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NT

Client:

LumCAT: 2-2642-L

Luminaire: 92.70.412.00

Report No: 20231116-B019

Ballast type: AC

Test No: 20231116-C019

Voltage(V): 34.610

LampCAT: Fortimo\_SLM\_C\_1210

Current(A): 0.720

Lamp flux(lm): 4030.4

Power (W): 24.919

Number of Lamps: 1

PF: 0.000

Length(mm): 0

Width(mm): 0

Phm Type: C

Height(mm): 0

### Photometric Results

Lumens(lm): 3735.66, Efficiency(%): 92.69% , Luminous Efficacy(lm/W): 149.91

Central intensity(cd): 5758.158, Maximum intensity(cd): 5758.158

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=48.6

[C90/270]Total=48.6

Field angle(10%Imax): [C0/180]Total=72.8

[C90/270]Total=72.8

Maximum s/h(1/2): C0\_180=0.77 C90\_270=0.77

Maximum s/h(1/4): C0\_180=0.76 C90\_270=0.76

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 92.69%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 97.928%

Equipment: GMS1980  
Temperature(°C): 0.0

Date: 2023/11/16  
Humidity(%): 0.0%

Operator: NT07  
Distance(m): 7.44

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 5758.158      | 0.000       | 0         | 0.00%       | 0.00%      |
| 1.0                | 5757.259      | 5.510       | 5.51      | 0.14%       | 0.15%      |
| 2.0                | 5753.522      | 16.521      | 22.031    | 0.41%       | 0.59%      |
| 3.0                | 5740.653      | 27.490      | 49.522    | 0.68%       | 1.33%      |
| 4.0                | 5715.882      | 38.349      | 87.87     | 0.95%       | 2.35%      |
| 5.0                | 5676.719      | 49.010      | 136.881   | 1.22%       | 3.66%      |
| 6.0                | 5626.140      | 59.400      | 196.28    | 1.47%       | 5.25%      |
| 7.0                | 5558.885      | 69.425      | 265.705   | 1.72%       | 7.11%      |
| 8.0                | 5478.069      | 78.989      | 344.695   | 1.96%       | 9.23%      |
| 9.0                | 5366.116      | 87.886      | 432.581   | 2.18%       | 11.58%     |
| 10.0               | 5255.132      | 96.118      | 528.699   | 2.38%       | 14.15%     |
| 11.0               | 5123.875      | 103.708     | 632.407   | 2.57%       | 16.93%     |
| 12.0               | 4983.485      | 110.488     | 742.895   | 2.74%       | 19.89%     |
| 13.0               | 4831.539      | 116.480     | 859.375   | 2.89%       | 23.00%     |
| 14.0               | 4674.819      | 121.681     | 981.055   | 3.02%       | 26.26%     |
| 15.0               | 4532.076      | 126.396     | 1107.451  | 3.14%       | 29.65%     |
| 16.0               | 4371.066      | 130.456     | 1237.907  | 3.24%       | 33.14%     |
| 17.0               | 4211.371      | 133.652     | 1371.559  | 3.32%       | 36.72%     |
| 18.0               | 4045.864      | 136.144     | 1507.703  | 3.38%       | 40.36%     |
| 19.0               | 3884.024      | 137.964     | 1645.667  | 3.42%       | 44.05%     |
| 20.0               | 3704.955      | 138.899     | 1784.566  | 3.45%       | 47.77%     |
| 21.0               | 3521.873      | 138.770     | 1923.336  | 3.44%       | 51.49%     |
| 22.0               | 3323.984      | 137.570     | 2060.906  | 3.41%       | 55.17%     |
| 23.0               | 3137.373      | 135.577     | 2196.483  | 3.36%       | 58.80%     |
| 24.0               | 2945.988      | 133.004     | 2329.487  | 3.30%       | 62.36%     |
| 25.0               | 2740.626      | 129.301     | 2458.788  | 3.21%       | 65.82%     |
| 26.0               | 2535.195      | 124.536     | 2583.324  | 3.09%       | 69.15%     |
| 27.0               | 2333.085      | 119.104     | 2702.428  | 2.96%       | 72.34%     |
| 28.0               | 2130.007      | 112.996     | 2815.424  | 2.80%       | 75.37%     |
| 29.0               | 1924.299      | 106.072     | 2921.496  | 2.63%       | 78.21%     |
| 30.0               | 1643.642      | 96.334      | 3017.83   | 2.39%       | 80.78%     |
| 31.0               | 1437.990      | 85.757      | 3103.587  | 2.13%       | 83.08%     |
| 32.0               | 1243.145      | 76.811      | 3180.398  | 1.91%       | 85.14%     |
| 33.0               | 1090.826      | 68.760      | 3249.158  | 1.71%       | 86.98%     |
| 34.0               | 921.174       | 60.889      | 3310.047  | 1.51%       | 88.61%     |
| 35.0               | 756.054       | 52.088      | 3362.136  | 1.29%       | 90.00%     |
| 36.0               | 625.482       | 43.988      | 3406.124  | 1.09%       | 91.18%     |
| 37.0               | 505.835       | 36.897      | 3443.021  | 0.92%       | 92.17%     |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0               | 398.145       | 30.174      | 3473.195  | 0.75%       | 92.97%     |
| 39.0               | 317.681       | 24.433      | 3497.628  | 0.61%       | 93.63%     |
| 40.0               | 267.019       | 20.392      | 3518.02   | 0.51%       | 94.17%     |
| 41.0               | 222.528       | 17.433      | 3535.453  | 0.43%       | 94.64%     |
| 42.0               | 188.057       | 14.917      | 3550.37   | 0.37%       | 95.04%     |
| 43.0               | 142.252       | 12.236      | 3562.606  | 0.30%       | 95.37%     |
| 44.0               | 121.633       | 9.960       | 3572.565  | 0.25%       | 95.63%     |
| 45.0               | 106.791       | 8.779       | 3581.344  | 0.22%       | 95.87%     |
| 46.0               | 94.509        | 7.872       | 3589.216  | 0.20%       | 96.08%     |
| 47.0               | 84.885        | 7.135       | 3596.351  | 0.18%       | 96.27%     |
| 48.0               | 77.094        | 6.548       | 3602.899  | 0.16%       | 96.45%     |
| 49.0               | 70.493        | 6.061       | 3608.96   | 0.15%       | 96.61%     |
| 50.0               | 64.757        | 5.639       | 3614.599  | 0.14%       | 96.76%     |
| 51.0               | 60.315        | 5.292       | 3619.891  | 0.13%       | 96.90%     |
| 52.0               | 56.364        | 5.007       | 3624.897  | 0.12%       | 97.03%     |
| 53.0               | 53.036        | 4.759       | 3629.656  | 0.12%       | 97.16%     |
| 54.0               | 50.102        | 4.546       | 3634.202  | 0.11%       | 97.28%     |
| 55.0               | 47.563        | 4.360       | 3638.562  | 0.11%       | 97.40%     |
| 56.0               | 45.252        | 4.194       | 3642.756  | 0.10%       | 97.51%     |
| 57.0               | 43.383        | 4.053       | 3646.808  | 0.10%       | 97.62%     |
| 58.0               | 41.564        | 3.928       | 3650.737  | 0.10%       | 97.73%     |
| 59.0               | 39.979        | 3.812       | 3654.549  | 0.09%       | 97.83%     |
| 60.0               | 38.547        | 3.710       | 3658.259  | 0.09%       | 97.93%     |
| 61.0               | 37.198        | 3.615       | 3661.873  | 0.09%       | 98.02%     |
| 62.0               | 35.994        | 3.527       | 3665.4    | 0.09%       | 98.12%     |
| 63.0               | 34.741        | 3.440       | 3668.84   | 0.09%       | 98.21%     |
| 64.0               | 33.662        | 3.357       | 3672.197  | 0.08%       | 98.30%     |
| 65.0               | 32.679        | 3.283       | 3675.48   | 0.08%       | 98.39%     |
| 66.0               | 31.697        | 3.212       | 3678.692  | 0.08%       | 98.47%     |
| 67.0               | 30.770        | 3.141       | 3681.833  | 0.08%       | 98.56%     |
| 68.0               | 29.822        | 3.069       | 3684.902  | 0.08%       | 98.64%     |
| 69.0               | 29.026        | 3.002       | 3687.904  | 0.07%       | 98.72%     |
| 70.0               | 28.147        | 2.936       | 3690.841  | 0.07%       | 98.80%     |
| 71.0               | 27.345        | 2.868       | 3693.709  | 0.07%       | 98.88%     |
| 72.0               | 26.487        | 2.799       | 3696.508  | 0.07%       | 98.95%     |
| 73.0               | 25.733        | 2.731       | 3699.239  | 0.07%       | 99.02%     |
| 74.0               | 24.971        | 2.666       | 3701.904  | 0.07%       | 99.10%     |
| 75.0               | 24.183        | 2.597       | 3704.501  | 0.06%       | 99.17%     |

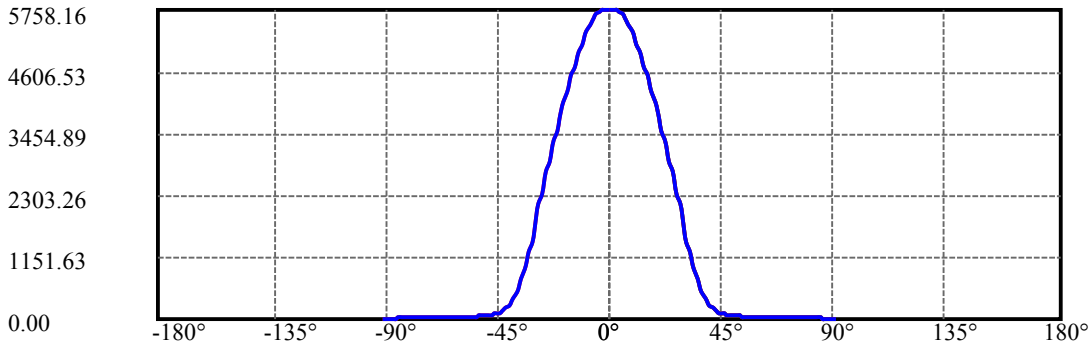
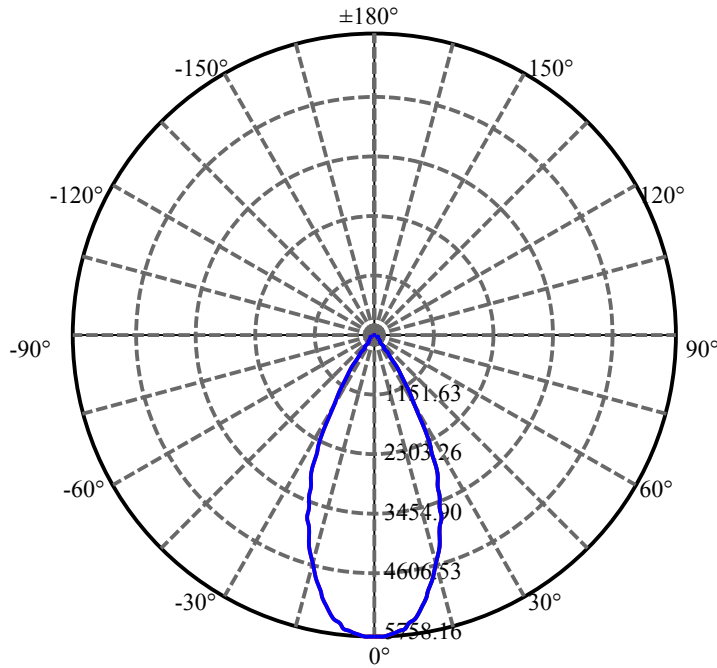
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0               | 23.373        | 2.524       | 3707.026  | 0.06%       | 99.23%     |
| 77.0               | 22.640        | 2.453       | 3709.479  | 0.06%       | 99.30%     |
| 78.0               | 21.927        | 2.386       | 3711.865  | 0.06%       | 99.36%     |
| 79.0               | 21.187        | 2.316       | 3714.181  | 0.06%       | 99.42%     |
| 80.0               | 20.446        | 2.245       | 3716.426  | 0.06%       | 99.49%     |
| 81.0               | 19.796        | 2.176       | 3718.602  | 0.05%       | 99.54%     |
| 82.0               | 19.111        | 2.110       | 3720.712  | 0.05%       | 99.60%     |
| 83.0               | 18.474        | 2.043       | 3722.755  | 0.05%       | 99.65%     |
| 84.0               | 17.941        | 1.984       | 3724.739  | 0.05%       | 99.71%     |
| 85.0               | 17.423        | 1.930       | 3726.669  | 0.05%       | 99.76%     |
| 86.0               | 16.966        | 1.880       | 3728.549  | 0.05%       | 99.81%     |
| 87.0               | 16.565        | 1.835       | 3730.384  | 0.05%       | 99.86%     |
| 88.0               | 16.163        | 1.793       | 3732.176  | 0.04%       | 99.91%     |
| 89.0               | 15.859        | 1.755       | 3733.932  | 0.04%       | 99.95%     |
| 90.0               | 15.700        | 1.730       | 3735.662  | 0.04%       | 100.00%    |

ZONAL LUMEN SUMMARY

| Zone    | Lumens  | %Lamp  | %Fixt   |
|---------|---------|--------|---------|
| 0-30    | 3017.83 | 74.88% | 80.78%  |
| 0-40    | 3518.02 | 87.29% | 94.17%  |
| 0-60    | 3658.26 | 90.77% | 97.93%  |
| 0-90    | 3733.93 | 92.64% | 99.95%  |
| 0-120   | 3733.93 | 92.64% | 99.95%  |
| 0-180   | 3735.66 | 92.69% | 100.00% |
| 60-90   | 75.67   | 1.88%  | 2.03%   |
| 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%   |
| 0-29.70 | 2988.53 | 74.15% | 80.00%  |

ZONAL LUMEN SUMMARY

|         |         |
|---------|---------|
| 0-10    | 528.70  |
| 10-20   | 1255.87 |
| 20-30   | 1233.26 |
| 30-40   | 500.19  |
| 40-50   | 96.58   |
| 50-60   | 43.66   |
| 60-70   | 32.58   |
| 70-80   | 25.58   |
| 80-90   | 17.51   |
| 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: —————

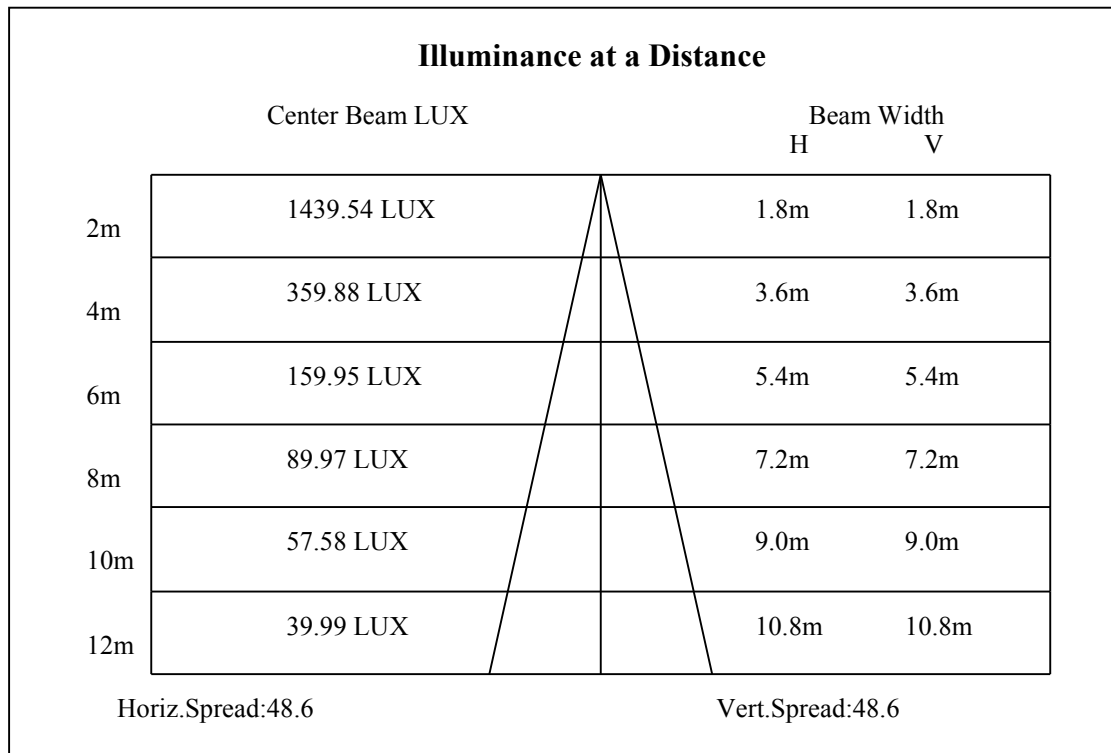
C90/C270: —————

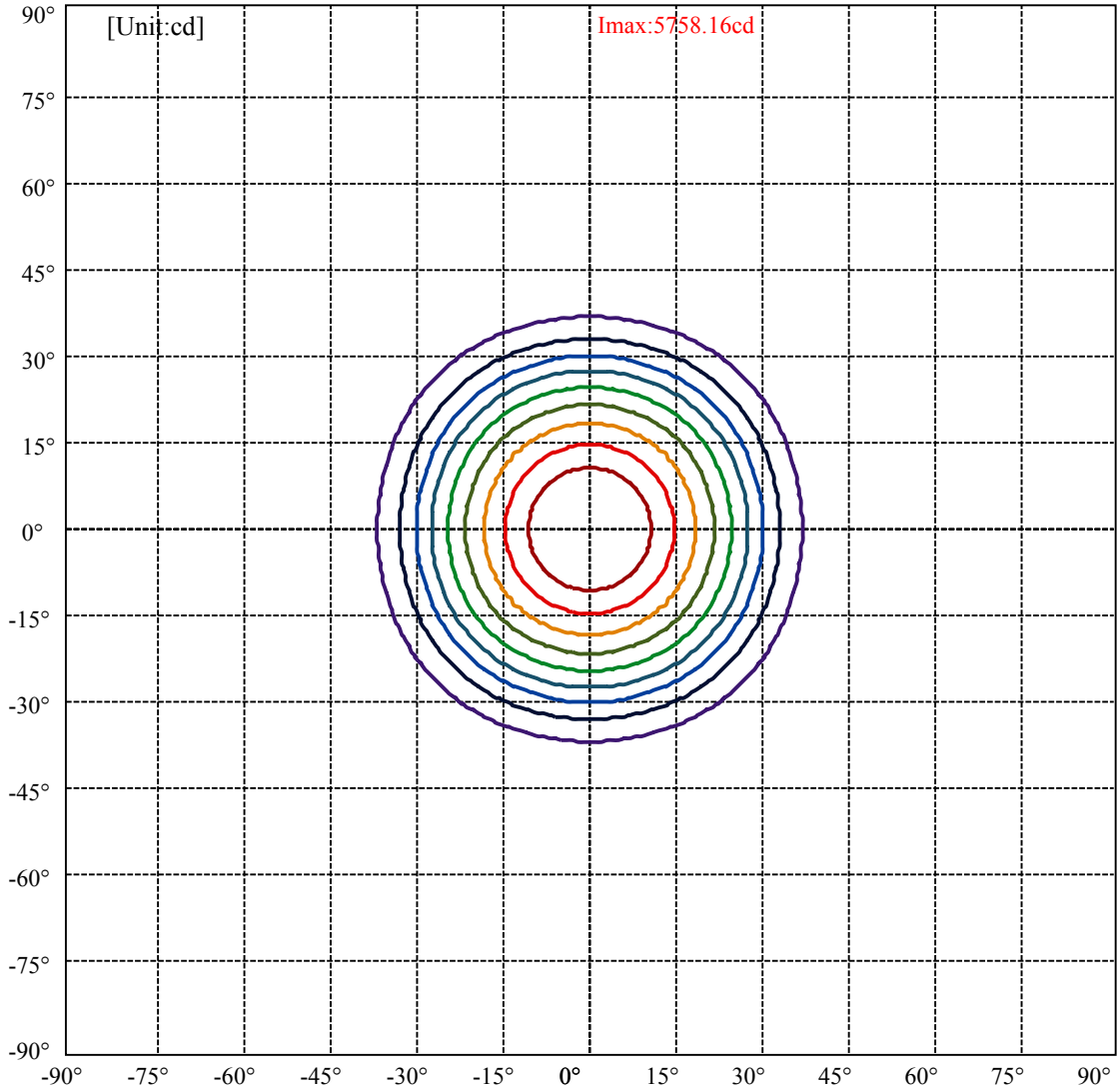
Field angle(10%Imax):C0/180Left:36.4 Right:36.4

:C90/270Left:36.4 Right:36.4

Beam Angle(50%Imax):C0/180Left:24.3 Right:24.3

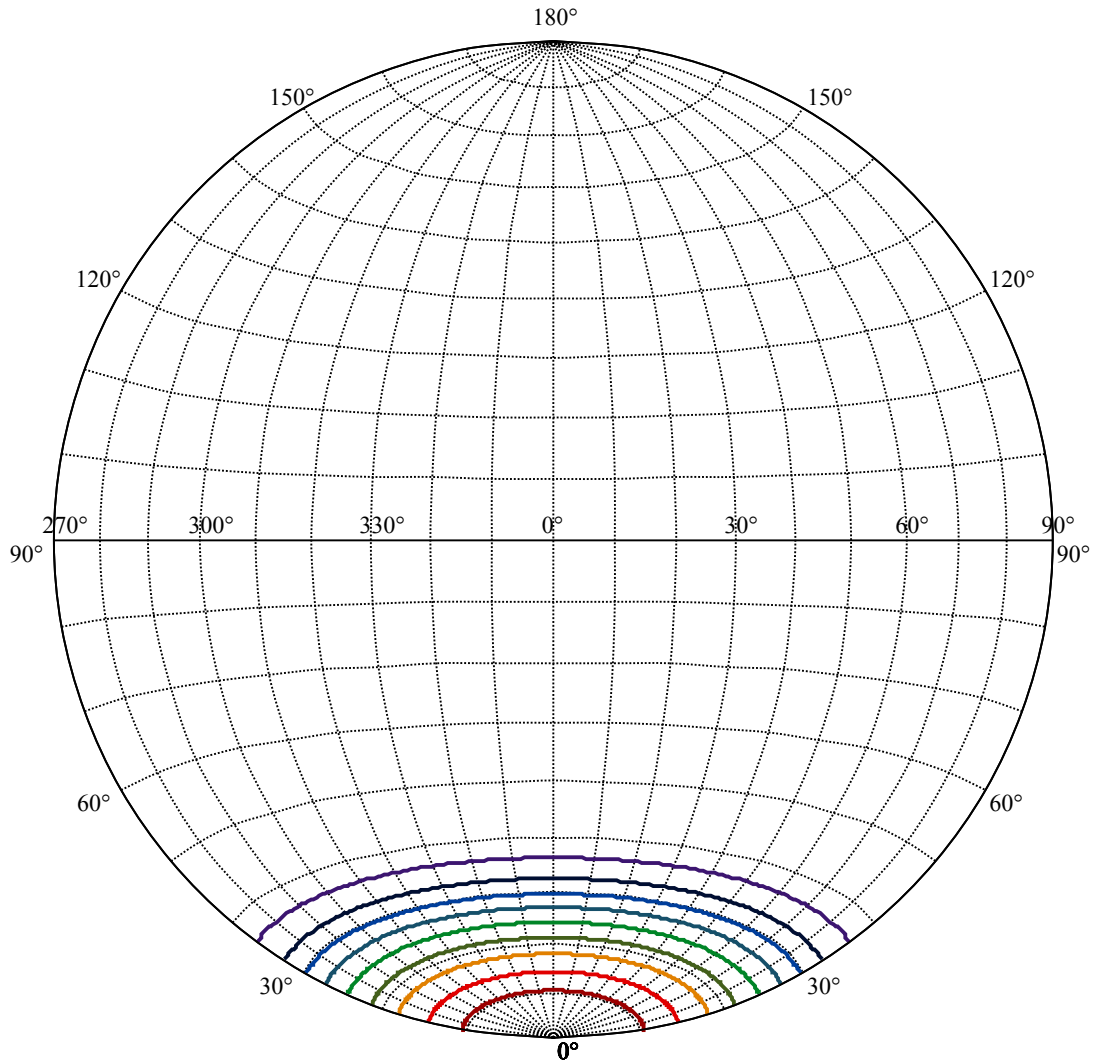
:C90/270Left:24.3 Right:24.3





|                   |   |
|-------------------|---|
| (10%Imax) 575.816 | — |
| (20%Imax) 1151.63 | — |
| (30%Imax) 1727.45 | — |
| (40%Imax) 2303.26 | — |
| (50%Imax) 2879.08 | — |
| (60%Imax) 3454.89 | — |
| (70%Imax) 4030.71 | — |
| (80%Imax) 4606.53 | — |
| (90%Imax) 5182.34 | — |





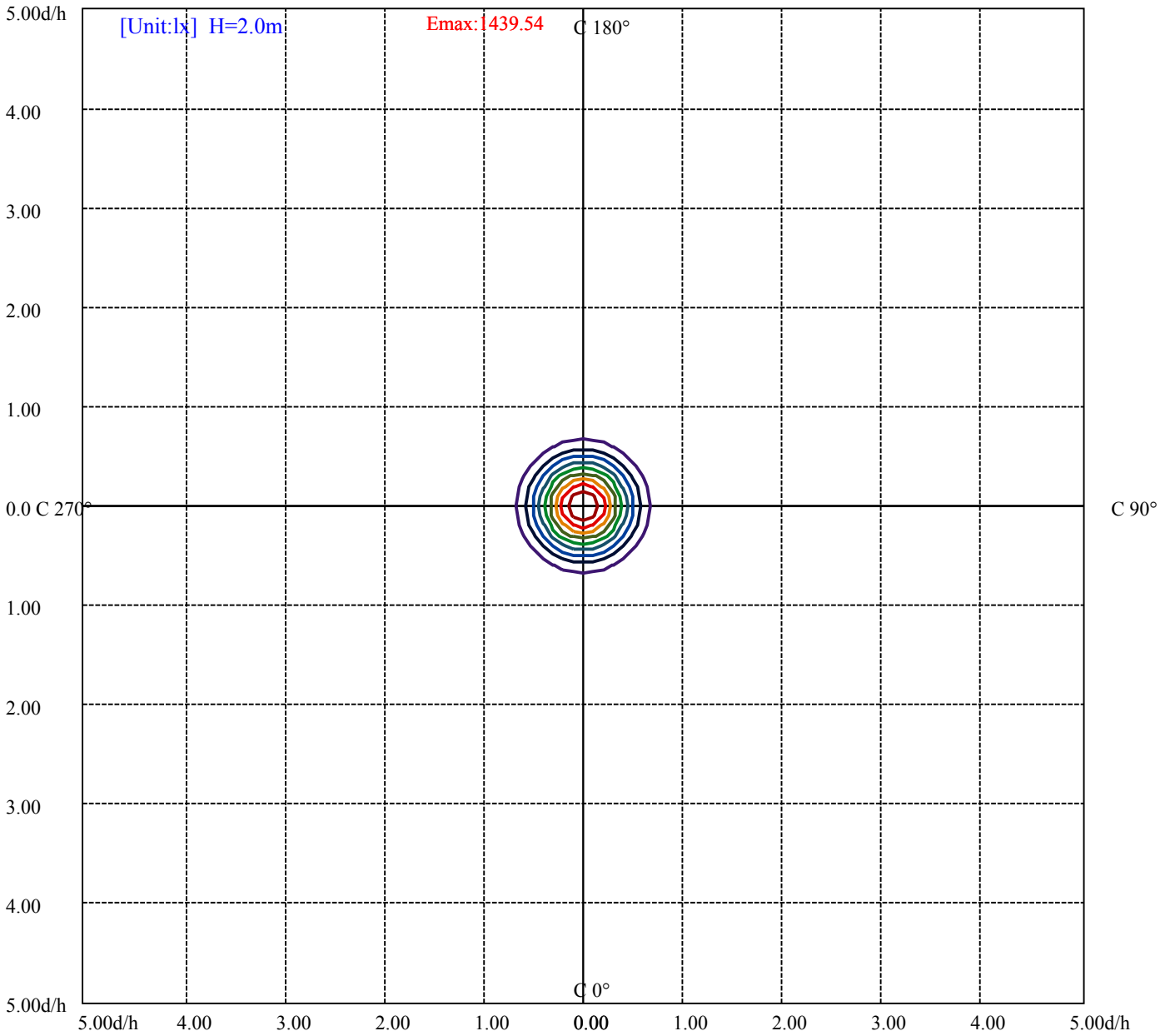
House

[Unit:cd]

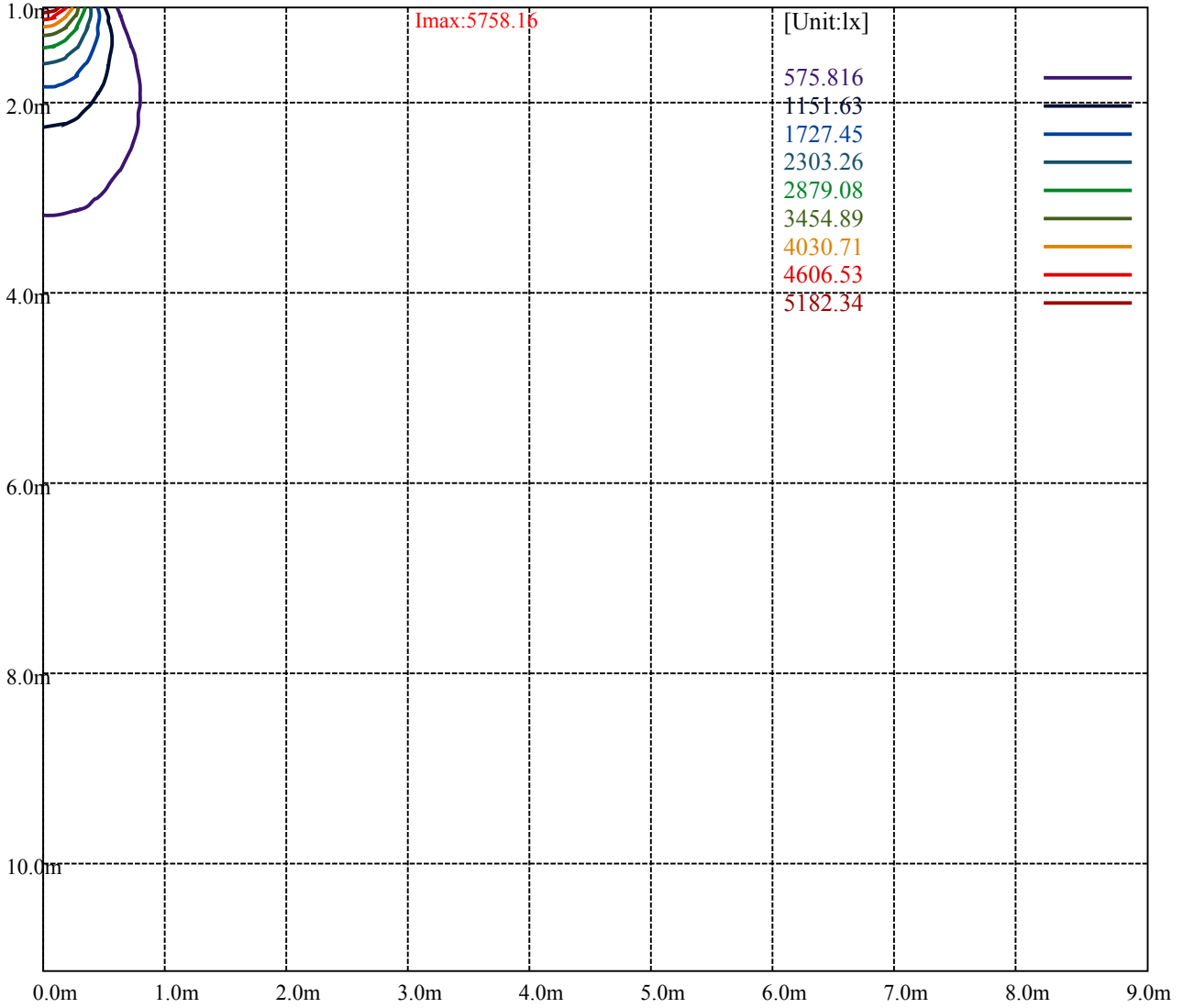
Road

**Imax:5758.16**

|           |         |   |
|-----------|---------|---|
| (10%Imax) | 575.816 | — |
| (20%Imax) | 1151.63 | — |
| (30%Imax) | 1727.45 | — |
| (40%Imax) | 2303.26 | — |
| (50%Imax) | 2879.08 | — |
| (60%Imax) | 3454.89 | — |
| (70%Imax) | 4030.71 | — |
| (80%Imax) | 4606.53 | — |
| (90%Imax) | 5182.34 | — |



- (10%Emax) 143.954
- (20%Emax) 287.9075
- (30%Emax) 431.8625
- (40%Emax) 575.815
- (50%Emax) 719.77
- (60%Emax) 863.7225
- (70%Emax) 1007.677
- (80%Emax) 1151.632
- (90%Emax) 1295.585



Luminance Table

| $\gamma$ | 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

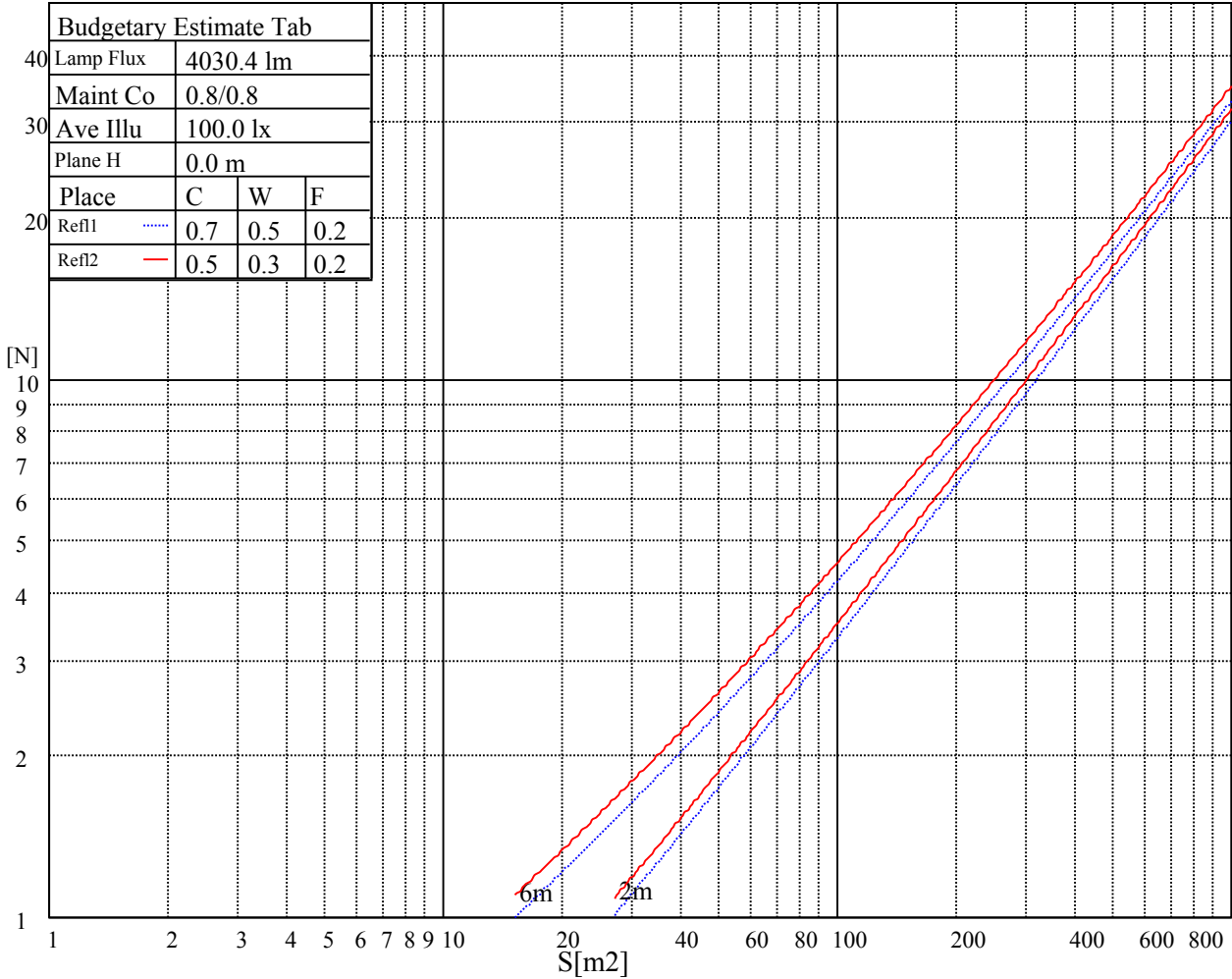
| Glare | Quality | Service Values Illuminance(lx) |      |      |       |       |       |       |       |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15  | A       | 2000                           | 1000 | 500  | <=300 |       |       |       |       |
| 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

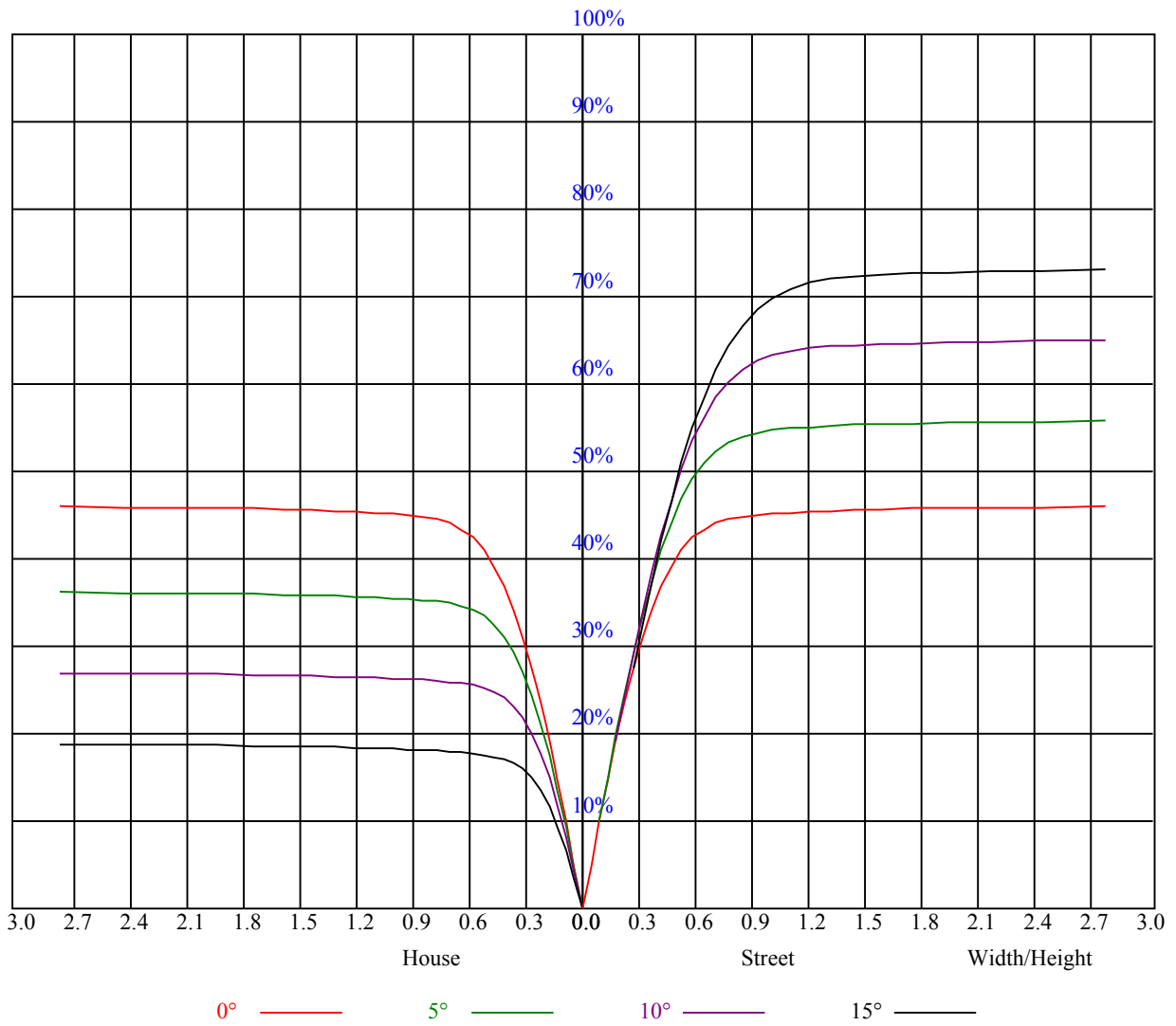


| Illumination assessment according UGR             |     |                  |     |     |     |     |                |     |     |     |     |
|---|-----|------------------|-----|-----|-----|-----|----------------|-----|-----|-----|-----|
| Rf of Ceiling                                     | 70  | 70               | 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 |
| 4H  | 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 |
|   | 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  | 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  | 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   | 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  | 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



| 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 RHOF=20 CU |      |      |      |      |      |      |      |      |      |      |      |      |      |      |      |
| 0     | 1.10                                   | 1.10 | 1.10 | 1.08 | 1.08 | 1.08 | 1.03 | 1.03 | 1.03 | 0.99 | 0.99 | 0.99 | 0.95 | 0.95 | 0.95 | 0.93 |
| 1     | 1.03                                   | 1.00 | 0.98 | 1.01 | 0.99 | 0.97 | 0.97 | 0.95 | 0.94 | 0.94 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 |
| 2     | 0.96                                   | 0.92 | 0.89 | 0.94 | 0.91 | 0.88 | 0.91 | 0.89 | 0.86 | 0.89 | 0.86 | 0.85 | 0.86 | 0.84 | 0.83 | 0.81 |
| 3     | 0.90                                   | 0.86 | 0.82 | 0.89 | 0.85 | 0.81 | 0.86 | 0.83 | 0.80 | 0.84 | 0.81 | 0.79 | 0.82 | 0.80 | 0.78 | 0.76 |
| 4     | 0.85                                   | 0.80 | 0.76 | 0.84 | 0.79 | 0.76 | 0.82 | 0.78 | 0.75 | 0.80 | 0.77 | 0.74 | 0.78 | 0.75 | 0.73 | 0.72 |
| 5     | 0.80                                   | 0.75 | 0.71 | 0.79 | 0.74 | 0.71 | 0.78 | 0.73 | 0.70 | 0.76 | 0.72 | 0.70 | 0.75 | 0.71 | 0.69 | 0.68 |
| 6     | 0.76                                   | 0.70 | 0.67 | 0.75 | 0.70 | 0.67 | 0.74 | 0.69 | 0.66 | 0.72 | 0.69 | 0.66 | 0.71 | 0.68 | 0.65 | 0.64 |
| 7     | 0.72                                   | 0.67 | 0.63 | 0.71 | 0.66 | 0.63 | 0.70 | 0.66 | 0.62 | 0.69 | 0.65 | 0.62 | 0.68 | 0.64 | 0.62 | 0.61 |
| 8     | 0.68                                   | 0.63 | 0.59 | 0.68 | 0.63 | 0.59 | 0.67 | 0.62 | 0.59 | 0.66 | 0.62 | 0.59 | 0.65 | 0.61 | 0.59 | 0.57 |
| 9     | 0.65                                   | 0.60 | 0.56 | 0.64 | 0.60 | 0.56 | 0.64 | 0.59 | 0.56 | 0.63 | 0.59 | 0.56 | 0.62 | 0.58 | 0.56 | 0.54 |
| 10    | 0.62                                   | 0.57 | 0.53 | 0.61 | 0.57 | 0.53 | 0.61 | 0.56 | 0.53 | 0.60 | 0.56 | 0.53 | 0.59 | 0.56 | 0.53 | 0.52 |





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    | 5740.72 | 5730.20 | 5705.85 | 5673.74 | 5625.03 | 5548.09 | 5482.22 | 5384.80 | 5258.59 |
| 45.0   | 5762.31 | 5755.11 | 5756.77 | 5748.47 | 5731.31 | 5701.42 | 5648.83 | 5569.68 | 5491.08 |
| 90.0   | 5767.29 | 5774.49 | 5787.77 | 5774.49 | 5754.01 | 5694.78 | 5652.71 | 5595.70 | 5500.49 |
| 135.0  | 5762.31 | 5783.34 | 5791.65 | 5808.81 | 5795.52 | 5773.93 | 5738.51 | 5679.83 | 5619.50 |
| 180.0  | 5740.72 | 5755.67 | 5774.49 | 5776.15 | 5780.02 | 5780.58 | 5757.88 | 5726.33 | 5683.71 |
| 225.0  | 5762.31 | 5765.63 | 5752.35 | 5736.29 | 5696.44 | 5662.12 | 5622.82 | 5544.77 | 5463.95 |
| 270.0  | 5767.29 | 5760.65 | 5745.15 | 5719.69 | 5705.30 | 5653.82 | 5592.93 | 5535.36 | 5456.20 |
| 315.0  | 5762.31 | 5732.97 | 5714.15 | 5687.58 | 5639.42 | 5599.02 | 5513.22 | 5434.62 | 5351.03 |
| 360.0  | 5740.72 | 5730.20 | 5705.85 | 5673.74 | 5625.03 | 5548.09 | 5482.22 | 5384.80 | 5258.59 |
| C/γ(°) | 9.0     | 10.0    | 11.0    | 12.0    | 13.0    | 14.0    | 15.0    | 16.0    | 17.0    |
| 0.0    | 5137.37 | 5024.45 | 4888.83 | 4717.23 | 4588.26 | 4454.86 | 4310.38 | 4126.61 | 3985.46 |
| 45.0   | 5400.30 | 5299.55 | 5146.78 | 5008.95 | 4837.90 | 4696.75 | 4558.92 | 4359.65 | 4212.41 |
| 90.0   | 5368.75 | 5255.27 | 5075.93 | 4927.58 | 4773.69 | 4593.80 | 4444.89 | 4278.28 | 4087.31 |
| 135.0  | 5509.90 | 5396.42 | 5284.05 | 5113.57 | 4963.56 | 4768.16 | 4629.22 | 4481.43 | 4286.03 |
| 180.0  | 5586.29 | 5491.08 | 5374.83 | 5247.52 | 5087.55 | 4953.59 | 4769.27 | 4613.17 | 4479.21 |
| 225.0  | 5363.76 | 5215.42 | 5091.98 | 4961.90 | 4821.30 | 4623.69 | 4490.28 | 4357.44 | 4211.30 |
| 270.0  | 5356.01 | 5255.82 | 5141.24 | 5031.64 | 4876.10 | 4736.05 | 4599.33 | 4469.25 | 4292.67 |
| 315.0  | 5206.56 | 5103.05 | 4987.36 | 4859.49 | 4703.95 | 4571.65 | 4454.30 | 4282.71 | 4136.57 |
| 360.0  | 5137.37 | 5024.45 | 4888.83 | 4717.23 | 4588.26 | 4454.86 | 4310.38 | 4126.61 | 3985.46 |
| C/γ(°) | 18.0    | 19.0    | 20.0    | 21.0    | 22.0    | 23.0    | 24.0    | 25.0    | 26.0    |
| 0.0    | 3796.70 | 3633.96 | 3461.81 | 3246.49 | 3068.25 | 2883.92 | 2697.38 | 2454.93 | 2265.07 |
| 45.0   | 4065.17 | 3907.96 | 3693.75 | 3515.51 | 3337.27 | 3160.14 | 2933.19 | 2741.66 | 2549.59 |
| 90.0   | 3927.34 | 3750.21 | 3566.99 | 3388.75 | 3145.19 | 2951.45 | 2756.06 | 2518.04 | 2325.40 |
| 135.0  | 4129.38 | 3974.39 | 3816.08 | 3591.90 | 3415.87 | 3230.99 | 3034.48 | 2790.93 | 2598.30 |
| 180.0  | 4286.58 | 4128.83 | 3974.39 | 3814.42 | 3591.90 | 3424.73 | 3248.15 | 3052.75 | 2820.82 |
| 225.0  | 4012.58 | 3867.56 | 3661.09 | 3486.17 | 3323.98 | 3104.23 | 2911.60 | 2738.34 | 2558.44 |
| 270.0  | 4149.86 | 4000.40 | 3817.74 | 3655.55 | 3454.06 | 3271.95 | 3097.03 | 2919.90 | 2686.86 |
| 315.0  | 3999.30 | 3808.88 | 3647.80 | 3476.21 | 3255.35 | 3071.57 | 2890.01 | 2708.45 | 2477.07 |
| 360.0  | 3796.70 | 3633.96 | 3461.81 | 3246.49 | 3068.25 | 2883.92 | 2697.38 | 2454.93 | 2265.07 |
| C/γ(°) | 27.0    | 28.0    | 29.0    | 30.0    | 31.0    | 32.0    | 33.0    | 34.0    | 35.0    |
| 0.0    | 2070.22 | 1872.61 | 1617.99 | 1073.20 | 1073.20 | 1028.64 | 821.39  | 675.04  | 519.60  |
| 45.0   | 2304.92 | 2110.63 | 1913.02 | 1665.59 | 1461.34 | 1263.17 | 1032.34 | 865.73  | 717.94  |
| 90.0   | 2128.90 | 1892.54 | 1697.69 | 1301.92 | 1077.62 | 1077.62 | 908.80  | 726.74  | 598.59  |
| 135.0  | 2401.24 | 2157.13 | 1965.61 | 1779.06 | 1538.83 | 1346.20 | 1161.87 | 947.10  | 793.22  |
| 180.0  | 2637.05 | 2457.15 | 2217.47 | 2021.51 | 1829.44 | 1585.33 | 1391.04 | 1206.71 | 993.60  |
| 225.0  | 2333.15 | 2144.40 | 1957.30 | 1768.55 | 1528.31 | 1067.83 | 1067.83 | 984.69  | 798.59  |
| 270.0  | 2508.07 | 2319.87 | 2134.43 | 1897.52 | 1703.78 | 1509.49 | 1318.52 | 1096.55 | 934.37  |
| 315.0  | 2281.12 | 2085.72 | 1890.88 | 1641.79 | 1291.40 | 1066.89 | 1024.82 | 866.84  | 692.53  |
| 360.0  | 2070.22 | 1872.61 | 1617.99 | 1073.20 | 1073.20 | 1028.64 | 821.39  | 675.04  | 519.60  |
| C/γ(°) | 36.0    | 37.0    | 38.0    | 39.0    | 40.0    | 41.0    | 42.0    | 43.0    | 44.0    |
| 0.0    | 419.14  | 338.16  | 259.11  | 213.11  | 177.85  | 150.56  | 124.55  | 109.27  | 97.03   |
| 45.0   | 586.75  | 450.02  | 361.46  | 290.61  | 290.61  | 182.78  | 154.82  | 132.63  | 112.15  |
| 90.0   | 487.28  | 395.11  | 301.95  | 245.22  | 202.15  | 169.94  | 139.55  | 121.39  | 104.45  |
| 135.0  | 654.83  | 533.06  | 406.85  | 327.14  | 293.93  | 293.93  | 169.77  | 144.42  | 124.60  |
| 180.0  | 837.50  | 696.35  | 543.02  | 438.95  | 353.16  | 284.52  | 284.52  | 178.02  | 150.17  |
| 225.0  | 661.70  | 544.18  | 418.53  | 335.77  | 256.18  | 209.13  | 173.81  | 147.35  | 123.11  |
| 270.0  | 787.68  | 624.94  | 515.90  | 397.44  | 322.71  | 291.71  | 291.71  | 169.77  | 144.09  |
| 315.0  | 568.98  | 464.86  | 378.34  | 293.21  | 239.57  | 197.67  | 165.73  | 135.17  | 117.46  |
| 360.0  | 419.14  | 338.16  | 259.11  | 213.11  | 177.85  | 150.56  | 124.55  | 109.27  | 97.03   |

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    | 87.35  | 77.66  | 71.41 | 66.04 | 60.39 | 56.68 | 53.58 | 50.15 | 47.77 |
| 45.0   | 99.75  | 89.67  | 79.60 | 72.96 | 67.31 | 61.39 | 57.51 | 54.30 | 50.76 |
| 90.0   | 93.77  | 85.13  | 76.17 | 70.35 | 65.43 | 60.17 | 56.68 | 53.64 | 50.87 |
| 135.0  | 106.83 | 95.65  | 86.52 | 77.22 | 70.96 | 64.54 | 60.34 | 56.79 | 53.75 |
| 180.0  | 129.03 | 109.82 | 97.92 | 88.23 | 78.55 | 72.13 | 65.37 | 60.89 | 57.07 |
| 225.0  | 108.71 | 97.31  | 88.01 | 78.49 | 72.29 | 66.87 | 62.22 | 57.29 | 54.03 |
| 270.0  | 124.77 | 107.33 | 96.48 | 87.46 | 80.21 | 72.40 | 67.14 | 62.55 | 57.73 |
| 315.0  | 104.12 | 93.49  | 82.98 | 76.00 | 68.80 | 63.88 | 59.67 | 55.30 | 52.31 |
| 360.0  | 87.35  | 77.66  | 71.41 | 66.04 | 60.39 | 56.68 | 53.58 | 50.15 | 47.77 |
| C/γ(°) | 54.0   | 55.0   | 56.0  | 57.0  | 58.0  | 59.0  | 60.0  | 61.0  | 62.0  |
| 0.0    | 45.17  | 43.29  | 41.63 | 40.13 | 38.42 | 37.20 | 36.09 | 35.04 | 33.82 |
| 45.0   | 48.32  | 46.11  | 44.17 | 42.07 | 40.52 | 39.13 | 37.92 | 36.37 | 35.32 |
| 90.0   | 48.38  | 45.72  | 43.78 | 42.12 | 40.13 | 38.80 | 37.53 | 36.42 | 35.04 |
| 135.0  | 50.43  | 48.05  | 45.94 | 44.12 | 41.96 | 40.41 | 38.97 | 37.36 | 36.15 |
| 180.0  | 53.86  | 50.32  | 47.94 | 45.83 | 43.95 | 41.90 | 40.41 | 38.91 | 37.70 |
| 225.0  | 50.54  | 48.05  | 45.39 | 43.62 | 41.90 | 40.35 | 38.69 | 37.36 | 36.26 |
| 270.0  | 54.47  | 51.64  | 48.43 | 46.28 | 44.34 | 42.18 | 40.63 | 39.19 | 37.86 |
| 315.0  | 49.65  | 47.33  | 44.73 | 42.90 | 41.29 | 39.85 | 38.14 | 36.92 | 35.81 |
| 360.0  | 45.17  | 43.29  | 41.63 | 40.13 | 38.42 | 37.20 | 36.09 | 35.04 | 33.82 |
| C/γ(°) | 63.0   | 64.0   | 65.0  | 66.0  | 67.0  | 68.0  | 69.0  | 70.0  | 71.0  |
| 0.0    | 32.94  | 32.05  | 31.22 | 30.22 | 29.39 | 28.45 | 27.68 | 26.96 | 26.02 |
| 45.0   | 34.10  | 33.16  | 32.27 | 31.16 | 30.44 | 29.67 | 28.89 | 27.90 | 27.18 |
| 90.0   | 33.82  | 32.82  | 31.88 | 31.05 | 30.17 | 29.17 | 28.34 | 27.62 | 26.85 |
| 135.0  | 35.09  | 33.88  | 32.94 | 32.05 | 30.94 | 30.11 | 29.28 | 28.45 | 27.57 |
| 180.0  | 36.15  | 35.04  | 33.71 | 32.77 | 31.83 | 30.78 | 29.95 | 29.12 | 28.29 |
| 225.0  | 35.09  | 33.77  | 32.77 | 31.83 | 30.94 | 29.89 | 29.12 | 28.06 | 27.34 |
| 270.0  | 36.31  | 35.15  | 34.10 | 33.05 | 31.83 | 30.94 | 30.11 | 29.06 | 28.23 |
| 315.0  | 34.43  | 33.43  | 32.55 | 31.44 | 30.61 | 29.56 | 28.84 | 28.01 | 27.29 |
| 360.0  | 32.94  | 32.05  | 31.22 | 30.22 | 29.39 | 28.45 | 27.68 | 26.96 | 26.02 |
| C/γ(°) | 72.0   | 73.0   | 74.0  | 75.0  | 76.0  | 77.0  | 78.0  | 79.0  | 80.0  |
| 0.0    | 25.30  | 24.63  | 23.97 | 23.08 | 22.42 | 21.70 | 21.09 | 20.26 | 19.65 |
| 45.0   | 26.40  | 25.68  | 24.80 | 24.08 | 23.36 | 22.53 | 21.81 | 21.15 | 20.37 |
| 90.0   | 25.91  | 25.19  | 24.47 | 23.58 | 22.86 | 22.03 | 21.31 | 20.65 | 19.82 |
| 135.0  | 26.79  | 26.07  | 25.30 | 24.41 | 23.75 | 23.03 | 22.20 | 21.48 | 20.65 |
| 180.0  | 27.34  | 26.57  | 25.85 | 25.08 | 24.13 | 23.47 | 22.75 | 21.86 | 21.20 |
| 225.0  | 26.57  | 25.63  | 24.85 | 24.13 | 23.25 | 22.53 | 21.86 | 21.20 | 20.54 |
| 270.0  | 27.29  | 26.51  | 25.74 | 24.96 | 24.02 | 23.30 | 22.58 | 21.92 | 21.03 |
| 315.0  | 26.29  | 25.57  | 24.80 | 24.13 | 23.19 | 22.53 | 21.81 | 20.98 | 20.31 |
| 360.0  | 25.30  | 24.63  | 23.97 | 23.08 | 22.42 | 21.70 | 21.09 | 20.26 | 19.65 |
| C/γ(°) | 81.0   | 82.0   | 83.0  | 84.0  | 85.0  | 86.0  | 87.0  | 88.0  | 89.0  |
| 0.0    | 19.04  | 18.43  | 17.88 | 17.44 | 16.94 | 16.55 | 16.16 | 15.72 | 15.78 |
| 45.0   | 19.71  | 18.99  | 18.32 | 17.88 | 17.38 | 16.88 | 16.44 | 16.11 | 15.72 |
| 90.0   | 19.21  | 18.65  | 18.05 | 17.49 | 17.05 | 16.61 | 16.22 | 15.83 | 15.67 |
| 135.0  | 19.98  | 19.32  | 18.54 | 18.05 | 17.49 | 17.05 | 16.66 | 16.22 | 15.83 |
| 180.0  | 20.54  | 19.76  | 19.04 | 18.43 | 17.88 | 17.38 | 16.94 | 16.50 | 16.11 |
| 225.0  | 19.76  | 19.04  | 18.49 | 17.93 | 17.49 | 16.99 | 16.61 | 16.22 | 15.89 |
| 270.0  | 20.37  | 19.65  | 18.99 | 18.38 | 17.77 | 17.33 | 16.88 | 16.44 | 16.05 |
| 315.0  | 19.76  | 19.04  | 18.49 | 17.93 | 17.38 | 16.94 | 16.61 | 16.27 | 15.83 |
| 360.0  | 19.04  | 18.43  | 17.88 | 17.44 | 16.94 | 16.55 | 16.16 | 15.72 | 15.78 |

Intensity data(cd)

|        |       |
|--------|-------|
| C/γ(°) | 90.0  |
| 0.0    | 15.78 |
| 45.0   | 15.67 |
| 90.0   | 15.61 |
| 135.0  | 15.67 |
| 180.0  | 15.72 |
| 225.0  | 15.67 |
| 270.0  | 15.72 |
| 315.0  | 15.78 |
| 360.0  | 15.78 |