
Nata

LumCAT: 3-1547-A3
Luminaire: TE 2213407-1+92.76.365.00
Report No: GC2016092009
Test No: NT-0010
LampCAT: CREE CXA2530
Lamp flux(lm): 1684.0
Number of Lamps: 1
Length(mm): 84
Phm Type: C

Voltage(V): 34.8000
Current(A): 0.5000
Power (W): 17.4000
PF: 0.0000
Ballast type: DC
Width(mm): 84
Height(mm): 0

Photometric Results

Lumens(lm): 1533.22
Efficiency(%): 91.05%
Lumens(lm)/Power(W): 88.12
Central intensity(cd): 2777.389
Maximum intensity(cd): 2799.377
Angle of maximum intensity: C=0.0 γ =5.0
Beam Angle(50%Imax): [C0/180]Total=41.1
 [C90/270]Total=41.1
Field angle(10%Imax): [C0/180]Total=71.1
 [C90/270]Total=71.1
Maximum s/h(1/2): C0_180=0.68 C90_270=0.68
Maximum s/h(1/4): C0_180=0.65 C90_270=0.65
Up flux rate of lamp(%): 0.00%
Down flux rate of lamp(%): 91.05%
Up flux rate of LUM(%): - -
Down flux rate of LUM(%): 100.00%
CIE Type : Direct lighting
Output flux ratio in π solid angle : 98.192%

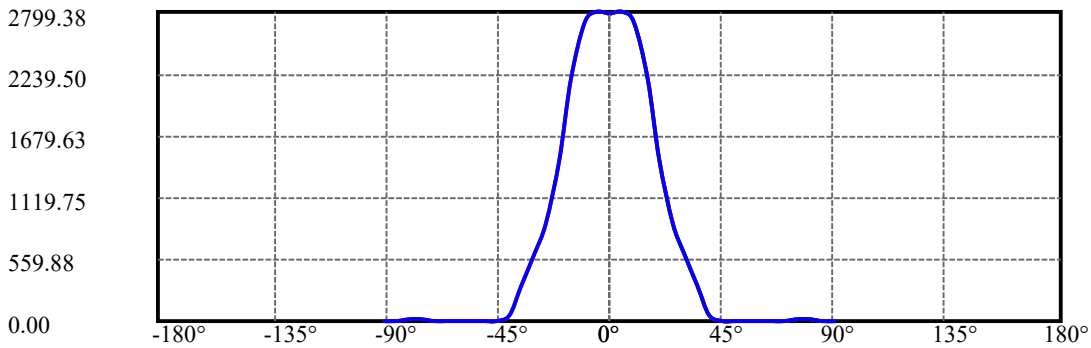
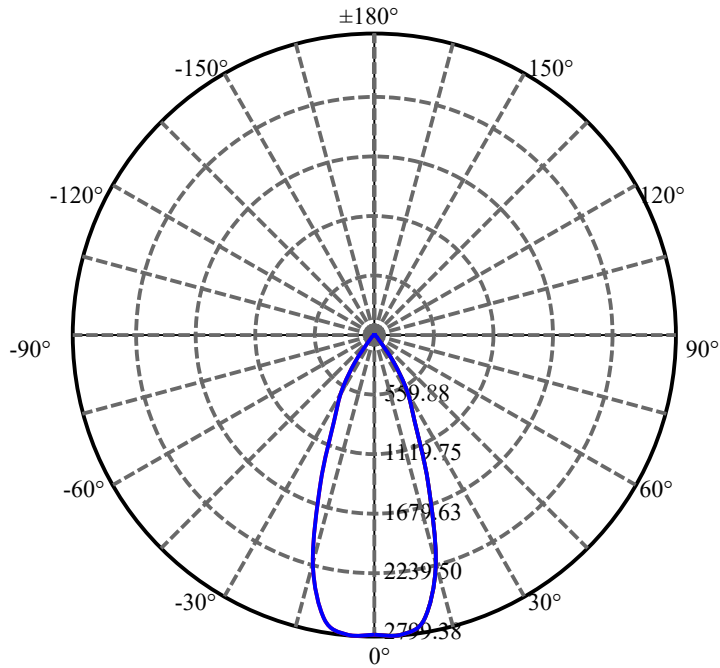
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0 | 2777.389 | 0.000 | 0 | .000% | .000% |
| 5.0 | 2799.377 | 66.669 | 66.669 | 3.959% | 4.348% |
| 10.0 | 2687.475 | 196.282 | 262.951 | 11.656% | 17.150% |
| 15.0 | 2194.101 | 289.572 | 552.522 | 17.195% | 36.037% |
| 20.0 | 1464.683 | 301.535 | 854.058 | 17.906% | 55.703% |
| 25.0 | 894.632 | 247.449 | 1101.506 | 14.694% | 71.843% |
| 30.0 | 600.080 | 189.157 | 1290.663 | 11.233% | 84.180% |
| 35.0 | 307.824 | 133.695 | 1424.358 | 7.939% | 92.900% |
| 40.0 | 52.785 | 60.165 | 1484.523 | 3.573% | 96.824% |
| 45.0 | 8.472 | 11.342 | 1495.866 | .674% | 97.564% |
| 50.0 | 7.426 | 3.212 | 1499.078 | .191% | 97.773% |
| 55.0 | 7.133 | 3.166 | 1502.244 | .188% | 97.980% |
| 60.0 | 6.927 | 3.250 | 1505.494 | .193% | 98.192% |
| 65.0 | 6.813 | 3.340 | 1508.834 | .198% | 98.409% |
| 70.0 | 6.775 | 3.441 | 1512.274 | .204% | 98.634% |
| 75.0 | 11.073 | 4.665 | 1516.94 | .277% | 98.938% |
| 80.0 | 14.201 | 6.763 | 1523.703 | .402% | 99.379% |
| 85.0 | 7.206 | 5.817 | 1529.519 | .345% | 99.759% |
| 90.0 | 6.314 | 3.702 | 1533.221 | .220% | 100.000% |

ZONAL LUMEN SUMMARY

| Zone | Lumens | %Lamp | %Fixt |
|---------|---------|--------|---------|
| 0-30 | 1290.66 | 76.64% | 84.18% |
| 0-40 | 1484.52 | 88.15% | 96.82% |
| 0-60 | 1505.49 | 89.40% | 98.19% |
| 0-90 | 1529.52 | 90.83% | 99.76% |
| 0-120 | 1529.52 | 90.83% | 99.76% |
| 0-180 | 1533.22 | 91.05% | 100.00% |
| 60-90 | 27.28 | 1.62% | 1.78% |
| 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% |
| 0-28.31 | 1226.58 | 72.84% | 80.00% |

ZONAL LUMEN SUMMARY

| | |
|---------|--------|
| 0-10 | 262.95 |
| 10-20 | 591.11 |
| 20-30 | 436.61 |
| 30-40 | 193.86 |
| 40-50 | 14.55 |
| 50-60 | 6.42 |
| 60-70 | 6.78 |
| 70-80 | 11.43 |
| 80-90 | 5.82 |
| 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: —————

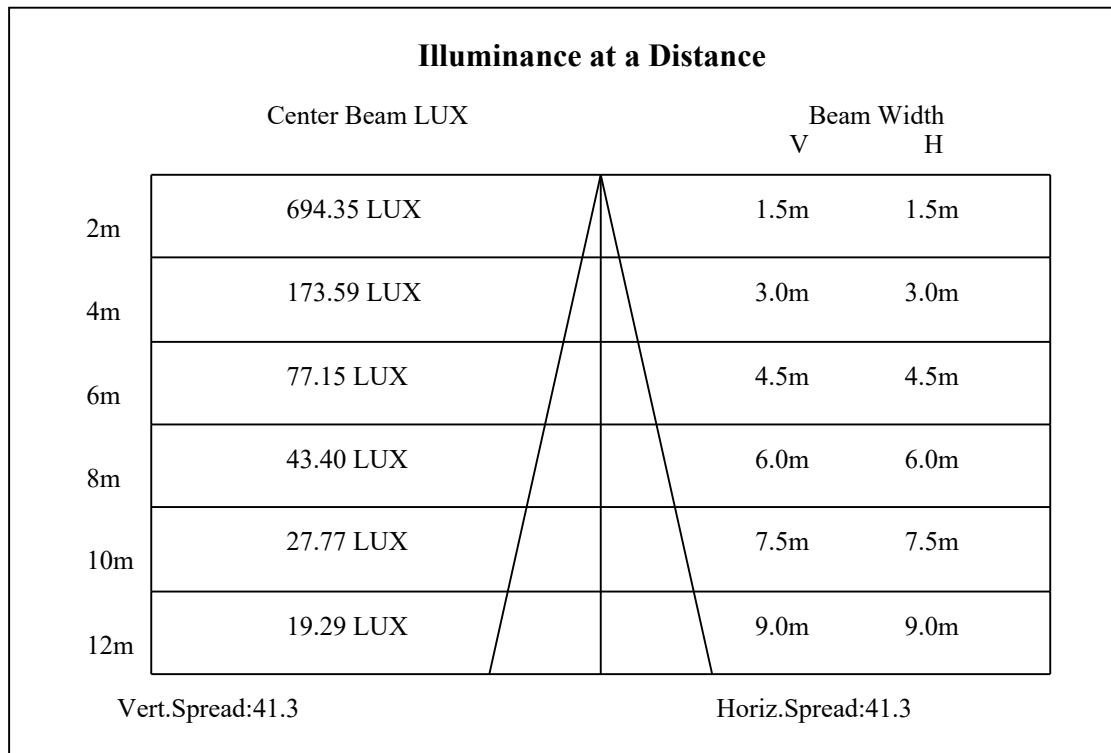
C90/C270: —————

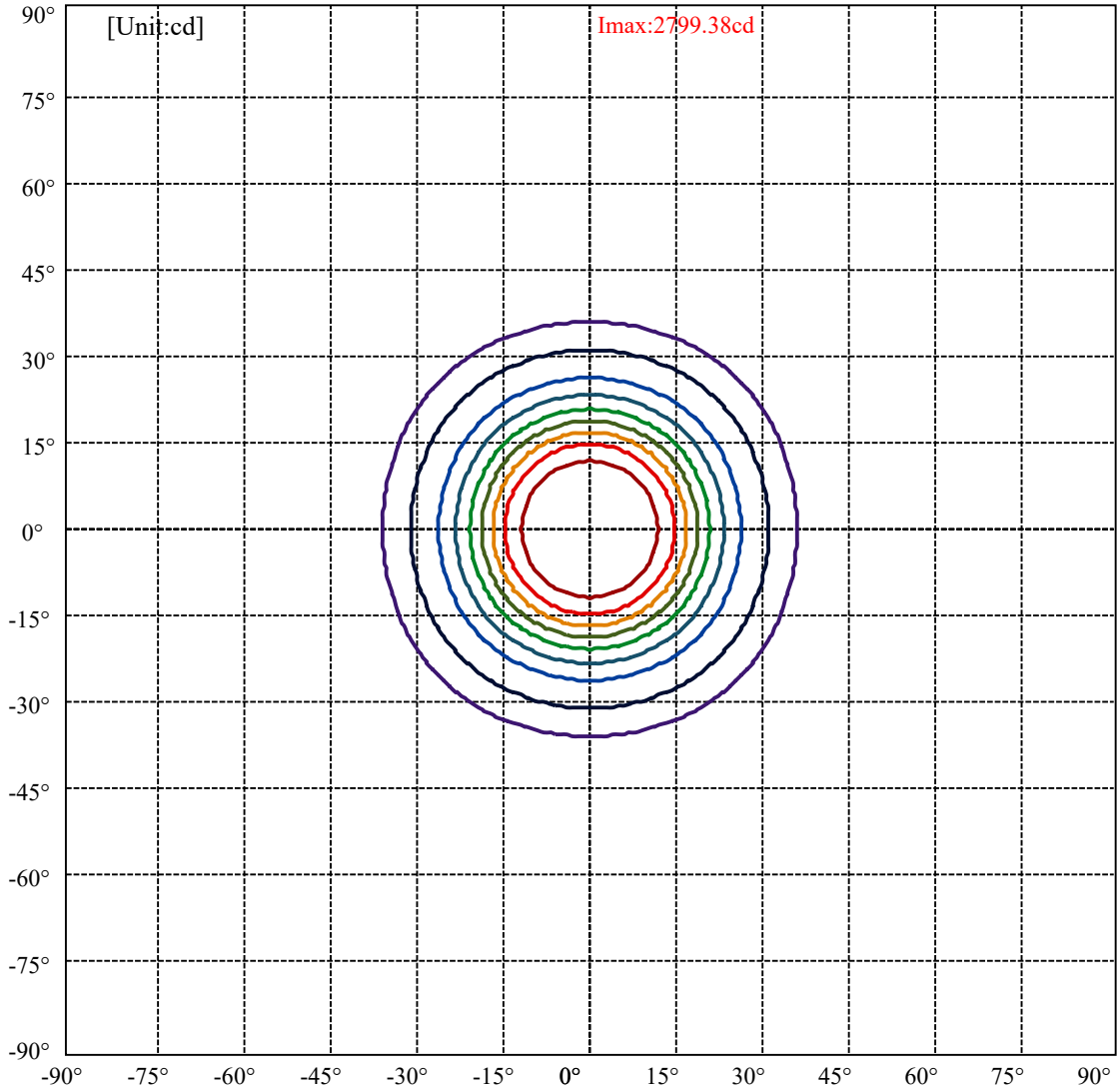
Field angle(10%Imax):C0/180Left:40.5 Right:30.5

:C90/270Left:40.5 Right:30.5

Beam Angle(50%Imax):C0/180Left:25.6 Right:15.6

:C90/270Left:25.6 Right:15.6



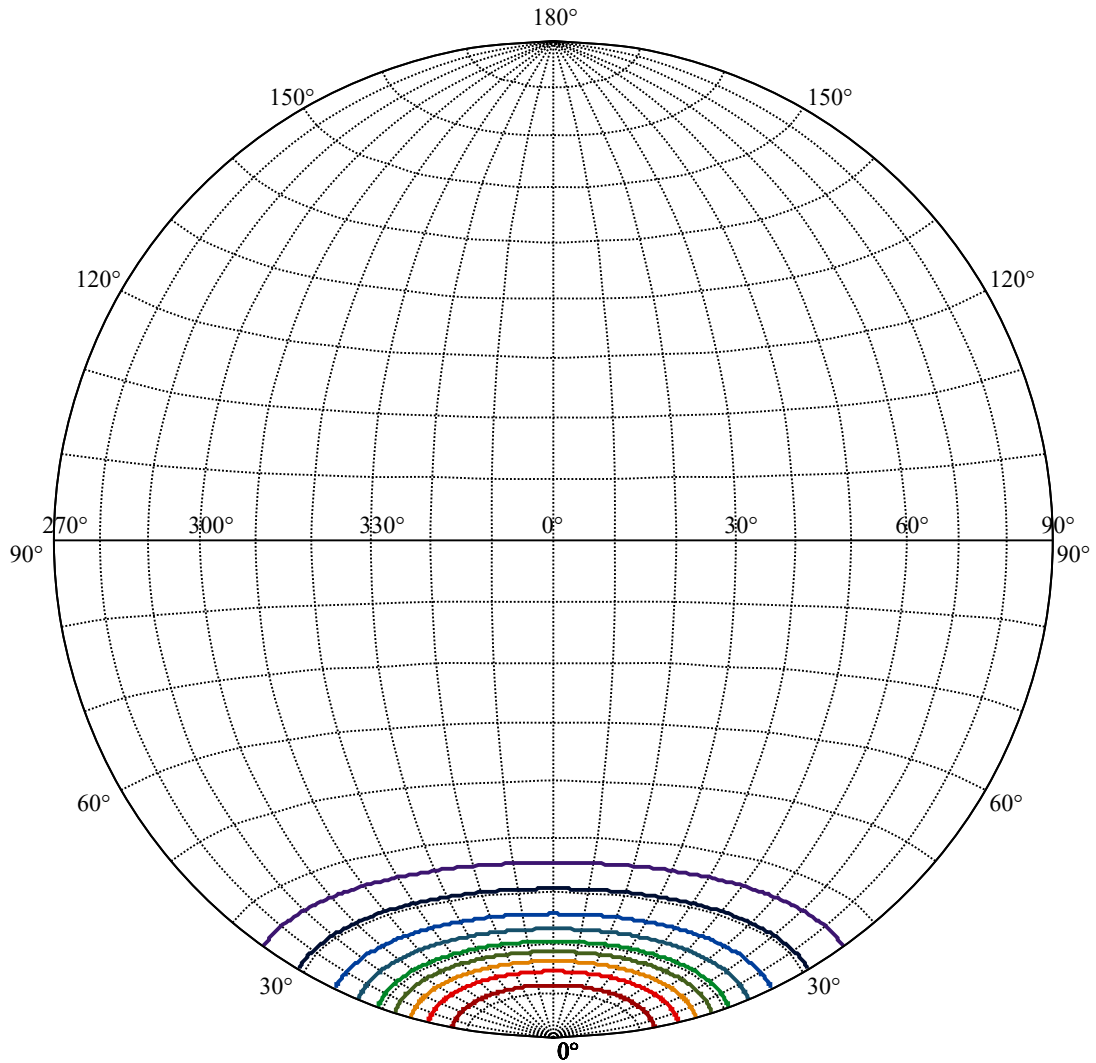


| | |
|-------------------|---|
| (10%Imax) 279.938 | — |
| (20%Imax) 559.875 | — |
| (30%Imax) 839.813 | — |
| (40%Imax) 1119.75 | — |
| (50%Imax) 1399.69 | — |
| (60%Imax) 1679.63 | — |
| (70%Imax) 1959.56 | — |
| (80%Imax) 2239.5 | — |
| (90%Imax) 2519.44 | — |

Equipment: gms1980
Temperature(°C): 25.0

Date: 2016/9/20
Humidity(%): 60.0%

Operator: NT03
Distance(m): 7.42



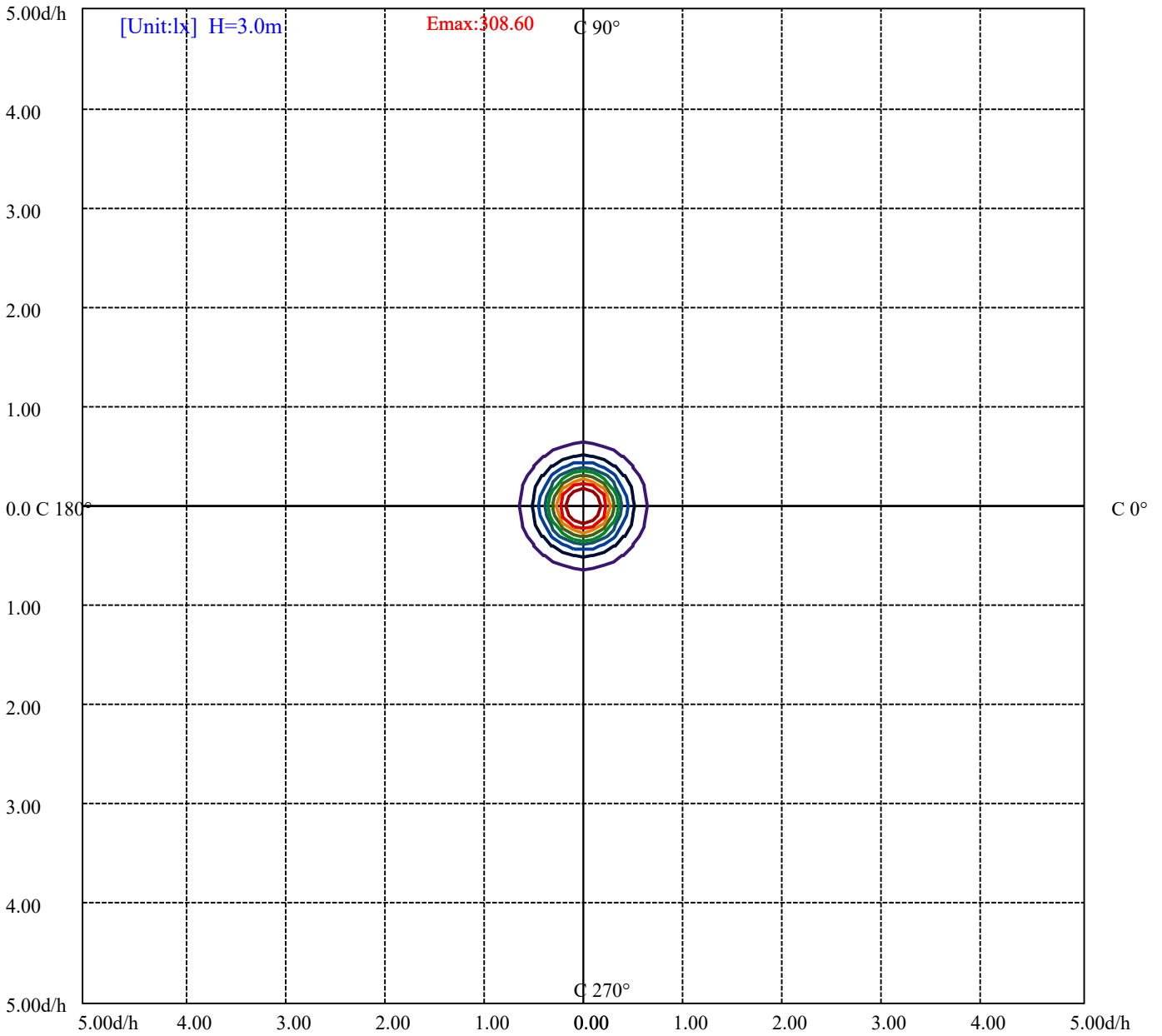
House

[Unit:cd]

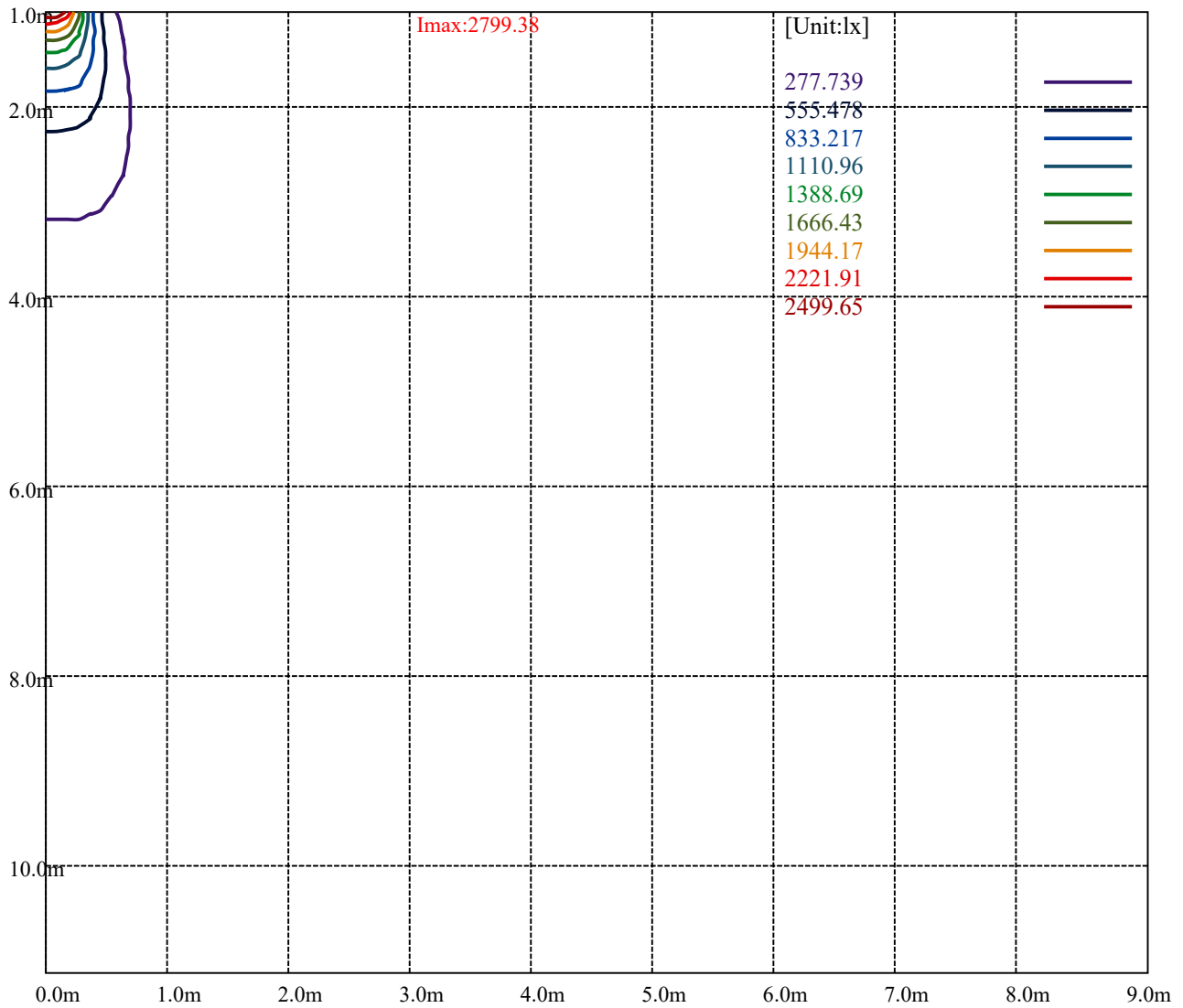
Road

Imax:2799.38

| | |
|-------------------|---|
| (10%Imax) 279.938 | — |
| (20%Imax) 559.875 | — |
| (30%Imax) 839.813 | — |
| (40%Imax) 1119.75 | — |
| (50%Imax) 1399.69 | — |
| (60%Imax) 1679.63 | — |
| (70%Imax) 1959.56 | — |
| (80%Imax) 2239.5 | — |
| (90%Imax) 2519.44 | — |



| | |
|--------------------|---|
| (10%Emax) 30.85989 | — |
| (20%Emax) 61.71978 | — |
| (30%Emax) 92.57967 | — |
| (40%Emax) 123.44 | — |
| (50%Emax) 154.2989 | — |
| (60%Emax) 185.1589 | — |
| (70%Emax) 216.0189 | — |
| (80%Emax) 246.8789 | — |
| (90%Emax) 277.7389 | — |



Luminance Table

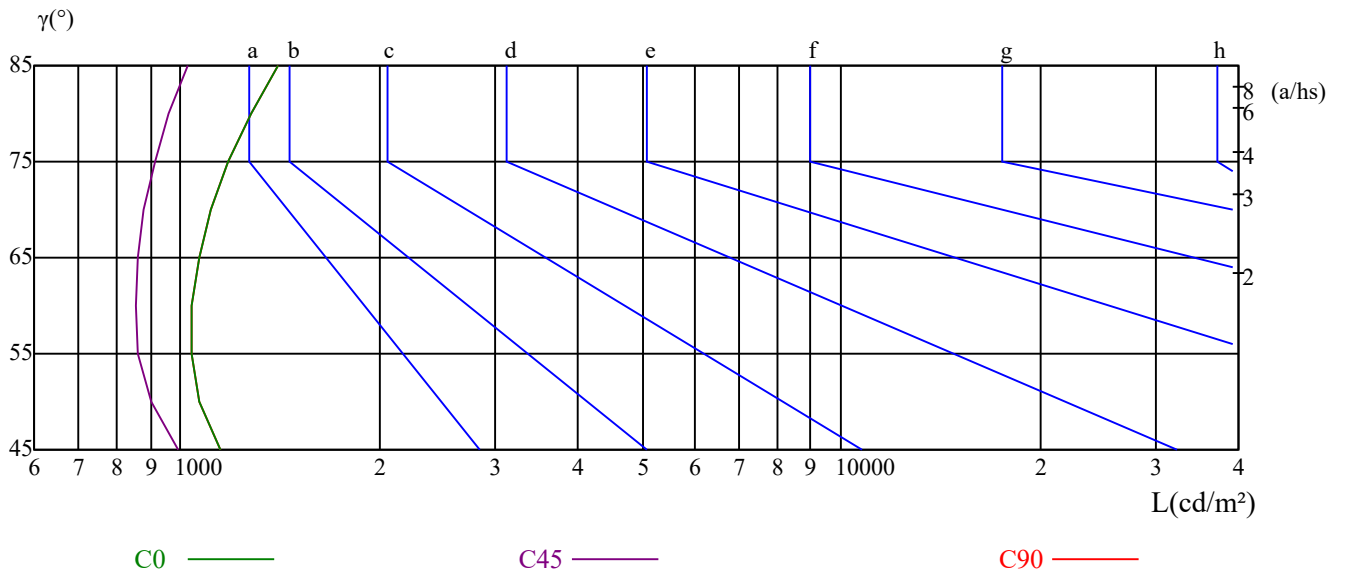
| γ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|------|------|------|------|------|------|------|------|------|
| C0 | 1152 | 1064 | 1038 | 1041 | 1067 | 1114 | 1183 | 1276 | 1403 |
| C45 | 990 | 900 | 864 | 853 | 859 | 879 | 914 | 962 | 1027 |
| C90 | 1152 | 1064 | 1038 | 1041 | 1067 | 1114 | 1183 | 1276 | 1403 |

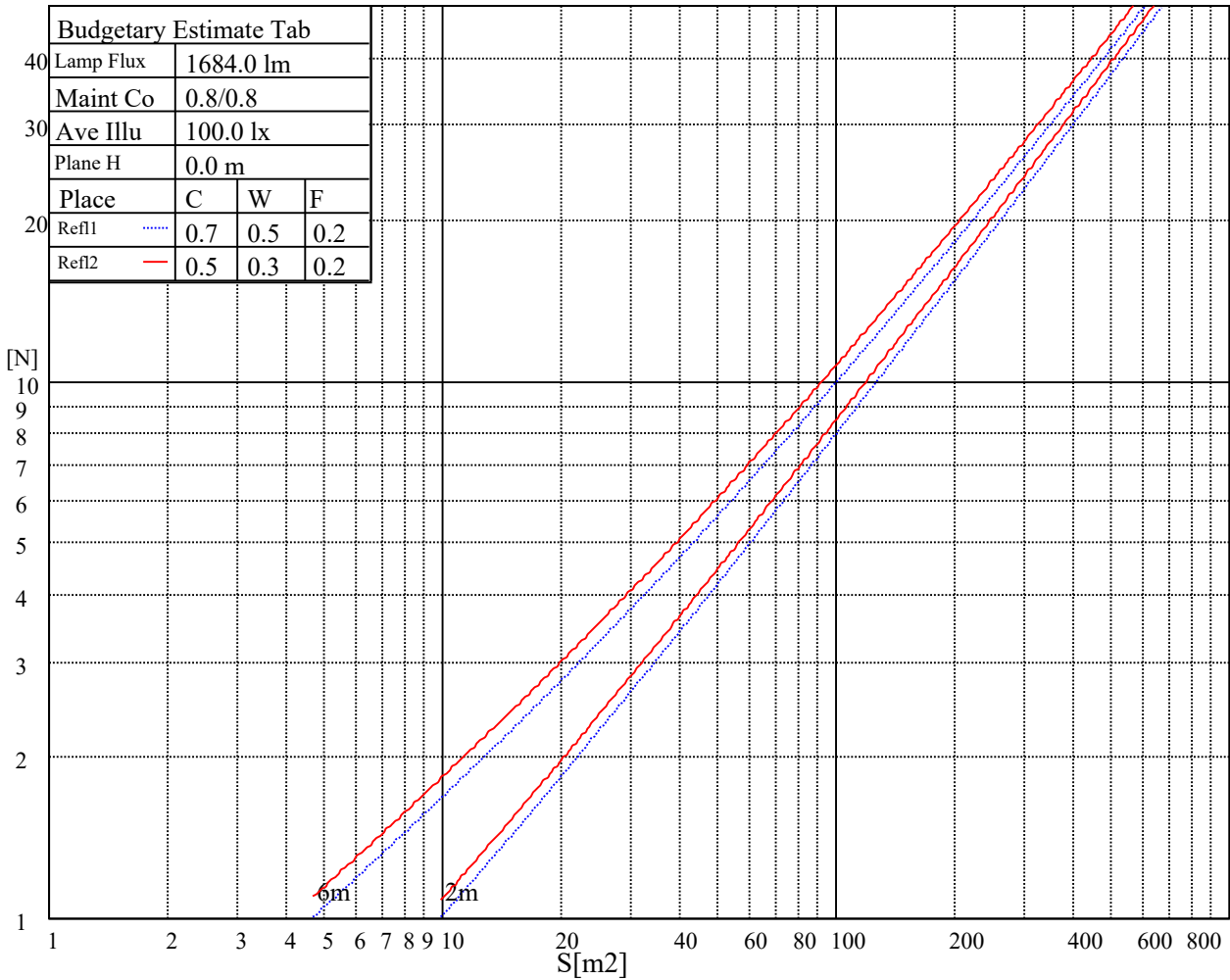
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 2574 | 2574 | 2574 | 4092 | 4092 | 4092 | 11964 | 11964 | 11964 |

Glare Table

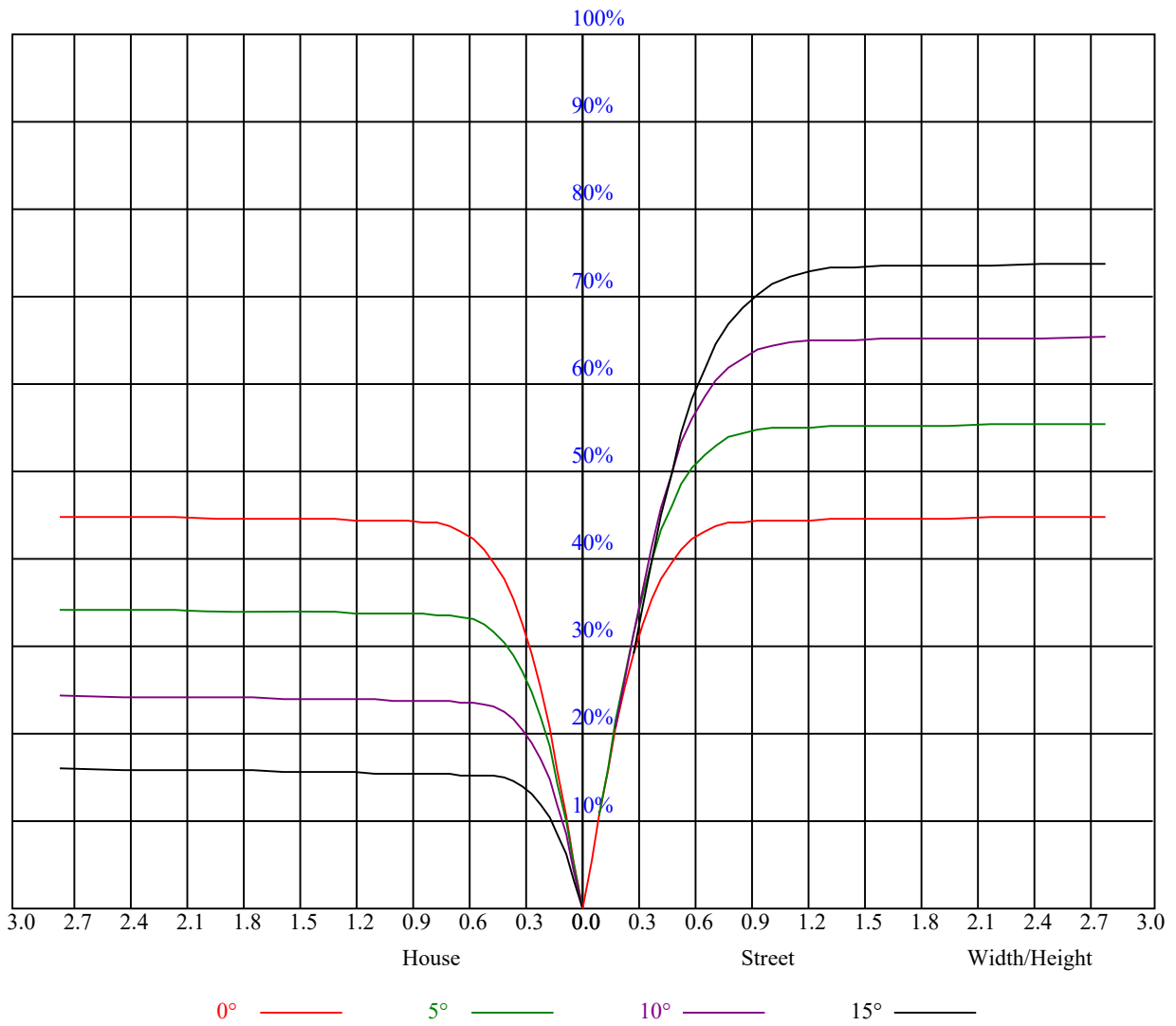
| Glare | Quality | Service Values Illuminance(lx) | | | | | | | |
|-------|---------|--------------------------------|------|------|-------|-------|-------|-------|-------|
| 1.15 | A | 2000 | 1000 | 500 | <=300 | | | | |
| 1.5 | B | | 2000 | 1000 | 500 | <=300 | | | |
| 1.85 | C | | | 2000 | 1000 | 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 RHOF=20 CU | | | | | | | | | | | | | | | |
| 0 | 1.08 | 1.08 | 1.08 | 1.06 | 1.06 | 1.06 | 1.01 | 1.01 | 1.01 | 0.97 | 0.97 | 0.97 | 0.93 | 0.93 | 0.93 | 0.91 |
| 1 | 1.01 | 0.99 | 0.97 | 0.99 | 0.97 | 0.96 | 0.96 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 |
| 2 | 0.95 | 0.92 | 0.89 | 0.94 | 0.90 | 0.88 | 0.91 | 0.88 | 0.86 | 0.88 | 0.86 | 0.84 | 0.85 | 0.84 | 0.82 | 0.81 |
| 3 | 0.90 | 0.86 | 0.82 | 0.88 | 0.85 | 0.82 | 0.86 | 0.83 | 0.80 | 0.84 | 0.81 | 0.79 | 0.82 | 0.80 | 0.78 | 0.77 |
| 4 | 0.85 | 0.80 | 0.77 | 0.84 | 0.80 | 0.76 | 0.82 | 0.78 | 0.76 | 0.80 | 0.77 | 0.75 | 0.79 | 0.76 | 0.74 | 0.73 |
| 5 | 0.80 | 0.76 | 0.72 | 0.80 | 0.75 | 0.72 | 0.78 | 0.74 | 0.71 | 0.77 | 0.73 | 0.71 | 0.75 | 0.72 | 0.70 | 0.69 |
| 6 | 0.76 | 0.72 | 0.68 | 0.76 | 0.71 | 0.68 | 0.74 | 0.71 | 0.68 | 0.73 | 0.70 | 0.67 | 0.72 | 0.69 | 0.67 | 0.66 |
| 7 | 0.73 | 0.68 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.67 | 0.64 | 0.70 | 0.67 | 0.64 | 0.69 | 0.66 | 0.64 | 0.62 |
| 8 | 0.70 | 0.65 | 0.61 | 0.69 | 0.65 | 0.61 | 0.68 | 0.64 | 0.61 | 0.67 | 0.64 | 0.61 | 0.66 | 0.63 | 0.61 | 0.60 |
| 9 | 0.66 | 0.62 | 0.59 | 0.66 | 0.62 | 0.58 | 0.65 | 0.61 | 0.58 | 0.64 | 0.61 | 0.58 | 0.64 | 0.60 | 0.58 | 0.57 |
| 10 | 0.64 | 0.59 | 0.56 | 0.63 | 0.59 | 0.56 | 0.63 | 0.59 | 0.56 | 0.62 | 0.58 | 0.56 | 0.61 | 0.58 | 0.55 | 0.54 |



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 | 2778.15 | 2816.13 | 2811.73 | 2448.36 | 1778.87 | 1056.53 | 660.13 | 427.79 | 120.35 |
| 22.5 | 2777.04 | 2828.25 | 2822.74 | 2405.96 | 1741.98 | 1014.69 | 652.42 | 395.86 | 101.36 |
| 45.0 | 2777.60 | 2831.00 | 2783.10 | 2294.20 | 1556.99 | 951.65 | 612.23 | 336.50 | 73.06 |
| 67.5 | 2778.70 | 2816.69 | 2808.98 | 2408.17 | 1754.10 | 1045.52 | 684.90 | 400.81 | 106.86 |
| 90.0 | 2774.84 | 2813.38 | 2728.60 | 2262.27 | 1500.29 | 930.40 | 605.07 | 301.21 | 58.64 |
| 112.5 | 2777.60 | 2794.66 | 2731.90 | 2296.40 | 1643.43 | 975.05 | 641.41 | 363.37 | 70.86 |
| 135.0 | 2774.84 | 2783.65 | 2623.99 | 2093.24 | 1396.78 | 844.01 | 569.34 | 260.42 | 26.04 |
| 157.5 | 2780.35 | 2778.70 | 2640.50 | 2154.91 | 1476.61 | 865.49 | 596.81 | 298.41 | 33.14 |
| 180.0 | 2778.15 | 2773.74 | 2520.48 | 1933.58 | 1066.11 | 751.80 | 517.09 | 198.59 | 12.22 |
| 202.5 | 2777.04 | 2770.99 | 2554.62 | 1980.38 | 1077.73 | 774.26 | 541.09 | 223.69 | 16.19 |
| 225.0 | 2777.60 | 2778.15 | 2622.34 | 2115.27 | 1429.26 | 829.15 | 586.35 | 285.74 | 27.86 |
| 247.5 | 2778.70 | 2786.40 | 2567.28 | 1978.18 | 1098.60 | 767.38 | 533.22 | 214.50 | 14.42 |
| 270.0 | 2774.84 | 2791.36 | 2669.68 | 2172.53 | 1476.06 | 854.48 | 606.17 | 302.81 | 34.25 |
| 292.5 | 2777.60 | 2801.82 | 2633.90 | 2065.17 | 1256.94 | 813.29 | 562.95 | 234.04 | 24.11 |
| 315.0 | 2774.84 | 2806.22 | 2742.91 | 2284.29 | 1614.25 | 940.91 | 630.95 | 362.27 | 67.83 |
| 337.5 | 2780.35 | 2818.89 | 2736.85 | 2212.72 | 1566.91 | 899.51 | 601.16 | 319.16 | 57.37 |
| 360.0 | 2778.15 | 2816.13 | 2811.73 | 2448.36 | 1778.87 | 1056.53 | 660.13 | 427.79 | 120.35 |
| C/γ(°) | 45.0 | 50.0 | 55.0 | 60.0 | 65.0 | 70.0 | 75.0 | 80.0 | 85.0 |
| 0.0 | 9.63 | 7.60 | 7.27 | 7.05 | 6.88 | 6.72 | 7.27 | 18.94 | 9.14 |
| 22.5 | 9.47 | 7.71 | 7.32 | 7.10 | 6.94 | 6.77 | 8.75 | 17.18 | 8.09 |
| 45.0 | 8.53 | 7.43 | 7.16 | 6.99 | 6.88 | 6.77 | 8.70 | 13.16 | 7.16 |
| 67.5 | 8.92 | 7.54 | 7.16 | 6.94 | 6.77 | 6.66 | 6.72 | 9.08 | 6.88 |
| 90.0 | 8.04 | 7.38 | 7.05 | 6.77 | 6.66 | 6.55 | 6.72 | 8.31 | 6.50 |
| 112.5 | 8.64 | 7.43 | 7.05 | 6.83 | 6.66 | 6.55 | 6.50 | 6.83 | 6.44 |
| 135.0 | 8.31 | 7.21 | 6.88 | 6.72 | 6.55 | 6.50 | 6.50 | 6.94 | 6.44 |
| 157.5 | 8.31 | 7.27 | 6.99 | 6.77 | 6.66 | 6.50 | 7.60 | 9.19 | 6.61 |
| 180.0 | 7.54 | 7.16 | 6.88 | 6.72 | 6.61 | 6.61 | 10.90 | 10.96 | 6.66 |
| 202.5 | 7.82 | 7.38 | 7.10 | 6.94 | 6.77 | 6.77 | 13.93 | 14.37 | 7.05 |
| 225.0 | 8.37 | 7.43 | 7.21 | 6.99 | 6.94 | 6.99 | 13.98 | 15.14 | 7.43 |
| 247.5 | 8.37 | 7.38 | 7.16 | 6.99 | 6.99 | 7.16 | 18.28 | 17.78 | 7.43 |
| 270.0 | 8.70 | 7.54 | 7.27 | 7.05 | 6.99 | 7.10 | 19.66 | 22.85 | 7.54 |
| 292.5 | 8.37 | 7.43 | 7.21 | 6.99 | 6.94 | 7.05 | 19.32 | 20.54 | 7.32 |
| 315.0 | 8.37 | 7.54 | 7.27 | 7.05 | 6.94 | 6.88 | 10.74 | 18.44 | 7.32 |
| 337.5 | 8.15 | 7.38 | 7.16 | 6.94 | 6.83 | 6.83 | 11.62 | 17.51 | 7.27 |
| 360.0 | 9.63 | 7.60 | 7.27 | 7.05 | 6.88 | 6.72 | 7.27 | 18.94 | 9.14 |
| C/γ(°) | 90.0 | | | | | | | | |
| 0.0 | 6.33 | | | | | | | | |
| 22.5 | 6.39 | | | | | | | | |
| 45.0 | 6.39 | | | | | | | | |
| 67.5 | 6.33 | | | | | | | | |
| 90.0 | 6.28 | | | | | | | | |
| 112.5 | 6.28 | | | | | | | | |
| 135.0 | 6.22 | | | | | | | | |
| 157.5 | 6.28 | | | | | | | | |
| 180.0 | 6.28 | | | | | | | | |
| 202.5 | 6.39 | | | | | | | | |
| 225.0 | 6.39 | | | | | | | | |
| 247.5 | 6.33 | | | | | | | | |
| 270.0 | 6.33 | | | | | | | | |
| 292.5 | 6.28 | | | | | | | | |
| 315.0 | 6.28 | | | | | | | | |
| 337.5 | 6.28 | | | | | | | | |
| 360.0 | 6.33 | | | | | | | | |