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Nata

LumCAT: LN01D04560DA-N

Luminaire: 97.70.234.00

Report No: 210104-B009

Test No: 210104-C009

LampCAT: BRIDGELUX V10 LES10.2

Lamp flux(lm): 1791.0

Number of Lamps: 1

Length(mm): 92

Phm Type: C

Voltage(V): 34.6300

Current(A): 0.3800

Power (W): 13.1590

PF: 1.0000

Ballast type: DC

Width(mm): 92

Height(mm): 50

Photometric Results

Lumens(lm): 1476.66

Efficiency(%): 82.45%

Lumens(lm)/Power(W): 112.22

Central intensity(cd): 1408.078

Maximum intensity(cd): 1408.078

Angle of maximum intensity: C=0.0 γ =0.0

Beam Angle(50%Imax): [C0/180]Total=59.3

[C90/270]Total=59.3

Field angle(10%Imax): [C0/180]Total=94.6

[C90/270]Total=94.6

Maximum s/h(1/2): C0_180=0.89 C90_270=0.89

Maximum s/h(1/4): C0_180=0.90 C90_270=0.90

Up flux rate of lamp(%): 0.00%

Down flux rate of lamp(%): 82.45%

Up flux rate of LUM(%): - -

Down flux rate of LUM(%): 100.00%

CIE Type : Direct lighting

Output flux ratio in π solid angle : 94.238%

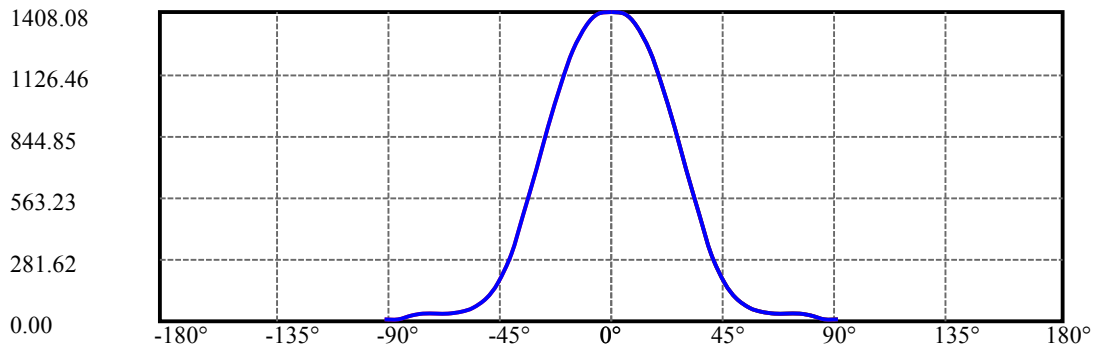
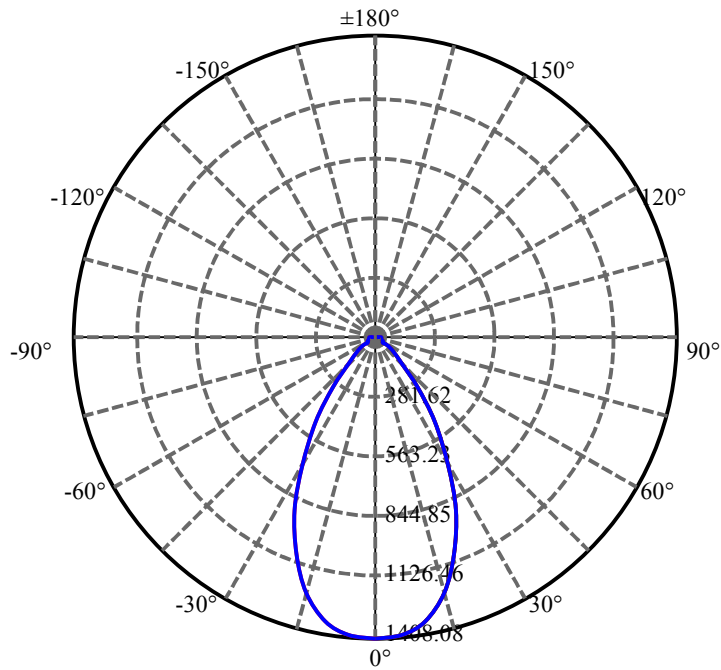
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 1408.078 | 0.000 | 0 | .000% | .000% |
| 5.0 | 1396.828 | 33.532 | 33.532 | 1.872% | 2.271% |
| 10.0 | 1346.414 | 98.134 | 131.666 | 5.479% | 8.916% |
| 15.0 | 1232.170 | 152.960 | 284.626 | 8.540% | 19.275% |
| 20.0 | 1080.949 | 190.634 | 475.26 | 10.644% | 32.185% |
| 25.0 | 886.964 | 206.398 | 681.657 | 11.524% | 46.162% |
| 30.0 | 689.646 | 199.521 | 881.179 | 11.140% | 59.674% |
| 35.0 | 480.649 | 172.334 | 1053.513 | 9.622% | 71.344% |
| 40.0 | 306.513 | 131.332 | 1184.845 | 7.333% | 80.238% |
| 45.0 | 172.976 | 88.781 | 1273.626 | 4.957% | 86.250% |
| 50.0 | 102.966 | 55.758 | 1329.384 | 3.113% | 90.026% |
| 55.0 | 64.962 | 36.513 | 1365.897 | 2.039% | 92.499% |
| 60.0 | 46.139 | 25.681 | 1391.578 | 1.434% | 94.238% |
| 65.0 | 35.466 | 19.838 | 1411.416 | 1.108% | 95.581% |
| 70.0 | 32.569 | 17.227 | 1428.643 | .962% | 96.748% |
| 75.0 | 32.203 | 16.930 | 1445.573 | .945% | 97.894% |
| 80.0 | 25.608 | 15.469 | 1461.042 | .864% | 98.942% |
| 85.0 | 12.410 | 10.330 | 1471.372 | .577% | 99.642% |
| 90.0 | 6.919 | 5.292 | 1476.665 | .296% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 881.18 | 49.20% | 59.67% |
| 0-40 | 1184.85 | 66.16% | 80.24% |
| 0-60 | 1391.58 | 77.70% | 94.24% |
| 0-90 | 1471.37 | 82.15% | 99.64% |
| 0-120 | 1471.37 | 82.15% | 99.64% |
| 0-180 | 1476.66 | 82.45% | 100.00% |
| 60-90 | 105.47 | 5.89% | 7.14% |
| 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% |
| 0-39.87 | 1181.33 | 65.96% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 131.67 |
| 10-20 | 343.59 |
| 20-30 | 405.92 |
| 30-40 | 303.67 |
| 40-50 | 144.54 |
| 50-60 | 62.19 |
| 60-70 | 37.06 |
| 70-80 | 32.40 |
| 80-90 | 10.33 |
| 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: —————

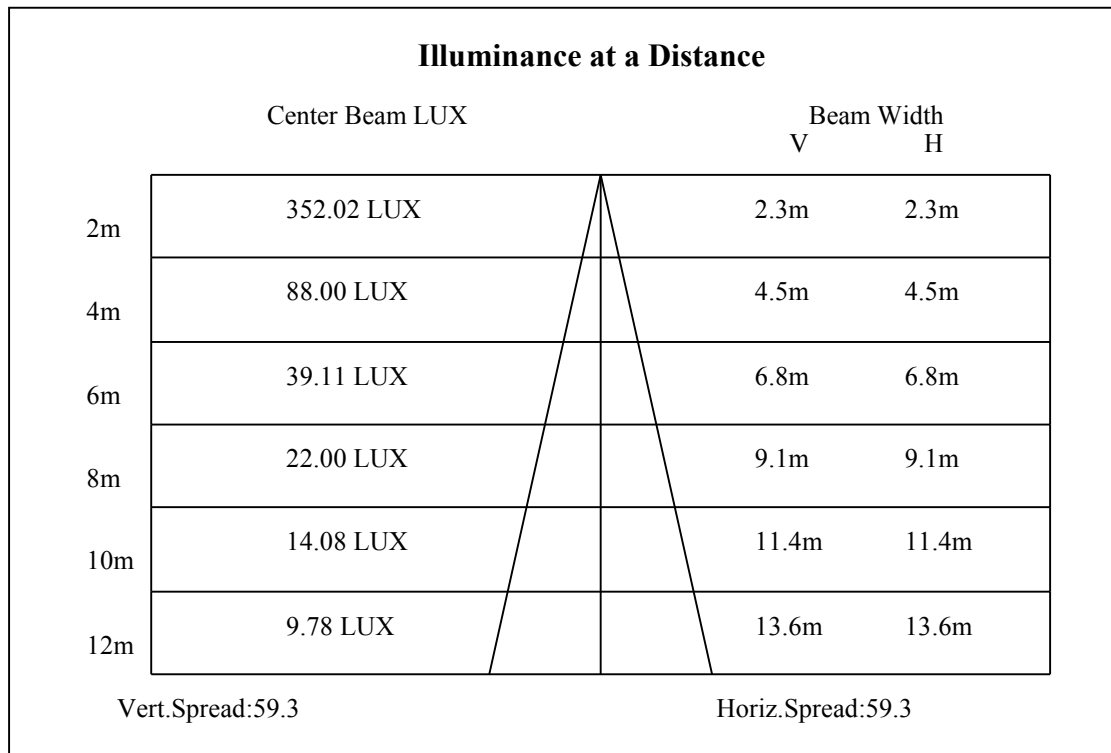
C90/C270: —————

Field angle(10%Imax):C0/180Left:47.3 Right:47.3

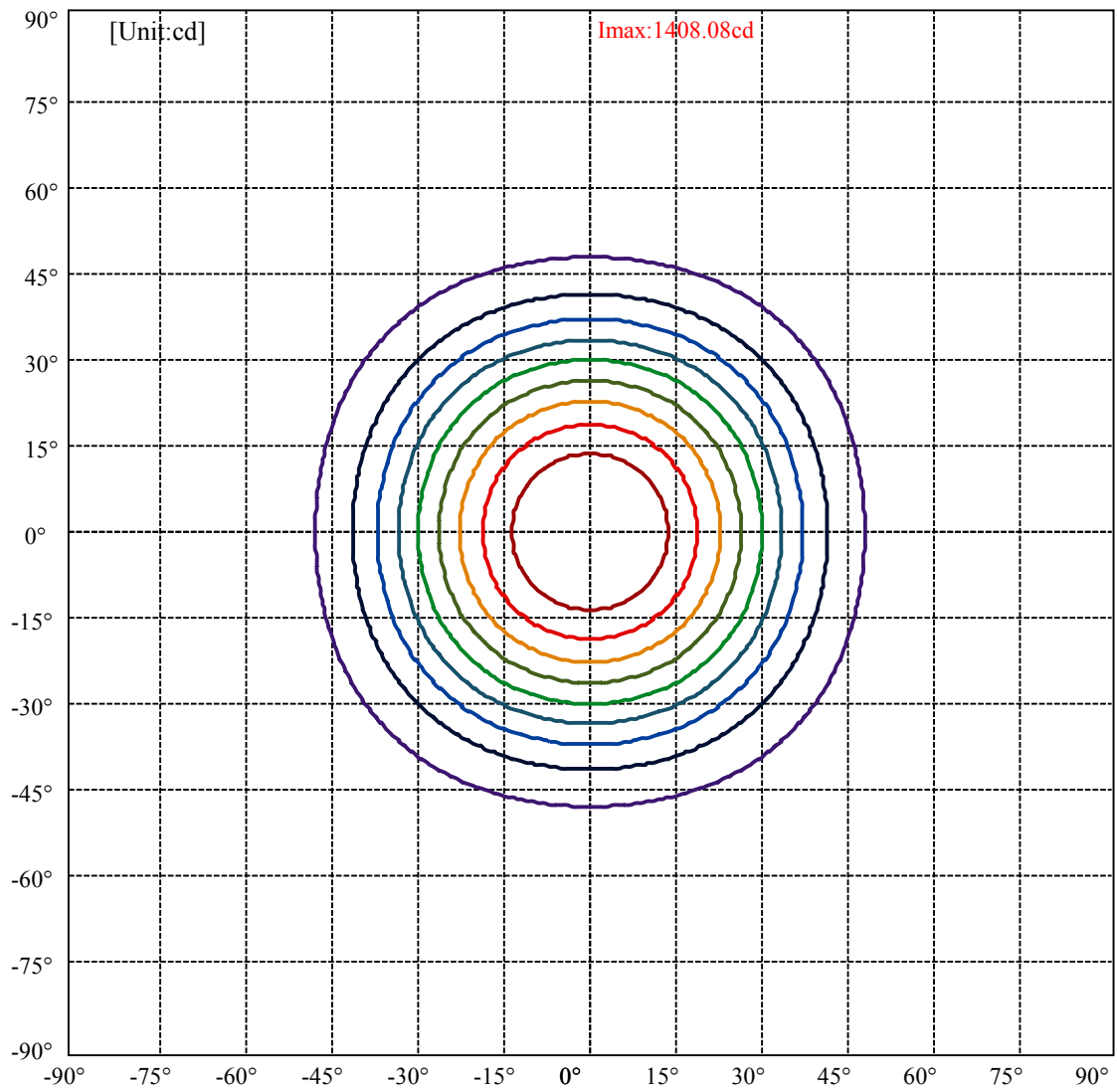
:C90/270Left:47.3 Right:47.3

Beam Angle(50%Imax):C0/180Left:29.6 Right:29.6

:C90/270Left:29.6 Right:29.6



ISO-Intensity(V-H)

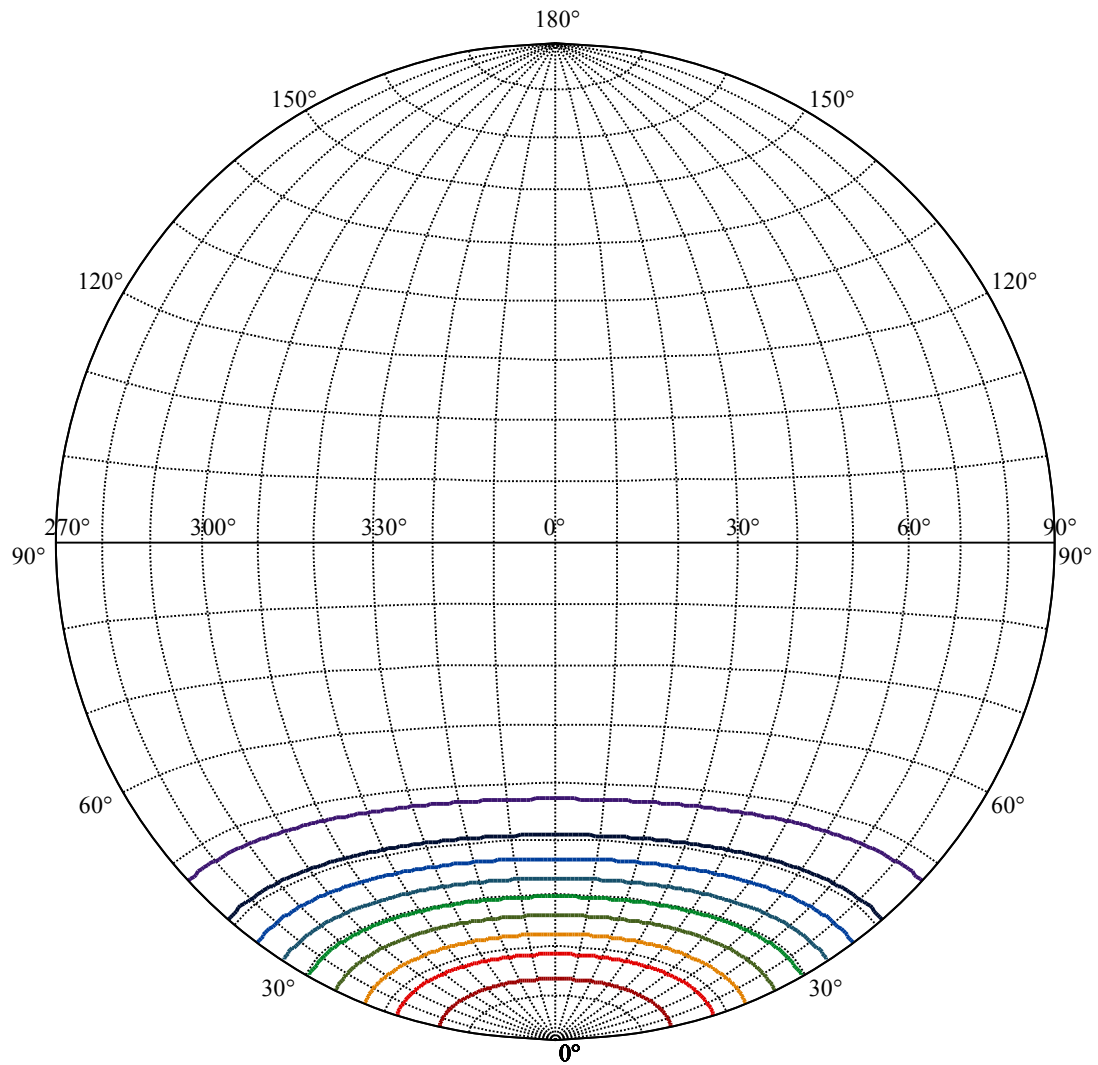


| | |
|-------------------|---|
| (10%Imax) 140.808 | — |
| (20%Imax) 281.616 | — |
| (30%Imax) 422.423 | — |
| (40%Imax) 563.231 | — |
| (50%Imax) 704.039 | — |
| (60%Imax) 844.847 | — |
| (70%Imax) 985.655 | — |
| (80%Imax) 1126.46 | — |
| (90%Imax) 1267.27 | — |

Equipment: GMS1980
Temperature(°C): 25.0

Date: 2021/01/04
Humidity(%): 65.0%

Operator: NT07
Distance(m): 7.50












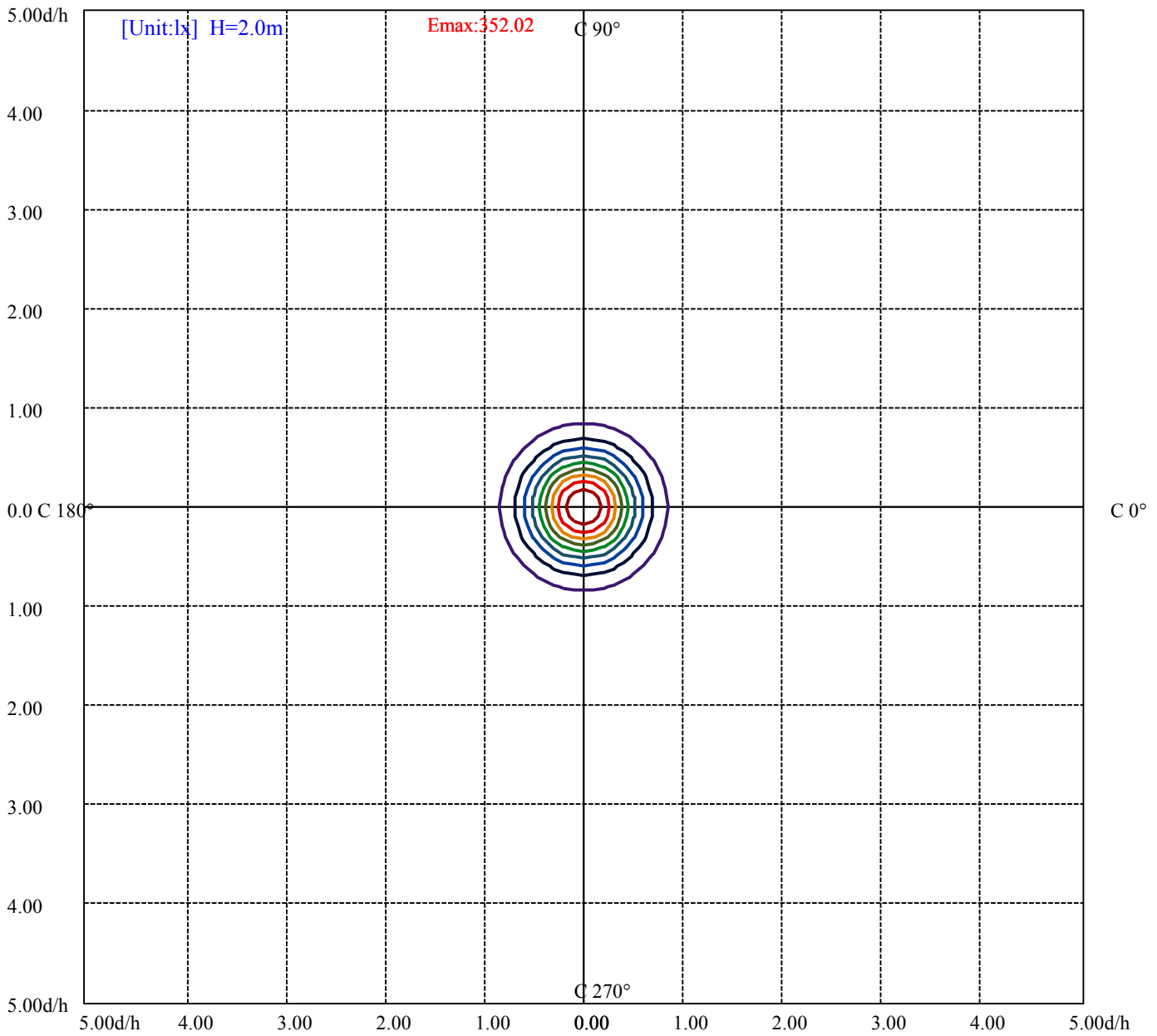
House

[Unit:cd]

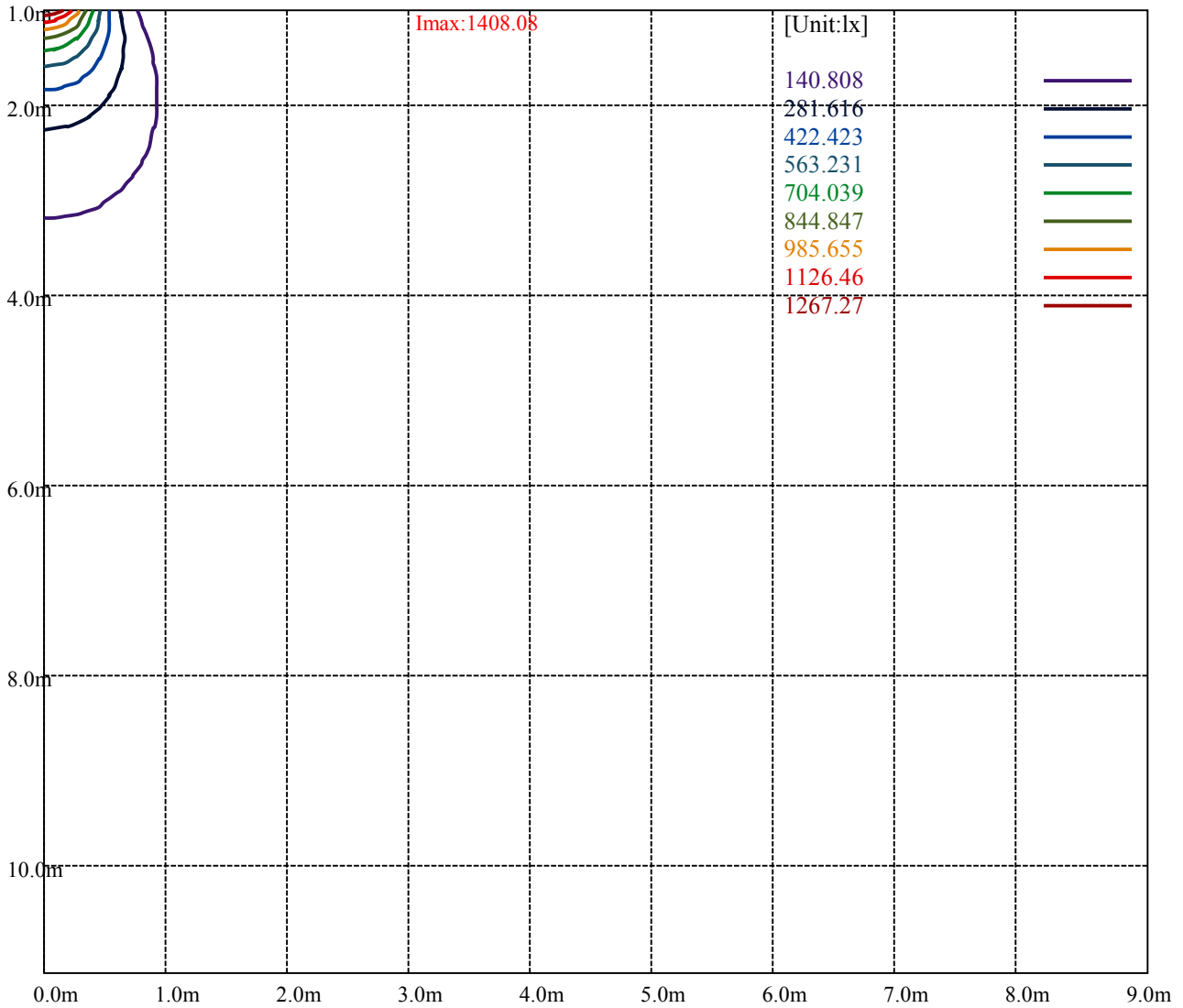
Road

Imax:1408.08

| | | |
|-----------|---------|---|
| (10%Imax) | 140.808 |  |
| (20%Imax) | 281.616 |  |
| (30%Imax) | 422.423 |  |
| (40%Imax) | 563.231 |  |
| (50%Imax) | 704.039 |  |
| (60%Imax) | 844.847 |  |
| (70%Imax) | 985.655 |  |
| (80%Imax) | 1126.46 |  |
| (90%Imax) | 1267.27 |  |



- (10%Emax) 35.202
- (20%Emax) 70.404
- (30%Emax) 105.6058
- (40%Emax) 140.8078
- (50%Emax) 176.0098
- (60%Emax) 211.2117
- (70%Emax) 246.4135
- (80%Emax) 281.615
- (90%Emax) 316.8175



Luminance Table

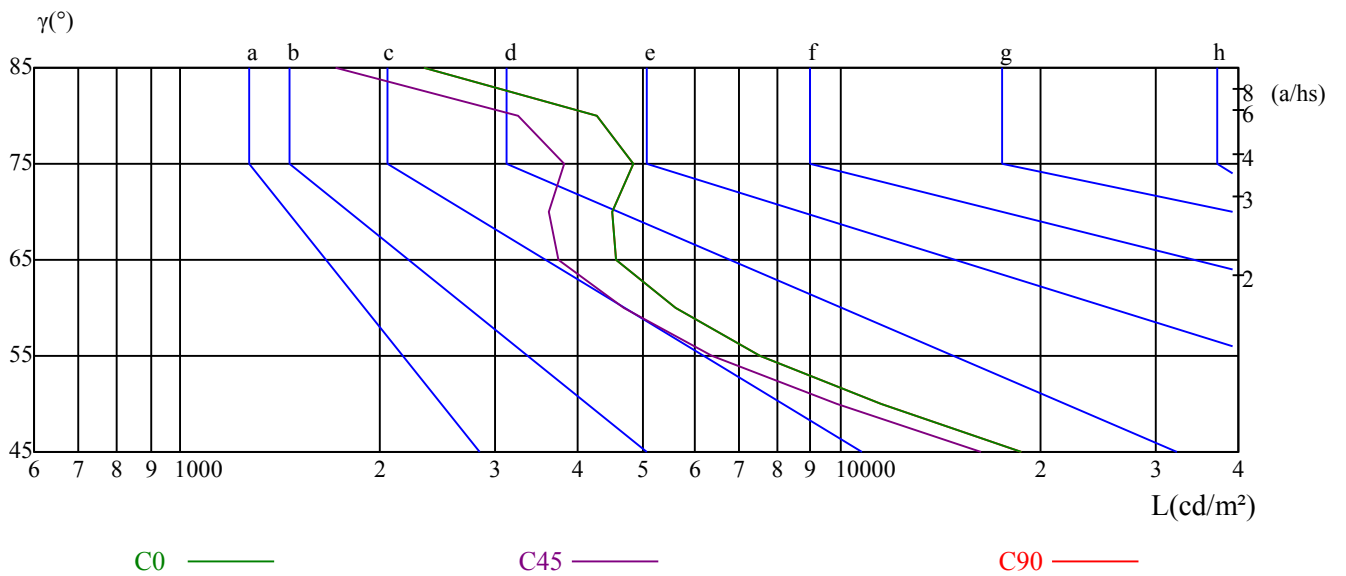
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|-------|-------|------|------|------|------|------|------|------|
| C0 | 18725 | 11486 | 7534 | 5616 | 4579 | 4513 | 4854 | 4268 | 2333 |
| C45 | 16342 | 9878 | 6379 | 4677 | 3744 | 3616 | 3800 | 3251 | 1719 |
| C90 | 18725 | 11486 | 7534 | 5616 | 4579 | 4513 | 4854 | 4268 | 2333 |

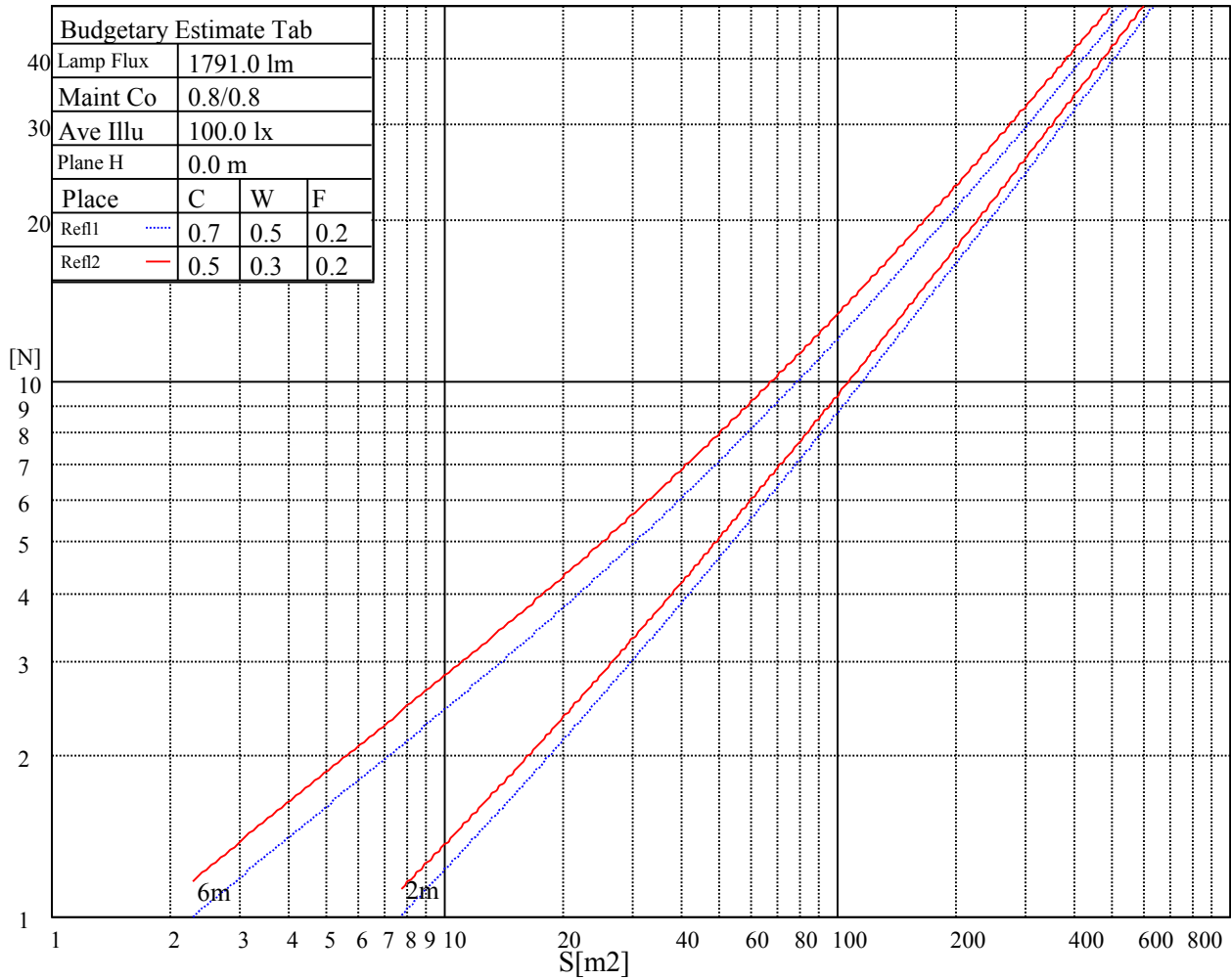
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 9915 | 9915 | 9915 | 14700 | 14700 | 14700 | 16823 | 16823 | 16823 |

Glare Table

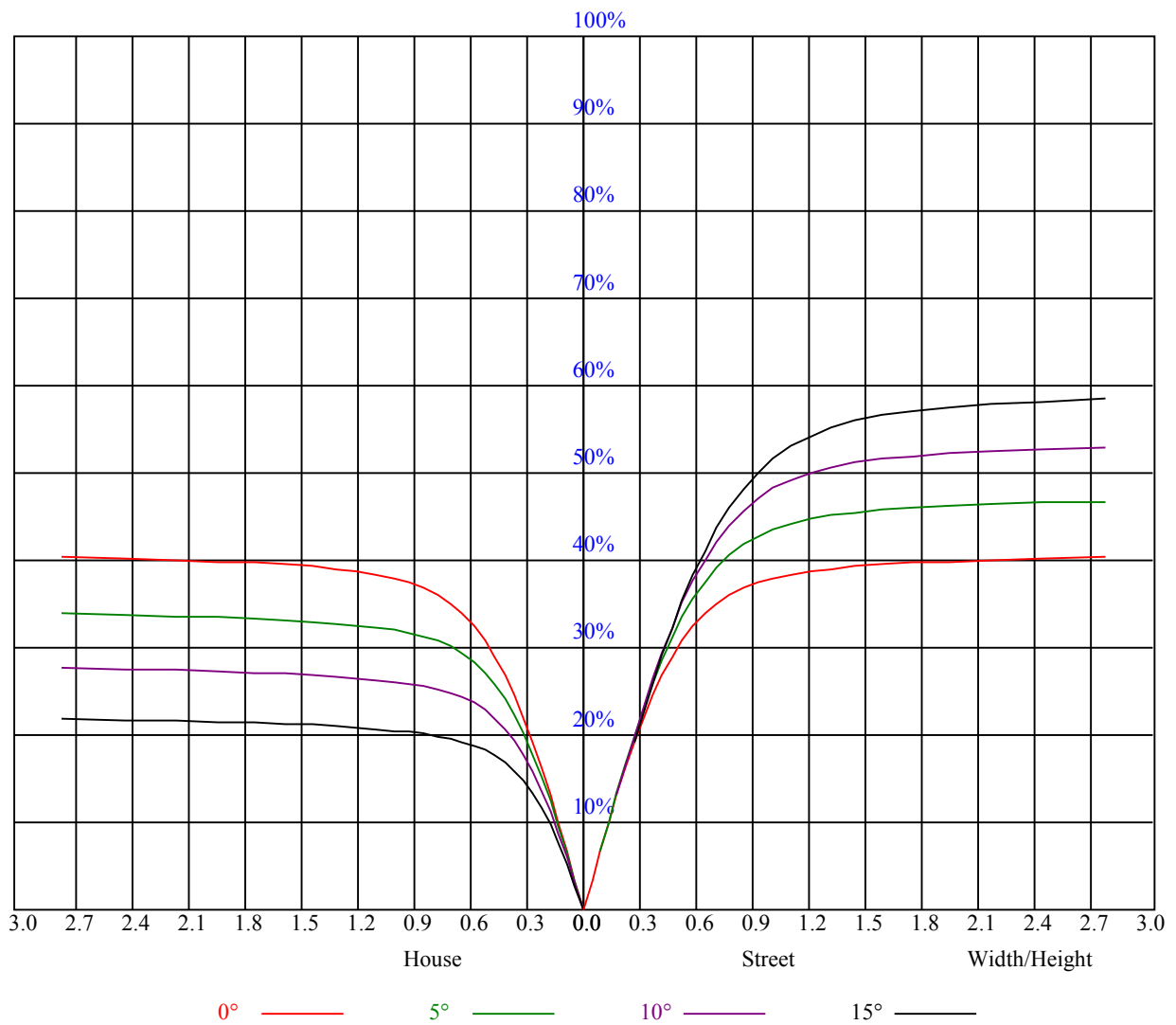
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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 | 0.98 | 0.98 | 0.98 | 0.96 | 0.96 | 0.96 | 0.92 | 0.92 | 0.92 | 0.88 | 0.88 | 0.88 | 0.84 | 0.84 | 0.84 | 0.82 |
| 1 | 0.90 | 0.87 | 0.85 | 0.88 | 0.86 | 0.84 | 0.84 | 0.83 | 0.81 | 0.81 | 0.80 | 0.79 | 0.78 | 0.77 | 0.76 | 0.75 |
| 2 | 0.82 | 0.78 | 0.75 | 0.81 | 0.77 | 0.74 | 0.78 | 0.75 | 0.72 | 0.75 | 0.73 | 0.71 | 0.73 | 0.71 | 0.69 | 0.68 |
| 3 | 0.76 | 0.71 | 0.67 | 0.74 | 0.70 | 0.66 | 0.72 | 0.68 | 0.65 | 0.70 | 0.67 | 0.64 | 0.68 | 0.66 | 0.63 | 0.62 |
| 4 | 0.70 | 0.65 | 0.61 | 0.69 | 0.64 | 0.60 | 0.67 | 0.63 | 0.60 | 0.65 | 0.62 | 0.59 | 0.64 | 0.61 | 0.58 | 0.57 |
| 5 | 0.65 | 0.59 | 0.55 | 0.64 | 0.59 | 0.55 | 0.63 | 0.58 | 0.55 | 0.61 | 0.57 | 0.54 | 0.60 | 0.56 | 0.54 | 0.52 |
| 6 | 0.60 | 0.55 | 0.51 | 0.60 | 0.54 | 0.51 | 0.58 | 0.54 | 0.50 | 0.57 | 0.53 | 0.50 | 0.56 | 0.52 | 0.50 | 0.48 |
| 7 | 0.56 | 0.51 | 0.47 | 0.56 | 0.51 | 0.47 | 0.55 | 0.50 | 0.47 | 0.54 | 0.49 | 0.46 | 0.53 | 0.49 | 0.46 | 0.45 |
| 8 | 0.53 | 0.47 | 0.44 | 0.52 | 0.47 | 0.44 | 0.51 | 0.47 | 0.43 | 0.50 | 0.46 | 0.43 | 0.50 | 0.46 | 0.43 | 0.42 |
| 9 | 0.50 | 0.44 | 0.41 | 0.49 | 0.44 | 0.41 | 0.48 | 0.44 | 0.40 | 0.48 | 0.43 | 0.40 | 0.47 | 0.43 | 0.40 | 0.39 |
| 10 | 0.47 | 0.41 | 0.38 | 0.46 | 0.41 | 0.38 | 0.46 | 0.41 | 0.38 | 0.45 | 0.41 | 0.38 | 0.44 | 0.40 | 0.38 | 0.36 |



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 | 1405.69 | 1408.50 | 1375.88 | 1287.00 | 1151.44 | 975.94 | 777.38 | 563.63 | 366.19 |
| 45.0 | 1410.19 | 1402.88 | 1359.56 | 1264.50 | 1099.13 | 905.63 | 699.19 | 482.63 | 311.63 |
| 90.0 | 1406.81 | 1379.81 | 1315.69 | 1176.19 | 1024.09 | 815.34 | 611.27 | 414.28 | 251.21 |
| 135.0 | 1409.63 | 1382.06 | 1317.94 | 1201.50 | 1030.50 | 828.00 | 640.13 | 432.00 | 288.56 |
| 180.0 | 1405.69 | 1374.75 | 1299.38 | 1119.49 | 995.18 | 801.00 | 614.31 | 407.19 | 237.71 |
| 225.0 | 1410.19 | 1397.25 | 1341.00 | 1231.88 | 1072.69 | 878.96 | 691.03 | 472.50 | 290.48 |
| 270.0 | 1406.81 | 1415.81 | 1387.13 | 1297.69 | 1158.19 | 954.56 | 748.13 | 550.13 | 361.13 |
| 315.0 | 1409.63 | 1413.56 | 1374.75 | 1279.13 | 1116.39 | 936.28 | 735.75 | 522.84 | 345.21 |
| 360.0 | 1405.69 | 1408.50 | 1375.88 | 1287.00 | 1151.44 | 975.94 | 777.38 | 563.63 | 366.19 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 212.85 | 122.91 | 74.76 | 52.71 | 38.59 | 30.77 | 24.86 | 19.86 | 14.12 |
| 45.0 | 173.25 | 103.73 | 66.94 | 47.31 | 35.49 | 29.03 | 22.89 | 17.83 | 12.04 |
| 90.0 | 140.40 | 87.75 | 56.76 | 41.40 | 36.06 | 42.69 | 46.80 | 30.38 | 9.96 |
| 135.0 | 153.62 | 89.83 | 57.66 | 42.47 | 33.13 | 37.52 | 40.44 | 26.49 | 9.68 |
| 180.0 | 140.91 | 85.78 | 55.80 | 41.40 | 31.67 | 25.54 | 20.53 | 15.58 | 10.13 |
| 225.0 | 161.44 | 98.55 | 62.72 | 43.88 | 34.26 | 27.39 | 21.88 | 17.33 | 11.87 |
| 270.0 | 206.10 | 122.63 | 74.14 | 50.79 | 37.86 | 35.44 | 43.03 | 42.92 | 16.37 |
| 315.0 | 195.24 | 112.56 | 70.93 | 49.16 | 36.68 | 32.18 | 37.18 | 34.48 | 15.13 |
| 360.0 | 212.85 | 122.91 | 74.76 | 52.71 | 38.59 | 30.77 | 24.86 | 19.86 | 14.12 |
| C/ γ (°) | 90.0 | | | | | | | | |
| 0.0 | 7.82 | | | | | | | | |
| 45.0 | 6.92 | | | | | | | | |
| 90.0 | 6.19 | | | | | | | | |
| 135.0 | 6.08 | | | | | | | | |
| 180.0 | 6.86 | | | | | | | | |
| 225.0 | 6.75 | | | | | | | | |
| 270.0 | 7.20 | | | | | | | | |
| 315.0 | 7.54 | | | | | | | | |
| 360.0 | 7.82 | | | | | | | | |