



NATA LIGHTING CO.,LTD.  
www.nata.cn  
Email:info@nata.com  
Tel:+86-750-3770000 Fax:+86-750-3771111  
Address:380JinOu Road,GaoXin Zone,Jiang Men City,Guangdong,China

## NATA

|                           |                     |
|---------------------------|---------------------|
| LumCAT: 1536-A            |                     |
| Luminaire: 92.70.051.00   |                     |
| Report No: NATA0100       | Voltage(V): 35.5000 |
| Test No: GC2019010307     | Current(A): 0.2600  |
| LampCAT: BRIDGELUX V8E G7 | Power (W): 9.2300   |
| Lamp flux(lm): 1392.0     | PF: 0.0000          |
| Number of Lamps: 1        | Ballast type: DC    |
| Length(mm): 25            | Width(mm): 25       |
| Phm Type: C               | Height(mm): 0       |

## Photometric Results

Lumens(lm): 1205.68  
Efficiency(%): 86.61%  
Lumens(lm)/Power(W): 131.31  
Central intensity(cd): 1248.609  
Maximum intensity(cd): 1248.609  
Angle of maximum intensity: C=0.0  $\gamma$ =0.0  
Beam Angle(50%Imax): [C0/180]Total=61.0  
[C90/270]Total=61.0  
Field angle(10%Imax): [C0/180]Total=87.8  
[C90/270]Total=87.8  
Maximum s/h(1/2): C0\_180=0.93 C90\_270=0.93  
Maximum s/h(1/4): C0\_180=0.92 C90\_270=0.92  
Up flux rate of lamp(%): 0.00%  
Down flux rate of lamp(%): 87.07%  
Up flux rate of LUM(%): - -  
Down flux rate of LUM(%): 100.00%  
CIE Type : Direct lighting  
Output flux ratio in  $\pi$  solid angle : 97.524%

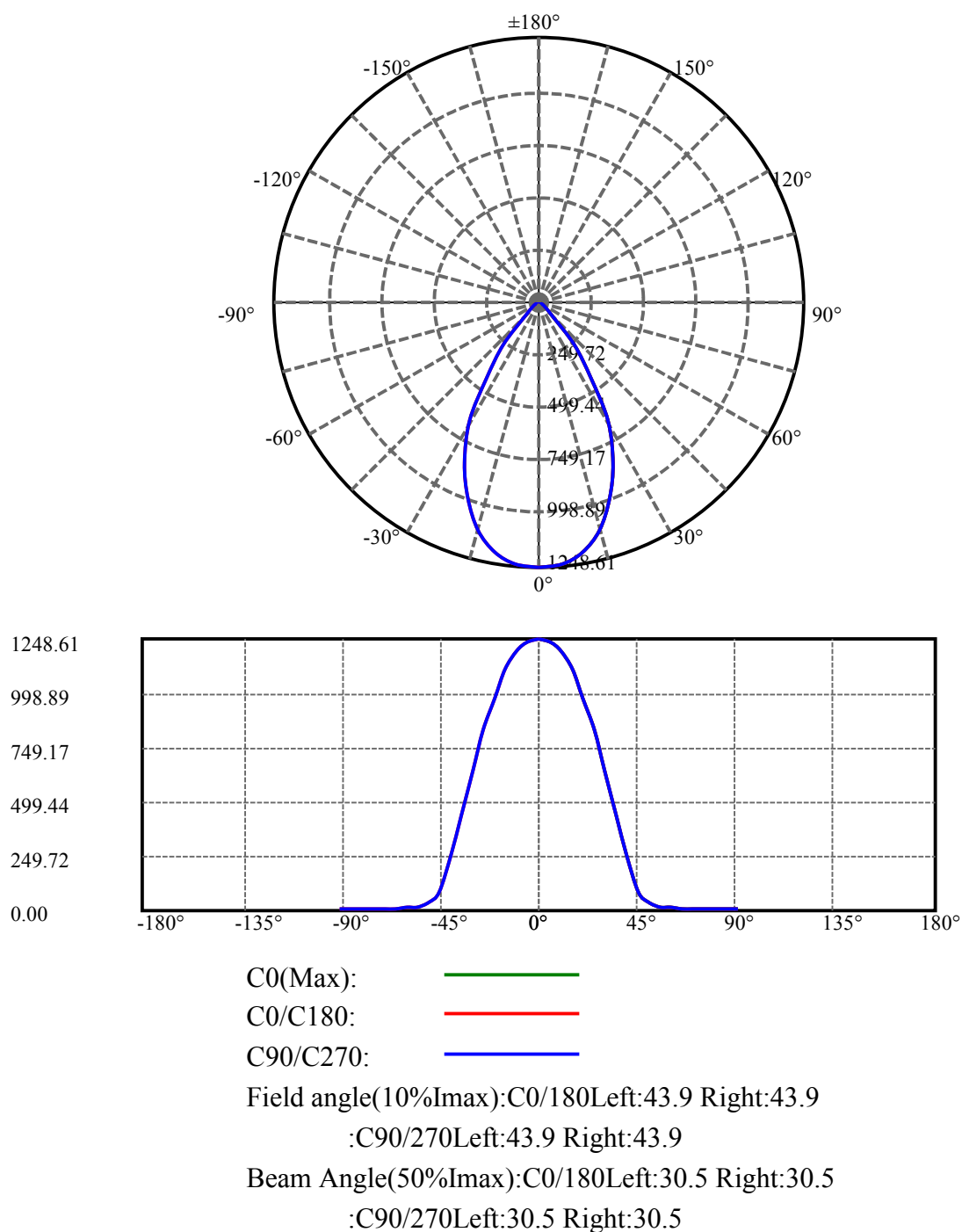
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 1248.609      | 7.467       | 7.467     | .536%       | .619%      |
| 5.0                | 1233.773      | 58.941      | 66.408    | 4.234%      | 5.508%     |
| 10.0               | 1195.172      | 113.760     | 180.169   | 8.172%      | 14.943%    |
| 15.0               | 1110.368      | 157.526     | 337.695   | 11.317%     | 28.009%    |
| 20.0               | 980.501       | 183.818     | 521.513   | 13.205%     | 43.255%    |
| 25.0               | 831.762       | 192.680     | 714.193   | 13.842%     | 59.236%    |
| 30.0               | 645.616       | 176.943     | 891.136   | 12.711%     | 73.912%    |
| 35.0               | 432.809       | 136.074     | 1027.211  | 9.775%      | 85.198%    |
| 40.0               | 256.423       | 90.347      | 1117.558  | 6.490%      | 92.691%    |
| 45.0               | 88.819        | 34.425      | 1151.983  | 2.473%      | 95.547%    |
| 50.0               | 38.580        | 16.200      | 1168.183  | 1.164%      | 96.890%    |
| 55.0               | 17.023        | 7.643       | 1175.826  | .549%       | 97.524%    |
| 60.0               | 12.973        | 6.158       | 1181.984  | .442%       | 98.035%    |
| 65.0               | 10.891        | 5.411       | 1187.395  | .389%       | 98.484%    |
| 70.0               | 9.647         | 4.969       | 1192.364  | .357%       | 98.896%    |
| 75.0               | 8.438         | 4.467       | 1196.831  | .321%       | 99.266%    |
| 80.0               | 7.770         | 4.194       | 1201.025  | .301%       | 99.614%    |
| 85.0               | 5.955         | 3.252       | 1204.277  | .234%       | 99.884%    |
| 90.0               | 5.105         | 1.399       | 1205.676  | .101%       | 100.000%   |

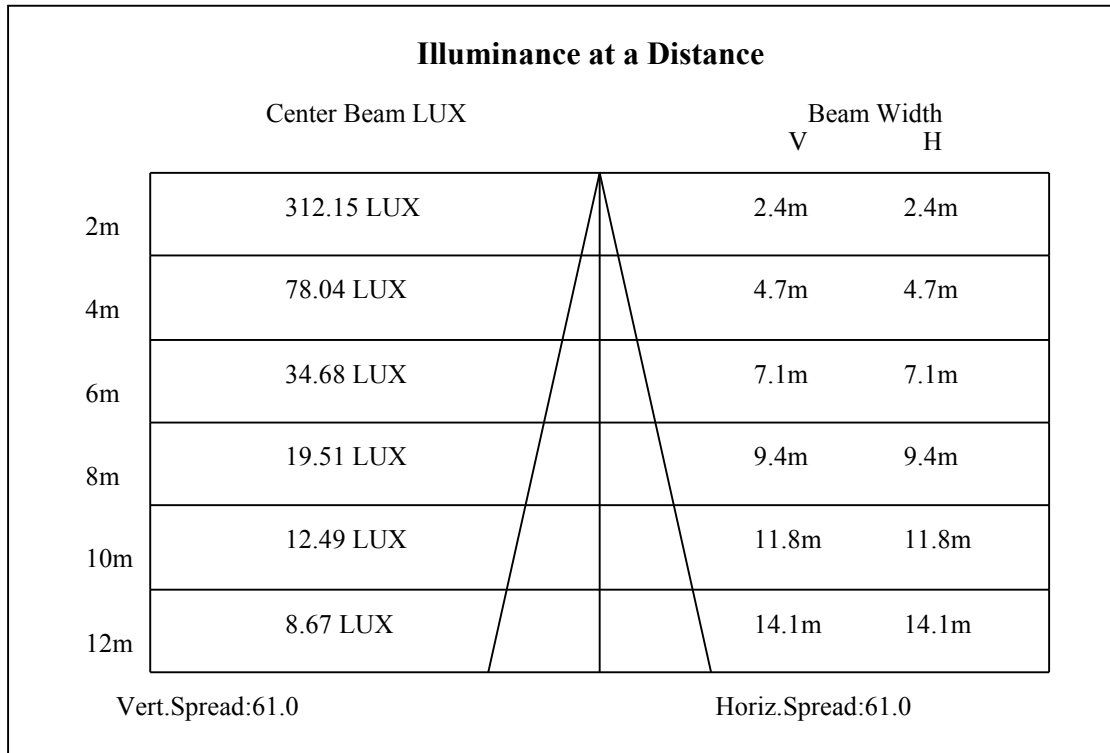
## ZONAL LUMEN SUMMARY

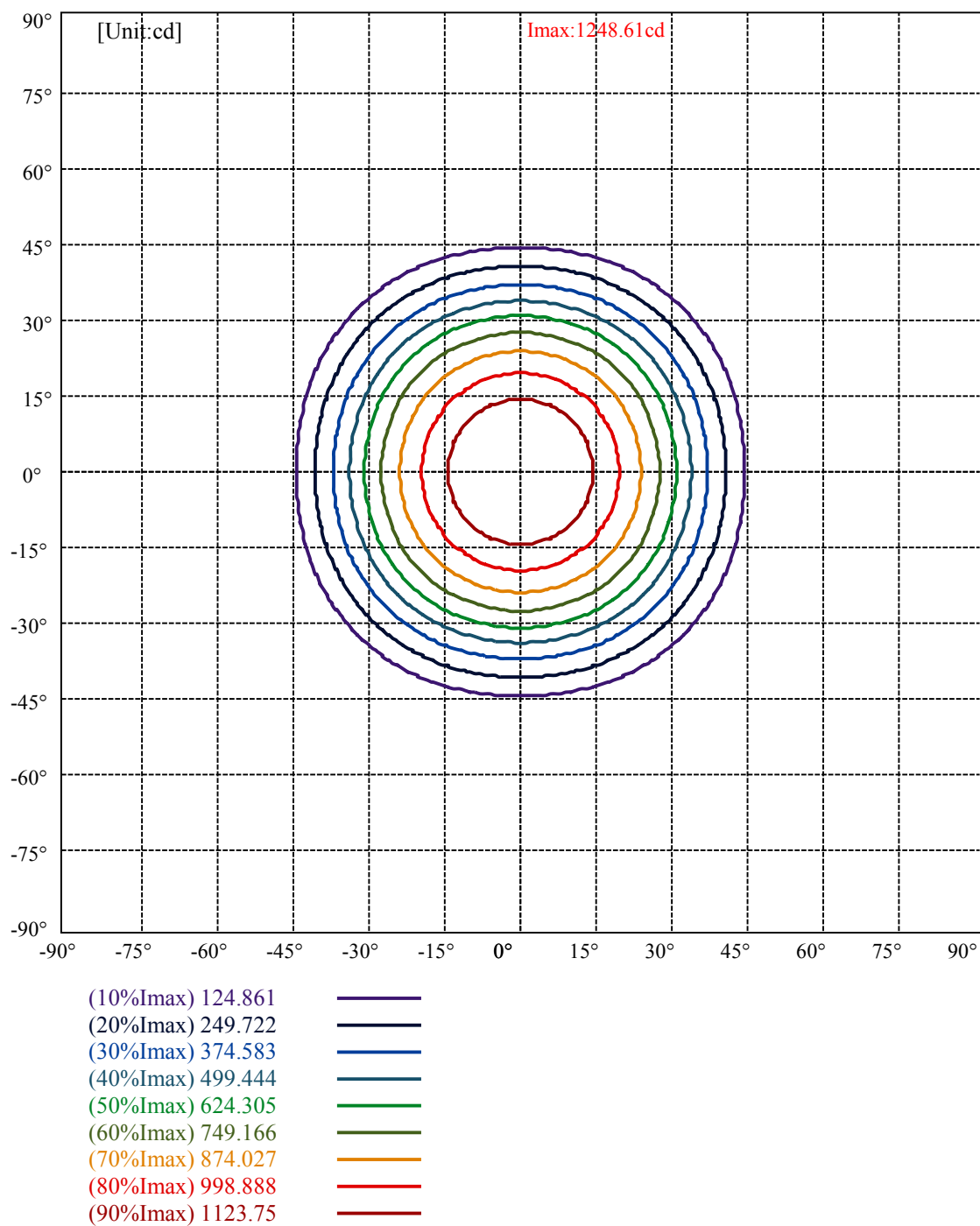
| Zone    | Lumens  | %Lamp  | %Fixt   |
|---------|---------|--------|---------|
| 0-30    | 891.14  | 64.02% | 73.91%  |
| 0-40    | 1117.56 | 80.28% | 92.69%  |
| 0-60    | 1181.98 | 84.91% | 98.03%  |
| 0-90    | 1204.28 | 86.51% | 99.88%  |
| 0-120   | 1204.28 | 86.51% | 99.88%  |
| 0-180   | 1205.68 | 86.61% | 100.00% |
| 60-90   | 28.45   | 2.04%  | 2.36%   |
| 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%   |
| 0-32.70 | 964.54  | 69.29% | 80.00%  |

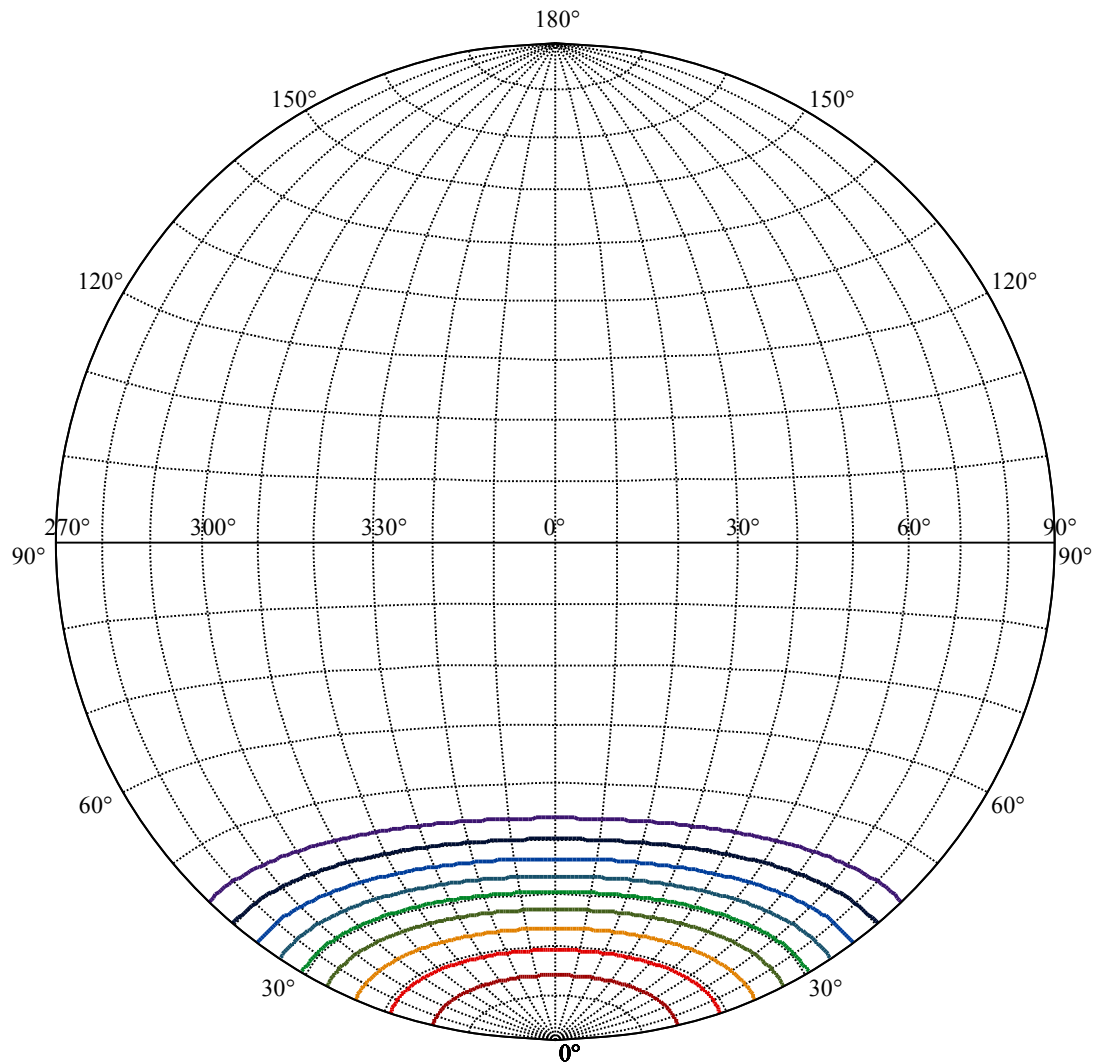
## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 180.17 |
| 10-20   | 341.34 |
| 20-30   | 369.62 |
| 30-40   | 226.42 |
| 40-50   | 50.63  |
| 50-60   | 13.80  |
| 60-70   | 10.38  |
| 70-80   | 8.66   |
| 80-90   | 3.25   |
| 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   |









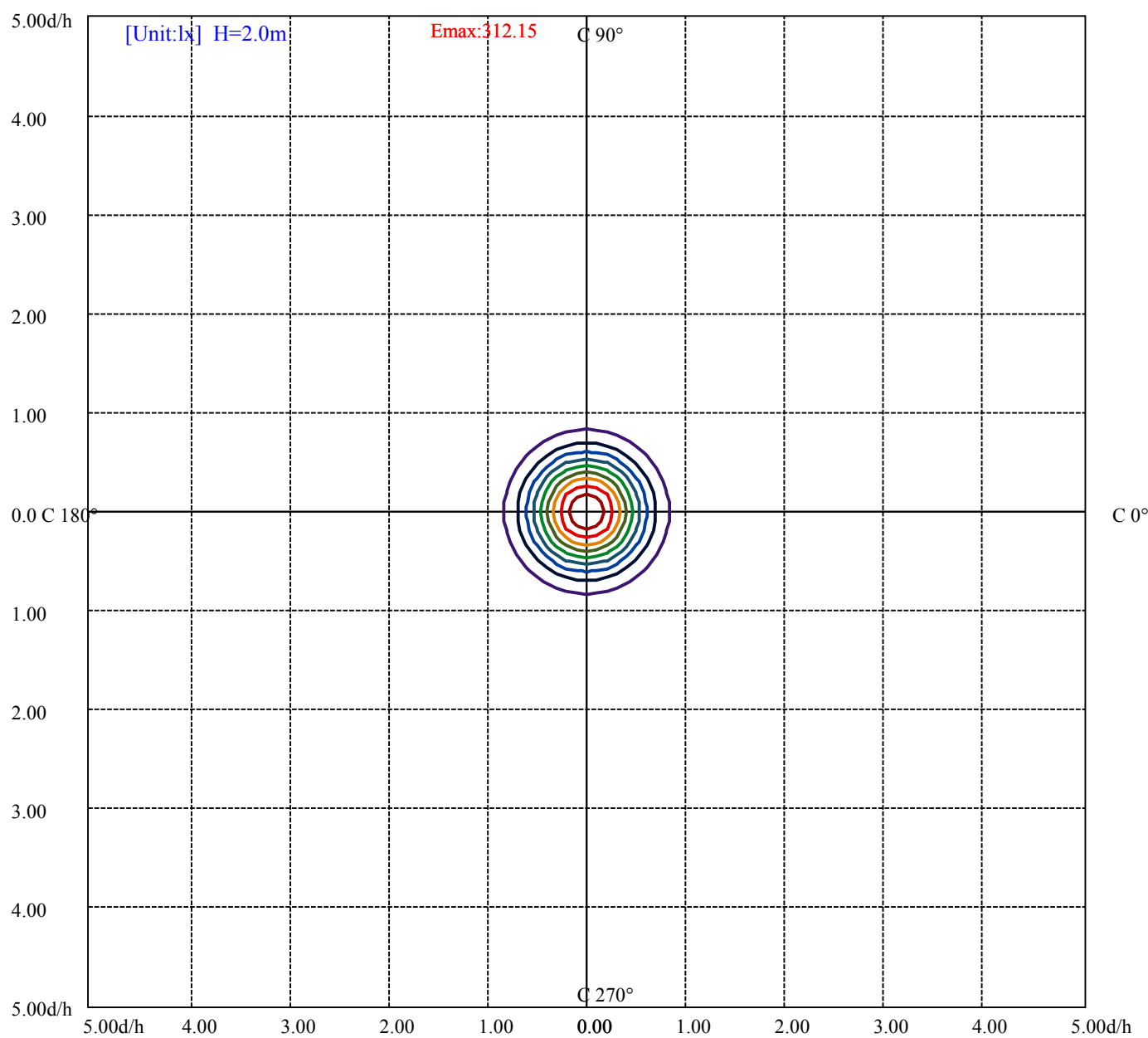
House

[Unit:cd]

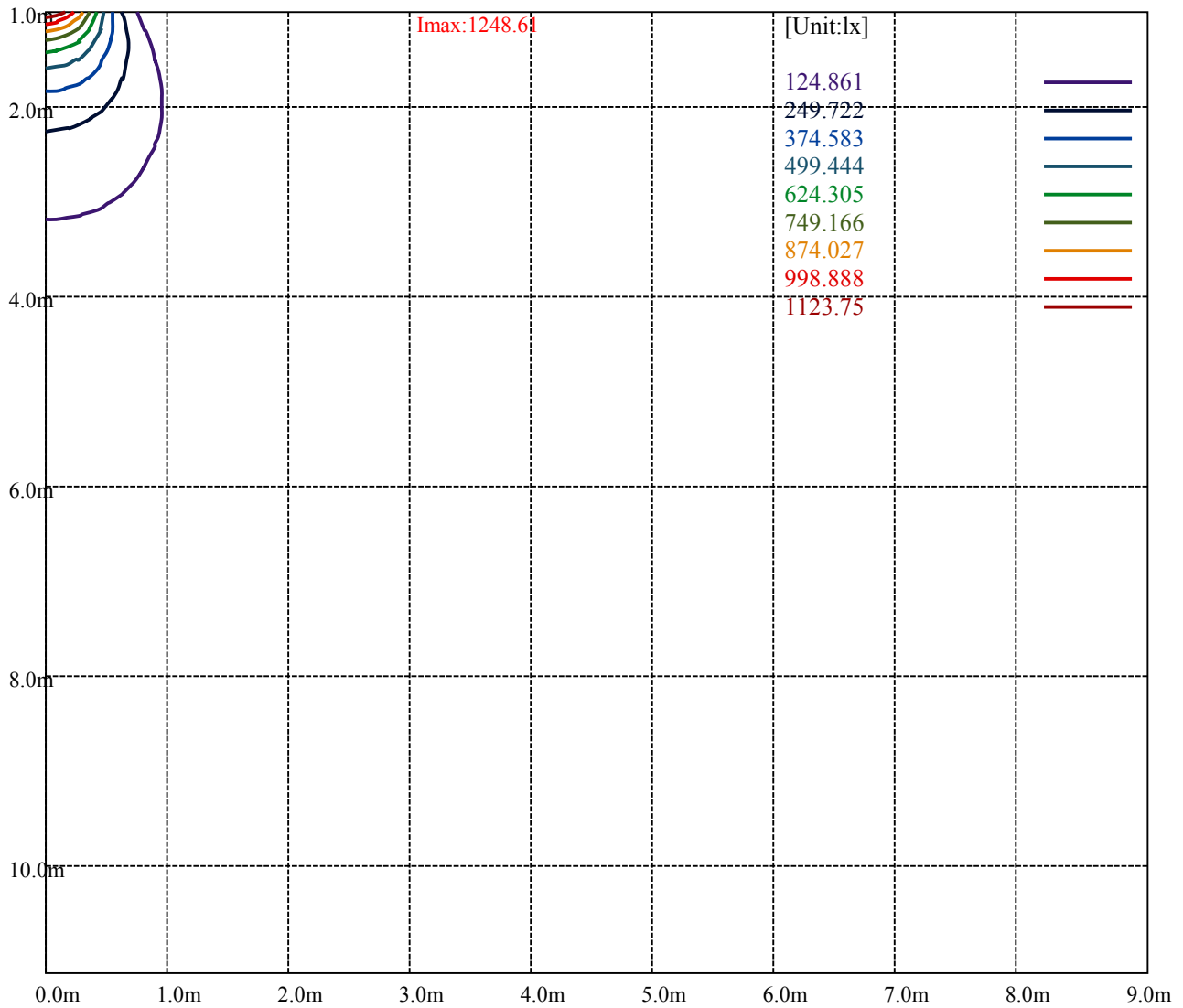
Road

I<sub>max</sub>:1248.61

|                        |         |   |
|------------------------|---------|---|
| (10%I <sub>max</sub> ) | 124.861 | — |
| (20%I <sub>max</sub> ) | 249.722 | — |
| (30%I <sub>max</sub> ) | 374.583 | — |
| (40%I <sub>max</sub> ) | 499.444 | — |
| (50%I <sub>max</sub> ) | 624.305 | — |
| (60%I <sub>max</sub> ) | 749.166 | — |
| (70%I <sub>max</sub> ) | 874.027 | — |
| (80%I <sub>max</sub> ) | 998.888 | — |
| (90%I <sub>max</sub> ) | 1123.75 | — |



|                                 |   |
|---------------------------------|---|
| (10%E <sub>max</sub> ) 31.21525 | — |
| (20%E <sub>max</sub> ) 62.4305  | — |
| (30%E <sub>max</sub> ) 93.64575 | — |
| (40%E <sub>max</sub> ) 124.861  | — |
| (50%E <sub>max</sub> ) 156.076  | — |
| (60%E <sub>max</sub> ) 187.2912 | — |
| (70%E <sub>max</sub> ) 218.5065 | — |
| (80%E <sub>max</sub> ) 249.7218 | — |
| (90%E <sub>max</sub> ) 280.9375 | — |



Luminance Table

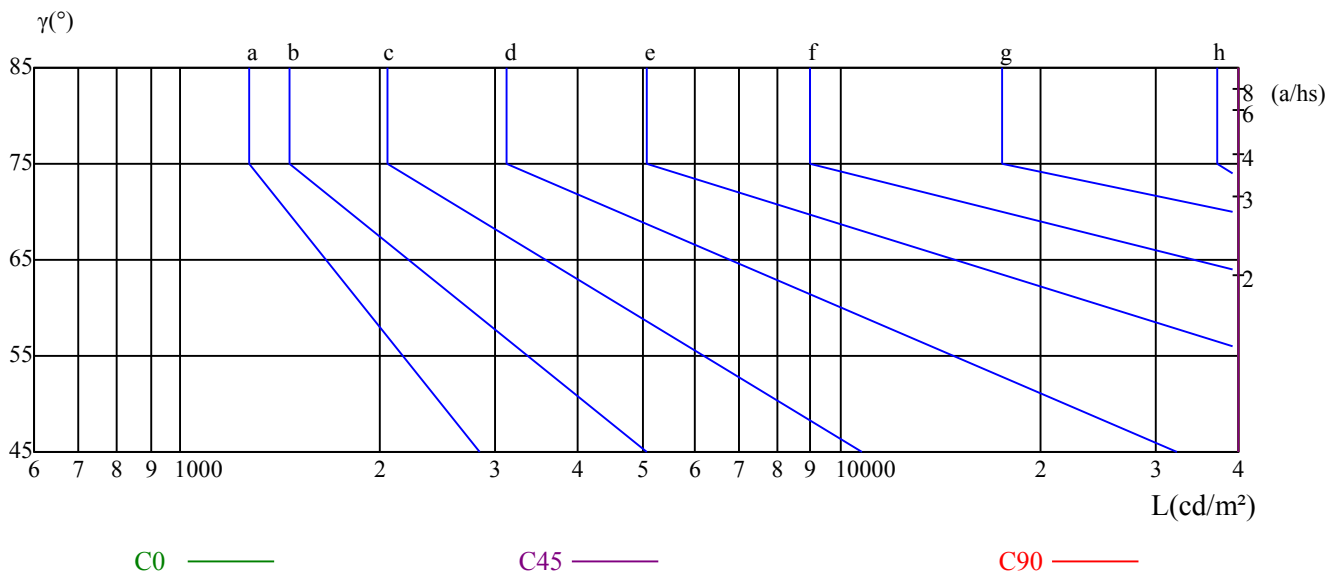
| $\gamma$ | 45     | 50    | 55    | 60    | 65    | 70    | 75    | 80    | 85     |
|----------|--------|-------|-------|-------|-------|-------|-------|-------|--------|
| C0       | 200974 | 96033 | 47485 | 41513 | 41234 | 45129 | 52160 | 71589 | 109330 |
| C45      | 200974 | 96033 | 47485 | 41513 | 41234 | 45129 | 52160 | 71589 | 109330 |
| C90      | 200974 | 96033 | 47485 | 41513 | 41234 | 45129 | 52160 | 71589 | 109330 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 41234      | 41234      | 41234   | 52160      | 52160      | 52160   | 109330     | 109330     | 109330  |

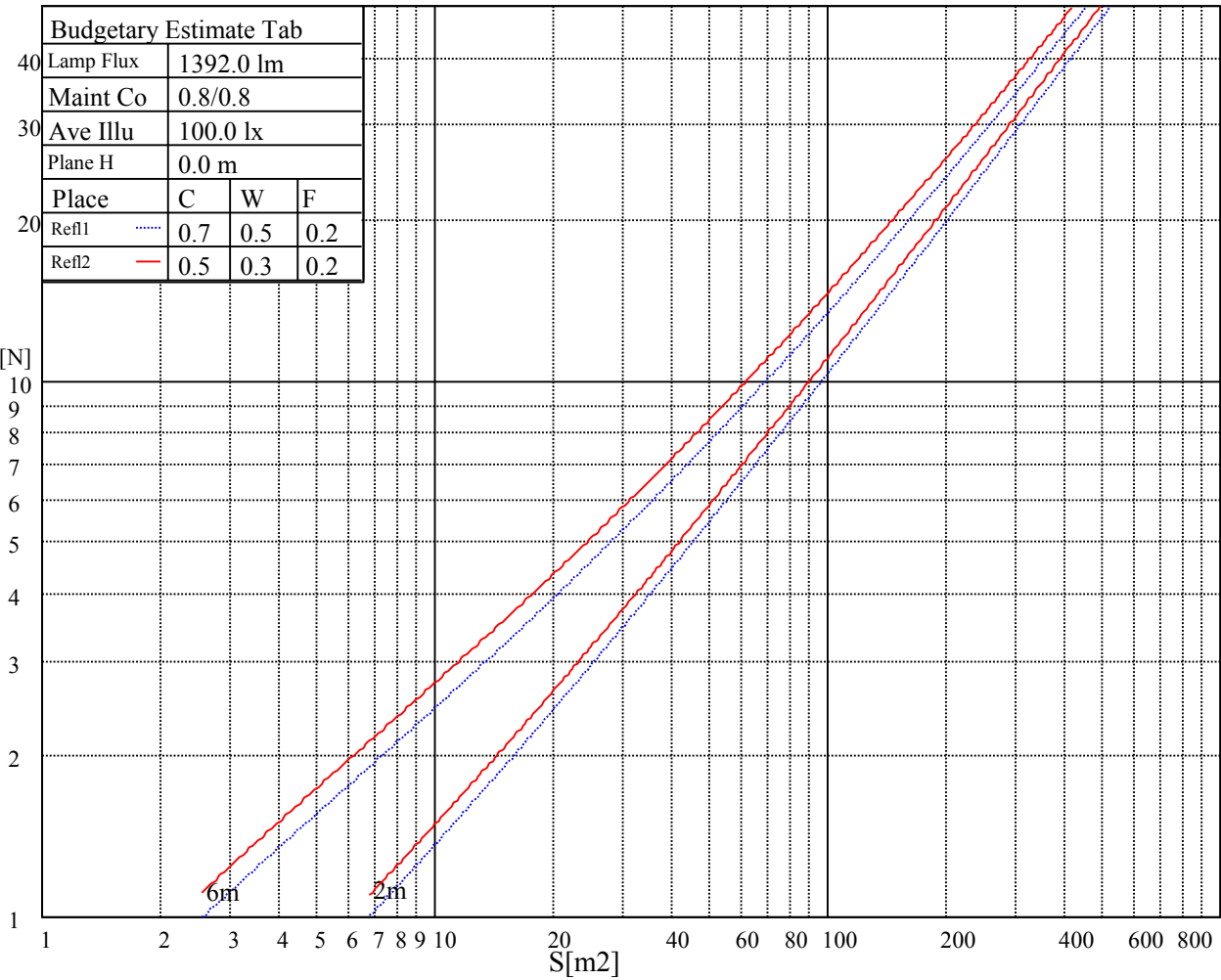
Glare Table

| 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          |

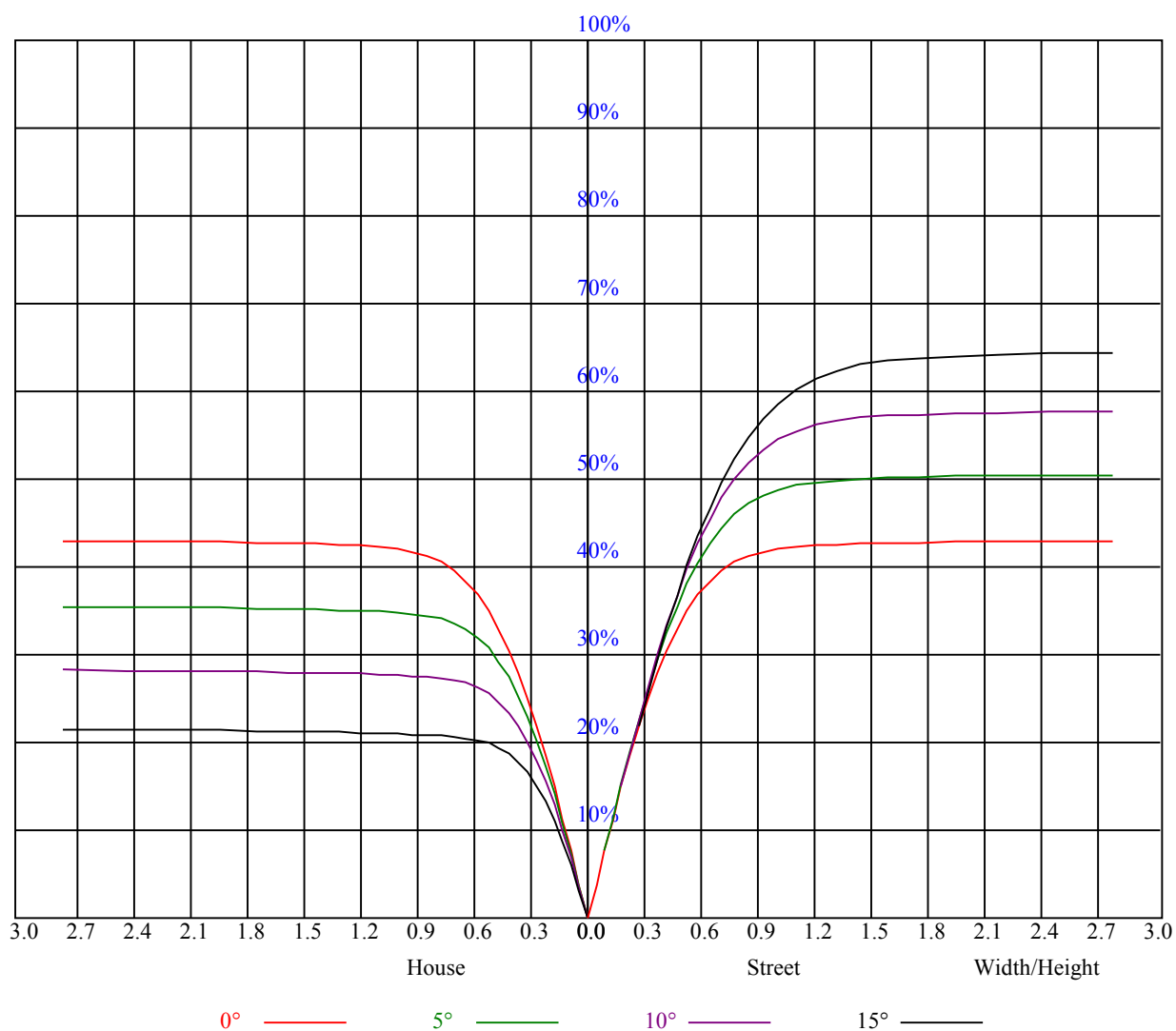
Luminance Limiting Curve



| Illumination assessment according UGR             |     |                  |       |       |       |       |                |       |       |       |       |
|---------------------------------------------------|-----|------------------|-------|-------|-------|-------|----------------|-------|-------|-------|-------|
| Rf of Ceiling                                     |     | 70               | 70    | 50    | 50    | 30    | 70             | 70    | 50    | 50    | 30    |
| Rf of Wall                                        |     | 50               | 30    | 50    | 30    | 30    | 50             | 30    | 50    | 30    | 30    |
| Rf of Floor                                       |     | 20               | 20    | 20    | 20    | 20    | 20             | 20    | 20    | 20    | 20    |
| Room dimensions                                   |     | Viewed crosswise |       |       |       |       | Viewed endwise |       |       |       |       |
| X                                                 | Y   |                  |       |       |       |       |                |       |       |       |       |
| 2H                                                | 2H  | 17.00            | 18.01 | 17.37 | 18.32 | 18.64 | 16.01          | 17.02 | 16.38 | 17.33 | 17.65 |
|                                                   | 3H  | 19.28            | 20.17 | 19.66 | 20.50 | 20.87 | 17.73          | 18.62 | 18.11 | 18.95 | 19.32 |
|                                                   | 4H  | 20.49            | 21.31 | 20.90 | 21.67 | 22.06 | 18.70          | 19.52 | 19.10 | 19.88 | 20.27 |
|                                                   | 6H  | 21.72            | 22.47 | 22.14 | 22.85 | 23.24 | 19.94          | 20.70 | 20.36 | 21.07 | 21.47 |
|                                                   | 8H  | 22.29            | 23.00 | 22.73 | 23.39 | 23.80 | 20.66          | 21.37 | 21.10 | 21.76 | 22.17 |
|                                                   | 12H | 23.16            | 23.84 | 23.60 | 24.23 | 24.66 | 21.88          | 22.56 | 22.31 | 22.94 | 23.37 |
| 4H                                                | 2H  | 17.37            | 18.20 | 17.78 | 18.55 | 18.94 | 16.58          | 17.41 | 16.99 | 17.76 | 18.15 |
|                                                   | 3H  | 19.95            | 20.63 | 20.37 | 21.04 | 21.44 | 18.66          | 19.33 | 19.07 | 19.74 | 20.15 |
|                                                   | 4H  | 21.36            | 21.96 | 21.80 | 22.39 | 22.83 | 19.83          | 20.44 | 20.27 | 20.86 | 21.31 |
|                                                   | 6H  | 22.67            | 23.19 | 23.14 | 23.64 | 24.11 | 21.19          | 21.70 | 21.66 | 22.15 | 22.63 |
|                                                   | 8H  | 23.39            | 23.88 | 23.87 | 24.33 | 24.80 | 22.04          | 22.53 | 22.52 | 22.98 | 23.45 |
|                                                   | 12H | 24.31            | 24.72 | 24.80 | 25.21 | 25.69 | 23.25          | 23.67 | 23.74 | 24.15 | 24.63 |
| 8H                                                | 4H  | 21.73            | 22.21 | 22.21 | 22.66 | 23.14 | 20.48          | 20.97 | 20.96 | 21.42 | 21.89 |
|                                                   | 6H  | 23.36            | 23.74 | 23.87 | 24.25 | 24.73 | 22.18          | 22.56 | 22.69 | 23.07 | 23.55 |
|                                                   | 8H  | 24.26            | 24.61 | 24.79 | 25.13 | 25.62 | 23.20          | 23.55 | 23.74 | 24.07 | 24.57 |
|                                                   | 12H | 25.45            | 25.74 | 25.97 | 26.24 | 26.82 | 24.60          | 24.90 | 25.13 | 25.40 | 25.98 |
| 12H                                               | 4H  | 21.82            | 22.23 | 22.31 | 22.72 | 23.20 | 20.66          | 21.08 | 21.16 | 21.57 | 22.05 |
|                                                   | 6H  | 23.84            | 23.89 | 24.08 | 24.36 | 24.91 | 22.77          | 22.82 | 23.01 | 23.29 | 23.84 |
|                                                   | 8H  | 24.55            | 24.85 | 25.08 | 25.35 | 25.93 | 23.62          | 23.91 | 24.14 | 24.41 | 24.99 |
| Variation with the observer position at spacings: |     |                  |       |       |       |       |                |       |       |       |       |
| S = 1.0H                                          |     | 3.8/-6.5         |       |       |       |       | 3.8/-6.5       |       |       |       |       |
| S = 1.5H                                          |     | 6.1/-5.3         |       |       |       |       | 6.1/-5.3       |       |       |       |       |
| S = 2.0H                                          |     | 7.6/-4.4         |       |       |       |       | 7.6/-4.4       |       |       |       |       |
| Standard tables:                                  |     | BK2              |       |       |       |       | BK2            |       |       |       |       |
| Uncorrected UGR                                   |     | 10.3             |       |       |       |       | 10.3           |       |       |       |       |



| 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     | 1.04                                    | 1.04 | 1.04 | 1.01 | 1.01 | 1.01 | 0.97 | 0.97 | 0.97 | 0.93 | 0.93 | 0.93 | 0.89 | 0.89 | 0.89 | 0.87 |
| 1     | 0.96                                    | 0.93 | 0.91 | 0.94 | 0.92 | 0.90 | 0.90 | 0.89 | 0.87 | 0.87 | 0.86 | 0.84 | 0.84 | 0.83 | 0.82 | 0.80 |
| 2     | 0.89                                    | 0.85 | 0.82 | 0.88 | 0.84 | 0.81 | 0.85 | 0.82 | 0.80 | 0.82 | 0.80 | 0.78 | 0.80 | 0.78 | 0.76 | 0.75 |
| 3     | 0.83                                    | 0.79 | 0.75 | 0.82 | 0.78 | 0.75 | 0.80 | 0.76 | 0.74 | 0.78 | 0.75 | 0.72 | 0.76 | 0.73 | 0.71 | 0.70 |
| 4     | 0.78                                    | 0.73 | 0.70 | 0.77 | 0.73 | 0.69 | 0.75 | 0.71 | 0.68 | 0.73 | 0.70 | 0.68 | 0.72 | 0.69 | 0.67 | 0.65 |
| 5     | 0.73                                    | 0.68 | 0.65 | 0.73 | 0.68 | 0.64 | 0.71 | 0.67 | 0.64 | 0.70 | 0.66 | 0.63 | 0.68 | 0.65 | 0.63 | 0.61 |
| 6     | 0.69                                    | 0.64 | 0.60 | 0.68 | 0.64 | 0.60 | 0.67 | 0.63 | 0.60 | 0.66 | 0.62 | 0.59 | 0.65 | 0.62 | 0.59 | 0.58 |
| 7     | 0.65                                    | 0.60 | 0.57 | 0.65 | 0.60 | 0.56 | 0.64 | 0.59 | 0.56 | 0.63 | 0.59 | 0.56 | 0.62 | 0.58 | 0.56 | 0.54 |
| 8     | 0.62                                    | 0.57 | 0.53 | 0.61 | 0.56 | 0.53 | 0.60 | 0.56 | 0.53 | 0.59 | 0.56 | 0.53 | 0.59 | 0.55 | 0.52 | 0.51 |
| 9     | 0.59                                    | 0.54 | 0.50 | 0.58 | 0.53 | 0.50 | 0.57 | 0.53 | 0.50 | 0.57 | 0.53 | 0.50 | 0.56 | 0.52 | 0.50 | 0.49 |
| 10    | 0.56                                    | 0.51 | 0.48 | 0.55 | 0.51 | 0.47 | 0.55 | 0.50 | 0.47 | 0.54 | 0.50 | 0.47 | 0.53 | 0.50 | 0.47 | 0.46 |



## NATA 1536-E

Appendix Page: 15 Total:15

| Intensity data(cd) |         |         |         |         |         |        |        |        |        |
|--------------------|---------|---------|---------|---------|---------|--------|--------|--------|--------|
| C/ $\gamma$ (°)    | 0.0     | 5.0     | 10.0    | 15.0    | 20.0    | 25.0   | 30.0   | 35.0   | 40.0   |
| 0.0                | 1249.31 | 1230.19 | 1203.75 | 1141.88 | 1014.19 | 887.63 | 696.38 | 473.63 | 291.38 |
| 45.0               | 1248.19 | 1226.81 | 1189.13 | 1110.94 | 987.19  | 849.94 | 667.69 | 451.13 | 287.44 |
| 90.0               | 1245.94 | 1231.88 | 1188.00 | 1090.86 | 958.22  | 803.14 | 608.29 | 405.28 | 218.59 |
| 135.0              | 1251.00 | 1237.50 | 1202.63 | 1128.38 | 992.25  | 839.25 | 662.63 | 450.56 | 291.38 |
| 180.0              | 1249.31 | 1233.56 | 1195.88 | 1095.53 | 958.33  | 809.61 | 631.46 | 418.33 | 216.84 |
| 225.0              | 1248.19 | 1236.38 | 1184.63 | 1089.96 | 959.51  | 792.73 | 612.56 | 402.24 | 219.09 |
| 270.0              | 1245.94 | 1240.88 | 1200.94 | 1117.69 | 999.56  | 837.00 | 642.94 | 436.50 | 288.56 |
| 315.0              | 1251.00 | 1233.00 | 1196.44 | 1107.73 | 974.76  | 834.81 | 642.99 | 424.80 | 238.11 |
| 360.0              | 1249.31 | 1230.19 | 1203.75 | 1141.88 | 1014.19 | 887.63 | 696.38 | 473.63 | 291.38 |
| C/ $\gamma$ (°)    | 45.0    | 50.0    | 55.0    | 60.0    | 65.0    | 70.0   | 75.0   | 80.0   | 85.0   |
| 0.0                | 104.06  | 40.67   | 15.75   | 11.64   | 9.17    | 7.82   | 7.31   | 7.26   | 6.13   |
| 45.0               | 97.26   | 40.50   | 18.06   | 14.23   | 12.09   | 10.97  | 9.79   | 10.01  | 6.81   |
| 90.0               | 72.28   | 33.02   | 17.89   | 14.46   | 12.54   | 11.48  | 9.90   | 7.71   | 5.85   |
| 135.0              | 103.28  | 37.41   | 16.31   | 11.87   | 9.62    | 8.21   | 6.92   | 6.30   | 5.68   |
| 180.0              | 78.53   | 34.03   | 15.02   | 11.31   | 8.94    | 7.76   | 6.53   | 5.96   | 5.74   |
| 225.0              | 76.39   | 39.21   | 16.31   | 11.98   | 9.96    | 8.61   | 7.31   | 6.47   | 5.68   |
| 270.0              | 96.24   | 46.13   | 20.19   | 15.53   | 13.84   | 12.66  | 10.97  | 9.00   | 5.85   |
| 315.0              | 82.52   | 37.69   | 16.65   | 12.77   | 10.97   | 9.68   | 8.78   | 9.45   | 5.91   |
| 360.0              | 104.06  | 40.67   | 15.75   | 11.64   | 9.17    | 7.82   | 7.31   | 7.26   | 6.13   |
| C/ $\gamma$ (°)    | 90.0    |         |         |         |         |        |        |        |        |
| 0.0                | 5.29    |         |         |         |         |        |        |        |        |
| 45.0               | 5.40    |         |         |         |         |        |        |        |        |
| 90.0               | 4.84    |         |         |         |         |        |        |        |        |
| 135.0              | 4.95    |         |         |         |         |        |        |        |        |
| 180.0              | 4.95    |         |         |         |         |        |        |        |        |
| 225.0              | 4.95    |         |         |         |         |        |        |        |        |
| 270.0              | 4.89    |         |         |         |         |        |        |        |        |
| 315.0              | 5.57    |         |         |         |         |        |        |        |        |
| 360.0              | 5.29    |         |         |         |         |        |        |        |        |