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Nata

| | |
|----------------------------|----------------------|
| LumCAT: 3-1939-M | |
| Luminaire: BJB 47.319.2011 | |
| Report No: GC22017040615 | Voltage(V): 217.5000 |
| Test No: NT-0010 | Current(A): 0.1030 |
| LampCAT: LUXEON CoB 1205 | Power (W): 20.3000 |
| Lamp flux(lm): 2428.0 | PF: 0.9050 |
| Number of Lamps: 1 | Ballast type: DC |
| Length(mm): 78 | Width(mm): 78 |
| Phm Type: C | Height(mm): 0 |

Photometric Results

Lumens(lm): 2266.06
Efficiency(%): 93.33%
Lumens(lm)/Power(W): 111.63
Central intensity(cd): 8814.942
Maximum intensity(cd): 8814.942
Angle of maximum intensity: C=0.0 γ =0.0
Beam Angle(50%Imax): [C0/180]Total=25.3
 [C90/270]Total=25.3
Field angle(10%Imax): [C0/180]Total=48.7
 [C90/270]Total=48.7
Maximum s/h(1/2): C0_180=0.43 C90_270=0.43
Maximum s/h(1/4): C0_180=0.42 C90_270=0.42
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 93.33%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.706%

Equipment: gms1980
Temperature(°C): 25.0

Date: 2017/4/6
Humidity(%): 60.0%

Operator: NT07
Distance(m): 7.42

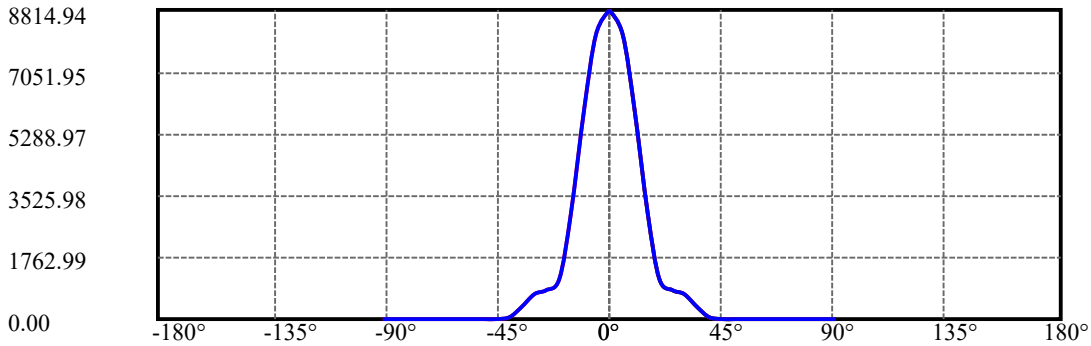
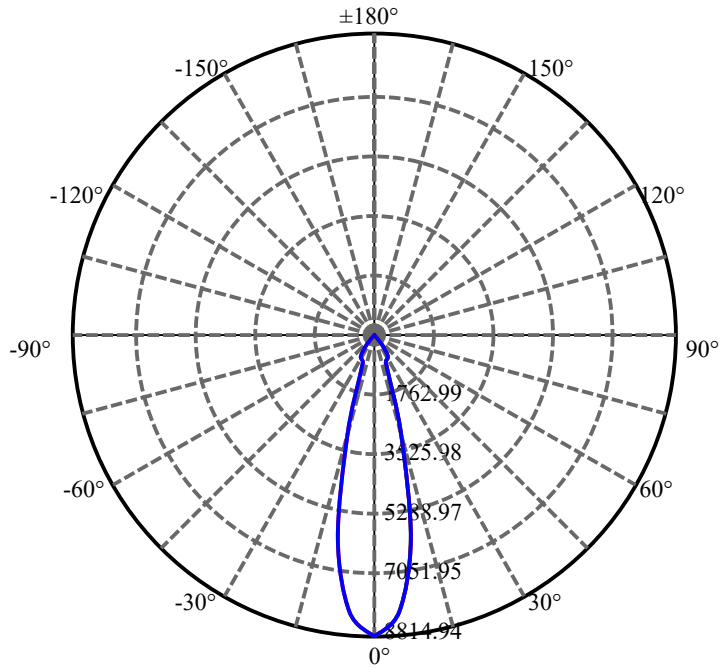
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 8814.943 | 0.000 | 0 | .000% | .000% |
| 5.0 | 8109.532 | 202.327 | 202.327 | 8.333% | 8.929% |
| 10.0 | 6020.417 | 505.473 | 707.8 | 20.818% | 31.235% |
| 15.0 | 2999.060 | 535.029 | 1242.829 | 22.036% | 54.845% |
| 20.0 | 1136.990 | 340.869 | 1583.698 | 14.039% | 69.888% |
| 25.0 | 842.501 | 207.612 | 1791.31 | 8.551% | 79.050% |
| 30.0 | 737.109 | 199.901 | 1991.211 | 8.233% | 87.871% |
| 35.0 | 351.576 | 160.317 | 2151.528 | 6.603% | 94.946% |
| 40.0 | 28.726 | 63.451 | 2214.978 | 2.613% | 97.746% |
| 45.0 | 13.076 | 7.740 | 2222.718 | .319% | 98.087% |
| 50.0 | 10.832 | 4.831 | 2227.549 | .199% | 98.301% |
| 55.0 | 10.185 | 4.570 | 2232.119 | .188% | 98.502% |
| 60.0 | 9.828 | 4.626 | 2236.745 | .191% | 98.706% |
| 65.0 | 9.573 | 4.716 | 2241.461 | .194% | 98.914% |
| 70.0 | 9.394 | 4.803 | 2246.264 | .198% | 99.126% |
| 75.0 | 9.263 | 4.877 | 2251.14 | .201% | 99.342% |
| 80.0 | 9.201 | 4.941 | 2256.081 | .203% | 99.560% |
| 85.0 | 9.139 | 4.984 | 2261.065 | .205% | 99.780% |
| 90.0 | 9.105 | 4.995 | 2266.06 | .206% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1991.21 | 82.01% | 87.87% |
| 0-40 | 2214.98 | 91.23% | 97.75% |
| 0-60 | 2236.74 | 92.12% | 98.71% |
| 0-90 | 2261.06 | 93.12% | 99.78% |
| 0-120 | 2261.06 | 93.12% | 99.78% |
| 0-180 | 2266.06 | 93.33% | 100.00% |
| 60-90 | 28.95 | 1.19% | 1.28% |
| 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% |
| 0-25.54 | 1812.85 | 74.66% | 80.00% |

ZONAL LUMEN SUMMARY

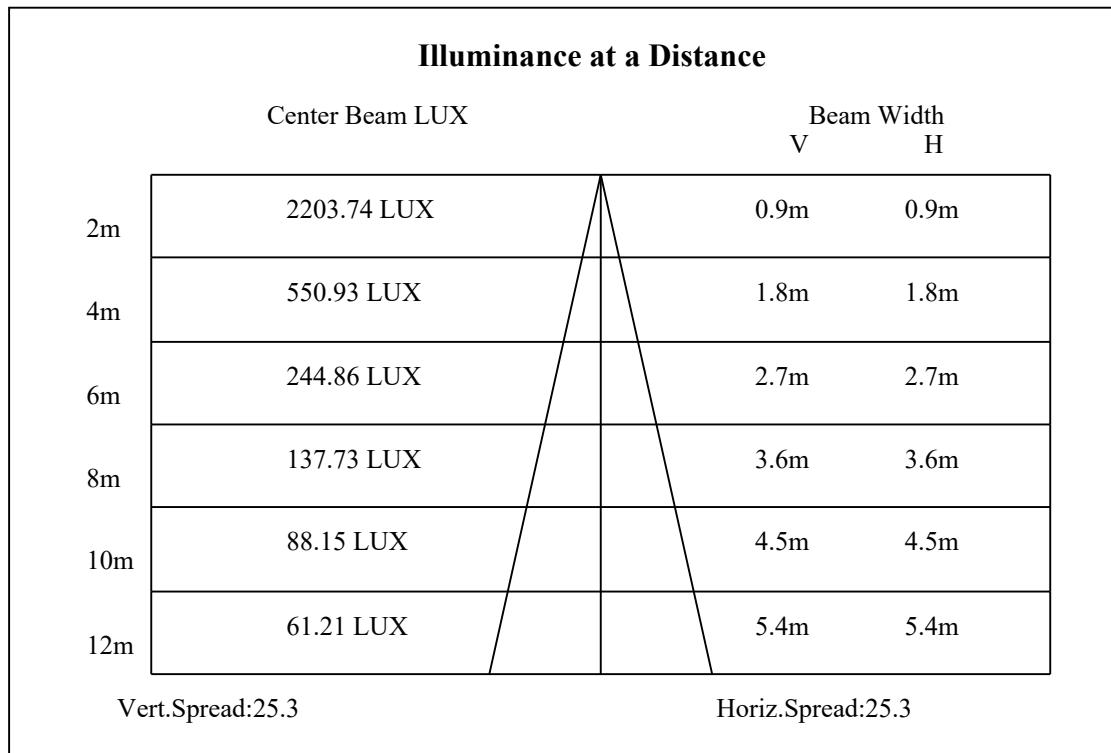
| | |
|---------|--------|
| 0-10 | 707.80 |
| 10-20 | 875.90 |
| 20-30 | 407.51 |
| 30-40 | 223.77 |
| 40-50 | 12.57 |
| 50-60 | 9.20 |
| 60-70 | 9.52 |
| 70-80 | 9.82 |
| 80-90 | 4.98 |
| 90-100 | 0.00 |
| 100-110 | 0.00 |
| 110-120 | 0.00 |
| 120-130 | 0.00 |
| 130-140 | 0.00 |
| 140-150 | 0.00 |
| 150-160 | 0.00 |
| 160-170 | 0.00 |
| 170-180 | 0.00 |

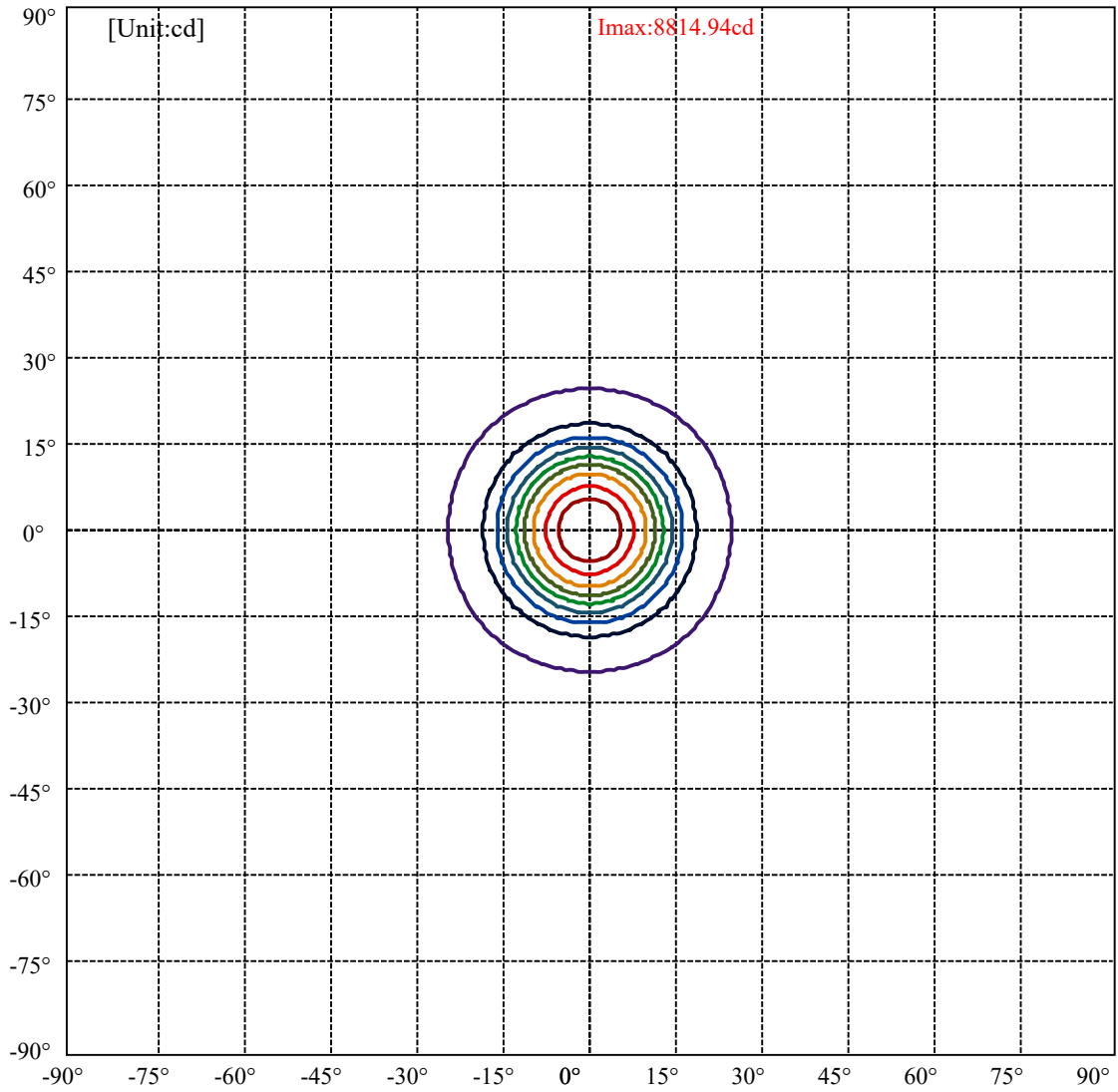


C0(Max): —————
C0/C180: —————
C90/C270: —————

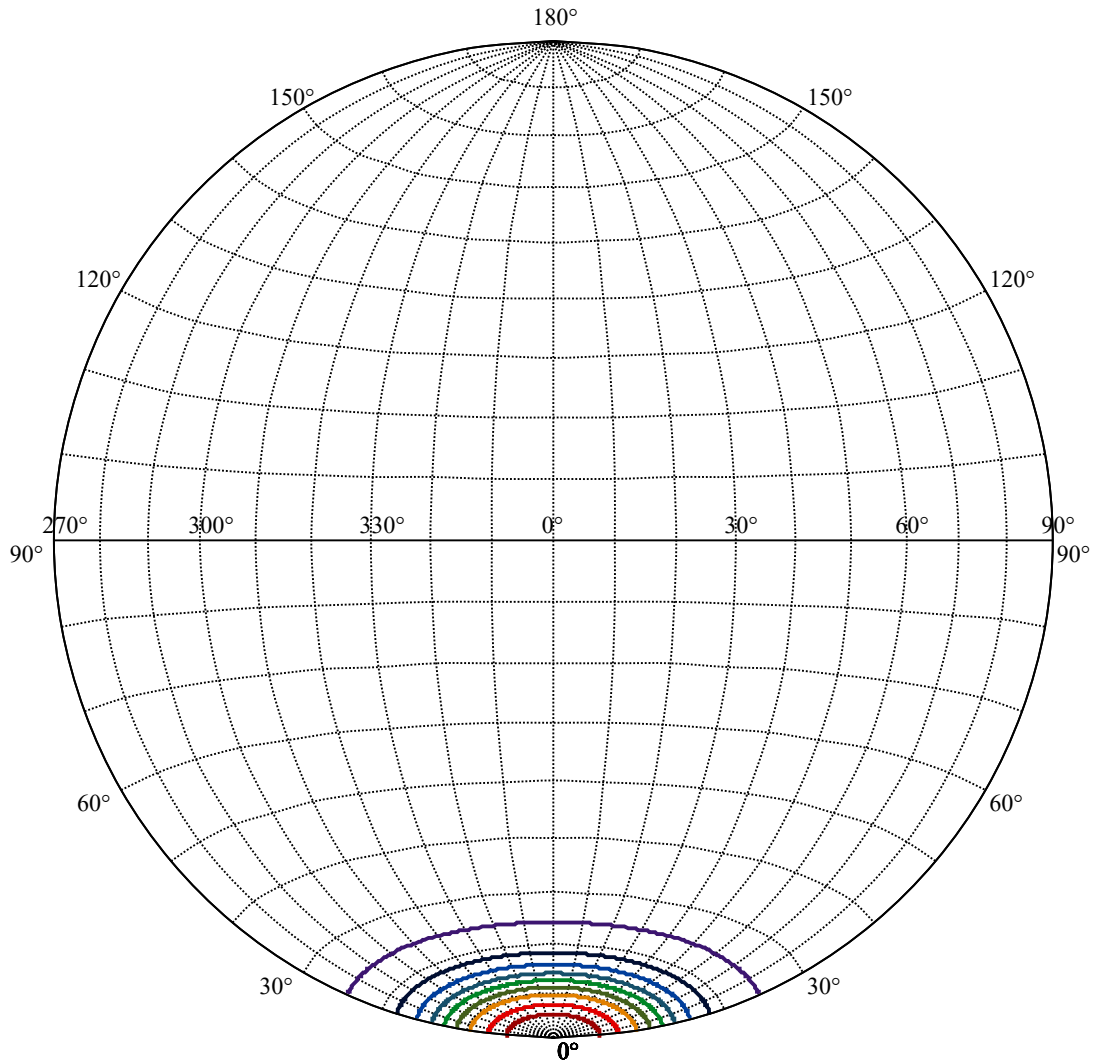
Field angle(10%Imax):C0/180Left:24.3 Right:24.3
:C90/270Left:24.3 Right:24.3

Beam Angle(50%Imax):C0/180Left:12.7 Right:12.7
:C90/270Left:12.7 Right:12.7





| | |
|-------------------|---|
| (10%Imax) 881.494 | — |
| (20%Imax) 1762.99 | — |
| (30%Imax) 2644.48 | — |
| (40%Imax) 3525.98 | — |
| (50%Imax) 4407.47 | — |
| (60%Imax) 5288.97 | — |
| (70%Imax) 6170.46 | — |
| (80%Imax) 7051.95 | — |
| (90%Imax) 7933.45 | — |



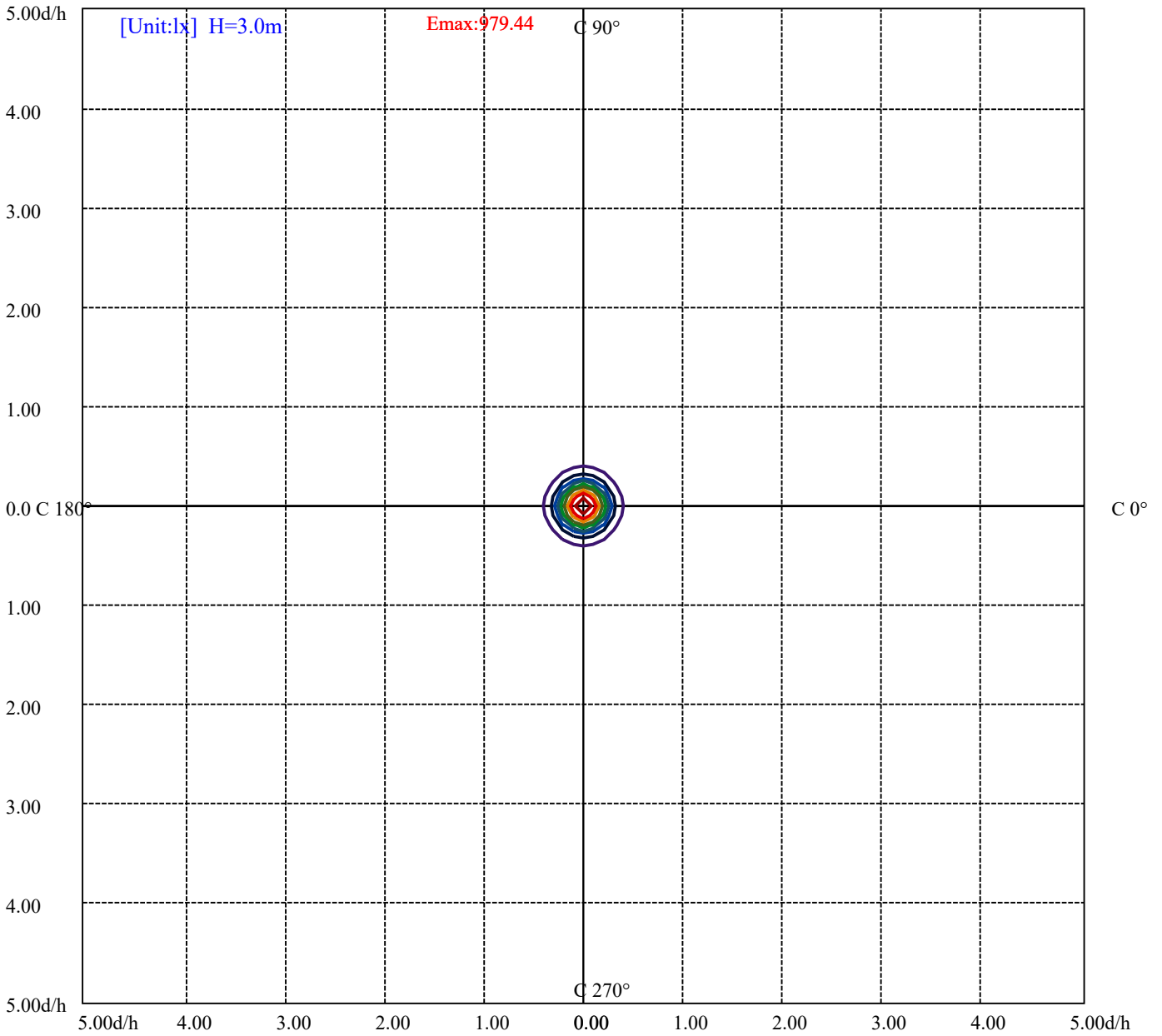
House

[Unit:cd]

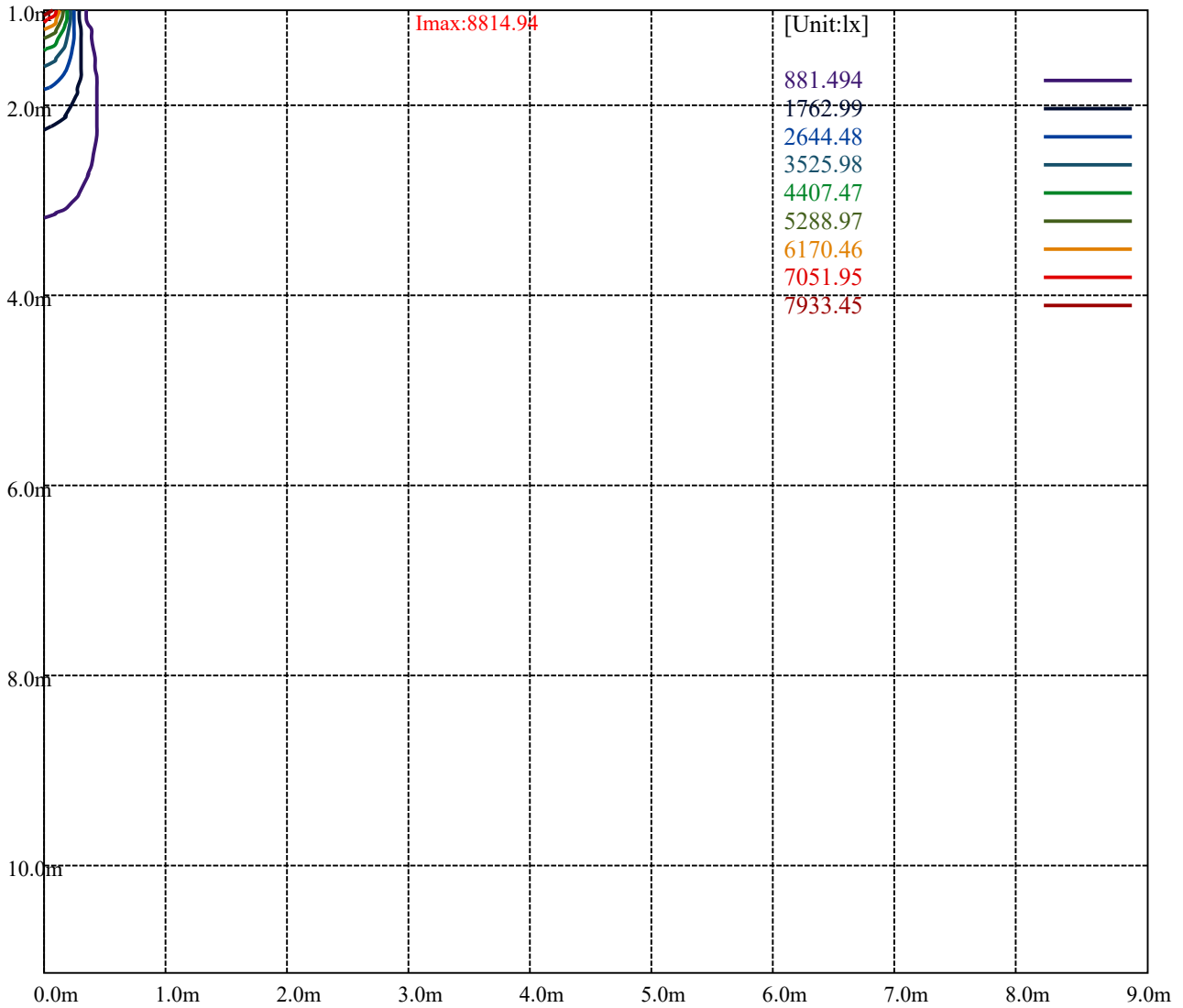
Road

Imax:8814.94

| | | |
|-----------|---------|---|
| (10%Imax) | 881.494 | — |
| (20%Imax) | 1762.99 | — |
| (30%Imax) | 2644.48 | — |
| (40%Imax) | 3525.98 | — |
| (50%Imax) | 4407.47 | — |
| (60%Imax) | 5288.97 | — |
| (70%Imax) | 6170.46 | — |
| (80%Imax) | 7051.95 | — |
| (90%Imax) | 7933.45 | — |



- (10%Emax) 97.94356
- (20%Emax) 195.8867
- (30%Emax) 293.8311
- (40%Emax) 391.7744
- (50%Emax) 489.7178
- (60%Emax) 587.6611
- (70%Emax) 685.6044
- (80%Emax) 783.5489
- (90%Emax) 881.4922



Luminance Table

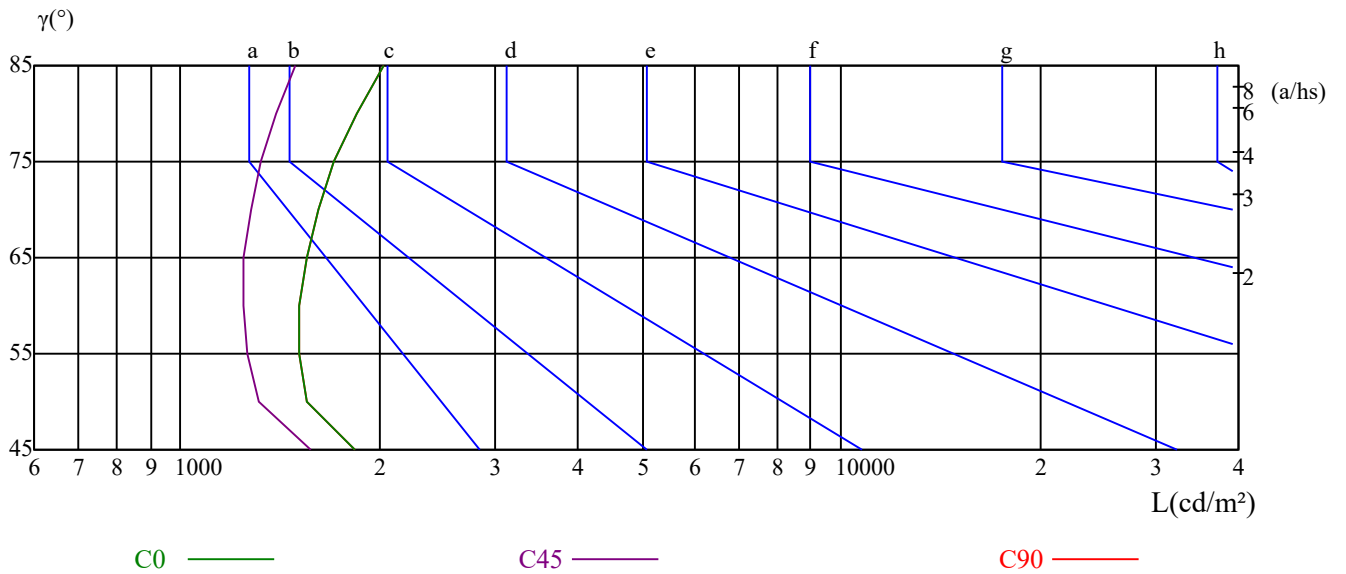
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|------|------|------|------|------|------|------|------|------|
| C0 | 1838 | 1557 | 1509 | 1515 | 1550 | 1614 | 1710 | 1850 | 2034 |
| C45 | 1579 | 1318 | 1258 | 1242 | 1248 | 1275 | 1322 | 1395 | 1490 |
| C90 | 1838 | 1557 | 1509 | 1515 | 1550 | 1614 | 1710 | 1850 | 2034 |

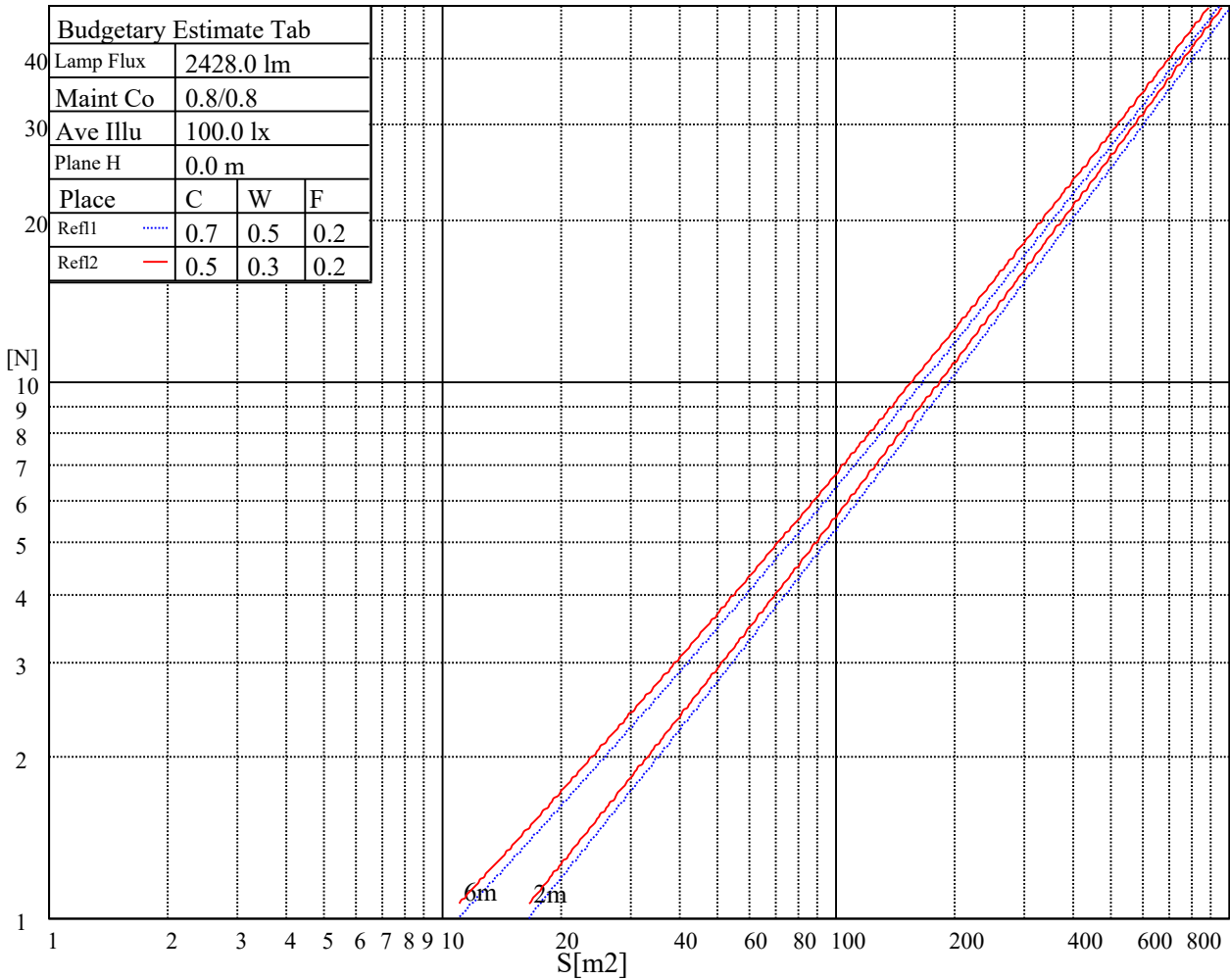
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 3723 | 3723 | 3723 | 5883 | 5883 | 5883 | 17236 | 17236 | 17236 |

Glare Table

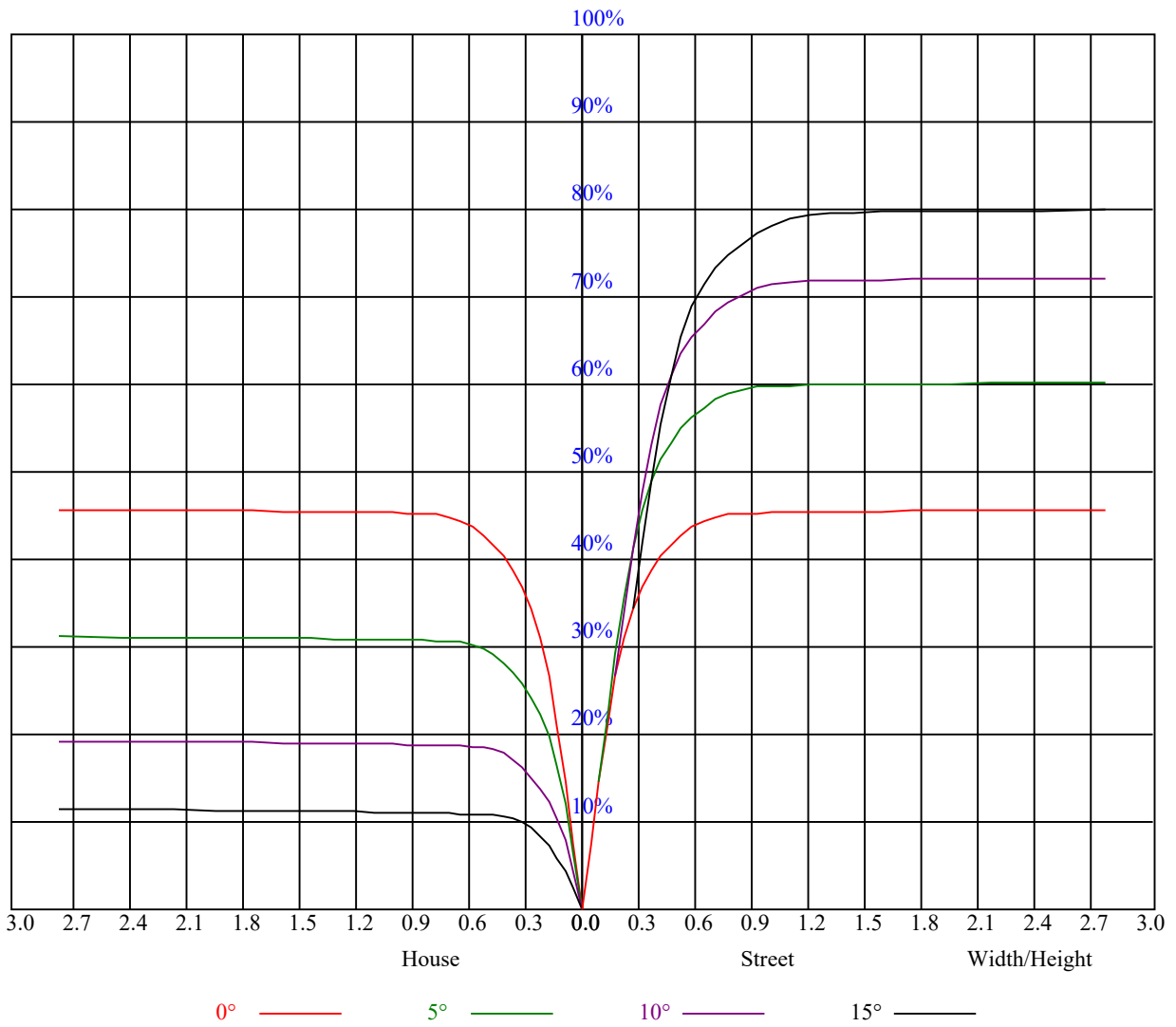
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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 | 1.11 | 1.11 | 1.11 | 1.09 | 1.09 | 1.09 | 1.04 | 1.04 | 1.04 | 0.99 | 0.99 | 0.99 | 0.95 | 0.95 | 0.95 | 0.93 |
| 1 | 1.05 | 1.03 | 1.01 | 1.03 | 1.01 | 0.99 | 0.99 | 0.97 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.91 | 0.89 |
| 2 | 0.99 | 0.96 | 0.93 | 0.98 | 0.95 | 0.92 | 0.95 | 0.92 | 0.90 | 0.92 | 0.90 | 0.88 | 0.89 | 0.88 | 0.87 | 0.85 |
| 3 | 0.94 | 0.91 | 0.88 | 0.93 | 0.90 | 0.87 | 0.91 | 0.88 | 0.86 | 0.89 | 0.86 | 0.84 | 0.87 | 0.85 | 0.83 | 0.82 |
| 4 | 0.90 | 0.86 | 0.83 | 0.89 | 0.85 | 0.82 | 0.87 | 0.84 | 0.82 | 0.85 | 0.83 | 0.81 | 0.84 | 0.82 | 0.80 | 0.79 |
| 5 | 0.86 | 0.82 | 0.79 | 0.86 | 0.82 | 0.79 | 0.84 | 0.81 | 0.78 | 0.83 | 0.80 | 0.77 | 0.81 | 0.79 | 0.77 | 0.76 |
| 6 | 0.83 | 0.79 | 0.76 | 0.82 | 0.78 | 0.75 | 0.81 | 0.77 | 0.75 | 0.80 | 0.77 | 0.74 | 0.79 | 0.76 | 0.74 | 0.73 |
| 7 | 0.80 | 0.76 | 0.73 | 0.79 | 0.75 | 0.72 | 0.78 | 0.75 | 0.72 | 0.77 | 0.74 | 0.72 | 0.76 | 0.73 | 0.71 | 0.70 |
| 8 | 0.77 | 0.73 | 0.70 | 0.77 | 0.73 | 0.70 | 0.76 | 0.72 | 0.69 | 0.75 | 0.72 | 0.69 | 0.74 | 0.71 | 0.69 | 0.68 |
| 9 | 0.74 | 0.70 | 0.67 | 0.74 | 0.70 | 0.67 | 0.73 | 0.70 | 0.67 | 0.73 | 0.69 | 0.67 | 0.72 | 0.69 | 0.67 | 0.66 |
| 10 | 0.72 | 0.68 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.65 | 0.70 | 0.67 | 0.65 | 0.70 | 0.67 | 0.65 | 0.64 |



Nata 3-1939-M

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 | 8793.61 | 7581.82 | 5501.79 | 2372.38 | 1037.26 | 816.49 | 715.73 | 303.91 | 20.76 |
| 45.0 | 8884.45 | 7937.48 | 5871.21 | 2844.21 | 1104.98 | 844.01 | 742.16 | 318.23 | 23.40 |
| 90.0 | 8829.95 | 7968.86 | 5648.24 | 2723.09 | 1087.36 | 811.86 | 728.67 | 295.38 | 22.46 |
| 135.0 | 8751.77 | 8495.75 | 6800.57 | 3984.98 | 1420.46 | 877.60 | 759.23 | 497.16 | 50.93 |
| 180.0 | 8793.61 | 8508.42 | 6746.61 | 3727.32 | 1075.25 | 870.00 | 762.48 | 457.35 | 43.66 |
| 225.0 | 8884.45 | 8350.95 | 6216.42 | 3058.38 | 1078.78 | 850.51 | 752.18 | 362.82 | 23.62 |
| 270.0 | 8829.95 | 8315.72 | 6261.01 | 3161.34 | 1282.81 | 861.08 | 759.23 | 378.24 | 25.00 |
| 315.0 | 8751.77 | 7717.26 | 5117.49 | 2120.77 | 1009.02 | 808.45 | 677.19 | 199.52 | 19.99 |
| 360.0 | 8793.61 | 7581.82 | 5501.79 | 2372.38 | 1037.26 | 816.49 | 715.73 | 303.91 | 20.76 |
| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 12.50 | 10.74 | 10.13 | 9.80 | 9.52 | 9.30 | 9.19 | 9.14 | 9.08 |
| 45.0 | 12.28 | 10.85 | 10.19 | 9.91 | 9.58 | 9.41 | 9.25 | 9.19 | 9.14 |
| 90.0 | 12.55 | 10.68 | 10.08 | 9.74 | 9.52 | 9.36 | 9.25 | 9.19 | 9.14 |
| 135.0 | 15.14 | 11.01 | 10.30 | 9.91 | 9.63 | 9.47 | 9.30 | 9.19 | 9.14 |
| 180.0 | 13.93 | 10.96 | 10.24 | 9.80 | 9.52 | 9.36 | 9.19 | 9.08 | 9.03 |
| 225.0 | 13.38 | 10.90 | 10.24 | 9.86 | 9.63 | 9.47 | 9.36 | 9.30 | 9.19 |
| 270.0 | 13.38 | 10.96 | 10.30 | 9.91 | 9.63 | 9.47 | 9.36 | 9.36 | 9.30 |
| 315.0 | 11.45 | 10.57 | 10.02 | 9.69 | 9.52 | 9.30 | 9.19 | 9.14 | 9.08 |
| 360.0 | 12.50 | 10.74 | 10.13 | 9.80 | 9.52 | 9.30 | 9.19 | 9.14 | 9.08 |
| C/γ(°) | 90.0 | | | | | | | | |
| 0.0 | 9.03 | | | | | | | | |
| 45.0 | 9.08 | | | | | | | | |
| 90.0 | 9.14 | | | | | | | | |
| 135.0 | 9.14 | | | | | | | | |
| 180.0 | 9.03 | | | | | | | | |
| 225.0 | 9.14 | | | | | | | | |
| 270.0 | 9.19 | | | | | | | | |
| 315.0 | 9.08 | | | | | | | | |
| 360.0 | 9.03 | | | | | | | | |