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Jen Lighting Corp

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Client:

LumCAT: FL2\*2-K40-3065

Luminaire: LED 灯具

Report No:

Ballast type:

Test No:

Voltage(V): 120.010

LampCAT:

Current(A): 0.311

Lamp flux(lm): 4868.6

Power (W): 37.060

Number of Lamps: 1

PF: 0.994

Length(mm): 580

Width(mm): 580

Phm Type: C

Height(mm): 8

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Photometric Results

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Lumens(lm): 4868.57, Efficiency(%): 100.00% , Luminous Efficacy(lm/W): 131.37

Central intensity(cd): 1895.204, Maximum intensity(cd): 1895.204

Angle of maximum intensity: C=0.0  $\gamma$ =0.0

Beam Angle(50%Imax): [C0/180]Total=97.8

[C90/270]Total=96.8

Field angle(10%Imax): [C0/180]Total=161.8

[C90/270]Total=162.0

Maximum s/h(1/2): C0\_180=1.17 C90\_270=1.16

Maximum s/h(1/4): C0\_180=1.28 C90\_270=1.26

Up flux rate of lamp(%): 2.23%

Down flux rate of lamp(%): 97.77%

Up flux rate of LUM(%): 2.23%

Down flux rate of LUM(%): 97.77%

CIE Type : Direct lighting

Output flux ratio in  $\pi$  solid angle : 77.248%

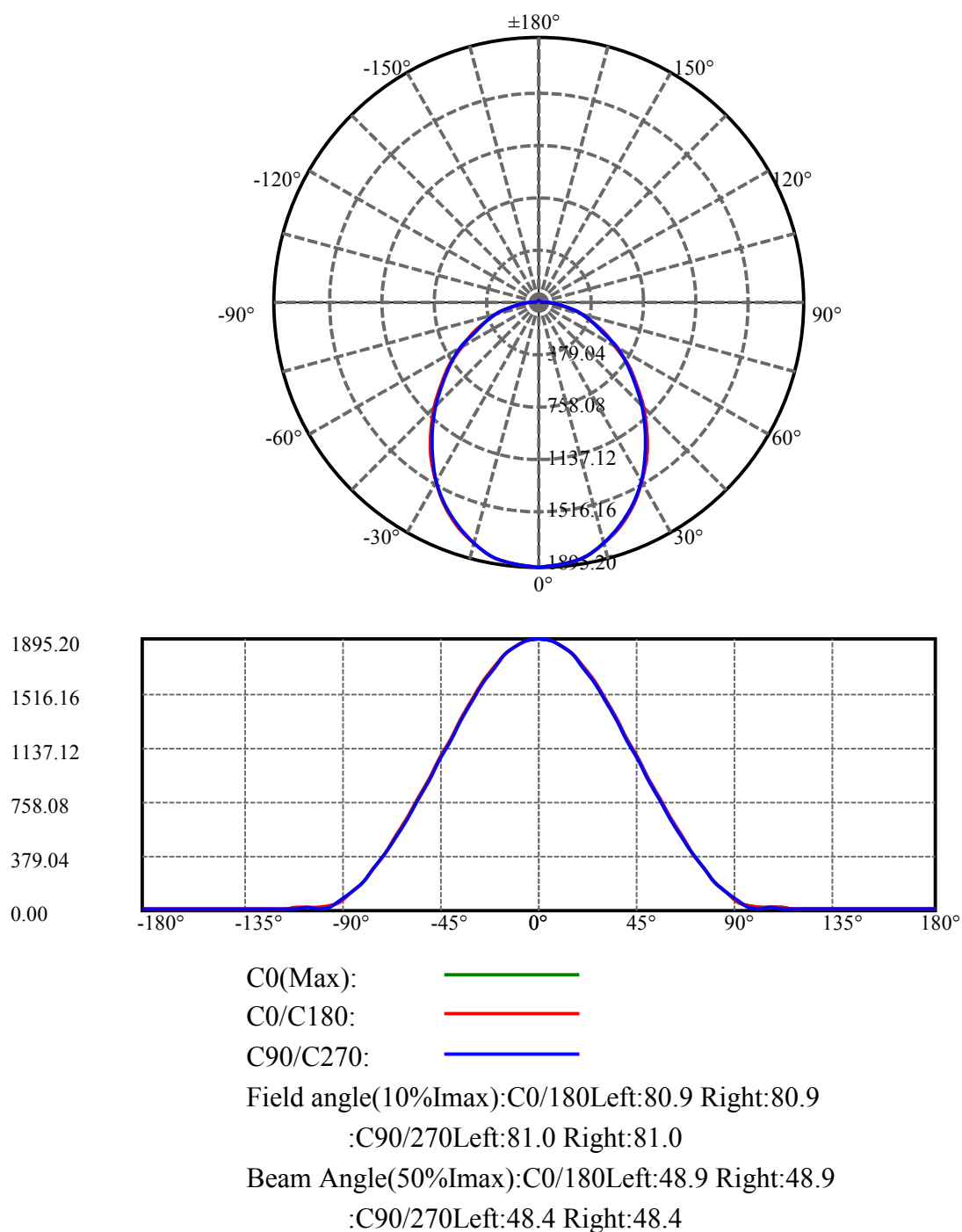
| $\gamma(^{\circ})$ | Average I(cd) | Zonal F(lm) | Sum F(lm) | Eff Flux(%) | Eff Sum(%) |
|--------------------|---------------|-------------|-----------|-------------|------------|
| 0.0                | 1895.204      | 0.000       | 0         | 0.00%       | 0.00%      |
| 5.0                | 1882.479      | 45.161      | 45.161    | 0.93%       | 0.93%      |
| 10.0               | 1846.176      | 133.386     | 178.547   | 2.74%       | 3.67%      |
| 15.0               | 1786.781      | 215.505     | 394.051   | 4.43%       | 8.09%      |
| 20.0               | 1703.918      | 287.683     | 681.734   | 5.91%       | 14.00%     |
| 25.0               | 1599.502      | 346.468     | 1028.202  | 7.12%       | 21.12%     |
| 30.0               | 1479.593      | 389.662     | 1417.864  | 8.00%       | 29.12%     |
| 35.0               | 1339.209      | 415.088     | 1832.952  | 8.53%       | 37.65%     |
| 40.0               | 1195.529      | 422.902     | 2255.854  | 8.69%       | 46.34%     |
| 45.0               | 1054.030      | 416.524     | 2672.378  | 8.56%       | 54.89%     |
| 50.0               | 907.617       | 396.379     | 3068.758  | 8.14%       | 63.03%     |
| 55.0               | 771.919       | 365.187     | 3433.945  | 7.50%       | 70.53%     |
| 60.0               | 642.557       | 326.952     | 3760.897  | 6.72%       | 77.25%     |
| 65.0               | 518.336       | 282.215     | 4043.112  | 5.80%       | 83.05%     |
| 70.0               | 406.591       | 234.197     | 4277.309  | 4.81%       | 87.86%     |
| 75.0               | 307.122       | 186.553     | 4463.862  | 3.83%       | 91.69%     |
| 80.0               | 217.123       | 140.273     | 4604.136  | 2.88%       | 94.57%     |
| 85.0               | 143.889       | 98.096      | 4702.232  | 2.01%       | 96.58%     |
| 90.0               | 67.235        | 57.807      | 4760.039  | 1.19%       | 97.77%     |
| 95.0               | 25.592        | 25.417      | 4785.456  | 0.52%       | 98.29%     |
| 100.0              | 17.995        | 11.844      | 4797.299  | 0.24%       | 98.54%     |
| 105.0              | 19.723        | 10.092      | 4807.392  | 0.21%       | 98.74%     |
| 110.0              | 17.965        | 9.851       | 4817.243  | 0.20%       | 98.95%     |
| 115.0              | 17.179        | 8.899       | 4826.142  | 0.18%       | 99.13%     |
| 120.0              | 16.206        | 8.116       | 4834.258  | 0.17%       | 99.30%     |
| 125.0              | 14.295        | 7.050       | 4841.308  | 0.14%       | 99.44%     |
| 130.0              | 12.685        | 5.866       | 4847.174  | 0.12%       | 99.56%     |
| 135.0              | 10.662        | 4.718       | 4851.892  | 0.10%       | 99.66%     |
| 140.0              | 8.229         | 3.498       | 4855.39   | 0.07%       | 99.73%     |
| 145.0              | 7.635         | 2.647       | 4858.036  | 0.05%       | 99.78%     |
| 150.0              | 8.608         | 2.392       | 4860.428  | 0.05%       | 99.83%     |
| 155.0              | 9.057         | 2.236       | 4862.664  | 0.05%       | 99.88%     |
| 160.0              | 9.506         | 1.947       | 4864.611  | 0.04%       | 99.92%     |
| 165.0              | 10.292        | 1.632       | 4866.242  | 0.03%       | 99.95%     |
| 170.0              | 11.153        | 1.272       | 4867.514  | 0.03%       | 99.98%     |
| 175.0              | 12.200        | 0.835       | 4868.35   | 0.02%       | 100.00%    |
| 180.0              | 6.287         | 0.221       | 4868.571  | 0.00%       | 100.00%    |

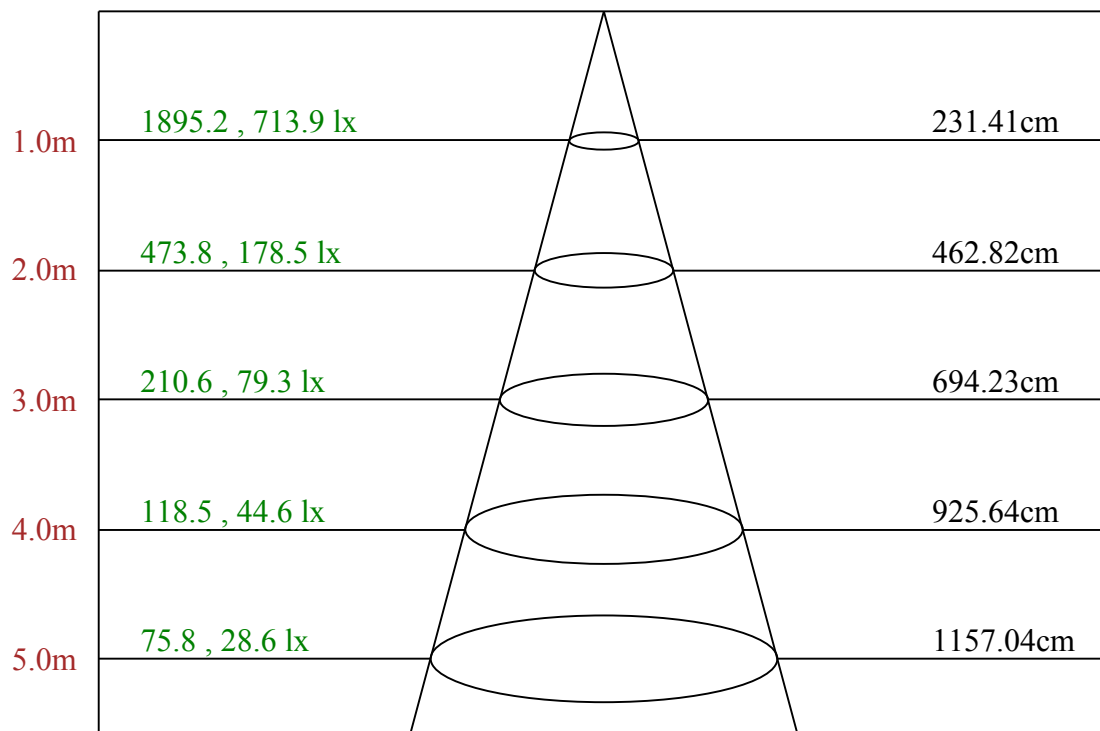
## ZONAL LUMEN SUMMARY

| Zone    | Lumens  | %Lamp   | %Fixt   |
|---------|---------|---------|---------|
| 0-30    | 1417.86 | 29.12%  | 29.12%  |
| 0-40    | 2255.85 | 46.34%  | 46.34%  |
| 0-60    | 3760.90 | 77.25%  | 77.25%  |
| 0-90    | 4760.04 | 97.77%  | 97.77%  |
| 0-120   | 4834.26 | 99.30%  | 99.30%  |
| 0-180   | 4868.57 | 100.00% | 100.00% |
| 60-90   | 999.14  | 20.52%  | 20.52%  |
| 90-120  | 74.22   | 1.52%   | 1.52%   |
| 90-130  | 87.14   | 1.79%   | 1.79%   |
| 90-150  | 100.39  | 2.06%   | 2.06%   |
| 90-180  | 108.31  | 2.22%   | 2.22%   |
| 0-62.37 | 3894.86 | 80.00%  | 80.00%  |

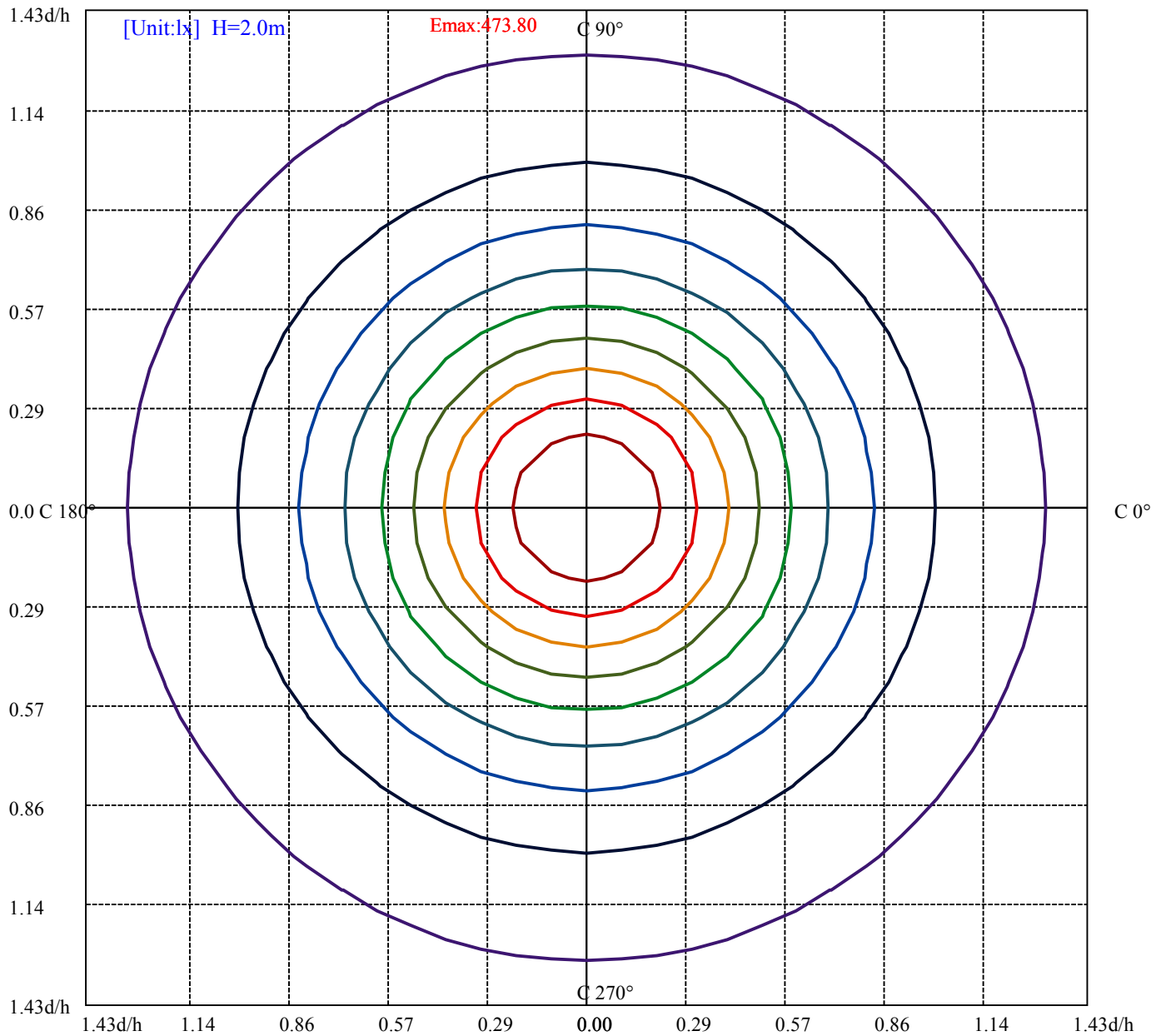
## ZONAL LUMEN SUMMARY

|         |        |
|---------|--------|
| 0-10    | 178.55 |
| 10-20   | 503.19 |
| 20-30   | 736.13 |
| 30-40   | 837.99 |
| 40-50   | 812.90 |
| 50-60   | 692.14 |
| 60-70   | 516.41 |
| 70-80   | 326.83 |
| 80-90   | 155.90 |
| 90-100  | 37.26  |
| 100-110 | 19.94  |
| 110-120 | 17.01  |
| 120-130 | 12.92  |
| 130-140 | 8.22   |
| 140-150 | 5.04   |
| 150-160 | 4.18   |
| 160-170 | 2.90   |
| 170-180 | 0.84   |

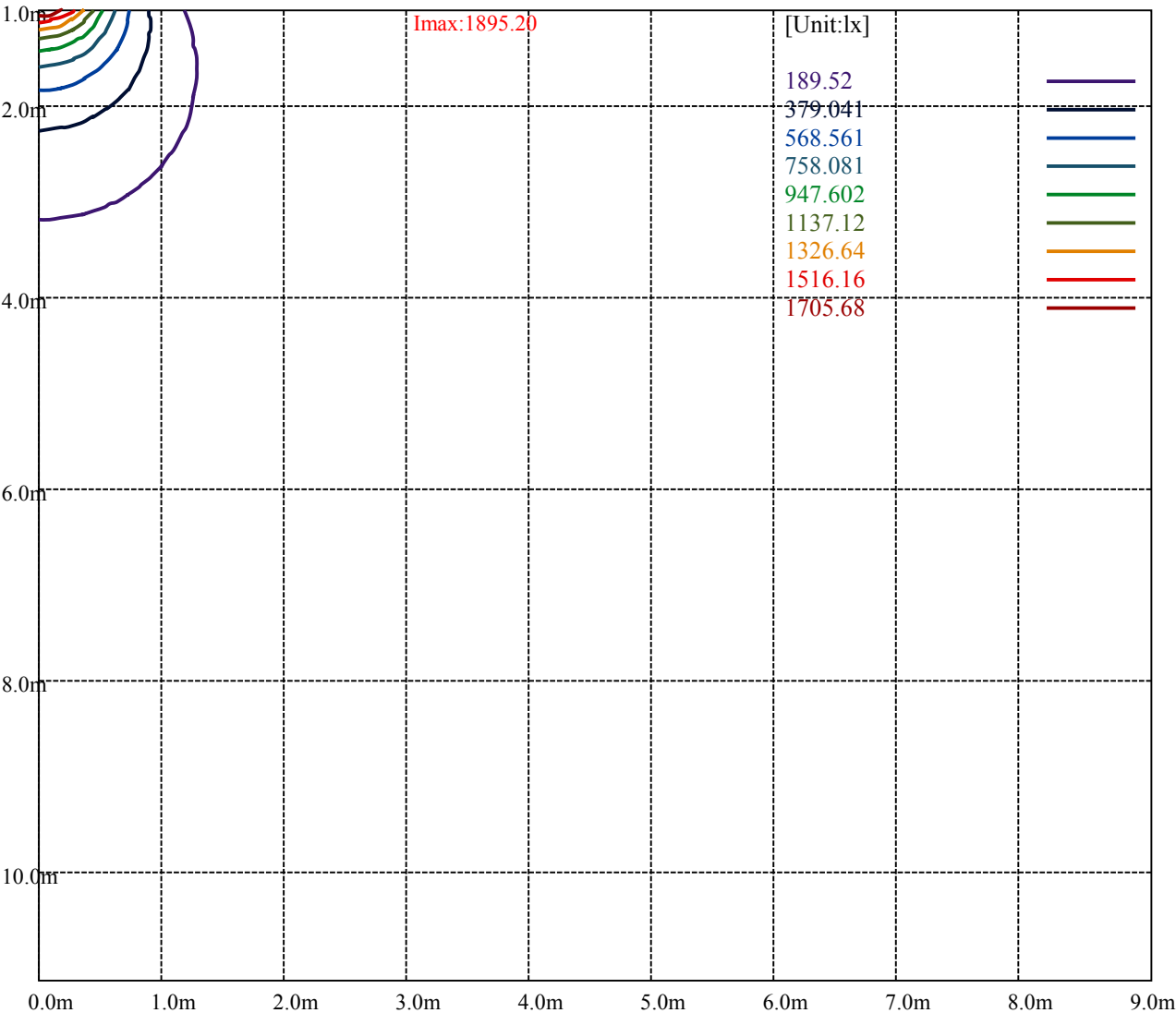




Max , Ave      Beam angle of C0 plane 98.33



|                    |   |
|--------------------|---|
| (10%Emax) 47.38    | — |
| (20%Emax) 94.76025 | — |
| (30%Emax) 142.1402 | — |
| (40%Emax) 189.5202 | — |
| (50%Emax) 236.9005 | — |
| (60%Emax) 284.28   | — |
| (70%Emax) 331.66   | — |
| (80%Emax) 379.04   | — |
| (90%Emax) 426.42   | — |



Luminance Table

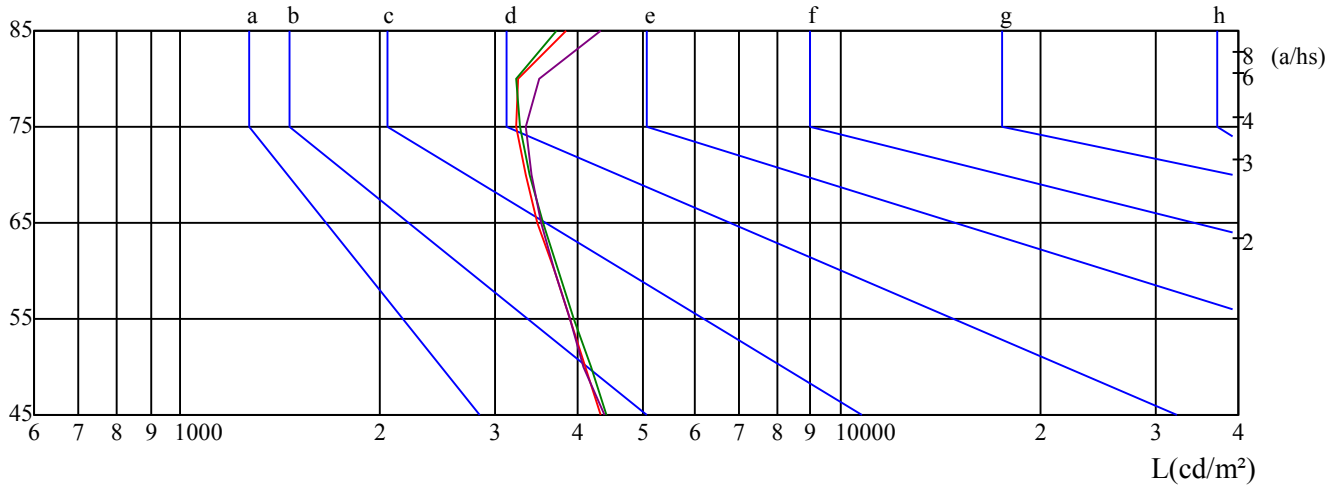
| $\gamma$ | 45   | 50   | 55   | 60   | 65   | 70   | 75   | 80   | 85   |
|----------|------|------|------|------|------|------|------|------|------|
| C0       | 4403 | 4172 | 3954 | 3735 | 3548 | 3382 | 3276 | 3230 | 3717 |
| C45      | 4384 | 4075 | 3888 | 3695 | 3514 | 3393 | 3342 | 3500 | 4337 |
| C90      | 4336 | 4105 | 3896 | 3686 | 3481 | 3330 | 3220 | 3239 | 3826 |

| L(Hor)(65) | L(Ver)(65) | L45(65) | L(Hor)(75) | L(Ver)(75) | L45(75) | L(Hor)(85) | L(Ver)(85) | L45(85) |
|------------|------------|---------|------------|------------|---------|------------|------------|---------|
| 3653       | 3584       | 3661    | 3444       | 3385       | 3585    | 4303       | 4429       | 5304    |

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

 $\gamma(^{\circ})$ 

C0 ———

C45 ———

C90 ———



| RHOC | 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    | 1.19                                    | 1.19 | 1.19 | 1.16 | 1.16 | 1.16 | 1.10 | 1.10 | 1.10 | 1.05 | 1.05 | 1.05 | 1.00 | 1.00 | 1.00 | 0.98 |
| 1    | 1.03                                    | 0.99 | 0.95 | 1.01 | 0.97 | 0.93 | 0.96 | 0.93 | 0.90 | 0.92 | 0.89 | 0.86 | 0.88 | 0.86 | 0.84 | 0.81 |
| 2    | 0.90                                    | 0.83 | 0.78 | 0.88 | 0.82 | 0.76 | 0.84 | 0.79 | 0.74 | 0.80 | 0.76 | 0.72 | 0.77 | 0.74 | 0.70 | 0.68 |
| 3    | 0.79                                    | 0.71 | 0.65 | 0.78 | 0.70 | 0.64 | 0.74 | 0.68 | 0.63 | 0.71 | 0.66 | 0.61 | 0.69 | 0.64 | 0.60 | 0.58 |
| 4    | 0.71                                    | 0.62 | 0.55 | 0.69 | 0.61 | 0.55 | 0.66 | 0.59 | 0.54 | 0.64 | 0.58 | 0.53 | 0.61 | 0.56 | 0.52 | 0.50 |
| 5    | 0.63                                    | 0.55 | 0.48 | 0.62 | 0.54 | 0.48 | 0.60 | 0.52 | 0.47 | 0.58 | 0.51 | 0.46 | 0.55 | 0.50 | 0.45 | 0.43 |
| 6    | 0.57                                    | 0.48 | 0.42 | 0.56 | 0.48 | 0.42 | 0.54 | 0.47 | 0.41 | 0.52 | 0.46 | 0.41 | 0.51 | 0.45 | 0.40 | 0.38 |
| 7    | 0.52                                    | 0.43 | 0.37 | 0.51 | 0.43 | 0.37 | 0.49 | 0.42 | 0.37 | 0.48 | 0.41 | 0.36 | 0.46 | 0.40 | 0.36 | 0.34 |
| 8    | 0.48                                    | 0.39 | 0.33 | 0.47 | 0.39 | 0.33 | 0.45 | 0.38 | 0.33 | 0.44 | 0.37 | 0.33 | 0.43 | 0.37 | 0.32 | 0.30 |
| 9    | 0.44                                    | 0.36 | 0.30 | 0.43 | 0.35 | 0.30 | 0.42 | 0.35 | 0.30 | 0.41 | 0.34 | 0.30 | 0.39 | 0.34 | 0.29 | 0.27 |
| 10   | 0.41                                    | 0.33 | 0.28 | 0.40 | 0.32 | 0.27 | 0.39 | 0.32 | 0.27 | 0.38 | 0.31 | 0.27 | 0.37 | 0.31 | 0.27 | 0.25 |

Jen Lighting Corp FL2\*2-K40-3065

| Intensity data(cd) |         |         |         |         |         |         |         |         |         | Appendix Page: 10 Total:12 |  |
|--------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------------------------|--|
| C/γ(°)             | 0.0     | 5.0     | 10.0    | 15.0    | 20.0    | 25.0    | 30.0    | 35.0    | 40.0    |                            |  |
| 0.0                | 1895.20 | 1883.65 | 1852.56 | 1798.36 | 1716.61 | 1617.10 | 1496.26 | 1359.43 | 1224.37 |                            |  |
| 15.0               | 1895.20 | 1886.25 | 1852.21 | 1797.58 | 1720.55 | 1617.55 | 1497.53 | 1364.98 | 1225.25 |                            |  |
| 30.0               | 1895.20 | 1884.41 | 1853.81 | 1801.61 | 1720.62 | 1620.73 | 1500.14 | 1363.36 | 1219.37 |                            |  |
| 45.0               | 1895.20 | 1887.11 | 1851.13 | 1795.36 | 1718.91 | 1619.96 | 1500.33 | 1361.81 | 1219.69 |                            |  |
| 60.0               | 1895.20 | 1888.01 | 1855.63 | 1798.96 | 1718.91 | 1619.96 | 1499.43 | 1364.51 | 1217.00 |                            |  |
| 75.0               | 1895.20 | 1888.02 | 1854.78 | 1798.20 | 1717.36 | 1617.66 | 1497.30 | 1363.47 | 1213.47 |                            |  |
| 90.0               | 1895.20 | 1888.91 | 1858.36 | 1805.34 | 1719.97 | 1622.02 | 1498.01 | 1363.22 | 1213.15 |                            |  |
| 105.0              | 1895.20 | 1888.91 | 1860.12 | 1804.36 | 1725.20 | 1622.66 | 1503.03 | 1363.61 | 1216.10 |                            |  |
| 120.0              | 1895.20 | 1891.59 | 1861.81 | 1810.37 | 1736.37 | 1634.39 | 1513.46 | 1380.79 | 1230.98 |                            |  |
| 135.0              | 1895.20 | 1890.70 | 1862.78 | 1810.53 | 1736.67 | 1638.49 | 1522.29 | 1388.07 | 1241.25 |                            |  |
| 150.0              | 1895.20 | 1891.61 | 1862.84 | 1812.49 | 1738.77 | 1643.47 | 1524.79 | 1392.63 | 1248.78 |                            |  |
| 165.0              | 1895.20 | 1889.82 | 1863.81 | 1813.58 | 1739.14 | 1644.06 | 1527.46 | 1393.82 | 1253.90 |                            |  |
| 180.0              | 1895.20 | 1880.99 | 1841.00 | 1777.92 | 1703.28 | 1592.22 | 1472.27 | 1330.11 | 1187.95 |                            |  |
| 195.0              | 1895.20 | 1881.77 | 1842.36 | 1778.77 | 1693.68 | 1589.79 | 1464.39 | 1322.88 | 1177.78 |                            |  |
| 210.0              | 1895.20 | 1879.01 | 1841.21 | 1777.32 | 1692.72 | 1587.44 | 1465.95 | 1321.96 | 1178.88 |                            |  |
| 225.0              | 1895.20 | 1879.01 | 1836.74 | 1774.67 | 1684.73 | 1579.49 | 1456.26 | 1318.64 | 1168.42 |                            |  |
| 240.0              | 1895.20 | 1877.21 | 1836.74 | 1772.87 | 1686.52 | 1574.99 | 1451.76 | 1311.44 | 1171.12 |                            |  |
| 255.0              | 1895.20 | 1877.24 | 1833.23 | 1765.86 | 1676.94 | 1568.26 | 1440.71 | 1304.19 | 1164.97 |                            |  |
| 270.0              | 1895.20 | 1874.54 | 1832.30 | 1767.60 | 1676.84 | 1557.32 | 1434.21 | 1294.02 | 1154.74 |                            |  |
| 285.0              | 1895.20 | 1873.62 | 1829.54 | 1762.98 | 1669.43 | 1558.80 | 1427.47 | 1288.05 | 1147.74 |                            |  |
| 300.0              | 1895.20 | 1875.35 | 1831.13 | 1762.54 | 1675.90 | 1563.09 | 1437.65 | 1293.25 | 1156.07 |                            |  |
| 315.0              | 1895.20 | 1874.49 | 1832.15 | 1764.59 | 1673.62 | 1563.72 | 1439.42 | 1298.90 | 1152.98 |                            |  |
| 330.0              | 1895.20 | 1874.53 | 1831.37 | 1764.84 | 1674.94 | 1566.15 | 1501.42 | 1297.33 | 1155.28 |                            |  |
| 345.0              | 1895.20 | 1872.78 | 1830.63 | 1766.05 | 1676.35 | 1568.72 | 1438.67 | 1300.54 | 1153.45 |                            |  |
| 360.0              | 1895.20 | 1883.65 | 1852.56 | 1798.36 | 1716.61 | 1617.10 | 1496.26 | 1359.43 | 1224.37 |                            |  |
| C/γ(°)             | 45.0    | 50.0    | 55.0    | 60.0    | 65.0    | 70.0    | 75.0    | 80.0    | 85.0    |                            |  |
| 0.0                | 1077.77 | 931.16  | 793.44  | 653.06  | 532.22  | 414.05  | 310.09  | 209.69  | 132.39  |                            |  |
| 15.0               | 1082.85 | 936.85  | 792.65  | 660.99  | 538.29  | 420.96  | 312.58  | 221.23  | 145.10  |                            |  |
| 30.0               | 1077.19 | 930.50  | 793.72  | 656.93  | 537.24  | 424.76  | 322.17  | 233.08  | 158.38  |                            |  |
| 45.0               | 1068.58 | 921.07  | 787.94  | 657.52  | 534.29  | 425.45  | 322.91  | 236.56  | 163.71  |                            |  |
| 60.0               | 1067.68 | 921.07  | 784.35  | 653.92  | 536.99  | 423.65  | 322.01  | 234.76  | 160.11  |                            |  |
| 75.0               | 1067.96 | 922.45  | 785.03  | 657.48  | 538.02  | 422.15  | 317.06  | 227.24  | 150.90  |                            |  |
| 90.0               | 1068.47 | 922.89  | 789.89  | 661.39  | 536.48  | 422.35  | 316.32  | 223.76  | 142.88  |                            |  |
| 105.0              | 1073.98 | 930.06  | 797.84  | 663.82  | 544.19  | 429.05  | 326.51  | 233.86  | 157.41  |                            |  |
| 120.0              | 1082.97 | 940.38  | 799.60  | 666.93  | 548.71  | 436.80  | 335.72  | 246.38  | 172.37  |                            |  |
| 135.0              | 1091.72 | 943.10  | 805.28  | 675.57  | 558.47  | 444.98  | 344.09  | 253.11  | 177.45  |                            |  |
| 150.0              | 1105.84 | 953.00  | 818.14  | 680.58  | 558.31  | 445.03  | 343.44  | 251.73  | 172.62  |                            |  |
| 165.0              | 1111.29 | 964.20  | 827.86  | 689.74  | 558.78  | 443.98  | 339.93  | 244.86  | 161.45  |                            |  |
| 180.0              | 1045.78 | 902.73  | 762.35  | 633.51  | 506.45  | 393.61  | 289.66  | 197.25  | 119.95  |                            |  |
| 195.0              | 1035.38 | 897.45  | 762.20  | 626.06  | 500.67  | 392.30  | 293.77  | 203.31  | 129.87  |                            |  |
| 210.0              | 1033.99 | 889.11  | 754.12  | 629.03  | 512.95  | 401.36  | 298.77  | 215.08  | 143.09  |                            |  |
| 225.0              | 1020.91 | 878.79  | 753.76  | 626.04  | 501.01  | 395.77  | 297.73  | 215.88  | 144.82  |                            |  |
| 240.0              | 1024.51 | 888.69  | 750.17  | 618.84  | 497.41  | 388.58  | 290.53  | 206.88  | 140.32  |                            |  |
| 255.0              | 1024.85 | 888.32  | 748.20  | 611.67  | 487.72  | 377.24  | 281.14  | 195.81  | 124.85  |                            |  |
| 270.0              | 1022.64 | 881.55  | 743.16  | 608.37  | 482.56  | 372.93  | 273.18  | 184.22  | 116.82  |                            |  |
| 285.0              | 1014.61 | 875.19  | 738.47  | 602.65  | 484.82  | 375.98  | 318.42  | 191.59  | 123.23  |                            |  |
| 300.0              | 1007.17 | 871.79  | 738.23  | 666.93  | 484.63  | 378.14  | 280.67  | 198.55  | 133.57  |                            |  |
| 315.0              | 1071.91 | 863.83  | 737.72  | 610.72  | 488.21  | 379.22  | 283.74  | 202.67  | 136.02  |                            |  |
| 330.0              | 1008.74 | 862.19  | 730.93  | 605.06  | 490.88  | 377.60  | 276.91  | 197.79  | 129.46  |                            |  |
| 345.0              | 1009.94 | 866.43  | 730.99  | 604.53  | 480.75  | 372.22  | 273.56  | 185.66  | 116.60  |                            |  |
| 360.0              | 1077.77 | 931.16  | 793.44  | 653.06  | 532.22  | 414.05  | 310.09  | 209.69  | 132.39  |                            |  |

Jen Lighting Corp FL2\*2-K40-3065

| Intensity data(cd) |        |       |       |       |       |       |       |       |       | Appendix Page: 11 Total:12 |  |
|--------------------|--------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------------|--|
| C/γ(°)             | 90.0   | 95.0  | 100.0 | 105.0 | 110.0 | 115.0 | 120.0 | 125.0 | 130.0 |                            |  |
| 0.0                | 70.19  | 31.10 | 23.10 | 19.55 | 17.77 | 16.88 | 15.99 | 15.10 | 14.22 |                            |  |
| 15.0               | 77.03  | 32.24 | 23.29 | 19.70 | 17.02 | 16.12 | 15.23 | 14.33 | 13.43 |                            |  |
| 30.0               | 80.09  | 28.80 | 21.60 | 19.80 | 18.90 | 18.00 | 16.20 | 13.50 | 11.70 |                            |  |
| 45.0               | 81.85  | 25.19 | 17.09 | 18.89 | 18.89 | 17.09 | 16.19 | 15.29 | 13.49 |                            |  |
| 60.0               | 78.25  | 26.08 | 12.59 | 17.09 | 16.19 | 15.29 | 15.29 | 11.69 | 10.79 |                            |  |
| 75.0               | 68.26  | 32.34 | 8.08  | 15.27 | 13.47 | 13.47 | 13.47 | 13.47 | 12.57 |                            |  |
| 90.0               | 68.30  | 31.45 | 5.39  | 16.18 | 15.28 | 14.38 | 14.38 | 14.38 | 13.48 |                            |  |
| 105.0              | 83.65  | 34.18 | 8.10  | 15.29 | 13.49 | 12.59 | 13.49 | 13.49 | 12.59 |                            |  |
| 120.0              | 104.69 | 31.59 | 12.63 | 18.05 | 17.15 | 16.24 | 15.34 | 11.73 | 10.83 |                            |  |
| 135.0              | 109.89 | 26.12 | 17.11 | 18.92 | 18.92 | 18.02 | 17.11 | 15.31 | 13.51 |                            |  |
| 150.0              | 106.09 | 30.57 | 21.58 | 19.78 | 18.88 | 17.98 | 16.18 | 12.59 | 11.69 |                            |  |
| 165.0              | 95.07  | 31.39 | 23.32 | 19.73 | 17.04 | 16.14 | 15.25 | 14.35 | 13.45 |                            |  |
| 180.0              | 39.09  | 28.43 | 23.10 | 20.44 | 18.66 | 17.77 | 15.99 | 15.10 | 13.33 |                            |  |
| 195.0              | 44.78  | 28.66 | 23.29 | 20.60 | 17.91 | 17.02 | 16.12 | 14.33 | 12.54 |                            |  |
| 210.0              | 49.49  | 27.90 | 21.60 | 22.50 | 21.60 | 20.70 | 18.90 | 12.60 | 11.70 |                            |  |
| 225.0              | 53.07  | 23.39 | 21.59 | 22.49 | 21.59 | 19.79 | 18.89 | 17.09 | 11.69 |                            |  |
| 240.0              | 49.47  | 16.19 | 22.49 | 21.59 | 18.89 | 17.99 | 17.09 | 12.59 | 12.59 |                            |  |
| 255.0              | 44.91  | 9.88  | 8.98  | 19.76 | 15.27 | 16.17 | 16.17 | 15.27 | 14.37 |                            |  |
| 270.0              | 77.28  | 8.99  | 8.09  | 19.77 | 17.07 | 17.07 | 17.07 | 16.18 | 15.28 |                            |  |
| 285.0              | 44.97  | 11.69 | 15.29 | 18.89 | 15.29 | 16.19 | 16.19 | 15.29 | 14.39 |                            |  |
| 300.0              | 47.83  | 18.05 | 23.46 | 21.66 | 19.85 | 18.95 | 17.15 | 13.54 | 12.63 |                            |  |
| 315.0              | 49.54  | 23.42 | 23.42 | 23.42 | 21.62 | 20.72 | 18.92 | 17.11 | 9.01  |                            |  |
| 330.0              | 47.65  | 27.87 | 23.38 | 23.38 | 21.58 | 20.68 | 16.18 | 13.49 | 11.69 |                            |  |
| 345.0              | 42.16  | 28.70 | 23.32 | 20.63 | 18.84 | 17.04 | 16.14 | 15.25 | 13.45 |                            |  |
| 360.0              | 70.19  | 31.10 | 23.10 | 19.55 | 17.77 | 16.88 | 15.99 | 15.10 | 14.22 |                            |  |
| C/γ(°)             | 135.0  | 140.0 | 145.0 | 150.0 | 155.0 | 160.0 | 165.0 | 170.0 | 175.0 |                            |  |
| 0.0                | 13.33  | 12.44 | 8.00  | 8.89  | 8.89  | 9.77  | 10.66 | 11.55 | 12.44 |                            |  |
| 15.0               | 12.54  | 11.64 | 8.06  | 8.96  | 8.96  | 9.85  | 10.75 | 10.75 | 12.54 |                            |  |
| 30.0               | 10.80  | 6.30  | 8.10  | 9.00  | 9.00  | 9.90  | 10.80 | 10.80 | 11.70 |                            |  |
| 45.0               | 5.40   | 6.30  | 8.10  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 | 11.69 |                            |  |
| 60.0               | 9.89   | 7.20  | 8.10  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 | 12.59 |                            |  |
| 75.0               | 11.68  | 11.68 | 8.08  | 8.98  | 8.98  | 9.88  | 10.78 | 10.78 | 12.57 |                            |  |
| 90.0               | 12.58  | 11.68 | 8.09  | 8.99  | 9.88  | 10.78 | 10.78 | 10.78 | 12.58 |                            |  |
| 105.0              | 11.69  | 11.69 | 8.10  | 8.99  | 9.89  | 10.79 | 10.79 | 10.79 | 12.59 |                            |  |
| 120.0              | 9.93   | 6.32  | 8.12  | 9.02  | 9.02  | 9.93  | 10.83 | 11.73 | 11.73 |                            |  |
| 135.0              | 5.40   | 6.31  | 8.11  | 9.01  | 9.01  | 9.91  | 10.81 | 11.71 | 12.61 |                            |  |
| 150.0              | 10.79  | 6.29  | 7.19  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 | 12.59 |                            |  |
| 165.0              | 12.56  | 11.66 | 7.18  | 8.97  | 8.97  | 9.87  | 10.76 | 11.66 | 12.56 |                            |  |
| 180.0              | 11.55  | 9.77  | 7.11  | 8.00  | 8.89  | 8.89  | 9.77  | 10.66 | 12.44 |                            |  |
| 195.0              | 11.64  | 6.27  | 7.17  | 8.06  | 8.96  | 8.96  | 8.96  | 10.75 | 11.64 |                            |  |
| 210.0              | 9.90   | 6.30  | 7.20  | 8.10  | 9.00  | 9.00  | 9.90  | 10.80 | 11.70 |                            |  |
| 225.0              | 6.30   | 6.30  | 7.20  | 8.10  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 |                            |  |
| 240.0              | 11.69  | 6.30  | 7.20  | 8.10  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 |                            |  |
| 255.0              | 13.47  | 8.98  | 7.19  | 8.08  | 8.98  | 8.98  | 9.88  | 10.78 | 11.68 |                            |  |
| 270.0              | 14.38  | 9.88  | 8.09  | 8.99  | 8.99  | 8.99  | 9.88  | 11.68 | 12.58 |                            |  |
| 285.0              | 13.49  | 8.99  | 8.10  | 8.99  | 8.99  | 8.99  | 9.89  | 11.69 | 12.59 |                            |  |
| 300.0              | 9.93   | 6.32  | 7.22  | 8.12  | 9.02  | 9.02  | 9.93  | 11.73 | 12.63 |                            |  |
| 315.0              | 5.40   | 6.31  | 7.21  | 8.11  | 9.01  | 9.01  | 9.91  | 10.81 | 11.71 |                            |  |
| 330.0              | 9.89   | 6.29  | 7.19  | 8.09  | 8.99  | 8.99  | 9.89  | 10.79 | 11.69 |                            |  |
| 345.0              | 11.66  | 6.28  | 7.18  | 8.07  | 8.97  | 8.97  | 9.87  | 10.76 | 12.56 |                            |  |
| 360.0              | 13.33  | 12.44 | 8.00  | 8.89  | 8.89  | 9.77  | 10.66 | 11.55 | 12.44 |                            |  |

Intensity data(cd)

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|        |       |
|--------|-------|
| C/γ(°) | 180.0 |
| 0.0    | 12.44 |
| 15.0   | 12.54 |
| 30.0   | 12.60 |
| 45.0   | 12.59 |
| 60.0   | 12.59 |
| 75.0   | 12.57 |
| 90.0   | 12.58 |
| 105.0  | 12.59 |
| 120.0  | 12.63 |
| 135.0  | 12.61 |
| 150.0  | 12.59 |
| 165.0  | 12.56 |
| 180.0  | 0.00  |
| 195.0  | 0.00  |
| 210.0  | 0.00  |
| 225.0  | 0.00  |
| 240.0  | 0.00  |
| 255.0  | 0.00  |
| 270.0  | 0.00  |
| 285.0  | 0.00  |
| 300.0  | 0.00  |
| 315.0  | 0.00  |
| 330.0  | 0.00  |
| 345.0  | 0.00  |
| 360.0  | 12.44 |