | 473.66 |
| 270.0 | 1687.73 | 1522.78 | 1365.02 | 1185.67 | 1051.16 | 887.32 | 764.99 | 658.71 | 561.29 |
| 315.0 | 1512.26 | 1102.03 | 1102.03 | 1033.78 | 872.65 | 753.97 | 649.19 | 554.20 | 448.70 |
| 360.0 | 1076.74 | 1076.74 | 975.77 | 850.23 | 707.25 | 606.07 | 516.45 | 419.03 | 349.45 |

| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 289.33 | 237.69 | 185.71 | 154.22 | 129.64 | 111.32 | 93.77 | 83.31 | 75.23 |
| 45.0 | 363.12 | 285.07 | 285.07 | 222.85 | 155.93 | 126.48 | 108.94 | 95.37 | 85.02 |
| 90.0 | 305.22 | 250.81 | 195.18 | 161.80 | 130.25 | 111.98 | 97.75 | 87.07 | 76.78 |
| 135.0 | 380.83 | 312.75 | 283.41 | 283.41 | 160.03 | 134.07 | 110.49 | 96.32 | 85.80 |
| 180.0 | 475.49 | 402.97 | 333.23 | 285.62 | 285.62 | 168.44 | 133.07 | 112.98 | 97.64 |
| 225.0 | 381.05 | 315.52 | 258.72 | 200.38 | 163.90 | 135.17 | 114.03 | 95.04 | 84.08 |
| 270.0 | 455.01 | 379.17 | 312.75 | 282.86 | 282.86 | 157.87 | 130.97 | 111.15 | 93.38 |
| 315.0 | 373.08 | 307.38 | 250.75 | 193.74 | 158.42 | 131.30 | 107.44 | 93.44 | 83.03 |
| 360.0 | 289.33 | 237.69 | 185.71 | 154.22 | 129.64 | 111.32 | 93.77 | 83.31 | 75.23 |

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 | 67.37 | 62.16 | 57.84 | 53.25 | 50.04 | 46.61 | 44.12 | 41.96 | 39.97 |
| 45.0 | 75.23 | 69.03 | 63.82 | 58.29 | 54.52 | 51.09 | 47.49 | 44.95 | 42.07 |
| 90.0 | 70.41 | 64.99 | 60.50 | 55.69 | 52.25 | 49.15 | 46.39 | 43.40 | 41.29 |
| 135.0 | 75.78 | 69.63 | 64.32 | 59.84 | 55.02 | 51.70 | 48.60 | 46.05 | 43.01 |
| 180.0 | 86.41 | 77.99 | 69.86 | 64.54 | 60.00 | 55.24 | 51.98 | 48.93 | 45.61 |
| 225.0 | 76.00 | 69.58 | 63.10 | 58.67 | 54.14 | 50.87 | 47.99 | 44.73 | 42.35 |
| 270.0 | 83.42 | 74.06 | 68.14 | 63.16 | 57.90 | 54.36 | 51.09 | 48.21 | 44.95 |
| 315.0 | 73.40 | 67.42 | 62.33 | 57.12 | 53.58 | 50.43 | 46.77 | 44.28 | 42.07 |
| 360.0 | 67.37 | 62.16 | 57.84 | 53.25 | 50.04 | 46.61 | 44.12 | 41.96 | 39.97 |

| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 38.19 | 36.15 | 34.65 | 33.32 | 32.11 | 30.72 | 29.67 | 28.73 | 27.68 |
| 45.0 | 39.97 | 38.19 | 36.64 | 34.76 | 33.38 | 32.11 | 31.00 | 29.67 | 28.73 |
| 90.0 | 38.86 | 37.14 | 35.54 | 33.77 | 32.44 | 31.33 | 30.00 | 29.06 | 28.17 |
| 135.0 | 40.85 | 39.02 | 36.92 | 35.26 | 33.54 | 32.22 | 31.11 | 30.17 | 28.95 |
| 180.0 | 43.23 | 40.57 | 38.75 | 37.03 | 35.48 | 33.77 | 32.49 | 31.33 | 30.22 |
| 225.0 | 40.35 | 38.47 | 36.37 | 34.93 | 33.54 | 32.27 | 30.89 | 29.89 | 28.89 |
| 270.0 | 42.62 | 40.46 | 38.58 | 36.92 | 35.04 | 33.71 | 32.16 | 31.00 | 30.00 |
| 315.0 | 40.08 | 37.81 | 36.15 | 34.71 | 33.38 | 31.83 | 30.78 | 29.50 | 28.62 |
| 360.0 | 38.19 | 36.15 | 34.65 | 33.32 | 32.11 | 30.72 | 29.67 | 28.73 | 27.68 |

| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 26.90 | 25.96 | 25.30 | 24.58 | 23.69 | 23.03 | 22.42 | 21.75 | 20.98 |
| 45.0 | 27.84 | 27.07 | 26.18 | 25.46 | 24.52 | 23.80 | 23.19 | 22.47 | 21.81 |
| 90.0 | 27.40 | 26.40 | 25.68 | 24.96 | 24.30 | 23.41 | 22.75 | 22.09 | 21.37 |
| 135.0 | 28.12 | 27.34 | 26.63 | 25.68 | 24.96 | 24.30 | 23.69 | 22.92 | 22.25 |
| 180.0 | 29.06 | 28.17 | 27.40 | 26.46 | 25.74 | 25.08 | 24.24 | 23.58 | 22.97 |
| 225.0 | 28.01 | 27.07 | 26.29 | 25.41 | 24.74 | 24.08 | 23.30 | 22.69 | 22.09 |
| 270.0 | 28.73 | 27.90 | 27.07 | 26.18 | 25.46 | 24.74 | 24.08 | 23.30 | 22.64 |
| 315.0 | 27.73 | 26.74 | 26.02 | 25.35 | 24.69 | 23.86 | 23.25 | 22.58 | 21.98 |
| 360.0 | 26.90 | 25.96 | 25.30 | 24.58 | 23.69 | 23.03 | 22.42 | 21.75 | 20.98 |

| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 20.37 | 19.82 | 19.26 | 18.60 | 18.05 | 17.49 | 16.94 | 16.44 | 15.83 |
| 45.0 | 21.20 | 20.59 | 19.87 | 19.32 | 18.76 | 18.21 | 17.55 | 17.10 | 16.61 |
| 90.0 | 20.76 | 19.98 | 19.43 | 18.93 | 18.38 | 17.71 | 17.21 | 16.72 | 16.22 |
| 135.0 | 21.48 | 20.87 | 20.26 | 19.54 | 18.99 | 18.49 | 17.93 | 17.33 | 16.83 |
| 180.0 | 22.20 | 21.59 | 20.98 | 20.37 | 19.65 | 19.10 | 18.54 | 18.05 | 17.38 |
| 225.0 | 21.48 | 20.70 | 20.09 | 19.54 | 19.04 | 18.32 | 17.77 | 17.27 | 16.72 |
| 270.0 | 22.03 | 21.37 | 20.70 | 20.09 | 19.48 | 18.76 | 18.21 | 17.60 | 17.10 |
| 315.0 | 21.20 | 20.65 | 20.04 | 19.32 | 18.76 | 18.05 | 17.55 | 17.05 | 16.55 |
| 360.0 | 20.37 | 19.82 | 19.26 | 18.60 | 18.05 | 17.49 | 16.94 | 16.44 | 15.83 |

| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 15.39 | 15.00 | 14.56 | 14.17 | 13.89 | 13.56 | 13.17 | 12.90 | 12.90 |
| 45.0 | 16.00 | 15.55 | 14.95 | 14.56 | 14.23 | 13.84 | 13.56 | 13.17 | 12.90 |
| 90.0 | 15.61 | 15.11 | 14.67 | 14.34 | 14.00 | 13.67 | 13.34 | 12.95 | 12.79 |
| 135.0 | 16.33 | 15.72 | 15.22 | 14.72 | 14.34 | 14.00 | 13.67 | 13.28 | 12.95 |
| 180.0 | 16.88 | 16.27 | 15.78 | 15.28 | 14.83 | 14.45 | 14.12 | 13.73 | 13.45 |
| 225.0 | 16.22 | 15.67 | 15.22 | 14.83 | 14.39 | 14.12 | 13.73 | 13.40 | 13.12 |
| 270.0 | 16.61 | 16.00 | 15.50 | 15.06 | 14.61 | 14.28 | 13.95 | 13.56 | 13.23 |
| 315.0 | 15.94 | 15.55 | 15.11 | 14.61 | 14.23 | 13.95 | 13.56 | 13.23 | 12.90 |
| 360.0 | 15.39 | 15.00 | 14.56 | 14.17 | 13.89 | 13.56 | 13.17 | 12.90 | 12.90 |

Intensity data(cd)



| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 12.90 |
| 45.0 | 12.84 |
| 90.0 | 12.84 |
| 135.0 | 12.84 |
| 180.0 | 13.06 |
| 225.0 | 12.90 |
| 270.0 | 12.84 |
| 315.0 | 12.90 |
| 360.0 | 12.90 |