

|                 |   |                                |              |   |          |
|-----------------|---|--------------------------------|--------------|---|----------|
| Report No       | : |                                | Voltage      | : | V        |
| Test No         | : | A2401355A001                   | Current      | : | A        |
| LumCAT          | : | LIT by CARDI                   | Power        | : | 27.000 W |
| Luminaire       | : | 0028920190 27W 3000K 3240lm PF |              | : |          |
| LampCAT         | : |                                | Ballast type | : |          |
| Lamp flux       | : | 3240.0 lm                      | Width        | : | 255 mm   |
| Number of Lamps | : | 1                              | Length       | : | 1155 mm  |
| Phm Type        | : | C                              | Height       | : | 0 mm     |

### Photometric Results

|                                          |   |                                          |                            |   |                      |
|------------------------------------------|---|------------------------------------------|----------------------------|---|----------------------|
| Lumens(lm)                               | : | 3240.00                                  | Central intensity(cd)      | : | 1542.903             |
| Efficiency(%)                            | : | 100.00%                                  | Maximum intensity(cd)      | : | 1543.396             |
| Luminous Efficacy(lm/W)                  | : | 120.00                                   | Angle of maximum intensity | : | C=90.0 $\gamma$ =0.5 |
| Beam Angle(50%Imax)                      | : | [C0/180]Total=87.6 [C90/270]Total=88.0   |                            |   |                      |
| Field angle(10%Imax)                     | : | [C0/180]Total=148.0 [C90/270]Total=148.2 |                            |   |                      |
| Maximum s/h(1/2)                         | : | C0_180=1.25 C90_270=1.25                 |                            |   |                      |
| Maximum s/h(1/4)                         | : | C0_180=1.24 C90_270=1.24                 |                            |   |                      |
| Up flux rate of lamp(%)                  | : | 0.00%                                    |                            |   |                      |
| Down flux rate of lamp(%)                | : | 100.00%                                  |                            |   |                      |
| Up flux rate of LUM(%)                   | : | --                                       |                            |   |                      |
| Down flux rate of LUM(%)                 | : | 100.00%                                  |                            |   |                      |
| CIE Type                                 | : | Direct lighting                          |                            |   |                      |
| Output flux ratio in $\pi$ solid angle : | : | 87.424%                                  |                            |   |                      |

## Zonal flux distribution table

Appendix Page: 2 Total:21

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 1542.903      | 0.000       | 0         | 0.00%       | 0.00%      |
| 0.5                | 1543.118      | 0.369       | 0.369     | 0.01%       | 0.01%      |
| 1.0                | 1542.940      | 1.107       | 1.477     | 0.03%       | 0.05%      |
| 1.5                | 1542.547      | 1.845       | 3.322     | 0.06%       | 0.10%      |
| 2.0                | 1542.156      | 2.583       | 5.905     | 0.08%       | 0.18%      |
| 2.5                | 1541.534      | 3.319       | 9.224     | 0.10%       | 0.28%      |
| 3.0                | 1540.851      | 4.054       | 13.278    | 0.13%       | 0.41%      |
| 3.5                | 1540.066      | 4.789       | 18.067    | 0.15%       | 0.56%      |
| 4.0                | 1539.154      | 5.521       | 23.588    | 0.17%       | 0.73%      |
| 4.5                | 1538.131      | 6.252       | 29.84     | 0.19%       | 0.92%      |
| 5.0                | 1536.887      | 6.981       | 36.821    | 0.22%       | 1.14%      |
| 5.5                | 1535.538      | 7.707       | 44.528    | 0.24%       | 1.37%      |
| 6.0                | 1534.081      | 8.431       | 52.96     | 0.26%       | 1.63%      |
| 6.5                | 1532.578      | 9.153       | 62.113    | 0.28%       | 1.92%      |
| 7.0                | 1530.855      | 9.871       | 71.984    | 0.30%       | 2.22%      |
| 7.5                | 1529.033      | 10.587      | 82.571    | 0.33%       | 2.55%      |
| 8.0                | 1527.144      | 11.299      | 93.869    | 0.35%       | 2.90%      |
| 8.5                | 1525.129      | 12.007      | 105.877   | 0.37%       | 3.27%      |
| 9.0                | 1523.040      | 12.712      | 118.589   | 0.39%       | 3.66%      |
| 9.5                | 1520.792      | 13.414      | 132.003   | 0.41%       | 4.07%      |
| 10.0               | 1518.508      | 14.111      | 146.114   | 0.44%       | 4.51%      |
| 10.5               | 1516.028      | 14.804      | 160.917   | 0.46%       | 4.97%      |
| 11.0               | 1513.360      | 15.491      | 176.409   | 0.48%       | 5.44%      |
| 11.5               | 1510.619      | 16.174      | 192.582   | 0.50%       | 5.94%      |
| 12.0               | 1507.706      | 16.851      | 209.433   | 0.52%       | 6.46%      |
| 12.5               | 1504.705      | 17.523      | 226.956   | 0.54%       | 7.00%      |
| 13.0               | 1501.648      | 18.190      | 245.147   | 0.56%       | 7.57%      |
| 13.5               | 1498.350      | 18.851      | 263.997   | 0.58%       | 8.15%      |
| 14.0               | 1494.947      | 19.505      | 283.503   | 0.60%       | 8.75%      |
| 14.5               | 1491.493      | 20.154      | 303.656   | 0.62%       | 9.37%      |
| 15.0               | 1487.951      | 20.797      | 324.453   | 0.64%       | 10.01%     |
| 15.5               | 1484.154      | 21.432      | 345.885   | 0.66%       | 10.68%     |
| 16.0               | 1480.272      | 22.060      | 367.945   | 0.68%       | 11.36%     |
| 16.5               | 1476.250      | 22.681      | 390.627   | 0.70%       | 12.06%     |
| 17.0               | 1472.090      | 23.295      | 413.922   | 0.72%       | 12.78%     |
| 17.5               | 1467.927      | 23.902      | 437.824   | 0.74%       | 13.51%     |
| 18.0               | 1463.543      | 24.501      | 462.325   | 0.76%       | 14.27%     |
| 18.5               | 1458.967      | 25.091      | 487.416   | 0.77%       | 15.04%     |

Equipment: GMS1800  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 55%

Operator: CWR

## Zonal flux distribution table

Appendix Page: 3 Total:21

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 19.0               | 1454.225      | 25.672      | 513.088   | 0.79%       | 15.84%     |
| 19.5               | 1449.399      | 26.245      | 539.333   | 0.81%       | 16.65%     |
| 20.0               | 1444.385      | 26.808      | 566.142   | 0.83%       | 17.47%     |
| 20.5               | 1439.300      | 27.363      | 593.505   | 0.84%       | 18.32%     |
| 21.0               | 1434.259      | 27.911      | 621.416   | 0.86%       | 19.18%     |
| 21.5               | 1428.994      | 28.450      | 649.866   | 0.88%       | 20.06%     |
| 22.0               | 1423.459      | 28.978      | 678.844   | 0.89%       | 20.95%     |
| 22.5               | 1417.703      | 29.494      | 708.338   | 0.91%       | 21.86%     |
| 23.0               | 1411.774      | 29.998      | 738.336   | 0.93%       | 22.79%     |
| 23.5               | 1405.788      | 30.492      | 768.828   | 0.94%       | 23.73%     |
| 24.0               | 1399.617      | 30.976      | 799.804   | 0.96%       | 24.69%     |
| 24.5               | 1393.271      | 31.448      | 831.252   | 0.97%       | 25.66%     |
| 25.0               | 1386.707      | 31.908      | 863.16    | 0.98%       | 26.64%     |
| 25.5               | 1379.876      | 32.354      | 895.514   | 1.00%       | 27.64%     |
| 26.0               | 1372.897      | 32.787      | 928.301   | 1.01%       | 28.65%     |
| 26.5               | 1365.720      | 33.207      | 961.508   | 1.02%       | 29.68%     |
| 27.0               | 1358.425      | 33.615      | 995.123   | 1.04%       | 30.71%     |
| 27.5               | 1350.938      | 34.010      | 1029.133  | 1.05%       | 31.76%     |
| 28.0               | 1343.209      | 34.391      | 1063.524  | 1.06%       | 32.82%     |
| 28.5               | 1335.207      | 34.756      | 1098.28   | 1.07%       | 33.90%     |
| 29.0               | 1326.894      | 35.104      | 1133.384  | 1.08%       | 34.98%     |
| 29.5               | 1318.315      | 35.435      | 1168.818  | 1.09%       | 36.07%     |
| 30.0               | 1309.421      | 35.748      | 1204.566  | 1.10%       | 37.18%     |
| 30.5               | 1300.327      | 36.044      | 1240.61   | 1.11%       | 38.29%     |
| 31.0               | 1290.880      | 36.322      | 1276.932  | 1.12%       | 39.41%     |
| 31.5               | 1280.985      | 36.578      | 1313.51   | 1.13%       | 40.54%     |
| 32.0               | 1270.646      | 36.811      | 1350.321  | 1.14%       | 41.68%     |
| 32.5               | 1259.945      | 37.021      | 1387.341  | 1.14%       | 42.82%     |
| 33.0               | 1248.603      | 37.204      | 1424.546  | 1.15%       | 43.97%     |
| 33.5               | 1236.746      | 37.359      | 1461.905  | 1.15%       | 45.12%     |
| 34.0               | 1224.142      | 37.482      | 1499.387  | 1.16%       | 46.28%     |
| 34.5               | 1210.668      | 37.568      | 1536.955  | 1.16%       | 47.44%     |
| 35.0               | 1196.327      | 37.613      | 1574.569  | 1.16%       | 48.60%     |
| 35.5               | 1181.116      | 37.618      | 1612.186  | 1.16%       | 49.76%     |
| 36.0               | 1164.918      | 37.578      | 1649.764  | 1.16%       | 50.92%     |
| 36.5               | 1147.541      | 37.487      | 1687.251  | 1.16%       | 52.08%     |
| 37.0               | 1128.960      | 37.342      | 1724.594  | 1.15%       | 53.23%     |
| 37.5               | 1109.335      | 37.143      | 1761.737  | 1.15%       | 54.37%     |

Equipment: GMS1800  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 55%

Operator: CWR

## Zonal flux distribution table

Appendix Page: 4 Total:21

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 38.0               | 1088.302      | 36.886      | 1798.623  | 1.14%       | 55.51%     |
| 38.5               | 1066.115      | 36.566      | 1835.189  | 1.13%       | 56.64%     |
| 39.0               | 1043.091      | 36.194      | 1871.383  | 1.12%       | 57.76%     |
| 39.5               | 1019.036      | 35.769      | 1907.152  | 1.10%       | 58.86%     |
| 40.0               | 994.033       | 35.290      | 1942.443  | 1.09%       | 59.95%     |
| 40.5               | 968.482       | 34.764      | 1977.206  | 1.07%       | 61.02%     |
| 41.0               | 942.517       | 34.199      | 2011.405  | 1.06%       | 62.08%     |
| 41.5               | 915.919       | 33.594      | 2044.998  | 1.04%       | 63.12%     |
| 42.0               | 889.027       | 32.950      | 2077.949  | 1.02%       | 64.13%     |
| 42.5               | 862.228       | 32.281      | 2110.23   | 1.00%       | 65.13%     |
| 43.0               | 835.519       | 31.594      | 2141.824  | 0.98%       | 66.11%     |
| 43.5               | 809.045       | 30.893      | 2172.717  | 0.95%       | 67.06%     |
| 44.0               | 782.983       | 30.182      | 2202.899  | 0.93%       | 67.99%     |
| 44.5               | 757.417       | 29.468      | 2232.367  | 0.91%       | 68.90%     |
| 45.0               | 732.226       | 28.751      | 2261.118  | 0.89%       | 69.79%     |
| 45.5               | 707.493       | 28.031      | 2289.15   | 0.87%       | 70.65%     |
| 46.0               | 683.567       | 27.317      | 2316.467  | 0.84%       | 71.50%     |
| 46.5               | 660.316       | 26.614      | 2343.081  | 0.82%       | 72.32%     |
| 47.0               | 637.714       | 25.920      | 2369.001  | 0.80%       | 73.12%     |
| 47.5               | 615.633       | 25.232      | 2394.233  | 0.78%       | 73.90%     |
| 48.0               | 594.205       | 24.552      | 2418.785  | 0.76%       | 74.65%     |
| 48.5               | 573.367       | 23.881      | 2442.666  | 0.74%       | 75.39%     |
| 49.0               | 552.952       | 23.216      | 2465.882  | 0.72%       | 76.11%     |
| 49.5               | 533.172       | 22.558      | 2488.44   | 0.70%       | 76.80%     |
| 50.0               | 513.757       | 21.906      | 2510.346  | 0.68%       | 77.48%     |
| 50.5               | 494.647       | 21.255      | 2531.601  | 0.66%       | 78.14%     |
| 51.0               | 476.067       | 20.609      | 2552.21   | 0.64%       | 78.77%     |
| 51.5               | 458.193       | 19.975      | 2572.185  | 0.62%       | 79.39%     |
| 52.0               | 440.781       | 19.355      | 2591.54   | 0.60%       | 79.99%     |
| 52.5               | 423.887       | 18.744      | 2610.283  | 0.58%       | 80.56%     |
| 53.0               | 407.777       | 18.149      | 2628.433  | 0.56%       | 81.12%     |
| 53.5               | 392.484       | 17.579      | 2646.012  | 0.54%       | 81.67%     |
| 54.0               | 377.837       | 17.031      | 2663.043  | 0.53%       | 82.19%     |
| 54.5               | 363.913       | 16.504      | 2679.547  | 0.51%       | 82.70%     |
| 55.0               | 350.645       | 15.998      | 2695.545  | 0.49%       | 83.20%     |
| 55.5               | 338.013       | 15.513      | 2711.057  | 0.48%       | 83.67%     |
| 56.0               | 326.105       | 15.050      | 2726.107  | 0.46%       | 84.14%     |
| 56.5               | 314.883       | 14.611      | 2740.718  | 0.45%       | 84.59%     |

Equipment: GMS1800  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 55%

Operator: CWR

## Zonal flux distribution table

Appendix Page: 5 Total:21

| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 57.0               | 304.243       | 14.195      | 2754.913  | 0.44%       | 85.03%     |
| 57.5               | 294.190       | 13.798      | 2768.711  | 0.43%       | 85.45%     |
| 58.0               | 284.809       | 13.425      | 2782.136  | 0.41%       | 85.87%     |
| 58.5               | 276.000       | 13.074      | 2795.21   | 0.40%       | 86.27%     |
| 59.0               | 267.786       | 12.745      | 2807.955  | 0.39%       | 86.67%     |
| 59.5               | 260.193       | 12.440      | 2820.395  | 0.38%       | 87.05%     |
| 60.0               | 253.115       | 12.156      | 2832.552  | 0.38%       | 87.42%     |
| 60.5               | 246.538       | 11.893      | 2844.444  | 0.37%       | 87.79%     |
| 61.0               | 240.436       | 11.648      | 2856.093  | 0.36%       | 88.15%     |
| 61.5               | 234.880       | 11.425      | 2867.517  | 0.35%       | 88.50%     |
| 62.0               | 229.709       | 11.220      | 2878.737  | 0.35%       | 88.85%     |
| 62.5               | 224.831       | 11.028      | 2889.765  | 0.34%       | 89.19%     |
| 63.0               | 220.253       | 10.848      | 2900.613  | 0.33%       | 89.53%     |
| 63.5               | 216.077       | 10.682      | 2911.295  | 0.33%       | 89.85%     |
| 64.0               | 212.347       | 10.534      | 2921.829  | 0.33%       | 90.18%     |
| 64.5               | 208.961       | 10.403      | 2932.233  | 0.32%       | 90.50%     |
| 65.0               | 205.832       | 10.285      | 2942.518  | 0.32%       | 90.82%     |
| 65.5               | 202.959       | 10.178      | 2952.696  | 0.31%       | 91.13%     |
| 66.0               | 200.249       | 10.079      | 2962.775  | 0.31%       | 91.44%     |
| 66.5               | 197.665       | 9.985       | 2972.76   | 0.31%       | 91.75%     |
| 67.0               | 195.124       | 9.894       | 2982.654  | 0.31%       | 92.06%     |
| 67.5               | 192.549       | 9.801       | 2992.455  | 0.30%       | 92.36%     |
| 68.0               | 189.866       | 9.703       | 3002.159  | 0.30%       | 92.66%     |
| 68.5               | 187.041       | 9.597       | 3011.756  | 0.30%       | 92.96%     |
| 69.0               | 184.005       | 9.481       | 3021.237  | 0.29%       | 93.25%     |
| 69.5               | 180.722       | 9.351       | 3030.587  | 0.29%       | 93.54%     |
| 70.0               | 177.176       | 9.205       | 3039.793  | 0.28%       | 93.82%     |
| 70.5               | 173.414       | 9.046       | 3048.839  | 0.28%       | 94.10%     |
| 71.0               | 169.413       | 8.873       | 3057.712  | 0.27%       | 94.37%     |
| 71.5               | 165.201       | 8.687       | 3066.399  | 0.27%       | 94.64%     |
| 72.0               | 160.908       | 8.491       | 3074.89   | 0.26%       | 94.90%     |
| 72.5               | 156.548       | 8.289       | 3083.179  | 0.26%       | 95.16%     |
| 73.0               | 152.127       | 8.082       | 3091.261  | 0.25%       | 95.41%     |
| 73.5               | 147.763       | 7.873       | 3099.133  | 0.24%       | 95.65%     |
| 74.0               | 143.507       | 7.666       | 3106.8    | 0.24%       | 95.89%     |
| 74.5               | 139.326       | 7.463       | 3114.263  | 0.23%       | 96.12%     |
| 75.0               | 135.298       | 7.264       | 3121.526  | 0.22%       | 96.34%     |
| 75.5               | 131.443       | 7.072       | 3128.598  | 0.22%       | 96.56%     |

Equipment: GMS1800  
Temperature( $^{\circ}\text{C}$ ): 25

Date:  
Humidity(%): 55%

Operator: CWR

## Zonal flux distribution table

Appendix Page: 6 Total:21

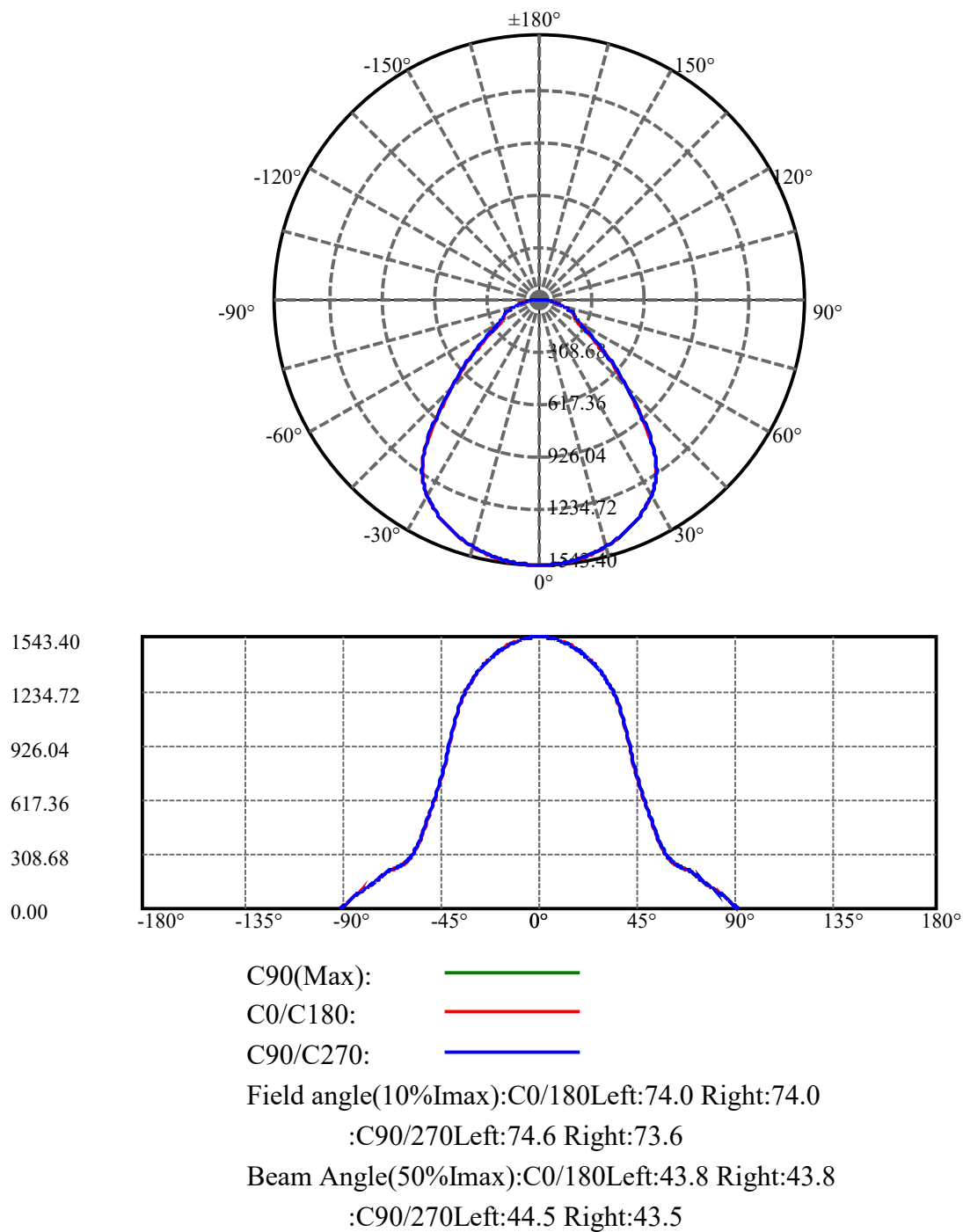
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 76.0               | 127.680       | 6.885       | 3135.484  | 0.21%       | 96.77%     |
| 76.5               | 124.019       | 6.703       | 3142.186  | 0.21%       | 96.98%     |
| 77.0               | 120.426       | 6.523       | 3148.709  | 0.20%       | 97.18%     |
| 77.5               | 116.864       | 6.345       | 3155.055  | 0.20%       | 97.38%     |
| 78.0               | 113.288       | 6.166       | 3161.221  | 0.19%       | 97.57%     |
| 78.5               | 109.684       | 5.985       | 3167.205  | 0.18%       | 97.75%     |
| 79.0               | 106.042       | 5.801       | 3173.006  | 0.18%       | 97.93%     |
| 79.5               | 102.299       | 5.612       | 3178.617  | 0.17%       | 98.11%     |
| 80.0               | 98.473        | 5.416       | 3184.034  | 0.17%       | 98.27%     |
| 80.5               | 94.612        | 5.217       | 3189.251  | 0.16%       | 98.43%     |
| 81.0               | 90.692        | 5.014       | 3194.265  | 0.15%       | 98.59%     |
| 81.5               | 86.662        | 4.806       | 3199.071  | 0.15%       | 98.74%     |
| 82.0               | 82.511        | 4.590       | 3203.661  | 0.14%       | 98.88%     |
| 82.5               | 78.252        | 4.367       | 3208.028  | 0.13%       | 99.01%     |
| 83.0               | 73.748        | 4.134       | 3212.162  | 0.13%       | 99.14%     |
| 83.5               | 68.960        | 3.885       | 3216.047  | 0.12%       | 99.26%     |
| 84.0               | 63.908        | 3.621       | 3219.668  | 0.11%       | 99.37%     |
| 84.5               | 58.568        | 3.341       | 3223.009  | 0.10%       | 99.48%     |
| 85.0               | 52.999        | 3.046       | 3226.055  | 0.09%       | 99.57%     |
| 85.5               | 47.274        | 2.740       | 3228.794  | 0.08%       | 99.65%     |
| 86.0               | 41.450        | 2.426       | 3231.22   | 0.07%       | 99.73%     |
| 86.5               | 35.583        | 2.107       | 3233.327  | 0.07%       | 99.79%     |
| 87.0               | 29.835        | 1.791       | 3235.118  | 0.06%       | 99.85%     |
| 87.5               | 24.241        | 1.481       | 3236.599  | 0.05%       | 99.90%     |
| 88.0               | 18.972        | 1.184       | 3237.782  | 0.04%       | 99.93%     |
| 88.5               | 14.066        | 0.905       | 3238.688  | 0.03%       | 99.96%     |
| 89.0               | 9.712         | 0.652       | 3239.339  | 0.02%       | 99.98%     |
| 89.5               | 6.299         | 0.439       | 3239.778  | 0.01%       | 99.99%     |
| 90.0               | 1.788         | 0.222       | 3240      | 0.01%       | 100.00%    |

## ZONAL LUMEN SUMMARY

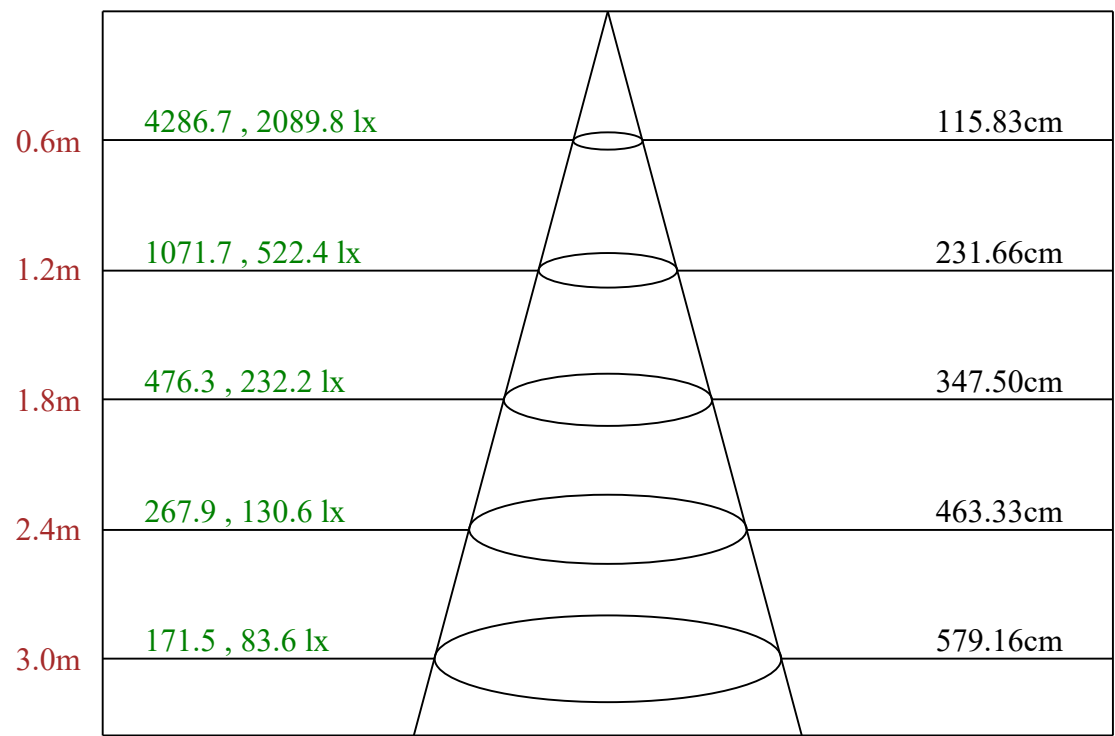
| Zone    | Lumens  | %Lamp   | %Fixt   |
|---------|---------|---------|---------|
| 0-30    | 1204.57 | 37.18%  | 37.18%  |
| 0-40    | 1942.44 | 59.95%  | 59.95%  |
| 0-60    | 2832.55 | 87.42%  | 87.42%  |
| 0-90    | 3239.78 | 99.99%  | 99.99%  |
| 0-120   | 3239.78 | 99.99%  | 99.99%  |
| 0-180   | 3240.00 | 100.00% | 100.00% |
| 60-90   | 407.23  | 12.57%  | 12.57%  |
| 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%   |
| 0-52.01 | 2592.00 | 80.00%  | 80.00%  |

## ZONAL LUMEN SUMMARY

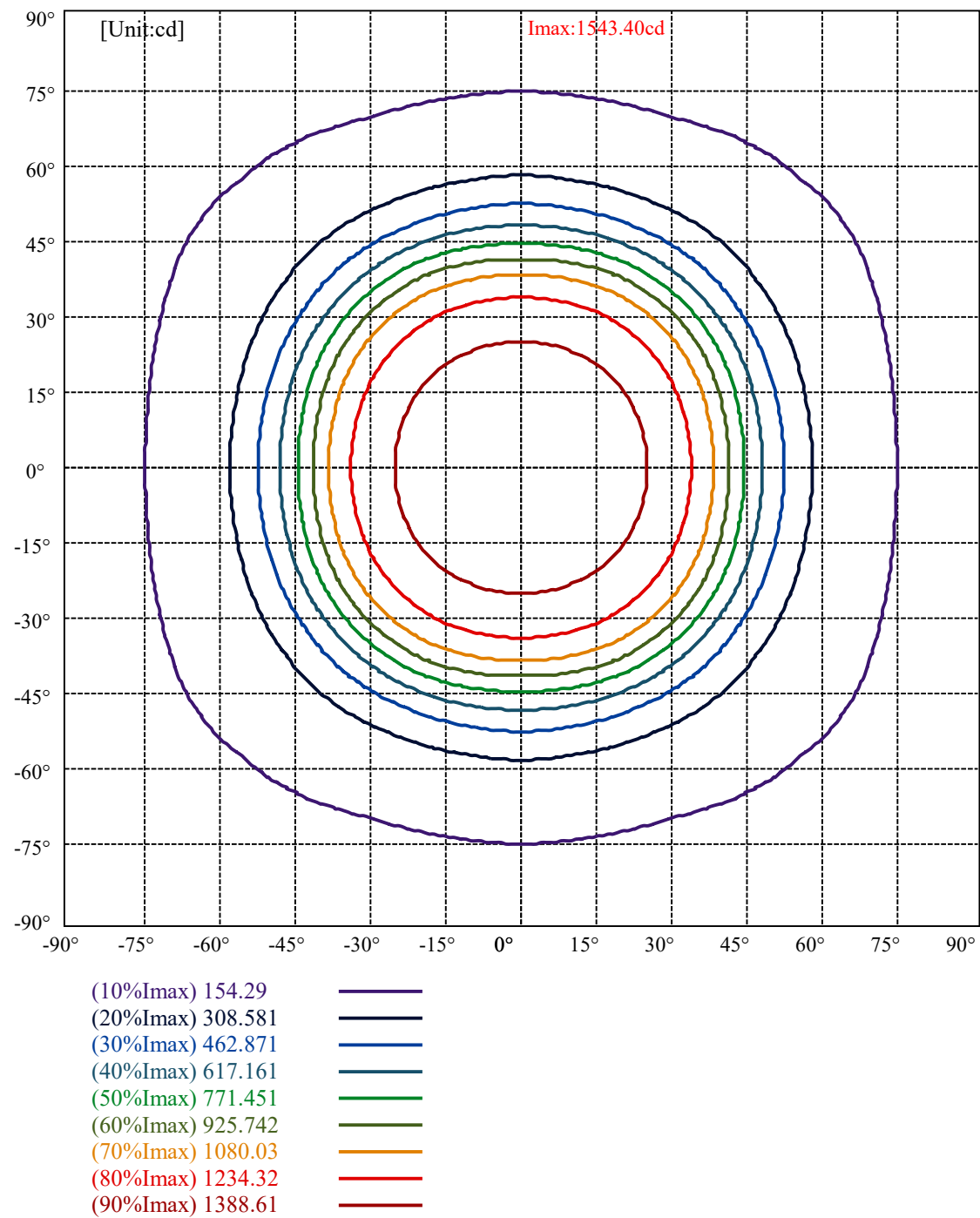
|         |        |
|---------|--------|
| 0-10    | 146.11 |
| 10-20   | 420.03 |
| 20-30   | 638.42 |
| 30-40   | 737.88 |
| 40-50   | 567.90 |
| 50-60   | 322.21 |
| 60-70   | 207.24 |
| 70-80   | 144.24 |
| 80-90   | 55.74  |
| 90-100  | 0.00   |
| 100-110 | 0.00   |
| 110-120 | 0.00   |
| 120-130 | 0.00   |
| 130-140 | 0.00   |
| 140-150 | 0.00   |
| 150-160 | 0.00   |
| 160-170 | 0.00   |
| 170-180 | 0.00   |

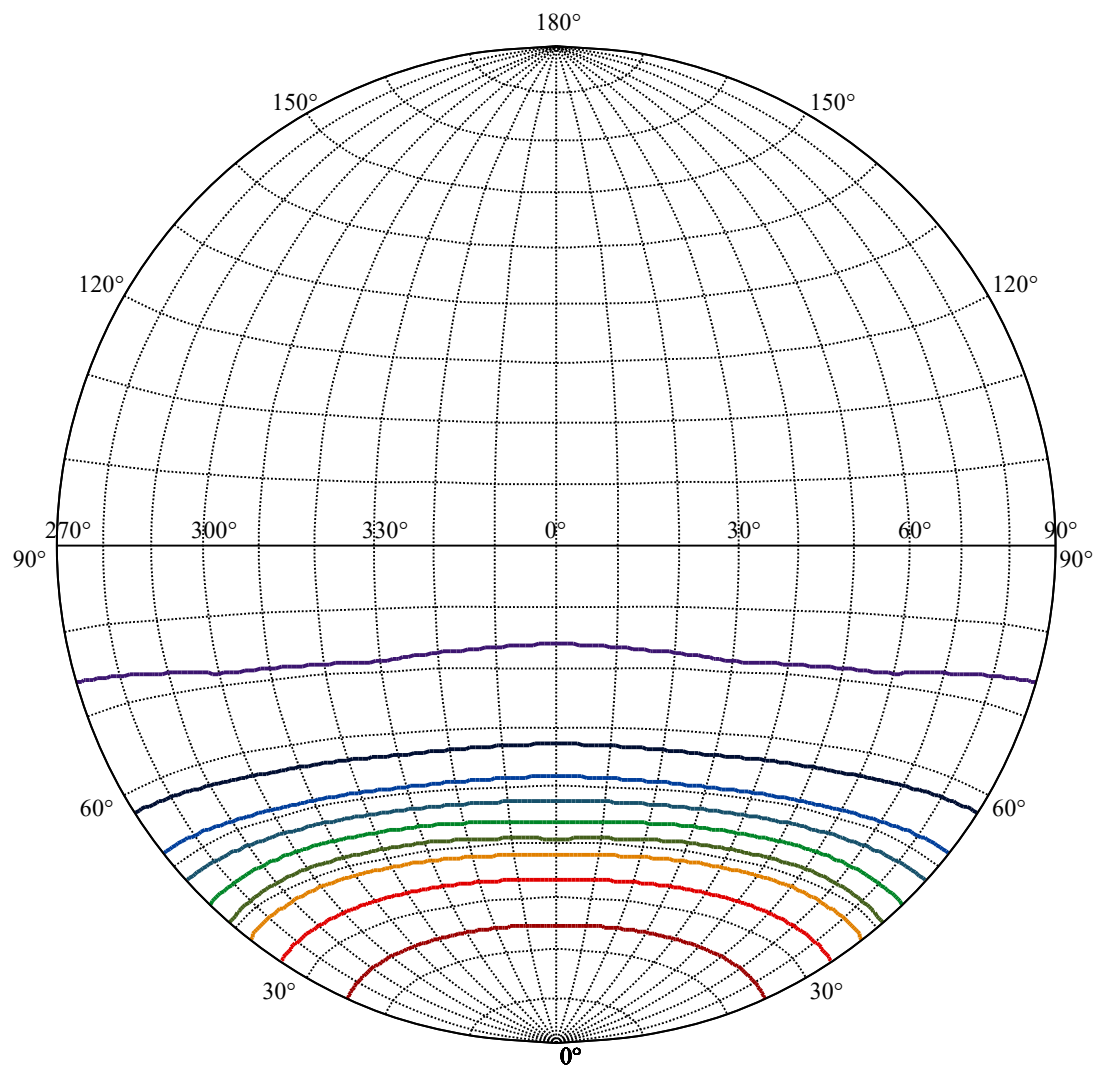






Max , Ave      Beam angle of C90 plane 87.97



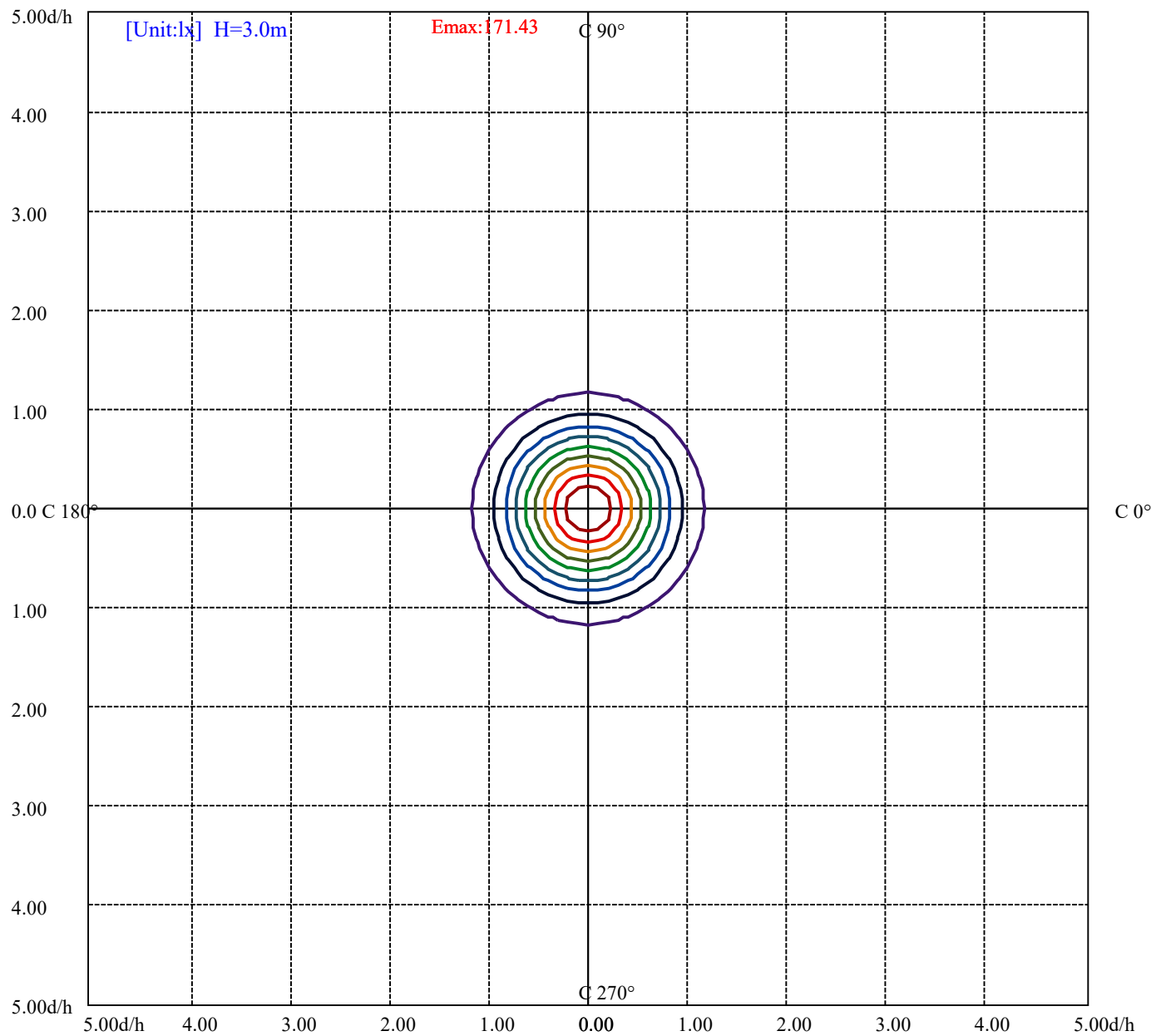


House

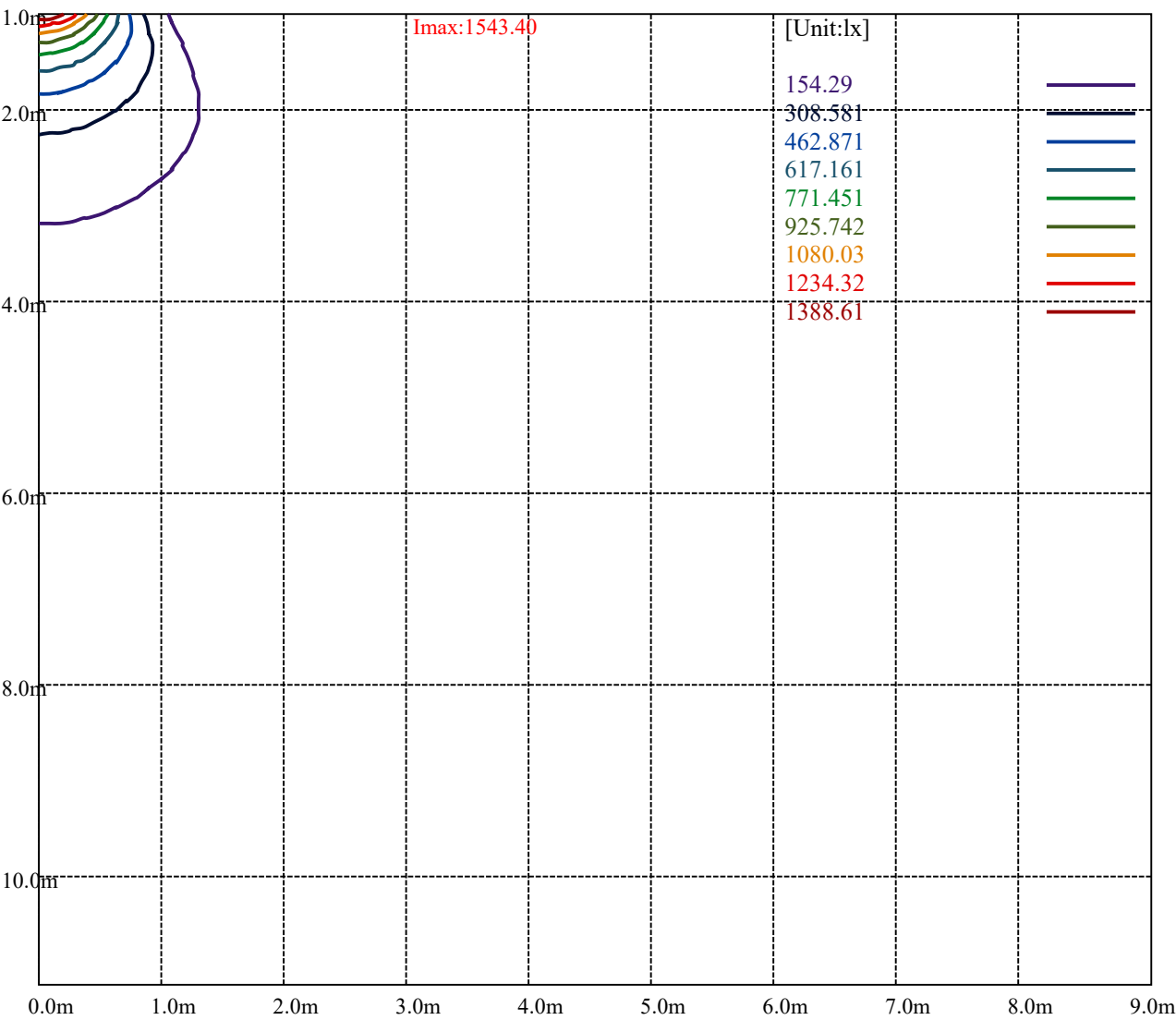
[Unit:cd]

Road

|                   |  |
|-------------------|--|
| Imax:1543.40      |  |
| (10%Imax) 154.331 |  |
| (20%Imax) 308.662 |  |
| (30%Imax) 462.993 |  |
| (40%Imax) 617.324 |  |
| (50%Imax) 771.656 |  |
| (60%Imax) 925.987 |  |
| (70%Imax) 1080.32 |  |
| (80%Imax) 1234.65 |  |
| (90%Imax) 1388.98 |  |



|                    |   |
|--------------------|---|
| (10%Emax) 17.14333 | — |
| (20%Emax) 34.28678 | — |
| (30%Emax) 51.43011 | — |
| (40%Emax) 68.57345 | — |
| (50%Emax) 85.71689 | — |
| (60%Emax) 102.8602 | — |
| (70%Emax) 120.0033 | — |
| (80%Emax) 137.1467 | — |
| (90%Emax) 154.29   | — |



# Luminance Limiting Curve(no luminous side)

Appendix Page: 14 Total:21

Luminance Table

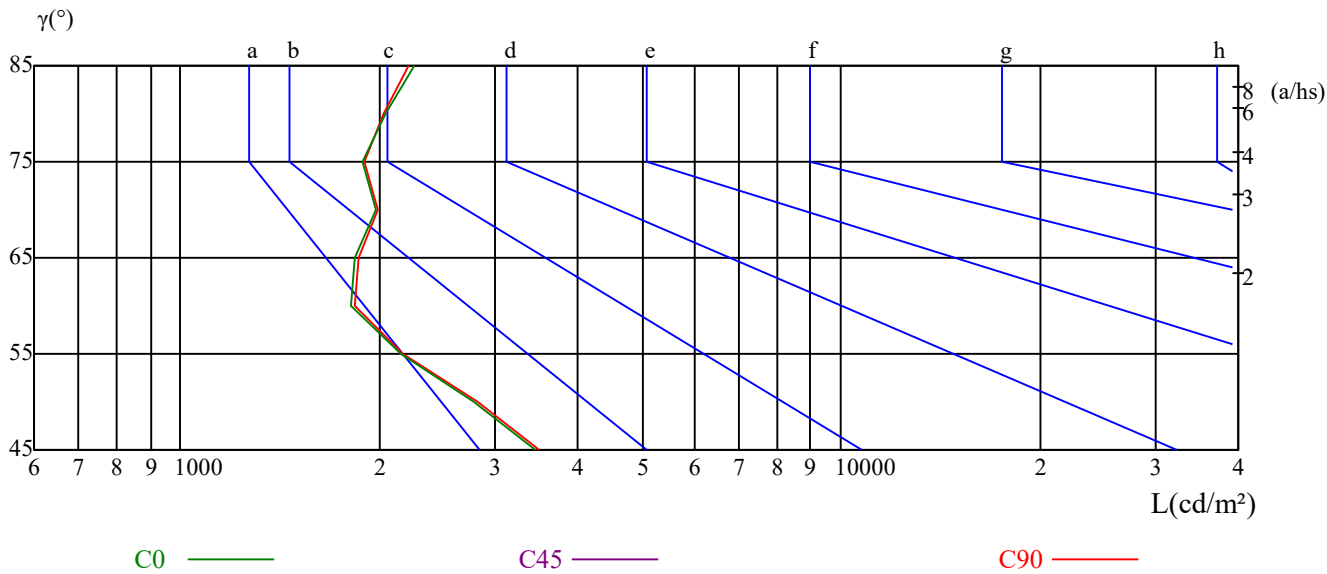
| $\gamma$ | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|----------|------|------|------|------|------|------|------|------|------|
| C0       | 3449 | 2776 | 2151 | 1808 | 1835 | 1978 | 1886 | 2048 | 2256 |
| C45      | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    | 0    |
| C90      | 3488 | 2810 | 2177 | 1834 | 1859 | 1996 | 1894 | 2030 | 2214 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 1835       | 1859       | 0       | 1886       | 1894       | 0       | 2256       | 2214       | 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



| 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  | 14.57            | 16.02 | 14.93 | 16.33 | 16.64 | 14.62          | 16.06 | 14.98 | 16.38 | 16.69 |
|                                                   | 3H  | 15.75            | 17.05 | 16.14 | 17.39 | 17.73 | 15.80          | 17.10 | 16.19 | 17.44 | 17.78 |
|                                                   | 4H  | 16.35            | 17.57 | 16.75 | 17.92 | 18.28 | 16.40          | 17.62 | 16.80 | 17.97 | 18.33 |
|                                                   | 6H  | 16.96            | 18.08 | 17.37 | 18.45 | 18.85 | 16.99          | 18.12 | 17.40 | 18.49 | 18.88 |
|                                                   | 8H  | 17.22            | 18.30 | 17.63 | 18.68 | 19.08 | 17.25          | 18.33 | 17.66 | 18.71 | 19.11 |
|                                                   | 12H | 17.44            | 18.47 | 17.86 | 18.86 | 19.27 | 17.45          | 18.49 | 17.87 | 18.87 | 19.29 |
| 4H                                                | 2H  | 14.86            | 16.07 | 15.25 | 16.42 | 16.78 | 14.90          | 16.11 | 15.29 | 16.46 | 16.83 |
|                                                   | 3H  | 16.25            | 17.28 | 16.67 | 17.67 | 18.08 | 16.30          | 17.33 | 16.72 | 17.71 | 18.12 |
|                                                   | 4H  | 17.07            | 17.97 | 17.50 | 18.39 | 18.83 | 17.11          | 18.01 | 17.54 | 18.43 | 18.87 |
|                                                   | 6H  | 17.82            | 18.63 | 18.28 | 19.07 | 19.51 | 17.84          | 18.65 | 18.31 | 19.09 | 19.54 |
|                                                   | 8H  | 18.20            | 18.95 | 18.67 | 19.40 | 19.87 | 18.21          | 18.97 | 18.69 | 19.41 | 19.88 |
|                                                   | 12H | 18.52            | 19.22 | 19.00 | 19.67 | 20.17 | 18.52          | 19.22 | 19.00 | 19.67 | 20.17 |
| 8H                                                | 4H  | 17.31            | 18.06 | 17.79 | 18.51 | 18.98 | 17.35          | 18.10 | 17.82 | 18.55 | 19.01 |
|                                                   | 6H  | 18.23            | 18.86 | 18.72 | 19.33 | 19.83 | 18.25          | 18.88 | 18.74 | 19.35 | 19.85 |
|                                                   | 8H  | 18.77            | 19.32 | 19.29 | 19.83 | 20.32 | 18.78          | 19.33 | 19.29 | 19.84 | 20.33 |
|                                                   | 12H | 19.21            | 19.67 | 19.73 | 20.18 | 20.69 | 19.20          | 19.66 | 19.72 | 20.17 | 20.68 |
| 12H                                               | 4H  | 17.35            | 18.05 | 17.83 | 18.49 | 19.00 | 17.39          | 18.09 | 17.87 | 18.53 | 19.04 |
|                                                   | 6H  | 18.37            | 18.92 | 18.88 | 19.43 | 19.92 | 18.38          | 18.94 | 18.90 | 19.45 | 19.94 |
|                                                   | 8H  | 18.92            | 19.38 | 19.44 | 19.89 | 20.40 | 18.92          | 19.38 | 19.45 | 19.89 | 20.40 |
| Variation with the observer position at spacings: |     |                  |       |       |       |       |                |       |       |       |       |
| S = 1.0H                                          |     | 0.5/-0.8         |       |       |       |       | 0.5/-0.8       |       |       |       |       |
| S = 1.5H                                          |     | 0.9/-1.1         |       |       |       |       | 0.9/-1.1       |       |       |       |       |
| S = 2.0H                                          |     | 1.4/-1.0         |       |       |       |       | 1.4/-1.0       |       |       |       |       |
| Standard tables:                                  |     | BKBF             |       |       |       |       | BKBF           |       |       |       |       |
| Uncorrected UGR                                   |     | 3.3              |       |       |       |       | 3.3            |       |       |       |       |

UGR calculation is based on CIE Publ. 117 ,S/H = 0.25

## Intensity data(cd)

Appendix Page: 16 Total:21

| C/γ(°) | 0.0     | 0.5     | 1.0     | 1.5     | 2.0     | 2.5     | 3.0     | 3.5     | 4.0     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1542.90 | 1542.71 | 1542.29 | 1542.08 | 1541.60 | 1540.86 | 1540.21 | 1539.45 | 1538.54 |
| 30.0   | 1542.90 | 1543.26 | 1543.31 | 1543.03 | 1542.61 | 1542.02 | 1541.33 | 1540.56 | 1539.68 |
| 60.0   | 1542.90 | 1543.04 | 1542.98 | 1542.61 | 1542.30 | 1541.75 | 1541.07 | 1540.30 | 1539.38 |
| 90.0   | 1542.90 | 1543.40 | 1542.76 | 1541.93 | 1541.51 | 1540.81 | 1540.09 | 1539.23 | 1538.27 |
| 120.0  | 1542.90 | 1543.04 | 1542.98 | 1542.61 | 1542.30 | 1541.75 | 1541.07 | 1540.30 | 1539.38 |
| 150.0  | 1542.90 | 1543.26 | 1543.31 | 1543.03 | 1542.61 | 1542.02 | 1541.33 | 1540.56 | 1539.68 |
| 180.0  | 1542.90 | 1542.71 | 1542.29 | 1542.08 | 1541.60 | 1540.86 | 1540.21 | 1539.45 | 1538.54 |
| 210.0  | 1542.90 | 1543.26 | 1543.31 | 1543.03 | 1542.61 | 1542.02 | 1541.33 | 1540.56 | 1539.68 |
| 240.0  | 1542.90 | 1543.04 | 1542.98 | 1542.61 | 1542.30 | 1541.75 | 1541.07 | 1540.30 | 1539.38 |
| 270.0  | 1542.90 | 1543.40 | 1542.76 | 1541.93 | 1541.51 | 1540.81 | 1540.09 | 1539.23 | 1538.27 |
| 300.0  | 1542.90 | 1543.04 | 1542.98 | 1542.61 | 1542.30 | 1541.75 | 1541.07 | 1540.30 | 1539.38 |
| 330.0  | 1542.90 | 1543.26 | 1543.31 | 1543.03 | 1542.61 | 1542.02 | 1541.33 | 1540.56 | 1539.68 |
| 360.0  | 1542.90 | 1542.71 | 1542.29 | 1542.08 | 1541.60 | 1540.86 | 1540.21 | 1539.45 | 1538.54 |

| C/γ(°) | 4.5     | 5.0     | 5.5     | 6.0     | 6.5     | 7.0     | 7.5     | 8.0     | 8.5     |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1537.48 | 1536.20 | 1534.82 | 1533.34 | 1531.90 | 1530.25 | 1528.40 | 1526.58 | 1524.63 |
| 30.0   | 1538.59 | 1537.35 | 1536.02 | 1534.55 | 1533.04 | 1531.39 | 1529.56 | 1527.67 | 1525.70 |
| 60.0   | 1538.38 | 1537.16 | 1535.84 | 1534.40 | 1532.86 | 1531.10 | 1529.29 | 1527.36 | 1525.37 |
| 90.0   | 1537.36 | 1536.10 | 1534.71 | 1533.25 | 1531.78 | 1529.90 | 1528.09 | 1526.23 | 1524.01 |
| 120.0  | 1538.38 | 1537.16 | 1535.84 | 1534.40 | 1532.86 | 1531.10 | 1529.29 | 1527.36 | 1525.37 |
| 150.0  | 1538.59 | 1537.35 | 1536.02 | 1534.55 | 1533.04 | 1531.39 | 1529.56 | 1527.67 | 1525.70 |
| 180.0  | 1537.48 | 1536.20 | 1534.82 | 1533.34 | 1531.90 | 1530.25 | 1528.40 | 1526.58 | 1524.63 |
| 210.0  | 1538.59 | 1537.35 | 1536.02 | 1534.55 | 1533.04 | 1531.39 | 1529.56 | 1527.67 | 1525.70 |
| 240.0  | 1538.38 | 1537.16 | 1535.84 | 1534.40 | 1532.86 | 1531.10 | 1529.29 | 1527.36 | 1525.37 |
| 270.0  | 1537.36 | 1536.10 | 1534.71 | 1533.25 | 1531.78 | 1529.90 | 1528.09 | 1526.23 | 1524.01 |
| 300.0  | 1538.38 | 1537.16 | 1535.84 | 1534.40 | 1532.86 | 1531.10 | 1529.29 | 1527.36 | 1525.37 |
| 330.0  | 1538.59 | 1537.35 | 1536.02 | 1534.55 | 1533.04 | 1531.39 | 1529.56 | 1527.67 | 1525.70 |
| 360.0  | 1537.48 | 1536.20 | 1534.82 | 1533.34 | 1531.90 | 1530.25 | 1528.40 | 1526.58 | 1524.63 |

| C/γ(°) | 9.0     | 9.5     | 10.0    | 10.5    | 11.0    | 11.5    | 12.0    | 12.5    | 13.0    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1522.44 | 1520.20 | 1517.88 | 1515.40 | 1512.76 | 1509.94 | 1507.11 | 1504.20 | 1501.36 |
| 30.0   | 1523.55 | 1521.29 | 1518.94 | 1516.49 | 1513.85 | 1511.10 | 1508.26 | 1505.24 | 1502.19 |
| 60.0   | 1523.30 | 1521.05 | 1518.77 | 1516.31 | 1513.63 | 1510.93 | 1507.97 | 1504.92 | 1501.76 |
| 90.0   | 1522.09 | 1519.87 | 1517.74 | 1515.17 | 1512.45 | 1509.71 | 1506.66 | 1503.72 | 1500.63 |
| 120.0  | 1523.30 | 1521.05 | 1518.77 | 1516.31 | 1513.63 | 1510.93 | 1507.97 | 1504.92 | 1501.76 |
| 150.0  | 1523.55 | 1521.29 | 1518.94 | 1516.49 | 1513.85 | 1511.10 | 1508.26 | 1505.24 | 1502.19 |
| 180.0  | 1522.44 | 1520.20 | 1517.88 | 1515.40 | 1512.76 | 1509.94 | 1507.11 | 1504.20 | 1501.36 |
| 210.0  | 1523.55 | 1521.29 | 1518.94 | 1516.49 | 1513.85 | 1511.10 | 1508.26 | 1505.24 | 1502.19 |
| 240.0  | 1523.30 | 1521.05 | 1518.77 | 1516.31 | 1513.63 | 1510.93 | 1507.97 | 1504.92 | 1501.76 |
| 270.0  | 1522.09 | 1519.87 | 1517.74 | 1515.17 | 1512.45 | 1509.71 | 1506.66 | 1503.72 | 1500.63 |
| 300.0  | 1523.30 | 1521.05 | 1518.77 | 1516.31 | 1513.63 | 1510.93 | 1507.97 | 1504.92 | 1501.76 |
| 330.0  | 1523.55 | 1521.29 | 1518.94 | 1516.49 | 1513.85 | 1511.10 | 1508.26 | 1505.24 | 1502.19 |
| 360.0  | 1522.44 | 1520.20 | 1517.88 | 1515.40 | 1512.76 | 1509.94 | 1507.11 | 1504.20 | 1501.36 |

| C/γ(°) | 13.5    | 14.0    | 14.5    | 15.0    | 15.5    | 16.0    | 16.5    | 17.0    | 17.5    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1498.12 | 1494.69 | 1491.17 | 1487.72 | 1483.96 | 1480.05 | 1476.08 | 1471.97 | 1467.80 |
| 30.0   | 1498.97 | 1495.51 | 1492.05 | 1488.56 | 1484.80 | 1480.85 | 1476.85 | 1472.76 | 1468.53 |
| 60.0   | 1498.42 | 1495.06 | 1491.62 | 1488.03 | 1484.24 | 1480.34 | 1476.27 | 1472.14 | 1467.96 |
| 90.0   | 1497.21 | 1493.86 | 1490.45 | 1486.80 | 1482.89 | 1479.21 | 1475.20 | 1470.78 | 1466.81 |
| 120.0  | 1498.42 | 1495.06 | 1491.62 | 1488.03 | 1484.24 | 1480.34 | 1476.27 | 1472.14 | 1467.96 |
| 150.0  | 1498.97 | 1495.51 | 1492.05 | 1488.56 | 1484.80 | 1480.85 | 1476.85 | 1472.76 | 1468.53 |
| 180.0  | 1498.12 | 1494.69 | 1491.17 | 1487.72 | 1483.96 | 1480.05 | 1476.08 | 1471.97 | 1467.80 |
| 210.0  | 1498.97 | 1495.51 | 1492.05 | 1488.56 | 1484.80 | 1480.85 | 1476.85 | 1472.76 | 1468.53 |
| 240.0  | 1498.42 | 1495.06 | 1491.62 | 1488.03 | 1484.24 | 1480.34 | 1476.27 | 1472.14 | 1467.96 |
| 270.0  | 1497.21 | 1493.86 | 1490.45 | 1486.80 | 1482.89 | 1479.21 | 1475.20 | 1470.78 | 1466.81 |
| 300.0  | 1498.42 | 1495.06 | 1491.62 | 1488.03 | 1484.24 | 1480.34 | 1476.27 | 1472.14 | 1467.96 |
| 330.0  | 1498.97 | 1495.51 | 1492.05 | 1488.56 | 1484.80 | 1480.85 | 1476.85 | 1472.76 | 1468.53 |
| 360.0  | 1498.12 | 1494.69 | 1491.17 | 1487.72 | 1483.96 | 1480.05 | 1476.08 | 1471.97 | 1467.80 |



## Intensity data(cd)

Appendix Page: 17 Total:21

| C/γ(°) | 18.0    | 18.5    | 19.0    | 19.5    | 20.0    | 20.5    | 21.0    | 21.5    | 22.0    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1463.43 | 1458.92 | 1454.15 | 1449.28 | 1444.33 | 1439.36 | 1434.27 | 1428.87 | 1423.32 |
| 30.0   | 1464.17 | 1459.64 | 1454.90 | 1450.08 | 1445.08 | 1440.00 | 1434.94 | 1429.66 | 1424.17 |
| 60.0   | 1463.56 | 1458.95 | 1454.25 | 1449.44 | 1444.37 | 1439.26 | 1434.21 | 1429.02 | 1423.49 |
| 90.0   | 1462.36 | 1457.71 | 1452.91 | 1448.08 | 1443.08 | 1437.93 | 1432.99 | 1427.72 | 1422.13 |
| 120.0  | 1463.56 | 1458.95 | 1454.25 | 1449.44 | 1444.37 | 1439.26 | 1434.21 | 1429.02 | 1423.49 |
| 150.0  | 1464.17 | 1459.64 | 1454.90 | 1450.08 | 1445.08 | 1440.00 | 1434.94 | 1429.66 | 1424.17 |
| 180.0  | 1463.43 | 1458.92 | 1454.15 | 1449.28 | 1444.33 | 1439.36 | 1434.27 | 1428.87 | 1423.32 |
| 210.0  | 1464.17 | 1459.64 | 1454.90 | 1450.08 | 1445.08 | 1440.00 | 1434.94 | 1429.66 | 1424.17 |
| 240.0  | 1463.56 | 1458.95 | 1454.25 | 1449.44 | 1444.37 | 1439.26 | 1434.21 | 1429.02 | 1423.49 |
| 270.0  | 1462.36 | 1457.71 | 1452.91 | 1448.08 | 1443.08 | 1437.93 | 1432.99 | 1427.72 | 1422.13 |
| 300.0  | 1463.56 | 1458.95 | 1454.25 | 1449.44 | 1444.37 | 1439.26 | 1434.21 | 1429.02 | 1423.49 |
| 330.0  | 1464.17 | 1459.64 | 1454.90 | 1450.08 | 1445.08 | 1440.00 | 1434.94 | 1429.66 | 1424.17 |
| 360.0  | 1463.43 | 1458.92 | 1454.15 | 1449.28 | 1444.33 | 1439.36 | 1434.27 | 1428.87 | 1423.32 |

| C/γ(°) | 22.5    | 23.0    | 23.5    | 24.0    | 24.5    | 25.0    | 25.5    | 26.0    | 26.5    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1417.63 | 1411.66 | 1405.64 | 1399.33 | 1392.91 | 1386.23 | 1379.22 | 1372.19 | 1365.02 |
| 30.0   | 1418.45 | 1412.54 | 1406.58 | 1400.41 | 1394.02 | 1387.43 | 1380.58 | 1373.69 | 1366.58 |
| 60.0   | 1417.71 | 1411.80 | 1405.82 | 1399.74 | 1393.41 | 1386.88 | 1380.19 | 1373.21 | 1366.02 |
| 90.0   | 1416.27 | 1410.30 | 1404.29 | 1398.08 | 1391.85 | 1385.40 | 1378.50 | 1371.40 | 1364.10 |
| 120.0  | 1417.71 | 1411.80 | 1405.82 | 1399.74 | 1393.41 | 1386.88 | 1380.19 | 1373.21 | 1366.02 |
| 150.0  | 1418.45 | 1412.54 | 1406.58 | 1400.41 | 1394.02 | 1387.43 | 1380.58 | 1373.69 | 1366.58 |
| 180.0  | 1417.63 | 1411.66 | 1405.64 | 1399.33 | 1392.91 | 1386.23 | 1379.22 | 1372.19 | 1365.02 |
| 210.0  | 1418.45 | 1412.54 | 1406.58 | 1400.41 | 1394.02 | 1387.43 | 1380.58 | 1373.69 | 1366.58 |
| 240.0  | 1417.71 | 1411.80 | 1405.82 | 1399.74 | 1393.41 | 1386.88 | 1380.19 | 1373.21 | 1366.02 |
| 270.0  | 1416.27 | 1410.30 | 1404.29 | 1398.08 | 1391.85 | 1385.40 | 1378.50 | 1371.40 | 1364.10 |
| 300.0  | 1417.71 | 1411.80 | 1405.82 | 1399.74 | 1393.41 | 1386.88 | 1380.19 | 1373.21 | 1366.02 |
| 330.0  | 1418.45 | 1412.54 | 1406.58 | 1400.41 | 1394.02 | 1387.43 | 1380.58 | 1373.69 | 1366.58 |
| 360.0  | 1417.63 | 1411.66 | 1405.64 | 1399.33 | 1392.91 | 1386.23 | 1379.22 | 1372.19 | 1365.02 |

| C/γ(°) | 27.0    | 27.5    | 28.0    | 28.5    | 29.0    | 29.5    | 30.0    | 30.5    | 31.0    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1357.55 | 1349.97 | 1342.12 | 1334.06 | 1325.62 | 1316.95 | 1307.95 | 1298.69 | 1289.17 |
| 30.0   | 1359.24 | 1351.81 | 1344.08 | 1336.10 | 1327.82 | 1319.25 | 1310.41 | 1301.34 | 1291.97 |
| 60.0   | 1358.83 | 1351.38 | 1343.70 | 1335.75 | 1327.49 | 1318.95 | 1310.11 | 1301.09 | 1291.68 |
| 90.0   | 1356.86 | 1349.27 | 1341.59 | 1333.50 | 1325.13 | 1316.55 | 1307.54 | 1298.43 | 1288.82 |
| 120.0  | 1358.83 | 1351.38 | 1343.70 | 1335.75 | 1327.49 | 1318.95 | 1310.11 | 1301.09 | 1291.68 |
| 150.0  | 1359.24 | 1351.81 | 1344.08 | 1336.10 | 1327.82 | 1319.25 | 1310.41 | 1301.34 | 1291.97 |
| 180.0  | 1357.55 | 1349.97 | 1342.12 | 1334.06 | 1325.62 | 1316.95 | 1307.95 | 1298.69 | 1289.17 |
| 210.0  | 1359.24 | 1351.81 | 1344.08 | 1336.10 | 1327.82 | 1319.25 | 1310.41 | 1301.34 | 1291.97 |
| 240.0  | 1358.83 | 1351.38 | 1343.70 | 1335.75 | 1327.49 | 1318.95 | 1310.11 | 1301.09 | 1291.68 |
| 270.0  | 1356.86 | 1349.27 | 1341.59 | 1333.50 | 1325.13 | 1316.55 | 1307.54 | 1298.43 | 1288.82 |
| 300.0  | 1358.83 | 1351.38 | 1343.70 | 1335.75 | 1327.49 | 1318.95 | 1310.11 | 1301.09 | 1291.68 |
| 330.0  | 1359.24 | 1351.81 | 1344.08 | 1336.10 | 1327.82 | 1319.25 | 1310.41 | 1301.34 | 1291.97 |
| 360.0  | 1357.55 | 1349.97 | 1342.12 | 1334.06 | 1325.62 | 1316.95 | 1307.95 | 1298.69 | 1289.17 |

| C/γ(°) | 31.5    | 32.0    | 32.5    | 33.0    | 33.5    | 34.0    | 34.5    | 35.0    | 35.5    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1279.10 | 1268.49 | 1257.36 | 1245.51 | 1233.03 | 1219.75 | 1205.33 | 1189.83 | 1173.28 |
| 30.0   | 1282.15 | 1271.92 | 1261.27 | 1250.06 | 1238.36 | 1226.06 | 1212.95 | 1199.06 | 1184.35 |
| 60.0   | 1281.87 | 1271.70 | 1261.13 | 1250.07 | 1238.52 | 1226.24 | 1213.23 | 1199.46 | 1184.89 |
| 90.0   | 1278.79 | 1268.14 | 1257.49 | 1245.84 | 1233.70 | 1220.49 | 1206.32 | 1191.10 | 1174.93 |
| 120.0  | 1281.87 | 1271.70 | 1261.13 | 1250.07 | 1238.52 | 1226.24 | 1213.23 | 1199.46 | 1184.89 |
| 150.0  | 1282.15 | 1271.92 | 1261.27 | 1250.06 | 1238.36 | 1226.06 | 1212.95 | 1199.06 | 1184.35 |
| 180.0  | 1279.10 | 1268.49 | 1257.36 | 1245.51 | 1233.03 | 1219.75 | 1205.33 | 1189.83 | 1173.28 |
| 210.0  | 1282.15 | 1271.92 | 1261.27 | 1250.06 | 1238.36 | 1226.06 | 1212.95 | 1199.06 | 1184.35 |
| 240.0  | 1281.87 | 1271.70 | 1261.13 | 1250.07 | 1238.52 | 1226.24 | 1213.23 | 1199.46 | 1184.89 |
| 270.0  | 1278.79 | 1268.14 | 1257.49 | 1245.84 | 1233.70 | 1220.49 | 1206.32 | 1191.10 | 1174.93 |
| 300.0  | 1281.87 | 1271.70 | 1261.13 | 1250.07 | 1238.52 | 1226.24 | 1213.23 | 1199.46 | 1184.89 |
| 330.0  | 1282.15 | 1271.92 | 1261.27 | 1250.06 | 1238.36 | 1226.06 | 1212.95 | 1199.06 | 1184.35 |
| 360.0  | 1279.10 | 1268.49 | 1257.36 | 1245.51 | 1233.03 | 1219.75 | 1205.33 | 1189.83 | 1173.28 |

## Intensity data(cd)

Appendix Page: 18 Total:21

| C/γ(°) | 36.0    | 36.5    | 37.0    | 37.5    | 38.0    | 38.5    | 39.0    | 39.5    | 40.0    |
|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0.0    | 1155.48 | 1136.16 | 1115.46 | 1093.61 | 1070.36 | 1045.78 | 1020.34 | 994.11  | 967.27  |
| 30.0   | 1168.76 | 1152.13 | 1134.36 | 1115.57 | 1095.58 | 1074.40 | 1052.28 | 1028.99 | 1004.63 |
| 60.0   | 1169.48 | 1153.04 | 1135.55 | 1116.99 | 1097.09 | 1076.10 | 1054.26 | 1031.33 | 1007.22 |
| 90.0   | 1157.55 | 1138.75 | 1118.49 | 1097.27 | 1074.13 | 1049.90 | 1025.12 | 999.48  | 973.21  |
| 120.0  | 1169.48 | 1153.04 | 1135.55 | 1116.99 | 1097.09 | 1076.10 | 1054.26 | 1031.33 | 1007.22 |
| 150.0  | 1168.76 | 1152.13 | 1134.36 | 1115.57 | 1095.58 | 1074.40 | 1052.28 | 1028.99 | 1004.63 |
| 180.0  | 1155.48 | 1136.16 | 1115.46 | 1093.61 | 1070.36 | 1045.78 | 1020.34 | 994.11  | 967.27  |
| 210.0  | 1168.76 | 1152.13 | 1134.36 | 1115.57 | 1095.58 | 1074.40 | 1052.28 | 1028.99 | 1004.63 |
| 240.0  | 1169.48 | 1153.04 | 1135.55 | 1116.99 | 1097.09 | 1076.10 | 1054.26 | 1031.33 | 1007.22 |
| 270.0  | 1157.55 | 1138.75 | 1118.49 | 1097.27 | 1074.13 | 1049.90 | 1025.12 | 999.48  | 973.21  |
| 300.0  | 1169.48 | 1153.04 | 1135.55 | 1116.99 | 1097.09 | 1076.10 | 1054.26 | 1031.33 | 1007.22 |
| 330.0  | 1168.76 | 1152.13 | 1134.36 | 1115.57 | 1095.58 | 1074.40 | 1052.28 | 1028.99 | 1004.63 |
| 360.0  | 1155.48 | 1136.16 | 1115.46 | 1093.61 | 1070.36 | 1045.78 | 1020.34 | 994.11  | 967.27  |
| C/γ(°) | 40.5    | 41.0    | 41.5    | 42.0    | 42.5    | 43.0    | 43.5    | 44.0    | 44.5    |
| 0.0    | 940.31  | 913.49  | 886.77  | 860.35  | 834.69  | 809.88  | 785.73  | 762.42  | 740.09  |
| 30.0   | 979.52  | 953.74  | 927.10  | 899.83  | 872.33  | 844.67  | 816.86  | 789.29  | 762.16  |
| 60.0   | 982.40  | 956.89  | 930.37  | 903.25  | 875.91  | 848.24  | 820.63  | 793.17  | 765.99  |
| 90.0   | 946.74  | 920.35  | 893.80  | 867.65  | 842.20  | 817.43  | 793.56  | 770.55  | 748.10  |
| 120.0  | 982.40  | 956.89  | 930.37  | 903.25  | 875.91  | 848.24  | 820.63  | 793.17  | 765.99  |
| 150.0  | 979.52  | 953.74  | 927.10  | 899.83  | 872.33  | 844.67  | 816.86  | 789.29  | 762.16  |
| 180.0  | 940.31  | 913.49  | 886.77  | 860.35  | 834.69  | 809.88  | 785.73  | 762.42  | 740.09  |
| 210.0  | 979.52  | 953.74  | 927.10  | 899.83  | 872.33  | 844.67  | 816.86  | 789.29  | 762.16  |
| 240.0  | 982.40  | 956.89  | 930.37  | 903.25  | 875.91  | 848.24  | 820.63  | 793.17  | 765.99  |
| 270.0  | 946.74  | 920.35  | 893.80  | 867.65  | 842.20  | 817.43  | 793.56  | 770.55  | 748.10  |
| 300.0  | 982.40  | 956.89  | 930.37  | 903.25  | 875.91  | 848.24  | 820.63  | 793.17  | 765.99  |
| 330.0  | 979.52  | 953.74  | 927.10  | 899.83  | 872.33  | 844.67  | 816.86  | 789.29  | 762.16  |
| 360.0  | 940.31  | 913.49  | 886.77  | 860.35  | 834.69  | 809.88  | 785.73  | 762.42  | 740.09  |
| C/γ(°) | 45.0    | 45.5    | 46.0    | 46.5    | 47.0    | 47.5    | 48.0    | 48.5    | 49.0    |
| 0.0    | 718.28  | 697.08  | 676.61  | 656.77  | 637.34  | 618.13  | 599.29  | 580.55  | 561.90  |
| 30.0   | 735.22  | 708.74  | 683.06  | 658.25  | 634.13  | 610.66  | 588.06  | 566.19  | 545.04  |
| 60.0   | 739.12  | 712.62  | 687.00  | 662.04  | 637.85  | 614.33  | 591.65  | 569.79  | 548.45  |
| 90.0   | 726.39  | 705.17  | 684.67  | 664.55  | 644.97  | 625.70  | 606.55  | 587.69  | 568.84  |
| 120.0  | 739.12  | 712.62  | 687.00  | 662.04  | 637.85  | 614.33  | 591.65  | 569.79  | 548.45  |
| 150.0  | 735.22  | 708.74  | 683.06  | 658.25  | 634.13  | 610.66  | 588.06  | 566.19  | 545.04  |
| 180.0  | 718.28  | 697.08  | 676.61  | 656.77  | 637.34  | 618.13  | 599.29  | 580.55  | 561.90  |
| 210.0  | 735.22  | 708.74  | 683.06  | 658.25  | 634.13  | 610.66  | 588.06  | 566.19  | 545.04  |
| 240.0  | 739.12  | 712.62  | 687.00  | 662.04  | 637.85  | 614.33  | 591.65  | 569.79  | 548.45  |
| 270.0  | 726.39  | 705.17  | 684.67  | 664.55  | 644.97  | 625.70  | 606.55  | 587.69  | 568.84  |
| 300.0  | 739.12  | 712.62  | 687.00  | 662.04  | 637.85  | 614.33  | 591.65  | 569.79  | 548.45  |
| 330.0  | 735.22  | 708.74  | 683.06  | 658.25  | 634.13  | 610.66  | 588.06  | 566.19  | 545.04  |
| 360.0  | 718.28  | 697.08  | 676.61  | 656.77  | 637.34  | 618.13  | 599.29  | 580.55  | 561.90  |
| C/γ(°) | 49.5    | 50.0    | 50.5    | 51.0    | 51.5    | 52.0    | 52.5    | 53.0    | 53.5    |
| 0.0    | 543.63  | 525.62  | 507.70  | 489.99  | 472.52  | 455.17  | 438.11  | 421.82  | 406.29  |
| 30.0   | 524.62  | 504.68  | 485.03  | 466.00  | 448.03  | 430.69  | 413.93  | 398.14  | 383.13  |
| 60.0   | 527.91  | 507.81  | 488.12  | 469.13  | 451.03  | 433.60  | 416.83  | 400.81  | 385.59  |
| 90.0   | 550.35  | 531.95  | 513.88  | 496.14  | 478.51  | 460.94  | 443.70  | 426.93  | 411.19  |
| 120.0  | 527.91  | 507.81  | 488.12  | 469.13  | 451.03  | 433.60  | 416.83  | 400.81  | 385.59  |
| 150.0  | 524.62  | 504.68  | 485.03  | 466.00  | 448.03  | 430.69  | 413.93  | 398.14  | 383.13  |
| 180.0  | 543.63  | 525.62  | 507.70  | 489.99  | 472.52  | 455.17  | 438.11  | 421.82  | 406.29  |
| 210.0  | 524.62  | 504.68  | 485.03  | 466.00  | 448.03  | 430.69  | 413.93  | 398.14  | 383.13  |
| 240.0  | 527.91  | 507.81  | 488.12  | 469.13  | 451.03  | 433.60  | 416.83  | 400.81  | 385.59  |
| 270.0  | 550.35  | 531.95  | 513.88  | 496.14  | 478.51  | 460.94  | 443.70  | 426.93  | 411.19  |
| 300.0  | 527.91  | 507.81  | 488.12  | 469.13  | 451.03  | 433.60  | 416.83  | 400.81  | 385.59  |
| 330.0  | 524.62  | 504.68  | 485.03  | 466.00  | 448.03  | 430.69  | 413.93  | 398.14  | 383.13  |
| 360.0  | 543.63  | 525.62  | 507.70  | 489.99  | 472.52  | 455.17  | 438.11  | 421.82  | 406.29  |

## Intensity data(cd)

Appendix Page: 19 Total:21

| C/γ(°) | 54.0   | 54.5   | 55.0   | 55.5   | 56.0   | 56.5   | 57.0   | 57.5   | 58.0   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 391.30 | 377.00 | 363.31 | 350.29 | 338.00 | 326.39 | 315.51 | 305.34 | 296.06 |
| 30.0   | 368.75 | 355.09 | 342.08 | 329.71 | 318.01 | 306.96 | 296.44 | 286.42 | 277.03 |
| 60.0   | 371.13 | 357.36 | 344.30 | 331.86 | 320.15 | 309.11 | 298.59 | 288.61 | 279.16 |
| 90.0   | 395.97 | 381.59 | 367.80 | 354.65 | 342.32 | 330.76 | 319.89 | 309.74 | 300.43 |
| 120.0  | 371.13 | 357.36 | 344.30 | 331.86 | 320.15 | 309.11 | 298.59 | 288.61 | 279.16 |
| 150.0  | 368.75 | 355.09 | 342.08 | 329.71 | 318.01 | 306.96 | 296.44 | 286.42 | 277.03 |
| 180.0  | 391.30 | 377.00 | 363.31 | 350.29 | 338.00 | 326.39 | 315.51 | 305.34 | 296.06 |
| 210.0  | 368.75 | 355.09 | 342.08 | 329.71 | 318.01 | 306.96 | 296.44 | 286.42 | 277.03 |
| 240.0  | 371.13 | 357.36 | 344.30 | 331.86 | 320.15 | 309.11 | 298.59 | 288.61 | 279.16 |
| 270.0  | 395.97 | 381.59 | 367.80 | 354.65 | 342.32 | 330.76 | 319.89 | 309.74 | 300.43 |
| 300.0  | 371.13 | 357.36 | 344.30 | 331.86 | 320.15 | 309.11 | 298.59 | 288.61 | 279.16 |
| 330.0  | 368.75 | 355.09 | 342.08 | 329.71 | 318.01 | 306.96 | 296.44 | 286.42 | 277.03 |
| 360.0  | 391.30 | 377.00 | 363.31 | 350.29 | 338.00 | 326.39 | 315.51 | 305.34 | 296.06 |

| C/γ(°) | 58.5   | 59.0   | 59.5   | 60.0   | 60.5   | 61.0   | 61.5   | 62.0   | 62.5   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 287.49 | 279.61 | 272.55 | 266.22 | 260.51 | 255.33 | 250.78 | 246.70 | 242.89 |
| 30.0   | 268.19 | 259.86 | 252.05 | 244.70 | 237.74 | 231.21 | 225.18 | 219.53 | 214.22 |
| 60.0   | 270.24 | 261.83 | 253.96 | 246.51 | 239.50 | 232.93 | 226.85 | 221.11 | 215.67 |
| 90.0   | 291.66 | 283.72 | 276.58 | 270.06 | 264.25 | 259.01 | 254.44 | 250.28 | 246.32 |
| 120.0  | 270.24 | 261.83 | 253.96 | 246.51 | 239.50 | 232.93 | 226.85 | 221.11 | 215.67 |
| 150.0  | 268.19 | 259.86 | 252.05 | 244.70 | 237.74 | 231.21 | 225.18 | 219.53 | 214.22 |
| 180.0  | 287.49 | 279.61 | 272.55 | 266.22 | 260.51 | 255.33 | 250.78 | 246.70 | 242.89 |
| 210.0  | 268.19 | 259.86 | 252.05 | 244.70 | 237.74 | 231.21 | 225.18 | 219.53 | 214.22 |
| 240.0  | 270.24 | 261.83 | 253.96 | 246.51 | 239.50 | 232.93 | 226.85 | 221.11 | 215.67 |
| 270.0  | 291.66 | 283.72 | 276.58 | 270.06 | 264.25 | 259.01 | 254.44 | 250.28 | 246.32 |
| 300.0  | 270.24 | 261.83 | 253.96 | 246.51 | 239.50 | 232.93 | 226.85 | 221.11 | 215.67 |
| 330.0  | 268.19 | 259.86 | 252.05 | 244.70 | 237.74 | 231.21 | 225.18 | 219.53 | 214.22 |
| 360.0  | 287.49 | 279.61 | 272.55 | 266.22 | 260.51 | 255.33 | 250.78 | 246.70 | 242.89 |

| C/γ(°) | 63.0   | 63.5   | 64.0   | 64.5   | 65.0   | 65.5   | 66.0   | 66.5   | 67.0   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 239.32 | 236.04 | 233.24 | 230.74 | 228.40 | 226.18 | 224.05 | 221.87 | 219.60 |
| 30.0   | 209.23 | 204.61 | 200.43 | 196.64 | 193.17 | 190.01 | 187.09 | 184.36 | 181.75 |
| 60.0   | 210.60 | 205.98 | 201.78 | 197.94 | 194.41 | 191.21 | 188.21 | 185.42 | 182.75 |
| 90.0   | 242.53 | 239.26 | 236.42 | 233.87 | 231.42 | 229.14 | 226.83 | 224.55 | 222.15 |
| 120.0  | 210.60 | 205.98 | 201.78 | 197.94 | 194.41 | 191.21 | 188.21 | 185.42 | 182.75 |
| 150.0  | 209.23 | 204.61 | 200.43 | 196.64 | 193.17 | 190.01 | 187.09 | 184.36 | 181.75 |
| 180.0  | 239.32 | 236.04 | 233.24 | 230.74 | 228.40 | 226.18 | 224.05 | 221.87 | 219.60 |
| 210.0  | 209.23 | 204.61 | 200.43 | 196.64 | 193.17 | 190.01 | 187.09 | 184.36 | 181.75 |
| 240.0  | 210.60 | 205.98 | 201.78 | 197.94 | 194.41 | 191.21 | 188.21 | 185.42 | 182.75 |
| 270.0  | 242.53 | 239.26 | 236.42 | 233.87 | 231.42 | 229.14 | 226.83 | 224.55 | 222.15 |
| 300.0  | 210.60 | 205.98 | 201.78 | 197.94 | 194.41 | 191.21 | 188.21 | 185.42 | 182.75 |
| 330.0  | 209.23 | 204.61 | 200.43 | 196.64 | 193.17 | 190.01 | 187.09 | 184.36 | 181.75 |
| 360.0  | 239.32 | 236.04 | 233.24 | 230.74 | 228.40 | 226.18 | 224.05 | 221.87 | 219.60 |

| C/γ(°) | 67.5   | 68.0   | 68.5   | 69.0   | 69.5   | 70.0   | 70.5   | 71.0   | 71.5   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 217.14 | 214.37 | 211.28 | 207.76 | 203.75 | 199.26 | 194.35 | 189.02 | 183.34 |
| 30.0   | 179.19 | 176.60 | 173.98 | 171.25 | 168.38 | 165.35 | 162.18 | 158.87 | 155.43 |
| 60.0   | 180.11 | 177.47 | 174.77 | 171.98 | 169.07 | 166.00 | 162.82 | 159.50 | 156.04 |
| 90.0   | 219.55 | 216.68 | 213.46 | 209.80 | 205.70 | 201.09 | 196.12 | 190.71 | 184.92 |
| 120.0  | 180.11 | 177.47 | 174.77 | 171.98 | 169.07 | 166.00 | 162.82 | 159.50 | 156.04 |
| 150.0  | 179.19 | 176.60 | 173.98 | 171.25 | 168.38 | 165.35 | 162.18 | 158.87 | 155.43 |
| 180.0  | 217.14 | 214.37 | 211.28 | 207.76 | 203.75 | 199.26 | 194.35 | 189.02 | 183.34 |
| 210.0  | 179.19 | 176.60 | 173.98 | 171.25 | 168.38 | 165.35 | 162.18 | 158.87 | 155.43 |
| 240.0  | 180.11 | 177.47 | 174.77 | 171.98 | 169.07 | 166.00 | 162.82 | 159.50 | 156.04 |
| 270.0  | 219.55 | 216.68 | 213.46 | 209.80 | 205.70 | 201.09 | 196.12 | 190.71 | 184.92 |
| 300.0  | 180.11 | 177.47 | 174.77 | 171.98 | 169.07 | 166.00 | 162.82 | 159.50 | 156.04 |
| 330.0  | 179.19 | 176.60 | 173.98 | 171.25 | 168.38 | 165.35 | 162.18 | 158.87 | 155.43 |
| 360.0  | 217.14 | 214.37 | 211.28 | 207.76 | 203.75 | 199.26 | 194.35 | 189.02 | 183.34 |

| C/γ(°) | 72.0   | 72.5   | 73.0   | 73.5   | 74.0   | 74.5   | 75.0   | 75.5   | 76.0   |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0    | 177.50 | 171.54 | 165.56 | 159.72 | 154.11 | 148.78 | 143.78 | 139.12 | 134.76 |
| 30.0   | 151.94 | 148.40 | 144.80 | 141.22 | 137.70 | 134.21 | 130.77 | 127.39 | 124.03 |
| 60.0   | 152.54 | 148.99 | 145.37 | 141.76 | 138.18 | 134.59 | 131.05 | 127.60 | 124.13 |
| 90.0   | 178.99 | 172.97 | 166.88 | 160.91 | 155.18 | 149.58 | 144.37 | 139.57 | 134.99 |
| 120.0  | 152.54 | 148.99 | 145.37 | 141.76 | 138.18 | 134.59 | 131.05 | 127.60 | 124.13 |
| 150.0  | 151.94 | 148.40 | 144.80 | 141.22 | 137.70 | 134.21 | 130.77 | 127.39 | 124.03 |
| 180.0  | 177.50 | 171.54 | 165.56 | 159.72 | 154.11 | 148.78 | 143.78 | 139.12 | 134.76 |
| 210.0  | 151.94 | 148.40 | 144.80 | 141.22 | 137.70 | 134.21 | 130.77 | 127.39 | 124.03 |
| 240.0  | 152.54 | 148.99 | 145.37 | 141.76 | 138.18 | 134.59 | 131.05 | 127.60 | 124.13 |
| 270.0  | 178.99 | 172.97 | 166.88 | 160.91 | 155.18 | 149.58 | 144.37 | 139.57 | 134.99 |
| 300.0  | 152.54 | 148.99 | 145.37 | 141.76 | 138.18 | 134.59 | 131.05 | 127.60 | 124.13 |
| 330.0  | 151.94 | 148.40 | 144.80 | 141.22 | 137.70 | 134.21 | 130.77 | 127.39 | 124.03 |
| 360.0  | 177.50 | 171.54 | 165.56 | 159.72 | 154.11 | 148.78 | 143.78 | 139.12 | 134.76 |
| C/γ(°) | 76.5   | 77.0   | 77.5   | 78.0   | 78.5   | 79.0   | 79.5   | 80.0   | 80.5   |
| 0.0    | 130.68 | 126.82 | 123.10 | 119.44 | 115.82 | 112.19 | 108.49 | 104.73 | 100.95 |
| 30.0   | 120.69 | 117.35 | 113.97 | 110.51 | 106.98 | 103.36 | 99.64  | 95.81  | 91.94  |
| 60.0   | 120.68 | 117.22 | 113.74 | 110.20 | 106.60 | 102.96 | 99.19  | 95.34  | 91.44  |
| 90.0   | 130.69 | 126.59 | 122.68 | 118.87 | 115.12 | 111.43 | 107.65 | 103.81 | 99.98  |
| 120.0  | 120.68 | 117.22 | 113.74 | 110.20 | 106.60 | 102.96 | 99.19  | 95.34  | 91.44  |
| 150.0  | 120.69 | 117.35 | 113.97 | 110.51 | 106.98 | 103.36 | 99.64  | 95.81  | 91.94  |
| 180.0  | 130.68 | 126.82 | 123.10 | 119.44 | 115.82 | 112.19 | 108.49 | 104.73 | 100.95 |
| 210.0  | 120.69 | 117.35 | 113.97 | 110.51 | 106.98 | 103.36 | 99.64  | 95.81  | 91.94  |
| 240.0  | 120.68 | 117.22 | 113.74 | 110.20 | 106.60 | 102.96 | 99.19  | 95.34  | 91.44  |
| 270.0  | 130.69 | 126.59 | 122.68 | 118.87 | 115.12 | 111.43 | 107.65 | 103.81 | 99.98  |
| 300.0  | 120.68 | 117.22 | 113.74 | 110.20 | 106.60 | 102.96 | 99.19  | 95.34  | 91.44  |
| 330.0  | 120.69 | 117.35 | 113.97 | 110.51 | 106.98 | 103.36 | 99.64  | 95.81  | 91.94  |
| 360.0  | 130.68 | 126.82 | 123.10 | 119.44 | 115.82 | 112.19 | 108.49 | 104.73 | 100.95 |
| C/γ(°) | 81.0   | 81.5   | 82.0   | 82.5   | 83.0   | 83.5   | 84.0   | 84.5   | 85.0   |
| 0.0    | 97.14  | 93.21  | 89.15  | 84.90  | 80.31  | 75.30  | 69.87  | 64.06  | 57.90  |
| 30.0   | 88.00  | 83.95  | 79.80  | 75.55  | 71.12  | 66.43  | 61.51  | 56.38  | 51.07  |
| 60.0   | 87.46  | 83.38  | 79.19  | 74.91  | 70.45  | 65.78  | 60.91  | 55.82  | 50.56  |
| 90.0   | 96.10  | 92.10  | 87.94  | 83.68  | 79.03  | 74.03  | 68.74  | 62.95  | 56.83  |
| 120.0  | 87.46  | 83.38  | 79.19  | 74.91  | 70.45  | 65.78  | 60.91  | 55.82  | 50.56  |
| 150.0  | 88.00  | 83.95  | 79.80  | 75.55  | 71.12  | 66.43  | 61.51  | 56.38  | 51.07  |
| 180.0  | 97.14  | 93.21  | 89.15  | 84.90  | 80.31  | 75.30  | 69.87  | 64.06  | 57.90  |
| 210.0  | 88.00  | 83.95  | 79.80  | 75.55  | 71.12  | 66.43  | 61.51  | 56.38  | 51.07  |
| 240.0  | 87.46  | 83.38  | 79.19  | 74.91  | 70.45  | 65.78  | 60.91  | 55.82  | 50.56  |
| 270.0  | 96.10  | 92.10  | 87.94  | 83.68  | 79.03  | 74.03  | 68.74  | 62.95  | 56.83  |
| 300.0  | 87.46  | 83.38  | 79.19  | 74.91  | 70.45  | 65.78  | 60.91  | 55.82  | 50.56  |
| 330.0  | 88.00  | 83.95  | 79.80  | 75.55  | 71.12  | 66.43  | 61.51  | 56.38  | 51.07  |
| 360.0  | 97.14  | 93.21  | 89.15  | 84.90  | 80.31  | 75.30  | 69.87  | 64.06  | 57.90  |
| C/γ(°) | 85.5   | 86.0   | 86.5   | 87.0   | 87.5   | 88.0   | 88.5   | 89.0   | 89.5   |
| 0.0    | 51.52  | 45.00  | 38.47  | 32.10  | 25.99  | 20.33  | 15.15  | 10.57  | 6.87   |
| 30.0   | 45.63  | 40.08  | 34.51  | 28.99  | 23.62  | 18.51  | 13.68  | 9.36   | 5.96   |
| 60.0   | 45.17  | 39.70  | 34.18  | 28.75  | 23.41  | 18.33  | 13.55  | 9.31   | 6.03   |
| 90.0   | 50.53  | 44.14  | 37.64  | 31.43  | 25.40  | 19.83  | 14.77  | 10.36  | 6.93   |
| 120.0  | 45.17  | 39.70  | 34.18  | 28.75  | 23.41  | 18.33  | 13.55  | 9.31   | 6.03   |
| 150.0  | 45.63  | 40.08  | 34.51  | 28.99  | 23.62  | 18.51  | 13.68  | 9.36   | 5.96   |
| 180.0  | 51.52  | 45.00  | 38.47  | 32.10  | 25.99  | 20.33  | 15.15  | 10.57  | 6.87   |
| 210.0  | 45.63  | 40.08  | 34.51  | 28.99  | 23.62  | 18.51  | 13.68  | 9.36   | 5.96   |
| 240.0  | 45.17  | 39.70  | 34.18  | 28.75  | 23.41  | 18.33  | 13.55  | 9.31   | 6.03   |
| 270.0  | 50.53  | 44.14  | 37.64  | 31.43  | 25.40  | 19.83  | 14.77  | 10.36  | 6.93   |
| 300.0  | 45.17  | 39.70  | 34.18  | 28.75  | 23.41  | 18.33  | 13.55  | 9.31   | 6.03   |
| 330.0  | 45.63  | 40.08  | 34.51  | 28.99  | 23.62  | 18.51  | 13.68  | 9.36   | 5.96   |
| 360.0  | 51.52  | 45.00  | 38.47  | 32.10  | 25.99  | 20.33  | 15.15  | 10.57  | 6.87   |

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**Intensity data(cd)**

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|                                 |             |
|---------------------------------|-------------|
| <b>C/<math>\gamma</math>(°)</b> | <b>90.0</b> |
| <b>0.0</b>                      | <b>1.30</b> |
| <b>30.0</b>                     | <b>1.10</b> |
| <b>60.0</b>                     | <b>1.53</b> |
| <b>90.0</b>                     | <b>4.17</b> |
| <b>120.0</b>                    | <b>1.53</b> |
| <b>150.0</b>                    | <b>1.10</b> |
| <b>180.0</b>                    | <b>1.30</b> |
| <b>210.0</b>                    | <b>1.10</b> |
| <b>240.0</b>                    | <b>1.53</b> |
| <b>270.0</b>                    | <b>4.17</b> |
| <b>300.0</b>                    | <b>1.53</b> |
| <b>330.0</b>                    | <b>1.10</b> |
| <b>360.0</b>                    | <b>1.30</b> |