

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P821379

Luminaire Tested: **TT-D3-750-24VDC-WQ-UPL**

Issue Date: 7/23/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P821379  
REPORT IS FROM IESNA LM-79-08 TEST DATA - UPLIGHT (G2-2002-677-3) AND  
Test Lab: INNOVATION CENTER  
Issue Date: 7/23/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TT-D3-750-24VDC-WQ-UPL  
Description: TOPTIER LED PARKING GARAGE LUMINAIRE WITH UPLIGHT WITH UPLIGHT  
5000K, 70 CRI LEDS AND WIDE DISTRIBUTION  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

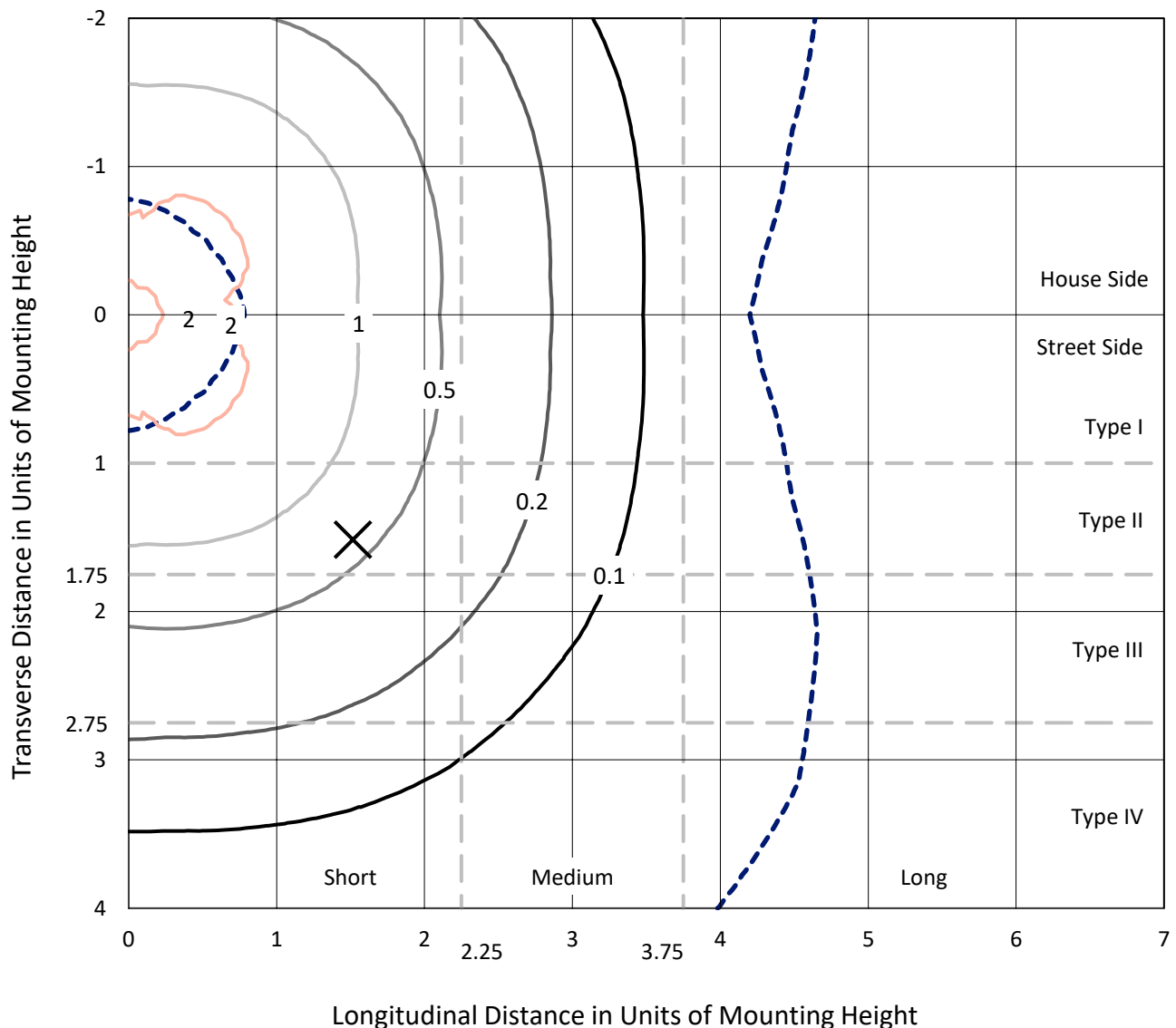
Lumens per Lamp: N/A  
Luminaire Lumens: 7263.3 lumens  
Efficiency: N/A  
Efficacy: 157.9 lumens/watt  
Luminous Opening: Vertical Cylinder (Dia: 1.12' x H: 0.1')  
IES Classification: Type V - Short  
BUG Rating: B3 - U4 - G2

Input Watts (W): 46  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT

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## Iso-Footcandle Lines of Horizontal Illumination

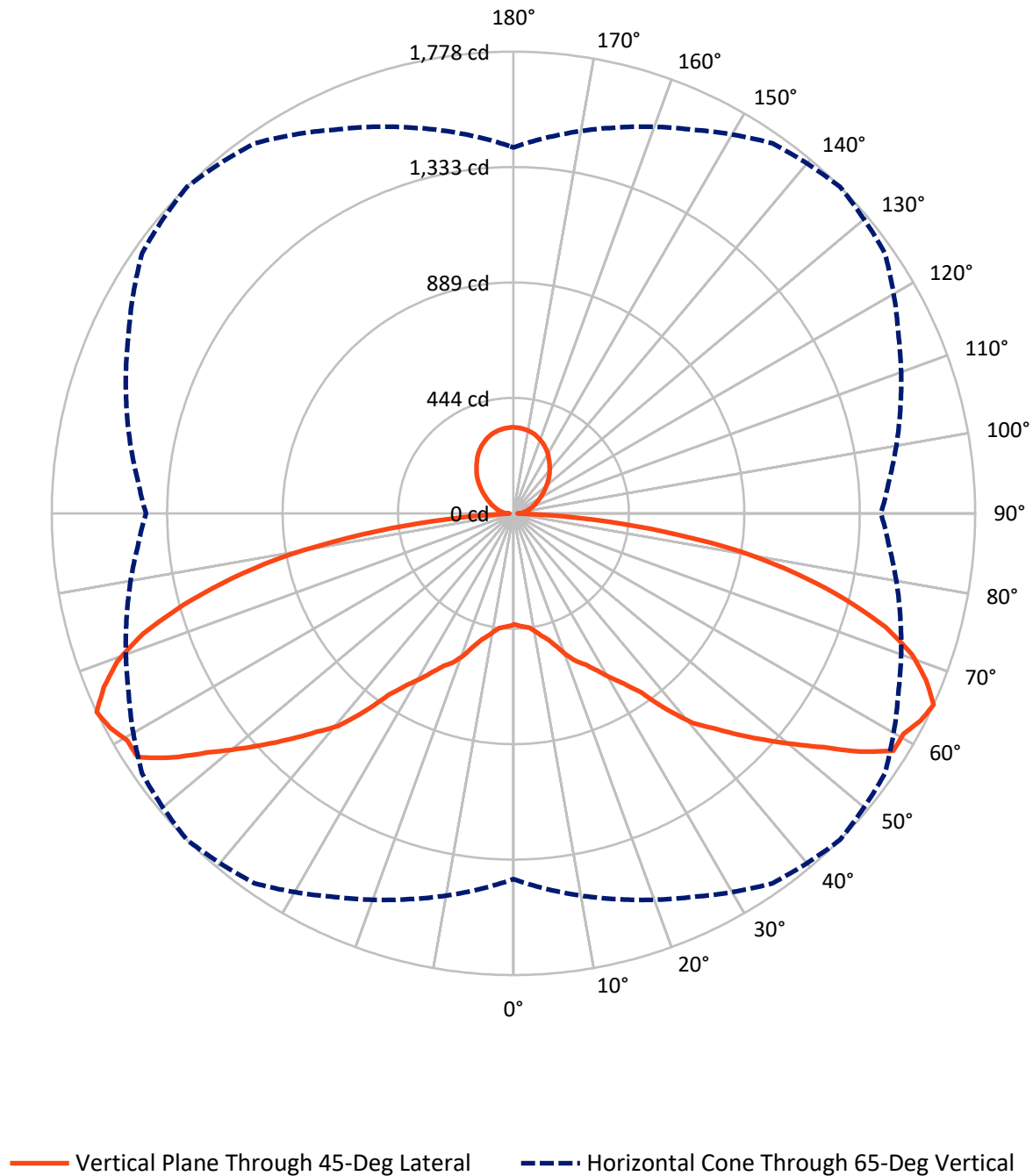
✕ Max cd  
 - - - 1/2 Max cd



Based on 15 foot mounting height. Maximum calculated value = 2.2 fc  
 Type V - Short - N/A

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## Luminous Intensity Polar Plot



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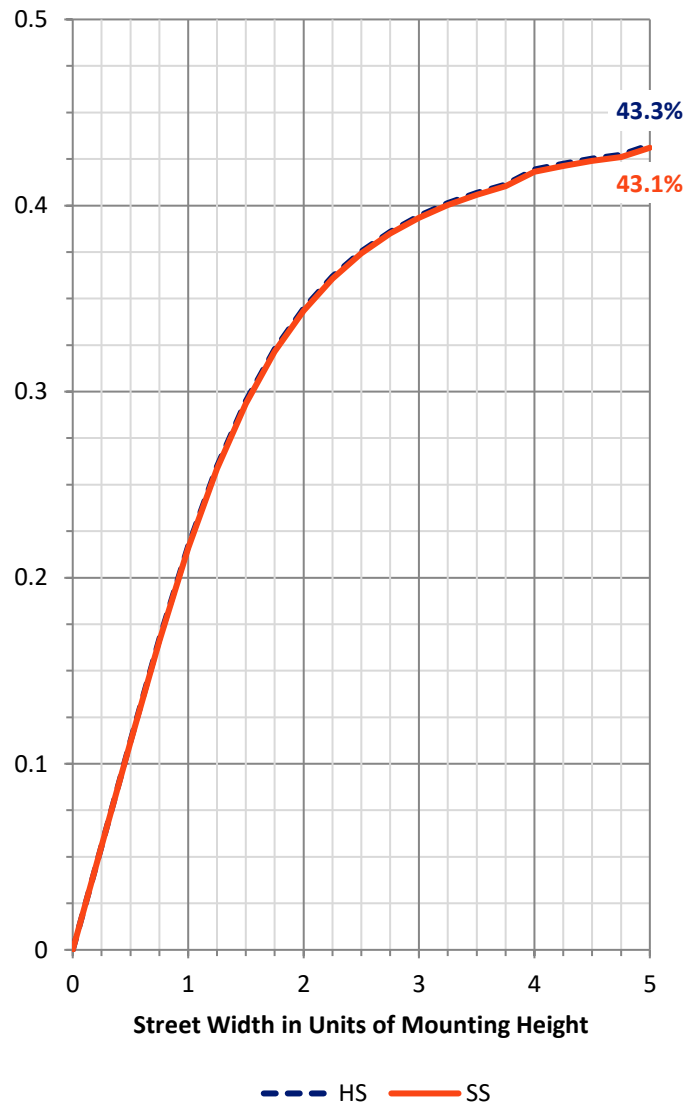
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 3181.7   | 450.0  | 3631.7 |
|                    | % Fixture | 43.8     | 6.2    | 50.0   |
| <b>Street Side</b> | Lumens    | 3181.7   | 450.0  | 3631.7 |
|                    | % Fixture | 43.8     | 6.2    | 50.0   |
| <b>Total</b>       | Lumens    | 6363.3   | 900.0  | 7263.3 |
|                    | % Fixture | 87.6     | 12.4   | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 42.7   | 0.6       |
| 10°-20°   | 146.8  | 2.0       |
| 20°-30°   | 301.4  | 4.1       |
| 30°-40°   | 535.5  | 7.4       |
| 40°-50°   | 902.6  | 12.4      |
| 50°-60°   | 1331.5 | 18.3      |
| 60°-70°   | 1562.7 | 21.5      |
| 70°-80°   | 1217.5 | 16.8      |
| 80°-90°   | 322.6  | 4.4       |
| 90°-100°  | 46.1   | 0.6       |
| 100°-110° | 71.4   | 1.0       |
| 110°-120° | 99.4   | 1.4       |
| 120°-130° | 128.8  | 1.8       |
| 130°-140° | 150.0  | 2.1       |
| 140°-150° | 152.1  | 2.1       |
| 150°-160° | 131.9  | 1.8       |
| 160°-170° | 89.0   | 1.2       |
| 170°-180° | 31.3   | 0.4       |
| 0°-90°    | 6363.3 | 87.6      |
| 0°-180°   | 7263.3 | 100.0     |



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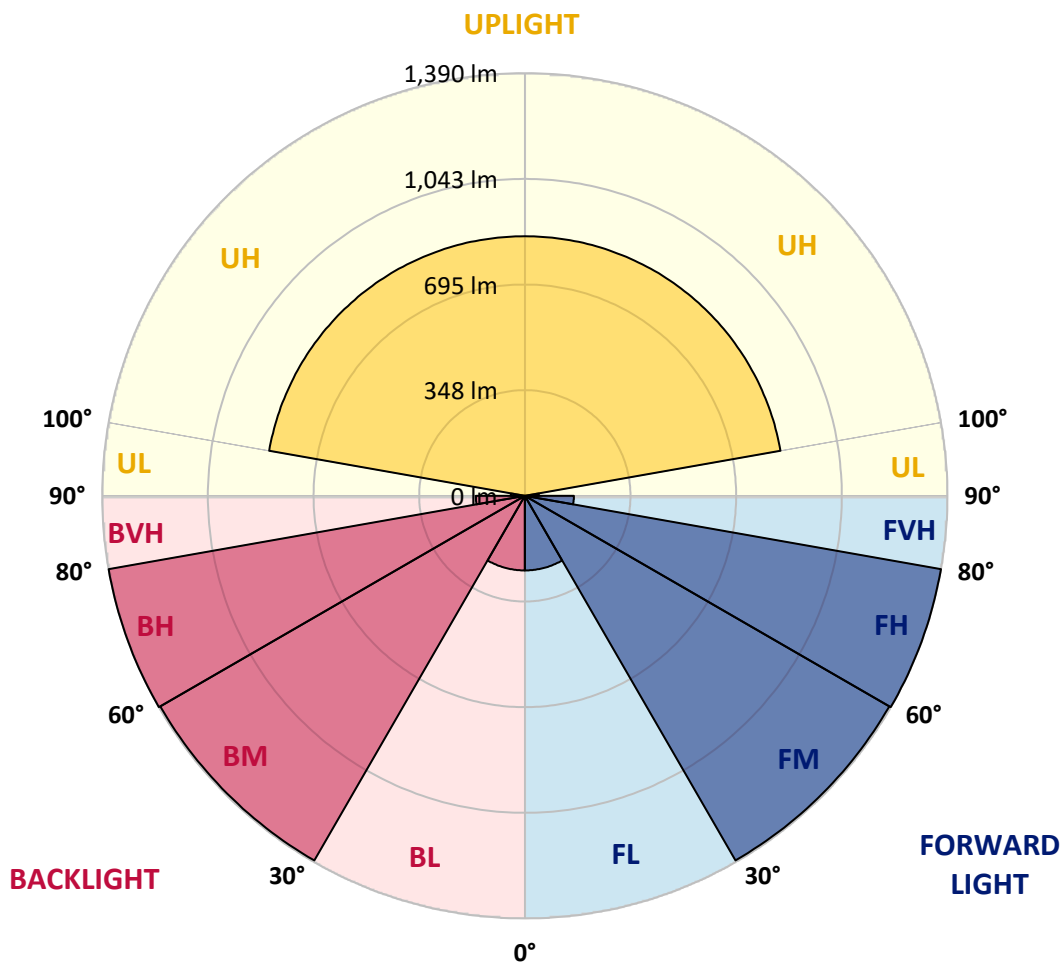
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |         |         |
|------|-------------|--------|-----------|-------------------------|---------|---------|
|      |             |        |           | B                       | U       | G       |
| FL   | (0°-30°)    | 245.4  | 3.4       |                         |         |         |
| FM   | (30°-60°)   | 1384.8 | 19.1      |                         |         |         |
| FH   | (60°-80°)   | 1390.1 | 19.1      |                         |         | G1/1800 |
| FVH  | (80°-90°)   | 161.3  | 2.2       |                         |         | G2/225  |
| BL   | (0°-30°)    | 245.4  | 3.4       | B1/500                  |         |         |
| BM   | (30°-60°)   | 1384.8 | 19.1      | B2/2500                 |         |         |
| BH   | (60°-80°)   | 1390.1 | 19.1      | B3/2500                 |         | G1/1800 |
| BVH  | (80°-90°)   | 161.3  | 2.2       |                         |         | G2/225  |
| UL   | (90°-100°)  | 46.1   | 0.6       |                         | U2/50   |         |
| UH   | (100°-180°) | 853.9  | 11.8      |                         | U4/1000 |         |

**BUG Rating: B3-U4-G2**

Type V Short





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**CANDELA DISTRIBUTION (FULL):**

|        | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°     | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  | 428.0  |
| 2.5°   | 435.0  | 435.0  | 435.0  | 434.0  | 434.0  | 434.0  | 434.0  | 435.0  | 435.0  | 435.0  | 435.0  |
| 5°     | 445.0  | 445.0  | 443.0  | 441.0  | 439.0  | 439.0  | 440.0  | 441.0  | 442.0  | 444.0  | 444.0  |
| 7.5°   | 451.0  | 451.0  | 450.0  | 448.0  | 445.0  | 445.0  | 446.0  | 448.0  | 449.0  | 449.0  | 448.0  |
| 10°    | 459.0  | 460.0  | 463.0  | 464.0  | 462.0  | 462.0  | 463.0  | 464.0  | 462.0  | 459.0  | 459.0  |
| 12.5°  | 478.0  | 479.0  | 483.0  | 486.0  | 486.0  | 484.0  | 485.0  | 487.0  | 482.0  | 477.0  | 478.0  |
| 15°    | 505.0  | 505.0  | 506.0  | 509.0  | 507.0  | 505.0  | 507.0  | 508.0  | 505.0  | 504.0  | 506.0  |
| 17.5°  | 541.0  | 541.0  | 535.0  | 540.0  | 541.0  | 540.0  | 542.0  | 537.0  | 534.0  | 538.0  | 540.0  |
| 20°    | 580.0  | 576.0  | 573.0  | 577.0  | 585.0  | 582.0  | 586.0  | 575.0  | 572.0  | 574.0  | 575.0  |
| 22.5°  | 605.0  | 608.0  | 610.0  | 612.0  | 623.0  | 619.0  | 623.0  | 611.0  | 609.0  | 605.0  | 602.0  |
| 25°    | 635.0  | 638.0  | 650.0  | 644.0  | 651.0  | 645.0  | 650.0  | 643.0  | 647.0  | 635.0  | 635.0  |
| 27.5°  | 669.0  | 675.0  | 682.0  | 679.0  | 688.0  | 685.0  | 688.0  | 678.0  | 679.0  | 674.0  | 672.0  |
| 30°    | 715.0  | 715.0  | 713.0  | 719.0  | 735.0  | 733.0  | 734.0  | 721.0  | 712.0  | 713.0  | 717.0  |
| 32.5°  | 761.0  | 755.0  | 758.0  | 776.0  | 786.0  | 782.0  | 784.0  | 778.0  | 758.0  | 754.0  | 757.0  |
| 35°    | 804.0  | 813.0  | 820.0  | 835.0  | 849.0  | 847.0  | 846.0  | 836.0  | 823.0  | 807.0  | 802.0  |
| 37.5°  | 871.0  | 881.0  | 900.0  | 927.0  | 952.0  | 957.0  | 944.0  | 931.0  | 901.0  | 878.0  | 866.0  |
| 40°    | 959.0  | 960.0  | 982.0  | 1034.0 | 1057.0 | 1061.0 | 1054.0 | 1032.0 | 986.0  | 960.0  | 959.0  |
| 42.5°  | 1036.0 | 1029.0 | 1065.0 | 1108.9 | 1129.9 | 1131.9 | 1126.9 | 1108.9 | 1065.0 | 1028.0 | 1035.0 |
| 45°    | 1096.0 | 1096.0 | 1138.9 | 1173.9 | 1207.9 | 1215.9 | 1206.9 | 1168.9 | 1139.9 | 1096.9 | 1094.0 |
| 47.5°  | 1150.9 | 1165.9 | 1201.9 | 1244.9 | 1292.9 | 1303.9 | 1292.9 | 1247.9 | 1198.9 | 1166.9 | 1149.9 |
| 50°    | 1216.9 | 1234.9 | 1260.9 | 1327.9 | 1381.9 | 1396.9 | 1380.9 | 1331.9 | 1260.9 | 1233.9 | 1223.9 |
| 52.5°  | 1293.9 | 1308.9 | 1349.9 | 1433.9 | 1473.9 | 1495.9 | 1482.9 | 1435.9 | 1351.9 | 1310.9 | 1302.9 |
| 55°    | 1385.9 | 1371.9 | 1435.9 | 1516.9 | 1590.9 | 1619.9 | 1593.9 | 1518.9 | 1445.9 | 1371.9 | 1385.9 |
| 57.5°  | 1432.9 | 1416.9 | 1506.9 | 1583.9 | 1686.9 | 1724.9 | 1692.9 | 1589.9 | 1506.9 | 1421.9 | 1431.9 |
| 60°    | 1436.9 | 1443.9 | 1511.9 | 1637.9 | 1708.9 | 1724.9 | 1714.9 | 1646.9 | 1514.9 | 1449.9 | 1430.9 |
| 62.5°  | 1424.9 | 1467.9 | 1525.9 | 1655.9 | 1719.9 | 1758.9 | 1724.9 | 1657.9 | 1531.9 | 1474.9 | 1425.9 |
| 65°    | 1408.9 | 1451.9 | 1537.9 | 1629.9 | 1738.9 | 1777.9 | 1745.9 | 1634.9 | 1541.9 | 1451.9 | 1414.9 |
| 67.5°  | 1380.9 | 1365.9 | 1471.9 | 1594.9 | 1689.9 | 1712.9 | 1692.9 | 1596.9 | 1470.9 | 1363.9 | 1383.9 |
| 70°    | 1291.9 | 1278.9 | 1369.9 | 1504.9 | 1595.9 | 1627.9 | 1603.9 | 1506.9 | 1371.9 | 1281.9 | 1293.9 |
| 72.5°  | 1159.9 | 1163.9 | 1251.9 | 1380.9 | 1478.9 | 1498.9 | 1485.9 | 1379.9 | 1256.9 | 1168.9 | 1152.9 |
| 75°    | 1006.0 | 1016.0 | 1099.9 | 1216.9 | 1305.9 | 1317.9 | 1304.9 | 1221.9 | 1098.9 | 1022.0 | 1001.0 |
| 77.5°  | 827.0  | 842.0  | 910.0  | 1027.0 | 1086.0 | 1112.9 | 1092.0 | 1030.0 | 915.0  | 846.0  | 825.0  |
| 80°    | 641.0  | 646.0  | 694.0  | 788.0  | 866.0  | 884.0  | 864.0  | 791.0  | 700.0  | 648.0  | 633.0  |
| 82.5°  | 420.0  | 428.0  | 471.0  | 543.0  | 594.0  | 589.0  | 594.0  | 537.0  | 476.0  | 426.0  | 401.0  |
| 85°    | 187.0  | 203.0  | 232.0  | 266.0  | 299.0  | 308.0  | 299.0  | 270.0  | 232.0  | 199.0  | 195.0  |
| 87.5°  | 13.0   | 15.0   | 18.0   | 19.0   | 21.0   | 16.0   | 16.0   | 16.0   | 14.0   | 16.0   | 13.0   |
| 90°    | 32.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   | 31.5   |
| 92.5°  | 37.6   | 37.1   | 37.1   | 36.6   | 36.6   | 36.6   | 36.6   | 36.6   | 36.6   | 36.6   | 36.6   |
| 95°    | 42.7   | 42.7   | 42.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   | 41.7   |
| 97.5°  | 48.3   | 48.3   | 48.3   | 47.8   | 47.8   | 47.8   | 47.8   | 47.8   | 47.8   | 47.8   | 47.8   |
| 100°   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   | 53.9   |
| 102.5° | 60.5   | 60.5   | 60.5   | 60.5   | 60.5   | 60.5   | 60.5   | 61.0   | 60.5   | 60.5   | 60.5   |
| 105°   | 67.1   | 67.1   | 67.1   | 67.1   | 67.1   | 67.1   | 67.1   | 68.1   | 67.1   | 67.1   | 67.1   |
| 107.5° | 74.2   | 74.2   | 74.7   | 74.7   | 74.7   | 74.7   | 74.7   | 75.2   | 74.7   | 74.7   | 74.7   |
| 110°   | 81.3   | 81.3   | 82.3   | 82.3   | 82.3   | 82.3   | 82.3   | 82.3   | 82.3   | 82.3   | 82.3   |



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**CANDELA DISTRIBUTION (continued):**

|        | 0°    | 5°    | 15°   | 25°   | 35°   | 45°   | 55°   | 65°   | 75°   | 85°   | 90°   |
|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 89.9  | 89.9  | 90.9  | 90.9  | 90.9  | 90.9  | 91.4  | 91.4  | 90.9  | 90.9  | 90.9  |
| 115°   | 98.6  | 98.6  | 99.6  | 99.6  | 99.6  | 99.6  | 100.6 | 100.6 | 99.6  | 99.6  | 99.6  |
| 117.5° | 108.8 | 108.8 | 109.2 | 109.8 | 109.8 | 109.8 | 110.8 | 110.8 | 109.8 | 109.8 | 109.8 |
| 120°   | 118.9 | 118.9 | 118.9 | 119.9 | 119.9 | 119.9 | 121.0 | 121.0 | 119.9 | 119.9 | 119.9 |
| 122.5° | 130.6 | 130.6 | 131.1 | 131.6 | 131.6 | 131.6 | 132.6 | 132.6 | 132.1 | 132.1 | 131.6 |
| 125°   | 142.3 | 142.3 | 143.3 | 143.3 | 143.3 | 143.3 | 144.3 | 144.3 | 144.3 | 144.3 | 143.3 |
| 127.5° | 155.0 | 155.0 | 156.0 | 156.0 | 156.0 | 156.0 | 157.0 | 157.0 | 157.0 | 157.0 | 156.0 |
| 130°   | 167.7 | 167.7 | 168.7 | 168.7 | 168.7 | 168.7 | 169.7 | 169.7 | 169.7 | 169.7 | 168.7 |
| 132.5° | 180.9 | 180.9 | 181.4 | 181.4 | 181.4 | 181.4 | 182.4 | 182.4 | 182.4 | 182.4 | 181.9 |
| 135°   | 194.1 | 194.1 | 194.1 | 194.1 | 194.1 | 195.1 | 195.1 | 195.1 | 195.1 | 195.1 | 195.1 |
| 137.5° | 206.8 | 206.3 | 206.8 | 206.3 | 206.8 | 207.3 | 207.3 | 207.3 | 207.3 | 207.3 | 207.3 |
| 140°   | 219.5 | 218.5 | 219.5 | 218.5 | 219.5 | 219.5 | 219.5 | 219.5 | 219.5 | 219.5 | 219.5 |
| 142.5° | 231.2 | 230.7 | 231.2 | 230.2 | 231.2 | 231.2 | 231.2 | 231.2 | 231.2 | 231.2 | 231.2 |
| 145°   | 242.9 | 242.9 | 242.9 | 241.9 | 242.9 | 242.9 | 242.9 | 242.9 | 242.9 | 242.9 | 242.9 |
| 147.5° | 255.1 | 254.6 | 255.1 | 254.1 | 255.1 | 255.1 | 255.1 | 255.1 | 255.1 | 255.1 | 255.1 |
| 150°   | 267.3 | 266.3 | 267.3 | 266.3 | 267.3 | 267.3 | 267.3 | 267.3 | 267.3 | 267.3 | 267.3 |
| 152.5° | 277.0 | 276.5 | 277.5 | 276.5 | 277.0 | 277.0 | 277.5 | 277.0 | 277.0 | 277.0 | 277.0 |
| 155°   | 286.6 | 286.6 | 287.6 | 286.6 | 286.6 | 286.6 | 287.6 | 286.6 | 286.6 | 286.6 | 286.6 |
| 157.5° | 294.8 | 294.8 | 295.8 | 294.8 | 294.8 | 294.8 | 295.8 | 294.8 | 294.8 | 294.8 | 294.8 |
| 160°   | 302.9 | 302.9 | 303.9 | 302.9 | 302.9 | 302.9 | 303.9 | 302.9 | 302.9 | 302.9 | 302.9 |
| 162.5° | 309.5 | 309.5 | 310.5 | 309.5 | 309.5 | 309.5 | 310.5 | 309.5 | 309.5 | 309.5 | 309.5 |
| 165°   | 316.1 | 316.1 | 317.1 | 316.1 | 316.1 | 316.1 | 317.1 | 316.1 | 316.1 | 316.1 | 316.1 |
| 167.5° | 320.2 | 320.2 | 321.2 | 320.2 | 320.2 | 320.2 | 321.2 | 320.2 | 320.2 | 320.2 | 320.2 |
| 170°   | 324.2 | 324.2 | 325.2 | 324.2 | 324.2 | 324.2 | 325.2 | 324.2 | 324.2 | 324.2 | 324.2 |
| 172.5° | 326.8 | 326.8 | 327.8 | 326.8 | 327.2 | 326.8 | 327.8 | 326.8 | 326.8 | 326.8 | 326.8 |
| 175°   | 329.3 | 329.3 | 330.3 | 329.3 | 330.3 | 329.3 | 330.3 | 329.3 | 329.3 | 329.3 | 329.3 |
| 177.5° | 330.3 | 330.3 | 330.8 | 330.3 | 330.8 | 330.3 | 330.8 | 330.3 | 330.3 | 330.3 | 330.3 |
| 180°   | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 | 331.3 |

(END OF REPORT)