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

NT

Client:
LumCAT: 2-2679-L
Luminaire: 92.70.411.00
Report No: 2024407-B015
Ballast type: AC

| | |
|---|---|
| Test No: 2024407-C015 | Voltage(V): 34.880 |
| LampCAT: Fortimo_SLM_C_1205 | Current(A): 0.401 |
| Lamp flux(lm): 2388.0 | Power (W): 13.986 |
| Number of Lamps: 1 | PF: 0.000 |
| Length(mm): 0 | Width(mm): 0 |
| Phm Type: C | Height(mm): 0 |

## Photometric Results

Lumens(lm): 2034.23, Efficiency(%): 85.19% , Luminous Efficacy(lm/W): 145.45
Central intensity(cd): 6881.280, Maximum intensity(cd): 6881.280
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.6
[C90/270]Total=23.6
Field angle(10%Imax): [C0/180]Total=60.6
[C90/270]Total=60.6
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.46 C90_270=0.46
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 85.19%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.069%

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 6881.280 | 0.000 | 0 | 0.00% | 0.00% |
| 1.0 | 6837.169 | 6.564 | 6.564 | 0.27% | 0.32% |
| 2.0 | 6706.371 | 19.439 | 26.003 | 0.81% | 1.28% |
| 3.0 | 6489.911 | 31.561 | 57.564 | 1.32% | 2.83% |
| 4.0 | 6204.980 | 42.494 | 100.058 | 1.78% | 4.92% |
| 5.0 | 5859.258 | 51.900 | 151.958 | 2.17% | 7.47% |
| 6.0 | 5507.757 | 59.737 | 211.694 | 2.50% | 10.41% |
| 7.0 | 5141.919 | 66.102 | 277.797 | 2.77% | 13.66% |
| 8.0 | 4774.178 | 70.968 | 348.764 | 2.97% | 17.14% |
| 9.0 | 4408.778 | 74.423 | 423.187 | 3.12% | 20.80% |
| 10.0 | 4045.938 | 76.512 | 499.699 | 3.20% | 24.56% |
| 11.0 | 3728.088 | 77.679 | 577.378 | 3.25% | 28.38% |
| 12.0 | 3384.707 | 77.753 | 655.131 | 3.26% | 32.21% |
| 13.0 | 3088.291 | 76.818 | 731.949 | 3.22% | 35.98% |
| 14.0 | 2810.455 | 75.503 | 807.453 | 3.16% | 39.69% |
| 15.0 | 2564.002 | 73.783 | 881.235 | 3.09% | 43.32% |
| 16.0 | 2336.862 | 71.811 | 953.047 | 3.01% | 46.85% |
| 17.0 | 2137.739 | 69.682 | 1022.728 | 2.92% | 50.28% |
| 18.0 | 1966.780 | 67.675 | 1090.403 | 2.83% | 53.60% |
| 19.0 | 1810.159 | 65.711 | 1156.114 | 2.75% | 56.83% |
| 20.0 | 1679.362 | 63.868 | 1219.982 | 2.67% | 59.97% |
| 21.0 | 1555.733 | 62.120 | 1282.102 | 2.60% | 63.03% |
| 22.0 | 1434.445 | 60.089 | 1342.191 | 2.52% | 65.98% |
| 23.0 | 1295.498 | 57.282 | 1399.473 | 2.40% | 68.80% |
| 24.0 | 1216.829 | 54.928 | 1454.401 | 2.30% | 71.50% |
| 25.0 | 1150.450 | 53.827 | 1508.228 | 2.25% | 74.14% |
| 26.0 | 1064.385 | 52.281 | 1560.51 | 2.19% | 76.71% |
| 27.0 | 978.979 | 49.991 | 1610.501 | 2.09% | 79.17% |
| 28.0 | 889.564 | 47.308 | 1657.808 | 1.98% | 81.50% |
| 29.0 | 800.595 | 44.219 | 1702.028 | 1.85% | 83.67% |
| 30.0 | 713.558 | 40.882 | 1742.91 | 1.71% | 85.68% |
| 31.0 | 613.272 | 36.924 | 1779.833 | 1.55% | 87.49% |
| 32.0 | 528.904 | 32.722 | 1812.555 | 1.37% | 89.10% |
| 33.0 | 447.529 | 28.766 | 1841.321 | 1.20% | 90.52% |
| 34.0 | 366.322 | 24.630 | 1865.951 | 1.03% | 91.73% |
| 35.0 | 301.223 | 20.731 | 1886.682 | 0.87% | 92.75% |
| 36.0 | 258.713 | 17.828 | 1904.511 | 0.75% | 93.62% |
| 37.0 | 208.135 | 15.226 | 1919.737 | 0.64% | 94.37% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 38.0 | 144.829 | 11.781 | 1931.518 | 0.49% | 94.95% |
| 39.0 | 106.065 | 8.564 | 1940.082 | 0.36% | 95.37% |
| 40.0 | 83.029 | 6.595 | 1946.677 | 0.28% | 95.70% |
| 41.0 | 64.309 | 5.247 | 1951.923 | 0.22% | 95.95% |
| 42.0 | 52.319 | 4.237 | 1956.161 | 0.18% | 96.16% |
| 43.0 | 43.768 | 3.559 | 1959.72 | 0.15% | 96.34% |
| 44.0 | 37.945 | 3.084 | 1962.804 | 0.13% | 96.49% |
| 45.0 | 33.504 | 2.746 | 1965.55 | 0.11% | 96.62% |
| 46.0 | 30.227 | 2.492 | 1968.042 | 0.10% | 96.75% |
| 47.0 | 27.769 | 2.307 | 1970.349 | 0.10% | 96.86% |
| 48.0 | 25.765 | 2.164 | 1972.513 | 0.09% | 96.97% |
| 49.0 | 24.148 | 2.050 | 1974.563 | 0.09% | 97.07% |
| 50.0 | 22.868 | 1.960 | 1976.523 | 0.08% | 97.16% |
| 51.0 | 21.800 | 1.890 | 1978.413 | 0.08% | 97.26% |
| 52.0 | 21.046 | 1.839 | 1980.251 | 0.08% | 97.35% |
| 53.0 | 20.446 | 1.805 | 1982.056 | 0.08% | 97.44% |
| 54.0 | 20.110 | 1.788 | 1983.844 | 0.07% | 97.52% |
| 55.0 | 19.912 | 1.787 | 1985.63 | 0.07% | 97.61% |
| 56.0 | 19.912 | 1.800 | 1987.43 | 0.08% | 97.70% |
| 57.0 | 20.029 | 1.826 | 1989.256 | 0.08% | 97.79% |
| 58.0 | 20.227 | 1.862 | 1991.118 | 0.08% | 97.88% |
| 59.0 | 20.446 | 1.901 | 1993.019 | 0.08% | 97.97% |
| 60.0 | 20.519 | 1.935 | 1994.955 | 0.08% | 98.07% |
| 61.0 | 20.337 | 1.950 | 1996.904 | 0.08% | 98.17% |
| 62.0 | 19.795 | 1.934 | 1998.838 | 0.08% | 98.26% |
| 63.0 | 18.932 | 1.884 | 2000.722 | 0.08% | 98.35% |
| 64.0 | 17.820 | 1.803 | 2002.525 | 0.08% | 98.44% |
| 65.0 | 16.694 | 1.708 | 2004.233 | 0.07% | 98.53% |
| 66.0 | 15.545 | 1.608 | 2005.842 | 0.07% | 98.60% |
| 67.0 | 14.623 | 1.517 | 2007.359 | 0.06% | 98.68% |
| 68.0 | 13.906 | 1.445 | 2008.804 | 0.06% | 98.75% |
| 69.0 | 13.365 | 1.391 | 2010.195 | 0.06% | 98.82% |
| 70.0 | 12.963 | 1.352 | 2011.547 | 0.06% | 98.89% |
| 71.0 | 12.619 | 1.322 | 2012.869 | 0.06% | 98.95% |
| 72.0 | 12.356 | 1.299 | 2014.168 | 0.05% | 99.01% |
| 73.0 | 12.231 | 1.286 | 2015.454 | 0.05% | 99.08% |
| 74.0 | 12.070 | 1.278 | 2016.731 | 0.05% | 99.14% |
| 75.0 | 11.865 | 1.265 | 2017.996 | 0.05% | 99.20% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 76.0 | 11.602 | 1.246 | 2019.242 | 0.05% | 99.26% |
| 77.0 | 11.324 | 1.222 | 2020.464 | 0.05% | 99.32% |
| 78.0 | 11.010 | 1.196 | 2021.66 | 0.05% | 99.38% |
| 79.0 | 10.724 | 1.168 | 2022.827 | 0.05% | 99.44% |
| 80.0 | 10.476 | 1.143 | 2023.97 | 0.05% | 99.50% |
| 81.0 | 10.227 | 1.120 | 2025.09 | 0.05% | 99.55% |
| 82.0 | 9.956 | 1.094 | 2026.184 | 0.05% | 99.60% |
| 83.0 | 9.751 | 1.071 | 2027.256 | 0.04% | 99.66% |
| 84.0 | 9.554 | 1.052 | 2028.307 | 0.04% | 99.71% |
| 85.0 | 9.364 | 1.032 | 2029.34 | 0.04% | 99.76% |
| 86.0 | 9.159 | 1.012 | 2030.352 | 0.04% | 99.81% |
| 87.0 | 8.983 | 0.993 | 2031.345 | 0.04% | 99.86% |
| 88.0 | 8.808 | 0.975 | 2032.32 | 0.04% | 99.91% |
| 89.0 | 8.683 | 0.959 | 2033.278 | 0.04% | 99.95% |
| 90.0 | 8.632 | 0.949 | 2034.228 | 0.04% | 100.00% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

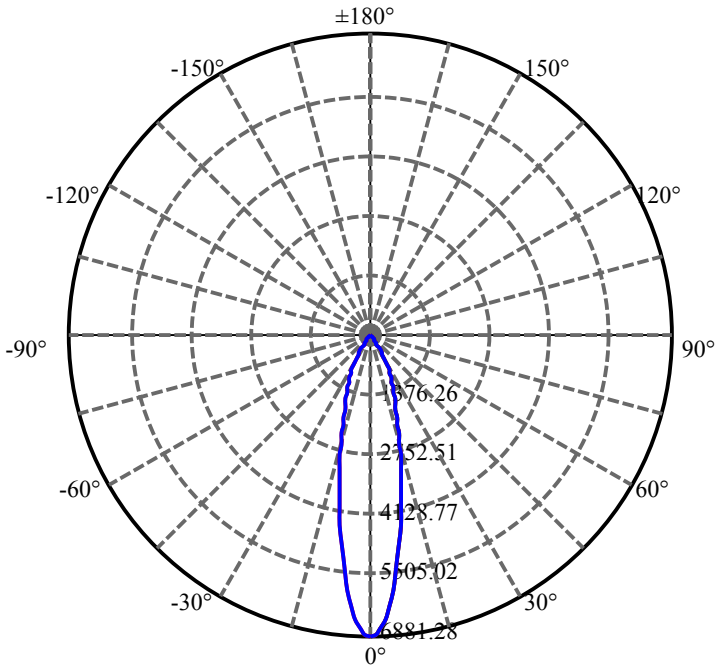
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 1742.91 | 72.99% | 85.68% |
| 0-40 | 1946.68 | 81.52% | 95.70% |
| 0-60 | 1994.95 | 83.54% | 98.07% |
| 0-90 | 2033.28 | 85.15% | 99.95% |
| 0-120 | 2033.28 | 85.15% | 99.95% |
| 0-180 | 2034.23 | 85.19% | 100.00% |
| 60-90 | 38.32 | 1.60% | 1.88% |
| 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% |
| 0-27.36 | 1627.38 | 68.15% | 80.00% |

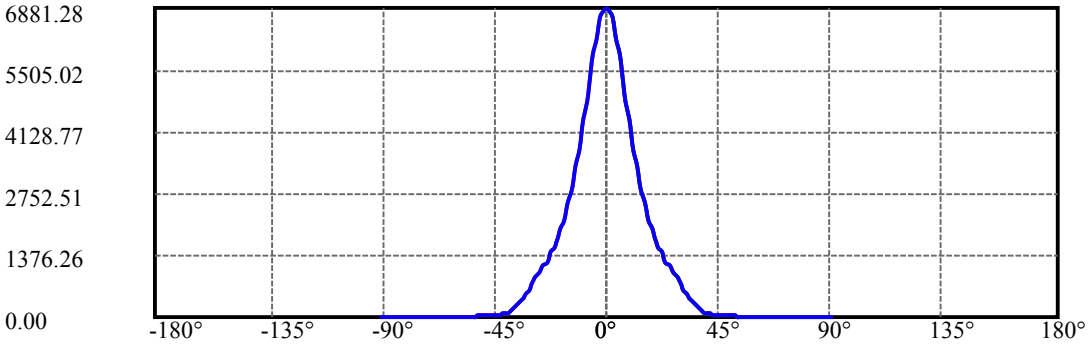
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 499.70 |
| 10-20 | 720.28 |
| 20-30 | 522.93 |
| 30-40 | 203.77 |
| 40-50 | 29.85 |
| 50-60 | 18.43 |
| 60-70 | 16.59 |
| 70-80 | 12.42 |
| 80-90 | 9.31 |
| 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:

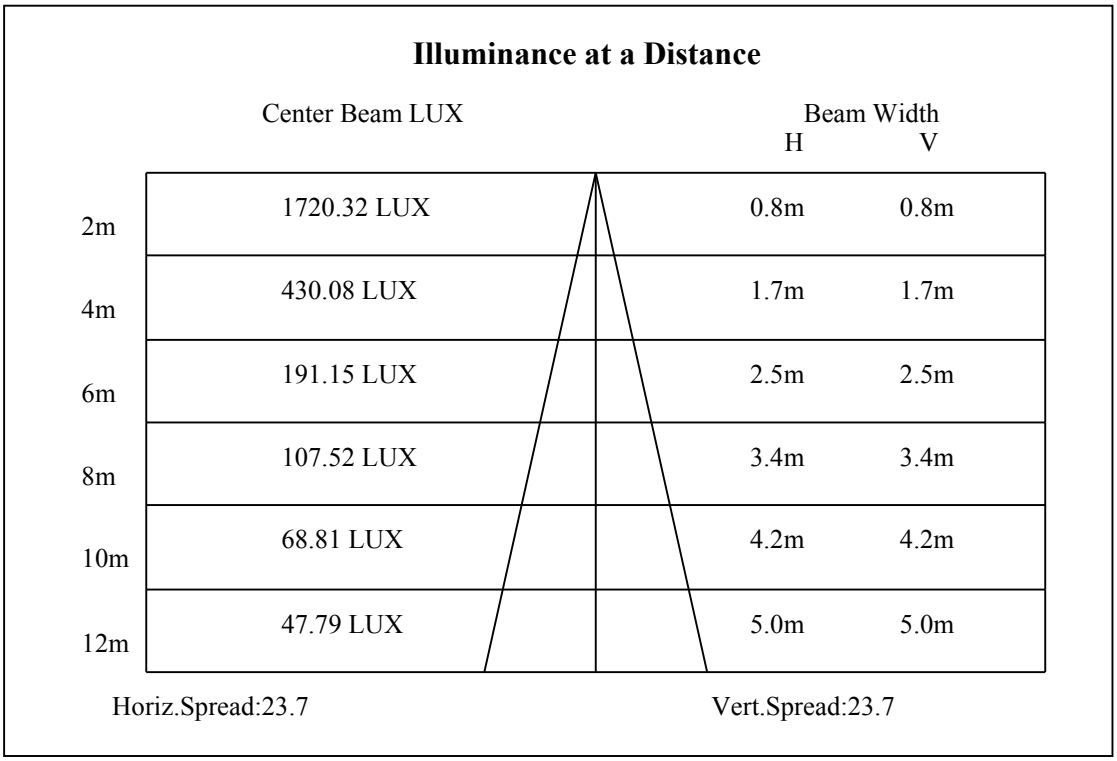
Field angle(10%Imax):C0/180Left:30.3 Right:30.3
:C90/270Left:30.3 Right:30.3

Beam Angle(50%Imax):C0/180Left:11.8 Right:11.8
:C90/270Left:11.8 Right:11.8

Equipment: GMS1980 Date: 2024/4/07 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

Lux distance Curve

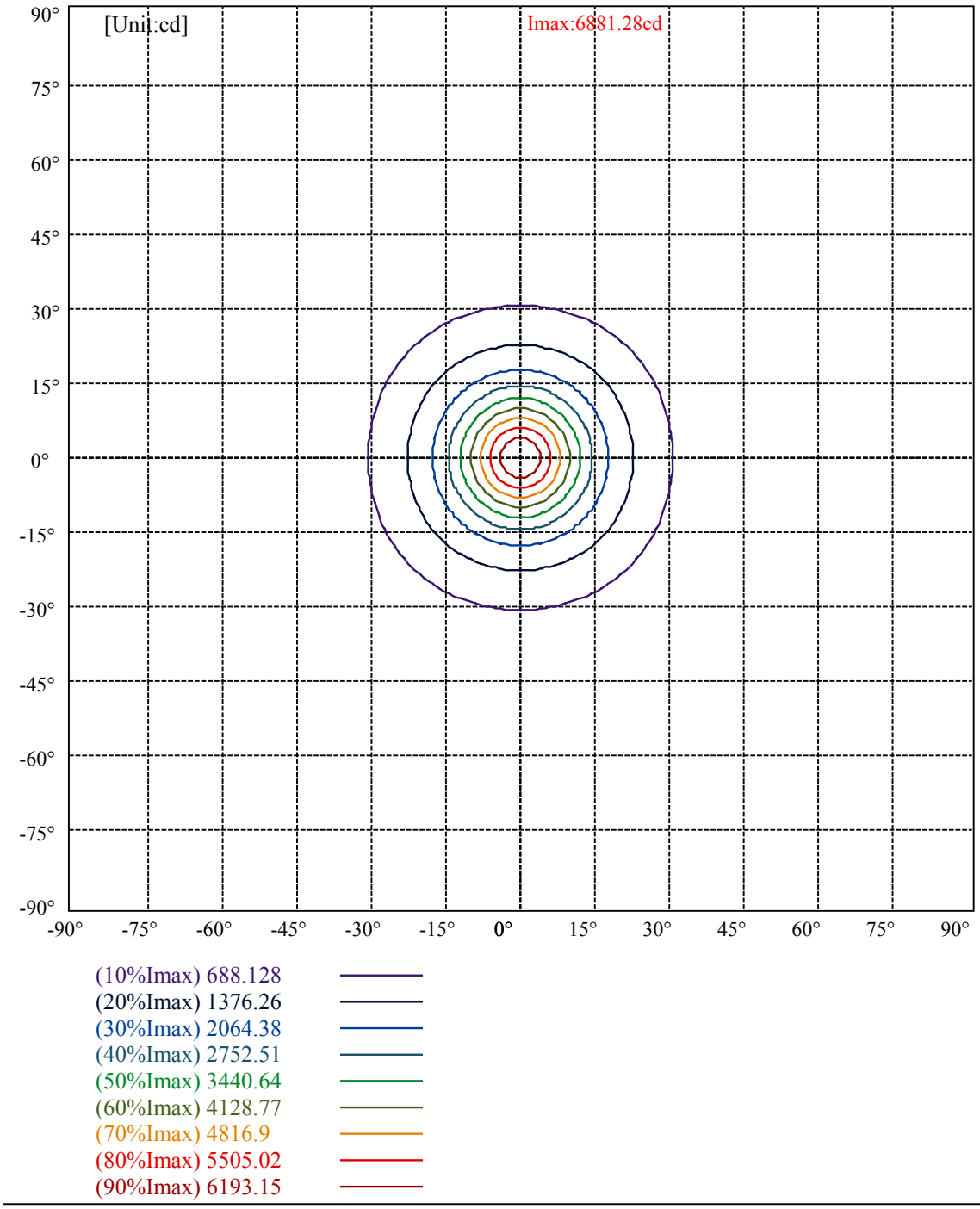





Equipment: GMS1980 Date: 2024/4/07 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

ISO-Intensity(V-H)





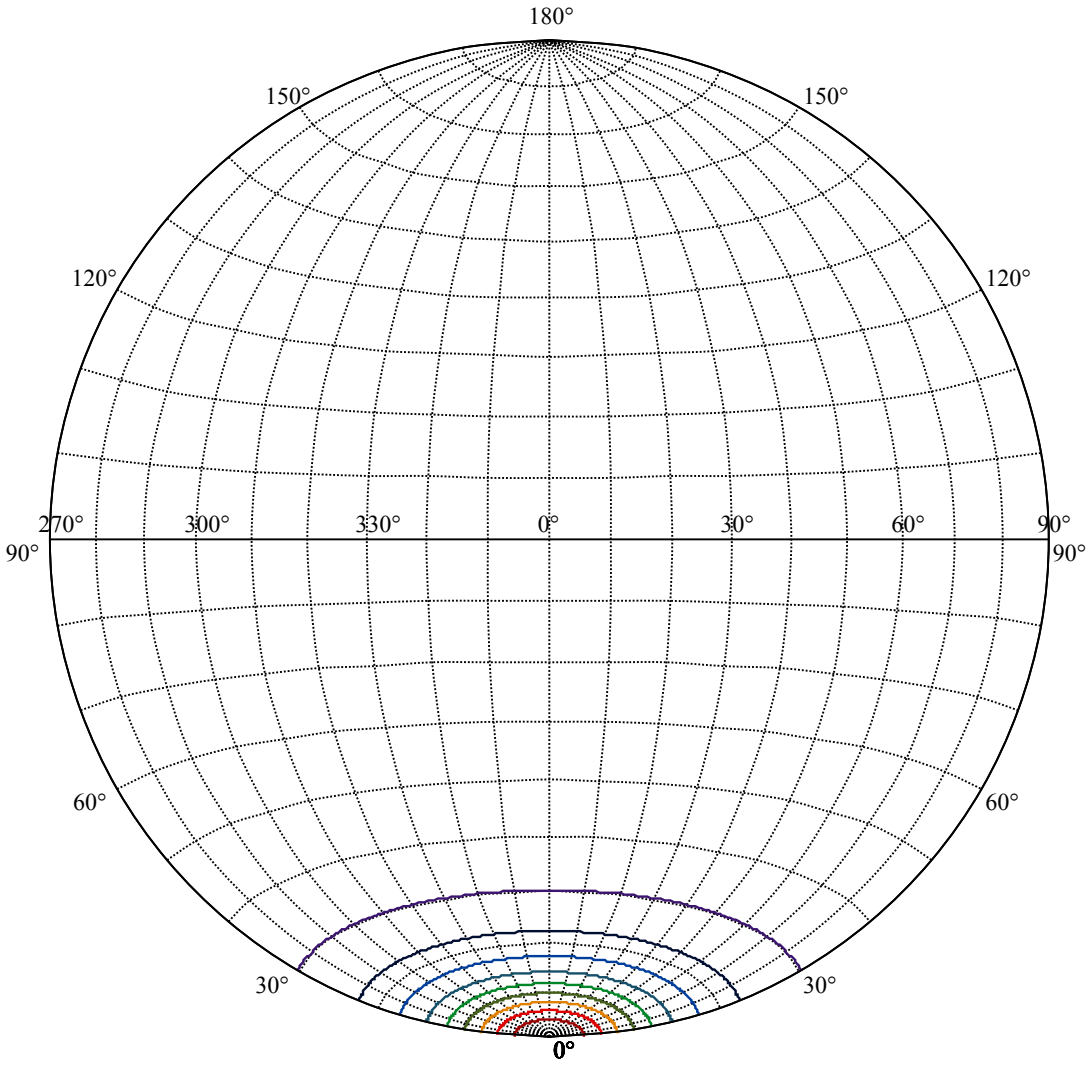

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/07
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

## ISO candela diagram on circular web






House [Unit:cd] Road

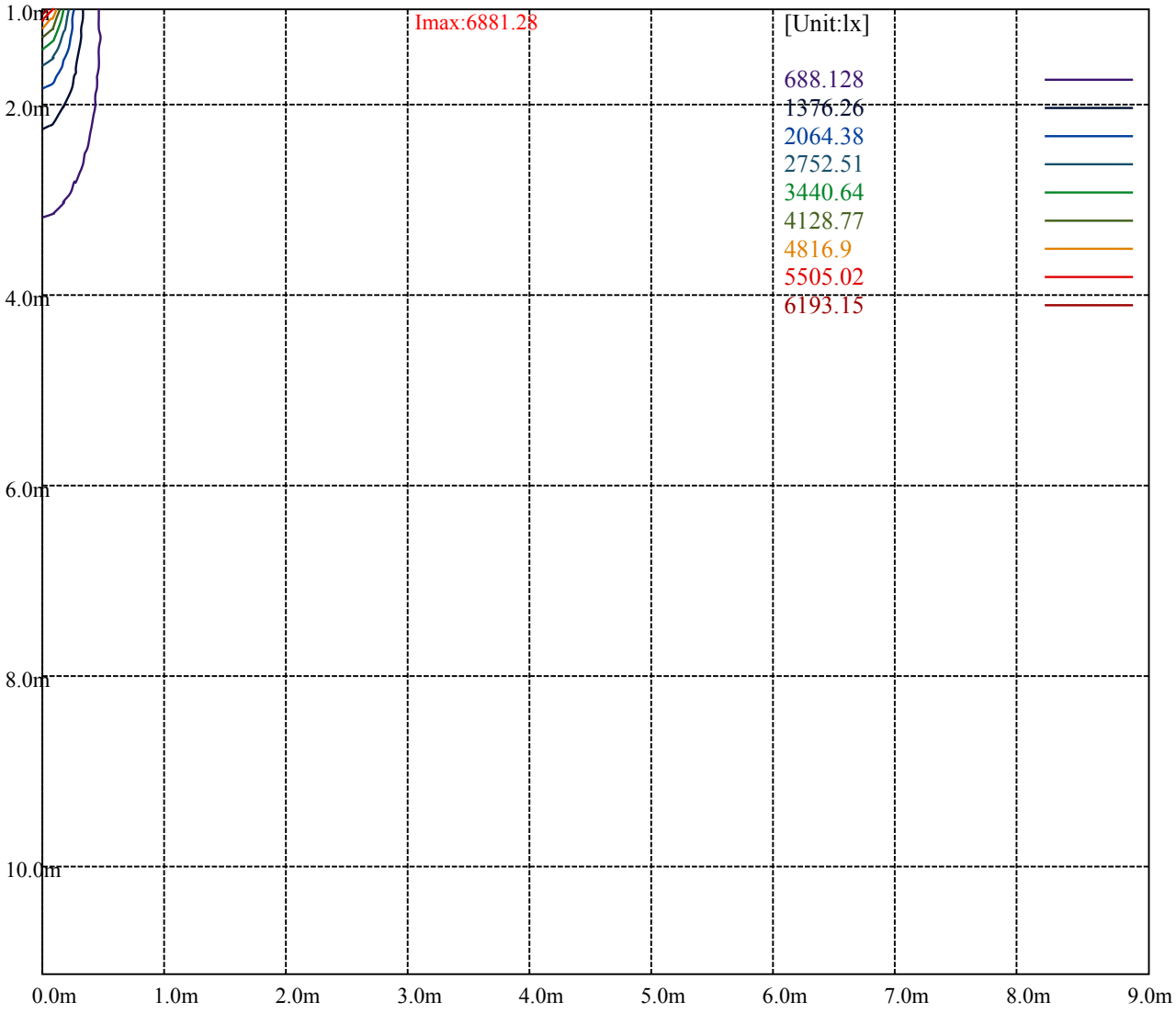
Imax:6881.28

(10%Imax) 688.128
(20%Imax) 1376.26
(30%Imax) 2064.38
(40%Imax) 2752.51
(50%Imax) 3440.64
(60%Imax) 4128.77
(70%Imax) 4816.9
(80%Imax) 5505.02
(90%Imax) 6193.15

| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2024/4/07 | Operator: NT07 |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 7.65 |

## Space ISO Lux diagram






Equipment: GMS1980
Temperature(°C): 25.0

Date: 2024/4/07
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.65

NT 2-2679-L

## Luminance Limitting Curve(no luminous side)



Luminance Table

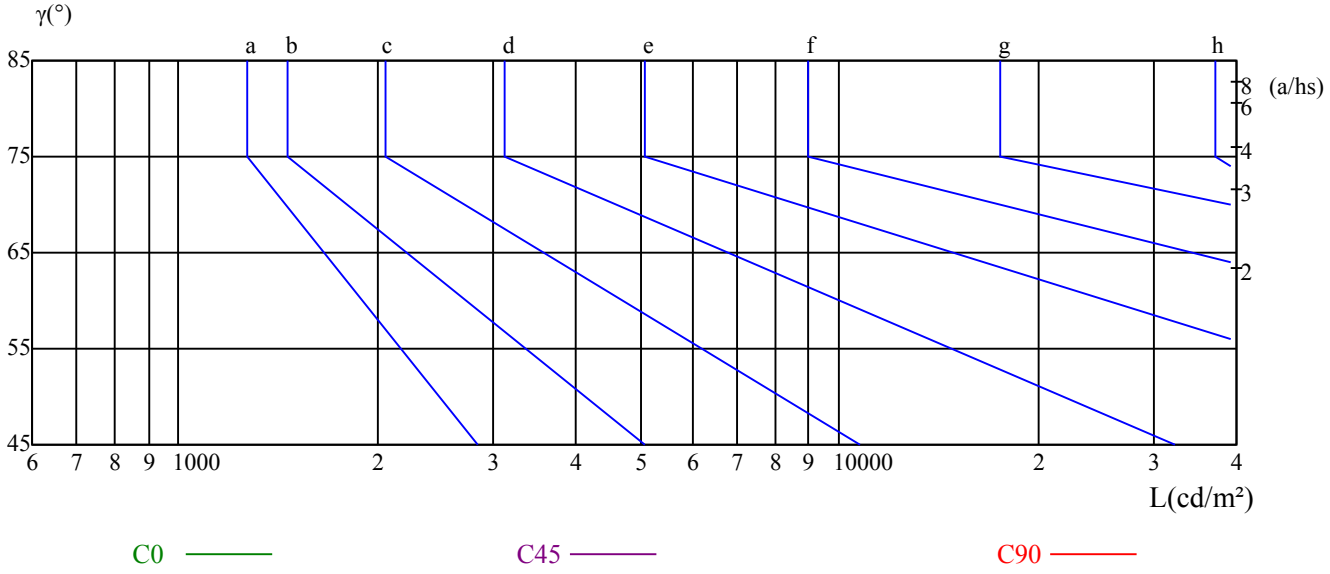
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C45 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| C90 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

| 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): 25.0

Date: 2024/4/07
Humidity(%): 60.0%

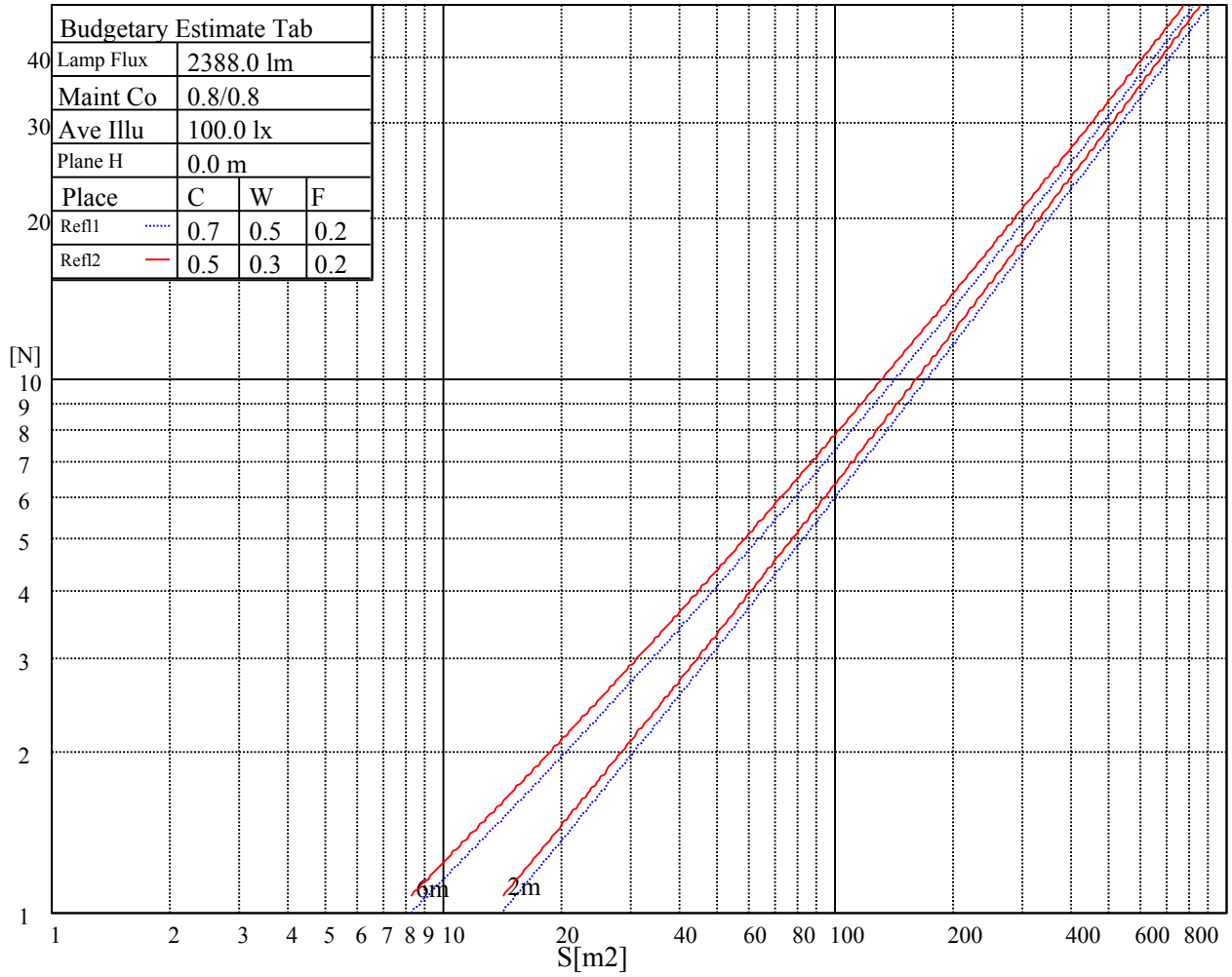
Operator: NT07
Distance(m): 7.65

| 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: 2024/4/07 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 60.0% Distance(m): 7.65

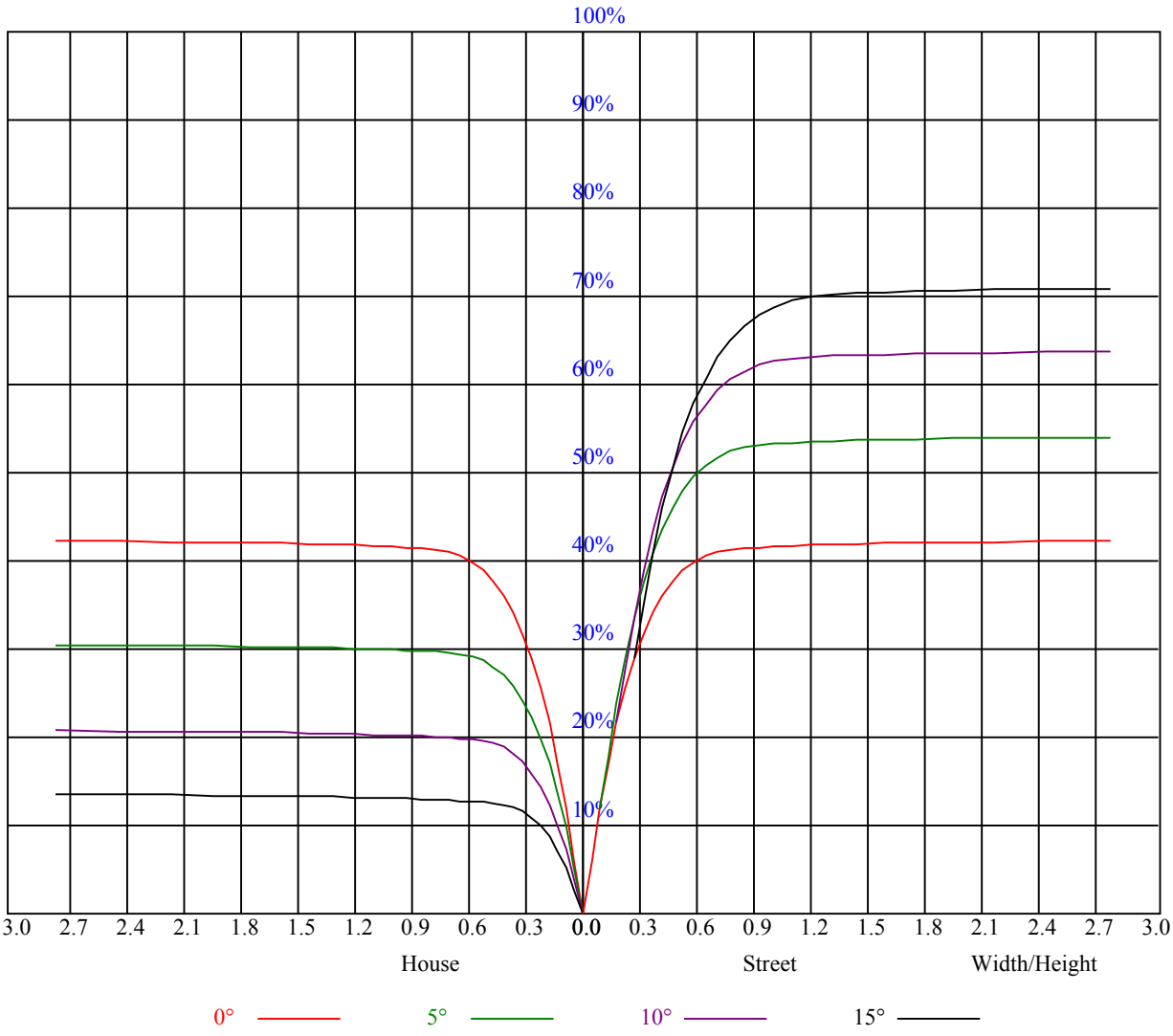
Utilization factor table for indoor luminaire



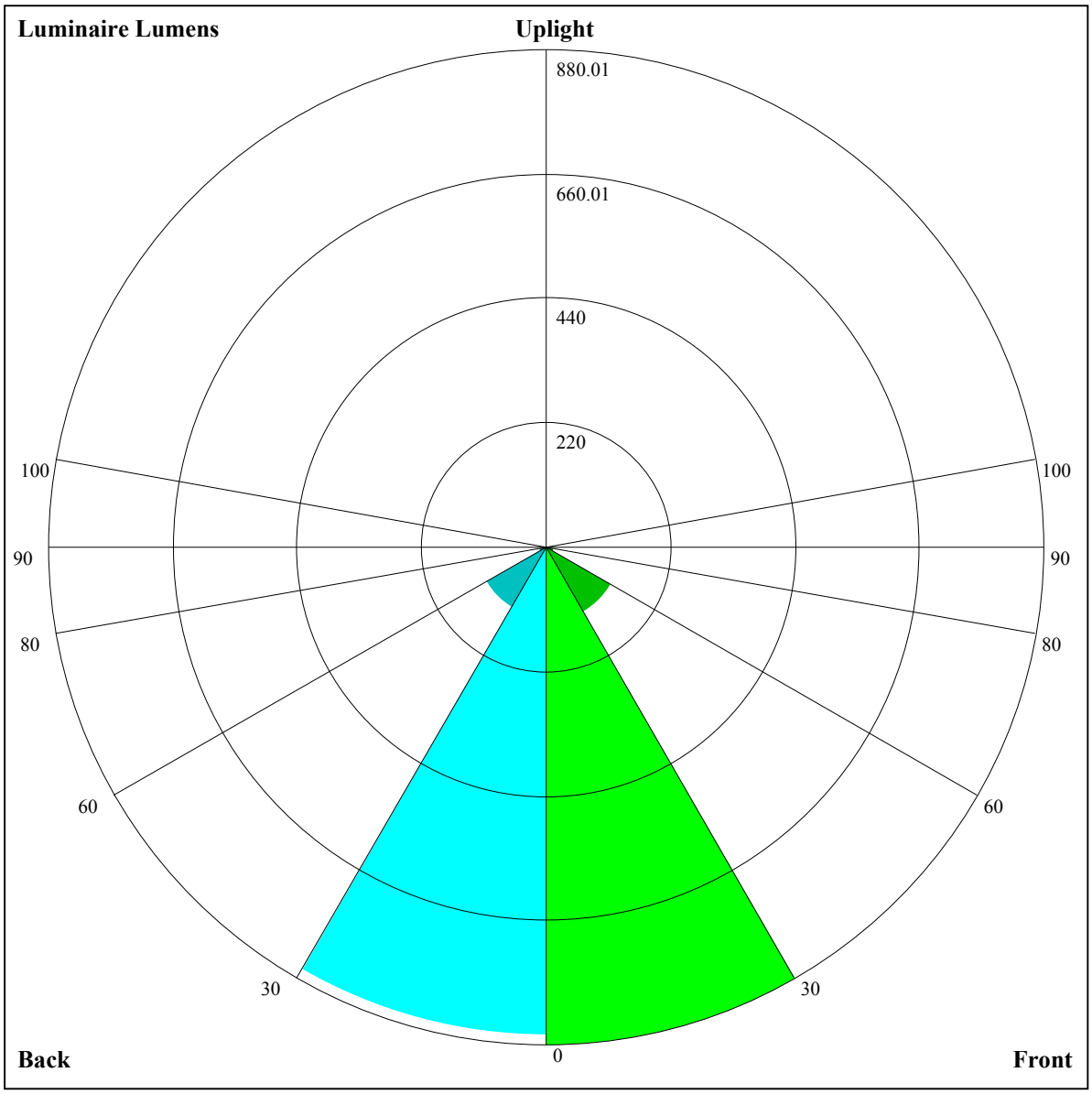
| RHOCC | 80 | | | 70 | | | 50 | | | 30 | | | 10 | | | 0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RHOW | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| RCR | COEFFCIENTS OF UTILIZATION RHOFC=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.01 | 1.01 | 1.01 | 0.99 | 0.99 | 0.99 | 0.95 | 0.95 | 0.95 | 0.91 | 0.91 | 0.91 | 0.87 | 0.87 | 0.87 | 0.85 |
| 1 | 0.95 | 0.93 | 0.91 | 0.93 | 0.91 | 0.90 | 0.90 | 0.88 | 0.87 | 0.87 | 0.85 | 0.84 | 0.84 | 0.83 | 0.82 | 0.81 |
| 2 | 0.89 | 0.86 | 0.84 | 0.88 | 0.85 | 0.83 | 0.85 | 0.83 | 0.81 | 0.83 | 0.81 | 0.79 | 0.81 | 0.79 | 0.78 | 0.76 |
| 3 | 0.85 | 0.81 | 0.78 | 0.83 | 0.80 | 0.77 | 0.81 | 0.78 | 0.76 | 0.79 | 0.77 | 0.75 | 0.77 | 0.76 | 0.74 | 0.73 |
| 4 | 0.80 | 0.76 | 0.73 | 0.79 | 0.76 | 0.73 | 0.78 | 0.74 | 0.72 | 0.76 | 0.73 | 0.71 | 0.75 | 0.72 | 0.70 | 0.69 |
| 5 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.74 | 0.71 | 0.68 | 0.73 | 0.70 | 0.68 | 0.72 | 0.69 | 0.67 | 0.66 |
| 6 | 0.73 | 0.69 | 0.66 | 0.72 | 0.68 | 0.66 | 0.71 | 0.68 | 0.65 | 0.70 | 0.67 | 0.65 | 0.69 | 0.66 | 0.64 | 0.63 |
| 7 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.62 | 0.68 | 0.65 | 0.62 | 0.67 | 0.64 | 0.62 | 0.67 | 0.64 | 0.62 | 0.61 |
| 8 | 0.67 | 0.63 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.60 | 0.65 | 0.62 | 0.59 | 0.64 | 0.61 | 0.59 | 0.58 |
| 9 | 0.64 | 0.60 | 0.57 | 0.64 | 0.60 | 0.57 | 0.63 | 0.60 | 0.57 | 0.63 | 0.59 | 0.57 | 0.62 | 0.59 | 0.57 | 0.56 |
| 10 | 0.62 | 0.58 | 0.55 | 0.62 | 0.58 | 0.55 | 0.61 | 0.57 | 0.55 | 0.60 | 0.57 | 0.55 | 0.60 | 0.57 | 0.55 | 0.54 |

## Coefficient Utilization Curve






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2024/4/07 | Operator: NT07 |
| Temperature(°C): 25.0 | Humidity(%): 60.0% | Distance(m): 7.65 |




Luminaire Lumens:
FL=880.01,FM=131.17,FH=14.49,FVH=5.14
BL=862.11,BM=123.59,BH=14.45,BVH=5.12
UL=0,UH=0

BUG Rating:B2-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 | 6903.37 | 6858.90 | 6689.77 | 6444.56 | 6161.31 | 5766.28 | 5432.12 | 5082.15 | 4734.53 |
| 45.0 | 6858.31 | 6899.86 | 6890.50 | 6764.09 | 6474.40 | 6195.25 | 5880.98 | 5475.42 | 5138.33 |
| 90.0 | 6909.22 | 6855.97 | 6635.92 | 6390.13 | 6119.17 | 5804.91 | 5400.51 | 5057.57 | 4724.58 |
| 135.0 | 6854.21 | 6894.59 | 6829.63 | 6660.50 | 6336.87 | 6043.68 | 5718.29 | 5370.67 | 4939.36 |
| 180.0 | 6903.37 | 6863.58 | 6751.80 | 6549.90 | 6269.57 | 5886.84 | 5542.72 | 5189.83 | 4831.68 |
| 225.0 | 6858.31 | 6707.91 | 6510.69 | 6246.16 | 5945.94 | 5528.09 | 5178.71 | 4742.14 | 4382.81 |
| 270.0 | 6909.22 | 6867.09 | 6752.38 | 6553.41 | 6323.41 | 5964.67 | 5645.72 | 5306.29 | 4878.49 |
| 315.0 | 6854.21 | 6749.46 | 6590.28 | 6310.54 | 6009.15 | 5684.35 | 5262.99 | 4911.27 | 4563.64 |
| 360.0 | 6903.37 | 6858.90 | 6689.77 | 6444.56 | 6161.31 | 5766.28 | 5432.12 | 5082.15 | 4734.53 |

| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 4398.61 | 4010.61 | 3696.34 | 3393.19 | 3050.84 | 2807.38 | 2589.09 | 2333.94 | 2154.86 |
| 45.0 | 4800.66 | 4400.37 | 4075.57 | 3751.94 | 3379.15 | 3097.07 | 2835.47 | 2542.28 | 2338.03 |
| 90.0 | 4304.97 | 3970.22 | 3644.84 | 3270.88 | 2995.24 | 2744.18 | 2456.83 | 2257.86 | 2080.53 |
| 135.0 | 4597.00 | 4276.30 | 3956.18 | 3545.35 | 3249.81 | 2912.14 | 2664.00 | 2436.35 | 2195.24 |
| 180.0 | 4392.76 | 4069.71 | 3750.77 | 3360.42 | 3080.10 | 2818.50 | 2523.55 | 2318.72 | 2101.02 |
| 225.0 | 4038.70 | 3648.94 | 3346.38 | 3071.90 | 2814.41 | 2534.67 | 2327.50 | 2142.57 | 1975.78 |
| 270.0 | 4535.55 | 4179.74 | 3849.08 | 3462.83 | 3174.32 | 2904.53 | 2664.00 | 2399.48 | 2208.70 |
| 315.0 | 4201.97 | 3811.63 | 3505.56 | 3221.14 | 2962.47 | 2665.17 | 2451.57 | 2263.71 | 2047.76 |
| 360.0 | 4398.61 | 4010.61 | 3696.34 | 3393.19 | 3050.84 | 2807.38 | 2589.09 | 2333.94 | 2154.86 |

| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1996.85 | 1821.86 | 1697.80 | 1583.68 | 1456.10 | 1356.61 | 1157.46 | 1157.46 | 1074.77 |
| 45.0 | 2157.20 | 1990.99 | 1816.60 | 1696.04 | 1581.92 | 1475.41 | 1356.02 | 1262.97 | 1155.88 |
| 90.0 | 1889.16 | 1756.32 | 1632.84 | 1519.89 | 1393.48 | 1147.45 | 1147.45 | 1128.31 | 1031.28 |
| 135.0 | 2023.77 | 1875.12 | 1741.69 | 1593.63 | 1483.60 | 1384.12 | 1289.89 | 1182.21 | 1101.45 |
| 180.0 | 1935.98 | 1790.26 | 1666.78 | 1529.84 | 1426.84 | 1330.86 | 1240.74 | 1135.98 | 1055.80 |
| 225.0 | 1793.19 | 1667.36 | 1552.08 | 1416.89 | 1264.14 | 1150.84 | 1130.30 | 1051.30 | 974.40 |
| 270.0 | 2040.74 | 1844.69 | 1711.84 | 1598.89 | 1464.88 | 1356.61 | 1250.68 | 1162.90 | 1080.97 |
| 315.0 | 1897.36 | 1734.67 | 1615.28 | 1507.01 | 1404.60 | 1162.08 | 1162.08 | 1122.46 | 1040.53 |
| 360.0 | 1996.85 | 1821.86 | 1697.80 | 1583.68 | 1456.10 | 1356.61 | 1157.46 | 1157.46 | 1074.77 |

| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 993.65 | 912.31 | 827.22 | 723.98 | 638.13 | 554.44 | 471.34 | 375.25 | 308.24 |
| 45.0 | 1069.26 | 990.26 | 885.50 | 805.33 | 721.06 | 636.78 | 531.44 | 453.61 | 381.04 |
| 90.0 | 952.98 | 873.80 | 768.22 | 684.30 | 577.27 | 496.91 | 419.37 | 351.31 | 273.01 |
| 135.0 | 1018.35 | 918.28 | 834.00 | 752.66 | 644.39 | 561.29 | 481.70 | 390.99 | 324.86 |
| 180.0 | 977.97 | 870.87 | 790.70 | 702.33 | 589.97 | 511.55 | 433.71 | 339.49 | 307.89 |
| 225.0 | 873.92 | 787.95 | 703.15 | 615.95 | 509.73 | 431.90 | 359.97 | 297.59 | 228.41 |
| 270.0 | 1004.30 | 901.89 | 821.13 | 734.52 | 644.98 | 542.56 | 464.14 | 388.06 | 311.98 |
| 315.0 | 941.39 | 861.16 | 774.84 | 689.40 | 580.66 | 495.80 | 418.55 | 334.28 | 274.35 |
| 360.0 | 993.65 | 912.31 | 827.22 | 723.98 | 638.13 | 554.44 | 471.34 | 375.25 | 308.24 |

| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 231.98 | 181.01 | 139.46 | 99.96 | 78.07 | 62.03 | 48.63 | 41.43 | 36.40 |
| 45.0 | 314.32 | 297.94 | 227.30 | 142.68 | 110.49 | 81.70 | 65.55 | 54.02 | 43.83 |
| 90.0 | 219.23 | 173.69 | 134.89 | 98.14 | 77.89 | 63.15 | 52.03 | 42.37 | 37.10 |
| 135.0 | 309.64 | 238.01 | 151.92 | 117.51 | 91.70 | 69.12 | 56.65 | 47.58 | 41.02 |
| 180.0 | 307.89 | 171.41 | 124.42 | 99.37 | 78.30 | 62.33 | 49.63 | 42.49 | 37.51 |
| 225.0 | 181.13 | 141.98 | 103.82 | 81.23 | 64.32 | 50.21 | 42.60 | 36.17 | 32.48 |
| 270.0 | 297.35 | 297.35 | 149.58 | 117.10 | 90.89 | 67.48 | 54.95 | 45.88 | 39.56 |
| 315.0 | 208.16 | 163.69 | 127.23 | 92.52 | 72.57 | 58.46 | 48.52 | 40.20 | 35.64 |
| 360.0 | 231.98 | 181.01 | 139.46 | 99.96 | 78.07 | 62.03 | 48.63 | 41.43 | 36.40 |

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 | 32.66 | 29.20 | 27.04 | 25.28 | 23.88 | 22.47 | 21.54 | 20.78 | 20.19 |
| 45.0 | 38.22 | 33.18 | 30.26 | 27.97 | 25.63 | 24.17 | 22.88 | 21.95 | 21.01 |
| 90.0 | 32.36 | 29.55 | 27.27 | 25.16 | 23.76 | 22.59 | 21.71 | 20.83 | 20.37 |
| 135.0 | 35.29 | 32.01 | 29.32 | 26.80 | 25.16 | 23.76 | 22.41 | 21.65 | 21.01 |
| 180.0 | 33.59 | 30.02 | 27.80 | 25.57 | 24.17 | 22.94 | 21.83 | 21.07 | 20.54 |
| 225.0 | 29.73 | 27.45 | 25.28 | 23.82 | 22.59 | 21.71 | 20.78 | 20.31 | 19.96 |
| 270.0 | 34.00 | 30.84 | 28.32 | 26.34 | 24.29 | 23.00 | 21.89 | 21.07 | 20.31 |
| 315.0 | 32.19 | 29.55 | 26.86 | 25.16 | 23.70 | 22.30 | 21.36 | 20.72 | 20.19 |
| 360.0 | 32.66 | 29.20 | 27.04 | 25.28 | 23.88 | 22.47 | 21.54 | 20.78 | 20.19 |

| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 19.84 | 19.61 | 19.66 | 19.84 | 20.07 | 20.42 | 20.60 | 20.42 | 20.07 |
| 45.0 | 20.54 | 20.19 | 20.01 | 20.01 | 20.07 | 20.25 | 20.60 | 20.66 | 20.42 |
| 90.0 | 20.07 | 19.96 | 19.96 | 20.07 | 20.25 | 20.42 | 20.37 | 20.07 | 19.25 |
| 135.0 | 20.48 | 20.25 | 20.07 | 20.13 | 20.25 | 20.42 | 20.60 | 20.54 | 20.13 |
| 180.0 | 20.25 | 20.01 | 19.96 | 20.07 | 20.19 | 20.42 | 20.54 | 20.31 | 19.72 |
| 225.0 | 19.84 | 19.84 | 20.01 | 20.25 | 20.48 | 20.60 | 20.31 | 19.90 | 19.02 |
| 270.0 | 19.90 | 19.66 | 19.72 | 19.78 | 20.13 | 20.37 | 20.54 | 20.42 | 19.96 |
| 315.0 | 19.96 | 19.78 | 19.90 | 20.07 | 20.37 | 20.66 | 20.60 | 20.37 | 19.78 |
| 360.0 | 19.84 | 19.61 | 19.66 | 19.84 | 20.07 | 20.42 | 20.60 | 20.42 | 20.07 |

| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 19.14 | 18.20 | 17.03 | 15.63 | 14.75 | 14.05 | 13.40 | 13.05 | 12.70 |
| 45.0 | 19.72 | 18.90 | 17.91 | 16.50 | 15.45 | 14.57 | 13.93 | 13.28 | 12.87 |
| 90.0 | 18.38 | 17.15 | 16.04 | 15.10 | 14.34 | 13.58 | 13.11 | 12.76 | 12.47 |
| 135.0 | 19.49 | 18.38 | 17.38 | 16.27 | 15.16 | 14.46 | 13.87 | 13.40 | 12.99 |
| 180.0 | 18.84 | 17.67 | 16.50 | 15.51 | 14.51 | 13.87 | 13.40 | 13.05 | 12.70 |
| 225.0 | 17.91 | 16.56 | 15.45 | 14.57 | 13.93 | 13.23 | 12.87 | 12.52 | 12.23 |
| 270.0 | 19.14 | 18.14 | 16.97 | 15.51 | 14.63 | 13.87 | 13.23 | 12.87 | 12.52 |
| 315.0 | 18.84 | 17.56 | 16.27 | 15.27 | 14.22 | 13.64 | 13.11 | 12.76 | 12.47 |
| 360.0 | 19.14 | 18.20 | 17.03 | 15.63 | 14.75 | 14.05 | 13.40 | 13.05 | 12.70 |

| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 12.35 | 12.11 | 11.88 | 11.65 | 11.41 | 11.24 | 11.00 | 10.71 | 10.53 |
| 45.0 | 12.58 | 12.29 | 12.06 | 11.82 | 11.53 | 11.35 | 11.18 | 10.89 | 10.71 |
| 90.0 | 12.23 | 12.11 | 12.00 | 11.82 | 11.53 | 11.18 | 10.83 | 10.53 | 10.30 |
| 135.0 | 13.05 | 13.46 | 13.69 | 13.40 | 12.93 | 12.35 | 11.70 | 11.24 | 10.77 |
| 180.0 | 12.41 | 12.17 | 11.94 | 11.70 | 11.47 | 11.29 | 11.06 | 10.83 | 10.59 |
| 225.0 | 12.00 | 11.82 | 11.53 | 11.35 | 11.18 | 10.89 | 10.65 | 10.48 | 10.24 |
| 270.0 | 12.11 | 11.94 | 11.70 | 11.47 | 11.29 | 11.12 | 10.77 | 10.53 | 10.36 |
| 315.0 | 12.11 | 11.94 | 11.76 | 11.70 | 11.47 | 11.18 | 10.89 | 10.59 | 10.30 |
| 360.0 | 12.35 | 12.11 | 11.88 | 11.65 | 11.41 | 11.24 | 11.00 | 10.71 | 10.53 |

| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 10.30 | 10.01 | 9.77 | 9.54 | 9.36 | 9.25 | 9.01 | 8.90 | 8.72 |
| 45.0 | 10.48 | 10.18 | 10.01 | 9.77 | 9.60 | 9.42 | 9.19 | 8.95 | 8.78 |
| 90.0 | 10.07 | 9.83 | 9.66 | 9.48 | 9.31 | 9.13 | 8.95 | 8.78 | 8.66 |
| 135.0 | 10.48 | 10.18 | 9.89 | 9.71 | 9.48 | 9.19 | 9.07 | 8.84 | 8.72 |
| 180.0 | 10.30 | 10.07 | 9.83 | 9.60 | 9.36 | 9.13 | 8.95 | 8.78 | 8.66 |
| 225.0 | 10.01 | 9.77 | 9.60 | 9.42 | 9.19 | 9.01 | 8.84 | 8.66 | 8.66 |
| 270.0 | 10.12 | 9.83 | 9.66 | 9.48 | 9.31 | 9.13 | 8.95 | 8.84 | 8.66 |
| 315.0 | 10.07 | 9.77 | 9.60 | 9.42 | 9.31 | 9.01 | 8.90 | 8.72 | 8.60 |
| 360.0 | 10.30 | 10.01 | 9.77 | 9.54 | 9.36 | 9.25 | 9.01 | 8.90 | 8.72 |

Intensity data(cd)



| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 8.66 |
| 45.0 | 8.66 |
| 90.0 | 8.66 |
| 135.0 | 8.60 |
| 180.0 | 8.66 |
| 225.0 | 8.60 |
| 270.0 | 8.60 |
| 315.0 | 8.60 |
| 360.0 | 8.66 |