## Access Lighting

Client:
LumCAT: 20509LEDD
Luminaire: ceiling light
Report No:
Ballast type:

| | |
|---|---|
| Test No: | Voltage(V): 120.090 |
| LampCAT: | Current(A): 0.276 |
| Lamp flux(lm): 2003.9 | Power (W): 30.050 |
| Number of Lamps: 1 | PF: 0.908 |
| Length(mm): -300 Phm | Width(mm): -300 |
| Type: C | Height(mm): 60 |

## Photometric Results

Lumens(lm): 2003.93, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 66.69
Central intensity(cd): 569.390, Maximum intensity(cd): 569.390
Angle of maximum intensity: C=0.0 γ=0.0
Beam Angle(50%Imax): [C0/180]Total=119.2
[C90/270]Total=119.2
Field angle(10%Imax): [C0/180]Total=183.8
[C90/270]Total=185.6
Maximum s/h(1/2): C0_180=1.29 C90_270=1.29
Maximum s/h(1/4): C0_180=1.41 C90_270=1.41
Up flux rate of lamp(%): 8.54%
Down flux rate of lamp(%): 91.46%
Up flux rate of LUM(%): 8.54%
Down flux rate of LUM(%): 91.46%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 66.744%

## Zonal flux distribution table



| γ(°) | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|---|---|---|---|---|---|
| 0.0 | 569.390 | 0.000 | 0 | 0.00% | 0.00% |
| 5.0 | 567.251 | 13.588 | 13.588 | 0.68% | 0.68% |
| 10.0 | 560.798 | 40.354 | 53.942 | 2.01% | 2.69% |
| 15.0 | 549.956 | 65.889 | 119.831 | 3.29% | 5.98% |
| 20.0 | 534.874 | 89.405 | 209.237 | 4.46% | 10.44% |
| 25.0 | 515.439 | 110.158 | 319.395 | 5.50% | 15.94% |
| 30.0 | 492.800 | 127.593 | 446.988 | 6.37% | 22.31% |
| 35.0 | 465.507 | 141.117 | 588.106 | 7.04% | 29.35% |
| 40.0 | 435.194 | 150.275 | 738.381 | 7.50% | 36.85% |
| 45.0 | 401.934 | 155.001 | 893.382 | 7.73% | 44.58% |
| 50.0 | 363.761 | 154.720 | 1048.102 | 7.72% | 52.30% |
| 55.0 | 323.676 | 149.471 | 1197.573 | 7.46% | 59.76% |
| 60.0 | 281.713 | 139.934 | 1337.507 | 6.98% | 66.74% |
| 65.0 | 236.386 | 125.951 | 1463.458 | 6.29% | 73.03% |
| 70.0 | 192.908 | 108.700 | 1572.158 | 5.42% | 78.45% |
| 75.0 | 153.562 | 90.562 | 1662.719 | 4.52% | 82.97% |
| 80.0 | 117.569 | 72.547 | 1735.267 | 3.62% | 86.59% |
| 85.0 | 88.104 | 55.886 | 1791.153 | 2.79% | 89.38% |
| 90.0 | 64.246 | 41.715 | 1832.868 | 2.08% | 91.46% |
| 95.0 | 46.358 | 30.284 | 1863.152 | 1.51% | 92.98% |
| 100.0 | 35.698 | 22.297 | 1885.448 | 1.11% | 94.09% |
| 105.0 | 32.341 | 18.205 | 1903.654 | 0.91% | 95.00% |
| 110.0 | 31.898 | 16.791 | 1920.445 | 0.84% | 95.83% |
| 115.0 | 30.902 | 15.902 | 1936.346 | 0.79% | 96.63% |
| 120.0 | 29.096 | 14.586 | 1950.932 | 0.73% | 97.36% |
| 125.0 | 26.441 | 12.837 | 1963.769 | 0.64% | 98.00% |
| 130.0 | 23.638 | 10.889 | 1974.658 | 0.54% | 98.54% |
| 135.0 | 20.578 | 8.934 | 1983.593 | 0.45% | 98.99% |
| 140.0 | 17.222 | 6.999 | 1990.592 | 0.35% | 99.33% |
| 145.0 | 13.719 | 5.162 | 1995.754 | 0.26% | 99.59% |
| 150.0 | 10.105 | 3.508 | 1999.262 | 0.18% | 99.77% |
| 155.0 | 6.897 | 2.152 | 2001.414 | 0.11% | 99.87% |
| 160.0 | 4.868 | 1.234 | 2002.647 | 0.06% | 99.94% |
| 165.0 | 3.613 | 0.699 | 2003.346 | 0.03% | 99.97% |
| 170.0 | 2.728 | 0.376 | 2003.723 | 0.02% | 99.99% |
| 175.0 | 2.065 | 0.171 | 2003.894 | 0.01% | 100.00% |
| 180.0 | 0.737 | 0.033 | 2003.928 | 0.00% | 100.00% |

Zonal flux distribution table



ZONAL LUMEN SUMMARY

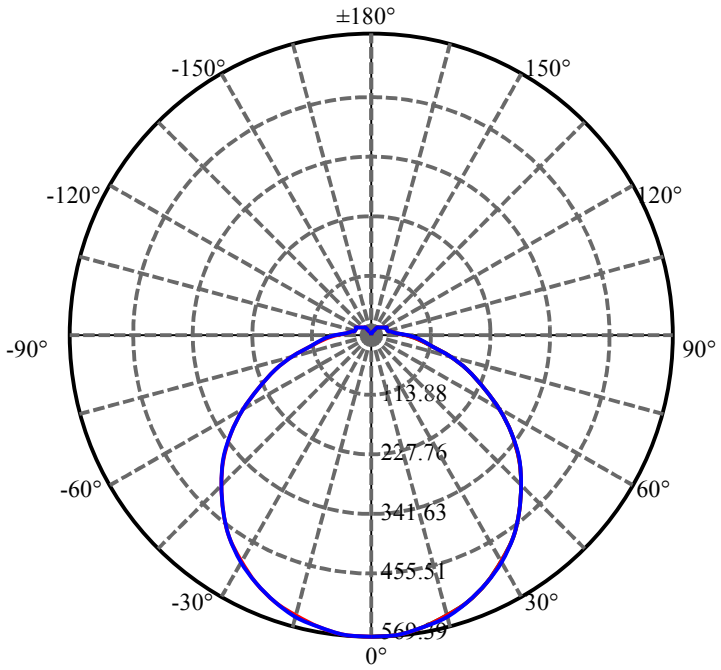
| Zone | Lumens | %Lamp | %Fixt |
|---|---|---|---|
| 0-30 | 446.99 | 22.31% | 22.31% |
| 0-40 | 738.38 | 36.85% | 36.85% |
| 0-60 | 1337.51 | 66.74% | 66.74% |
| 0-90 | 1832.87 | 91.46% | 91.46% |
| 0-120 | 1950.93 | 97.36% | 97.36% |
| 0-180 | 2003.93 | 100.00% | 100.00% |
| 60-90 | 495.36 | 24.72% | 24.72% |
| 90-120 | 118.06 | 5.89% | 5.89% |
| 90-130 | 141.79 | 7.08% | 7.08% |
| 90-150 | 166.39 | 8.30% | 8.30% |
| 90-180 | 171.03 | 8.53% | 8.53% |
| 0-71.71 | 1603.14 | 80.00% | 80.00% |

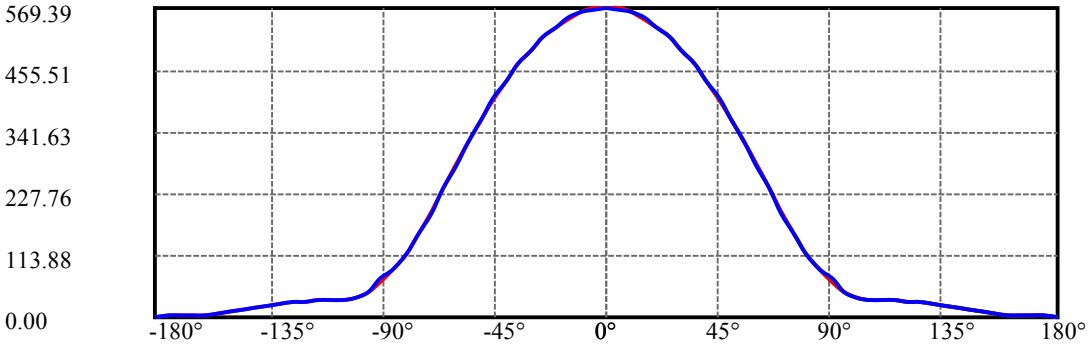
ZONAL LUMEN SUMMARY

| | |
|---|---|
| 0-10 | 53.94 |
| 10-20 | 155.29 |
| 20-30 | 237.75 |
| 30-40 | 291.39 |
| 40-50 | 309.72 |
| 50-60 | 289.41 |
| 60-70 | 234.65 |
| 70-80 | 163.11 |
| 80-90 | 97.60 |
| 90-100 | 52.58 |
| 100-110 | 35.00 |
| 110-120 | 30.49 |
| 120-130 | 23.73 |
| 130-140 | 15.93 |
| 140-150 | 8.67 |
| 150-160 | 3.39 |
| 160-170 | 1.08 |
| 170-180 | 0.17 |

Light Distribution Curve [Unit:cd]






C0(Max):

C0/C180:

C90/C270:

Field angle(10%Imax):C0/180Left:91.9 Right:91.9
:C90/270Left:92.8 Right:92.8

Beam Angle(50%Imax):C0/180Left:59.6 Right:59.6
:C90/270Left:59.6 Right:59.6

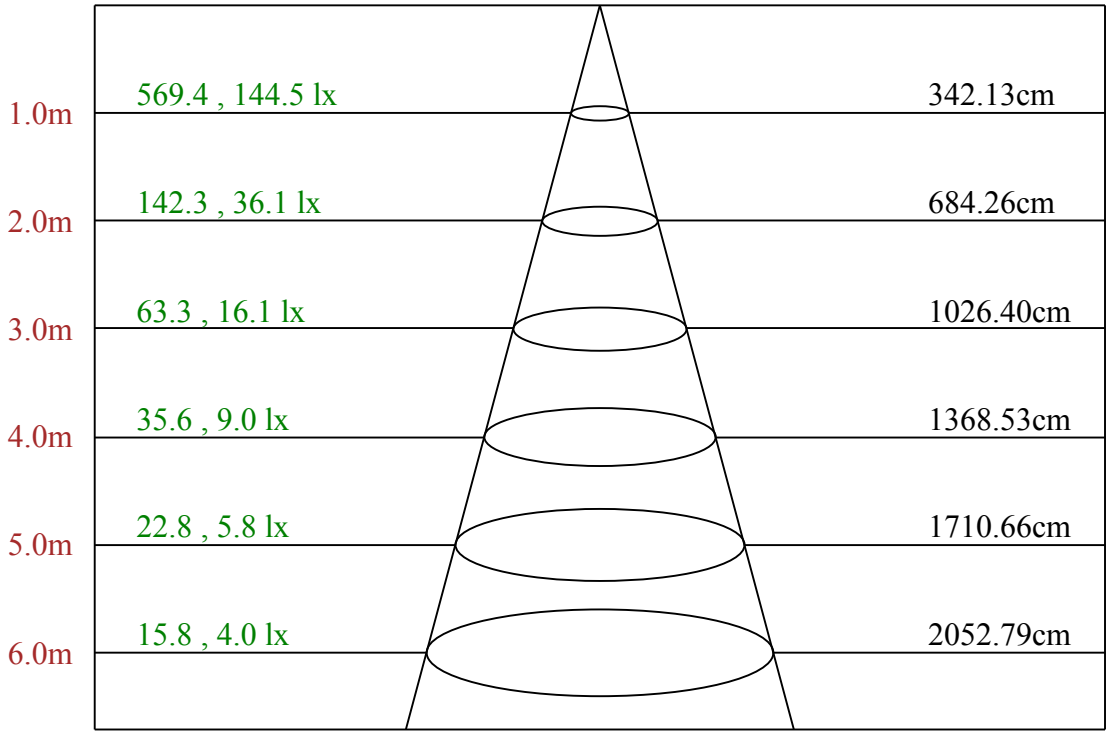
Equipment: LC-I-902 GMS-2000
Temperature(°C): 24.2

Date: 2022/4/9
Humidity(%): 60.6%

Operator: JUN WANG
Distance(m): 29.75

Lux distance Curve





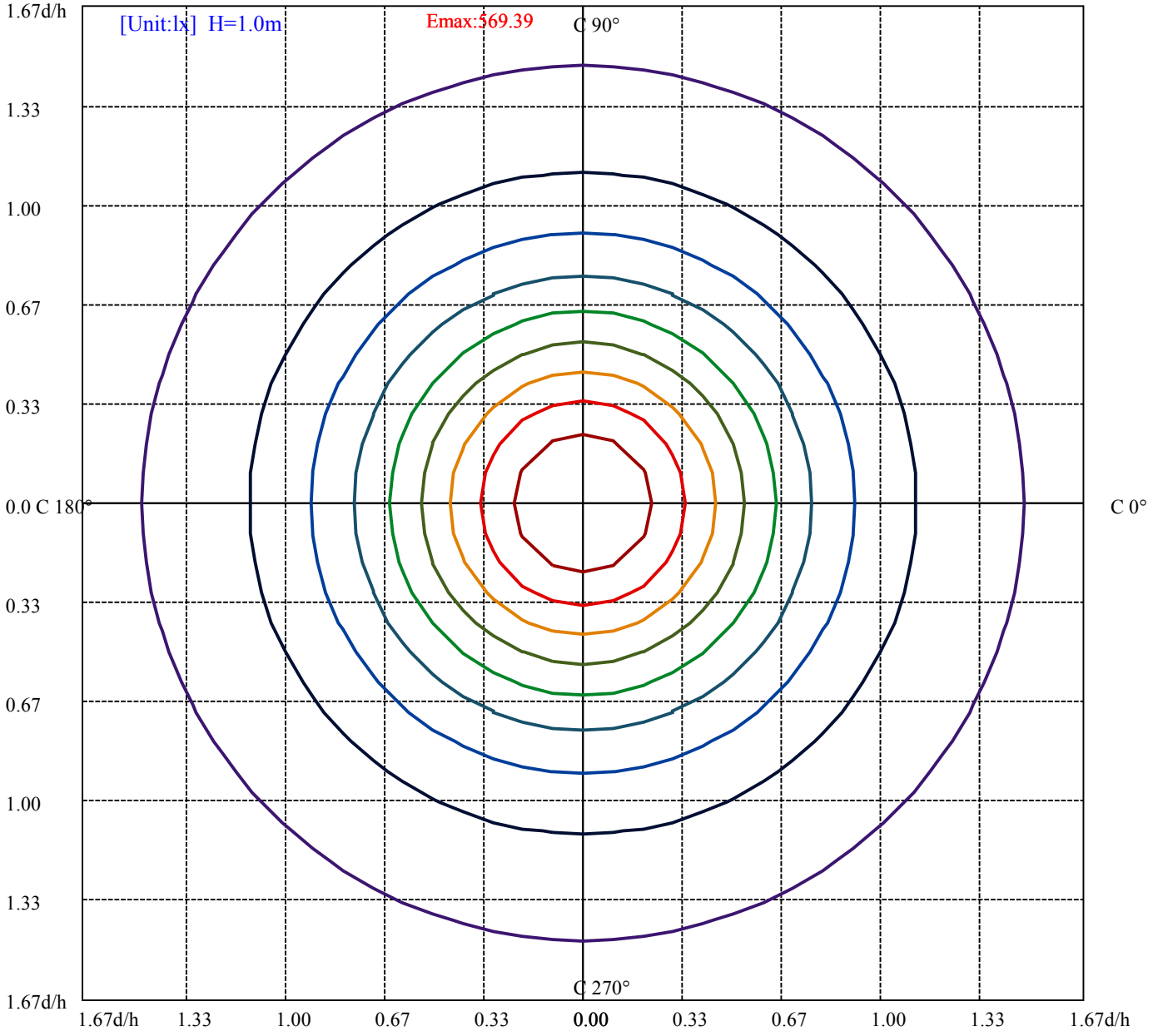

Max , Ave

Beam angle of C0 plane 119.38

Access Lighting IN-100618SN

ISO illuminance diagram





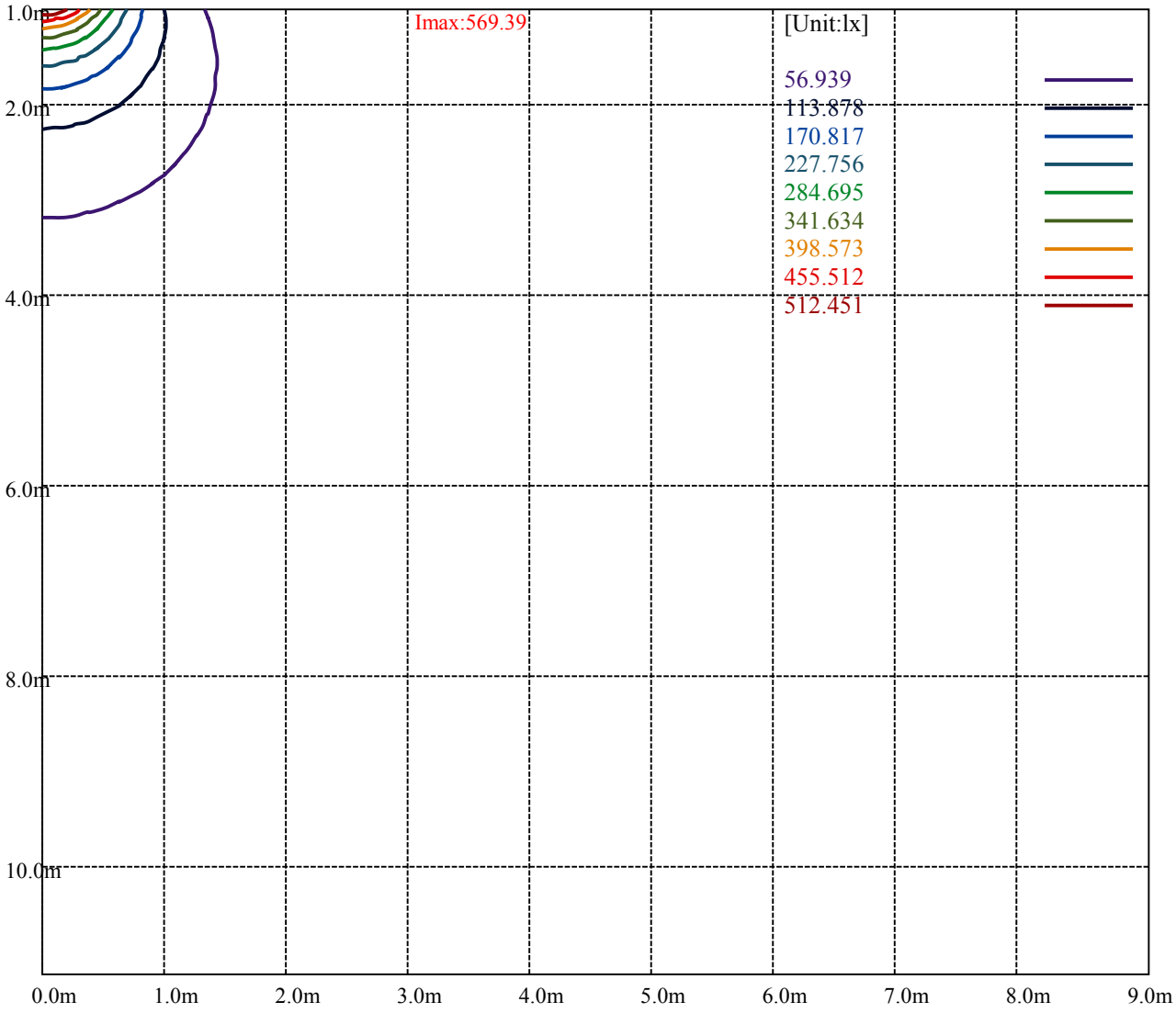

Equipment: LC-I-902 GMS-2000
Temperature(°C): 24.2

Date: 2022/4/9
Humidity(%): 60.6%

Operator: JUN WANG
Distance(m): 29.75

## Space ISO Lux diagram






Equipment: LC-I-902 GMS-2000
Temperature(°C): 24.2

Date: 2022/4/9
Humidity(%): 60.6%

Operator: JUN WANG
Distance(m): 29.75

## Luminance Limitting Curve(no luminous side)



Luminance Table

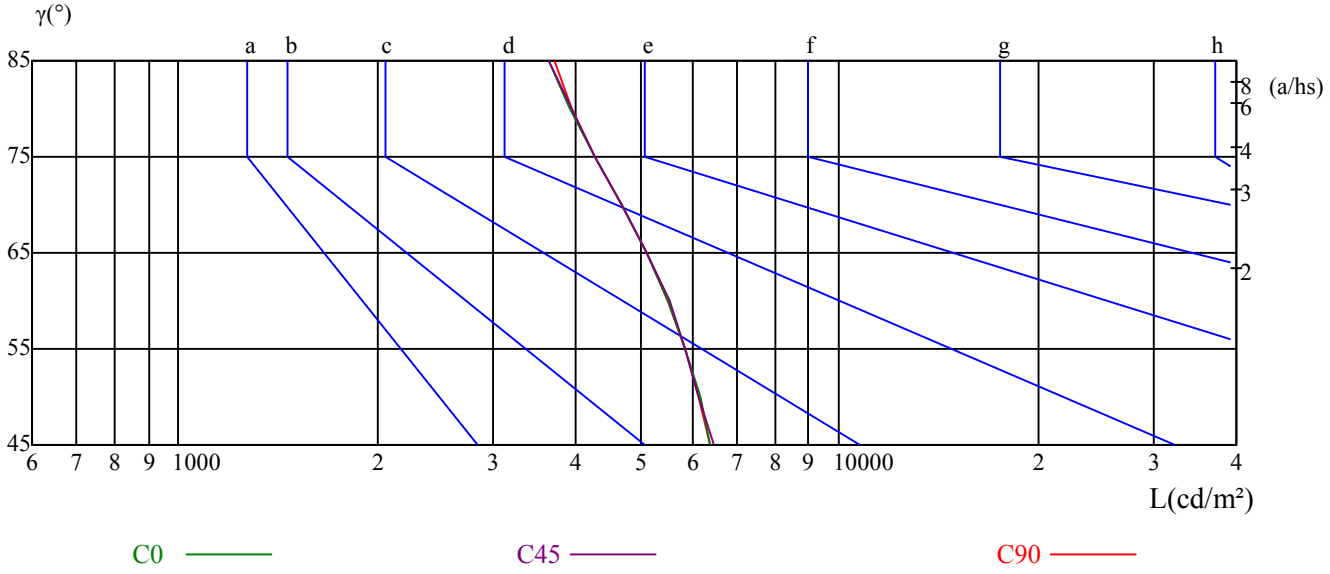
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|---|---|---|---|---|---|---|---|---|---|
| C0 | 6400 | 6152 | 5850 | 5521 | 5127 | 4704 | 4282 | 3903 | 3632 |
| C45 | 6460 | 6140 | 5847 | 5529 | 5108 | 4689 | 4275 | 3932 | 3645 |
| C90 | 6403 | 6142 | 5848 | 5520 | 5116 | 4680 | 4282 | 3938 | 3705 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|---|---|---|---|---|---|---|---|---|
| 7927 | 7910 | 7897 | 8352 | 8351 | 8338 | 14203 | 14491 | 14253 |

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



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 | 1.13 | 1.13 | 1.13 | 1.06 | 1.06 | 1.06 | 1.00 | 1.00 | 1.00 | 0.94 | 0.94 | 0.94 | 0.91 |
| 1 | 1.00 | 0.95 | 0.91 | 0.97 | 0.92 | 0.88 | 0.91 | 0.87 | 0.84 | 0.85 | 0.82 | 0.80 | 0.80 | 0.78 | 0.76 | 0.73 |
| 2 | 0.86 | 0.79 | 0.73 | 0.84 | 0.77 | 0.71 | 0.79 | 0.73 | 0.68 | 0.74 | 0.69 | 0.65 | 0.70 | 0.66 | 0.63 | 0.60 |
| 3 | 0.75 | 0.67 | 0.60 | 0.73 | 0.65 | 0.59 | 0.69 | 0.62 | 0.56 | 0.65 | 0.59 | 0.54 | 0.61 | 0.56 | 0.52 | 0.50 |
| 4 | 0.66 | 0.57 | 0.50 | 0.64 | 0.56 | 0.49 | 0.61 | 0.54 | 0.48 | 0.57 | 0.51 | 0.46 | 0.54 | 0.49 | 0.45 | 0.42 |
| 5 | 0.59 | 0.50 | 0.43 | 0.57 | 0.49 | 0.42 | 0.54 | 0.47 | 0.41 | 0.51 | 0.45 | 0.40 | 0.49 | 0.43 | 0.39 | 0.36 |
| 6 | 0.53 | 0.44 | 0.37 | 0.52 | 0.43 | 0.37 | 0.49 | 0.41 | 0.36 | 0.46 | 0.40 | 0.35 | 0.44 | 0.38 | 0.34 | 0.31 |
| 7 | 0.48 | 0.39 | 0.33 | 0.47 | 0.38 | 0.32 | 0.44 | 0.37 | 0.31 | 0.42 | 0.36 | 0.31 | 0.40 | 0.34 | 0.30 | 0.28 |
| 8 | 0.44 | 0.35 | 0.29 | 0.43 | 0.34 | 0.29 | 0.41 | 0.33 | 0.28 | 0.39 | 0.32 | 0.27 | 0.37 | 0.31 | 0.27 | 0.25 |
| 9 | 0.40 | 0.32 | 0.26 | 0.39 | 0.31 | 0.26 | 0.37 | 0.30 | 0.25 | 0.36 | 0.29 | 0.25 | 0.34 | 0.28 | 0.24 | 0.22 |
| 10 | 0.37 | 0.29 | 0.24 | 0.36 | 0.28 | 0.23 | 0.34 | 0.28 | 0.23 | 0.33 | 0.27 | 0.22 | 0.32 | 0.26 | 0.22 | 0.20 |

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 | 569.39 | 568.52 | 562.43 | 551.98 | 538.92 | 519.76 | 497.13 | 471.88 | 443.15 |
| 15.0 | 569.39 | 567.64 | 561.49 | 551.84 | 536.93 | 518.50 | 495.69 | 469.37 | 440.42 |
| 30.0 | 569.39 | 567.63 | 561.46 | 550.88 | 535.90 | 517.39 | 493.59 | 468.03 | 437.18 |
| 45.0 | 569.39 | 566.74 | 560.55 | 549.94 | 534.91 | 516.34 | 492.47 | 465.95 | 435.88 |
| 60.0 | 569.39 | 566.73 | 560.54 | 549.02 | 533.97 | 514.49 | 491.46 | 464.01 | 433.91 |
| 75.0 | 569.39 | 566.73 | 559.63 | 548.10 | 533.91 | 514.40 | 490.46 | 463.85 | 431.92 |
| 90.0 | 569.39 | 566.73 | 559.62 | 548.96 | 532.97 | 513.43 | 489.44 | 461.91 | 431.71 |
| 105.0 | 569.39 | 566.73 | 559.62 | 548.07 | 532.97 | 512.54 | 489.44 | 461.02 | 430.82 |
| 120.0 | 569.39 | 566.72 | 560.49 | 548.93 | 533.80 | 513.34 | 490.21 | 463.52 | 432.38 |
| 135.0 | 569.39 | 567.61 | 560.49 | 549.82 | 534.69 | 515.12 | 491.10 | 464.41 | 435.05 |
| 150.0 | 569.39 | 567.61 | 561.38 | 550.71 | 535.58 | 516.90 | 493.77 | 467.08 | 436.83 |
| 165.0 | 569.39 | 567.61 | 561.38 | 551.60 | 537.36 | 517.79 | 495.55 | 469.75 | 439.50 |
| 180.0 | 569.39 | 566.78 | 559.81 | 547.62 | 531.08 | 511.06 | 486.68 | 459.69 | 427.48 |
| 195.0 | 569.39 | 566.76 | 559.74 | 548.33 | 531.66 | 511.49 | 488.68 | 460.60 | 429.89 |
| 210.0 | 569.39 | 566.75 | 559.69 | 548.24 | 533.25 | 512.98 | 490.06 | 461.86 | 431.89 |
| 225.0 | 569.39 | 566.74 | 560.55 | 549.94 | 534.02 | 514.57 | 491.59 | 464.18 | 433.23 |
| 240.0 | 569.39 | 566.73 | 560.54 | 549.91 | 534.85 | 516.26 | 492.35 | 464.90 | 435.68 |
| 255.0 | 569.39 | 567.62 | 561.41 | 550.77 | 535.69 | 516.18 | 494.00 | 468.28 | 437.24 |
| 270.0 | 569.39 | 568.50 | 562.28 | 551.62 | 537.41 | 517.87 | 495.66 | 469.01 | 437.92 |
| 285.0 | 569.39 | 567.61 | 562.28 | 551.62 | 536.52 | 517.87 | 495.66 | 469.90 | 439.70 |
| 300.0 | 569.39 | 568.50 | 562.27 | 551.60 | 537.36 | 517.79 | 495.55 | 469.75 | 439.50 |
| 315.0 | 569.39 | 567.61 | 561.38 | 550.71 | 536.47 | 516.90 | 494.66 | 467.08 | 437.72 |
| 330.0 | 569.39 | 566.72 | 560.49 | 549.82 | 533.80 | 515.12 | 502.66 | 464.41 | 434.16 |
| 345.0 | 569.39 | 566.72 | 559.60 | 548.93 | 532.91 | 512.45 | 489.32 | 461.74 | 431.49 |
| 360.0 | 569.39 | 568.52 | 562.43 | 551.98 | 538.92 | 519.76 | 497.13 | 471.88 | 443.15 |

| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 409.19 | 373.50 | 332.58 | 290.79 | 246.39 | 201.99 | 161.07 | 124.50 | 94.03 |
| 15.0 | 407.08 | 370.24 | 330.76 | 287.77 | 244.78 | 200.03 | 158.80 | 121.95 | 93.00 |
| 30.0 | 404.57 | 366.67 | 327.88 | 284.70 | 241.51 | 196.55 | 156.89 | 120.75 | 90.79 |
| 45.0 | 401.40 | 364.27 | 324.48 | 282.93 | 237.84 | 193.63 | 153.84 | 119.36 | 90.18 |
| 60.0 | 400.26 | 363.06 | 323.22 | 279.82 | 234.66 | 193.04 | 153.20 | 117.77 | 89.44 |
| 75.0 | 399.11 | 360.97 | 321.06 | 277.60 | 234.14 | 190.68 | 151.66 | 116.18 | 88.69 |
| 90.0 | 397.95 | 358.87 | 318.89 | 276.26 | 231.84 | 188.32 | 149.23 | 115.48 | 87.94 |
| 105.0 | 396.17 | 358.87 | 318.89 | 274.48 | 230.07 | 188.32 | 149.23 | 114.59 | 87.05 |
| 120.0 | 398.57 | 360.32 | 320.28 | 276.69 | 233.09 | 189.50 | 150.35 | 115.66 | 88.08 |
| 135.0 | 400.35 | 362.10 | 322.06 | 280.25 | 235.76 | 192.17 | 152.13 | 117.44 | 88.08 |
| 150.0 | 403.02 | 365.66 | 324.73 | 282.92 | 239.32 | 193.95 | 154.80 | 119.22 | 89.86 |
| 165.0 | 406.58 | 368.32 | 328.29 | 285.58 | 241.99 | 198.40 | 157.47 | 121.00 | 90.75 |
| 180.0 | 393.52 | 355.22 | 314.30 | 271.64 | 227.23 | 184.57 | 144.52 | 109.70 | 80.97 |
| 195.0 | 394.80 | 357.08 | 316.72 | 272.85 | 228.11 | 185.12 | 146.51 | 110.54 | 81.59 |
| 210.0 | 396.63 | 359.61 | 319.95 | 275.88 | 230.93 | 187.74 | 147.20 | 112.82 | 82.85 |
| 225.0 | 399.63 | 362.50 | 320.95 | 279.39 | 232.53 | 189.21 | 149.42 | 114.94 | 83.99 |
| 240.0 | 402.03 | 363.95 | 324.10 | 280.71 | 236.43 | 192.16 | 152.31 | 116.89 | 85.90 |
| 255.0 | 402.65 | 366.29 | 325.49 | 282.92 | 238.58 | 195.12 | 154.32 | 118.84 | 87.80 |
| 270.0 | 405.06 | 368.64 | 327.78 | 286.03 | 240.73 | 196.31 | 156.34 | 120.81 | 90.61 |
| 285.0 | 406.83 | 368.64 | 329.55 | 286.03 | 242.50 | 198.98 | 174.99 | 121.69 | 91.49 |
| 300.0 | 404.80 | 368.32 | 329.18 | 306.05 | 241.10 | 198.40 | 156.58 | 121.00 | 90.75 |
| 315.0 | 419.04 | 365.66 | 325.62 | 283.81 | 237.54 | 195.73 | 154.80 | 120.11 | 88.97 |
| 330.0 | 399.46 | 362.99 | 322.95 | 279.36 | 234.87 | 191.28 | 152.13 | 116.55 | 87.19 |
| 345.0 | 397.68 | 358.54 | 318.50 | 276.69 | 231.31 | 188.61 | 147.69 | 113.88 | 84.52 |
| 360.0 | 409.19 | 373.50 | 332.58 | 290.79 | 246.39 | 201.99 | 161.07 | 124.50 | 94.03 |

Intensity data(cd)



| C/γ(°) | 90.0 | 95.0 | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 68.78 | 49.63 | 37.44 | 33.08 | 32.21 | 32.21 | 30.47 | 28.73 | 26.12 |
| 15.0 | 67.55 | 49.13 | 38.60 | 34.22 | 33.34 | 33.34 | 31.58 | 28.95 | 26.32 |
| 30.0 | 66.11 | 48.48 | 38.78 | 34.37 | 35.26 | 34.37 | 32.61 | 29.97 | 27.32 |
| 45.0 | 66.31 | 49.51 | 38.90 | 35.37 | 35.37 | 34.48 | 32.71 | 30.95 | 27.41 |
| 60.0 | 65.53 | 48.70 | 38.08 | 34.54 | 35.42 | 34.54 | 32.76 | 30.99 | 27.45 |
| 75.0 | 64.74 | 48.78 | 38.14 | 35.48 | 35.48 | 34.59 | 32.82 | 30.15 | 27.49 |
| 90.0 | 64.84 | 47.97 | 38.20 | 35.53 | 34.64 | 33.75 | 31.98 | 30.20 | 27.54 |
| 105.0 | 63.96 | 47.08 | 37.31 | 34.64 | 33.75 | 32.87 | 31.98 | 29.31 | 26.65 |
| 120.0 | 64.06 | 48.04 | 37.37 | 33.81 | 33.81 | 32.03 | 31.14 | 28.47 | 25.80 |
| 135.0 | 65.84 | 48.04 | 36.48 | 32.92 | 32.92 | 32.03 | 30.25 | 27.58 | 24.91 |
| 150.0 | 64.95 | 47.15 | 36.48 | 32.92 | 32.03 | 31.14 | 29.36 | 26.69 | 24.02 |
| 165.0 | 65.84 | 47.15 | 35.59 | 32.03 | 32.03 | 31.14 | 28.47 | 25.80 | 23.13 |
| 180.0 | 58.33 | 41.79 | 33.08 | 31.34 | 31.34 | 29.60 | 26.99 | 24.38 | 21.77 |
| 195.0 | 57.90 | 42.11 | 33.34 | 31.58 | 30.71 | 29.83 | 27.20 | 23.69 | 21.06 |
| 210.0 | 58.17 | 42.31 | 32.61 | 30.85 | 29.97 | 28.21 | 26.44 | 22.92 | 20.27 |
| 225.0 | 59.24 | 42.44 | 32.71 | 30.06 | 29.18 | 27.41 | 25.64 | 22.10 | 19.45 |
| 240.0 | 61.10 | 43.39 | 32.76 | 29.22 | 28.34 | 27.45 | 26.57 | 22.14 | 19.48 |
| 255.0 | 62.97 | 44.35 | 33.70 | 30.15 | 28.38 | 27.49 | 24.83 | 23.06 | 19.51 |
| 270.0 | 75.50 | 45.30 | 33.75 | 29.31 | 29.31 | 27.54 | 25.76 | 23.10 | 20.43 |
| 285.0 | 65.73 | 47.08 | 34.64 | 30.20 | 29.31 | 28.43 | 26.65 | 23.98 | 21.32 |
| 300.0 | 65.84 | 46.26 | 34.70 | 30.25 | 29.36 | 28.47 | 26.69 | 24.02 | 21.35 |
| 315.0 | 64.95 | 47.15 | 34.70 | 31.14 | 30.25 | 29.36 | 27.58 | 24.91 | 22.24 |
| 330.0 | 62.28 | 45.37 | 34.70 | 31.14 | 31.14 | 30.25 | 28.47 | 25.80 | 23.13 |
| 345.0 | 61.39 | 45.37 | 34.70 | 32.03 | 32.03 | 31.14 | 29.36 | 26.69 | 23.13 |
| 360.0 | 68.78 | 49.63 | 37.44 | 33.08 | 32.21 | 32.21 | 30.47 | 28.73 | 26.12 |

| C/γ(°) | 135.0 | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |
|---|---|---|---|---|---|---|---|---|---|
| 0.0 | 22.64 | 19.15 | 15.67 | 11.32 | 7.84 | 5.22 | 4.35 | 3.48 | 2.61 |
| 15.0 | 22.81 | 19.30 | 15.79 | 11.41 | 7.90 | 5.26 | 3.51 | 3.51 | 2.63 |
| 30.0 | 23.80 | 20.27 | 15.87 | 11.46 | 7.93 | 5.29 | 4.41 | 2.64 | 2.64 |
| 45.0 | 23.87 | 20.34 | 16.80 | 12.38 | 7.96 | 5.30 | 3.54 | 2.65 | 2.65 |
| 60.0 | 23.91 | 20.37 | 16.82 | 12.40 | 7.97 | 5.31 | 3.54 | 2.66 | 1.77 |
| 75.0 | 23.95 | 20.40 | 16.85 | 11.53 | 7.98 | 5.32 | 3.55 | 2.66 | 1.77 |
| 90.0 | 23.98 | 19.54 | 15.99 | 11.55 | 7.99 | 5.33 | 3.55 | 2.66 | 2.66 |
| 105.0 | 23.10 | 19.54 | 15.10 | 10.66 | 7.11 | 5.33 | 3.55 | 2.66 | 2.66 |
| 120.0 | 22.24 | 18.68 | 15.12 | 10.68 | 7.12 | 5.34 | 3.56 | 2.67 | 2.67 |
| 135.0 | 21.35 | 17.79 | 14.23 | 10.68 | 7.12 | 5.34 | 3.56 | 2.67 | 2.67 |
| 150.0 | 21.35 | 17.79 | 14.23 | 10.68 | 7.12 | 5.34 | 3.56 | 2.67 | 1.78 |
| 165.0 | 20.46 | 16.90 | 13.35 | 9.79 | 7.12 | 5.34 | 3.56 | 2.67 | 1.78 |
| 180.0 | 18.28 | 15.67 | 11.32 | 8.71 | 6.09 | 4.35 | 3.48 | 2.61 | 1.74 |
| 195.0 | 17.55 | 14.91 | 11.41 | 7.90 | 5.26 | 4.39 | 3.51 | 2.63 | 1.75 |
| 210.0 | 17.63 | 14.10 | 10.58 | 9.70 | 5.29 | 4.41 | 3.53 | 2.64 | 1.76 |
| 225.0 | 18.57 | 14.15 | 10.61 | 7.96 | 5.30 | 4.42 | 3.54 | 2.65 | 1.77 |
| 240.0 | 16.82 | 14.17 | 10.63 | 7.97 | 6.20 | 4.43 | 3.54 | 2.66 | 1.77 |
| 255.0 | 16.85 | 14.19 | 11.53 | 8.87 | 6.21 | 4.43 | 3.55 | 2.66 | 1.77 |
| 270.0 | 17.77 | 15.10 | 11.55 | 8.88 | 6.22 | 4.44 | 3.55 | 2.66 | 1.78 |
| 285.0 | 18.65 | 15.10 | 12.44 | 8.88 | 6.22 | 4.44 | 3.55 | 2.66 | 1.78 |
| 300.0 | 18.68 | 16.01 | 12.46 | 9.79 | 6.23 | 4.45 | 3.56 | 2.67 | 1.78 |
| 315.0 | 19.57 | 16.01 | 13.35 | 9.79 | 7.12 | 4.45 | 3.56 | 2.67 | 1.78 |
| 330.0 | 19.57 | 16.90 | 13.35 | 9.79 | 7.12 | 4.45 | 3.56 | 2.67 | 1.78 |
| 345.0 | 20.46 | 16.90 | 14.23 | 9.79 | 7.12 | 4.45 | 3.56 | 2.67 | 1.78 |
| 360.0 | 22.64 | 19.15 | 15.67 | 11.32 | 7.84 | 5.22 | 4.35 | 3.48 | 2.61 |

Intensity data(cd)



| C/γ(°) | 180.0 |
|---|---|
| 0.0 | 1.74 |
| 15.0 | 1.75 |
| 30.0 | 1.76 |
| 45.0 | 1.77 |
| 60.0 | 1.77 |
| 75.0 | 1.77 |
| 90.0 | 0.89 |
| 105.0 | 1.78 |
| 120.0 | 0.89 |
| 135.0 | 0.89 |
| 150.0 | 1.78 |
| 165.0 | 0.89 |
| 180.0 | 0.00 |
| 195.0 | 0.00 |
| 210.0 | 0.00 |
| 225.0 | 0.00 |
| 240.0 | 0.00 |
| 255.0 | 0.00 |
| 270.0 | 0.00 |
| 285.0 | 0.00 |
| 300.0 | 0.00 |
| 315.0 | 0.00 |
| 330.0 | 0.00 |
| 345.0 | 0.00 |
| 360.0 | 1.74 |