

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: P823447

Luminaire Tested: **TTN-D3-740-U-DL**

Issue Date: 4/16/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P823447  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2312-254-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 4/16/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: TTN-D3-740-U-DL  
Description: TOPTIER NANO LED PARKING GARAGE LUMINAIRE  
4000K, 70 CRI LEDS AND DRIVE LANE DISTRIBUTION  
Light Source: -  
Ballast/Driver: -

**Summary**

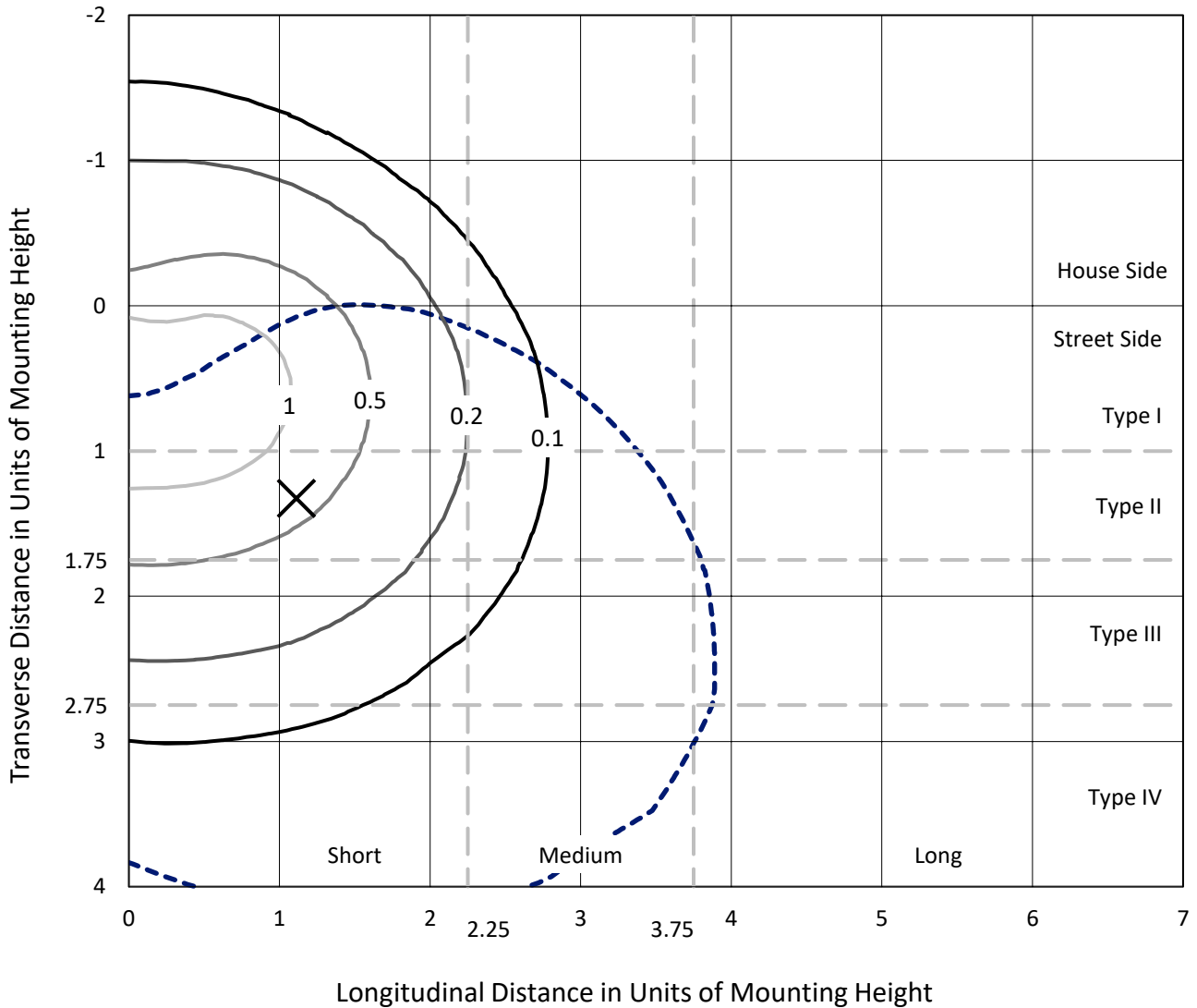
Lumens per Lamp: N/A  
Luminaire Lumens: 6670 lumens  
Efficiency: N/A  
Efficacy: 112.7 lumens/watt  
Luminous Opening: Circular (Dia: 0.71' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G3  
  
Input Watts (W): 59.2  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage 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: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

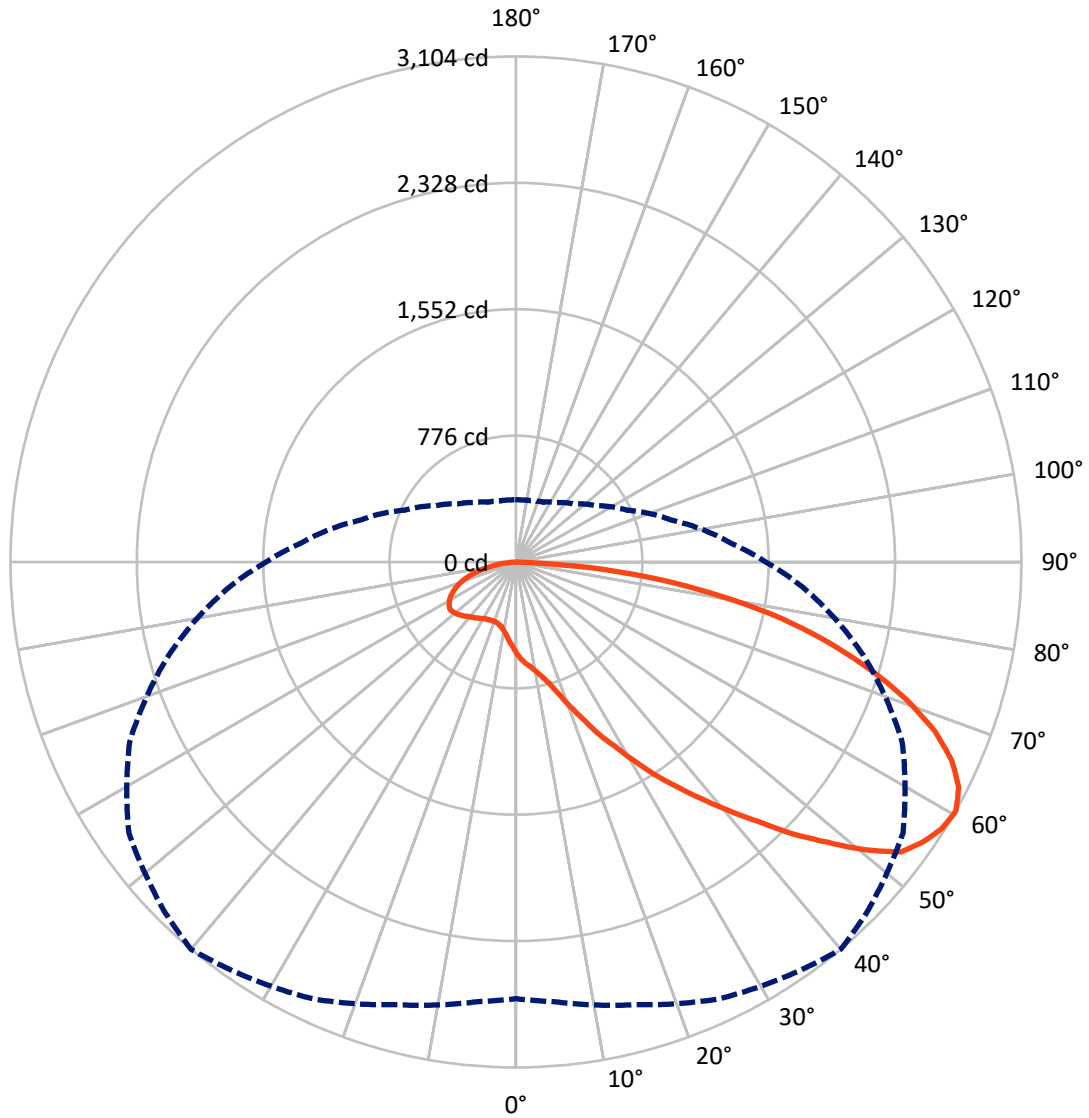
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.5 fc  
 Type IV - Short - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral    - - - Horizontal Cone Through 60-Deg Vertical

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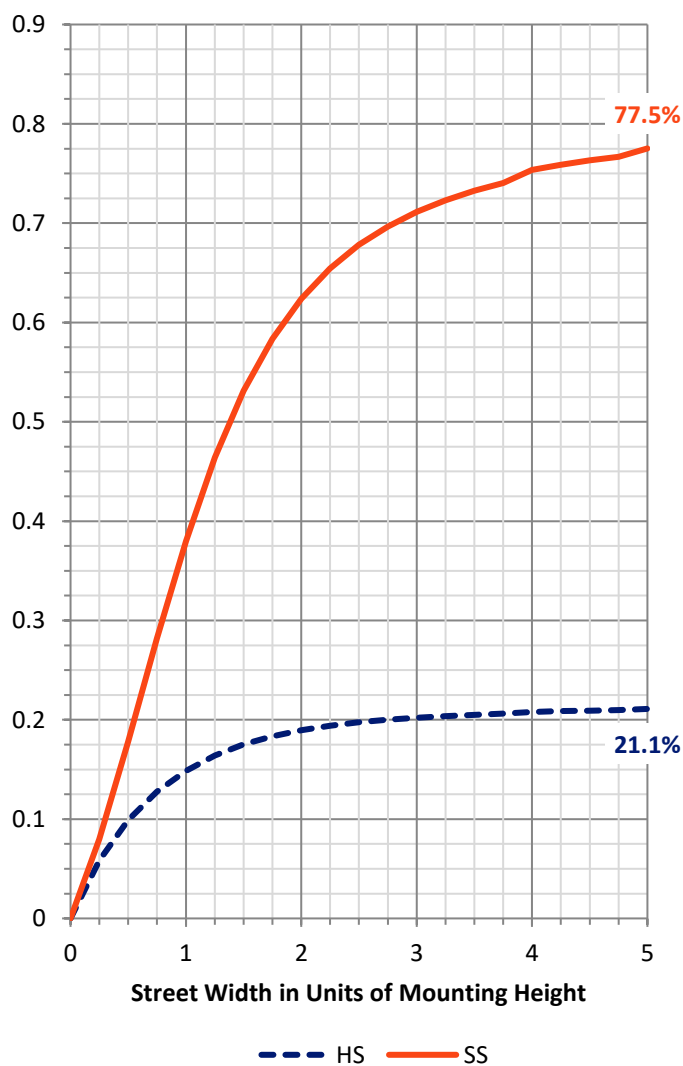
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1420.4   | 0.0    | 1420.4 |
|                    | % Fixture | 21.3     | 0.0    | 21.3   |
| <b>Street Side</b> | Lumens    | 5249.6   | 0.0    | 5249.6 |
|                    | % Fixture | 78.7     | 0.0    | 78.7   |
| <b>Total</b>       | Lumens    | 6670.0   | 0.0    | 6670.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 53.0   | 0.8       |
| 10°-20°   | 169.1  | 2.5       |
| 20°-30°   | 357.2  | 5.4       |
| 30°-40°   | 652.8  | 9.8       |
| 40°-50°   | 1060.8 | 15.9      |
| 50°-60°   | 1474.4 | 22.1      |
| 60°-70°   | 1528.4 | 22.9      |
| 70°-80°   | 1095.2 | 16.4      |
| 80°-90°   | 279.2  | 4.2       |
| 90°-100°  | 0.0    | 0.0       |
| 100°-110° | 0.0    | 0.0       |
| 110°-120° | 0.0    | 0.0       |
| 120°-130° | 0.0    | 0.0       |
| 130°-140° | 0.0    | 0.0       |
| 140°-150° | 0.0    | 0.0       |
| 150°-160° | 0.0    | 0.0       |
| 160°-170° | 0.0    | 0.0       |
| 170°-180° | 0.0    | 0.0       |
| 0°-90°    | 6670.0 | 100.0     |
| 0°-180°   | 6670.0 | 100.0     |

**Coefficient of Utilization**

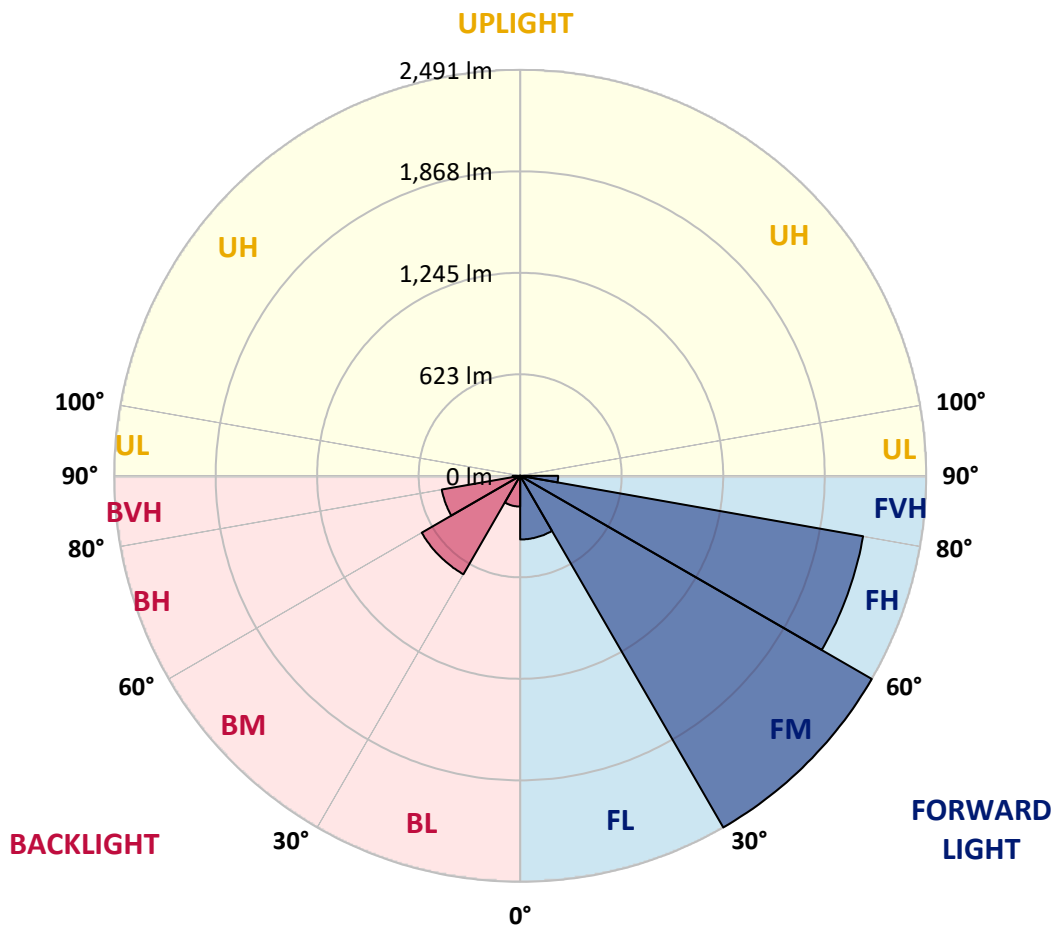


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 390.3  | 5.9       |                         |      |         |
| FM (30°-60°)   | 2490.6 | 37.3      |                         |      |         |
| FH (60°-80°)   | 2136.1 | 32.0      |                         |      | G2/5000 |
| FVH (80°-90°)  | 232.6  | 3.5       |                         |      | G3/500  |
| BL (0°-30°)    | 188.9  | 2.8       | B1/500                  |      |         |
| BM (30°-60°)   | 697.3  | 10.5      | B1/1000                 |      |         |
| BH (60°-80°)   | 487.5  | 7.3       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 46.6   | 0.7       |                         |      | G1/100  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G3**  
 Type IV Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 40°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  | 561.8  |
| 2.5°  | 602.3  | 602.3  | 602.3  | 602.3  | 596.5  | 596.5  | 590.7  | 584.9  | 579.1  | 573.3  | 561.8  |
| 5°    | 654.4  | 654.4  | 648.6  | 642.8  | 631.3  | 625.5  | 619.7  | 608.1  | 596.5  | 584.9  | 567.6  |
| 7.5°  | 677.6  | 677.6  | 677.6  | 671.8  | 654.4  | 648.6  | 637.0  | 619.7  | 602.3  | 584.9  | 561.8  |
| 10°   | 718.1  | 718.1  | 712.3  | 706.5  | 689.2  | 683.4  | 671.8  | 648.6  | 619.7  | 590.7  | 561.8  |
| 12.5° | 770.2  | 764.5  | 758.7  | 752.9  | 735.5  | 723.9  | 706.5  | 683.4  | 648.6  | 613.9  | 579.1  |
| 15°   | 834.0  | 822.4  | 822.4  | 810.8  | 793.4  | 776.0  | 764.5  | 729.7  | 695.0  | 648.6  | 602.3  |
| 17.5° | 903.5  | 897.7  | 891.9  | 880.3  | 862.9  | 851.3  | 834.0  | 793.4  | 747.1  | 689.2  | 637.0  |
| 20°   | 990.3  | 978.7  | 984.5  | 967.2  | 949.8  | 944.0  | 915.0  | 868.7  | 810.8  | 747.1  | 683.4  |
| 22.5° | 1094.6 | 1083.0 | 1083.0 | 1065.6 | 1054.0 | 1042.4 | 1013.5 | 961.4  | 886.1  | 816.6  | 735.5  |
| 25°   | 1210.4 | 1198.8 | 1198.8 | 1187.2 | 1175.6 | 1164.1 | 1129.3 | 1071.4 | 984.5  | 897.7  | 805.0  |
| 27.5° | 1337.8 | 1326.2 | 1326.2 | 1320.4 | 1291.5 | 1274.1 | 1245.1 | 1181.4 | 1094.6 | 984.5  | 874.5  |
| 30°   | 1471.0 | 1459.4 | 1471.0 | 1459.4 | 1442.0 | 1407.3 | 1372.6 | 1303.1 | 1204.6 | 1083.0 | 949.8  |
| 32.5° | 1575.2 | 1575.2 | 1581.0 | 1592.6 | 1581.0 | 1552.1 | 1511.5 | 1453.6 | 1320.4 | 1169.9 | 1019.3 |
| 35°   | 1696.9 | 1696.9 | 1708.4 | 1725.8 | 1720.0 | 1691.1 | 1650.5 | 1586.8 | 1447.8 | 1268.3 | 1094.6 |
| 37.5° | 1830.1 | 1830.1 | 1841.6 | 1870.6 | 1859.0 | 1841.6 | 1812.7 | 1731.6 | 1575.2 | 1366.8 | 1175.6 |
| 40°   | 1974.9 | 1969.1 | 1980.6 | 2021.2 | 2027.0 | 2003.8 | 1969.1 | 1888.0 | 1708.4 | 1494.2 | 1262.5 |
| 42.5° | 2119.6 | 2113.8 | 2137.0 | 2177.5 | 2183.3 | 2177.5 | 2142.8 | 2050.1 | 1847.4 | 1621.6 | 1349.4 |
| 45°   | 2264.4 | 2264.4 | 2299.2 | 2362.9 | 2391.8 | 2380.2 | 2351.3 | 2235.5 | 2021.2 | 1754.8 | 1465.2 |
| 47.5° | 2415.0 | 2415.0 | 2461.3 | 2542.4 | 2577.2 | 2571.4 | 2559.8 | 2420.8 | 2189.1 | 1893.8 | 1563.7 |
| 50°   | 2530.8 | 2530.8 | 2606.1 | 2698.8 | 2756.7 | 2779.8 | 2721.9 | 2594.5 | 2333.9 | 2015.4 | 1644.7 |
| 52.5° | 2646.6 | 2646.6 | 2721.9 | 2866.7 | 2924.6 | 2959.4 | 2884.1 | 2750.9 | 2496.1 | 2125.4 | 1720.0 |
| 55°   | 2704.6 | 2716.1 | 2820.4 | 2959.4 | 3052.0 | 3034.7 | 3063.6 | 2884.1 | 2600.3 | 2206.5 | 1766.4 |
| 57.5° | 2710.4 | 2727.7 | 2843.6 | 2988.3 | 3092.6 | 3086.8 | 3092.6 | 2930.4 | 2640.9 | 2223.9 | 1772.2 |
| 60°   | 2681.4 | 2710.4 | 2814.6 | 2959.4 | 3057.8 | 3104.2 | 3046.3 | 2901.5 | 2617.7 | 2206.5 | 1766.4 |
| 62.5° | 2611.9 | 2669.8 | 2779.8 | 2889.9 | 3034.7 | 3052.0 | 3005.7 | 2884.1 | 2554.0 | 2189.1 | 1737.4 |
| 65°   | 2455.5 | 2519.2 | 2675.6 | 2803.0 | 2918.8 | 2942.0 | 2889.9 | 2785.6 | 2490.3 | 2108.1 | 1644.7 |
| 67.5° | 2299.2 | 2339.7 | 2472.9 | 2669.8 | 2750.9 | 2774.1 | 2756.7 | 2635.1 | 2380.2 | 1945.9 | 1534.7 |
| 70°   | 2119.6 | 2171.8 | 2276.0 | 2478.7 | 2559.8 | 2554.0 | 2606.1 | 2467.1 | 2212.3 | 1806.9 | 1418.9 |
| 72.5° | 1876.4 | 1951.7 | 2055.9 | 2223.9 | 2322.3 | 2287.6 | 2368.7 | 2252.8 | 1992.2 | 1633.2 | 1262.5 |
| 75°   | 1592.6 | 1656.3 | 1789.5 | 1922.7 | 2032.8 | 1992.2 | 2055.9 | 1974.9 | 1737.4 | 1424.7 | 1083.0 |
| 77.5° | 1274.1 | 1349.4 | 1471.0 | 1592.6 | 1667.9 | 1667.9 | 1696.9 | 1627.4 | 1442.0 | 1169.9 | 886.1  |
| 80°   | 944.0  | 1013.5 | 1123.5 | 1210.4 | 1279.9 | 1285.7 | 1314.6 | 1279.9 | 1111.9 | 909.2  | 677.6  |
| 82.5° | 625.5  | 660.2  | 758.7  | 828.2  | 897.7  | 891.9  | 938.2  | 915.0  | 776.0  | 625.5  | 451.7  |
| 85°   | 266.4  | 289.6  | 370.6  | 428.6  | 492.3  | 469.1  | 532.8  | 527.0  | 417.0  | 301.2  | 202.7  |
| 87.5° | 11.6   | 17.4   | 17.4   | 11.6   | 17.4   | 5.8    | 17.4   | 23.2   | 17.4   | 11.6   | 11.6   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |



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**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°  | 125°  | 135°  | 145°  | 155°  | 165°  | 175°  | 180°  |
|-------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0°    | 561.8  | 561.8  | 561.8  | 561.8 | 561.8 | 561.8 | 561.8 | 561.8 | 561.8 | 561.8 | 561.8 |
| 2.5°  | 561.8  | 556.0  | 544.4  | 538.6 | 532.8 | 521.2 | 521.2 | 515.4 | 515.4 | 515.4 | 509.6 |
| 5°    | 561.8  | 550.2  | 538.6  | 521.2 | 509.6 | 498.1 | 486.5 | 474.9 | 469.1 | 469.1 | 463.3 |
| 7.5°  | 550.2  | 538.6  | 521.2  | 503.8 | 486.5 | 463.3 | 451.7 | 428.6 | 422.8 | 417.0 | 417.0 |
| 10°   | 550.2  | 538.6  | 509.6  | 486.5 | 463.3 | 440.1 | 422.8 | 399.6 | 382.2 | 376.4 | 376.4 |
| 12.5° | 556.0  | 538.6  | 509.6  | 480.7 | 451.7 | 422.8 | 399.6 | 376.4 | 359.1 | 347.5 | 347.5 |
| 15°   | 579.1  | 556.0  | 521.2  | 480.7 | 445.9 | 411.2 | 388.0 | 359.1 | 341.7 | 330.1 | 330.1 |
| 17.5° | 608.1  | 584.9  | 532.8  | 486.5 | 445.9 | 405.4 | 376.4 | 347.5 | 330.1 | 318.5 | 312.7 |
| 20°   | 648.6  | 613.9  | 556.0  | 492.3 | 445.9 | 405.4 | 370.6 | 341.7 | 318.5 | 306.9 | 306.9 |
| 22.5° | 695.0  | 654.4  | 579.1  | 503.8 | 451.7 | 405.4 | 370.6 | 335.9 | 312.7 | 301.2 | 301.2 |
| 25°   | 752.9  | 700.8  | 613.9  | 527.0 | 463.3 | 411.2 | 370.6 | 335.9 | 312.7 | 301.2 | 301.2 |
| 27.5° | 816.6  | 758.7  | 648.6  | 550.2 | 474.9 | 417.0 | 370.6 | 335.9 | 312.7 | 301.2 | 301.2 |
| 30°   | 874.5  | 810.8  | 683.4  | 573.3 | 492.3 | 422.8 | 376.4 | 341.7 | 318.5 | 306.9 | 301.2 |
| 32.5° | 938.2  | 857.1  | 718.1  | 596.5 | 503.8 | 434.4 | 382.2 | 347.5 | 318.5 | 306.9 | 306.9 |
| 35°   | 1001.9 | 915.0  | 752.9  | 625.5 | 521.2 | 445.9 | 388.0 | 353.3 | 324.3 | 312.7 | 312.7 |
| 37.5° | 1071.4 | 978.7  | 793.4  | 648.6 | 538.6 | 457.5 | 399.6 | 359.1 | 330.1 | 318.5 | 318.5 |
| 40°   | 1152.5 | 1042.4 | 834.0  | 677.6 | 556.0 | 469.1 | 405.4 | 370.6 | 341.7 | 330.1 | 330.1 |
| 42.5° | 1227.8 | 1100.4 | 874.5  | 700.8 | 573.3 | 480.7 | 417.0 | 376.4 | 353.3 | 341.7 | 341.7 |
| 45°   | 1303.1 | 1169.9 | 915.0  | 729.7 | 590.7 | 498.1 | 428.6 | 393.8 | 364.9 | 353.3 | 353.3 |
| 47.5° | 1389.9 | 1233.6 | 961.4  | 752.9 | 608.1 | 509.6 | 440.1 | 405.4 | 376.4 | 370.6 | 364.9 |
| 50°   | 1459.4 | 1279.9 | 990.3  | 776.0 | 619.7 | 521.2 | 451.7 | 411.2 | 388.0 | 376.4 | 376.4 |
| 52.5° | 1523.1 | 1326.2 | 1013.5 | 787.6 | 625.5 | 527.0 | 463.3 | 422.8 | 399.6 | 388.0 | 388.0 |
| 55°   | 1557.9 | 1343.6 | 1030.9 | 787.6 | 631.3 | 532.8 | 463.3 | 422.8 | 399.6 | 393.8 | 388.0 |
| 57.5° | 1557.9 | 1343.6 | 1019.3 | 776.0 | 619.7 | 521.2 | 457.5 | 417.0 | 399.6 | 388.0 | 388.0 |
| 60°   | 1534.7 | 1326.2 | 990.3  | 752.9 | 602.3 | 503.8 | 445.9 | 405.4 | 388.0 | 382.2 | 382.2 |
| 62.5° | 1500.0 | 1297.3 | 967.2  | 723.9 | 579.1 | 480.7 | 428.6 | 388.0 | 376.4 | 376.4 | 370.6 |
| 65°   | 1407.3 | 1210.4 | 915.0  | 683.4 | 544.4 | 451.7 | 405.4 | 370.6 | 359.1 | 353.3 | 347.5 |
| 67.5° | 1308.8 | 1129.3 | 834.0  | 637.0 | 498.1 | 422.8 | 376.4 | 347.5 | 330.1 | 330.1 | 324.3 |
| 70°   | 1210.4 | 1042.4 | 758.7  | 573.3 | 445.9 | 388.0 | 341.7 | 312.7 | 301.2 | 301.2 | 301.2 |
| 72.5° | 1077.2 | 932.4  | 671.8  | 503.8 | 393.8 | 341.7 | 306.9 | 278.0 | 272.2 | 272.2 | 266.4 |
| 75°   | 920.8  | 793.4  | 567.6  | 428.6 | 330.1 | 289.6 | 260.6 | 231.7 | 231.7 | 231.7 | 231.7 |
| 77.5° | 752.9  | 642.8  | 451.7  | 341.7 | 260.6 | 231.7 | 214.3 | 191.1 | 191.1 | 191.1 | 191.1 |
| 80°   | 567.6  | 474.9  | 330.1  | 249.0 | 191.1 | 167.9 | 156.4 | 144.8 | 150.6 | 150.6 | 144.8 |
| 82.5° | 370.6  | 312.7  | 208.5  | 156.4 | 121.6 | 110.0 | 110.0 | 98.5  | 104.2 | 104.2 | 104.2 |
| 85°   | 162.2  | 139.0  | 86.9   | 69.5  | 57.9  | 57.9  | 57.9  | 52.1  | 57.9  | 57.9  | 57.9  |
| 87.5° | 11.6   | 11.6   | 11.6   | 11.6  | 11.6  | 11.6  | 11.6  | 0.0   | 5.8   | 11.6  | 5.8   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |

(END OF REPORT)