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乐达凯

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Client:

LumCAT: SYDV2107LAJUDBK

Luminaire: LED lamp

Report No:

Ballast type:

Test No:

Voltage(V): 119.980

LampCAT:

Current(A): 0.171

Lamp flux(lm): 1292.0

Power (W): 20.310

Number of Lamps: 1

PF: 0.992

Length(mm): 520

Width(mm): 110

Phm Type: C

Height(mm): 80

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Photometric Results

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Lumens(lm): 1291.99, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 63.61

Central intensity(cd): 114.996, Maximum intensity(cd): 139.835

Angle of maximum intensity: C=45.0  $\gamma$ =40.0

Beam Angle(50%Imax): [C0/180]Total=323.0

[C90/270]Total=293.8

Field angle(10%Imax): [C0/180]Total=N.A.

[C90/270]Total=N.A.

Maximum s/h(1/2): C0\_180=1.78 C90\_270=1.81

Maximum s/h(1/4): C0\_180=1.90 C90\_270=1.95

Up flux rate of lamp(%): 40.79%

Down flux rate of lamp(%): 59.21%

Up flux rate of LUM(%): 40.79%

Down flux rate of LUM(%): 59.21%

CIE Type : General diffuse lighting

Output flux ratio in  $\pi$  solid angle : 32.553%

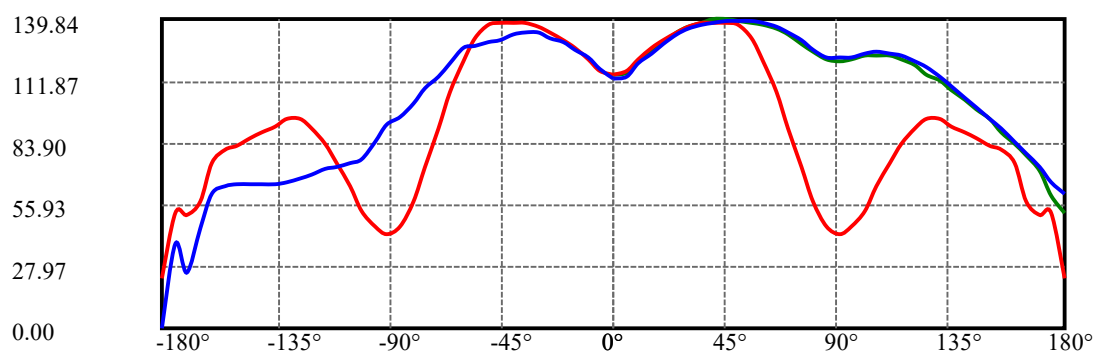
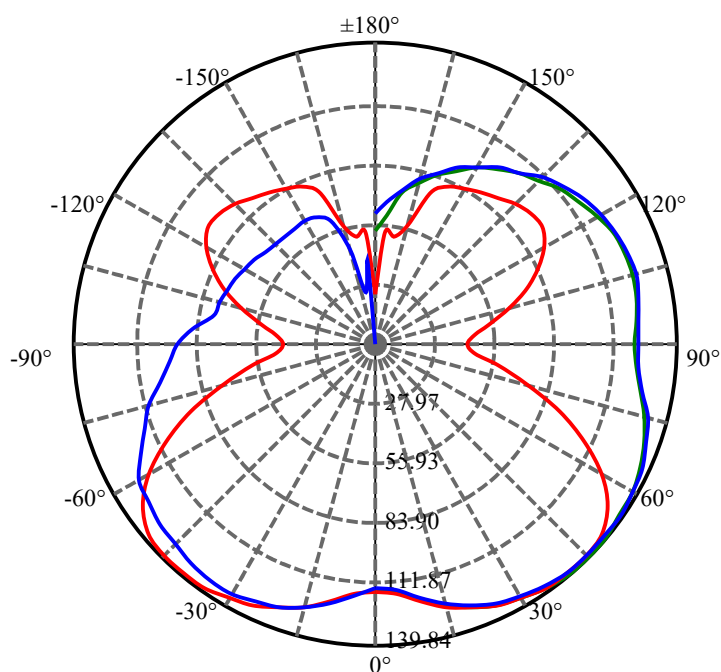
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 114.153       | 0.000       | 0         | 0.00%       | 0.00%      |
| 5.0                | 116.491       | 2.757       | 2.757     | 0.21%       | 0.21%      |
| 10.0               | 121.474       | 8.513       | 11.27     | 0.66%       | 0.87%      |
| 15.0               | 126.151       | 14.689      | 25.959    | 1.14%       | 2.01%      |
| 20.0               | 130.061       | 21.115      | 47.074    | 1.63%       | 3.64%      |
| 25.0               | 133.204       | 27.612      | 74.686    | 2.14%       | 5.78%      |
| 30.0               | 135.466       | 34.000      | 108.686   | 2.63%       | 8.41%      |
| 35.0               | 136.769       | 40.088      | 148.775   | 3.10%       | 11.52%     |
| 40.0               | 137.305       | 45.727      | 194.502   | 3.54%       | 15.05%     |
| 45.0               | 136.999       | 50.790      | 245.292   | 3.93%       | 18.99%     |
| 50.0               | 136.309       | 55.226      | 300.517   | 4.27%       | 23.26%     |
| 55.0               | 134.277       | 58.834      | 359.352   | 4.55%       | 27.81%     |
| 60.0               | 130.597       | 61.225      | 420.577   | 4.74%       | 32.55%     |
| 65.0               | 125.078       | 62.155      | 482.732   | 4.81%       | 37.36%     |
| 70.0               | 118.293       | 61.623      | 544.355   | 4.77%       | 42.13%     |
| 75.0               | 110.243       | 59.736      | 604.09    | 4.62%       | 46.76%     |
| 80.0               | 101.925       | 56.770      | 660.861   | 4.39%       | 51.15%     |
| 85.0               | 94.872        | 53.474      | 714.335   | 4.14%       | 55.29%     |
| 90.0               | 90.272        | 50.694      | 765.029   | 3.92%       | 59.21%     |
| 95.0               | 87.167        | 48.584      | 813.613   | 3.76%       | 62.97%     |
| 100.0              | 86.439        | 47.173      | 860.786   | 3.65%       | 66.62%     |
| 105.0              | 86.554        | 46.288      | 907.074   | 3.58%       | 70.21%     |
| 110.0              | 86.975        | 45.358      | 952.432   | 3.51%       | 73.72%     |
| 115.0              | 87.512        | 44.181      | 996.613   | 3.42%       | 77.14%     |
| 120.0              | 87.742        | 42.605      | 1039.218  | 3.30%       | 80.44%     |
| 125.0              | 87.435        | 40.492      | 1079.71   | 3.13%       | 83.57%     |
| 130.0              | 86.094        | 37.731      | 1117.441  | 2.92%       | 86.49%     |
| 135.0              | 84.254        | 34.421      | 1151.862  | 2.66%       | 89.15%     |
| 140.0              | 82.491        | 30.874      | 1182.736  | 2.39%       | 91.54%     |
| 145.0              | 80.881        | 27.257      | 1209.993  | 2.11%       | 93.65%     |
| 150.0              | 79.002        | 23.544      | 1233.537  | 1.82%       | 95.48%     |
| 155.0              | 76.741        | 19.709      | 1253.247  | 1.53%       | 97.00%     |
| 160.0              | 72.179        | 15.619      | 1268.866  | 1.21%       | 98.21%     |
| 165.0              | 63.056        | 11.145      | 1280.011  | 0.86%       | 99.07%     |
| 170.0              | 56.233        | 7.076       | 1287.087  | 0.55%       | 99.62%     |
| 175.0              | 53.780        | 3.936       | 1291.023  | 0.30%       | 99.92%     |
| 180.0              | 27.407        | 0.971       | 1291.993  | 0.08%       | 100.00%    |

## ZONAL LUMEN SUMMARY

| Zone     | Lumens  | %Lamp   | %Fixt   |
|----------|---------|---------|---------|
| 0-30     | 108.69  | 8.41%   | 8.41%   |
| 0-40     | 194.50  | 15.05%  | 15.05%  |
| 0-60     | 420.58  | 32.55%  | 32.55%  |
| 0-90     | 765.03  | 59.21%  | 59.21%  |
| 0-120    | 1039.22 | 80.44%  | 80.44%  |
| 0-180    | 1291.99 | 100.00% | 100.00% |
| 60-90    | 344.45  | 26.66%  | 26.66%  |
| 90-120   | 274.19  | 21.22%  | 21.22%  |
| 90-130   | 352.41  | 27.28%  | 27.28%  |
| 90-150   | 468.51  | 36.26%  | 36.26%  |
| 90-180   | 525.99  | 40.71%  | 40.71%  |
| 0-119.34 | 1033.59 | 80.00%  | 80.00%  |

## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 11.27  |
| 10-20   | 35.80  |
| 20-30   | 61.61  |
| 30-40   | 85.82  |
| 40-50   | 106.02 |
| 50-60   | 120.06 |
| 60-70   | 123.78 |
| 70-80   | 116.51 |
| 80-90   | 104.17 |
| 90-100  | 95.76  |
| 100-110 | 91.65  |
| 110-120 | 86.79  |
| 120-130 | 78.22  |
| 130-140 | 65.30  |
| 140-150 | 50.80  |
| 150-160 | 35.33  |
| 160-170 | 18.22  |
| 170-180 | 3.94   |



C45(Max): —————

C0/C180: —————

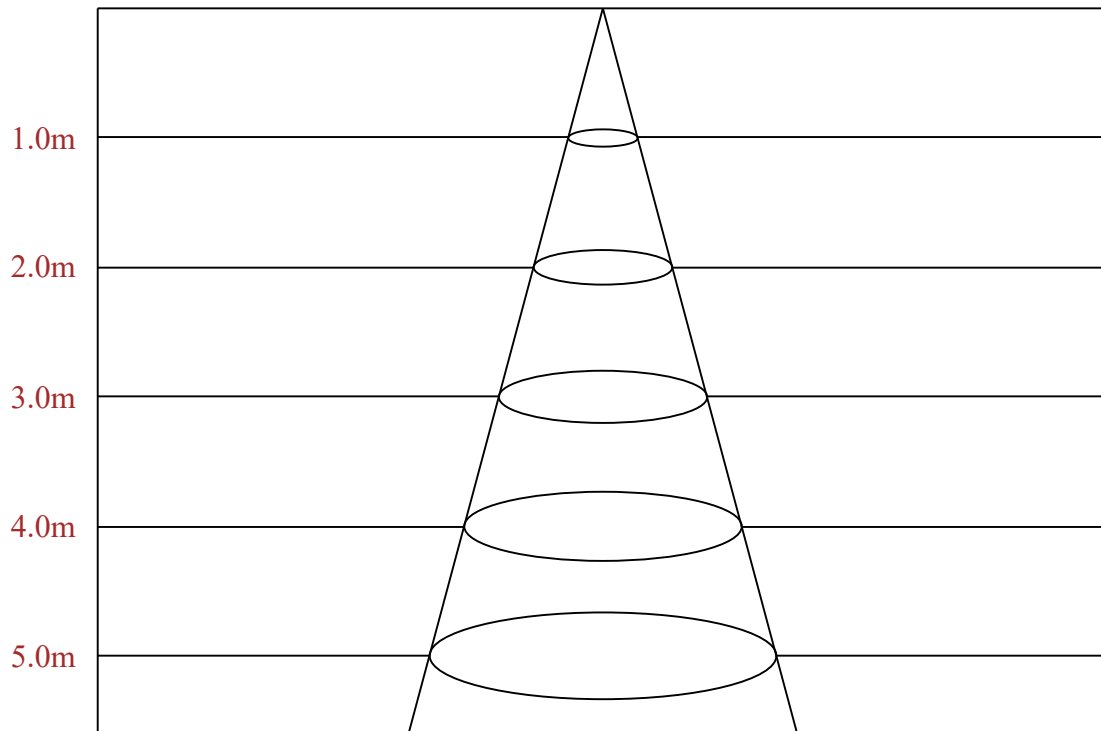
C90/C270: —————

Field angle(10%Imax):C0/180Left:0.0 Right:0.0

:C90/270Left:0.0 Right:0.0

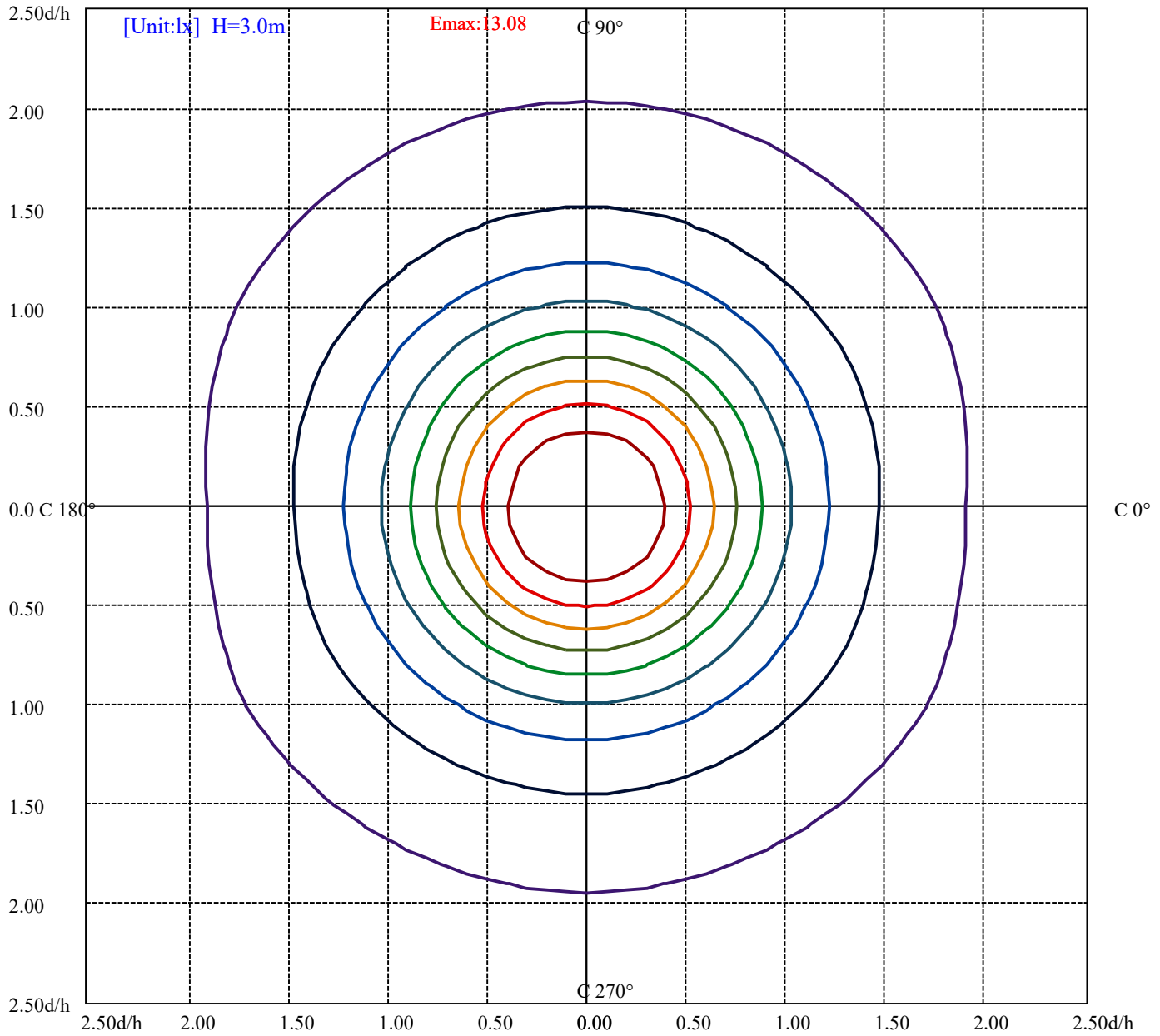
Beam Angle(50%Imax):C0/180Left:206.5 Right:116.5

:C90/270Left:176.3 Right:117.5

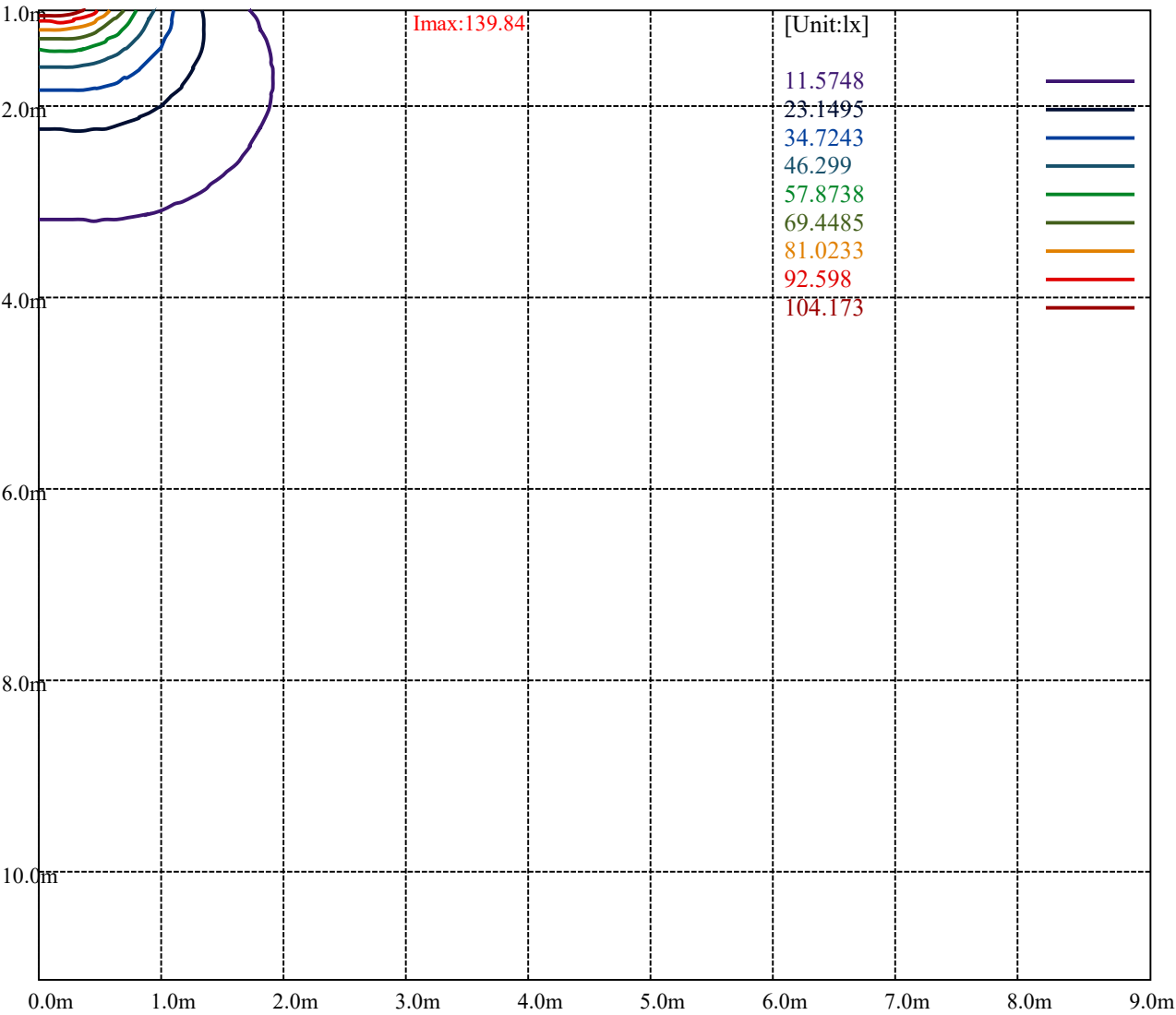


Max , Ave

Beam angle of C45 plane 274.15



|           |          |   |
|-----------|----------|---|
| (10%Emax) | 1.308356 | — |
| (20%Emax) | 2.616711 | — |
| (30%Emax) | 3.925067 | — |
| (40%Emax) | 5.233422 | — |
| (50%Emax) | 6.541778 | — |
| (60%Emax) | 7.850133 | — |
| (70%Emax) | 9.158489 | — |
| (80%Emax) | 10.46684 | — |
| (90%Emax) | 11.77522 | — |



Luminance Table

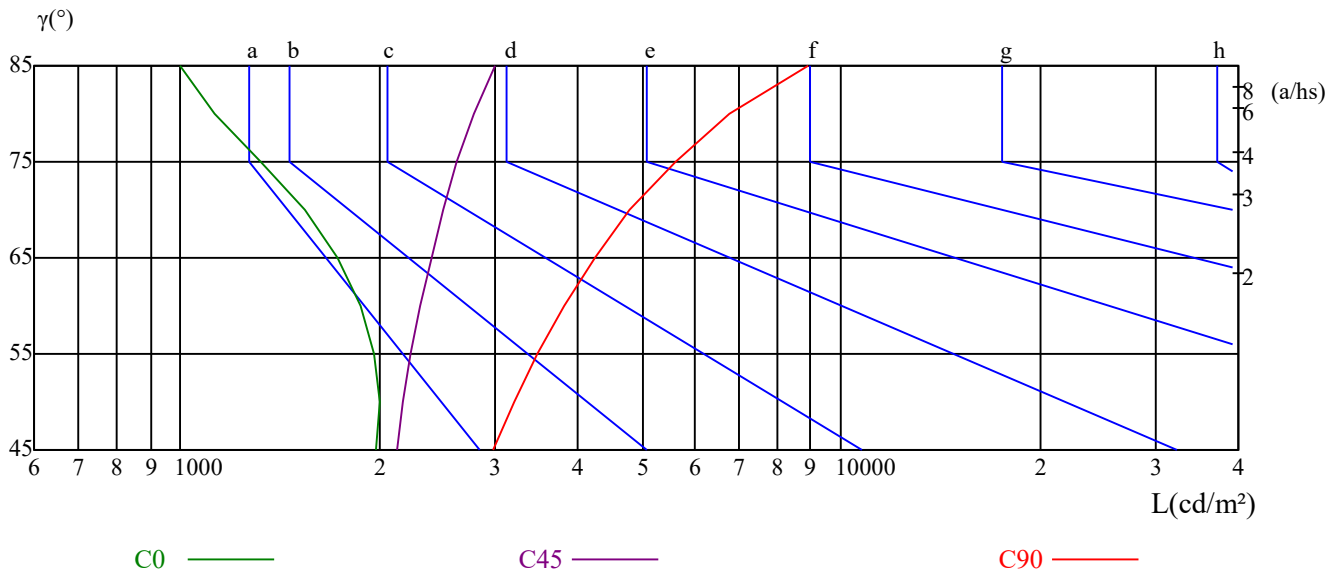
| $\gamma$ | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|----------|------|------|------|------|------|------|------|------|------|
| C0       | 1982 | 1997 | 1960 | 1872 | 1725 | 1545 | 1322 | 1130 | 1001 |
| C45      | 2130 | 2175 | 2233 | 2313 | 2403 | 2497 | 2616 | 2779 | 2999 |
| C90      | 2977 | 3193 | 3471 | 3810 | 4235 | 4793 | 5606 | 6776 | 8897 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 4415       | 5290       | 5375    | 4909       | 8078       | 8001    | 9319       | 21868      | 20991   |

Glare Table

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

Luminance Limiting Curve



| RHOC | 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    | 1.09                                    | 1.09 | 1.09 | 1.02 | 1.02 | 1.02 | 0.88 | 0.88 | 0.88 | 0.76 | 0.76 | 0.76 | 0.65 | 0.65 | 0.65 | 0.59 |
| 1    | 0.90                                    | 0.84 | 0.79 | 0.83 | 0.79 | 0.74 | 0.72 | 0.68 | 0.64 | 0.61 | 0.58 | 0.55 | 0.51 | 0.49 | 0.47 | 0.42 |
| 2    | 0.76                                    | 0.68 | 0.61 | 0.71 | 0.64 | 0.58 | 0.60 | 0.55 | 0.50 | 0.51 | 0.47 | 0.43 | 0.42 | 0.39 | 0.36 | 0.32 |
| 3    | 0.65                                    | 0.56 | 0.49 | 0.61 | 0.53 | 0.46 | 0.52 | 0.45 | 0.40 | 0.44 | 0.39 | 0.34 | 0.36 | 0.32 | 0.29 | 0.25 |
| 4    | 0.57                                    | 0.48 | 0.40 | 0.53 | 0.45 | 0.38 | 0.45 | 0.38 | 0.33 | 0.38 | 0.33 | 0.28 | 0.31 | 0.27 | 0.24 | 0.20 |
| 5    | 0.50                                    | 0.41 | 0.34 | 0.47 | 0.38 | 0.32 | 0.40 | 0.33 | 0.28 | 0.34 | 0.28 | 0.24 | 0.28 | 0.23 | 0.20 | 0.17 |
| 6    | 0.45                                    | 0.35 | 0.29 | 0.42 | 0.33 | 0.27 | 0.36 | 0.29 | 0.24 | 0.30 | 0.25 | 0.20 | 0.25 | 0.20 | 0.17 | 0.14 |
| 7    | 0.40                                    | 0.31 | 0.25 | 0.37 | 0.29 | 0.23 | 0.32 | 0.25 | 0.20 | 0.27 | 0.22 | 0.18 | 0.23 | 0.18 | 0.15 | 0.12 |
| 8    | 0.36                                    | 0.28 | 0.22 | 0.34 | 0.26 | 0.20 | 0.29 | 0.23 | 0.18 | 0.25 | 0.19 | 0.15 | 0.21 | 0.16 | 0.13 | 0.10 |
| 9    | 0.33                                    | 0.25 | 0.19 | 0.31 | 0.23 | 0.18 | 0.27 | 0.20 | 0.16 | 0.23 | 0.17 | 0.14 | 0.19 | 0.15 | 0.11 | 0.09 |
| 10   | 0.30                                    | 0.22 | 0.17 | 0.28 | 0.21 | 0.16 | 0.24 | 0.18 | 0.14 | 0.21 | 0.16 | 0.12 | 0.17 | 0.13 | 0.10 | 0.08 |





Intensity data(cd)

Appendix Page: 12 Total:12

|                       |       |
|-----------------------|-------|
| C/ $\gamma(^{\circ})$ | 180.0 |
| 0.0                   | 46.00 |
| 15.0                  | 48.76 |
| 30.0                  | 50.60 |
| 45.0                  | 45.08 |
| 60.0                  | 49.68 |
| 75.0                  | 57.96 |
| 90.0                  | 60.72 |
| 105.0                 | 60.72 |
| 120.0                 | 60.72 |
| 135.0                 | 59.80 |
| 150.0                 | 58.88 |
| 165.0                 | 58.88 |
| 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                 | 46.00 |