SOTEN LIGHTING LTD.
www.soten.hk
Email:info@soten.hk
Tel:+86 750 3778811 Fax:+86 750 3778800
Address:Jin OU Road,JiangMen Gity,GuangDong,China

## SOTEN

LumCAT: G1067
Luminaire: 1-0810-S 36°
Report No:
Test No:
LampCAT: LUMILEDS-5050-3090*9
Lamp flux(lm): 3600.0
Number of Lamps: 1
Length(mm): 105
Phm Type: C

Voltage(V): 230.8000
Current(A): 0.1320
Power (W): 28.9600
PF: 0.9500
Ballast type: LC 30/500/54 FLXC SR SNC2
Width(mm): 105
Height(mm): 10

## Photometric Results

Lumens(lm): 3555.68
Efficiency(%): 98.77%
Lumens(lm)/Power(W): 122.78
Central intensity(cd): 7267.792
Maximum intensity(cd): 7267.792
Angle of maximum intensity: C=270.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=35.5
[C90/270]Total=35.5
Field angle(10%Imax): [C0/180]Total=79.1
[C90/270]Total=79.1
Maximum s/h(1/2): C0_180=0.60 C90_270=0.60
Maximum s/h(1/4): C0_180=0.61 C90_270=0.86
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 98.77%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 99.941%



Equipment: GMS-1800
Temperature(°C): 25.0
Date: 2022/8/29
Humidity(%): 65.0%
Operator: New
Distance(m): 7.18

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 7267.792 | .000 | .000 | .000% | .000% |
| 5.0 | 6817.607 | 168.387 | 168.387 | 4.677% | 4.677% |
| 10.0 | 5759.015 | 449.905 | 618.292 | 12.497% | 17.175% |
| 15.0 | 4442.116 | 605.124 | 1223.417 | 16.809% | 33.984% |
| 20.0 | 2977.559 | 611.485 | 1834.902 | 16.986% | 50.969% |
| 25.0 | 1814.500 | 502.599 | 2337.500 | 13.961% | 64.931% |
| 30.0 | 1217.792 | 383.739 | 2721.240 | 10.659% | 75.590% |
| 35.0 | 1021.845 | 329.802 | 3051.042 | 9.161% | 84.751% |
| 40.0 | 699.062 | 287.120 | 3338.162 | 7.976% | 92.727% |
| 45.0 | 209.141 | 168.161 | 3506.323 | 4.671% | 97.398% |
| 50.0 | 9.483 | 44.176 | 3550.500 | 1.227% | 98.625% |
| 55.0 | 1.649 | 2.421 | 3552.920 | .067% | 98.692% |
| 60.0 | 1.288 | .679 | 3553.599 | .019% | 98.711% |
| 65.0 | .979 | .551 | 3554.150 | .015% | 98.726% |
| 70.0 | .773 | .444 | 3554.594 | .012% | 98.739% |
| 75.0 | .567 | .350 | 3554.944 | .010% | 98.748% |
| 80.0 | .464 | .276 | 3555.220 | .008% | 98.756% |
| 85.0 | .412 | .238 | 3555.458 | .007% | 98.763% |
| 90.0 | .412 | .226 | 3555.684 | .006% | 98.769% |

## Zonal flux distribution table



ZONAL LUMEN SUMMARY

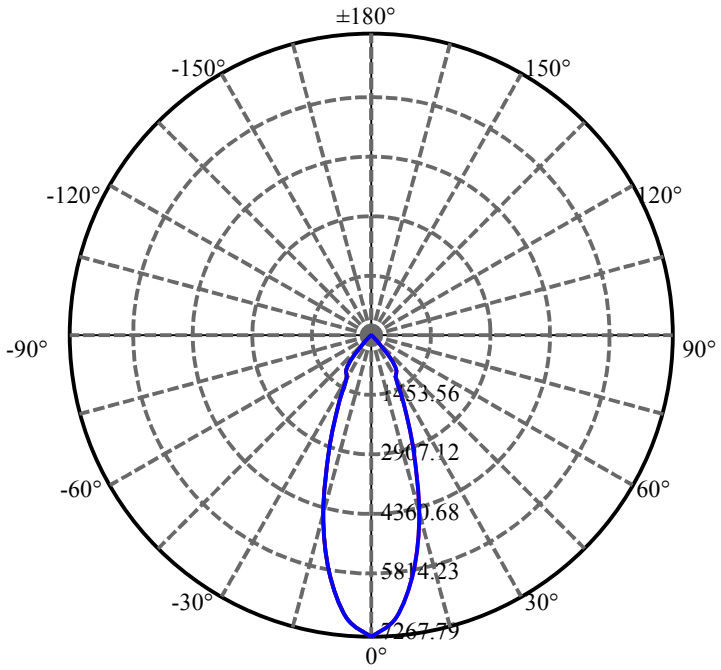
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 2721.24 | 75.59% | 76.53% |
| 0-40 | 3338.16 | 92.73% | 93.88% |
| 0-60 | 3553.60 | 98.71% | 99.94% |
| 0-90 | 3555.46 | 98.76% | 99.99% |
| 0-120 | 3555.46 | 98.76% | 99.99% |
| 0-180 | 3555.68 | 98.77% | 100.00% |
| 60-90 | 2.54 | 0.07% | 0.07% |
| 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% |
| 0-31.87 | 2844.55 | 79.02% | 80.00% |

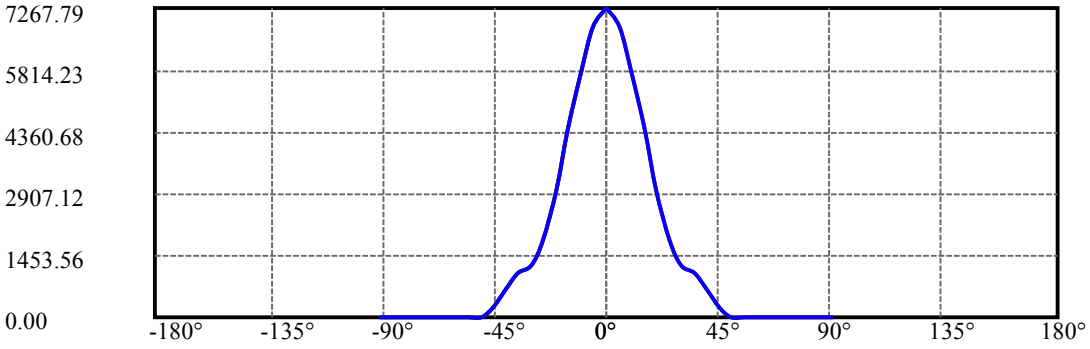
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 618.29 |
| 10-20 | 1216.61 |
| 20-30 | 886.34 |
| 30-40 | 616.92 |
| 40-50 | 212.34 |
| 50-60 | 3.10 |
| 60-70 | 0.99 |
| 70-80 | 0.63 |
| 80-90 | 0.24 |
| 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]






C270(Max):

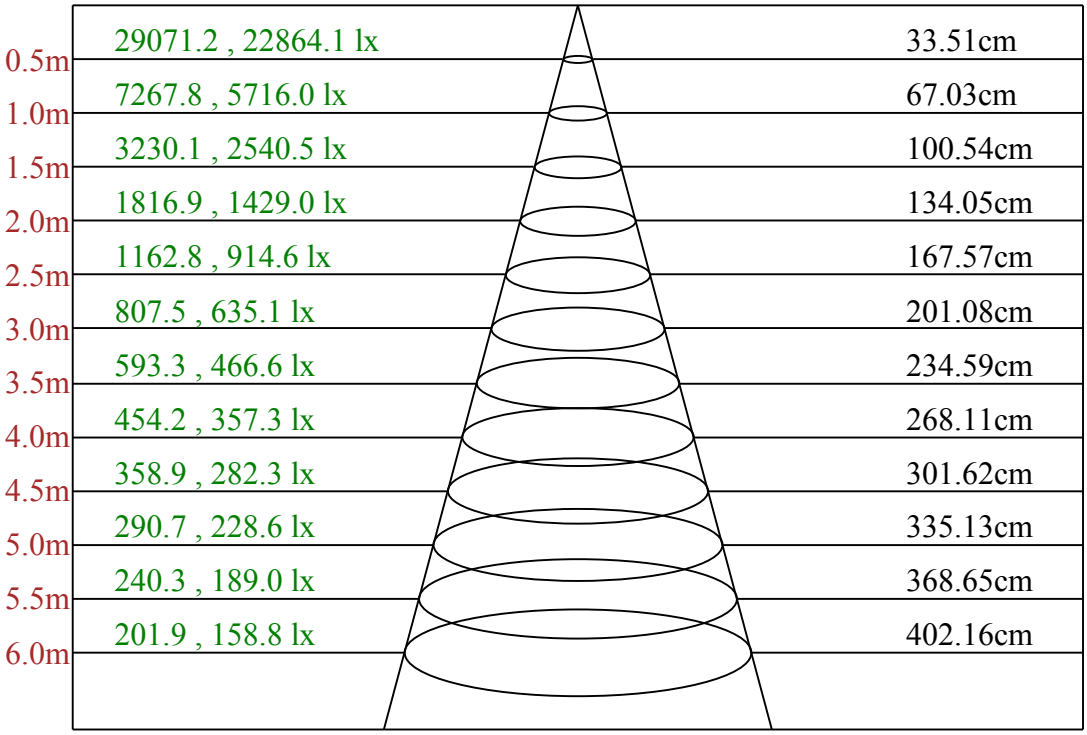
C0/C180:

C90/C270:

SOTEN G1067

Lux distance Curve






Max , Ave

Beam angle of C270plane37.06

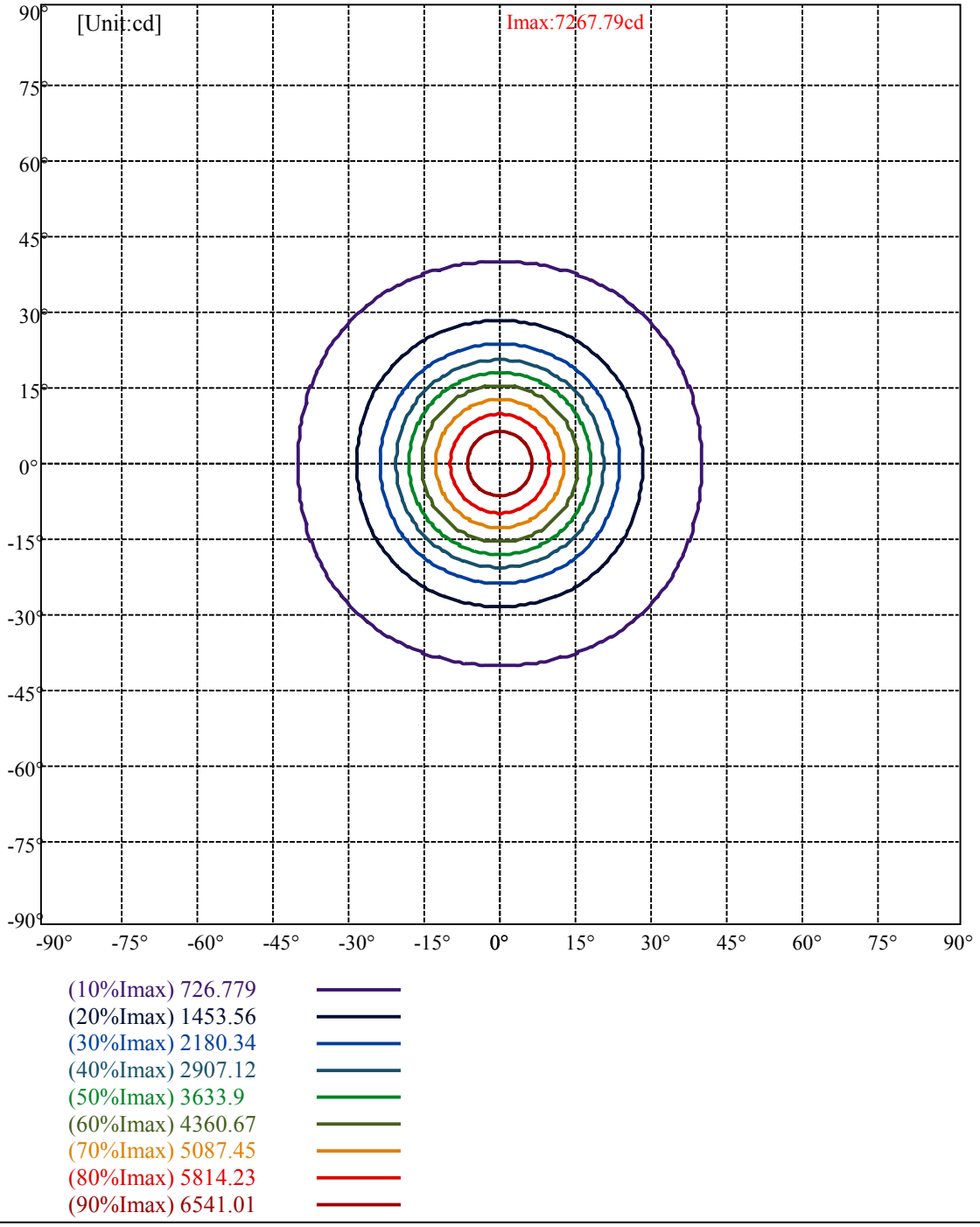
Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

ISO-Intensity(V-H)






(10%Imax) 726.779
(20%Imax) 1453.56
(30%Imax) 2180.34
(40%Imax) 2907.12
(50%Imax) 3633.9
(60%Imax) 4360.67
(70%Imax) 5087.45
(80%Imax) 5814.23
(90%Imax) 6541.01

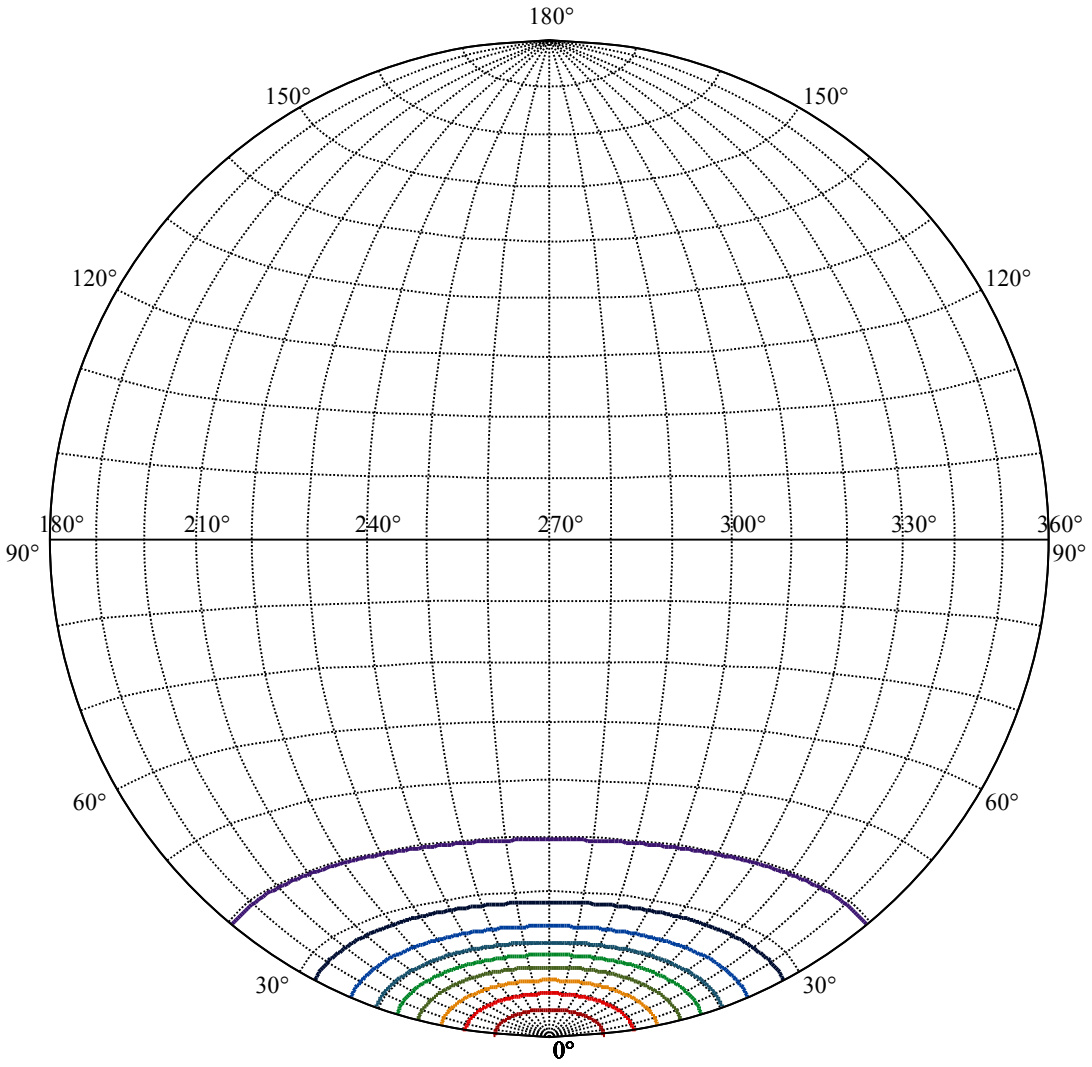
Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

## ISO candela diagram on circular web






House [Unit:cd] Road

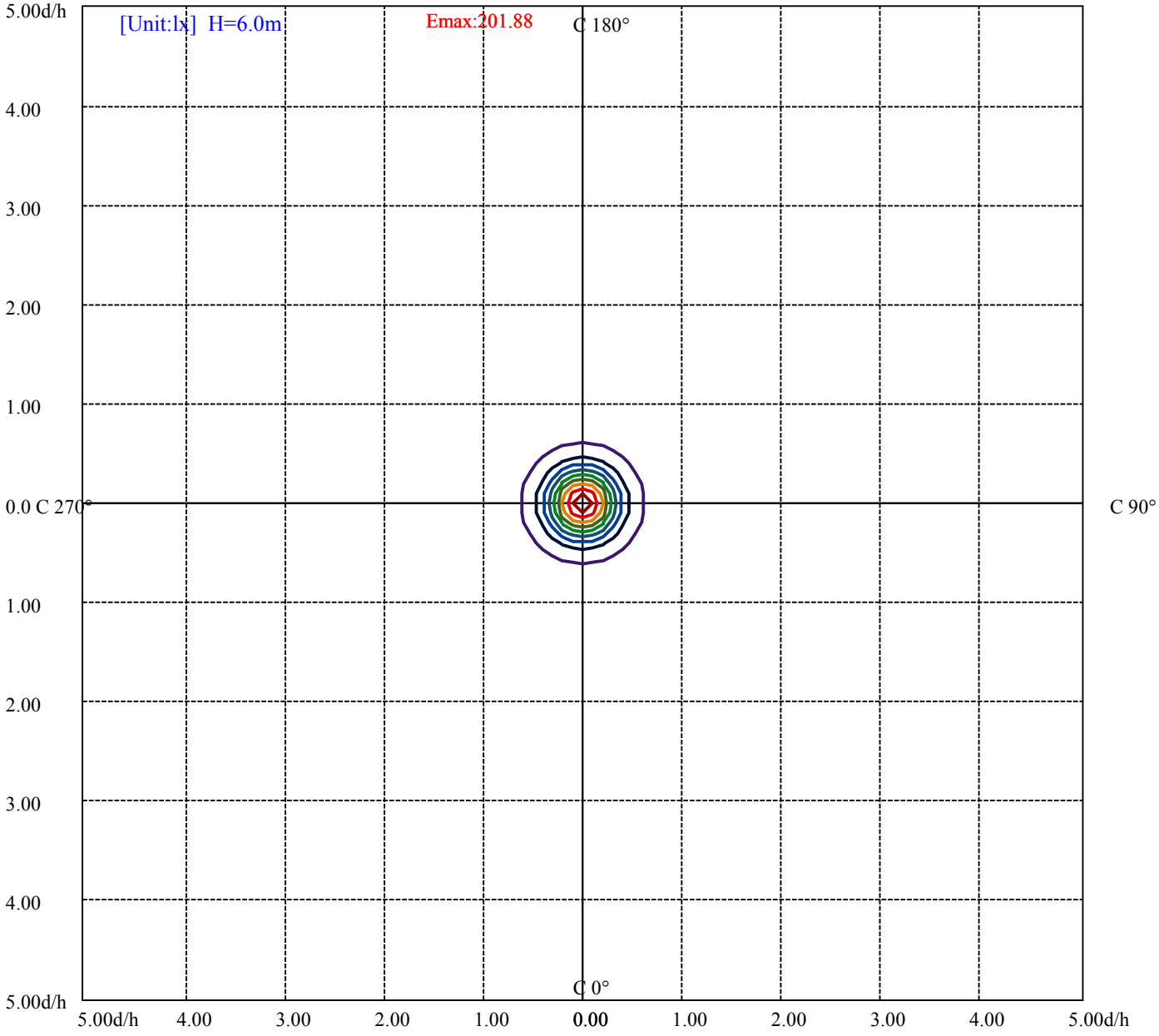
Imax:7267.79

(10%Imax) 726.779
(20%Imax) 1453.56
(30%Imax) 2180.34
(40%Imax) 2907.12
(50%Imax) 3633.9
(60%Imax) 4360.67
(70%Imax) 5087.45
(80%Imax) 5814.23
(90%Imax) 6541.01

SOTEN G1067

ISO illuminance diagram






(10%Emax) 20.18828
(20%Emax) 40.37667
(30%Emax) 60.56472
(40%Emax) 80.75306
(50%Emax) 100.9414
(60%Emax) 121.1297
(70%Emax) 141.3178
(80%Emax) 161.5061
(90%Emax) 181.6944

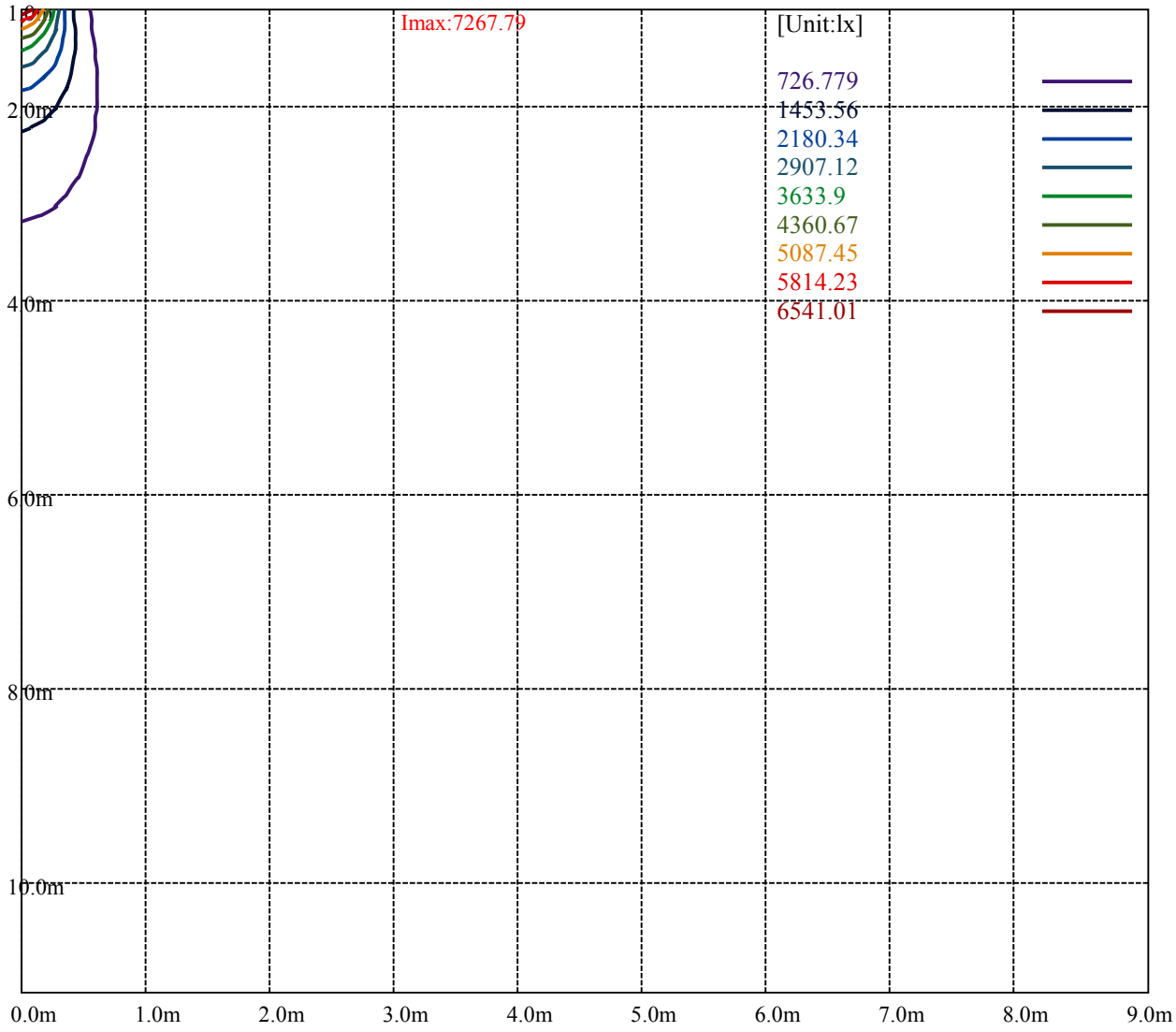
Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

## Space ISO Lux diagram






Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

SOTEN G1067

## Luminance Limitting Curve(no luminous side)



Luminance Table

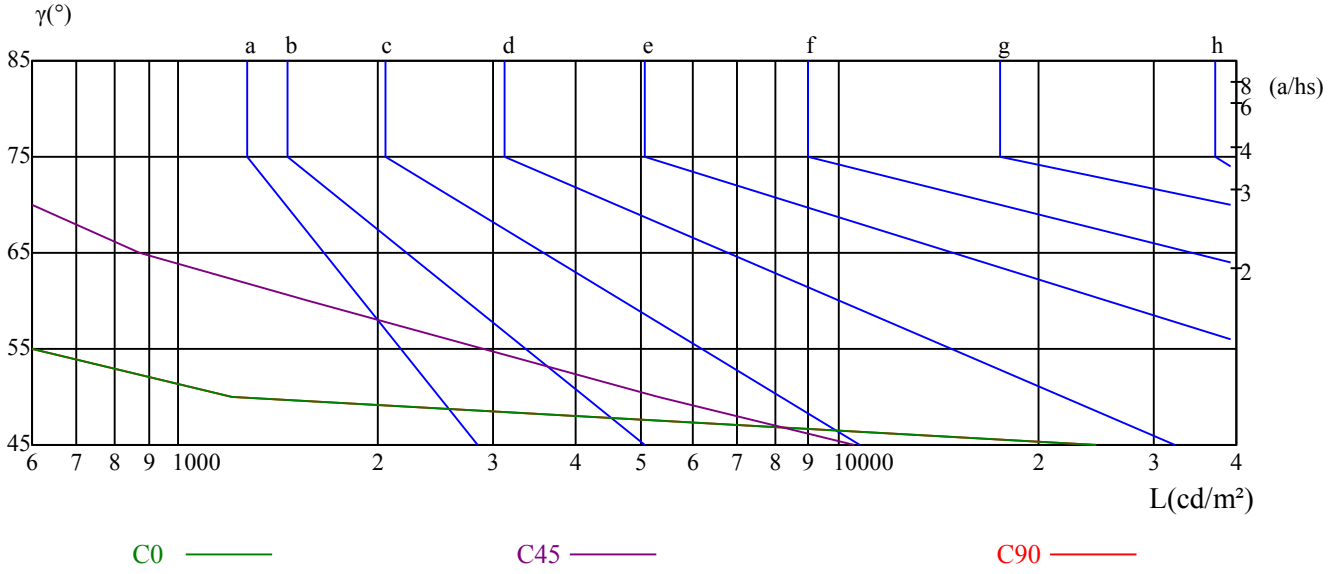
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 24494 | 1202 | 230 | 201 | 175 | 162 | 147 | 157 | 205 |
| C45 | 10528 | 5333 | 2891 | 1577 | 875 | 449 | 228 | 122 | 148 |
| C90 | 24494 | 1202 | 230 | 201 | 175 | 162 | 147 | 157 | 205 |

| L横(65) | L纵(65) | L45(65) | L横(75) | L纵(75) | L45(75) | L横(85) | L纵(85) | L45(85) |
|---|---|---|---|---|---|---|---|---|
| 210 | 210 | 1750 | 199 | 199 | 578 | 429 | 429 | 375 |

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

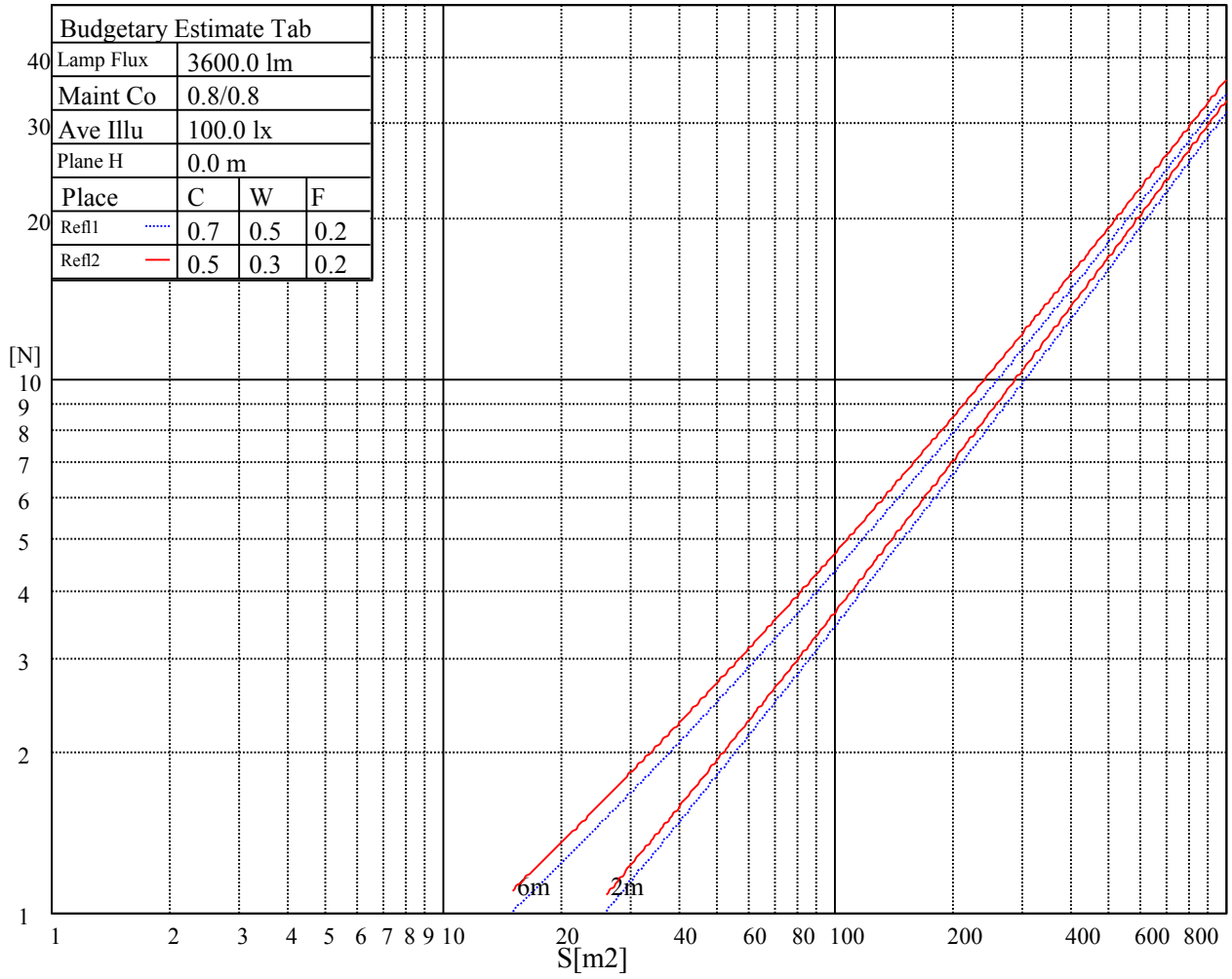


| Illuminatin assessment according UGR | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rf of Ceiling | | 70 | 70 | 50 | 50 | 30 | 70 | 70 | 50 | 50 | 30 |
| Rf of Wall | | 50 | 30 | 50 | 30 | 30 | 50 | 30 | 50 | 30 | 30 |
| Rf of Floor | | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Room dimensions | | Viewed crosswise | | | | | Viewed endwise | | | | |
| X | Y | | | | | | | | | | |
| 2H | 2H | 13.4 | 14.2 | 13.7 | 14.4 | 14.6 | 13.4 | 14.2 | 13.7 | 14.4 | 14.6 |
| | 3H | 13.3 | 14.0 | 13.6 | 14.2 | 14.5 | 13.3 | 14.0 | 13.6 | 14.2 | 14.5 |
| | 4H | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 |
| | 6H | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 |
| | 8H | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 |
| | 12H | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 |
| 4H | 2H | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 | 13.1 | 13.7 | 13.4 | 14.0 | 14.3 |
| | 3H | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 |
| | 4H | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 |
| | 6H | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 | 12.9 | 13.3 | 13.3 | 13.7 | 14.1 |
| | 8H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 12H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| 8H | 4H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 6H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 8H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 12H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| 12H | 4H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 6H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |
| | 8H | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 | 12.7 | 12.9 | 13.2 | 13.4 | 13.9 |

| Variation with the observer position at spacings: | | |
|---|---|---|
| S = 1.0H | 3.6/-29.1 | 3.6/-29.1 |
| S = 1.5H | 6.2/-28.8 | 6.2/-28.8 |
| S = 2.0H | 8.2/-28.0 | 8.2/-28.0 |
| Standard tables: | BK0 | BK0 |
| Uncorrected UGR | 0.3 | 0.3 |

## Budgetary Estimate Table






Equipment: GMS-1800 Date: 2022/8/29 Operator: New
Temperature(°C): 25.0 Humidity(%): 65.0% Distance(m): 7.18

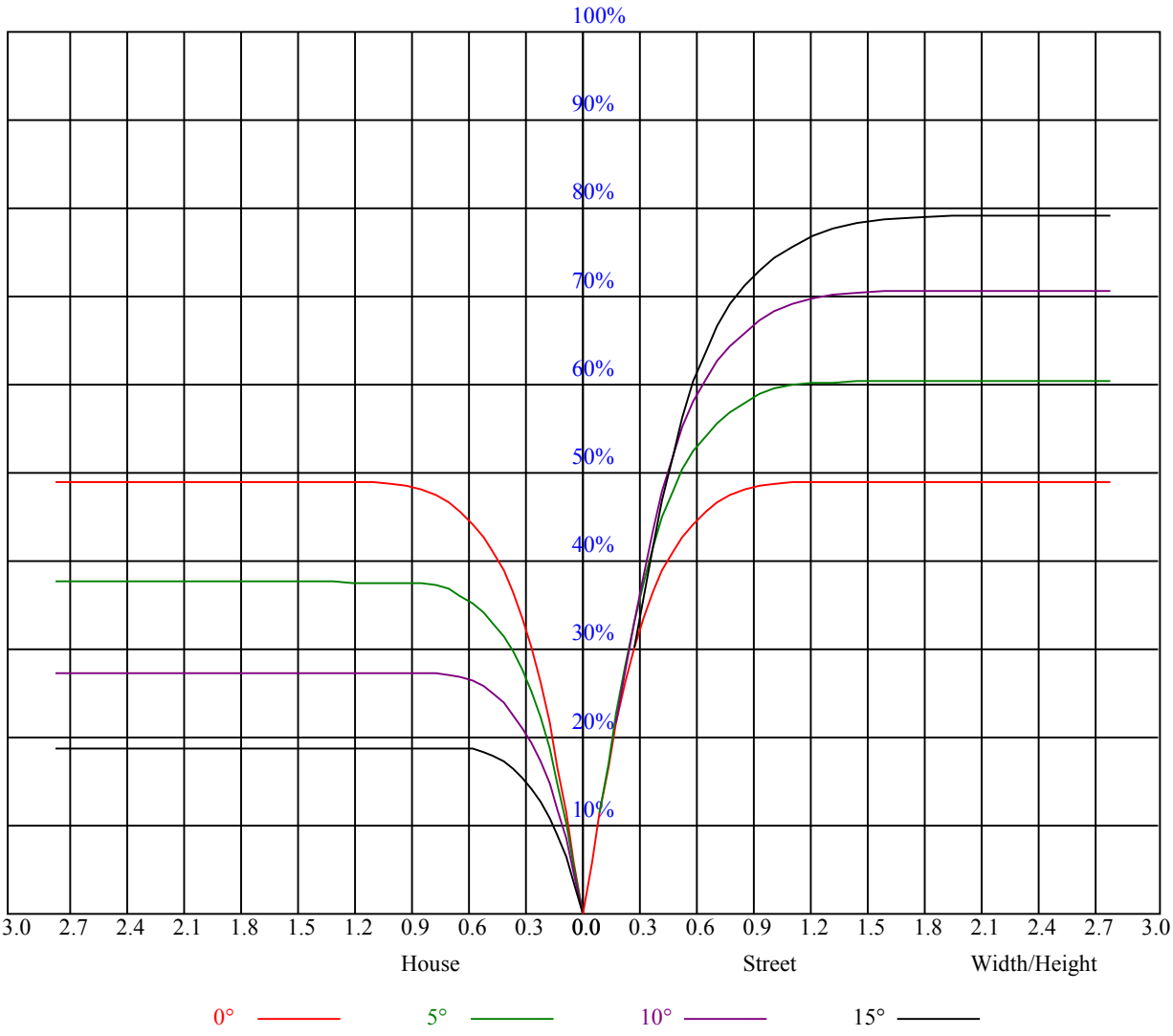
## Utilization factor table for indoor luminaire



| 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 | 1.18 | 1.18 | 1.18 | 1.15 | 1.15 | 1.15 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.01 | 1.01 | 1.01 | 0.99 |
| 1 | 1.10 | 1.08 | 1.06 | 1.08 | 1.06 | 1.04 | 1.04 | 1.02 | 1.01 | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.93 |
| 2 | 1.03 | 1.00 | 0.96 | 1.02 | 0.98 | 0.95 | 0.98 | 0.96 | 0.93 | 0.95 | 0.93 | 0.91 | 0.93 | 0.91 | 0.89 | 0.88 |
| 3 | 0.97 | 0.92 | 0.89 | 0.96 | 0.92 | 0.88 | 0.93 | 0.90 | 0.87 | 0.91 | 0.88 | 0.85 | 0.89 | 0.86 | 0.84 | 0.83 |
| 4 | 0.91 | 0.86 | 0.83 | 0.90 | 0.86 | 0.82 | 0.88 | 0.84 | 0.81 | 0.86 | 0.83 | 0.80 | 0.85 | 0.82 | 0.79 | 0.78 |
| 5 | 0.86 | 0.81 | 0.77 | 0.85 | 0.81 | 0.77 | 0.84 | 0.79 | 0.76 | 0.82 | 0.78 | 0.76 | 0.81 | 0.77 | 0.75 | 0.74 |
| 6 | 0.82 | 0.76 | 0.73 | 0.81 | 0.76 | 0.72 | 0.80 | 0.75 | 0.72 | 0.78 | 0.74 | 0.71 | 0.77 | 0.74 | 0.71 | 0.70 |
| 7 | 0.78 | 0.72 | 0.68 | 0.77 | 0.72 | 0.68 | 0.76 | 0.71 | 0.68 | 0.75 | 0.71 | 0.67 | 0.73 | 0.70 | 0.67 | 0.66 |
| 8 | 0.74 | 0.68 | 0.65 | 0.73 | 0.68 | 0.65 | 0.72 | 0.68 | 0.64 | 0.71 | 0.67 | 0.64 | 0.70 | 0.67 | 0.64 | 0.63 |
| 9 | 0.70 | 0.65 | 0.61 | 0.70 | 0.65 | 0.61 | 0.69 | 0.64 | 0.61 | 0.68 | 0.64 | 0.61 | 0.67 | 0.63 | 0.61 | 0.59 |
| 10 | 0.67 | 0.62 | 0.58 | 0.67 | 0.62 | 0.58 | 0.66 | 0.61 | 0.58 | 0.65 | 0.61 | 0.58 | 0.64 | 0.61 | 0.58 | 0.57 |

## Coefficient Utilization Curve






Equipment: GMS-1800
Temperature(°C): 25.0

Date: 2022/8/29
Humidity(%): 65.0%

Operator: New
Distance(m): 7.18

Intensity data(cd)



| C/γ(°) | 0.0 | 5.0 | 10.0 | 15.0 | 20.0 | 25.0 | 30.0 | 35.0 | 40.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 30.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 60.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 90.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 120.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 150.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 180.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 210.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 240.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 270.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 300.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 330.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |
| 360.0 | 7267.79 | 6817.61 | 5759.02 | 4442.12 | 2977.56 | 1814.50 | 1217.79 | 1021.85 | 699.06 |

| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 30.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 60.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 90.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 120.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 150.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 180.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 210.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 240.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 270.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 300.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 330.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |
| 360.0 | 209.14 | 9.48 | 1.65 | 1.29 | 0.98 | 0.77 | 0.57 | 0.46 | 0.41 |

| C/γ(°) | 90.0 |
|---|---|
| 0.0 | 0.41 |
| 30.0 | 0.41 |
| 60.0 | 0.41 |
| 90.0 | 0.41 |
| 120.0 | 0.41 |
| 150.0 | 0.41 |
| 180.0 | 0.41 |
| 210.0 | 0.41 |
| 240.0 | 0.41 |
| 270.0 | 0.41 |
| 300.0 | 0.41 |
| 330.0 | 0.41 |
| 360.0 | 0.41 |