

R852 WNL (CRI90 500mA 20D)

Luminaire Name: R852 WNL (CRI90 500mA 20D)

Report NO.: 01313217030302A

Test NO.:

Lamp: CITIZEN CLUO38-1205C4-403H5M3 500mA

Sum Lumens: 2244.1 lm

Number of Lamps: 1

Diameter: 115mm

Length: -115mm

Photometric Type: Type C

Voltage: 230.79 V

Current: 0.0941 A

Power: 20.842 W

Power Factor: 0.9596

Ballast Type: PHILIPS XITANIUM 21W 0.5A 42V I 230V

Width: -115mm

Height: 72mm

Optical Component: 20D Reflector DC(V:34.73V I:0.505A P:17.539W)

Photometric Results

Lumens: 2015.32 lm

Efficiency: 89.81%

Central Intensity: 8800.507cd

Maximum Intensity: 8804.766cd

Beam Angle(10%): Left: -26.2 Right:24.3

Maximum s/h: C0_180: 0.19 C90_270: 0.19

Effective Luminous Flux: 1554.96 lm

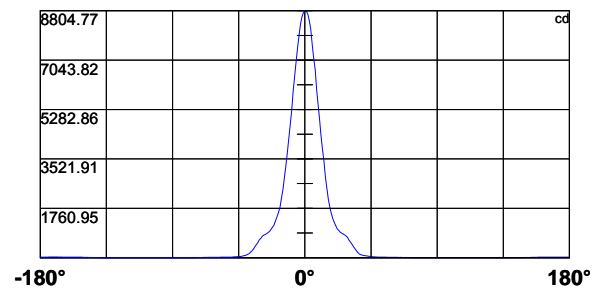
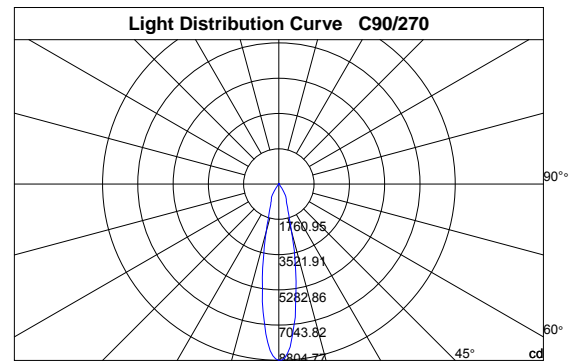
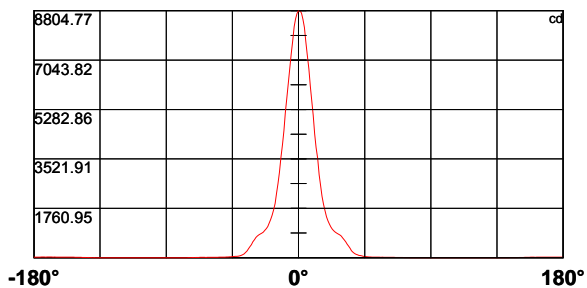
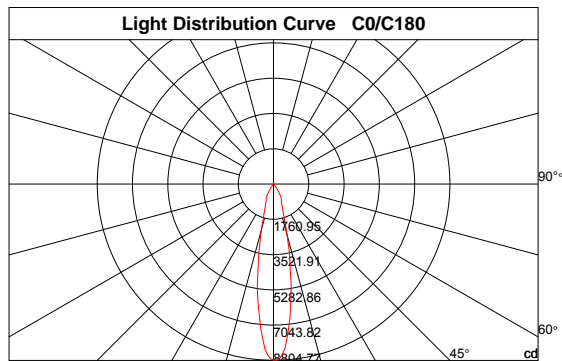
Angle of maximum intensity: C:30.0 G:1.0

Half Peak Side Angle(50%): Left: -11.4 Right:10.3

Up Flux Rate: 0.8%

Down Flux Rate: 89.0%

CIE Classification: Direct



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Intensity Data [cd]

| C\γ | 0.0 | 1.0 | 2.0 | 3.0 | 4.0 | 5.0 | 6.0 | 7.0 | 8.0 | 9.0 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0 | 8800.5 | 8800.5 | 8711.1 | 8493.8 | 8204.2 | 7688.7 | 7220.2 | 6721.8 | 6108.4 | 5588.7 |
| 30.0 | 8800.5 | 8804.8 | 8723.8 | 8506.6 | 8225.4 | 7850.6 | 7245.7 | 6734.6 | 6214.9 | 5610.0 |
| 60.0 | 8800.5 | 8804.8 | 8723.8 | 8553.4 | 8191.4 | 7816.5 | 7271.3 | 6751.6 | 6223.4 | 5516.3 |
| 90.0 | 8800.5 | 8783.5 | 8681.2 | 8447.0 | 8153.0 | 7616.3 | 7130.7 | 6700.5 | 5984.9 | 5456.7 |
| 120.0 | 8800.5 | 8732.4 | 8604.6 | 8383.1 | 8012.5 | 7599.3 | 6947.5 | 6436.4 | 5912.4 | 5303.3 |
| 150.0 | 8800.5 | 8732.4 | 8549.2 | 8293.6 | 7935.8 | 7343.7 | 6849.6 | 6236.2 | 5703.7 | 5192.6 |
| 180.0 | 8800.5 | 8706.8 | 8523.6 | 8234.0 | 7735.6 | 7288.3 | 6717.5 | 6197.8 | 5686.7 | 5179.8 |
| 210.0 | 8800.5 | 8719.6 | 8549.2 | 8161.6 | 7786.7 | 7339.4 | 6772.9 | 6274.5 | 5610.0 | 5103.1 |
| 240.0 | 8800.5 | 8723.8 | 8562.0 | 8251.0 | 7893.2 | 7463.0 | 6824.0 | 6321.4 | 6065.8 | 5226.6 |
| 270.0 | 8800.5 | 8732.4 | 8579.0 | 8327.7 | 7923.0 | 7501.3 | 6947.5 | 6436.4 | 5921.0 | 5239.4 |
| 300.0 | 8800.5 | 8753.6 | 8634.4 | 8331.9 | 7991.2 | 7573.7 | 7015.7 | 6504.5 | 5895.4 | 5375.7 |
| 330.0 | 8800.5 | 8783.5 | 8651.4 | 8447.0 | 8029.5 | 7607.8 | 7130.7 | 6628.1 | 6023.2 | 5503.5 |
| 360.0 | 8800.5 | 8800.5 | 8711.1 | 8493.8 | 8204.2 | 7688.7 | 7220.2 | 6721.8 | 6108.4 | 5588.7 |

| C\γ | 10.0 | 11.0 | 12.0 | 13.0 | 14.0 | 15.0 | 16.0 | 17.0 | 18.0 | 19.0 |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0.0 | 5077.5 | 4413.0 | 3923.2 | 3535.5 | 2956.2 | 2577.1 | 2189.5 | 1912.6 | 1691.1 | 1456.8 |
| 30.0 | 5094.6 | 4591.9 | 4025.4 | 3556.8 | 2960.5 | 2564.3 | 2215.0 | 1887.0 | 1661.3 | 1482.4 |
| 60.0 | 5005.1 | 4587.7 | 3948.7 | 3488.7 | 2977.5 | 2581.4 | 2219.3 | 1678.3 | 1644.2 | 1465.3 |
| 90.0 | 4941.2 | 4357.7 | 3880.6 | 3420.5 | 2858.2 | 2466.4 | 2078.7 | 1810.4 | 1593.1 | 1392.9 |
| 120.0 | 4800.7 | 4310.8 | 3684.6 | 3237.4 | 2892.3 | 2389.7 | 2078.7 | 1780.5 | 1580.3 | 1418.5 |
| 150.0 | 4536.6 | 4051.0 | 3663.3 | 3079.8 | 2679.3 | 2325.8 | 1976.5 | 1742.2 | 1495.1 | 1350.3 |
| 180.0 | 4523.8 | 4029.7 | 3561.1 | 3045.7 | 2645.3 | 2304.5 | 1929.6 | 1712.4 | 1507.9 | 1363.1 |
| 210.0 | 4685.7 | 4029.7 | 3552.6 | 3105.3 | 2636.7 | 2291.7 | 2010.6 | 1716.7 | 1542.0 | 1375.9 |
| 240.0 | 4643.1 | 4319.3 | 3676.1 | 3143.6 | 2734.7 | 2376.9 | 1993.5 | 1767.8 | 1559.0 | 1414.2 |
| 270.0 | 4741.0 | 4255.4 | 3697.4 | 3241.6 | 2832.7 | 2415.2 | 2117.1 | 1797.6 | 1605.9 | 1452.6 |
| 300.0 | 4868.8 | 4204.3 | 3723.0 | 3267.2 | 2785.8 | 2423.8 | 2112.8 | 1823.1 | 1622.9 | 1461.1 |
| 330.0 | 4907.2 | 4413.0 | 3918.9 | 3301.3 | 2888.1 | 2453.6 | 2134.1 | 1865.7 | 1648.5 | 1456.8 |
| 360.0 | 5077.5 | 4413.0 | 3923.2 | 3535.5 | 2956.2 | 2577.1 | 2189.5 | 1912.6 | 1691.1 | 1456.8 |

| C\γ | 20.0 | 21.0 | 22.0 | 23.0 | 24.0 | 25.0 | 26.0 | 27.0 | 28.0 | 29.0 |
|-------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|
| 0.0 | 1316.2 | 1201.2 | 1094.7 | 1022.3 | 958.4 | 911.6 | 877.5 | 839.2 | 813.6 | 771.0 |
| 30.0 | 1312.0 | 1192.7 | 1099.0 | 1005.3 | 945.6 | 890.3 | 856.2 | 822.1 | 788.0 | 745.4 |
| 60.0 | 1269.4 | 1158.6 | 1052.1 | 988.2 | 928.6 | 877.5 | 839.2 | 809.3 | 766.7 | 715.6 |
| 90.0 | 1256.6 | 1145.9 | 1035.1 | 975.5 | 915.8 | 877.5 | 843.4 | 809.3 | 771.0 | 719.9 |
| 120.0 | 1239.6 | 1133.1 | 1056.4 | 984.0 | 937.1 | 894.5 | 864.7 | 839.2 | 788.0 | 728.4 |
| 150.0 | 1222.5 | 1107.5 | 1026.6 | 966.9 | 911.6 | 873.2 | 843.4 | 813.6 | 775.3 | 724.1 |
| 180.0 | 1235.3 | 1111.8 | 1035.1 | 975.5 | 911.6 | 873.2 | 843.4 | 809.3 | 775.3 | 719.9 |
| 210.0 | 1256.6 | 1145.9 | 1047.9 | 984.0 | 928.6 | 890.3 | 847.7 | 826.4 | 796.6 | 732.7 |
| 240.0 | 1290.7 | 1158.6 | 1077.7 | 1009.5 | 941.4 | 903.1 | 869.0 | 839.2 | 817.9 | 779.5 |
| 270.0 | 1316.2 | 1167.2 | 1090.5 | 1018.1 | 941.4 | 898.8 | 860.5 | 826.4 | 800.8 | 762.5 |
| 300.0 | 1282.2 | 1171.4 | 1064.9 | 996.8 | 941.4 | 877.5 | 843.4 | 813.6 | 779.5 | 741.2 |
| 330.0 | 1316.2 | 1162.9 | 1073.4 | 1005.3 | 941.4 | 894.5 | 843.4 | 817.9 | 800.8 | 749.7 |
| 360.0 | 1316.2 | 1201.2 | 1094.7 | 1022.3 | 958.4 | 911.6 | 877.5 | 839.2 | 813.6 | 771.0 |

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Intensity Data [cd]

| C\γ | 30.0 | 31.0 | 32.0 | 33.0 | 34.0 | 35.0 | 36.0 | 37.0 | 38.0 | 39.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 702.8 | 639.0 | 566.5 | 481.3 | 413.2 | 340.8 | 251.3 | 195.9 | 149.1 | 123.5 |
| 30.0 | 690.1 | 596.4 | 519.7 | 451.5 | 362.1 | 293.9 | 204.5 | 153.3 | 123.5 | 102.2 |
| 60.0 | 639.0 | 562.3 | 485.6 | 387.6 | 328.0 | 251.3 | 170.4 | 119.3 | 93.7 | 76.7 |
| 90.0 | 626.2 | 553.8 | 477.1 | 396.2 | 323.7 | 251.3 | 183.2 | 132.1 | 102.2 | 93.7 |
| 120.0 | 656.0 | 575.1 | 498.4 | 426.0 | 340.8 | 272.6 | 195.9 | 153.3 | 132.1 | 110.8 |
| 150.0 | 634.7 | 566.5 | 477.1 | 408.9 | 336.5 | 247.1 | 195.9 | 149.1 | 119.3 | 98.0 |
| 180.0 | 639.0 | 566.5 | 464.3 | 396.2 | 323.7 | 242.8 | 187.4 | 136.3 | 106.5 | 85.2 |
| 210.0 | 664.5 | 579.3 | 502.6 | 455.8 | 345.0 | 276.9 | 200.2 | 161.9 | 127.8 | 102.2 |
| 240.0 | 702.8 | 630.4 | 549.5 | 464.3 | 387.6 | 302.4 | 238.5 | 191.7 | 144.8 | 123.5 |
| 270.0 | 690.1 | 630.4 | 536.7 | 464.3 | 391.9 | 306.7 | 238.5 | 191.7 | 140.6 | 115.0 |
| 300.0 | 685.8 | 592.1 | 519.7 | 451.5 | 366.3 | 298.2 | 221.5 | 174.6 | 123.5 | 98.0 |
| 330.0 | 698.6 | 630.4 | 545.2 | 472.8 | 404.7 | 311.0 | 247.1 | 183.2 | 136.3 | 110.8 |
| 360.0 | 702.8 | 639.0 | 566.5 | 481.3 | 413.2 | 340.8 | 251.3 | 195.9 | 149.1 | 123.5 |

| C\γ | 40.0 | 41.0 | 42.0 | 43.0 | 44.0 | 45.0 | 46.0 | 47.0 | 48.0 | 49.0 |
|-------|-------|------|------|------|------|------|------|------|------|------|
| 0.0 | 106.5 | 85.2 | 76.7 | 63.9 | 51.1 | 42.6 | 34.1 | 29.8 | 25.6 | 25.6 |
| 30.0 | 89.5 | 76.7 | 68.2 | 59.6 | 51.1 | 42.6 | 34.1 | 29.8 | 25.6 | 25.6 |
| 60.0 | 68.2 | 55.4 | 51.1 | 46.9 | 38.3 | 38.3 | 34.1 | 29.8 | 25.6 | 25.6 |
| 90.0 | 80.9 | 68.2 | 63.9 | 55.4 | 46.9 | 42.6 | 29.8 | 29.8 | 25.6 | 25.6 |
| 120.0 | 93.7 | 80.9 | 68.2 | 59.6 | 51.1 | 34.1 | 34.1 | 29.8 | 25.6 | 25.6 |
| 150.0 | 80.9 | 72.4 | 59.6 | 51.1 | 42.6 | 38.3 | 29.8 | 29.8 | 25.6 | 21.3 |
| 180.0 | 63.9 | 55.4 | 51.1 | 46.9 | 42.6 | 34.1 | 29.8 | 29.8 | 25.6 | 25.6 |
| 210.0 | 85.2 | 68.2 | 55.4 | 51.1 | 42.6 | 38.3 | 34.1 | 29.8 | 25.6 | 25.6 |
| 240.0 | 102.2 | 80.9 | 63.9 | 55.4 | 46.9 | 38.3 | 29.8 | 29.8 | 25.6 | 25.6 |
| 270.0 | 89.5 | 76.7 | 63.9 | 51.1 | 42.6 | 38.3 | 34.1 | 29.8 | 29.8 | 25.6 |
| 300.0 | 72.4 | 59.6 | 51.1 | 46.9 | 42.6 | 38.3 | 34.1 | 29.8 | 25.6 | 25.6 |
| 330.0 | 89.5 | 76.7 | 68.2 | 55.4 | 46.9 | 38.3 | 34.1 | 29.8 | 29.8 | 25.6 |
| 360.0 | 106.5 | 85.2 | 76.7 | 63.9 | 51.1 | 42.6 | 34.1 | 29.8 | 25.6 | 25.6 |

| C\γ | 50.0 | 51.0 | 52.0 | 53.0 | 54.0 | 55.0 | 56.0 | 57.0 | 58.0 | 59.0 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0.0 | 21.3 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 17.0 | 12.8 | 12.8 |
| 30.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 17.0 | 12.8 | 12.8 | 12.8 |
| 60.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 90.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 |
| 120.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 |
| 150.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 |
| 180.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 210.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 17.0 | 12.8 |
| 240.0 | 21.3 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 | 12.8 |
| 270.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 |
| 300.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 |
| 330.0 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 12.8 | 12.8 | 12.8 |
| 360.0 | 21.3 | 21.3 | 21.3 | 17.0 | 17.0 | 17.0 | 12.8 | 17.0 | 12.8 | 12.8 |

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Intensity Data [cd]

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| C\γ | 60.0 | 61.0 | 62.0 | 63.0 | 64.0 | 65.0 | 66.0 | 67.0 | 68.0 | 69.0 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 30.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 60.0 | 8.5 | 12.8 | 8.5 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 90.0 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 120.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 150.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 4.3 |
| 180.0 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 |
| 210.0 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 240.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 12.8 | 8.5 | 8.5 |
| 270.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 8.5 |
| 300.0 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 |
| 330.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |
| 360.0 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 8.5 | 8.5 | 8.5 | 8.5 |

| C\γ | 70.0 | 71.0 | 72.0 | 73.0 | 74.0 | 75.0 | 76.0 | 77.0 | 78.0 | 79.0 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0.0 | 8.5 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 |
| 60.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 8.5 | 4.3 | 4.3 | 0.0 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 |
| 180.0 | 8.5 | 4.3 | 8.5 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 8.5 | 8.5 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 |
| 240.0 | 8.5 | 8.5 | 8.5 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 8.5 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 |
| 360.0 | 8.5 | 8.5 | 4.3 | 4.3 | 4.3 | 4.3 | 0.0 | 0.0 | 0.0 | 0.0 |

| C\γ | 80.0 | 81.0 | 82.0 | 83.0 | 84.0 | 85.0 | 86.0 | 87.0 | 88.0 | 89.0 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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Intensity Data [cd]

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| C\γ | 90.0 | 91.0 | 92.0 | 93.0 | 94.0 | 95.0 | 96.0 | 97.0 | 98.0 | 99.0 |
|-------|------|------|------|------|------|------|------|------|------|------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| C\γ | 100.0 | 101.0 | 102.0 | 103.0 | 104.0 | 105.0 | 106.0 | 107.0 | 108.0 | 109.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| C\γ | 110.0 | 111.0 | 112.0 | 113.0 | 114.0 | 115.0 | 116.0 | 117.0 | 118.0 | 119.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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| C\γ | 120.0 | 121.0 | 122.0 | 123.0 | 124.0 | 125.0 | 126.0 | 127.0 | 128.0 | 129.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| C\γ | 130.0 | 131.0 | 132.0 | 133.0 | 134.0 | 135.0 | 136.0 | 137.0 | 138.0 | 139.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 30.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 60.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 150.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 |
| 210.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 240.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 4.3 |
| 270.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 300.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 330.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

| C\γ | 140.0 | 141.0 | 142.0 | 143.0 | 144.0 | 145.0 | 146.0 | 147.0 | 148.0 | 149.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| 30.0 | 4.3 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 |
| 60.0 | 0.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 |
| 90.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 |
| 120.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 |
| 150.0 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 |
| 180.0 | 0.0 | 4.3 | 4.3 | 8.5 | 4.3 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 |
| 210.0 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 |
| 240.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 |
| 270.0 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 8.5 |
| 300.0 | 0.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 |
| 330.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 8.5 | 8.5 |
| 360.0 | 0.0 | 0.0 | 0.0 | 0.0 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |

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Intensity Data [cd]

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| C\γ | 150.0 | 151.0 | 152.0 | 153.0 | 154.0 | 155.0 | 156.0 | 157.0 | 158.0 | 159.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 |
| 30.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 60.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 90.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 17.0 |
| 120.0 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 | 12.8 | 17.0 | 17.0 | 17.0 | 21.3 |
| 150.0 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 |
| 180.0 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 |
| 210.0 | 12.8 | 12.8 | 12.8 | 17.0 | 12.8 | 17.0 | 17.0 | 17.0 | 21.3 | 17.0 |
| 240.0 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 |
| 270.0 | 12.8 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 |
| 300.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 | 12.8 |
| 330.0 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 |
| 360.0 | 8.5 | 8.5 | 8.5 | 8.5 | 12.8 | 12.8 | 12.8 | 12.8 | 17.0 | 17.0 |

| C\γ | 160.0 | 161.0 | 162.0 | 163.0 | 164.0 | 165.0 | 166.0 | 167.0 | 168.0 | 169.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 17.0 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 | 21.3 |
| 30.0 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 17.0 | 21.3 | 21.3 |
| 60.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 |
| 90.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 17.0 | 21.3 |
| 120.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 25.6 | 25.6 |
| 150.0 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 21.3 | 21.3 | 21.3 | 25.6 | 25.6 |
| 180.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 21.3 | 25.6 | 25.6 |
| 210.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 25.6 |
| 240.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 25.6 | 25.6 | 25.6 |
| 270.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 21.3 | 25.6 | 25.6 |
| 300.0 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 | 17.0 | 21.3 | 21.3 |
| 330.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 | 21.3 |
| 360.0 | 17.0 | 12.8 | 17.0 | 17.0 | 17.0 | 17.0 | 17.0 | 21.3 | 21.3 | 21.3 |

| C\γ | 170.0 | 171.0 | 172.0 | 173.0 | 174.0 | 175.0 | 176.0 | 177.0 | 178.0 | 179.0 |
|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 30.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 60.0 | 21.3 | 21.3 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 90.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 120.0 | 25.6 | 21.3 | 21.3 | 25.6 | 21.3 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 150.0 | 25.6 | 21.3 | 25.6 | 21.3 | 25.6 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 180.0 | 25.6 | 25.6 | 21.3 | 25.6 | 25.6 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 210.0 | 25.6 | 25.6 | 21.3 | 25.6 | 25.6 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 240.0 | 25.6 | 25.6 | 21.3 | 25.6 | 25.6 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 |
| 270.0 | 25.6 | 25.6 | 25.6 | 25.6 | 25.6 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 300.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |
| 330.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 25.6 | 21.3 |
| 360.0 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 | 21.3 |

Intensity Data [cd]

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| | |
|-------|-------|
| C\γ | 180.0 |
| 0.0 | 21.3 |
| 30.0 | 21.3 |
| 60.0 | 25.6 |
| 90.0 | 21.3 |
| 120.0 | 25.6 |
| 150.0 | 21.3 |
| 180.0 | 21.3 |
| 210.0 | 21.3 |
| 240.0 | 25.6 |
| 270.0 | 21.3 |
| 300.0 | 25.6 |
| 330.0 | 21.3 |
| 360.0 | 21.3 |

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Zonal flux distribution table

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| Gamma [°] | Average I [cd] | Zonal Flux [lm] | Sum Flux [lm] | Effective Flux [lm] | Effective Sum [lm] |
|--------------|-------------------|--------------------|------------------|------------------------|-----------------------|
| 0 | 8800.51 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1 | 8756.49 | 8.40 | 8.40 | 8.40 | 8.40 |
| 2 | 8624.44 | 24.95 | 33.35 | 24.95 | 33.35 |
| 3 | 8369.21 | 40.64 | 73.99 | 40.64 | 73.99 |
| 4 | 8006.78 | 54.82 | 128.81 | 54.82 | 128.81 |
| 5 | 7557.39 | 66.96 | 195.76 | 66.96 | 195.76 |
| 6 | 7006.11 | 76.54 | 272.30 | 76.54 | 272.30 |
| 7 | 6495.31 | 83.80 | 356.10 | 83.80 | 356.10 |
| 8 | 5945.81 | 89.04 | 445.14 | 89.04 | 445.14 |
| 9 | 5357.97 | 91.61 | 536.75 | 91.61 | 536.75 |
| 10 | 4818.77 | 92.10 | 628.85 | 92.10 | 628.85 |
| 11 | 4296.96 | 91.08 | 719.93 | 91.08 | 719.93 |
| 12 | 3771.24 | 88.20 | 808.13 | 88.20 | 808.13 |
| 13 | 3285.28 | 83.74 | 891.87 | 83.74 | 891.87 |
| 14 | 2820.62 | 78.16 | 970.03 | 78.16 | 970.03 |
| 15 | 2430.86 | 72.09 | 1042.12 | 72.09 | 1042.12 |
| 16 | 2087.95 | 66.21 | 1108.33 | 66.21 | 1108.33 |
| 17 | 1791.20 | 60.41 | 1168.74 | 60.41 | 1168.74 |
| 18 | 1595.96 | 55.85 | 1224.59 | 55.85 | 1224.59 |
| 19 | 1424.15 | 52.54 | 1277.13 | 52.54 | 1277.13 |
| 20 | 1276.13 | 49.42 | 1326.56 | 49.42 | 1326.56 |
| 21 | 1154.73 | 46.68 | 1373.23 | 46.68 | 1373.23 |
| 22 | 1062.79 | 44.56 | 1417.80 | 44.56 | 1417.80 |
| 23 | 994.28 | 43.16 | 1460.96 | 43.16 | 1460.96 |
| 24 | 933.58 | 42.15 | 1503.11 | 42.15 | 1503.11 |
| 25 | 888.50 | 41.43 | 1544.54 | 41.43 | 1544.54 |
| 26 | 852.65 | 41.10 | 1585.64 | 10.42 | 1554.96 |
| 27 | 822.12 | 40.97 | 1626.61 | 0.00 | 1554.96 |
| 28 | 789.46 | 40.80 | 1667.41 | 0.00 | 1554.96 |
| 29 | 740.83 | 40.04 | 1707.45 | 0.00 | 1554.96 |
| 30 | 669.13 | 38.07 | 1745.52 | 0.00 | 1554.96 |
| 31 | 593.52 | 35.14 | 1780.66 | 0.00 | 1554.96 |
| 32 | 511.87 | 31.67 | 1812.33 | 0.00 | 1554.96 |
| 33 | 438.04 | 27.98 | 1840.31 | 0.00 | 1554.96 |
| 34 | 360.30 | 24.16 | 1864.47 | 0.00 | 1554.96 |
| 35 | 282.91 | 19.98 | 1884.45 | 0.00 | 1554.96 |
| 36 | 211.21 | 15.73 | 1900.18 | 0.00 | 1554.96 |
| 37 | 161.87 | 12.17 | 1912.35 | 0.00 | 1554.96 |
| 38 | 124.95 | 9.57 | 1921.92 | 0.00 | 1554.96 |
| 39 | 103.30 | 7.79 | 1929.71 | 0.00 | 1554.96 |
| 40 | 85.19 | 6.57 | 1936.29 | 0.00 | 1554.96 |

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Zonal flux distribution table

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| Gamma [°] | Average I [cd] | Zonal Flux [lm] | Sum Flux [lm] | Effective Flux [lm] | Effective Sum [lm] |
|--------------|-------------------|--------------------|------------------|------------------------|-----------------------|
| 41 | 71.35 | 5.57 | 1941.86 | 0.00 | 1554.96 |
| 42 | 61.77 | 4.84 | 1946.70 | 0.00 | 1554.96 |
| 43 | 53.60 | 4.27 | 1950.97 | 0.00 | 1554.96 |
| 44 | 45.44 | 3.74 | 1954.71 | 0.00 | 1554.96 |
| 45 | 38.69 | 3.23 | 1957.94 | 0.00 | 1554.96 |
| 46 | 32.66 | 2.79 | 1960.73 | 0.00 | 1554.96 |
| 47 | 29.82 | 2.48 | 1963.22 | 0.00 | 1554.96 |
| 48 | 26.27 | 2.27 | 1965.48 | 0.00 | 1554.96 |
| 49 | 25.20 | 2.11 | 1967.60 | 0.00 | 1554.96 |
| 50 | 21.30 | 1.94 | 1969.54 | 0.00 | 1554.96 |
| 51 | 21.30 | 1.80 | 1971.34 | 0.00 | 1554.96 |
| 52 | 17.75 | 1.68 | 1973.01 | 0.00 | 1554.96 |
| 53 | 17.04 | 1.51 | 1974.53 | 0.00 | 1554.96 |
| 54 | 17.04 | 1.50 | 1976.03 | 0.00 | 1554.96 |
| 55 | 15.97 | 1.47 | 1977.50 | 0.00 | 1554.96 |
| 56 | 14.55 | 1.38 | 1978.88 | 0.00 | 1554.96 |
| 57 | 13.49 | 1.28 | 1980.16 | 0.00 | 1554.96 |
| 58 | 13.13 | 1.23 | 1981.39 | 0.00 | 1554.96 |
| 59 | 12.78 | 1.21 | 1982.61 | 0.00 | 1554.96 |
| 60 | 12.42 | 1.19 | 1983.80 | 0.00 | 1554.96 |
| 61 | 12.78 | 1.20 | 1985.00 | 0.00 | 1554.96 |
| 62 | 12.42 | 1.21 | 1986.21 | 0.00 | 1554.96 |
| 63 | 12.07 | 1.19 | 1987.41 | 0.00 | 1554.96 |
| 64 | 12.07 | 1.18 | 1988.59 | 0.00 | 1554.96 |
| 65 | 12.42 | 1.21 | 1989.80 | 0.00 | 1554.96 |
| 66 | 9.94 | 1.12 | 1990.92 | 0.00 | 1554.96 |
| 67 | 9.23 | 0.96 | 1991.88 | 0.00 | 1554.96 |
| 68 | 8.87 | 0.92 | 1992.80 | 0.00 | 1554.96 |
| 69 | 8.16 | 0.87 | 1993.67 | 0.00 | 1554.96 |
| 70 | 7.45 | 0.80 | 1994.47 | 0.00 | 1554.96 |
| 71 | 5.68 | 0.68 | 1995.15 | 0.00 | 1554.96 |
| 72 | 5.32 | 0.57 | 1995.72 | 0.00 | 1554.96 |
| 73 | 3.90 | 0.48 | 1996.20 | 0.00 | 1554.96 |
| 74 | 4.26 | 0.43 | 1996.63 | 0.00 | 1554.96 |
| 75 | 3.19 | 0.39 | 1997.03 | 0.00 | 1554.96 |
| 76 | 1.42 | 0.24 | 1997.27 | 0.00 | 1554.96 |
| 77 | 0.00 | 0.08 | 1997.35 | 0.00 | 1554.96 |
| 78 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 79 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 80 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 81 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |

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Zonal flux distribution table

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| Gamma [°] | Average I [cd] | Zonal Flux [lm] | Sum Flux [lm] | Effective Flux [lm] | Effective Sum [lm] |
|--------------|-------------------|--------------------|------------------|------------------------|-----------------------|
| 82 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 83 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 84 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 85 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 86 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 87 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 88 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 89 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 90 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 91 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 92 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 93 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 94 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 95 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 96 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 97 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 98 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 99 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 100 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 101 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 102 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 103 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 104 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 105 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 106 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 107 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 108 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 109 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 110 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 111 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 112 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 113 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 114 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 115 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 116 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 117 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 118 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 119 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 120 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 121 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 122 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |

R852 WNL (CRI90 500mA 20D)

Zonal flux distribution table

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| Gamma [°] | Average I [cd] | Zonal Flux [lm] | Sum Flux [lm] | Effective Flux [lm] | Effective Sum [lm] |
|--------------|-------------------|--------------------|------------------|------------------------|-----------------------|
| 123 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 124 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 125 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 126 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 127 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 128 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 129 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 130 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 131 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 132 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 133 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 134 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 135 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 136 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 137 | 0.00 | 0.00 | 1997.35 | 0.00 | 1554.96 |
| 138 | 0.35 | 0.01 | 1997.36 | 0.00 | 1554.96 |
| 139 | 0.71 | 0.04 | 1997.40 | 0.00 | 1554.96 |
| 140 | 2.13 | 0.10 | 1997.50 | 0.00 | 1554.96 |
| 141 | 2.13 | 0.15 | 1997.65 | 0.00 | 1554.96 |
| 142 | 3.19 | 0.18 | 1997.83 | 0.00 | 1554.96 |
| 143 | 4.26 | 0.25 | 1998.08 | 0.00 | 1554.96 |
| 144 | 5.32 | 0.31 | 1998.39 | 0.00 | 1554.96 |
| 145 | 6.39 | 0.37 | 1998.77 | 0.00 | 1554.96 |
| 146 | 6.39 | 0.40 | 1999.16 | 0.00 | 1554.96 |
| 147 | 6.39 | 0.39 | 1999.55 | 0.00 | 1554.96 |
| 148 | 7.81 | 0.42 | 1999.97 | 0.00 | 1554.96 |
| 149 | 9.94 | 0.51 | 2000.48 | 0.00 | 1554.96 |
| 150 | 10.65 | 0.57 | 2001.05 | 0.00 | 1554.96 |
| 151 | 10.65 | 0.58 | 2001.62 | 0.00 | 1554.96 |
| 152 | 11.00 | 0.57 | 2002.19 | 0.00 | 1554.96 |
| 153 | 12.78 | 0.60 | 2002.79 | 0.00 | 1554.96 |
| 154 | 13.84 | 0.65 | 2003.44 | 0.00 | 1554.96 |
| 155 | 14.20 | 0.66 | 2004.11 | 0.00 | 1554.96 |
| 156 | 14.91 | 0.66 | 2004.77 | 0.00 | 1554.96 |
| 157 | 14.91 | 0.65 | 2005.42 | 0.00 | 1554.96 |
| 158 | 16.33 | 0.66 | 2006.08 | 0.00 | 1554.96 |
| 159 | 17.04 | 0.67 | 2006.75 | 0.00 | 1554.96 |
| 160 | 18.46 | 0.68 | 2007.43 | 0.00 | 1554.96 |
| 161 | 18.81 | 0.68 | 2008.11 | 0.00 | 1554.96 |
| 162 | 19.17 | 0.66 | 2008.77 | 0.00 | 1554.96 |
| 163 | 19.17 | 0.63 | 2009.40 | 0.00 | 1554.96 |

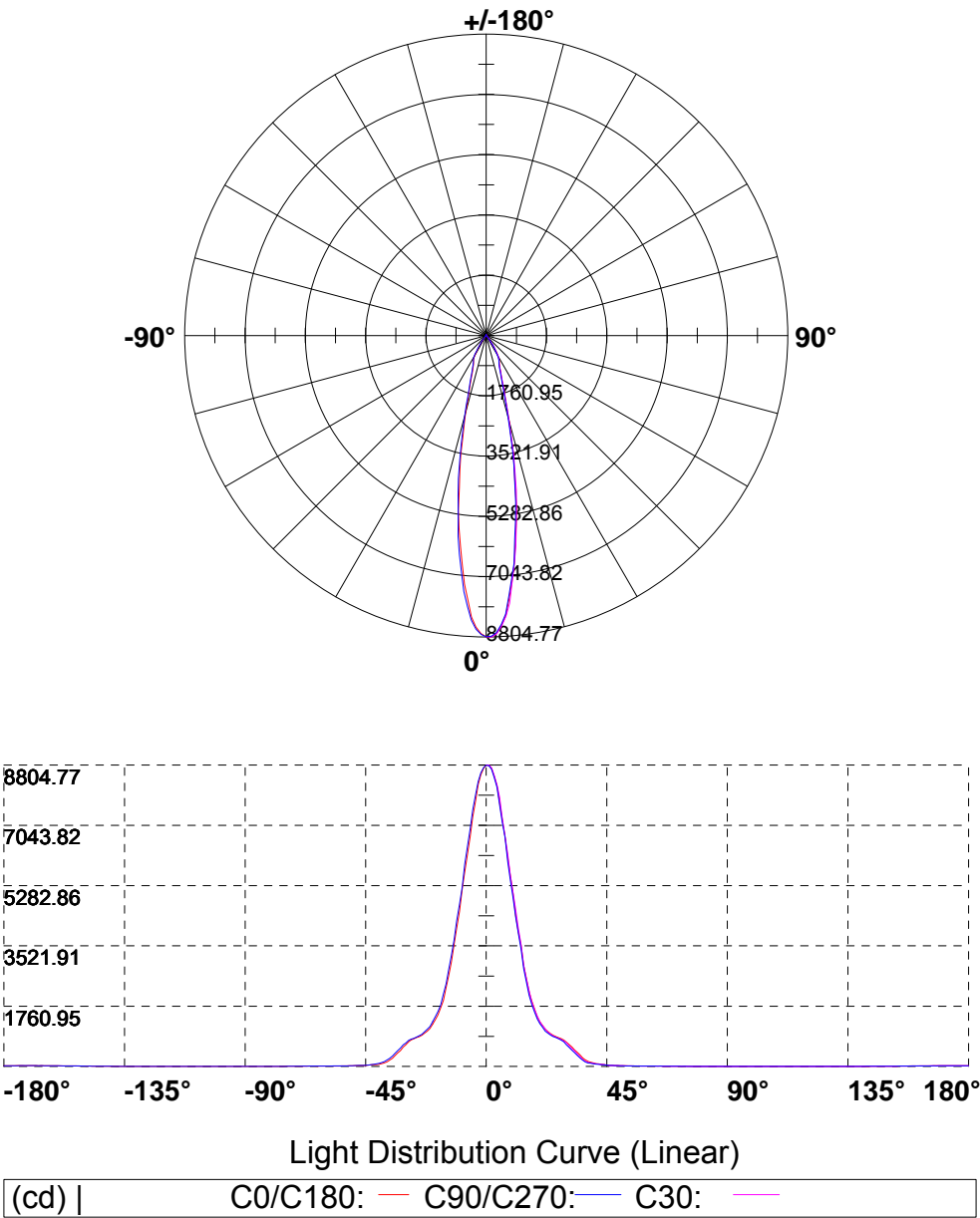
R852 WNL (CRI90 500mA 20D)

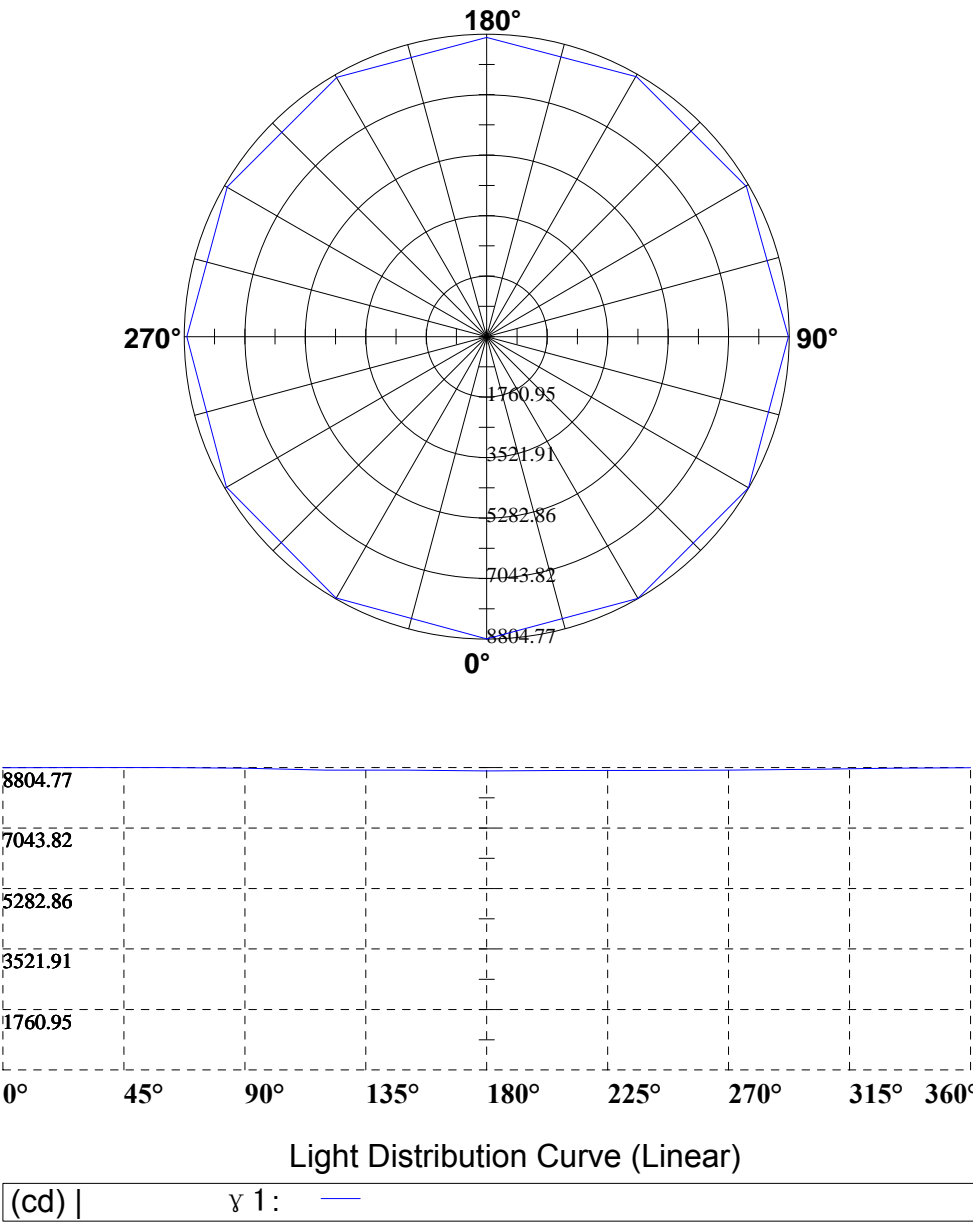
Zonal flux distribution table

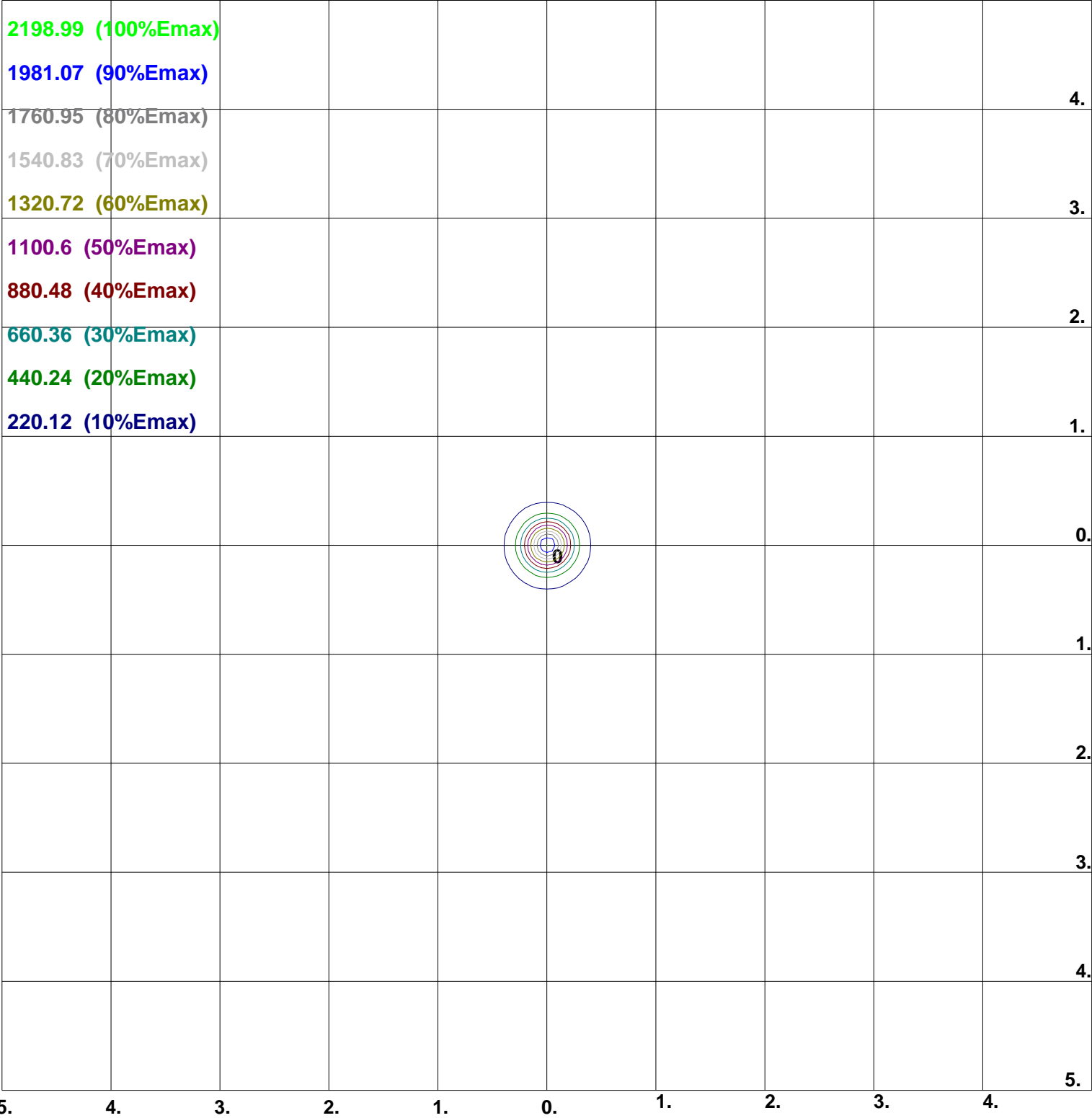
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[illegible]

Light Distribution Curve [Unit: cd]







Coordinate Scale: d/h
Height: 2 m
Max Illuminance : 2201.19lx

Luminance Limiting Curve (There is not luminous side)

Diameter: 115mm

Length: -115mm

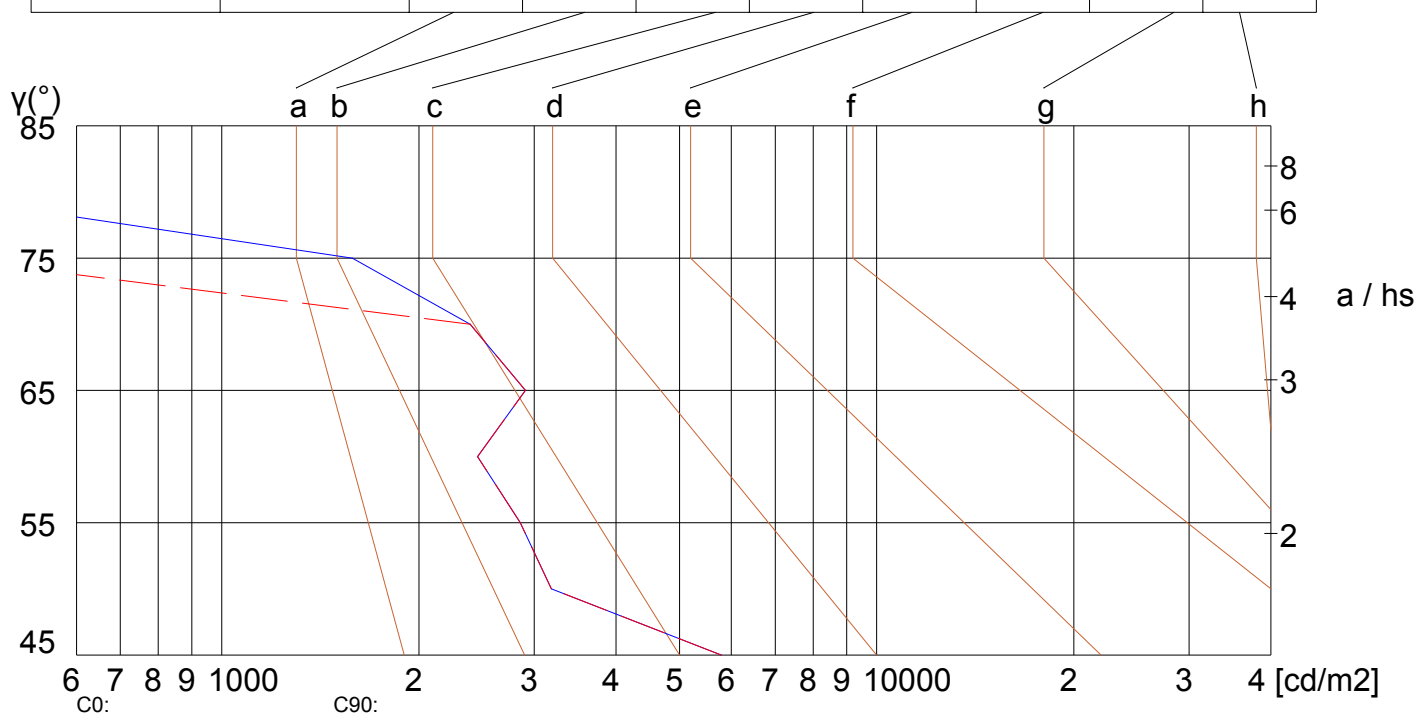
Width: -115mm

Height: 72mm

(cd/m²)

| γ | 45° | 50° | 55° | 60° | 65° | 70° | 75° | 80° | 85° |
|----------|------|------|------|------|------|------|------|-----|-----|
| C0 | 5792 | 3186 | 2856 | 2458 | 2907 | 2395 | 0 | | |
| C90 | 5792 | 3186 | 2856 | 2458 | 2907 | 2395 | 1583 | | |

| 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 |



Luminance Limiting Curve (C0/C90)

R852 WNL (CRI90 500mA 20D)

utilization factor table for indoor luminaire

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| 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 | COEFFCIENTS OF UTILIZATION FOR RHOFC=20 | | | | | | | | | | | | | | | |
| 0 | 1.07 | 1.07 | 1.07 | 1.04 | 1.04 | 1.04 | 1.00 | 1.00 | 1.00 | 0.96 | 0.96 | 0.96 | 0.92 | 0.92 | 0.92 | 0.90 |
| 1 | 1.04 | 1.04 | 1.03 | 1.03 | 1.02 | 1.01 | 0.99 | 0.98 | 0.97 | 0.94 | 0.93 | 0.92 | 0.87 | 0.86 | 0.85 | 0.81 |
| 2 | 1.00 | 0.99 | 0.98 | 0.98 | 0.97 | 0.96 | 0.95 | 0.93 | 0.92 | 0.90 | 0.89 | 0.87 | 0.84 | 0.83 | 0.81 | 0.77 |
| 3 | 0.96 | 0.95 | 0.94 | 0.94 | 0.93 | 0.92 | 0.91 | 0.89 | 0.88 | 0.87 | 0.85 | 0.83 | 0.82 | 0.80 | 0.78 | 0.74 |
| 4 | 0.92 | 0.91 | 0.90 | 0.90 | 0.89 | 0.88 | 0.87 | 0.85 | 0.84 | 0.83 | 0.81 | 0.79 | 0.79 | 0.77 | 0.75 | 0.71 |
| 5 | 0.88 | 0.87 | 0.87 | 0.87 | 0.85 | 0.85 | 0.84 | 0.82 | 0.80 | 0.81 | 0.78 | 0.76 | 0.77 | 0.74 | 0.72 | 0.68 |
| 6 | 0.85 | 0.84 | 0.83 | 0.84 | 0.82 | 0.81 | 0.81 | 0.79 | 0.77 | 0.78 | 0.75 | 0.73 | 0.74 | 0.71 | 0.69 | 0.65 |
| 7 | 0.82 | 0.81 | 0.80 | 0.81 | 0.79 | 0.78 | 0.78 | 0.76 | 0.74 | 0.75 | 0.72 | 0.70 | 0.72 | 0.69 | 0.66 | 0.63 |
| 8 | 0.79 | 0.78 | 0.77 | 0.78 | 0.76 | 0.76 | 0.75 | 0.73 | 0.72 | 0.73 | 0.70 | 0.68 | 0.70 | 0.67 | 0.64 | 0.61 |
| 9 | 0.76 | 0.75 | 0.75 | 0.75 | 0.74 | 0.73 | 0.73 | 0.71 | 0.69 | 0.70 | 0.68 | 0.66 | 0.68 | 0.64 | 0.62 | 0.59 |
| 10 | 0.74 | 0.73 | 0.73 | 0.73 | 0.72 | 0.71 | 0.71 | 0.69 | 0.67 | 0.68 | 0.66 | 0.64 | 0.66 | 0.62 | 0.60 | 0.57 |

