
LumCAT: 4-2204-L
Luminaire: 92.70.131.00
Report No: NATA0100
Test No: GC2019120404
LampCAT: TRIDONIC SLE G7 13MM
Lamp flux(lm): 1765.0
Number of Lamps: 1
Length(mm): 0
Phm Type: C

Voltage(V): 35.0500
Current(A): 0.3970
Power (W): 13.9100
PF: 1.0000
Ballast type: DC
Width(mm): 0
Height(mm): 0

Photometric Results

Lumens(lm): 1724.71
Efficiency(%): 97.72%
Lumens(lm)/Power(W): 123.99
Central intensity(cd): 3915.422
Maximum intensity(cd): 3915.422
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=35.0
 [C90/270]Total=35.0
Field angle(10%Imax): [C0/180]Total=68.7
 [C90/270]Total=68.7
Maximum s/h(1/2): C0_180=0.57 C90_270=0.57
Maximum s/h(1/4): C0_180=0.59 C90_270=0.59
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 97.72%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.310%

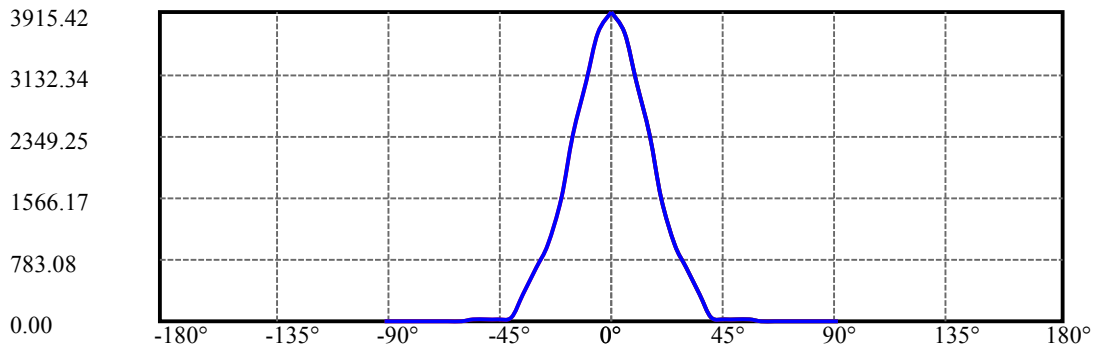
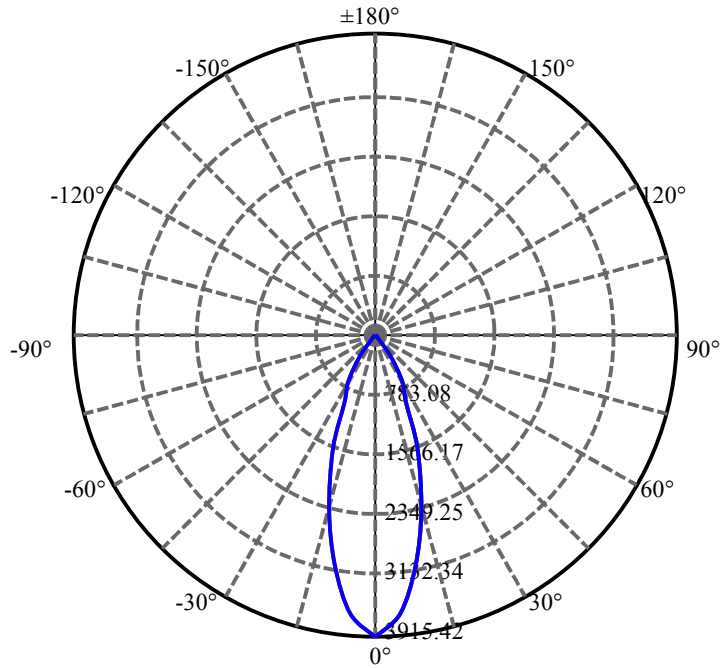
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 3915.422 | 0.000 | 0 | .000% | .000% |
| 5.0 | 3637.758 | 90.296 | 90.296 | 5.116% | 5.235% |
| 10.0 | 3040.875 | 238.916 | 329.212 | 13.536% | 19.088% |
| 15.0 | 2349.914 | 319.778 | 648.99 | 18.118% | 37.629% |
| 20.0 | 1568.348 | 322.920 | 971.91 | 18.296% | 56.352% |
| 25.0 | 964.730 | 265.673 | 1237.583 | 15.052% | 71.756% |
| 30.0 | 685.259 | 208.807 | 1446.39 | 11.830% | 83.863% |
| 35.0 | 347.984 | 152.152 | 1598.542 | 8.621% | 92.685% |
| 40.0 | 43.530 | 65.321 | 1663.864 | 3.701% | 96.472% |
| 45.0 | 22.254 | 12.181 | 1676.044 | .690% | 97.178% |
| 50.0 | 15.708 | 7.671 | 1683.715 | .435% | 97.623% |
| 55.0 | 12.818 | 6.202 | 1689.917 | .351% | 97.983% |
| 60.0 | 11.573 | 5.638 | 1695.555 | .319% | 98.310% |
| 65.0 | 10.533 | 5.374 | 1700.929 | .304% | 98.621% |
| 70.0 | 9.492 | 5.070 | 1706 | .287% | 98.915% |
| 75.0 | 8.923 | 4.813 | 1710.813 | .273% | 99.194% |
| 80.0 | 8.655 | 4.703 | 1715.517 | .266% | 99.467% |
| 85.0 | 8.423 | 4.641 | 1720.157 | .263% | 99.736% |
| 90.0 | 8.198 | 4.551 | 1724.708 | .258% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1446.39 | 81.95% | 83.86% |
| 0-40 | 1663.86 | 94.27% | 96.47% |
| 0-60 | 1695.56 | 96.07% | 98.31% |
| 0-90 | 1720.16 | 97.46% | 99.74% |
| 0-120 | 1720.16 | 97.46% | 99.74% |
| 0-180 | 1724.71 | 97.72% | 100.00% |
| 60-90 | 30.24 | 1.71% | 1.75% |
| 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% |
| 0-28.40 | 1379.77 | 78.17% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 329.21 |
| 10-20 | 642.70 |
| 20-30 | 474.48 |
| 30-40 | 217.47 |
| 40-50 | 19.85 |
| 50-60 | 11.84 |
| 60-70 | 10.44 |
| 70-80 | 9.52 |
| 80-90 | 4.64 |
| 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: —————

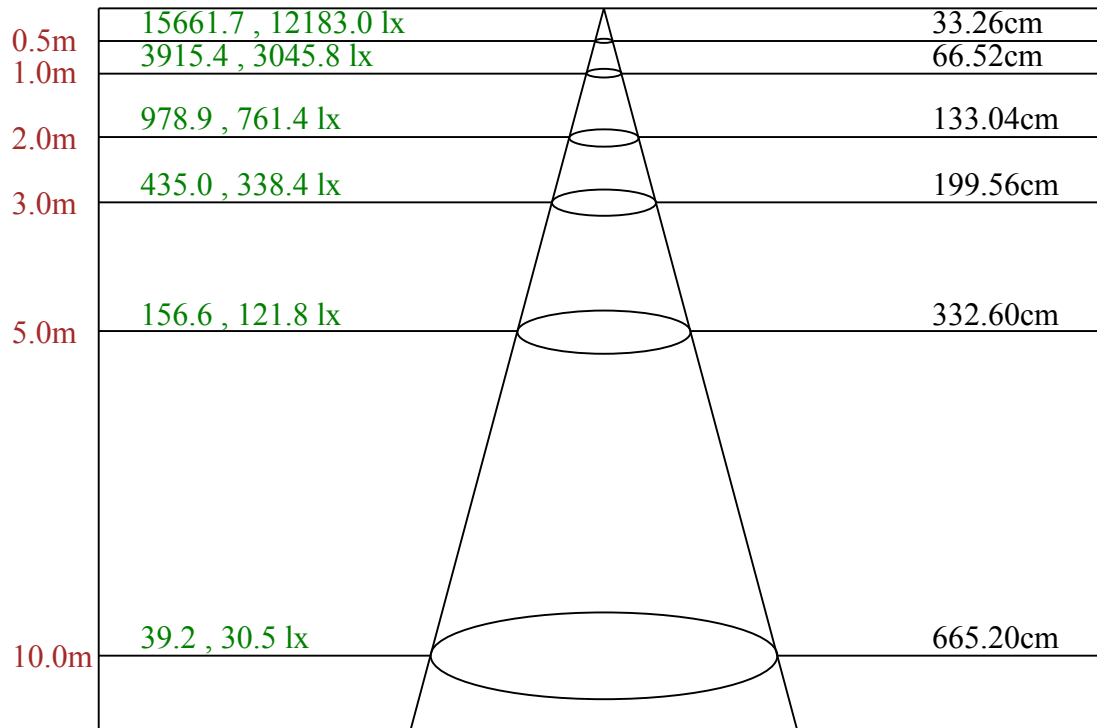
C90/C270: —————

Field angle(10%Imax):C0/180Left:34.4 Right:34.4

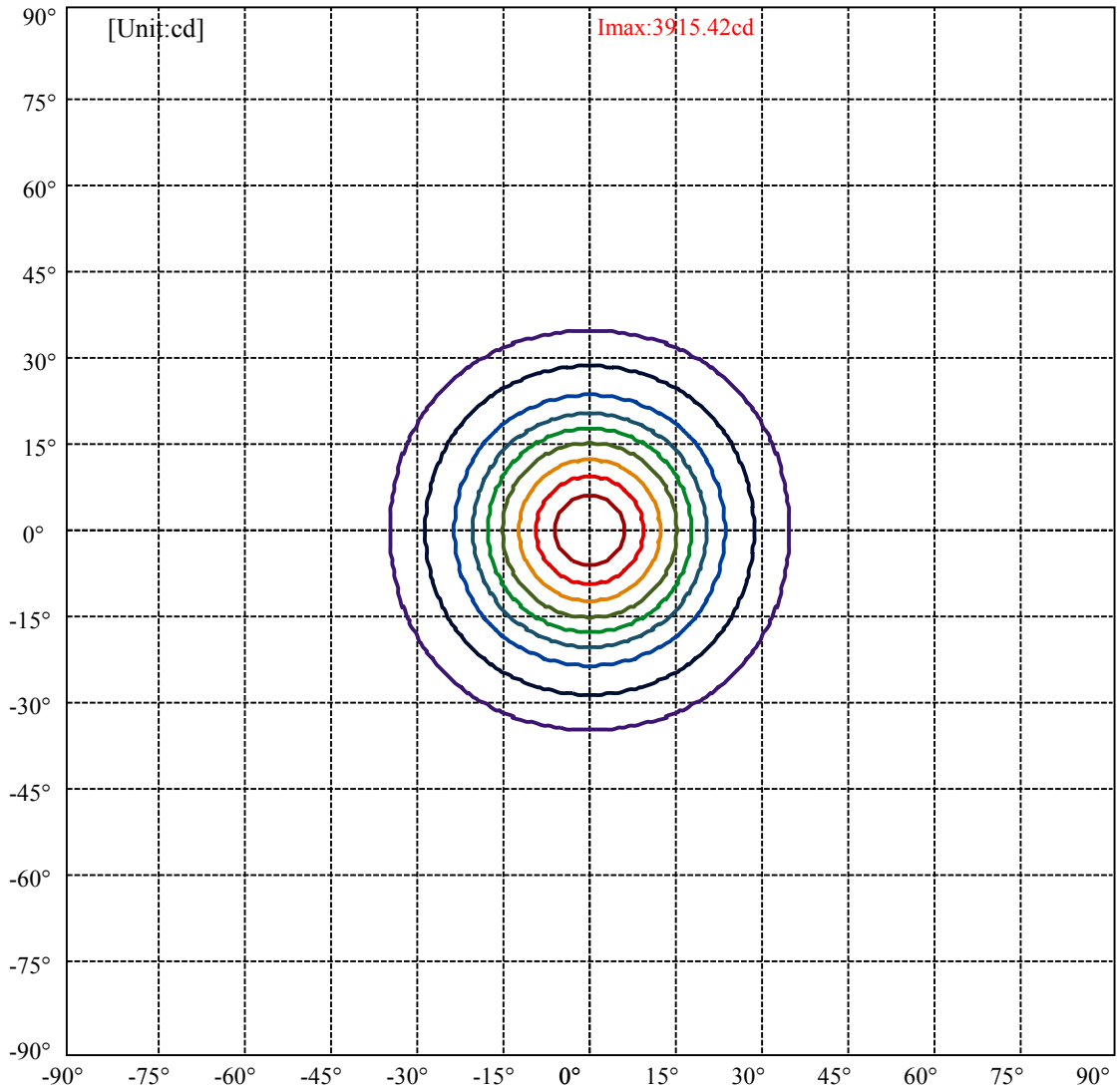
:C90/270Left:34.4 Right:34.4

Beam Angle(50%Imax):C0/180Left:17.5 Right:17.5

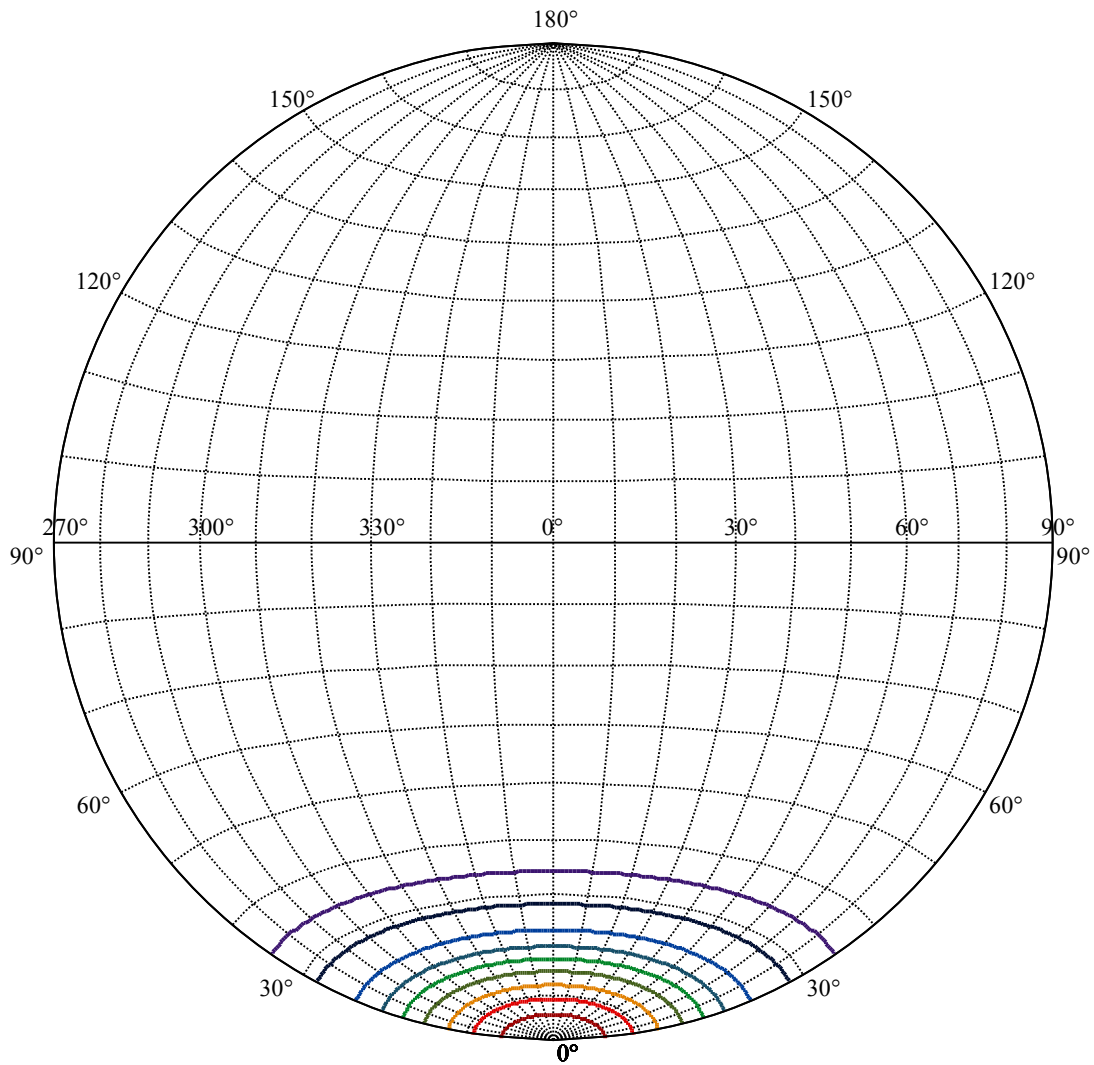
:C90/270Left:17.5 Right:17.5



Max , Ave Beam angle of C0 plane 36.79



| | |
|-------------------|---|
| (10%Imax) 391.542 | — |
| (20%Imax) 783.084 | — |
| (30%Imax) 1174.63 | — |
| (40%Imax) 1566.17 | — |
| (50%Imax) 1957.71 | — |
| (60%Imax) 2349.25 | — |
| (70%Imax) 2740.8 | — |
| (80%Imax) 3132.34 | — |
| (90%Imax) 3523.88 | — |



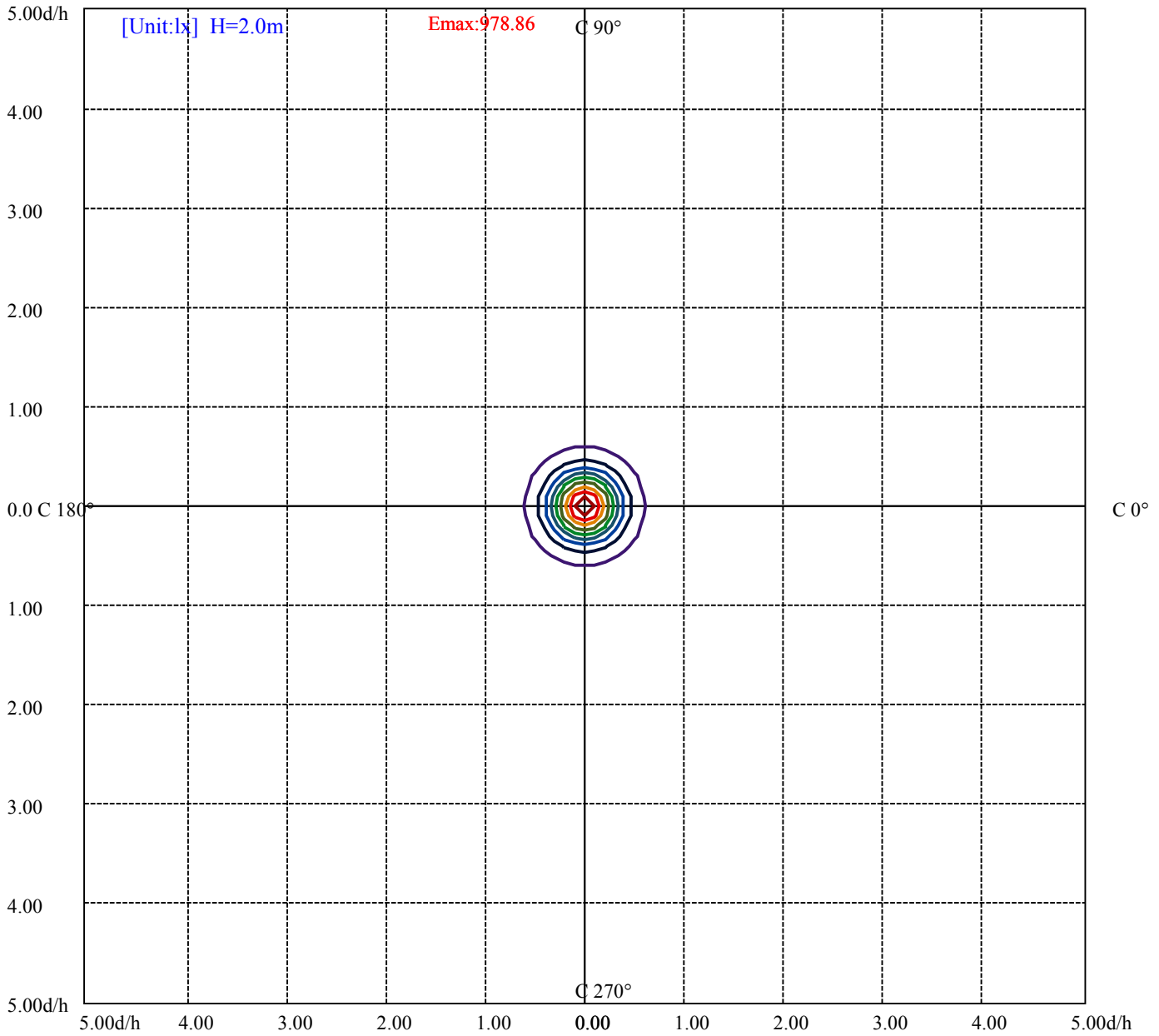
House

[Unit:cd]

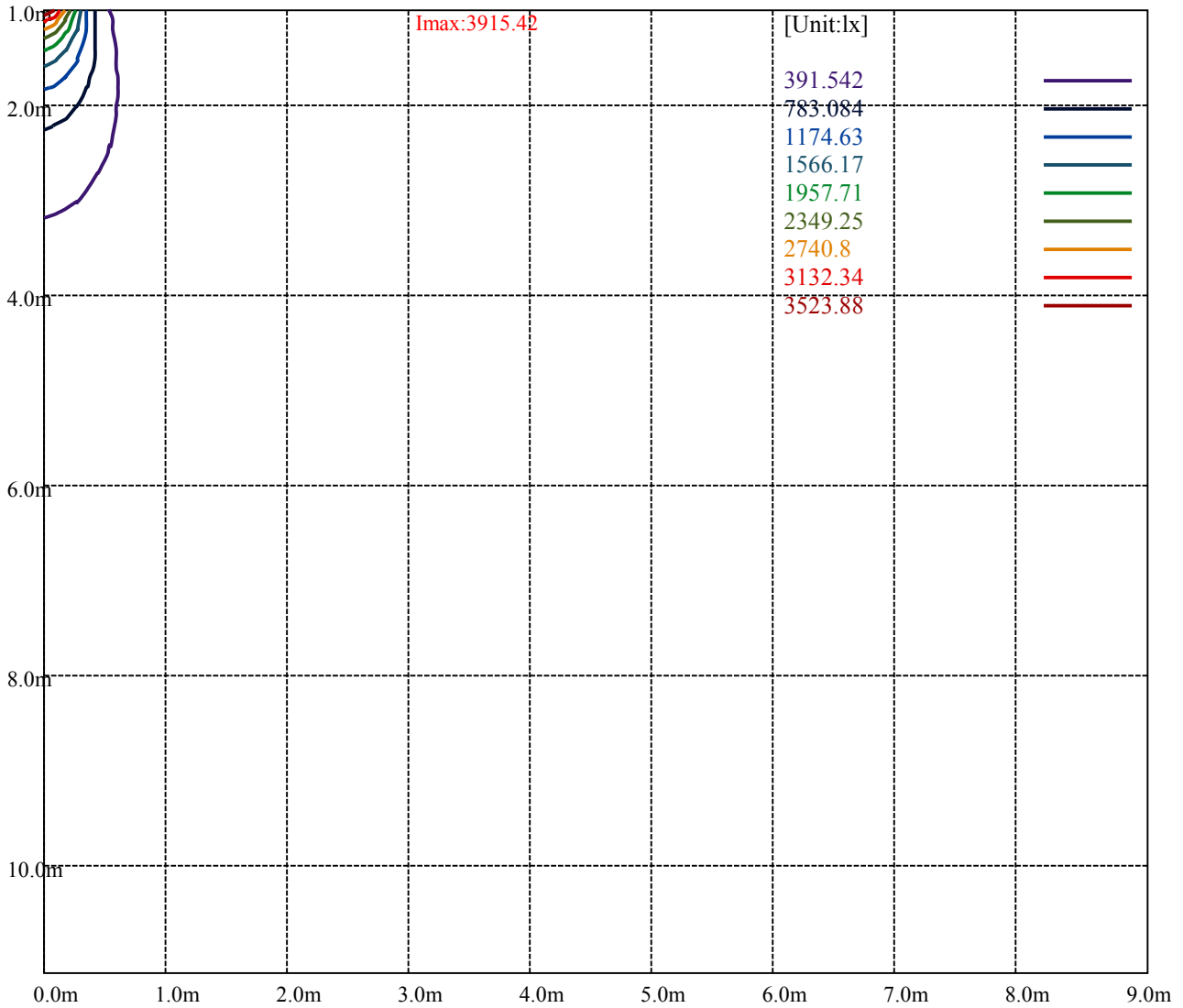
Road

Imax:3915.42

| | |
|-------------------|---|
| (10%Imax) 391.542 | — |
| (20%Imax) 783.084 | — |
| (30%Imax) 1174.63 | — |
| (40%Imax) 1566.17 | — |
| (50%Imax) 1957.71 | — |
| (60%Imax) 2349.25 | — |
| (70%Imax) 2740.8 | — |
| (80%Imax) 3132.34 | — |
| (90%Imax) 3523.88 | — |



| | |
|--------------------|---|
| (10%Emax) 97.88525 | — |
| (20%Emax) 195.7708 | — |
| (30%Emax) 293.655 | — |
| (40%Emax) 391.5425 | — |
| (50%Emax) 489.4275 | — |
| (60%Emax) 587.3125 | — |
| (70%Emax) 685.1975 | — |
| (80%Emax) 783.0825 | — |
| (90%Emax) 880.9675 | — |



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 |

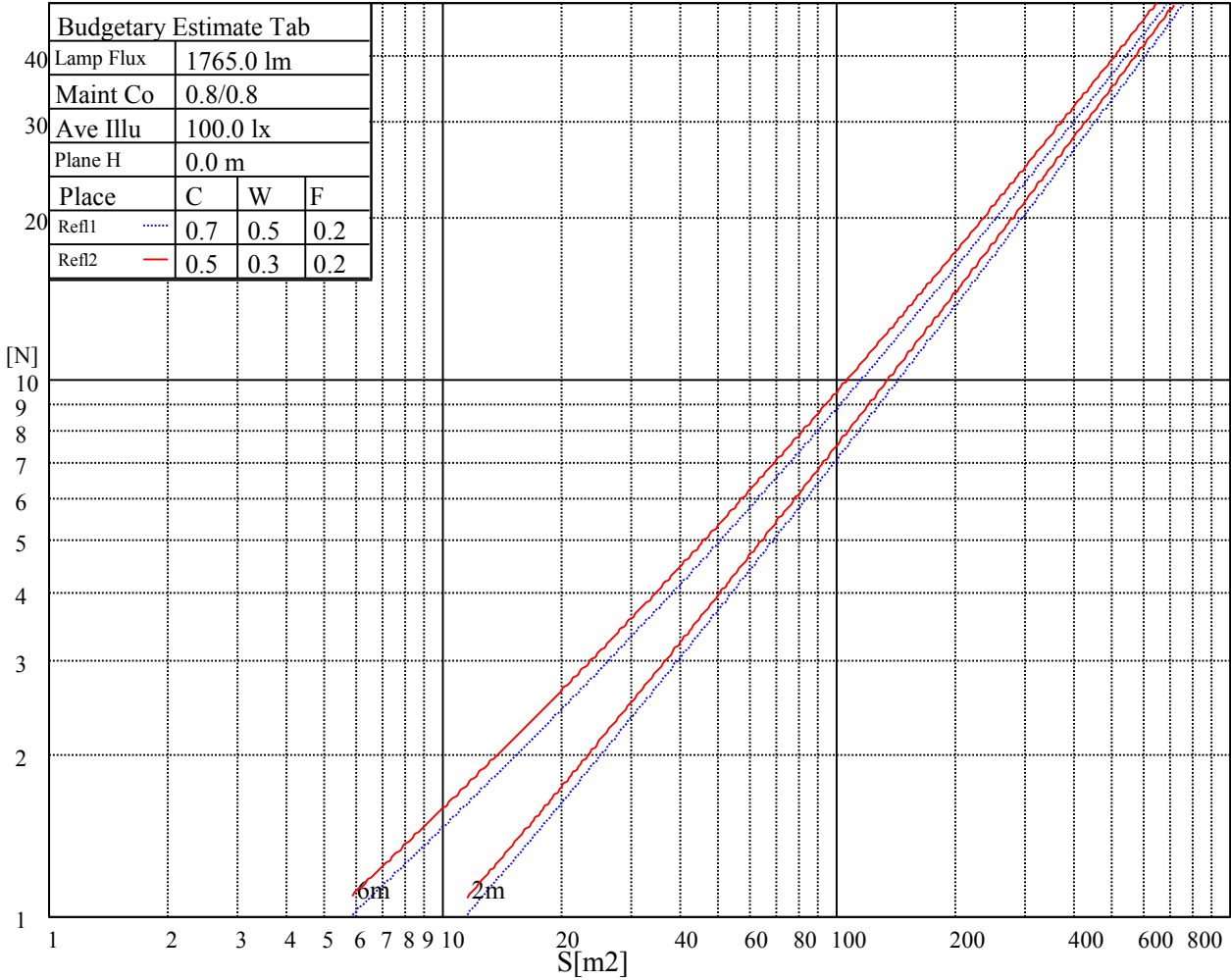
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Glare Table

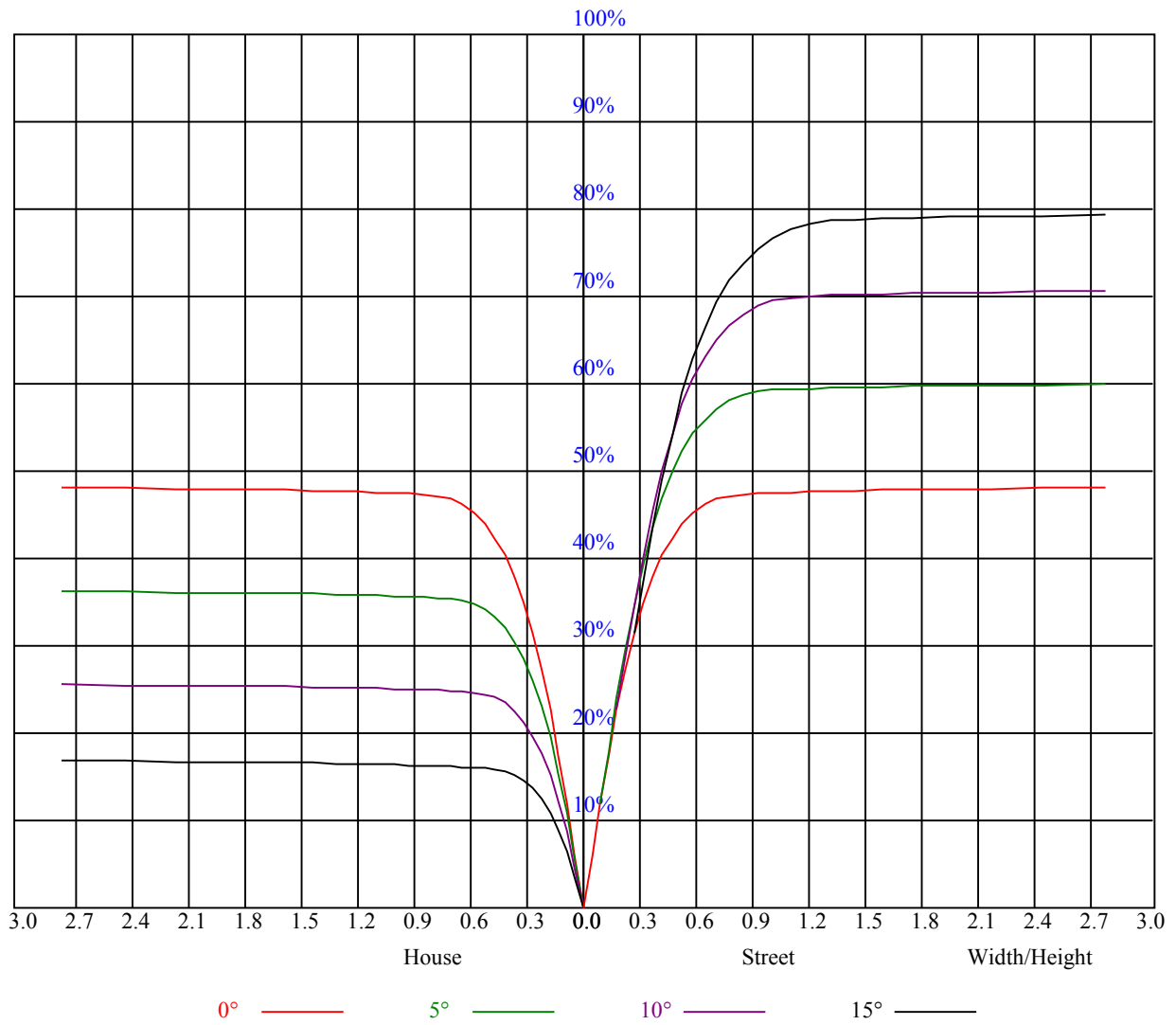
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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 | 1.16 | 1.16 | 1.16 | 1.14 | 1.14 | 1.14 | 1.09 | 1.09 | 1.09 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 | 0.98 |
| 1 | 1.09 | 1.06 | 1.04 | 1.07 | 1.05 | 1.03 | 1.03 | 1.01 | 1.00 | 0.99 | 0.98 | 0.97 | 0.96 | 0.95 | 0.94 | 0.92 |
| 2 | 1.02 | 0.99 | 0.96 | 1.01 | 0.97 | 0.95 | 0.97 | 0.95 | 0.92 | 0.95 | 0.92 | 0.90 | 0.92 | 0.90 | 0.89 | 0.87 |
| 3 | 0.96 | 0.92 | 0.89 | 0.95 | 0.91 | 0.88 | 0.93 | 0.89 | 0.87 | 0.90 | 0.88 | 0.85 | 0.88 | 0.86 | 0.84 | 0.82 |
| 4 | 0.91 | 0.86 | 0.83 | 0.90 | 0.86 | 0.82 | 0.88 | 0.84 | 0.81 | 0.86 | 0.83 | 0.80 | 0.85 | 0.82 | 0.80 | 0.78 |
| 5 | 0.87 | 0.82 | 0.78 | 0.86 | 0.81 | 0.78 | 0.84 | 0.80 | 0.77 | 0.83 | 0.79 | 0.76 | 0.81 | 0.78 | 0.76 | 0.74 |
| 6 | 0.82 | 0.77 | 0.74 | 0.82 | 0.77 | 0.73 | 0.80 | 0.76 | 0.73 | 0.79 | 0.75 | 0.72 | 0.78 | 0.75 | 0.72 | 0.71 |
| 7 | 0.79 | 0.73 | 0.70 | 0.78 | 0.73 | 0.70 | 0.77 | 0.72 | 0.69 | 0.76 | 0.72 | 0.69 | 0.75 | 0.71 | 0.69 | 0.67 |
| 8 | 0.75 | 0.70 | 0.66 | 0.75 | 0.70 | 0.66 | 0.74 | 0.69 | 0.66 | 0.73 | 0.69 | 0.66 | 0.72 | 0.68 | 0.66 | 0.64 |
| 9 | 0.72 | 0.67 | 0.63 | 0.71 | 0.67 | 0.63 | 0.71 | 0.66 | 0.63 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.63 | 0.62 |
| 10 | 0.69 | 0.64 | 0.61 | 0.68 | 0.64 | 0.61 | 0.68 | 0.63 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.63 | 0.60 | 0.59 |



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 | 3891.38 | 3799.69 | 3258.00 | 2524.50 | 1824.75 | 1162.69 | 780.75 | 383.63 | 55.46 |
| 45.0 | 3926.25 | 3692.81 | 3157.88 | 2494.69 | 1461.38 | 804.94 | 603.56 | 295.31 | 24.02 |
| 90.0 | 3913.31 | 3471.75 | 2871.56 | 2154.94 | 1111.16 | 756.84 | 587.98 | 221.57 | 21.49 |
| 135.0 | 3930.75 | 3576.94 | 2894.06 | 2141.44 | 1563.75 | 1006.31 | 713.81 | 396.00 | 61.76 |
| 180.0 | 3891.38 | 3499.88 | 2916.56 | 2334.94 | 1769.06 | 1111.78 | 792.79 | 356.51 | 62.44 |
| 225.0 | 3926.25 | 3560.63 | 3000.94 | 2436.19 | 1624.50 | 914.51 | 639.62 | 335.25 | 29.93 |
| 270.0 | 3913.31 | 3759.19 | 3113.44 | 2436.19 | 1587.94 | 943.88 | 657.56 | 443.25 | 36.51 |
| 315.0 | 3930.75 | 3741.19 | 3114.56 | 2276.44 | 1604.25 | 1016.89 | 705.99 | 352.35 | 56.64 |
| 360.0 | 3891.38 | 3799.69 | 3258.00 | 2524.50 | 1824.75 | 1162.69 | 780.75 | 383.63 | 55.46 |
| C/ γ (°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 26.49 | 18.34 | 14.68 | 13.11 | 11.53 | 9.84 | 8.94 | 8.66 | 8.38 |
| 45.0 | 14.68 | 12.15 | 11.42 | 11.03 | 10.24 | 9.34 | 8.89 | 8.61 | 8.38 |
| 90.0 | 14.40 | 12.15 | 11.14 | 10.58 | 9.84 | 9.17 | 8.78 | 8.55 | 8.38 |
| 135.0 | 30.49 | 19.29 | 14.01 | 11.81 | 10.46 | 9.56 | 9.00 | 8.72 | 8.44 |
| 180.0 | 29.93 | 19.24 | 14.06 | 11.98 | 10.52 | 9.39 | 8.89 | 8.61 | 8.44 |
| 225.0 | 15.98 | 12.54 | 10.97 | 10.46 | 9.96 | 9.28 | 8.94 | 8.72 | 8.49 |
| 270.0 | 17.38 | 13.50 | 11.70 | 10.63 | 10.07 | 9.51 | 8.94 | 8.72 | 8.49 |
| 315.0 | 28.69 | 18.45 | 14.57 | 12.99 | 11.64 | 9.84 | 9.00 | 8.66 | 8.38 |
| 360.0 | 26.49 | 18.34 | 14.68 | 13.11 | 11.53 | 9.84 | 8.94 | 8.66 | 8.38 |
| C/ γ (°) | 90.0 | | | | | | | | |
| 0.0 | 8.16 | | | | | | | | |
| 45.0 | 8.21 | | | | | | | | |
| 90.0 | 8.21 | | | | | | | | |
| 135.0 | 8.16 | | | | | | | | |
| 180.0 | 8.16 | | | | | | | | |
| 225.0 | 8.27 | | | | | | | | |
| 270.0 | 8.27 | | | | | | | | |
| 315.0 | 8.16 | | | | | | | | |
| 360.0 | 8.16 | | | | | | | | |