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

## Nata

LumCAT: LN01D03524EE-N
Luminaire: 92.70.307.00
Report No: 210521-B002
Test No: 210521-C002
LampCAT: LUMINUS CXM-3 LES3.5
Lamp flux(lm): 548.1
Number of Lamps: 1
Length(mm): 74
Phm Type: C

Voltage(V): 221.4000
Current(A): 0.0800
Power (W): 9.1000
PF: 0.5100
Ballast type: DC
Width(mm): 74
Height(mm): 56

## Photometric Results

Lumens(lm): 377.87
Efficiency(%): 68.94%
Lumens(lm)/Power(W): 41.52
Central intensity(cd): 1512.563
Maximum intensity(cd): 1512.563
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=23.4
[C90/270]Total=23.4
Field angle(10%Imax): [C0/180]Total=45.8
[C90/270]Total=45.8
Maximum s/h(1/2): C0_180=0.40 C90_270=0.40
Maximum s/h(1/4): C0_180=0.40 C90_270=0.40
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 68.94%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 93.924%

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 1512.563 | 0.000 | 0 | .000% | .000% |
| 1.0 | 1505.742 | 1.444 | 1.444 | .263% | .382% |
| 2.0 | 1484.930 | 4.292 | 5.737 | .783% | 1.518% |
| 3.0 | 1450.125 | 7.020 | 12.756 | 1.281% | 3.376% |
| 4.0 | 1403.930 | 9.553 | 22.31 | 1.743% | 5.904% |
| 5.0 | 1348.453 | 11.841 | 34.15 | 2.160% | 9.038% |
| 6.0 | 1268.339 | 13.752 | 47.902 | 2.509% | 12.677% |
| 7.0 | 1181.672 | 15.207 | 63.11 | 2.774% | 16.701% |
| 8.0 | 1100.609 | 16.334 | 79.443 | 2.980% | 21.024% |
| 9.0 | 1003.212 | 17.050 | 96.494 | 3.111% | 25.536% |
| 10.0 | 906.110 | 17.279 | 113.772 | 3.152% | 30.109% |
| 11.0 | 817.179 | 17.219 | 130.992 | 3.141% | 34.665% |
| 12.0 | 729.183 | 16.904 | 147.896 | 3.084% | 39.139% |
| 13.0 | 627.532 | 16.101 | 163.996 | 2.937% | 43.400% |
| 14.0 | 552.417 | 15.103 | 179.1 | 2.755% | 47.397% |
| 15.0 | 481.802 | 14.198 | 193.298 | 2.590% | 51.154% |
| 16.0 | 414.668 | 13.136 | 206.434 | 2.396% | 54.630% |
| 17.0 | 354.396 | 11.976 | 218.41 | 2.185% | 57.800% |
| 18.0 | 305.775 | 10.885 | 229.295 | 1.986% | 60.680% |
| 19.0 | 263.798 | 9.909 | 239.204 | 1.808% | 63.303% |
| 20.0 | 226.547 | 8.975 | 248.179 | 1.637% | 65.678% |
| 21.0 | 194.063 | 8.077 | 256.255 | 1.473% | 67.815% |
| 22.0 | 169.847 | 7.313 | 263.568 | 1.334% | 69.750% |
| 23.0 | 149.400 | 6.699 | 270.267 | 1.222% | 71.523% |
| 24.0 | 129.593 | 6.100 | 276.367 | 1.113% | 73.137% |
| 25.0 | 114.680 | 5.554 | 281.921 | 1.013% | 74.607% |
| 26.0 | 102.424 | 5.125 | 287.046 | .935% | 75.963% |
| 27.0 | 91.702 | 4.749 | 291.795 | .866% | 77.220% |
| 28.0 | 80.585 | 4.362 | 296.157 | .796% | 78.375% |
| 29.0 | 72.584 | 4.007 | 300.164 | .731% | 79.435% |
| 30.0 | 65.714 | 3.734 | 303.898 | .681% | 80.423% |
| 31.0 | 59.140 | 3.475 | 307.373 | .634% | 81.343% |
| 32.0 | 53.536 | 3.228 | 310.601 | .589% | 82.197% |
| 33.0 | 48.966 | 3.020 | 313.621 | .551% | 82.996% |
| 34.0 | 44.852 | 2.839 | 316.46 | .518% | 83.748% |
| 35.0 | 40.549 | 2.652 | 319.112 | .484% | 84.449% |
| 36.0 | 37.392 | 2.482 | 321.594 | .453% | 85.106% |
| 37.0 | 34.418 | 2.342 | 323.936 | .427% | 85.726% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 38.0 | 31.746 | 2.208 | 326.144 | .403% | 86.310% |
| 39.0 | 29.138 | 2.078 | 328.222 | .379% | 86.860% |
| 40.0 | 27.000 | 1.958 | 330.18 | .357% | 87.378% |
| 41.0 | 25.080 | 1.855 | 332.035 | .338% | 87.869% |
| 42.0 | 23.302 | 1.758 | 333.793 | .321% | 88.334% |
| 43.0 | 21.635 | 1.665 | 335.457 | .304% | 88.775% |
| 44.0 | 20.187 | 1.578 | 337.036 | .288% | 89.193% |
| 45.0 | 18.907 | 1.502 | 338.538 | .274% | 89.590% |
| 46.0 | 17.684 | 1.431 | 339.969 | .261% | 89.969% |
| 47.0 | 16.622 | 1.364 | 341.334 | .249% | 90.330% |
| 48.0 | 15.701 | 1.307 | 342.64 | .238% | 90.676% |
| 49.0 | 14.864 | 1.255 | 343.895 | .229% | 91.008% |
| 50.0 | 14.020 | 1.204 | 345.1 | .220% | 91.327% |
| 51.0 | 13.170 | 1.150 | 346.25 | .210% | 91.631% |
| 52.0 | 12.530 | 1.103 | 347.353 | .201% | 91.923% |
| 53.0 | 11.911 | 1.063 | 348.416 | .194% | 92.204% |
| 54.0 | 11.334 | 1.025 | 349.44 | .187% | 92.475% |
| 55.0 | 10.835 | 0.990 | 350.43 | .181% | 92.737% |
| 56.0 | 10.357 | 0.958 | 351.388 | .175% | 92.991% |
| 57.0 | 9.886 | 0.926 | 352.313 | .169% | 93.236% |
| 58.0 | 9.457 | 0.894 | 353.208 | .163% | 93.472% |
| 59.0 | 9.070 | 0.866 | 354.074 | .158% | 93.702% |
| 60.0 | 8.691 | 0.839 | 354.913 | .153% | 93.924% |
| 61.0 | 8.311 | 0.811 | 355.724 | .148% | 94.138% |
| 62.0 | 7.995 | 0.786 | 356.51 | .143% | 94.346% |
| 63.0 | 7.720 | 0.764 | 357.274 | .139% | 94.549% |
| 64.0 | 7.439 | 0.744 | 358.018 | .136% | 94.745% |
| 65.0 | 7.179 | 0.723 | 358.742 | .132% | 94.937% |
| 66.0 | 6.968 | 0.706 | 359.447 | .129% | 95.124% |
| 67.0 | 6.750 | 0.690 | 360.137 | .126% | 95.306% |
| 68.0 | 6.694 | 0.681 | 360.818 | .124% | 95.486% |
| 69.0 | 7.446 | 0.721 | 361.54 | .132% | 95.677% |
| 70.0 | 8.571 | 0.823 | 362.362 | .150% | 95.895% |
| 71.0 | 9.872 | 0.953 | 363.315 | .174% | 96.147% |
| 72.0 | 11.025 | 1.087 | 364.402 | .198% | 96.435% |
| 73.0 | 11.960 | 1.202 | 365.604 | .219% | 96.753% |
| 74.0 | 12.537 | 1.288 | 366.892 | .235% | 97.094% |
| 75.0 | 12.298 | 1.312 | 368.204 | .239% | 97.441% |

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 76.0 | 11.665 | 1.272 | 369.476 | .232% | 97.778% |
| 77.0 | 10.779 | 1.197 | 370.673 | .218% | 98.094% |
| 78.0 | 10.005 | 1.113 | 371.785 | .203% | 98.389% |
| 79.0 | 9.077 | 1.025 | 372.811 | .187% | 98.660% |
| 80.0 | 8.248 | 0.934 | 373.745 | .170% | 98.907% |
| 81.0 | 7.552 | 0.854 | 374.599 | .156% | 99.133% |
| 82.0 | 6.279 | 0.750 | 375.349 | .137% | 99.332% |
| 83.0 | 4.591 | 0.591 | 375.94 | .108% | 99.488% |
| 84.0 | 3.143 | 0.421 | 376.361 | .077% | 99.600% |
| 85.0 | 2.721 | 0.320 | 376.681 | .058% | 99.684% |
| 86.0 | 2.489 | 0.285 | 376.966 | .052% | 99.760% |
| 87.0 | 2.208 | 0.257 | 377.223 | .047% | 99.828% |
| 88.0 | 2.025 | 0.232 | 377.455 | .042% | 99.889% |
| 89.0 | 1.905 | 0.215 | 377.67 | .039% | 99.946% |
| 90.0 | 1.800 | 0.203 | 377.874 | .037% | 100.000% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

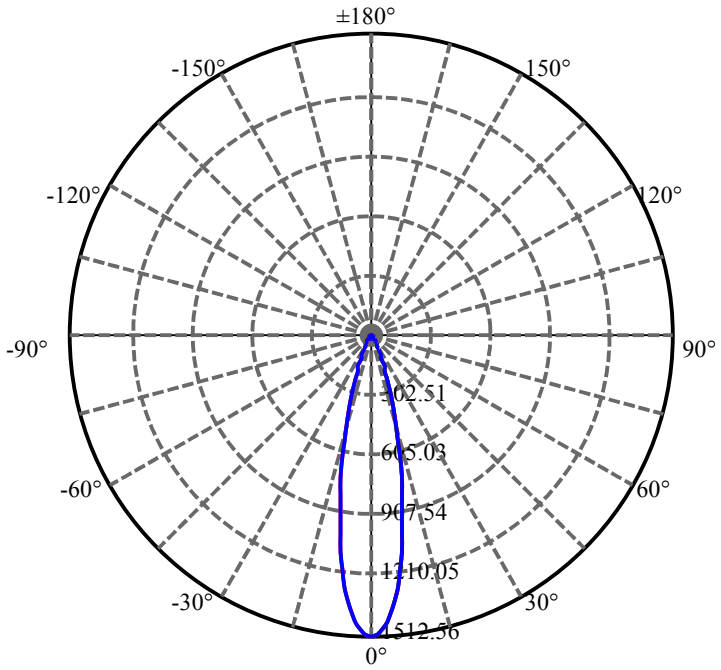
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 303.90 | 55.44% | 80.42% |
| 0-40 | 330.18 | 60.24% | 87.38% |
| 0-60 | 354.91 | 64.75% | 93.92% |
| 0-90 | 377.67 | 68.90% | 99.95% |
| 0-120 | 377.67 | 68.90% | 99.95% |
| 0-180 | 377.87 | 68.94% | 100.00% |
| 60-90 | 23.60 | 4.30% | 6.24% |
| 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% |
| 0-29.57 | 302.30 | 55.15% | 80.00% |

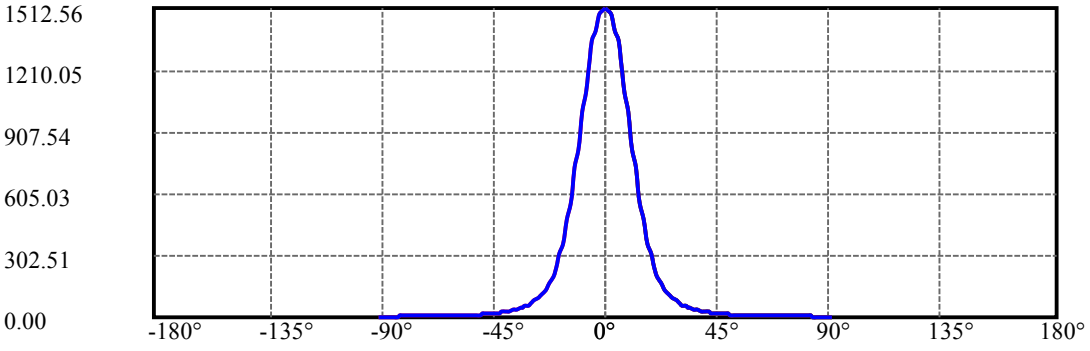
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 113.77 |
| 10-20 | 134.41 |
| 20-30 | 55.72 |
| 30-40 | 26.28 |
| 40-50 | 14.92 |
| 50-60 | 9.81 |
| 60-70 | 7.45 |
| 70-80 | 11.38 |
| 80-90 | 3.93 |
| 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:22.9 Right:22.9
:C90/270Left:22.9 Right:22.9

Beam Angle(50%Imax):C0/180Left:11.7 Right:11.7
:C90/270Left:11.7 Right:11.7

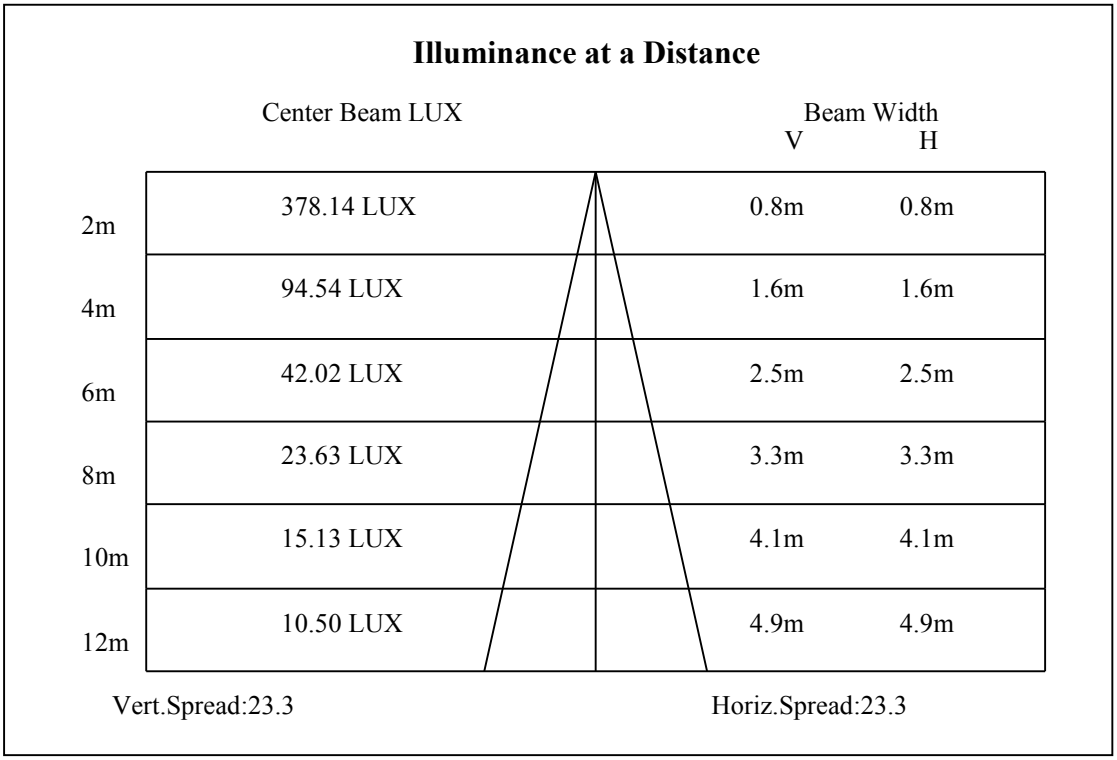
Equipment: GMS1980
Temperature(°C): 25.0

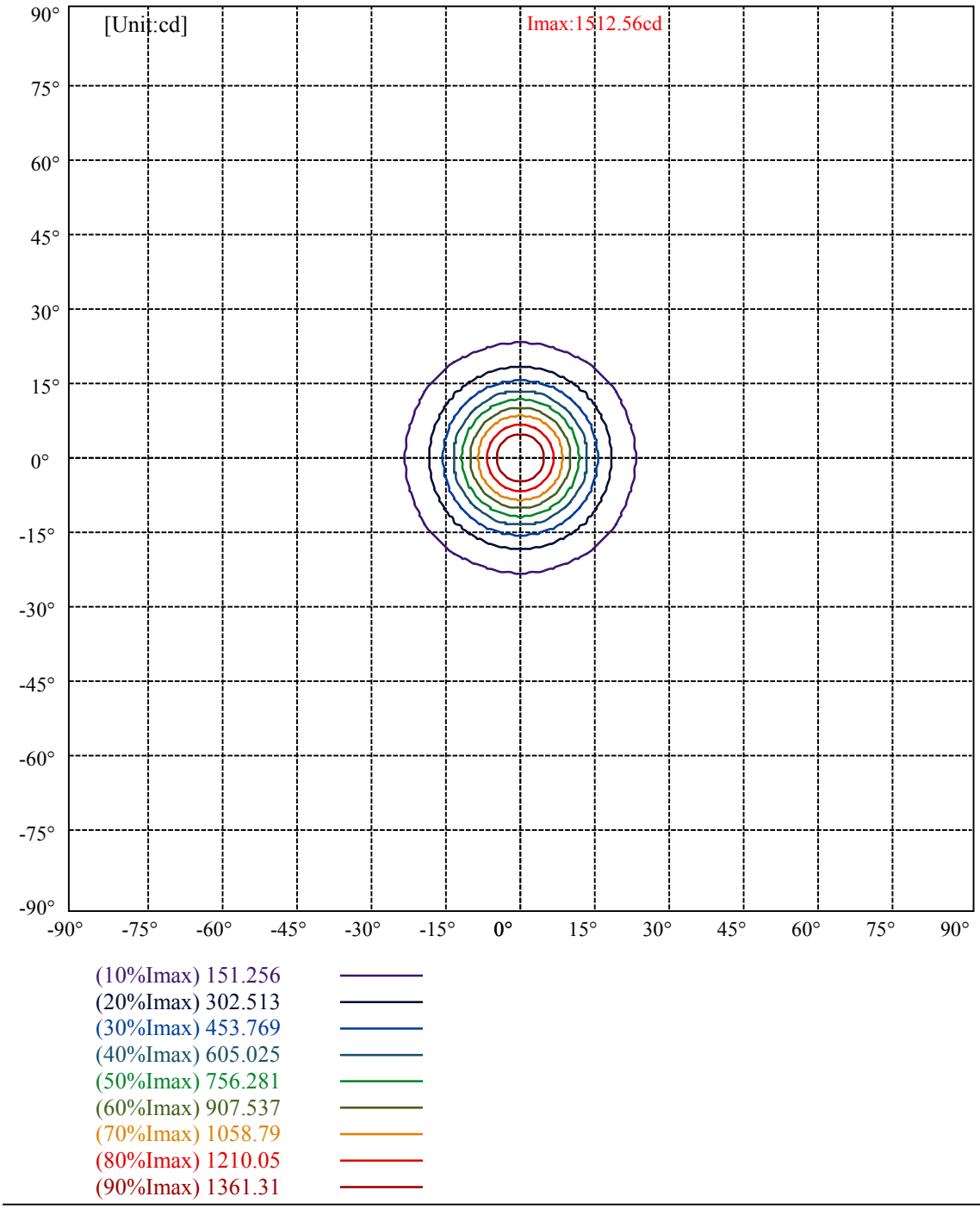
Date: 2021/05/21
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Lux distance Curve



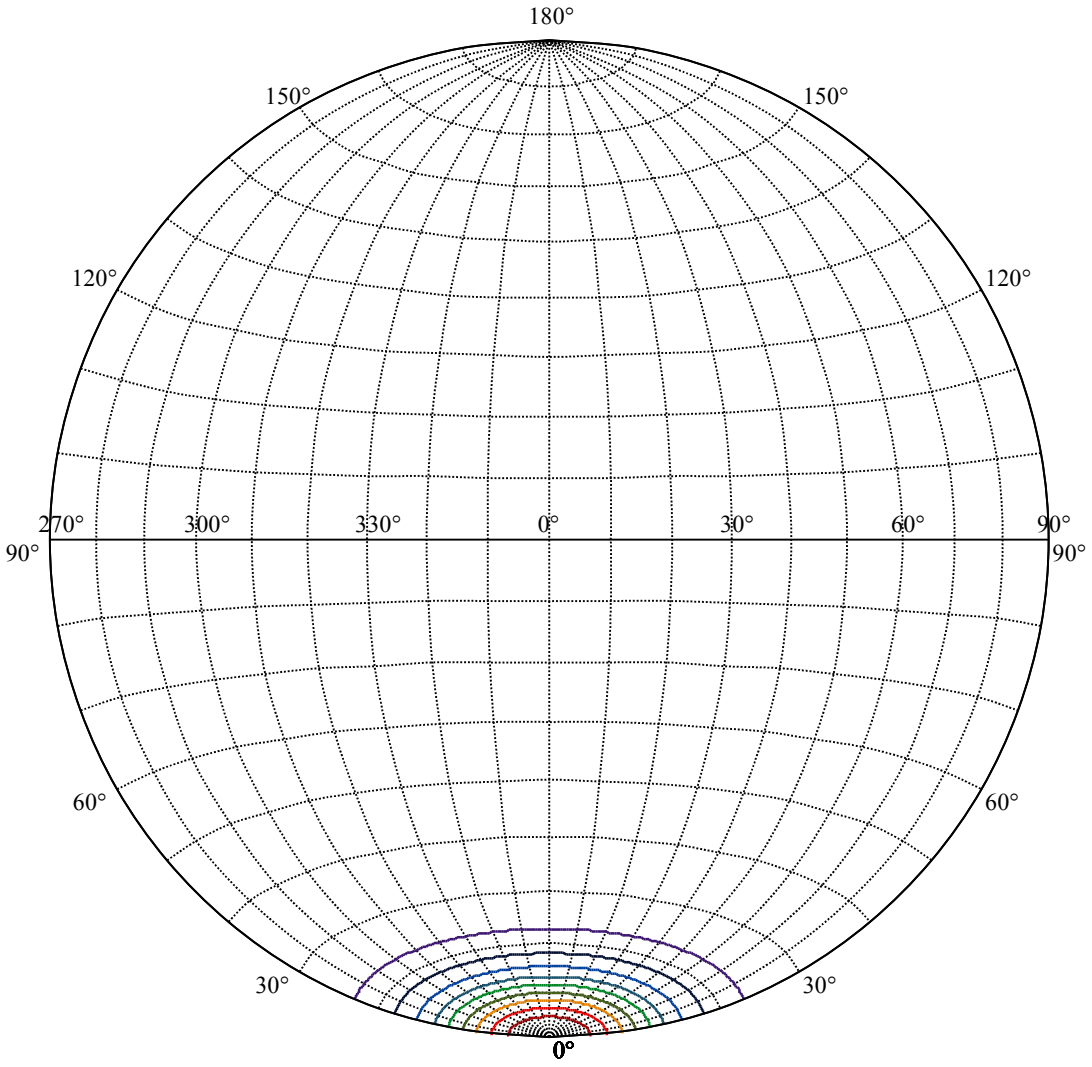





Equipment: GMS1980
Temperature(°C): 25.0
Date: 2021/05/21
Humidity(%): 65.0%
Operator: NT07
Distance(m): 7.50

ISO candela diagram on circular web






House [Unit:cd] Road

Imax:1512.56

(10%Imax) 151.256
(20%Imax) 302.513
(30%Imax) 453.769
(40%Imax) 605.025
(50%Imax) 756.281
(60%Imax) 907.537
(70%Imax) 1058.79
(80%Imax) 1210.05
(90%Imax) 1361.31

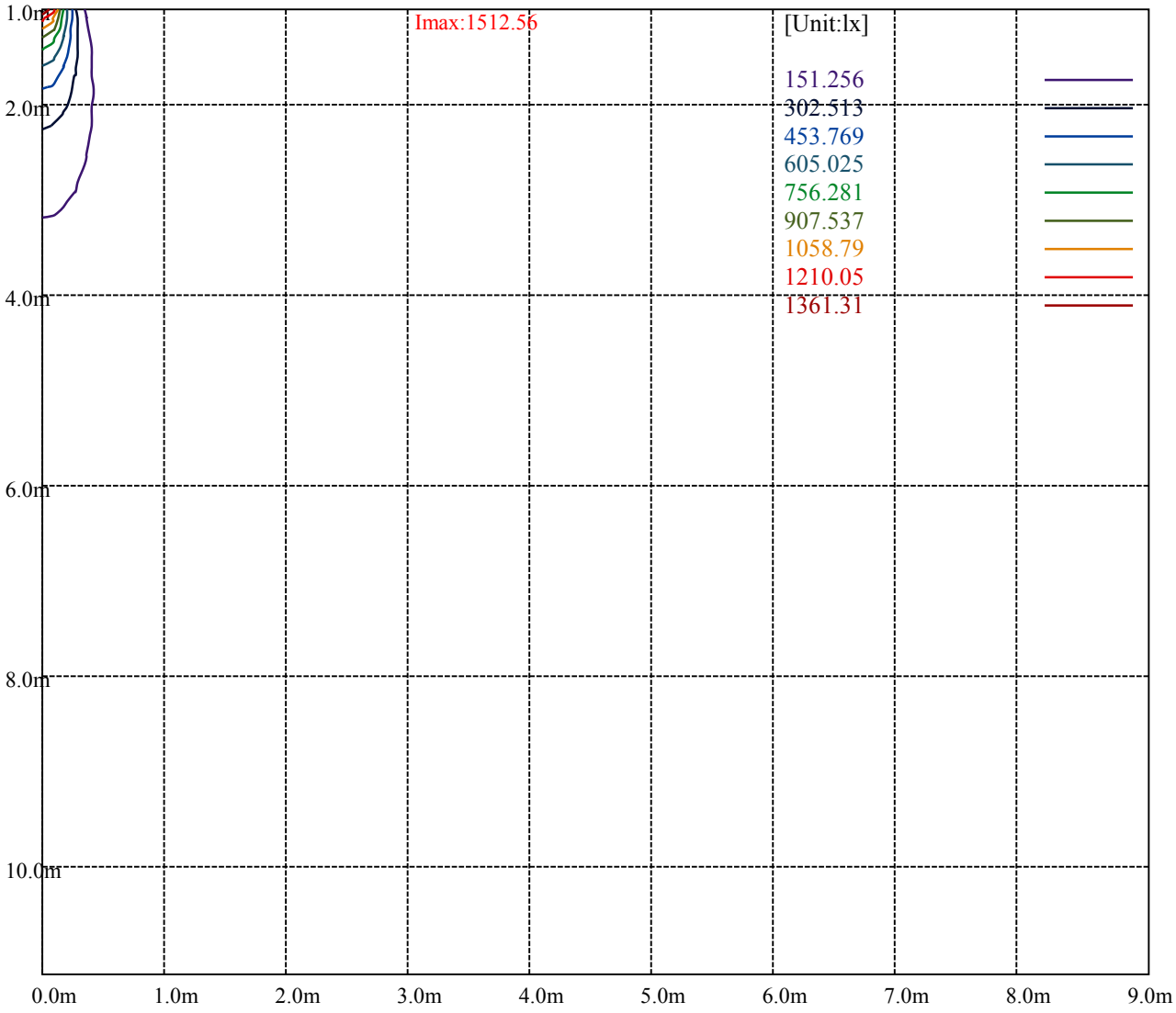
Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/05/21
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

## Space ISO Lux diagram






Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/05/21
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50

Nata LN01D03524EE-N

## Luminance Limitting Curve(no luminous side)



Luminance Table

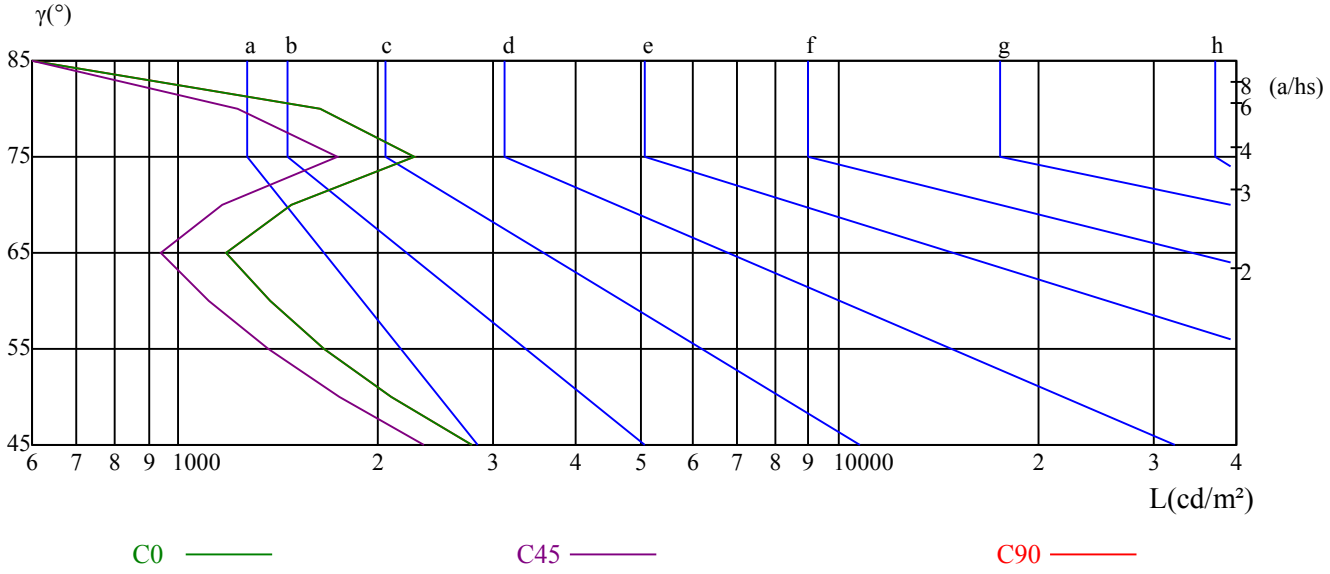
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 2779 | 2094 | 1658 | 1374 | 1183 | 1486 | 2269 | 1639 | 591 |
| C45 | 2359 | 1751 | 1364 | 1112 | 941 | 1161 | 1737 | 1227 | 431 |
| C90 | 2779 | 2094 | 1658 | 1374 | 1183 | 1486 | 2269 | 1639 | 591 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|---|---|---|---|---|---|---|---|---|
| 3102 | 3102 | 3102 | 8677 | 8677 | 8677 | 5701 | 5701 | 5701 |

Glare Table

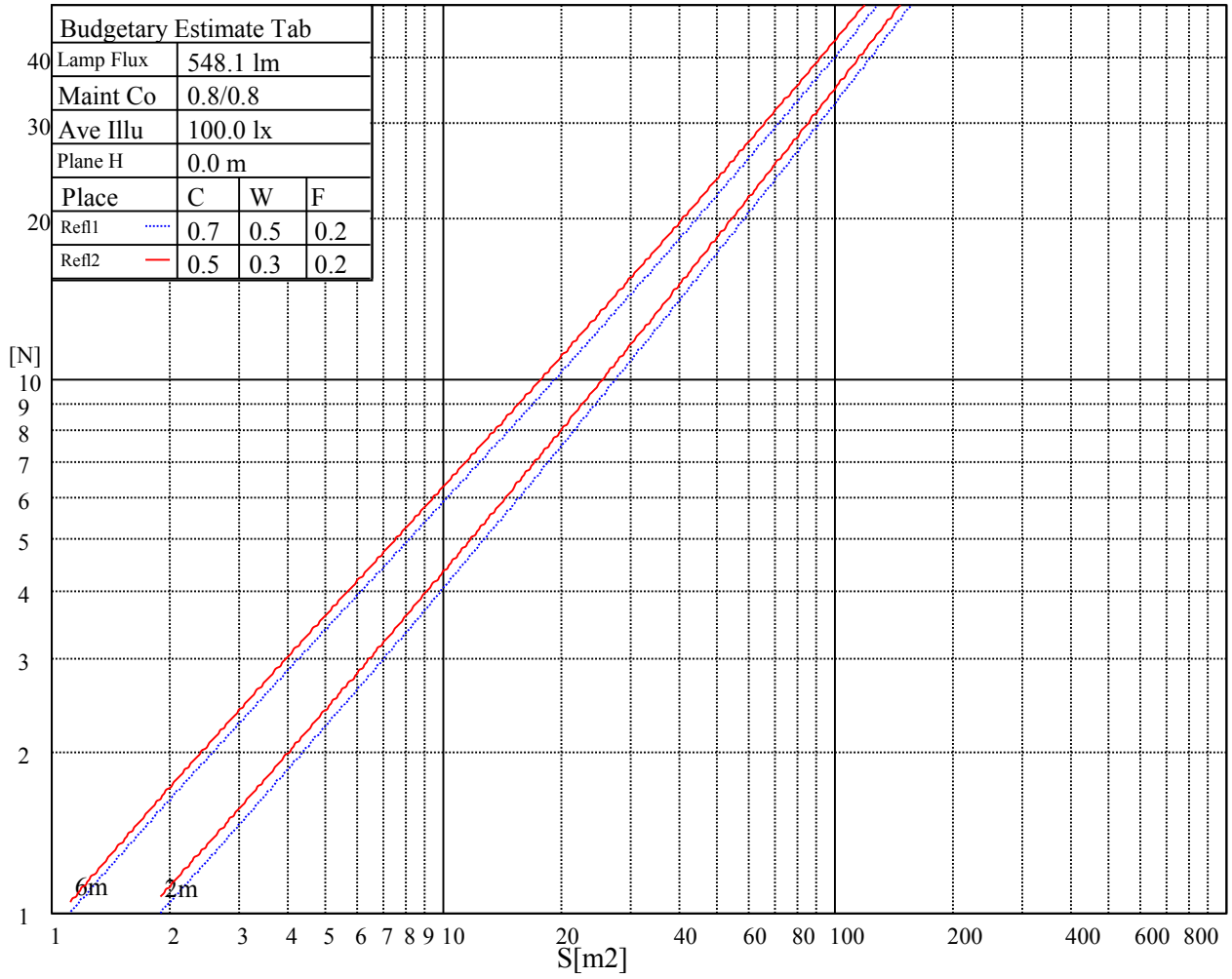
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 500 | <=300 | | |
| 2.2 | D | | | | 2000 | 1000 | 500 | <=300 |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

Luminance Limitting Curve



## Budgetary Estimate Table






Equipment: GMS1980 Date: 2021/05/21 Operator: NT07
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.50

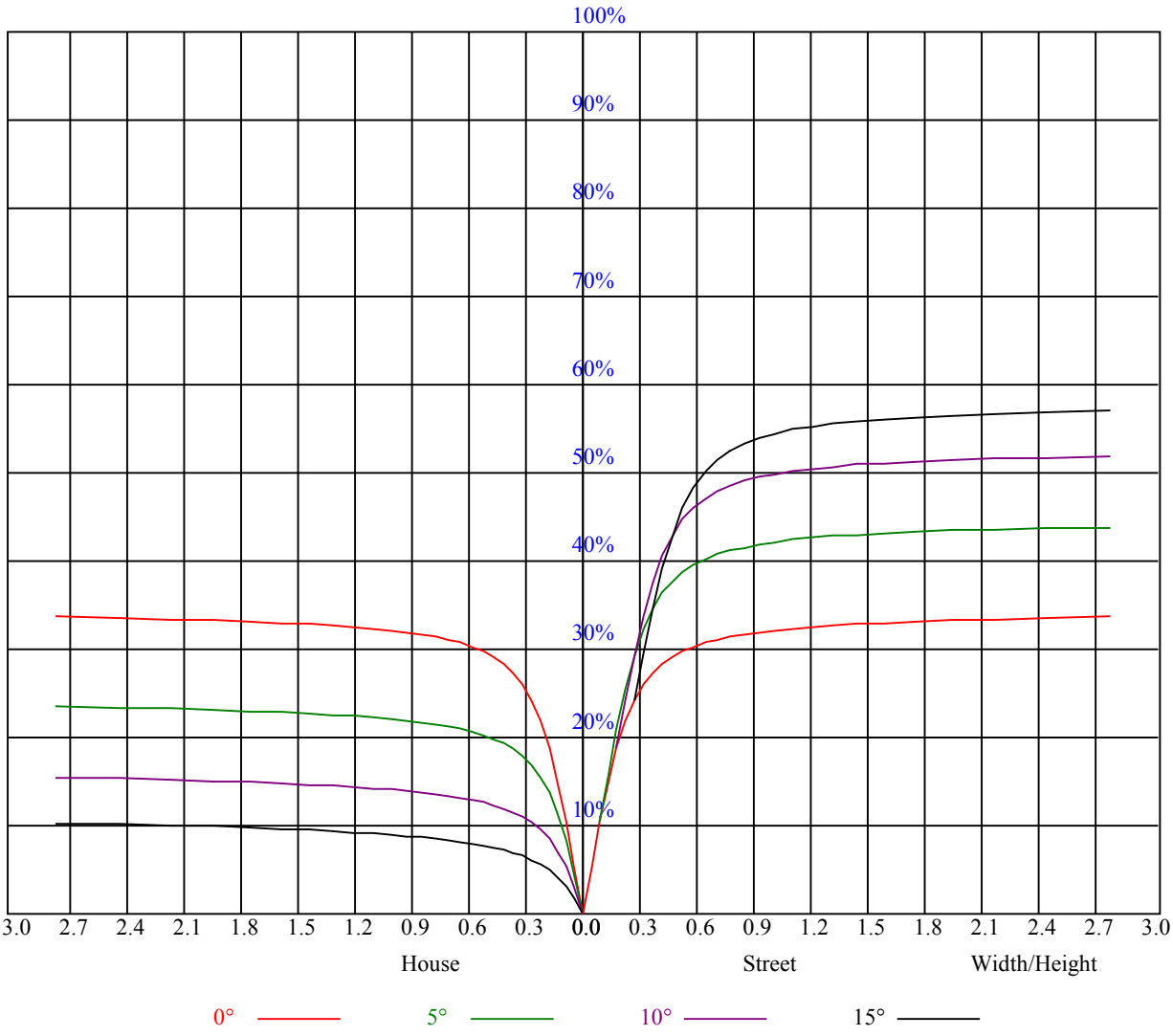
Utilization factor table for indoor luminaire



| 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 | 0.82 | 0.82 | 0.82 | 0.80 | 0.80 | 0.80 | 0.77 | 0.77 | 0.77 | 0.73 | 0.73 | 0.73 | 0.70 | 0.70 | 0.70 | 0.69 |
| 1 | 0.76 | 0.74 | 0.73 | 0.75 | 0.73 | 0.72 | 0.72 | 0.71 | 0.69 | 0.69 | 0.68 | 0.67 | 0.67 | 0.66 | 0.65 | 0.64 |
| 2 | 0.71 | 0.69 | 0.66 | 0.70 | 0.68 | 0.66 | 0.68 | 0.66 | 0.64 | 0.66 | 0.64 | 0.63 | 0.64 | 0.63 | 0.61 | 0.60 |
| 3 | 0.67 | 0.64 | 0.61 | 0.66 | 0.63 | 0.61 | 0.65 | 0.62 | 0.60 | 0.63 | 0.61 | 0.59 | 0.61 | 0.60 | 0.58 | 0.57 |
| 4 | 0.64 | 0.60 | 0.58 | 0.63 | 0.60 | 0.57 | 0.62 | 0.59 | 0.57 | 0.60 | 0.58 | 0.56 | 0.59 | 0.57 | 0.55 | 0.54 |
| 5 | 0.61 | 0.57 | 0.55 | 0.60 | 0.57 | 0.54 | 0.59 | 0.56 | 0.54 | 0.58 | 0.55 | 0.54 | 0.57 | 0.55 | 0.53 | 0.52 |
| 6 | 0.58 | 0.55 | 0.52 | 0.58 | 0.54 | 0.52 | 0.57 | 0.54 | 0.52 | 0.56 | 0.53 | 0.51 | 0.55 | 0.53 | 0.51 | 0.50 |
| 7 | 0.56 | 0.52 | 0.50 | 0.56 | 0.52 | 0.50 | 0.55 | 0.52 | 0.50 | 0.54 | 0.51 | 0.49 | 0.53 | 0.51 | 0.49 | 0.48 |
| 8 | 0.54 | 0.50 | 0.48 | 0.54 | 0.50 | 0.48 | 0.53 | 0.50 | 0.48 | 0.52 | 0.50 | 0.48 | 0.52 | 0.49 | 0.47 | 0.47 |
| 9 | 0.52 | 0.49 | 0.46 | 0.52 | 0.48 | 0.46 | 0.51 | 0.48 | 0.46 | 0.51 | 0.48 | 0.46 | 0.50 | 0.48 | 0.46 | 0.45 |
| 10 | 0.50 | 0.47 | 0.45 | 0.50 | 0.47 | 0.45 | 0.50 | 0.47 | 0.45 | 0.49 | 0.46 | 0.45 | 0.49 | 0.46 | 0.44 | 0.44 |

## Coefficient Utilization Curve






| | | |
|---|---|---|
| Equipment: GMS1980 | Date: 2021/05/21 | Operator: NT07 |
| Temperature(°C): 25.0 | Humidity(%): 65.0% | Distance(m): 7.50 |

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 | 1527.75 | 1522.13 | 1500.19 | 1472.63 | 1425.94 | 1372.50 | 1301.06 | 1217.81 | 1139.63 |
| 45.0 | 1504.69 | 1469.81 | 1421.44 | 1368.00 | 1299.94 | 1228.50 | 1136.25 | 1040.06 | 951.75 |
| 90.0 | 1497.38 | 1467.00 | 1423.13 | 1356.75 | 1291.50 | 1217.81 | 1111.28 | 1025.55 | 936.28 |
| 135.0 | 1520.44 | 1505.25 | 1476.00 | 1438.31 | 1381.50 | 1321.88 | 1238.06 | 1148.06 | 1060.88 |
| 180.0 | 1527.75 | 1518.75 | 1499.63 | 1453.50 | 1407.94 | 1343.81 | 1253.25 | 1120.39 | 1075.39 |
| 225.0 | 1504.69 | 1522.13 | 1528.31 | 1517.63 | 1493.44 | 1456.88 | 1392.75 | 1329.19 | 1254.94 |
| 270.0 | 1497.38 | 1521.56 | 1526.63 | 1519.88 | 1495.13 | 1459.69 | 1404.56 | 1335.38 | 1263.94 |
| 315.0 | 1520.44 | 1519.31 | 1504.13 | 1474.31 | 1436.06 | 1386.56 | 1309.50 | 1236.94 | 1122.08 |
| 360.0 | 1527.75 | 1522.13 | 1500.19 | 1472.63 | 1425.94 | 1372.50 | 1301.06 | 1217.81 | 1139.63 |

| C/γ(°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 1042.31 | 944.44 | 854.44 | 776.81 | 660.38 | 581.06 | 516.94 | 433.69 | 369.56 |
| 45.0 | 863.44 | 752.63 | 669.38 | 590.63 | 500.63 | 438.19 | 380.81 | 331.88 | 288.56 |
| 90.0 | 835.88 | 739.69 | 658.69 | 572.96 | 495.79 | 433.80 | 365.29 | 323.61 | 276.30 |
| 135.0 | 958.50 | 856.13 | 766.13 | 680.06 | 580.50 | 509.63 | 446.06 | 381.38 | 325.69 |
| 180.0 | 980.44 | 863.72 | 772.20 | 685.41 | 583.88 | 510.69 | 444.32 | 378.84 | 322.09 |
| 225.0 | 1112.79 | 1056.66 | 963.11 | 856.46 | 751.56 | 664.88 | 575.10 | 501.58 | 427.56 |
| 270.0 | 1174.50 | 1078.31 | 987.75 | 895.50 | 781.31 | 693.56 | 610.88 | 525.38 | 448.88 |
| 315.0 | 1057.84 | 957.32 | 865.74 | 775.63 | 666.23 | 587.53 | 515.03 | 441.00 | 376.54 |
| 360.0 | 1042.31 | 944.44 | 854.44 | 776.81 | 660.38 | 581.06 | 516.94 | 433.69 | 369.56 |

| C/γ(°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 326.25 | 288.00 | 231.81 | 202.61 | 174.71 | 154.18 | 134.27 | 117.68 | 104.96 |
| 45.0 | 240.47 | 210.66 | 179.72 | 157.89 | 140.23 | 124.48 | 110.03 | 96.47 | 86.18 |
| 90.0 | 232.31 | 206.33 | 180.90 | 151.88 | 136.80 | 121.73 | 104.34 | 94.89 | 85.50 |
| 135.0 | 288.56 | 241.20 | 207.68 | 181.52 | 157.56 | 139.11 | 122.46 | 107.38 | 96.64 |
| 180.0 | 278.44 | 237.54 | 206.78 | 178.09 | 154.35 | 136.69 | 119.42 | 105.30 | 94.44 |
| 225.0 | 363.99 | 315.39 | 273.83 | 230.18 | 201.15 | 176.29 | 150.92 | 133.99 | 120.66 |
| 270.0 | 389.25 | 331.88 | 288.00 | 244.07 | 212.79 | 183.26 | 158.57 | 140.12 | 122.23 |
| 315.0 | 326.93 | 279.39 | 243.68 | 206.27 | 181.18 | 159.47 | 136.74 | 121.61 | 108.79 |
| 360.0 | 326.25 | 288.00 | 231.81 | 202.61 | 174.71 | 154.18 | 134.27 | 117.68 | 104.96 |

| C/γ(°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 94.11 | 82.29 | 74.36 | 67.56 | 60.19 | 55.01 | 50.40 | 45.90 | 41.68 |
| 45.0 | 77.96 | 69.64 | 62.66 | 57.43 | 51.81 | 47.25 | 43.48 | 40.05 | 36.23 |
| 90.0 | 76.33 | 68.29 | 61.99 | 55.91 | 51.08 | 46.29 | 42.08 | 38.81 | 35.55 |
| 135.0 | 86.79 | 75.99 | 68.74 | 62.61 | 55.86 | 50.46 | 46.52 | 42.58 | 38.03 |
| 180.0 | 84.88 | 74.53 | 67.44 | 61.14 | 55.07 | 49.84 | 45.68 | 41.51 | 37.86 |
| 225.0 | 107.10 | 92.76 | 83.42 | 74.53 | 67.56 | 60.98 | 55.18 | 50.57 | 45.84 |
| 270.0 | 108.84 | 95.79 | 84.94 | 76.67 | 68.68 | 61.71 | 56.42 | 52.20 | 46.24 |
| 315.0 | 97.59 | 85.39 | 77.12 | 69.86 | 62.89 | 56.76 | 51.98 | 47.19 | 42.98 |
| 360.0 | 94.11 | 82.29 | 74.36 | 67.56 | 60.19 | 55.01 | 50.40 | 45.90 | 41.68 |

| C/γ(°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 38.48 | 35.16 | 32.57 | 29.93 | 27.62 | 25.82 | 23.91 | 22.11 | 20.70 |
| 45.0 | 33.64 | 31.33 | 28.91 | 26.78 | 24.98 | 23.18 | 21.38 | 20.08 | 18.62 |
| 90.0 | 32.68 | 30.38 | 28.24 | 25.88 | 24.08 | 22.44 | 21.04 | 19.52 | 18.39 |
| 135.0 | 35.33 | 32.18 | 29.81 | 27.45 | 25.31 | 23.51 | 21.83 | 20.31 | 18.96 |
| 180.0 | 35.10 | 32.12 | 29.87 | 27.56 | 25.43 | 23.63 | 22.11 | 20.36 | 19.07 |
| 225.0 | 41.79 | 38.64 | 35.78 | 32.57 | 30.21 | 28.13 | 26.04 | 24.08 | 22.50 |
| 270.0 | 42.53 | 39.49 | 35.72 | 32.68 | 30.54 | 27.96 | 25.82 | 24.30 | 22.22 |
| 315.0 | 39.60 | 36.06 | 33.08 | 30.26 | 27.84 | 25.99 | 24.30 | 22.33 | 21.04 |
| 360.0 | 38.48 | 35.16 | 32.57 | 29.93 | 27.62 | 25.82 | 23.91 | 22.11 | 20.70 |

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 | 19.41 | 18.06 | 17.04 | 16.09 | 15.08 | 14.23 | 13.50 | 12.77 | 12.04 |
| 45.0 | 17.55 | 16.43 | 15.53 | 14.74 | 13.89 | 13.28 | 12.66 | 12.15 | 11.59 |
| 90.0 | 17.27 | 16.37 | 15.36 | 14.51 | 13.78 | 13.05 | 12.38 | 11.76 | 11.19 |
| 135.0 | 17.83 | 16.54 | 15.64 | 14.79 | 14.06 | 13.11 | 12.49 | 11.93 | 11.36 |
| 180.0 | 17.94 | 16.82 | 15.86 | 15.02 | 14.12 | 13.39 | 12.66 | 11.98 | 11.42 |
| 225.0 | 20.64 | 19.29 | 18.00 | 16.71 | 15.92 | 15.02 | 14.01 | 13.50 | 12.88 |
| 270.0 | 20.81 | 19.52 | 18.11 | 17.10 | 16.20 | 15.24 | 14.29 | 13.56 | 12.77 |
| 315.0 | 19.80 | 18.45 | 17.44 | 16.65 | 15.86 | 14.85 | 13.39 | 12.60 | 12.04 |
| 360.0 | 19.41 | 18.06 | 17.04 | 16.09 | 15.08 | 14.23 | 13.50 | 12.77 | 12.04 |

| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 11.48 | 10.91 | 10.41 | 9.96 | 9.51 | 9.11 | 8.66 | 8.27 | 7.99 |
| 45.0 | 11.08 | 10.58 | 10.18 | 9.79 | 9.34 | 8.89 | 8.44 | 8.16 | 7.71 |
| 90.0 | 10.63 | 10.18 | 9.73 | 9.28 | 8.94 | 8.61 | 8.33 | 7.93 | 7.65 |
| 135.0 | 10.97 | 10.52 | 9.96 | 9.45 | 9.06 | 8.66 | 8.38 | 8.10 | 7.82 |
| 180.0 | 10.80 | 10.29 | 9.84 | 9.39 | 8.94 | 8.61 | 8.27 | 7.88 | 7.59 |
| 225.0 | 12.15 | 11.81 | 11.48 | 10.91 | 10.46 | 10.07 | 9.56 | 9.06 | 8.72 |
| 270.0 | 12.15 | 11.59 | 10.97 | 10.46 | 10.01 | 9.56 | 9.17 | 8.72 | 8.38 |
| 315.0 | 11.42 | 10.80 | 10.29 | 9.84 | 9.39 | 9.06 | 8.72 | 8.38 | 8.10 |
| 360.0 | 11.48 | 10.91 | 10.41 | 9.96 | 9.51 | 9.11 | 8.66 | 8.27 | 7.99 |

| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 7.71 | 7.37 | 7.14 | 6.92 | 6.69 | 6.47 | 6.24 | 6.02 | 5.79 |
| 45.0 | 7.43 | 7.14 | 6.81 | 6.58 | 6.41 | 6.13 | 5.96 | 5.79 | 5.63 |
| 90.0 | 7.37 | 7.09 | 6.86 | 6.64 | 6.36 | 6.19 | 6.02 | 5.74 | 5.51 |
| 135.0 | 7.59 | 7.37 | 7.14 | 6.98 | 6.92 | 7.93 | 12.60 | 17.33 | 24.02 |
| 180.0 | 7.37 | 7.03 | 6.75 | 6.58 | 6.36 | 6.13 | 6.02 | 5.74 | 5.51 |
| 225.0 | 8.38 | 8.10 | 7.82 | 7.48 | 7.20 | 6.86 | 6.69 | 6.53 | 6.36 |
| 270.0 | 8.04 | 7.76 | 7.48 | 7.26 | 6.98 | 6.75 | 6.53 | 6.36 | 6.08 |
| 315.0 | 7.88 | 7.65 | 7.43 | 7.31 | 7.09 | 7.09 | 9.51 | 15.08 | 20.08 |
| 360.0 | 7.71 | 7.37 | 7.14 | 6.92 | 6.69 | 6.47 | 6.24 | 6.02 | 5.79 |

| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 5.63 | 5.40 | 5.18 | 4.95 | 4.78 | 4.50 | 4.33 | 4.11 | 3.83 |
| 45.0 | 5.51 | 5.29 | 5.06 | 4.73 | 4.44 | 4.16 | 3.94 | 3.71 | 3.43 |
| 90.0 | 5.23 | 4.95 | 4.73 | 4.44 | 4.22 | 3.99 | 3.83 | 3.54 | 3.38 |
| 135.0 | 29.03 | 32.40 | 34.09 | 31.73 | 29.59 | 26.44 | 24.02 | 21.38 | 18.73 |
| 180.0 | 5.34 | 5.06 | 4.89 | 4.61 | 4.39 | 4.16 | 3.99 | 3.71 | 3.49 |
| 225.0 | 6.24 | 6.19 | 6.19 | 6.24 | 6.24 | 6.13 | 5.85 | 5.40 | 4.95 |
| 270.0 | 5.91 | 5.68 | 5.46 | 5.23 | 5.06 | 4.78 | 4.50 | 4.28 | 4.05 |
| 315.0 | 25.31 | 30.71 | 34.71 | 36.45 | 34.59 | 32.06 | 29.59 | 26.49 | 24.13 |
| 360.0 | 5.63 | 5.40 | 5.18 | 4.95 | 4.78 | 4.50 | 4.33 | 4.11 | 3.83 |

| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 3.66 | 3.38 | 3.21 | 2.93 | 2.76 | 2.53 | 2.25 | 2.14 | 1.97 |
| 45.0 | 3.26 | 3.09 | 2.87 | 2.70 | 2.36 | 2.14 | 1.97 | 1.80 | 1.80 |
| 90.0 | 3.21 | 2.98 | 2.81 | 2.42 | 2.25 | 2.08 | 1.91 | 1.80 | 1.69 |
| 135.0 | 16.48 | 10.18 | 3.43 | 2.93 | 2.31 | 2.08 | 1.91 | 1.74 | 1.63 |
| 180.0 | 3.32 | 3.09 | 2.87 | 2.70 | 2.42 | 2.25 | 2.08 | 1.91 | 1.80 |
| 225.0 | 4.50 | 4.05 | 3.77 | 3.49 | 3.26 | 2.98 | 2.59 | 2.36 | 2.25 |
| 270.0 | 3.88 | 3.66 | 3.43 | 3.26 | 3.04 | 2.87 | 2.64 | 2.36 | 2.19 |
| 315.0 | 22.11 | 19.80 | 14.34 | 4.73 | 3.38 | 2.98 | 2.31 | 2.08 | 1.91 |
| 360.0 | 3.66 | 3.38 | 3.21 | 2.93 | 2.76 | 2.53 | 2.25 | 2.14 | 1.97 |

## Intensity data(cd)

| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 1.86 |
| 45.0 | 1.63 |
| 90.0 | 1.63 |
| 135.0 | 1.63 |
| 180.0 | 1.69 |
| 225.0 | 2.08 |
| 270.0 | 2.08 |
| 315.0 | 1.80 |
| 360.0 | 1.86 |