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LumCAT: 2-2184-M
Luminaire: 92.70.278.00
Report No: 221221-B007
Test No: 221221-C007
LampCAT: CREE CXA 1830 LES12
Lamp flux(lm): 1965.3
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 34.6700
Current(A): 0.4310
Power (W): 14.9420
PF: 0.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1596.99
Efficiency(%): 81.26%
Lumens(lm)/Power(W): 106.88
Central intensity(cd): 8378.104
Maximum intensity(cd): 8378.104
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=24.0
 [C90/270]Total=24.0
Field angle(10%Imax): [C0/180]Total=42.3
 [C90/270]Total=42.3
Maximum s/h(1/2): C0_180=0.41 C90_270=0.41
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(%): 81.26%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.217%

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2022/12/21
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.73

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 8378.103 | 0.000 | 0 | .000% | .000% |
| 1.0 | 8357.339 | 8.008 | 8.008 | .407% | .501% |
| 2.0 | 8279.959 | 23.879 | 31.887 | 1.215% | 1.997% |
| 3.0 | 8138.420 | 39.267 | 71.154 | 1.998% | 4.456% |
| 4.0 | 7925.550 | 53.771 | 124.926 | 2.736% | 7.823% |
| 5.0 | 7649.193 | 67.002 | 191.927 | 3.409% | 12.018% |
| 6.0 | 7223.453 | 78.160 | 270.087 | 3.977% | 16.912% |
| 7.0 | 6791.440 | 86.990 | 357.077 | 4.426% | 22.359% |
| 8.0 | 6334.629 | 93.941 | 451.018 | 4.780% | 28.242% |
| 9.0 | 5820.157 | 98.508 | 549.526 | 5.012% | 34.410% |
| 10.0 | 5213.441 | 99.850 | 649.376 | 5.081% | 40.662% |
| 11.0 | 4706.811 | 99.124 | 748.5 | 5.044% | 46.869% |
| 12.0 | 4186.886 | 97.221 | 845.721 | 4.947% | 52.957% |
| 13.0 | 3626.404 | 92.724 | 938.445 | 4.718% | 58.763% |
| 14.0 | 3172.879 | 87.030 | 1025.475 | 4.428% | 64.213% |
| 15.0 | 2743.256 | 81.219 | 1106.694 | 4.133% | 69.299% |
| 16.0 | 2336.637 | 74.435 | 1181.129 | 3.787% | 73.960% |
| 17.0 | 1951.306 | 66.775 | 1247.904 | 3.398% | 78.141% |
| 18.0 | 1590.861 | 58.403 | 1306.306 | 2.972% | 81.798% |
| 19.0 | 1355.024 | 51.252 | 1357.559 | 2.608% | 85.007% |
| 20.0 | 1096.794 | 44.875 | 1402.434 | 2.283% | 87.817% |
| 21.0 | 865.603 | 37.682 | 1440.116 | 1.917% | 90.177% |
| 22.0 | 657.245 | 30.602 | 1470.718 | 1.557% | 92.093% |
| 23.0 | 487.778 | 24.026 | 1494.744 | 1.222% | 93.597% |
| 24.0 | 323.577 | 17.739 | 1512.483 | .903% | 94.708% |
| 25.0 | 194.227 | 11.774 | 1524.256 | .599% | 95.445% |
| 26.0 | 110.319 | 7.189 | 1531.445 | .366% | 95.896% |
| 27.0 | 55.115 | 4.047 | 1535.493 | .206% | 96.149% |
| 28.0 | 30.661 | 2.172 | 1537.664 | .110% | 96.285% |
| 29.0 | 25.134 | 1.460 | 1539.124 | .074% | 96.376% |
| 30.0 | 22.392 | 1.283 | 1540.407 | .065% | 96.457% |
| 31.0 | 20.309 | 1.188 | 1541.596 | .060% | 96.531% |
| 32.0 | 18.762 | 1.119 | 1542.715 | .057% | 96.601% |
| 33.0 | 17.605 | 1.071 | 1543.786 | .055% | 96.668% |
| 34.0 | 16.544 | 1.033 | 1544.82 | .053% | 96.733% |
| 35.0 | 15.521 | 0.996 | 1545.816 | .051% | 96.795% |
| 36.0 | 14.796 | 0.965 | 1546.781 | .049% | 96.856% |
| 37.0 | 14.109 | 0.943 | 1547.724 | .048% | 96.915% |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0 | 13.571 | 0.924 | 1548.648 | .047% | 96.973% |
| 39.0 | 13.078 | 0.910 | 1549.557 | .046% | 97.030% |
| 40.0 | 12.660 | 0.898 | 1550.455 | .046% | 97.086% |
| 41.0 | 12.309 | 0.889 | 1551.344 | .045% | 97.142% |
| 42.0 | 12.018 | 0.884 | 1552.228 | .045% | 97.197% |
| 43.0 | 11.734 | 0.880 | 1553.108 | .045% | 97.252% |
| 44.0 | 11.525 | 0.878 | 1553.985 | .045% | 97.307% |
| 45.0 | 11.331 | 0.878 | 1554.864 | .045% | 97.362% |
| 46.0 | 11.159 | 0.880 | 1555.743 | .045% | 97.417% |
| 47.0 | 11.009 | 0.882 | 1556.625 | .045% | 97.472% |
| 48.0 | 10.882 | 0.885 | 1557.51 | .045% | 97.528% |
| 49.0 | 10.770 | 0.889 | 1558.399 | .045% | 97.583% |
| 50.0 | 10.629 | 0.892 | 1559.291 | .045% | 97.639% |
| 51.0 | 10.517 | 0.895 | 1560.186 | .046% | 97.695% |
| 52.0 | 10.419 | 0.898 | 1561.084 | .046% | 97.751% |
| 53.0 | 10.322 | 0.902 | 1561.987 | .046% | 97.808% |
| 54.0 | 10.270 | 0.908 | 1562.894 | .046% | 97.865% |
| 55.0 | 10.233 | 0.915 | 1563.81 | .047% | 97.922% |
| 56.0 | 10.188 | 0.923 | 1564.732 | .047% | 97.980% |
| 57.0 | 10.180 | 0.931 | 1565.664 | .047% | 98.038% |
| 58.0 | 10.188 | 0.942 | 1566.605 | .048% | 98.097% |
| 59.0 | 10.188 | 0.953 | 1567.558 | .048% | 98.157% |
| 60.0 | 10.195 | 0.963 | 1568.521 | .049% | 98.217% |
| 61.0 | 10.195 | 0.973 | 1569.494 | .050% | 98.278% |
| 62.0 | 10.188 | 0.982 | 1570.476 | .050% | 98.340% |
| 63.0 | 10.195 | 0.991 | 1571.468 | .050% | 98.402% |
| 64.0 | 10.218 | 1.002 | 1572.469 | .051% | 98.464% |
| 65.0 | 10.195 | 1.010 | 1573.479 | .051% | 98.528% |
| 66.0 | 10.151 | 1.015 | 1574.495 | .052% | 98.591% |
| 67.0 | 10.136 | 1.020 | 1575.515 | .052% | 98.655% |
| 68.0 | 10.068 | 1.023 | 1576.538 | .052% | 98.719% |
| 69.0 | 9.994 | 1.023 | 1577.562 | .052% | 98.783% |
| 70.0 | 9.897 | 1.022 | 1578.583 | .052% | 98.847% |
| 71.0 | 9.777 | 1.017 | 1579.6 | .052% | 98.911% |
| 72.0 | 9.665 | 1.011 | 1580.611 | .051% | 98.974% |
| 73.0 | 9.546 | 1.005 | 1581.615 | .051% | 99.037% |
| 74.0 | 9.396 | 0.996 | 1582.611 | .051% | 99.099% |
| 75.0 | 9.209 | 0.983 | 1583.594 | .050% | 99.161% |

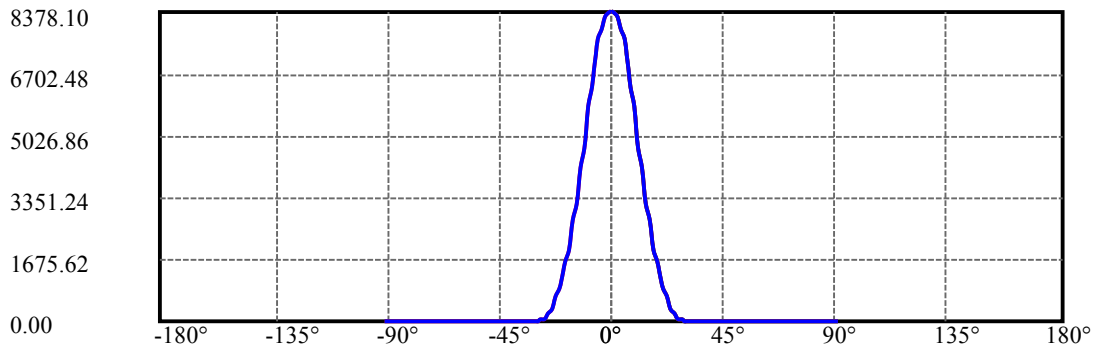
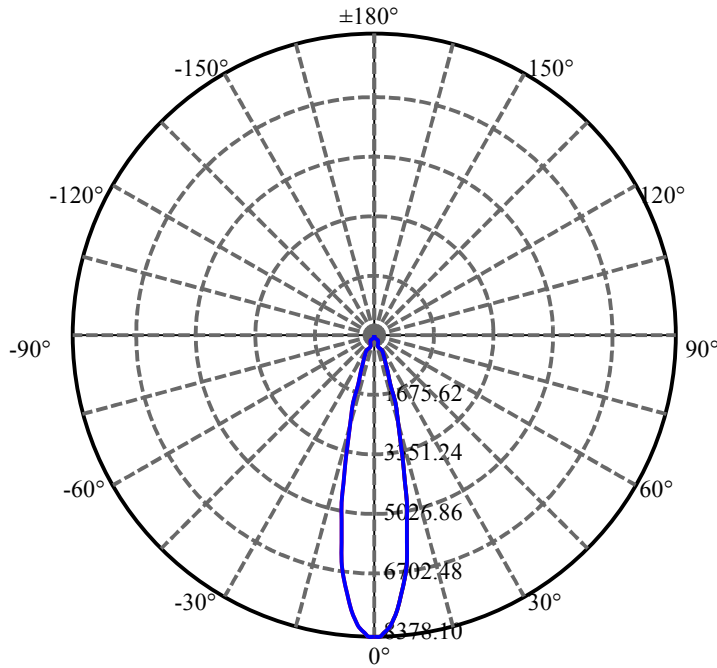
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0 | 8.993 | 0.966 | 1584.561 | .049% | 99.222% |
| 77.0 | 8.806 | 0.949 | 1585.51 | .048% | 99.281% |
| 78.0 | 8.709 | 0.938 | 1586.447 | .048% | 99.340% |
| 79.0 | 8.604 | 0.930 | 1587.377 | .047% | 99.398% |
| 80.0 | 8.492 | 0.922 | 1588.299 | .047% | 99.456% |
| 81.0 | 8.410 | 0.914 | 1589.213 | .047% | 99.513% |
| 82.0 | 8.336 | 0.908 | 1590.121 | .046% | 99.570% |
| 83.0 | 8.291 | 0.904 | 1591.025 | .046% | 99.626% |
| 84.0 | 8.246 | 0.901 | 1591.926 | .046% | 99.683% |
| 85.0 | 8.104 | 0.892 | 1592.818 | .045% | 99.739% |
| 86.0 | 7.992 | 0.880 | 1593.698 | .045% | 99.794% |
| 87.0 | 7.566 | 0.851 | 1594.55 | .043% | 99.847% |
| 88.0 | 7.454 | 0.823 | 1595.372 | .042% | 99.899% |
| 89.0 | 7.379 | 0.813 | 1596.185 | .041% | 99.949% |
| 90.0 | 7.350 | 0.808 | 1596.993 | .041% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1540.41 | 78.38% | 96.46% |
| 0-40 | 1550.45 | 78.89% | 97.09% |
| 0-60 | 1568.52 | 79.81% | 98.22% |
| 0-90 | 1596.19 | 81.22% | 99.95% |
| 0-120 | 1596.19 | 81.22% | 99.95% |
| 0-180 | 1596.99 | 81.26% | 100.00% |
| 60-90 | 28.63 | 1.46% | 1.79% |
| 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% |
| 0-17.51 | 1277.59 | 65.01% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 649.38 |
| 10-20 | 753.06 |
| 20-30 | 137.97 |
| 30-40 | 10.05 |
| 40-50 | 8.84 |
| 50-60 | 9.23 |
| 60-70 | 10.06 |
| 70-80 | 9.72 |
| 80-90 | 7.89 |
| 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 |



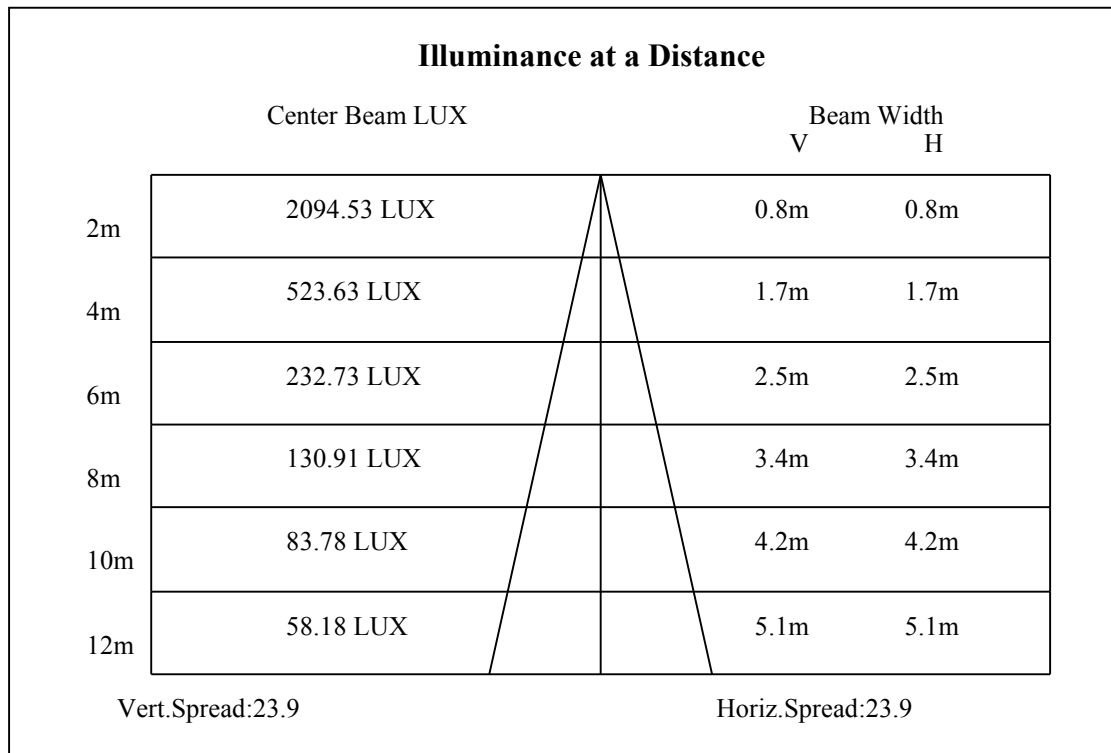
C0(Max): ———

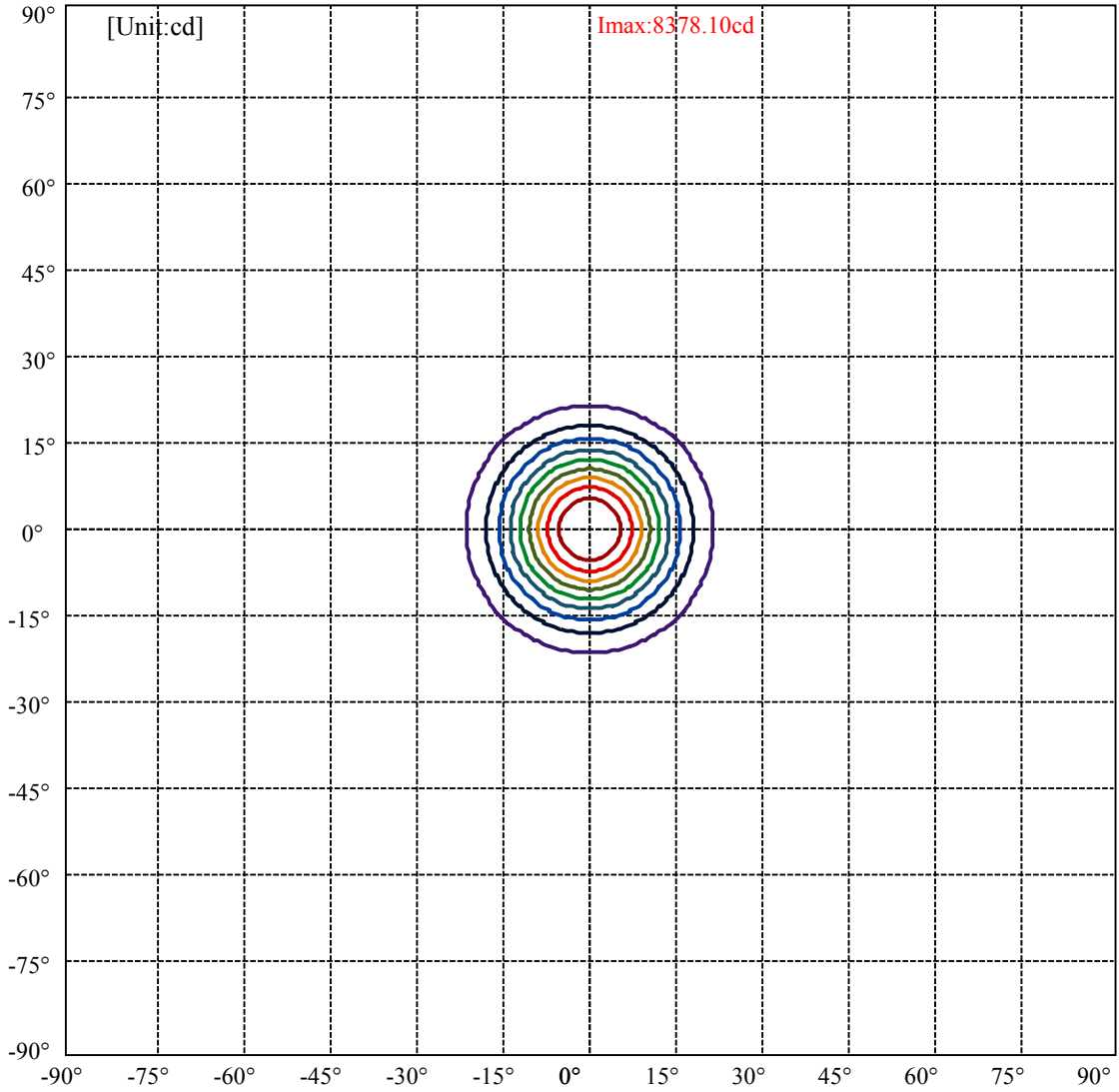
C0/C180: ———

C90/C270: ———

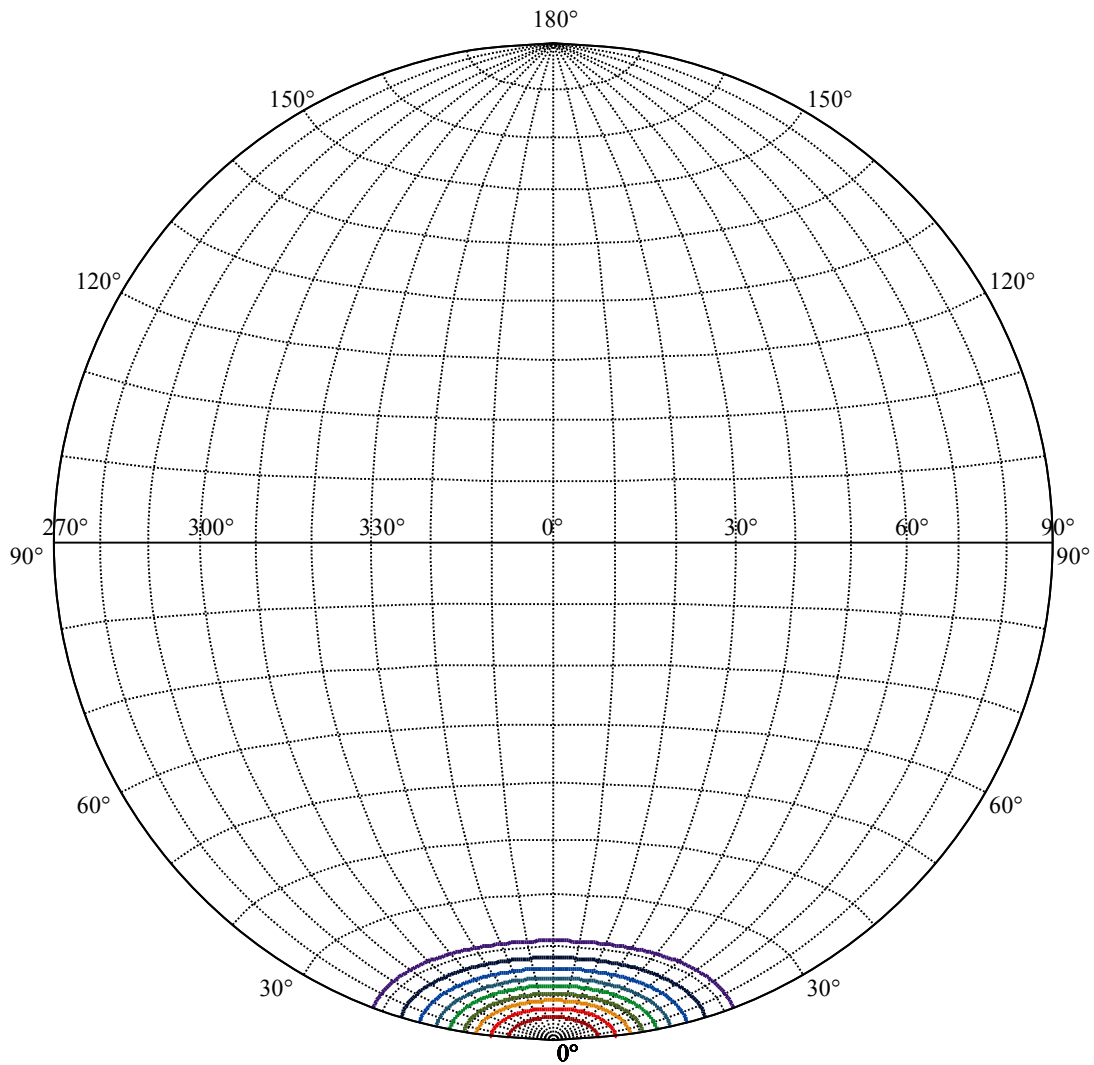
Field angle(10%Imax):C0/180Left:21.1 Right:21.1
:C90/270Left:21.1 Right:21.1

Beam Angle(50%Imax):C0/180Left:12.0 Right:12.0
:C90/270Left:12.0 Right:12.0





| | |
|-------------------|---|
| (10%Imax) 837.81 | — |
| (20%Imax) 1675.62 | — |
| (30%Imax) 2513.43 | — |
| (40%Imax) 3351.24 | — |
| (50%Imax) 4189.05 | — |
| (60%Imax) 5026.86 | — |
| (70%Imax) 5864.67 | — |
| (80%Imax) 6702.48 | — |
| (90%Imax) 7540.29 | — |












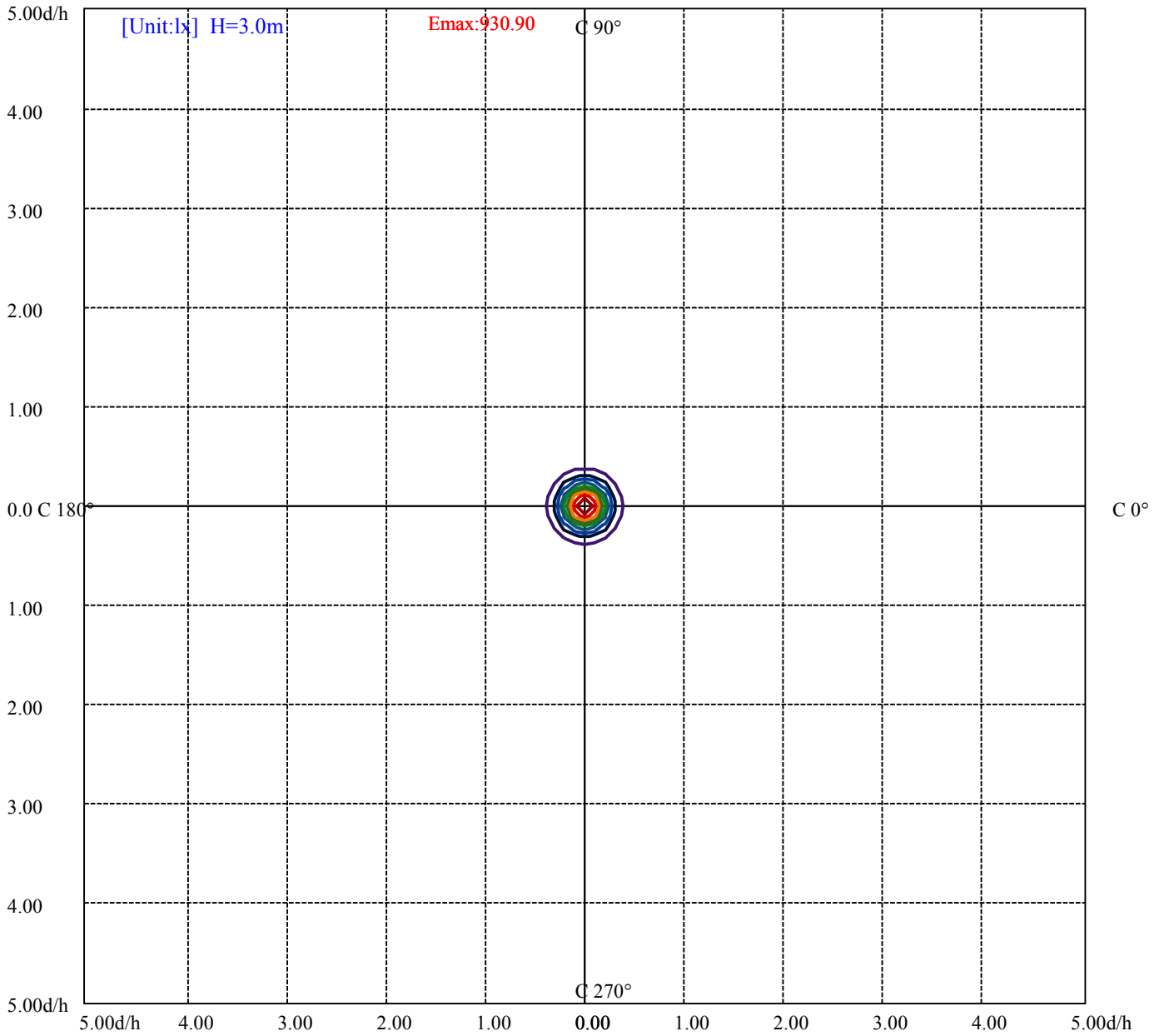
House

[Unit:cd]

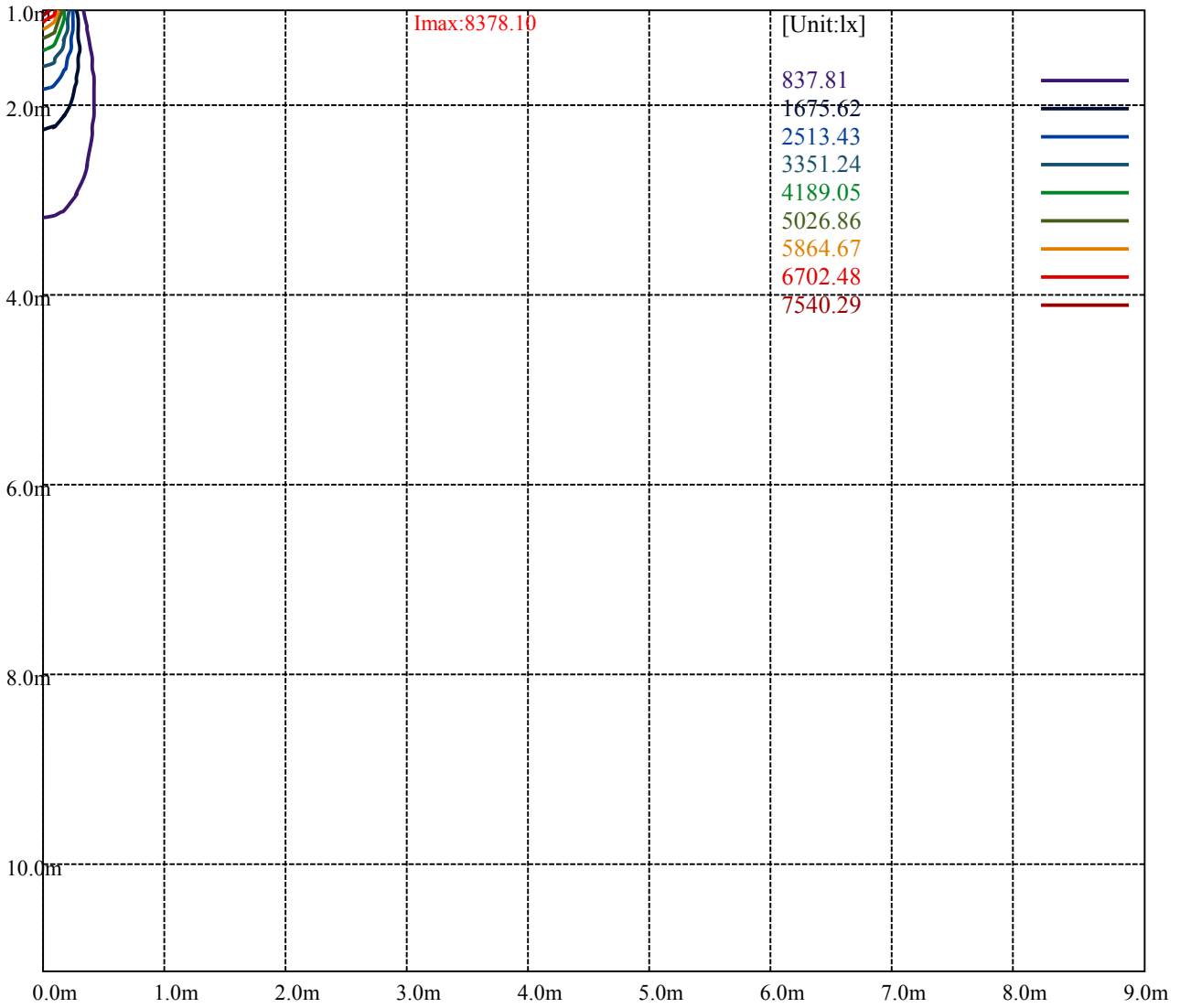
Road

Imax:8378.10

| | | |
|-----------|---------|---|
| (10%Imax) | 837.81 |  |
| (20%Imax) | 1675.62 |  |
| (30%Imax) | 2513.43 |  |
| (40%Imax) | 3351.24 |  |
| (50%Imax) | 4189.05 |  |
| (60%Imax) | 5026.86 |  |
| (70%Imax) | 5864.67 |  |
| (80%Imax) | 6702.48 |  |
| (90%Imax) | 7540.29 |  |



| | |
|------------------|---|
| (10%Emax) 93.09 | — |
| (20%Emax) 186.18 | — |
| (30%Emax) 279.27 | — |
| (40%Emax) 372.36 | — |
| (50%Emax) 465.45 | — |
| (60%Emax) 558.54 | — |
| (70%Emax) 651.63 | — |
| (80%Emax) 744.72 | — |
| (90%Emax) 837.81 | — |



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 |

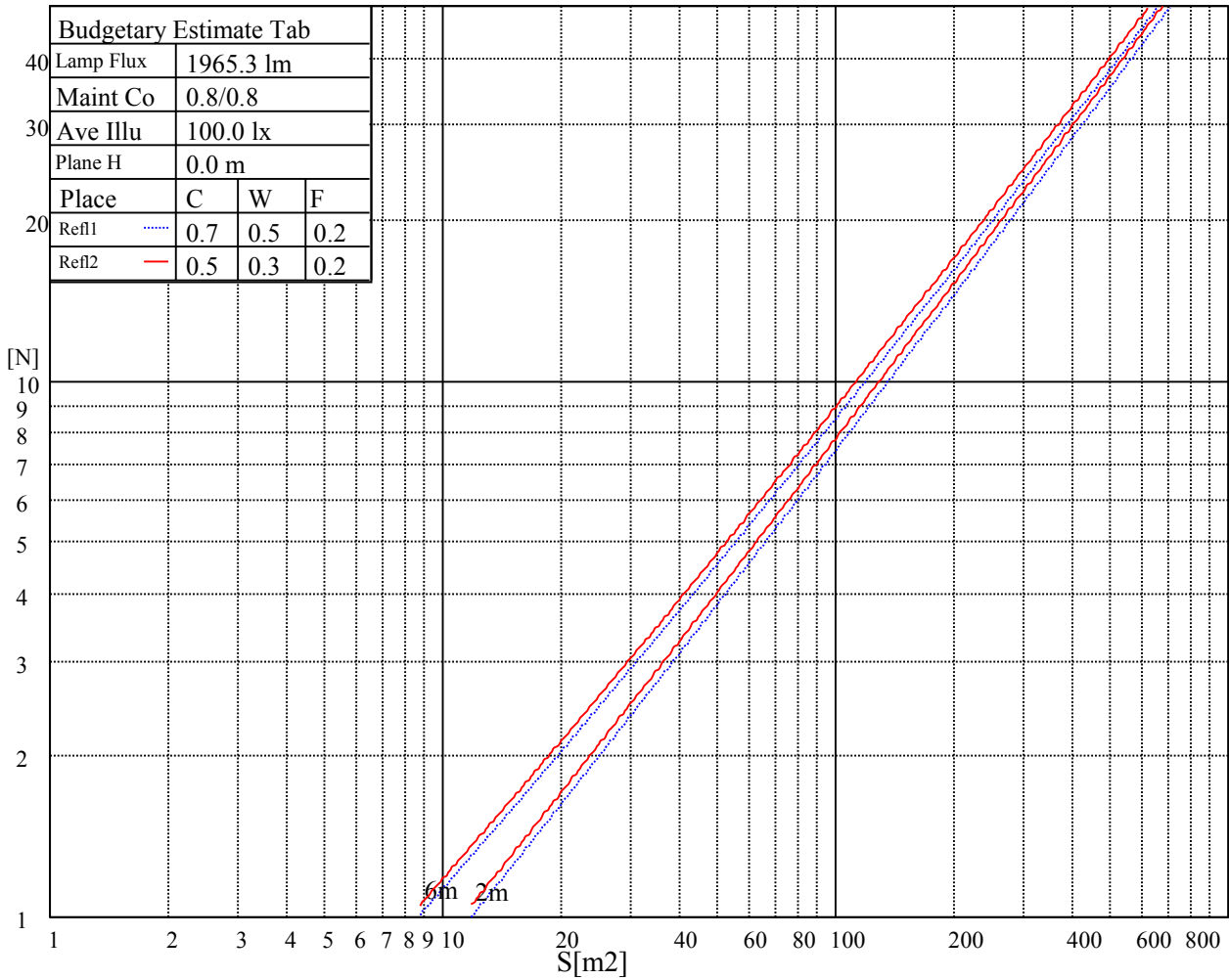
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Glare Table

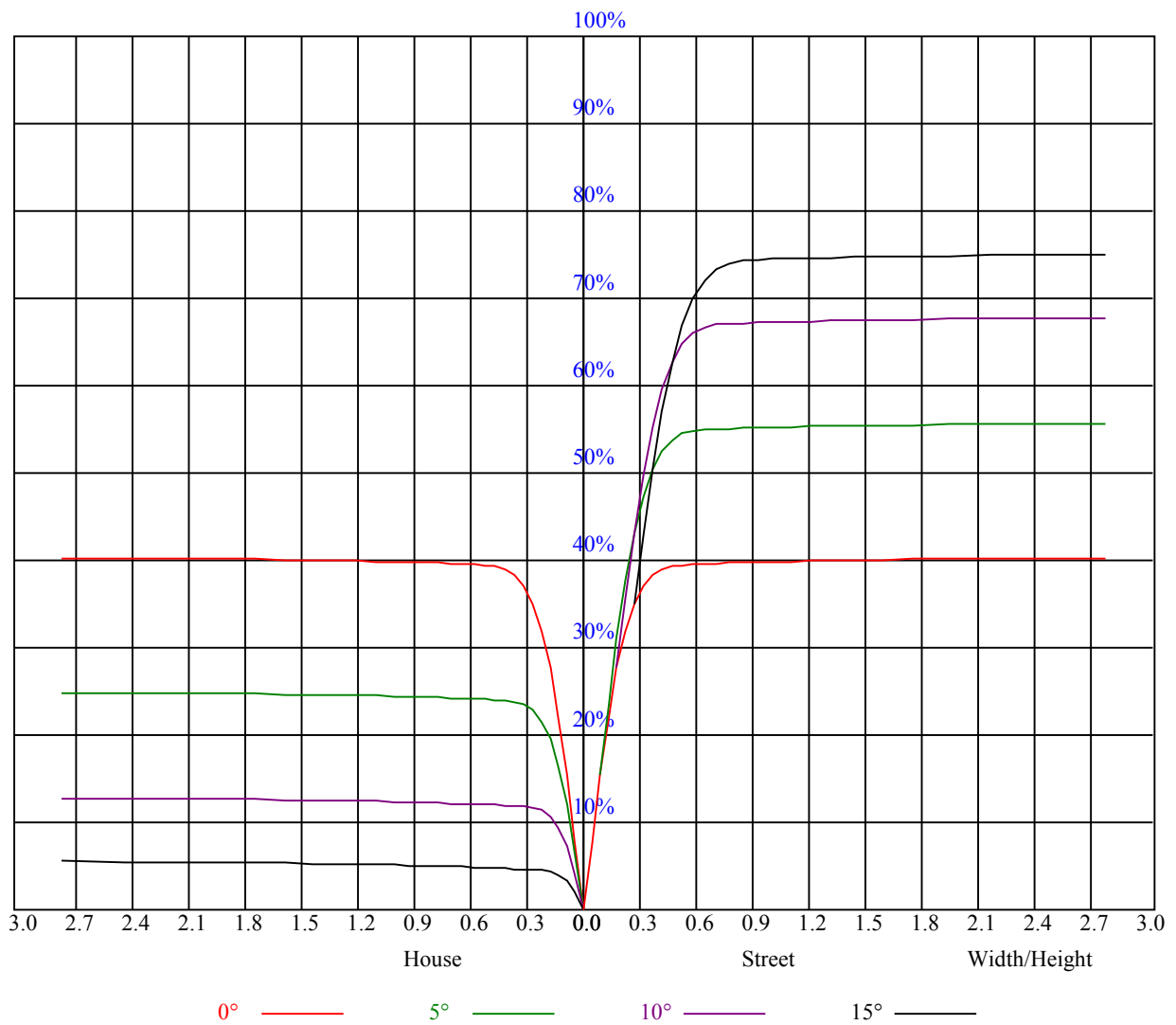
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|------------|------------|------------|------------|------------|
| 1.15 | A | 2000 | 1000 | 500 | ≤ 300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | ≤ 300 | | | |
| 1.85 | 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 Limiting Curve





| 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 | COEFFICIENTS OF UTILIZATION RHOFC=20 CU | | | | | | | | | | | | | | | |
| 0 | 0.97 | 0.97 | 0.97 | 0.94 | 0.94 | 0.94 | 0.90 | 0.90 | 0.90 | 0.86 | 0.86 | 0.86 | 0.83 | 0.83 | 0.83 | 0.81 |
| 1 | 0.92 | 0.90 | 0.89 | 0.90 | 0.88 | 0.87 | 0.87 | 0.86 | 0.85 | 0.84 | 0.83 | 0.82 | 0.81 | 0.80 | 0.80 | 0.78 |
| 2 | 0.87 | 0.85 | 0.83 | 0.86 | 0.84 | 0.82 | 0.84 | 0.82 | 0.80 | 0.81 | 0.80 | 0.79 | 0.79 | 0.78 | 0.77 | 0.76 |
| 3 | 0.84 | 0.81 | 0.79 | 0.83 | 0.80 | 0.78 | 0.81 | 0.79 | 0.77 | 0.79 | 0.77 | 0.76 | 0.77 | 0.76 | 0.75 | 0.74 |
| 4 | 0.81 | 0.78 | 0.76 | 0.80 | 0.77 | 0.75 | 0.79 | 0.76 | 0.74 | 0.77 | 0.75 | 0.73 | 0.76 | 0.74 | 0.73 | 0.72 |
| 5 | 0.78 | 0.75 | 0.73 | 0.78 | 0.75 | 0.73 | 0.76 | 0.74 | 0.72 | 0.75 | 0.73 | 0.71 | 0.74 | 0.72 | 0.71 | 0.70 |
| 6 | 0.76 | 0.73 | 0.71 | 0.76 | 0.72 | 0.70 | 0.74 | 0.72 | 0.70 | 0.73 | 0.71 | 0.69 | 0.73 | 0.71 | 0.69 | 0.68 |
| 7 | 0.74 | 0.71 | 0.69 | 0.73 | 0.70 | 0.68 | 0.73 | 0.70 | 0.68 | 0.72 | 0.69 | 0.68 | 0.71 | 0.69 | 0.67 | 0.67 |
| 8 | 0.72 | 0.69 | 0.67 | 0.72 | 0.69 | 0.67 | 0.71 | 0.68 | 0.66 | 0.70 | 0.68 | 0.66 | 0.70 | 0.67 | 0.66 | 0.65 |
| 9 | 0.70 | 0.67 | 0.65 | 0.70 | 0.67 | 0.65 | 0.69 | 0.67 | 0.65 | 0.69 | 0.66 | 0.65 | 0.68 | 0.66 | 0.64 | 0.64 |
| 10 | 0.69 | 0.66 | 0.64 | 0.68 | 0.65 | 0.63 | 0.68 | 0.65 | 0.63 | 0.67 | 0.65 | 0.63 | 0.67 | 0.65 | 0.63 | 0.62 |



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 | 8379.75 | 8391.70 | 8363.61 | 8286.53 | 8128.19 | 7919.65 | 7583.24 | 7169.15 | 6750.29 |
| 45.0 | 8370.19 | 8299.08 | 8150.89 | 7956.70 | 7653.75 | 7305.99 | 6838.12 | 6323.65 | 5838.46 |
| 90.0 | 8369.59 | 8298.48 | 8156.87 | 7930.40 | 7652.55 | 7305.39 | 6792.11 | 6335.60 | 5838.46 |
| 135.0 | 8392.89 | 8370.19 | 8295.50 | 8158.06 | 7930.40 | 7651.36 | 7250.42 | 6783.15 | 6326.04 |
| 180.0 | 8379.75 | 8336.13 | 8208.85 | 8000.91 | 7732.62 | 7402.19 | 6888.91 | 6421.64 | 5924.50 |
| 225.0 | 8370.19 | 8390.50 | 8370.19 | 8288.92 | 8143.13 | 7919.05 | 7555.75 | 7191.86 | 6772.39 |
| 270.0 | 8369.59 | 8390.50 | 8368.39 | 8305.65 | 8154.48 | 7941.16 | 7602.36 | 7185.88 | 6765.82 |
| 315.0 | 8392.89 | 8382.14 | 8325.37 | 8180.17 | 8009.28 | 7748.76 | 7276.71 | 6920.58 | 6461.08 |
| 360.0 | 8379.75 | 8391.70 | 8363.61 | 8286.53 | 8128.19 | 7919.65 | 7583.24 | 7169.15 | 6750.29 |
| C/ γ (°) | 9.0 | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 |
| 0.0 | 6344.56 | 5670.55 | 5166.24 | 4727.65 | 4053.64 | 3594.73 | 3200.96 | 2697.25 | 2280.77 |
| 45.0 | 5329.36 | 4687.62 | 4192.86 | 3719.62 | 3150.17 | 2731.31 | 2352.47 | 1967.07 | 1613.93 |
| 90.0 | 5257.66 | 4690.60 | 4196.45 | 3670.02 | 3169.29 | 2758.19 | 2326.78 | 1982.60 | 1637.83 |
| 135.0 | 5824.12 | 5172.81 | 4659.53 | 4145.66 | 3558.29 | 3118.50 | 2708.00 | 2296.90 | 1905.52 |
| 180.0 | 5346.09 | 4766.49 | 4255.00 | 3723.80 | 3221.88 | 2798.23 | 2384.74 | 2036.38 | 1689.21 |
| 225.0 | 6233.42 | 5669.95 | 5152.49 | 4564.52 | 4062.00 | 3516.46 | 3019.31 | 2603.43 | 2187.55 |
| 270.0 | 6306.32 | 5691.46 | 5184.76 | 4671.48 | 4054.83 | 3580.39 | 3134.64 | 2671.55 | 2245.51 |
| 315.0 | 5919.72 | 5358.04 | 4847.16 | 4272.33 | 3741.13 | 3285.21 | 2819.14 | 2437.92 | 2050.12 |
| 360.0 | 6344.56 | 5670.55 | 5166.24 | 4727.65 | 4053.64 | 3594.73 | 3200.96 | 2697.25 | 2280.77 |
| C/ γ (°) | 18.0 | 19.0 | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 |
| 0.0 | 1989.77 | 1618.71 | 1377.90 | 1147.85 | 874.18 | 678.20 | 504.91 | 313.70 | 233.81 |
| 45.0 | 1346.23 | 1085.11 | 862.23 | 641.75 | 457.11 | 320.87 | 223.48 | 103.19 | 44.04 |
| 90.0 | 1163.03 | 1103.88 | 859.96 | 612.71 | 462.97 | 318.06 | 157.57 | 87.24 | 44.40 |
| 135.0 | 1610.94 | 1327.11 | 1085.71 | 840.13 | 627.41 | 466.67 | 302.95 | 161.39 | 81.56 |
| 180.0 | 1187.17 | 1157.00 | 906.75 | 706.46 | 509.03 | 355.17 | 211.82 | 105.70 | 52.28 |
| 225.0 | 1815.29 | 1519.52 | 1175.76 | 955.51 | 778.64 | 592.69 | 388.81 | 257.00 | 154.04 |
| 270.0 | 1913.89 | 1583.45 | 1333.09 | 1069.58 | 828.18 | 634.58 | 442.77 | 316.69 | 160.80 |
| 315.0 | 1700.57 | 1445.42 | 1172.95 | 950.85 | 720.44 | 535.98 | 356.31 | 208.90 | 111.62 |
| 360.0 | 1989.77 | 1618.71 | 1377.90 | 1147.85 | 874.18 | 678.20 | 504.91 | 313.70 | 233.81 |
| C/ γ (°) | 27.0 | 28.0 | 29.0 | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 |
| 0.0 | 94.17 | 39.08 | 29.22 | 25.45 | 22.83 | 20.97 | 19.66 | 18.40 | 17.33 |
| 45.0 | 28.74 | 23.78 | 20.73 | 19.36 | 18.28 | 17.27 | 16.49 | 15.83 | 15.00 |
| 90.0 | 29.88 | 23.48 | 20.50 | 18.70 | 17.15 | 16.07 | 15.12 | 14.28 | 13.44 |
| 135.0 | 43.62 | 29.64 | 25.63 | 23.00 | 20.85 | 19.36 | 18.11 | 17.03 | 15.83 |
| 180.0 | 32.51 | 25.57 | 22.53 | 20.67 | 18.88 | 17.75 | 16.67 | 15.72 | 14.82 |
| 225.0 | 79.23 | 36.87 | 28.44 | 24.38 | 21.51 | 19.66 | 18.40 | 17.15 | 16.07 |
| 270.0 | 79.41 | 35.31 | 27.01 | 23.30 | 20.79 | 18.64 | 17.39 | 16.19 | 15.00 |
| 315.0 | 53.36 | 31.55 | 27.01 | 24.26 | 22.17 | 20.38 | 19.00 | 17.75 | 16.67 |
| 360.0 | 94.17 | 39.08 | 29.22 | 25.45 | 22.83 | 20.97 | 19.66 | 18.40 | 17.33 |
| C/ γ (°) | 36.0 | 37.0 | 38.0 | 39.0 | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 |
| 0.0 | 16.55 | 15.72 | 15.12 | 14.58 | 14.10 | 13.74 | 13.38 | 13.03 | 12.79 |
| 45.0 | 14.52 | 14.10 | 13.62 | 13.32 | 13.03 | 12.73 | 12.49 | 12.25 | 12.07 |
| 90.0 | 12.91 | 12.31 | 11.89 | 11.53 | 11.11 | 10.82 | 10.58 | 10.34 | 10.16 |
| 135.0 | 15.00 | 14.28 | 13.62 | 13.15 | 12.67 | 12.25 | 11.89 | 11.65 | 11.41 |
| 180.0 | 14.22 | 13.56 | 13.15 | 12.67 | 12.31 | 12.01 | 11.77 | 11.47 | 11.29 |
| 225.0 | 15.18 | 14.40 | 13.86 | 13.27 | 12.79 | 12.43 | 12.13 | 11.83 | 11.65 |
| 270.0 | 14.16 | 13.44 | 12.79 | 12.13 | 11.71 | 11.29 | 10.99 | 10.70 | 10.46 |
| 315.0 | 15.83 | 15.06 | 14.52 | 13.98 | 13.56 | 13.21 | 12.91 | 12.61 | 12.37 |
| 360.0 | 16.55 | 15.72 | 15.12 | 14.58 | 14.10 | 13.74 | 13.38 | 13.03 | 12.79 |

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 | 12.61 | 12.37 | 12.13 | 12.01 | 11.83 | 11.65 | 11.47 | 11.35 | 11.29 |
| 45.0 | 11.89 | 11.77 | 11.59 | 11.47 | 11.35 | 11.23 | 11.11 | 11.05 | 10.88 |
| 90.0 | 10.04 | 9.92 | 9.86 | 9.74 | 9.68 | 9.56 | 9.50 | 9.44 | 9.44 |
| 135.0 | 11.17 | 10.99 | 10.82 | 10.70 | 10.58 | 10.40 | 10.28 | 10.22 | 10.10 |
| 180.0 | 11.05 | 10.82 | 10.70 | 10.58 | 10.46 | 10.34 | 10.16 | 10.04 | 9.86 |
| 225.0 | 11.41 | 11.23 | 11.11 | 10.93 | 10.82 | 10.64 | 10.58 | 10.40 | 10.34 |
| 270.0 | 10.28 | 10.16 | 9.98 | 9.86 | 9.80 | 9.68 | 9.62 | 9.56 | 9.50 |
| 315.0 | 12.19 | 12.01 | 11.89 | 11.77 | 11.65 | 11.53 | 11.41 | 11.29 | 11.17 |
| 360.0 | 12.61 | 12.37 | 12.13 | 12.01 | 11.83 | 11.65 | 11.47 | 11.35 | 11.29 |
| C/γ(°) | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 | 60.0 | 61.0 | 62.0 |
| 0.0 | 11.29 | 11.35 | 11.35 | 11.47 | 11.65 | 11.83 | 12.07 | 12.25 | 12.37 |
| 45.0 | 10.76 | 10.76 | 10.64 | 10.58 | 10.64 | 10.58 | 10.58 | 10.58 | 10.64 |
| 90.0 | 9.38 | 9.38 | 9.32 | 9.26 | 9.26 | 9.26 | 9.26 | 9.20 | 9.14 |
| 135.0 | 10.04 | 9.92 | 9.86 | 9.80 | 9.74 | 9.68 | 9.62 | 9.56 | 9.50 |
| 180.0 | 9.86 | 9.86 | 9.92 | 10.10 | 10.22 | 10.28 | 10.28 | 10.28 | 10.22 |
| 225.0 | 10.22 | 10.16 | 10.10 | 10.04 | 9.92 | 9.86 | 9.86 | 9.86 | 9.86 |
| 270.0 | 9.50 | 9.44 | 9.38 | 9.38 | 9.32 | 9.32 | 9.32 | 9.32 | 9.32 |
| 315.0 | 11.11 | 10.99 | 10.93 | 10.82 | 10.76 | 10.70 | 10.58 | 10.52 | 10.46 |
| 360.0 | 11.29 | 11.35 | 11.35 | 11.47 | 11.65 | 11.83 | 12.07 | 12.25 | 12.37 |
| C/γ(°) | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 | 70.0 | 71.0 |
| 0.0 | 12.55 | 12.79 | 12.61 | 12.49 | 12.61 | 12.67 | 12.73 | 12.67 | 12.49 |
| 45.0 | 10.70 | 10.70 | 10.88 | 10.88 | 10.93 | 10.88 | 10.76 | 10.64 | 10.52 |
| 90.0 | 9.14 | 9.14 | 9.08 | 8.96 | 8.96 | 8.90 | 8.90 | 8.84 | 8.78 |
| 135.0 | 9.44 | 9.38 | 9.32 | 9.26 | 9.26 | 9.14 | 9.14 | 9.14 | 9.02 |
| 180.0 | 10.28 | 10.28 | 10.28 | 10.22 | 10.04 | 9.86 | 9.50 | 9.08 | 8.90 |
| 225.0 | 9.80 | 9.86 | 9.92 | 9.92 | 9.92 | 9.86 | 9.74 | 9.62 | 9.50 |
| 270.0 | 9.26 | 9.26 | 9.20 | 9.20 | 9.14 | 9.08 | 9.08 | 9.08 | 9.02 |
| 315.0 | 10.40 | 10.34 | 10.28 | 10.28 | 10.22 | 10.16 | 10.10 | 10.10 | 9.98 |
| 360.0 | 12.55 | 12.79 | 12.61 | 12.49 | 12.61 | 12.67 | 12.73 | 12.67 | 12.49 |
| C/γ(°) | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 | 80.0 |
| 0.0 | 12.25 | 11.89 | 11.41 | 10.70 | 9.86 | 9.14 | 9.02 | 8.90 | 8.78 |
| 45.0 | 10.34 | 10.16 | 9.98 | 9.74 | 9.56 | 9.20 | 9.02 | 8.84 | 8.66 |
| 90.0 | 8.78 | 8.72 | 8.66 | 8.60 | 8.48 | 8.43 | 8.37 | 8.31 | 8.19 |
| 135.0 | 8.96 | 8.90 | 8.78 | 8.72 | 8.60 | 8.54 | 8.48 | 8.37 | 8.31 |
| 180.0 | 8.72 | 8.60 | 8.54 | 8.43 | 8.25 | 8.19 | 8.07 | 8.01 | 7.89 |
| 225.0 | 9.38 | 9.20 | 9.08 | 8.96 | 8.78 | 8.72 | 8.66 | 8.54 | 8.43 |
| 270.0 | 8.96 | 9.02 | 8.96 | 8.90 | 8.84 | 8.78 | 8.72 | 8.60 | 8.54 |
| 315.0 | 9.92 | 9.86 | 9.74 | 9.62 | 9.56 | 9.44 | 9.32 | 9.26 | 9.14 |
| 360.0 | 12.25 | 11.89 | 11.41 | 10.70 | 9.86 | 9.14 | 9.02 | 8.90 | 8.78 |
| C/γ(°) | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
| 0.0 | 8.72 | 8.54 | 8.54 | 8.60 | 8.54 | 8.66 | 7.83 | 7.47 | 7.35 |
| 45.0 | 8.54 | 8.43 | 8.37 | 8.31 | 7.95 | 7.53 | 7.47 | 7.41 | 7.35 |
| 90.0 | 8.13 | 8.07 | 8.01 | 7.89 | 7.59 | 7.47 | 7.41 | 7.41 | 7.35 |
| 135.0 | 8.19 | 8.13 | 8.07 | 7.95 | 7.71 | 7.53 | 7.53 | 7.47 | 7.41 |
| 180.0 | 7.83 | 7.83 | 7.77 | 7.71 | 7.47 | 7.35 | 7.29 | 7.29 | 7.23 |
| 225.0 | 8.31 | 8.19 | 8.13 | 8.07 | 8.01 | 7.95 | 7.65 | 7.53 | 7.47 |
| 270.0 | 8.43 | 8.43 | 8.43 | 8.37 | 8.43 | 8.43 | 7.65 | 7.53 | 7.41 |
| 315.0 | 9.14 | 9.08 | 9.02 | 9.08 | 9.14 | 9.02 | 7.71 | 7.53 | 7.47 |
| 360.0 | 8.72 | 8.54 | 8.54 | 8.60 | 8.54 | 8.66 | 7.83 | 7.47 | 7.35 |

Intensity data(cd)

| | |
|--------|------|
| C/γ(°) | 90.0 |
| 0.0 | 7.35 |
| 45.0 | 7.35 |
| 90.0 | 7.35 |
| 135.0 | 7.29 |
| 180.0 | 7.23 |
| 225.0 | 7.47 |
| 270.0 | 7.41 |
| 315.0 | 7.35 |
| 360.0 | 7.35 |