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## NATA

LumCAT: 2-1674-M  
Luminaire: 92.70.131.00  
Report No: NATA0100  
Test No: GC2019123010  
LampCAT: LUMINUS CXM-14-AC40  
Lamp flux(lm): 2608.0  
Number of Lamps: 1  
Length(mm): 0  
Phm Type: C

Voltage(V): 34.3900  
Current(A): 0.6000  
Power (W): 20.6300  
PF: 0.0000  
Ballast type: DC  
Width(mm): 0  
Height(mm): 0

## Photometric Results

Lumens(lm): 2324.61  
Efficiency(%): 89.13%  
Lumens(lm)/Power(W): 112.68  
Central intensity(cd): 13200.470  
Maximum intensity(cd): 13200.470  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=17.3  
[C90/270]Total=17.3  
Field angle(10%Imax): [C0/180]Total=37.0  
[C90/270]Total=37.0  
Maximum s/h(1/2): C0\_180=0.30 C90\_270=0.30  
Maximum s/h(1/4): C0\_180=0.30 C90\_270=0.30  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 89.13%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 98.559%

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 13200.469     | 0.000       | 0         | .000%       | .000%      |
| 1.0                | 13124.531     | 12.596      | 12.596    | .483%       | .542%      |
| 2.0                | 12736.406     | 37.118      | 49.714    | 1.423%      | 2.139%     |
| 3.0                | 12347.086     | 59.991      | 109.706   | 2.300%      | 4.719%     |
| 4.0                | 11690.859     | 80.463      | 190.168   | 3.085%      | 8.181%     |
| 5.0                | 10796.203     | 96.738      | 286.906   | 3.709%      | 12.342%    |
| 6.0                | 9833.484      | 108.414     | 395.321   | 4.157%      | 17.006%    |
| 7.0                | 8648.578      | 114.718     | 510.039   | 4.399%      | 21.941%    |
| 8.0                | 7359.961      | 114.570     | 624.609   | 4.393%      | 26.869%    |
| 9.0                | 6185.531      | 109.779     | 734.388   | 4.209%      | 31.592%    |
| 10.0               | 5115.516      | 102.270     | 836.658   | 3.921%      | 35.991%    |
| 11.0               | 4139.297      | 92.475      | 929.133   | 3.546%      | 39.969%    |
| 12.0               | 3454.383      | 83.010      | 1012.142  | 3.183%      | 43.540%    |
| 13.0               | 2863.969      | 74.983      | 1087.125  | 2.875%      | 46.766%    |
| 14.0               | 2347.102      | 66.701      | 1153.827  | 2.558%      | 49.635%    |
| 15.0               | 2073.164      | 60.683      | 1214.51   | 2.327%      | 52.246%    |
| 16.0               | 1758.797      | 56.149      | 1270.659  | 2.153%      | 54.661%    |
| 17.0               | 1547.648      | 51.490      | 1322.149  | 1.974%      | 56.876%    |
| 18.0               | 1377.872      | 48.235      | 1370.385  | 1.850%      | 58.951%    |
| 19.0               | 1265.667      | 45.992      | 1416.377  | 1.764%      | 60.930%    |
| 20.0               | 1155.206      | 44.309      | 1460.685  | 1.699%      | 62.836%    |
| 21.0               | 1082.742      | 42.973      | 1503.659  | 1.648%      | 64.684%    |
| 22.0               | 1029.874      | 42.454      | 1546.113  | 1.628%      | 66.511%    |
| 23.0               | 983.363       | 42.243      | 1588.356  | 1.620%      | 68.328%    |
| 24.0               | 946.322       | 42.190      | 1630.546  | 1.618%      | 70.143%    |
| 25.0               | 917.128       | 42.371      | 1672.916  | 1.625%      | 71.965%    |
| 26.0               | 893.299       | 42.735      | 1715.652  | 1.639%      | 73.804%    |
| 27.0               | 870.455       | 43.151      | 1758.802  | 1.655%      | 75.660%    |
| 28.0               | 853.123       | 43.637      | 1802.44   | 1.673%      | 77.537%    |
| 29.0               | 836.951       | 44.217      | 1846.657  | 1.695%      | 79.439%    |
| 30.0               | 821.130       | 44.768      | 1891.425  | 1.717%      | 81.365%    |
| 31.0               | 800.466       | 45.127      | 1936.551  | 1.730%      | 83.306%    |
| 32.0               | 768.586       | 44.951      | 1981.503  | 1.724%      | 85.240%    |
| 33.0               | 724.289       | 43.981      | 2025.483  | 1.686%      | 87.132%    |
| 34.0               | 671.280       | 42.234      | 2067.717  | 1.619%      | 88.949%    |
| 35.0               | 604.695       | 39.627      | 2107.344  | 1.519%      | 90.654%    |
| 36.0               | 521.213       | 35.849      | 2143.194  | 1.375%      | 92.196%    |
| 37.0               | 445.943       | 31.543      | 2174.737  | 1.209%      | 93.553%    |

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0               | 364.950       | 27.067      | 2201.803  | 1.038%      | 94.717%    |
| 39.0               | 278.627       | 21.967      | 2223.77   | .842%       | 95.662%    |
| 40.0               | 206.571       | 16.922      | 2240.692  | .649%       | 96.390%    |
| 41.0               | 150.047       | 12.699      | 2253.391  | .487%       | 96.936%    |
| 42.0               | 87.989        | 8.648       | 2262.04   | .332%       | 97.308%    |
| 43.0               | 54.429        | 5.276       | 2267.315  | .202%       | 97.535%    |
| 44.0               | 34.699        | 3.364       | 2270.679  | .129%       | 97.680%    |
| 45.0               | 22.099        | 2.183       | 2272.862  | .084%       | 97.774%    |
| 46.0               | 19.005        | 1.608       | 2274.469  | .062%       | 97.843%    |
| 47.0               | 17.037        | 1.433       | 2275.903  | .055%       | 97.905%    |
| 48.0               | 15.609        | 1.320       | 2277.223  | .051%       | 97.961%    |
| 49.0               | 14.801        | 1.249       | 2278.472  | .048%       | 98.015%    |
| 50.0               | 14.316        | 1.214       | 2279.685  | .047%       | 98.067%    |
| 51.0               | 13.816        | 1.190       | 2280.876  | .046%       | 98.118%    |
| 52.0               | 13.521        | 1.173       | 2282.049  | .045%       | 98.169%    |
| 53.0               | 13.226        | 1.163       | 2283.212  | .045%       | 98.219%    |
| 54.0               | 12.909        | 1.152       | 2284.364  | .044%       | 98.269%    |
| 55.0               | 12.670        | 1.142       | 2285.506  | .044%       | 98.318%    |
| 56.0               | 12.438        | 1.135       | 2286.641  | .044%       | 98.366%    |
| 57.0               | 12.199        | 1.126       | 2287.767  | .043%       | 98.415%    |
| 58.0               | 12.009        | 1.119       | 2288.887  | .043%       | 98.463%    |
| 59.0               | 11.862        | 1.116       | 2290.003  | .043%       | 98.511%    |
| 60.0               | 11.693        | 1.113       | 2291.115  | .043%       | 98.559%    |
| 61.0               | 11.545        | 1.109       | 2292.224  | .043%       | 98.607%    |
| 62.0               | 11.426        | 1.107       | 2293.331  | .042%       | 98.654%    |
| 63.0               | 11.292        | 1.105       | 2294.436  | .042%       | 98.702%    |
| 64.0               | 11.201        | 1.104       | 2295.54   | .042%       | 98.749%    |
| 65.0               | 11.109        | 1.104       | 2296.644  | .042%       | 98.797%    |
| 66.0               | 11.004        | 1.103       | 2297.747  | .042%       | 98.844%    |
| 67.0               | 10.948        | 1.104       | 2298.851  | .042%       | 98.892%    |
| 68.0               | 10.877        | 1.106       | 2299.957  | .042%       | 98.939%    |
| 69.0               | 10.814        | 1.107       | 2301.063  | .042%       | 98.987%    |
| 70.0               | 10.744        | 1.107       | 2302.17   | .042%       | 99.035%    |
| 71.0               | 10.716        | 1.109       | 2303.28   | .043%       | 99.082%    |
| 72.0               | 10.659        | 1.111       | 2304.391  | .043%       | 99.130%    |
| 73.0               | 10.617        | 1.113       | 2305.504  | .043%       | 99.178%    |
| 74.0               | 10.582        | 1.114       | 2306.618  | .043%       | 99.226%    |
| 75.0               | 10.554        | 1.117       | 2307.735  | .043%       | 99.274%    |

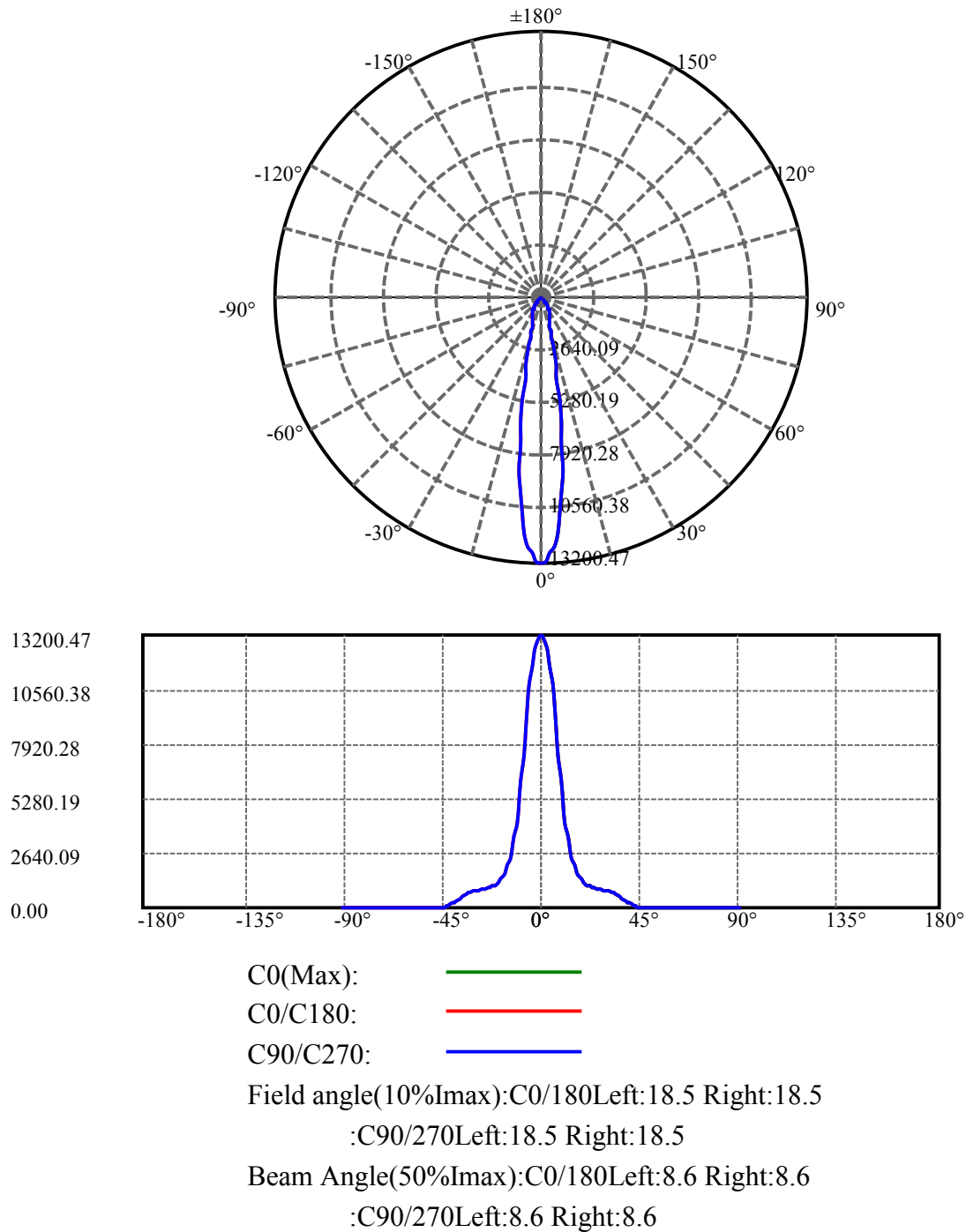
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0               | 10.512        | 1.118       | 2308.853  | .043%       | 99.322%    |
| 77.0               | 10.498        | 1.120       | 2309.973  | .043%       | 99.370%    |
| 78.0               | 10.470        | 1.122       | 2311.096  | .043%       | 99.418%    |
| 79.0               | 10.441        | 1.124       | 2312.219  | .043%       | 99.467%    |
| 80.0               | 10.427        | 1.125       | 2313.344  | .043%       | 99.515%    |
| 81.0               | 10.392        | 1.126       | 2314.47   | .043%       | 99.564%    |
| 82.0               | 10.385        | 1.127       | 2315.597  | .043%       | 99.612%    |
| 83.0               | 10.378        | 1.129       | 2316.726  | .043%       | 99.661%    |
| 84.0               | 10.357        | 1.130       | 2317.855  | .043%       | 99.709%    |
| 85.0               | 10.329        | 1.129       | 2318.984  | .043%       | 99.758%    |
| 86.0               | 10.294        | 1.127       | 2320.111  | .043%       | 99.806%    |
| 87.0               | 10.273        | 1.126       | 2321.237  | .043%       | 99.855%    |
| 88.0               | 10.273        | 1.125       | 2322.362  | .043%       | 99.903%    |
| 89.0               | 10.266        | 1.126       | 2323.488  | .043%       | 99.952%    |
| 90.0               | 10.266        | 1.126       | 2324.614  | .043%       | 100.000%   |

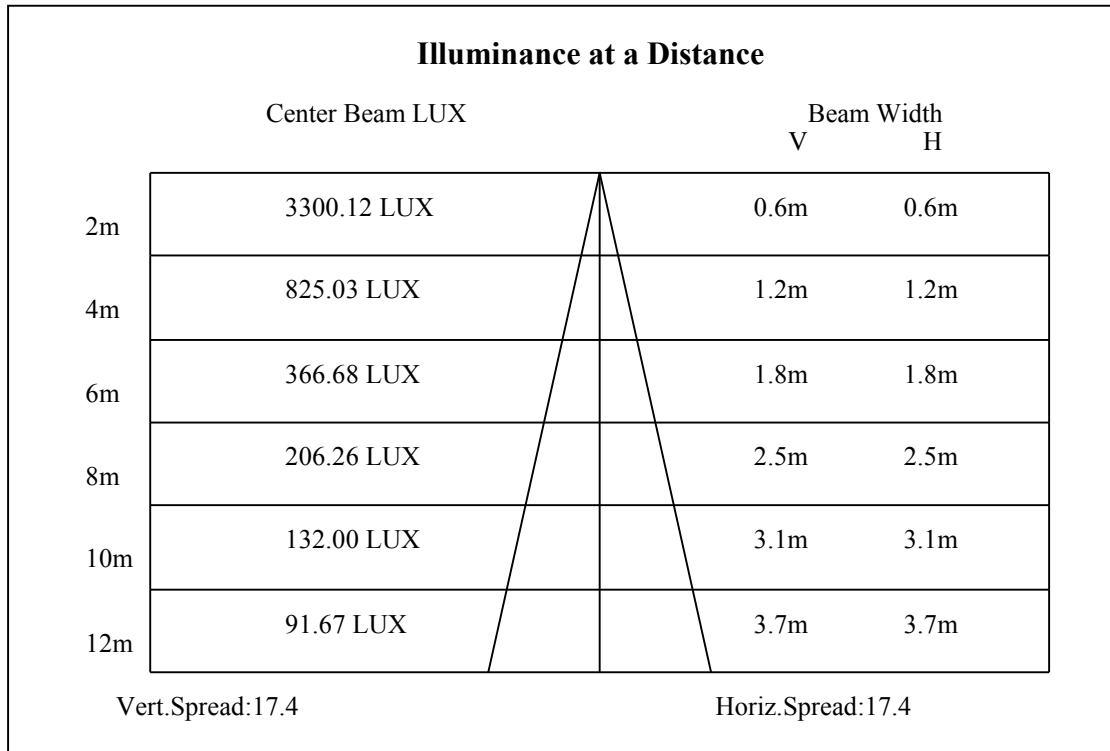
## ZONAL LUMEN SUMMARY

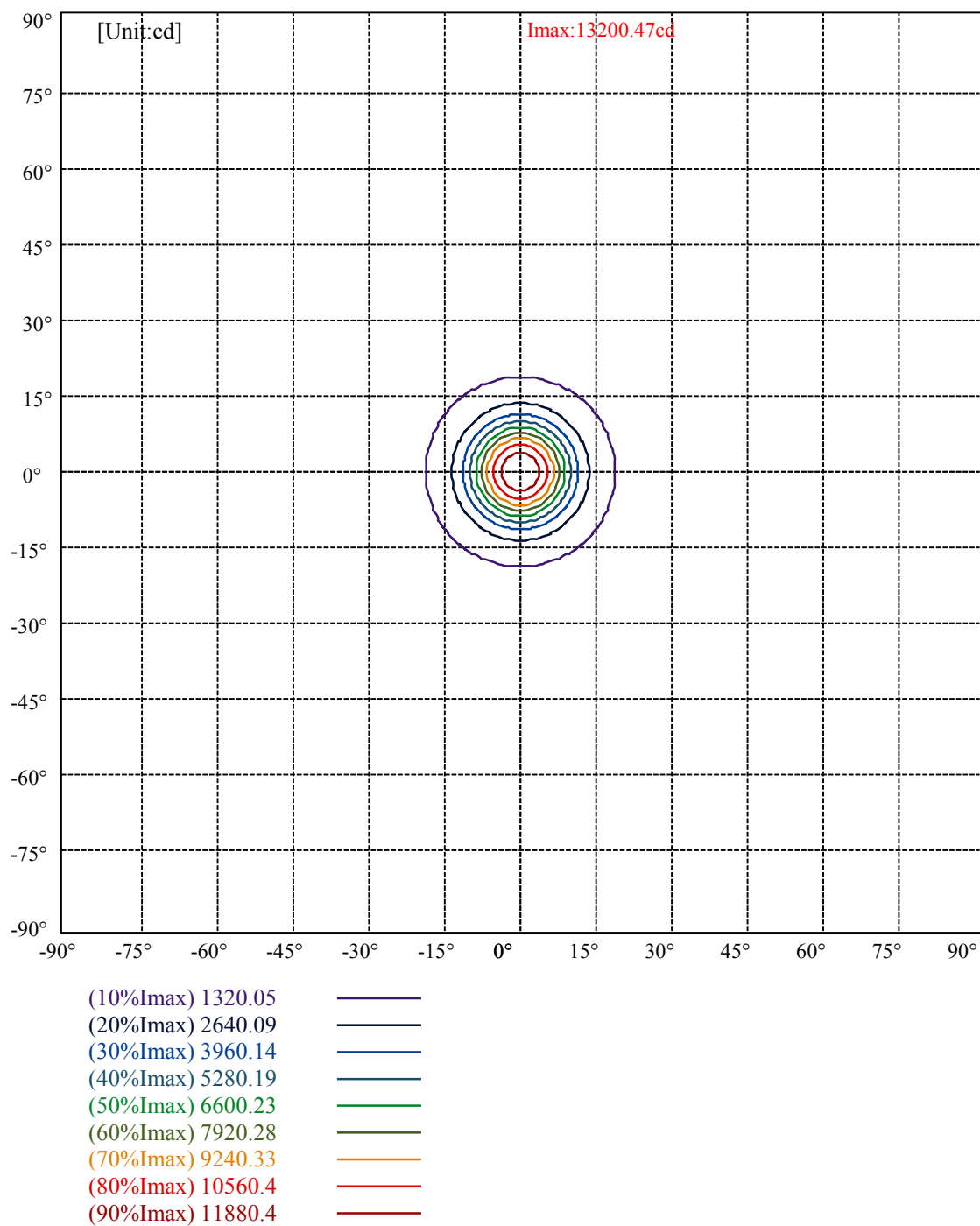
| Zone    | Lumens  | %Lamp  | %Fixt   |
|---------|---------|--------|---------|
| 0-30    | 1891.42 | 72.52% | 81.37%  |
| 0-40    | 2240.69 | 85.92% | 96.39%  |
| 0-60    | 2291.12 | 87.85% | 98.56%  |
| 0-90    | 2323.49 | 89.09% | 99.95%  |
| 0-120   | 2323.49 | 89.09% | 99.95%  |
| 0-180   | 2324.61 | 89.13% | 100.00% |
| 60-90   | 33.49   | 1.28%  | 1.44%   |
| 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%   |
| 0-29.29 | 1859.69 | 71.31% | 80.00%  |

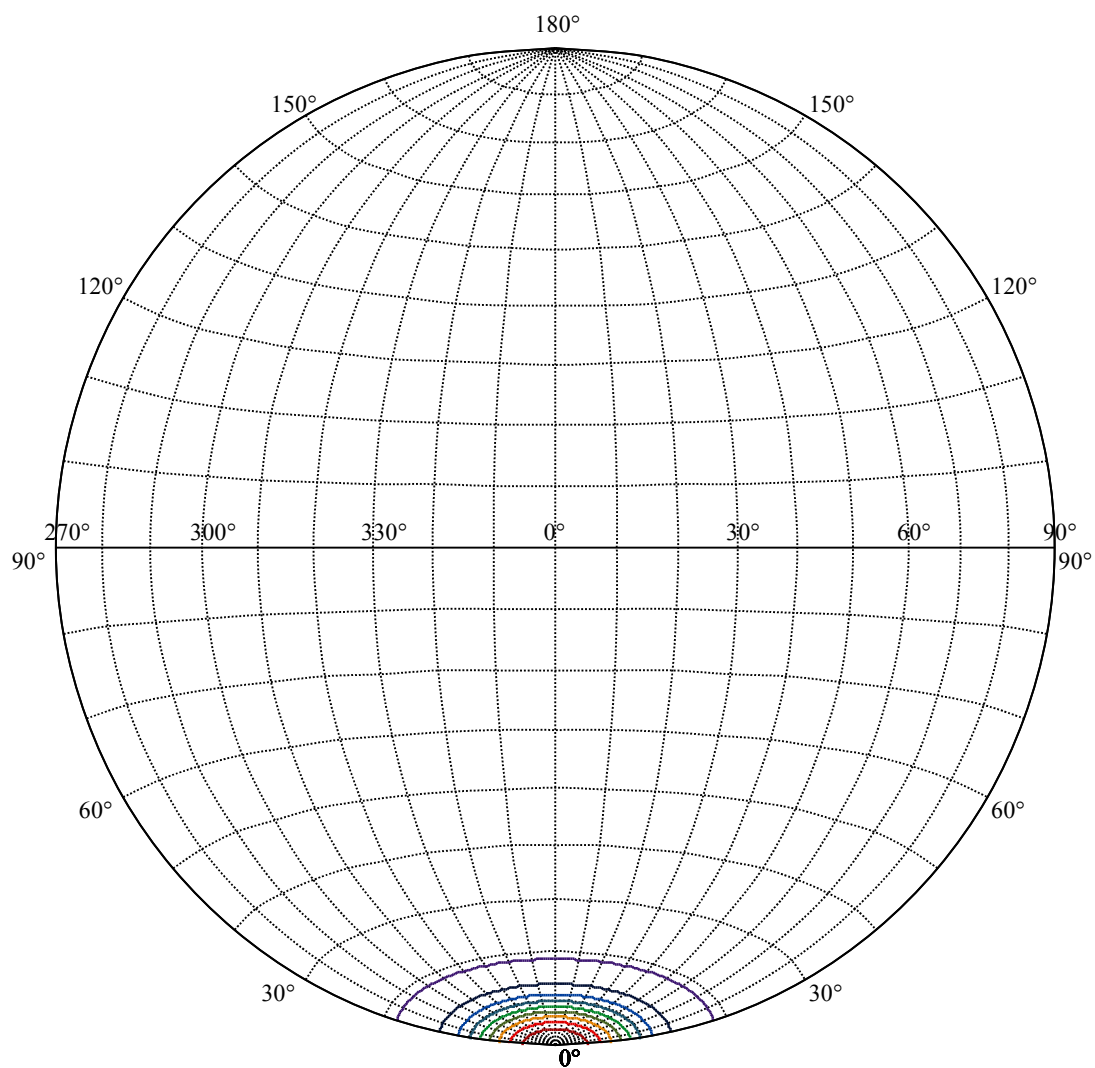
## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 836.66 |
| 10-20   | 624.03 |
| 20-30   | 430.74 |
| 30-40   | 349.27 |
| 40-50   | 38.99  |
| 50-60   | 11.43  |
| 60-70   | 11.06  |
| 70-80   | 11.17  |
| 80-90   | 10.14  |
| 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   |









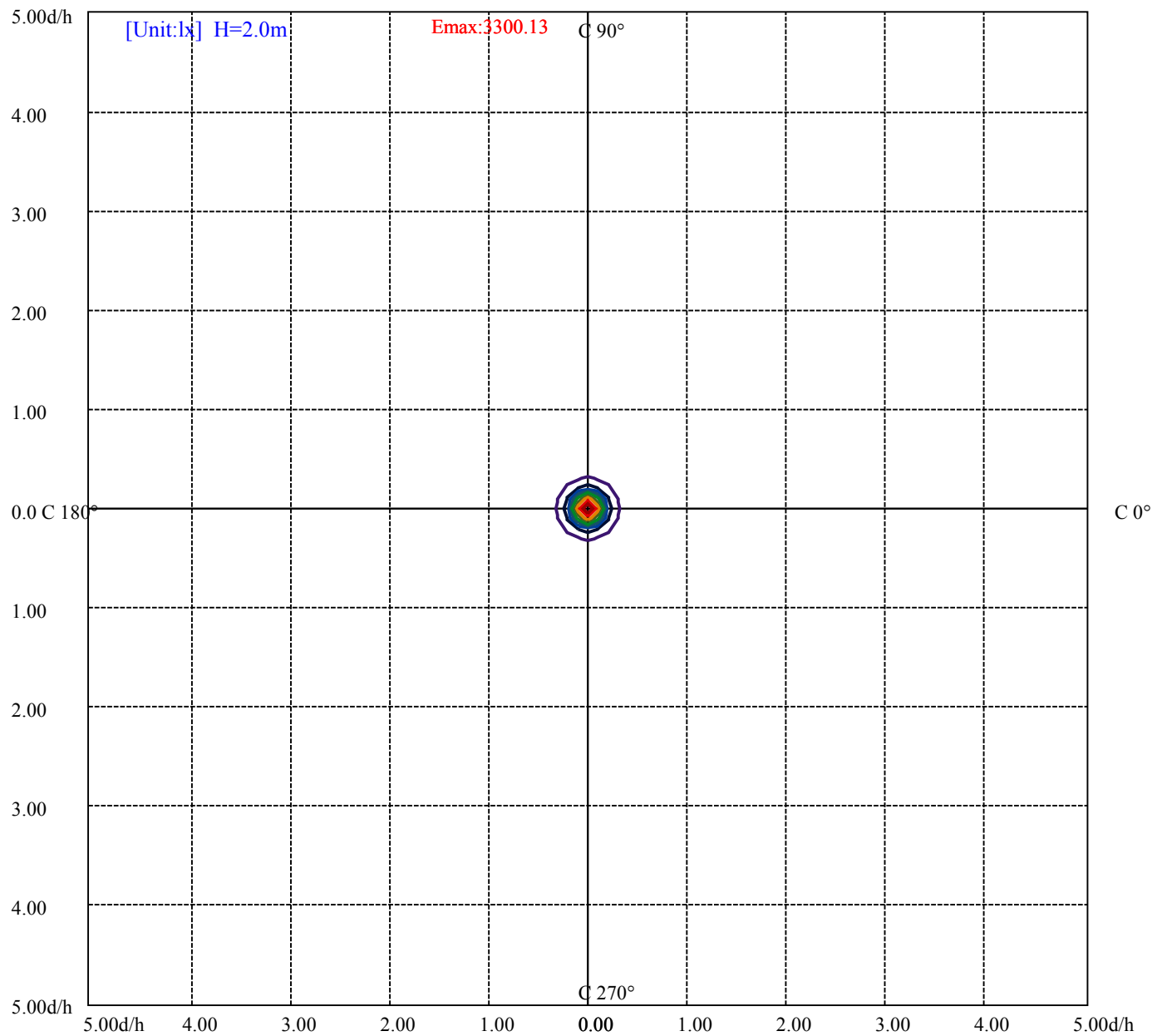
House

[Unit:cd]

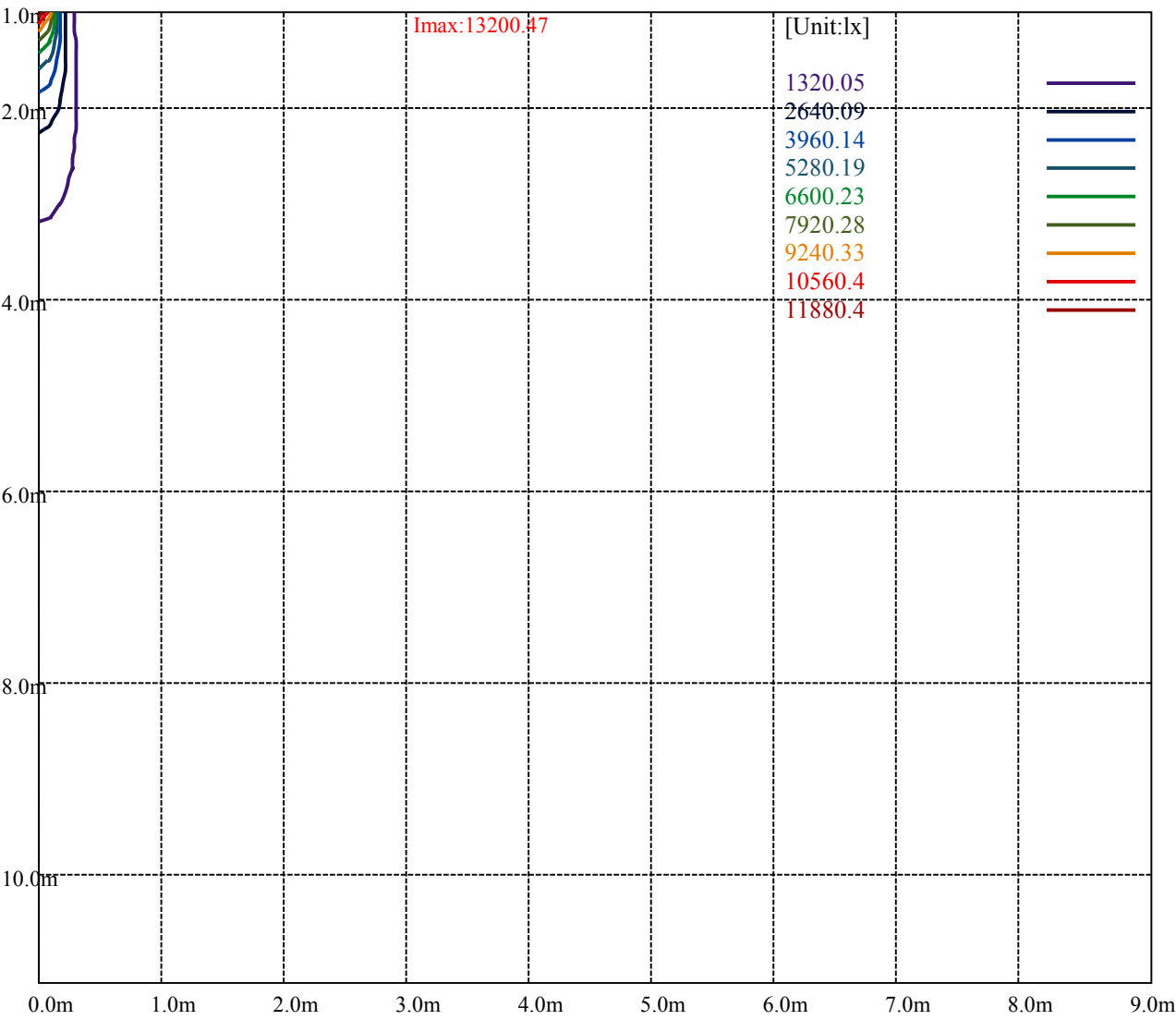
Road

Imax:13200.47

|           |         |   |
|-----------|---------|---|
| (10%Imax) | 1320.05 | — |
| (20%Imax) | 2640.09 | — |
| (30%Imax) | 3960.14 | — |
| (40%Imax) | 5280.19 | — |
| (50%Imax) | 6600.23 | — |
| (60%Imax) | 7920.28 | — |
| (70%Imax) | 9240.33 | — |
| (80%Imax) | 10560.4 | — |
| (90%Imax) | 11880.4 | — |



|                                 |   |
|---------------------------------|---|
| (10%E <sub>max</sub> ) 330.0125 | — |
| (20%E <sub>max</sub> ) 660.0225 | — |
| (30%E <sub>max</sub> ) 990.035  | — |
| (40%E <sub>max</sub> ) 1320.045 | — |
| (50%E <sub>max</sub> ) 1650.057 | — |
| (60%E <sub>max</sub> ) 1980.068 | — |
| (70%E <sub>max</sub> ) 2310.08  | — |
| (80%E <sub>max</sub> ) 2640.1   | — |
| (90%E <sub>max</sub> ) 2970.1   | — |



Luminance Table

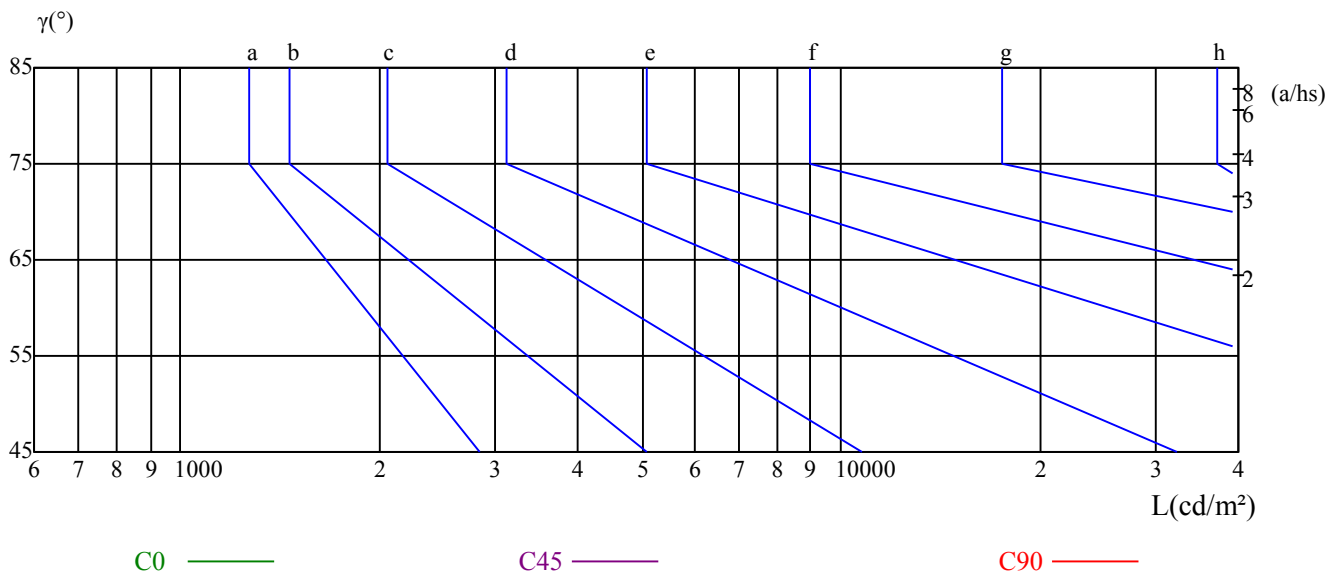
| $\gamma$ | 45 | 50 | 55 | 60 | 65 | 70 | 75 | 80 | 85 |
|----------|----|----|----|----|----|----|----|----|----|
| C0       | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C45      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |
| C90      | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  | 0  |

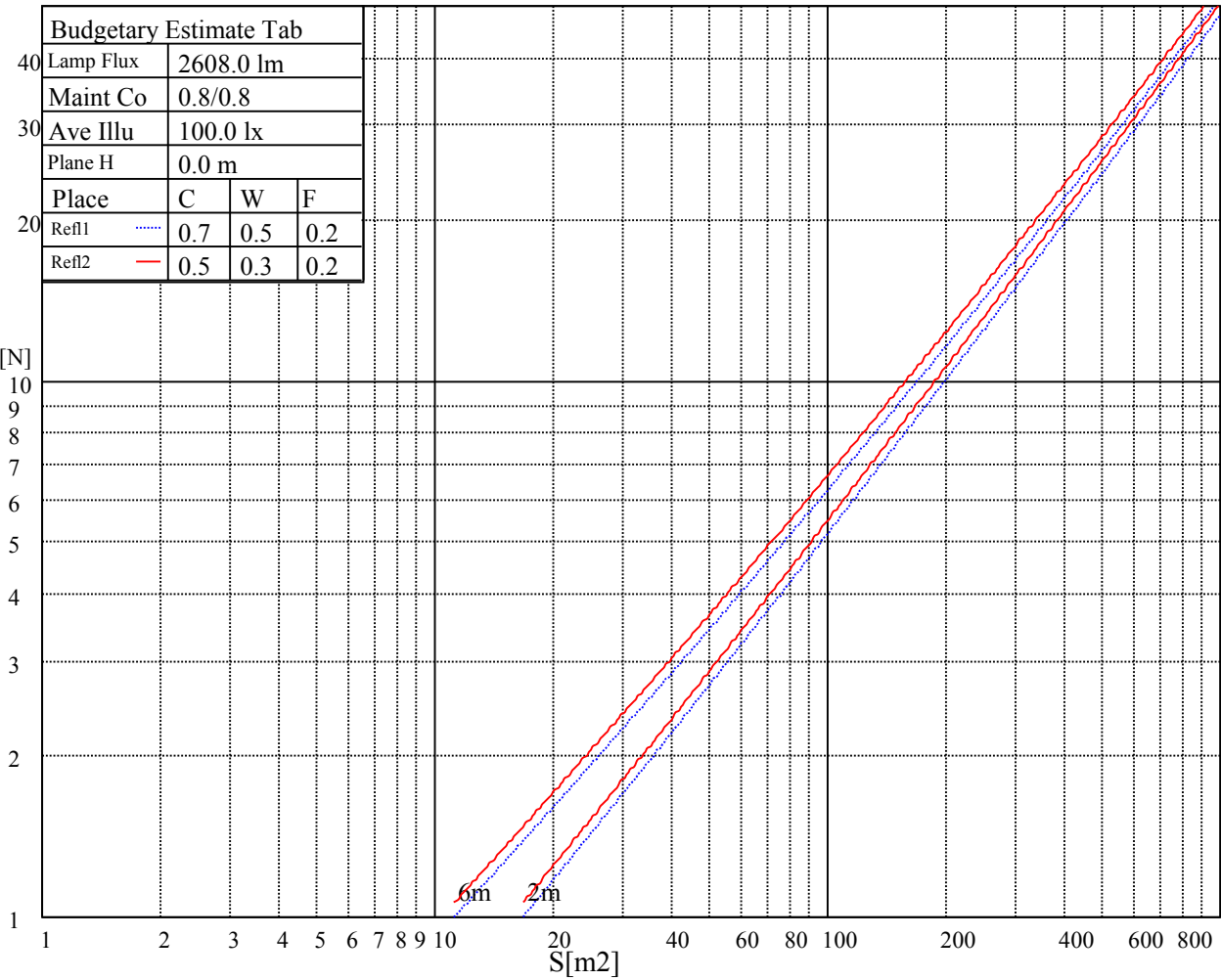
| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 0          | 0          | 0       | 0          | 0          | 0       | 0     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

Glare Table

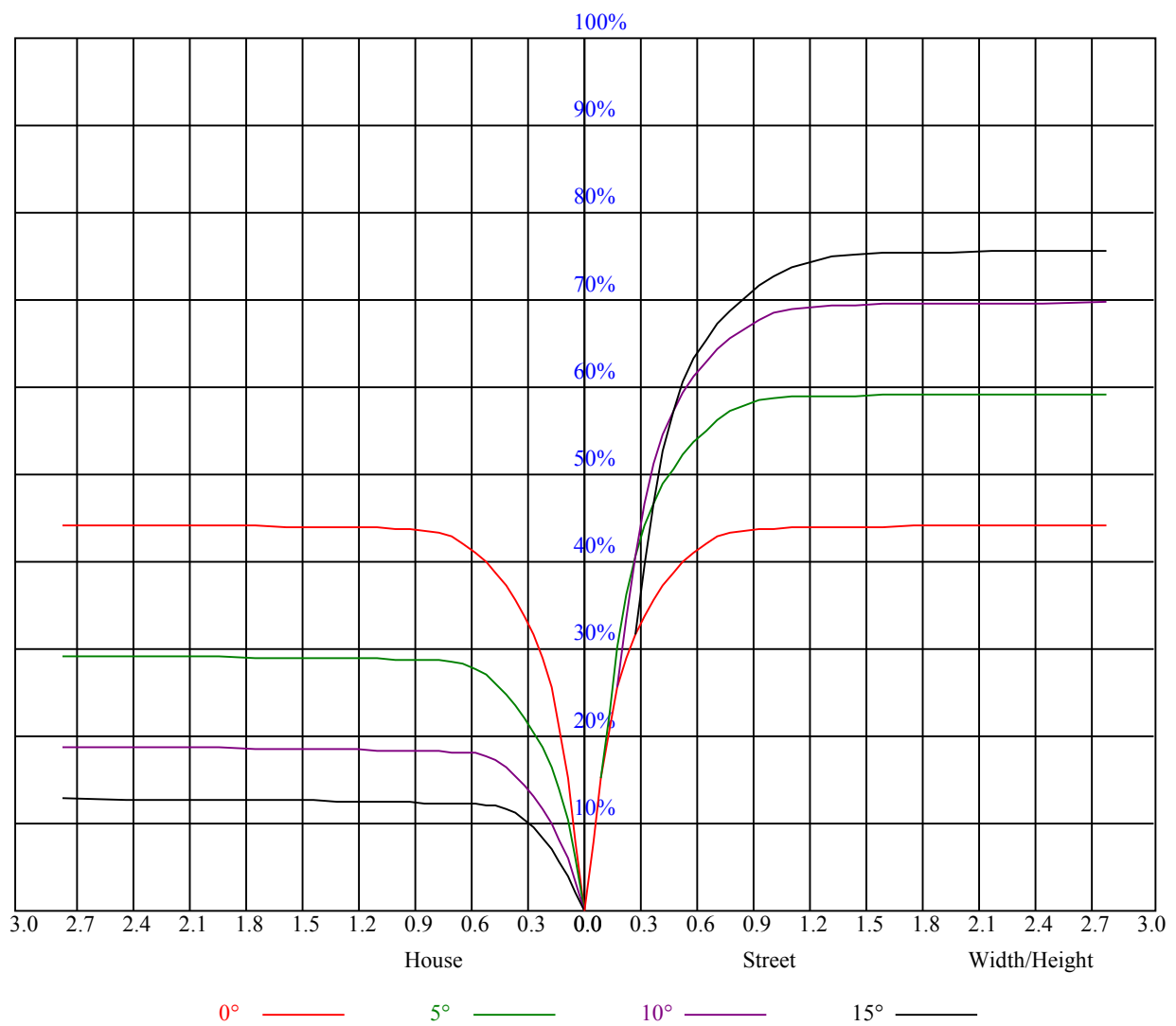
| Glare | Quality | Service Values Illuminance(lx) |      |      |            |            |            |            |            |
|-------|---------|--------------------------------|------|------|------------|------------|------------|------------|------------|
| 1.15  | A       | 2000                           | 1000 | 500  | $\leq 300$ |            |            |            |            |
| 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





| 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     | 1.06                                    | 1.06 | 1.06 | 1.04 | 1.04 | 1.04 | 0.99 | 0.99 | 0.99 | 0.95 | 0.95 | 0.95 | 0.91 | 0.91 | 0.91 | 0.89 |
| 1     | 1.00                                    | 0.98 | 0.96 | 0.98 | 0.96 | 0.95 | 0.94 | 0.93 | 0.92 | 0.91 | 0.90 | 0.89 | 0.88 | 0.87 | 0.86 | 0.85 |
| 2     | 0.94                                    | 0.91 | 0.89 | 0.93 | 0.90 | 0.88 | 0.90 | 0.88 | 0.86 | 0.87 | 0.86 | 0.84 | 0.85 | 0.84 | 0.82 | 0.81 |
| 3     | 0.90                                    | 0.86 | 0.83 | 0.88 | 0.85 | 0.82 | 0.86 | 0.83 | 0.81 | 0.84 | 0.82 | 0.80 | 0.82 | 0.80 | 0.79 | 0.77 |
| 4     | 0.85                                    | 0.81 | 0.78 | 0.84 | 0.81 | 0.78 | 0.83 | 0.79 | 0.77 | 0.81 | 0.78 | 0.76 | 0.79 | 0.77 | 0.75 | 0.74 |
| 5     | 0.82                                    | 0.77 | 0.74 | 0.81 | 0.77 | 0.74 | 0.79 | 0.76 | 0.73 | 0.78 | 0.75 | 0.73 | 0.77 | 0.74 | 0.72 | 0.71 |
| 6     | 0.78                                    | 0.74 | 0.71 | 0.78 | 0.74 | 0.71 | 0.76 | 0.73 | 0.70 | 0.75 | 0.72 | 0.70 | 0.74 | 0.71 | 0.69 | 0.68 |
| 7     | 0.75                                    | 0.71 | 0.68 | 0.75 | 0.71 | 0.68 | 0.74 | 0.70 | 0.68 | 0.73 | 0.70 | 0.67 | 0.72 | 0.69 | 0.67 | 0.66 |
| 8     | 0.72                                    | 0.68 | 0.65 | 0.72 | 0.68 | 0.65 | 0.71 | 0.68 | 0.65 | 0.70 | 0.67 | 0.65 | 0.70 | 0.67 | 0.65 | 0.64 |
| 9     | 0.70                                    | 0.66 | 0.63 | 0.70 | 0.66 | 0.63 | 0.69 | 0.65 | 0.63 | 0.68 | 0.65 | 0.63 | 0.67 | 0.65 | 0.62 | 0.62 |
| 10    | 0.68                                    | 0.64 | 0.61 | 0.67 | 0.64 | 0.61 | 0.67 | 0.63 | 0.61 | 0.66 | 0.63 | 0.61 | 0.66 | 0.63 | 0.60 | 0.60 |



## NATA 2-1674-M

| Intensity data(cd) |          |          |          |          |          |          |          |          |          | Appendix Page: 16 Total:18 |  |
|--------------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------------------------|--|
| C/γ(°)             | 0.0      | 1.0      | 2.0      | 3.0      | 4.0      | 5.0      | 6.0      | 7.0      | 8.0      |                            |  |
| 0.0                | 13140.00 | 13325.63 | 13410.00 | 13398.75 | 13303.13 | 12960.00 | 12386.25 | 11587.50 | 10462.50 |                            |  |
| 45.0               | 13190.63 | 13314.38 | 13320.00 | 13246.88 | 13050.00 | 12543.75 | 11846.25 | 10923.75 | 9675.00  |                            |  |
| 90.0               | 13224.38 | 13156.88 | 12892.50 | 12498.75 | 11156.63 | 10923.19 | 9874.13  | 8539.31  | 7147.13  |                            |  |
| 135.0              | 13246.88 | 13078.13 | 12594.38 | 11947.50 | 11109.38 | 9826.88  | 8662.50  | 7413.75  | 6046.88  |                            |  |
| 180.0              | 13140.00 | 12723.75 | 11205.00 | 10960.31 | 9869.63  | 8520.19  | 7243.88  | 5841.00  | 4650.75  |                            |  |
| 225.0              | 13190.63 | 12892.50 | 12262.50 | 11153.25 | 10389.38 | 9061.88  | 7814.25  | 6428.25  | 5169.94  |                            |  |
| 270.0              | 13224.38 | 13201.88 | 12948.75 | 12526.88 | 11981.25 | 10800.00 | 9720.00  | 8533.13  | 7166.25  |                            |  |
| 315.0              | 13246.88 | 13303.13 | 13258.13 | 13044.38 | 12667.50 | 11733.75 | 11120.63 | 9921.94  | 8561.25  |                            |  |
| 360.0              | 13140.00 | 13325.63 | 13410.00 | 13398.75 | 13303.13 | 12960.00 | 12386.25 | 11587.50 | 10462.50 |                            |  |
| C/γ(°)             | 9.0      | 10.0     | 11.0     | 12.0     | 13.0     | 14.0     | 15.0     | 16.0     | 17.0     |                            |  |
| 0.0                | 9140.63  | 7869.38  | 6457.50  | 5304.38  | 4213.13  | 3380.63  | 2885.63  | 2346.75  | 2026.69  |                            |  |
| 45.0               | 8325.00  | 7059.38  | 5686.88  | 4635.00  | 3706.88  | 3003.75  | 2868.75  | 2144.25  | 1841.63  |                            |  |
| 90.0               | 5943.94  | 4751.44  | 3812.06  | 3168.00  | 2670.75  | 2247.75  | 1932.19  | 1716.75  | 1537.88  |                            |  |
| 135.0              | 4865.63  | 3988.13  | 3211.88  | 2874.38  | 2265.19  | 1944.56  | 1723.50  | 1524.38  | 1364.63  |                            |  |
| 180.0              | 3805.88  | 3078.56  | 2538.56  | 2182.50  | 1909.13  | 1636.88  | 1465.31  | 1330.88  | 1179.00  |                            |  |
| 225.0              | 4235.06  | 3410.44  | 2793.94  | 2373.75  | 2054.25  | 1754.44  | 1567.69  | 1413.56  | 1289.81  |                            |  |
| 270.0              | 5855.63  | 4820.63  | 3870.00  | 3211.88  | 2880.00  | 2218.50  | 1924.31  | 1671.19  | 1477.13  |                            |  |
| 315.0              | 7312.50  | 5946.19  | 4743.56  | 3885.19  | 3212.44  | 2590.31  | 2217.94  | 1922.63  | 1664.44  |                            |  |
| 360.0              | 9140.63  | 7869.38  | 6457.50  | 5304.38  | 4213.13  | 3380.63  | 2885.63  | 2346.75  | 2026.69  |                            |  |
| C/γ(°)             | 18.0     | 19.0     | 20.0     | 21.0     | 22.0     | 23.0     | 24.0     | 25.0     | 26.0     |                            |  |
| 0.0                | 1753.31  | 1555.31  | 1364.06  | 1248.19  | 1159.88  | 1082.81  | 1024.31  | 982.69   | 954.56   |                            |  |
| 45.0               | 1621.13  | 1439.44  | 1287.00  | 1185.75  | 1110.94  | 1044.56  | 996.75   | 964.13   | 932.06   |                            |  |
| 90.0               | 1355.63  | 1243.13  | 1113.86  | 1066.05  | 1015.20  | 975.60   | 940.39   | 911.76   | 888.47   |                            |  |
| 135.0              | 1247.63  | 1158.19  | 1072.13  | 1017.00  | 973.69   | 933.75   | 908.44   | 883.69   | 862.88   |                            |  |
| 180.0              | 1118.14  | 1054.86  | 999.68   | 959.23   | 928.86   | 900.11   | 876.94   | 855.84   | 840.21   |                            |  |
| 225.0              | 1115.78  | 1099.86  | 1044.68  | 990.06   | 956.59   | 928.86   | 900.56   | 876.83   | 859.89   |                            |  |
| 270.0              | 1342.69  | 1240.31  | 1142.44  | 1080.00  | 1031.06  | 986.63   | 951.19   | 923.06   | 894.38   |                            |  |
| 315.0              | 1468.69  | 1334.25  | 1217.81  | 1115.66  | 1062.79  | 1014.58  | 972.00   | 939.04   | 913.95   |                            |  |
| 360.0              | 1753.31  | 1555.31  | 1364.06  | 1248.19  | 1159.88  | 1082.81  | 1024.31  | 982.69   | 954.56   |                            |  |
| C/γ(°)             | 27.0     | 28.0     | 29.0     | 30.0     | 31.0     | 32.0     | 33.0     | 34.0     | 35.0     |                            |  |
| 0.0                | 917.44   | 894.38   | 877.50   | 858.38   | 843.19   | 831.38   | 814.50   | 801.00   | 769.50   |                            |  |
| 45.0               | 904.50   | 883.13   | 863.44   | 848.25   | 832.50   | 817.31   | 803.25   | 780.19   | 725.06   |                            |  |
| 90.0               | 867.32   | 851.74   | 835.82   | 820.18   | 805.78   | 789.24   | 744.36   | 688.50   | 622.58   |                            |  |
| 135.0              | 845.44   | 831.38   | 818.44   | 803.25   | 786.94   | 740.25   | 681.75   | 608.06   | 529.88   |                            |  |
| 180.0              | 825.08   | 809.89   | 794.76   | 776.14   | 732.15   | 662.68   | 581.79   | 504.00   | 426.83   |                            |  |
| 225.0              | 842.96   | 828.39   | 812.42   | 797.57   | 766.69   | 707.29   | 631.01   | 554.40   | 474.86   |                            |  |
| 270.0              | 873.00   | 856.69   | 840.94   | 828.00   | 812.25   | 792.00   | 749.25   | 691.31   | 605.25   |                            |  |
| 315.0              | 887.91   | 869.40   | 852.30   | 837.28   | 824.23   | 808.54   | 788.40   | 742.78   | 683.61   |                            |  |
| 360.0              | 917.44   | 894.38   | 877.50   | 858.38   | 843.19   | 831.38   | 814.50   | 801.00   | 769.50   |                            |  |
| C/γ(°)             | 36.0     | 37.0     | 38.0     | 39.0     | 40.0     | 41.0     | 42.0     | 43.0     | 44.0     |                            |  |
| 0.0                | 702.00   | 632.81   | 556.88   | 457.88   | 378.56   | 299.25   | 202.78   | 135.73   | 78.13    |                            |  |
| 45.0               | 660.94   | 592.88   | 499.50   | 420.75   | 340.88   | 291.38   | 164.76   | 101.42   | 57.43    |                            |  |
| 90.0               | 529.26   | 450.68   | 374.40   | 277.31   | 203.06   | 136.35   | 67.61    | 33.98    | 26.10    |                            |  |
| 135.0              | 444.94   | 367.88   | 291.94   | 197.78   | 129.43   | 76.84    | 31.16    | 25.09    | 22.33    |                            |  |
| 180.0              | 330.19   | 254.53   | 182.31   | 104.01   | 56.64    | 29.64    | 24.41    | 21.21    | 18.45    |                            |  |
| 225.0              | 376.65   | 298.97   | 223.59   | 137.81   | 82.18    | 41.91    | 26.72    | 22.95    | 19.52    |                            |  |
| 270.0              | 529.31   | 450.56   | 349.31   | 290.25   | 193.89   | 129.66   | 64.13    | 32.63    | 25.37    |                            |  |
| 315.0              | 596.42   | 519.24   | 441.68   | 343.24   | 267.92   | 195.36   | 122.34   | 62.44    | 30.26    |                            |  |
| 360.0              | 702.00   | 632.81   | 556.88   | 457.88   | 378.56   | 299.25   | 202.78   | 135.73   | 78.13    |                            |  |

## NATA 2-1674-M

| Intensity data(cd) |       |       |       |       |       |       |       |       |       | Appendix Page: 17 Total:18 |  |
|--------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|--|
| C/ $\gamma$ (°)    | 45.0  | 46.0  | 47.0  | 48.0  | 49.0  | 50.0  | 51.0  | 52.0  | 53.0  |                            |  |
| 0.0                | 31.89 | 22.73 | 20.42 | 17.72 | 16.26 | 15.30 | 14.63 | 14.29 | 13.89 |                            |  |
| 45.0               | 26.04 | 23.12 | 20.42 | 17.44 | 16.09 | 15.53 | 14.18 | 13.84 | 13.56 |                            |  |
| 90.0               | 21.94 | 19.01 | 16.43 | 14.74 | 14.34 | 13.95 | 13.61 | 13.33 | 13.05 |                            |  |
| 135.0              | 18.96 | 16.88 | 15.13 | 14.63 | 14.29 | 13.89 | 13.56 | 13.33 | 12.94 |                            |  |
| 180.0              | 16.76 | 15.69 | 14.51 | 14.18 | 13.84 | 13.56 | 13.28 | 12.99 | 12.77 |                            |  |
| 225.0              | 16.88 | 15.64 | 14.74 | 14.29 | 13.89 | 13.56 | 13.28 | 12.99 | 12.77 |                            |  |
| 270.0              | 21.38 | 18.51 | 16.88 | 15.30 | 14.51 | 14.23 | 13.84 | 13.56 | 13.28 |                            |  |
| 315.0              | 22.95 | 20.48 | 17.78 | 16.59 | 15.19 | 14.51 | 14.18 | 13.84 | 13.56 |                            |  |
| 360.0              | 31.89 | 22.73 | 20.42 | 17.72 | 16.26 | 15.30 | 14.63 | 14.29 | 13.89 |                            |  |
| C/ $\gamma$ (°)    | 54.0  | 55.0  | 56.0  | 57.0  | 58.0  | 59.0  | 60.0  | 61.0  | 62.0  |                            |  |
| 0.0                | 13.56 | 13.28 | 12.99 | 12.77 | 12.49 | 12.32 | 12.09 | 11.93 | 11.81 |                            |  |
| 45.0               | 13.16 | 12.94 | 12.66 | 12.38 | 12.15 | 11.98 | 11.81 | 11.64 | 11.53 |                            |  |
| 90.0               | 12.71 | 12.49 | 12.26 | 11.98 | 11.81 | 11.64 | 11.53 | 11.36 | 11.25 |                            |  |
| 135.0              | 12.71 | 12.43 | 12.21 | 11.98 | 11.81 | 11.70 | 11.53 | 11.42 | 11.31 |                            |  |
| 180.0              | 12.43 | 12.26 | 12.09 | 11.93 | 11.76 | 11.64 | 11.48 | 11.36 | 11.25 |                            |  |
| 225.0              | 12.49 | 12.26 | 12.04 | 11.81 | 11.70 | 11.53 | 11.42 | 11.25 | 11.14 |                            |  |
| 270.0              | 12.99 | 12.71 | 12.49 | 12.26 | 12.09 | 11.98 | 11.76 | 11.64 | 11.53 |                            |  |
| 315.0              | 13.22 | 12.99 | 12.77 | 12.49 | 12.26 | 12.09 | 11.93 | 11.76 | 11.59 |                            |  |
| 360.0              | 13.56 | 13.28 | 12.99 | 12.77 | 12.49 | 12.32 | 12.09 | 11.93 | 11.81 |                            |  |
| C/ $\gamma$ (°)    | 63.0  | 64.0  | 65.0  | 66.0  | 67.0  | 68.0  | 69.0  | 70.0  | 71.0  |                            |  |
| 0.0                | 11.59 | 11.48 | 11.36 | 11.25 | 11.19 | 11.14 | 10.97 | 10.91 | 10.86 |                            |  |
| 45.0               | 11.36 | 11.25 | 11.14 | 11.03 | 10.97 | 10.86 | 10.86 | 10.80 | 10.74 |                            |  |
| 90.0               | 11.14 | 11.08 | 10.97 | 10.91 | 10.86 | 10.80 | 10.74 | 10.69 | 10.63 |                            |  |
| 135.0              | 11.19 | 11.08 | 11.03 | 10.91 | 10.91 | 10.80 | 10.80 | 10.69 | 10.69 |                            |  |
| 180.0              | 11.14 | 11.08 | 10.97 | 10.91 | 10.80 | 10.74 | 10.69 | 10.63 | 10.63 |                            |  |
| 225.0              | 11.08 | 11.03 | 10.97 | 10.86 | 10.80 | 10.74 | 10.69 | 10.63 | 10.63 |                            |  |
| 270.0              | 11.36 | 11.25 | 11.19 | 11.03 | 10.97 | 10.91 | 10.86 | 10.74 | 10.74 |                            |  |
| 315.0              | 11.48 | 11.36 | 11.25 | 11.14 | 11.08 | 11.03 | 10.91 | 10.86 | 10.80 |                            |  |
| 360.0              | 11.59 | 11.48 | 11.36 | 11.25 | 11.19 | 11.14 | 10.97 | 10.91 | 10.86 |                            |  |
| C/ $\gamma$ (°)    | 72.0  | 73.0  | 74.0  | 75.0  | 76.0  | 77.0  | 78.0  | 79.0  | 80.0  |                            |  |
| 0.0                | 10.80 | 10.74 | 10.69 | 10.63 | 10.63 | 10.58 | 10.58 | 10.52 | 10.52 |                            |  |
| 45.0               | 10.69 | 10.63 | 10.63 | 10.58 | 10.52 | 10.52 | 10.46 | 10.46 | 10.41 |                            |  |
| 90.0               | 10.58 | 10.58 | 10.52 | 10.52 | 10.46 | 10.46 | 10.41 | 10.41 | 10.41 |                            |  |
| 135.0              | 10.63 | 10.58 | 10.52 | 10.52 | 10.46 | 10.46 | 10.46 | 10.41 | 10.41 |                            |  |
| 180.0              | 10.58 | 10.58 | 10.52 | 10.52 | 10.46 | 10.46 | 10.41 | 10.41 | 10.41 |                            |  |
| 225.0              | 10.58 | 10.52 | 10.52 | 10.46 | 10.46 | 10.41 | 10.41 | 10.41 | 10.35 |                            |  |
| 270.0              | 10.69 | 10.63 | 10.63 | 10.58 | 10.52 | 10.52 | 10.52 | 10.46 | 10.46 |                            |  |
| 315.0              | 10.74 | 10.69 | 10.63 | 10.63 | 10.58 | 10.58 | 10.52 | 10.46 | 10.46 |                            |  |
| 360.0              | 10.80 | 10.74 | 10.69 | 10.63 | 10.63 | 10.58 | 10.58 | 10.52 | 10.52 |                            |  |
| C/ $\gamma$ (°)    | 81.0  | 82.0  | 83.0  | 84.0  | 85.0  | 86.0  | 87.0  | 88.0  | 89.0  |                            |  |
| 0.0                | 10.46 | 10.41 | 10.46 | 10.41 | 10.41 | 10.35 | 10.35 | 10.35 | 10.35 |                            |  |
| 45.0               | 10.41 | 10.41 | 10.41 | 10.35 | 10.35 | 10.29 | 10.29 | 10.29 | 10.29 |                            |  |
| 90.0               | 10.35 | 10.35 | 10.29 | 10.35 | 10.29 | 10.29 | 10.24 | 10.24 | 10.24 |                            |  |
| 135.0              | 10.41 | 10.41 | 10.41 | 10.35 | 10.35 | 10.24 | 10.24 | 10.24 | 10.24 |                            |  |
| 180.0              | 10.35 | 10.35 | 10.35 | 10.35 | 10.29 | 10.29 | 10.29 | 10.29 | 10.29 |                            |  |
| 225.0              | 10.35 | 10.35 | 10.29 | 10.29 | 10.29 | 10.29 | 10.24 | 10.24 | 10.24 |                            |  |
| 270.0              | 10.41 | 10.41 | 10.41 | 10.35 | 10.29 | 10.29 | 10.24 | 10.24 | 10.24 |                            |  |
| 315.0              | 10.41 | 10.41 | 10.41 | 10.41 | 10.35 | 10.29 | 10.29 | 10.29 | 10.24 |                            |  |
| 360.0              | 10.46 | 10.41 | 10.46 | 10.41 | 10.41 | 10.35 | 10.35 | 10.35 | 10.35 |                            |  |

## Intensity data(cd)

Appendix Page: 18 Total:18

|                       |       |
|-----------------------|-------|
| C/ $\gamma(^{\circ})$ | 90.0  |
| 0.0                   | 10.29 |
| 45.0                  | 10.29 |
| 90.0                  | 10.24 |
| 135.0                 | 10.24 |
| 180.0                 | 10.29 |
| 225.0                 | 10.29 |
| 270.0                 | 10.24 |
| 315.0                 | 10.24 |
| 360.0                 | 10.29 |