

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: STREETWORKS

Report Number: P270785

Luminaire Tested: **NVN-AF-01-LED-U-T3-7027**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270785  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (p24135)  
Test Lab: INNOVATION CENTER P2  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-AF-01-LED-U-T3-7027  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 5308.8 lumens  
Efficiency: N/A  
Efficacy: 90.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2

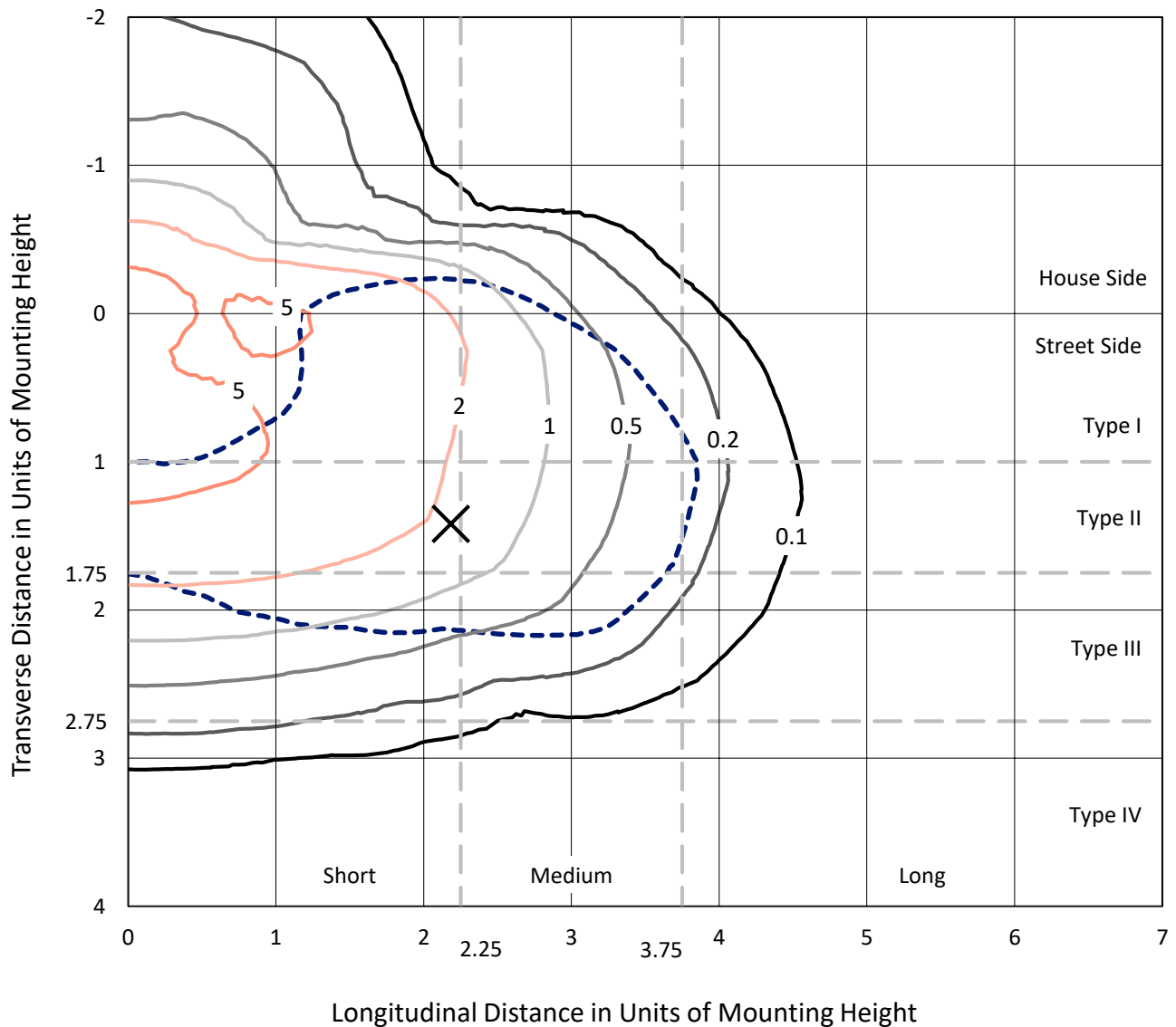
Input Watts (W): 59  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

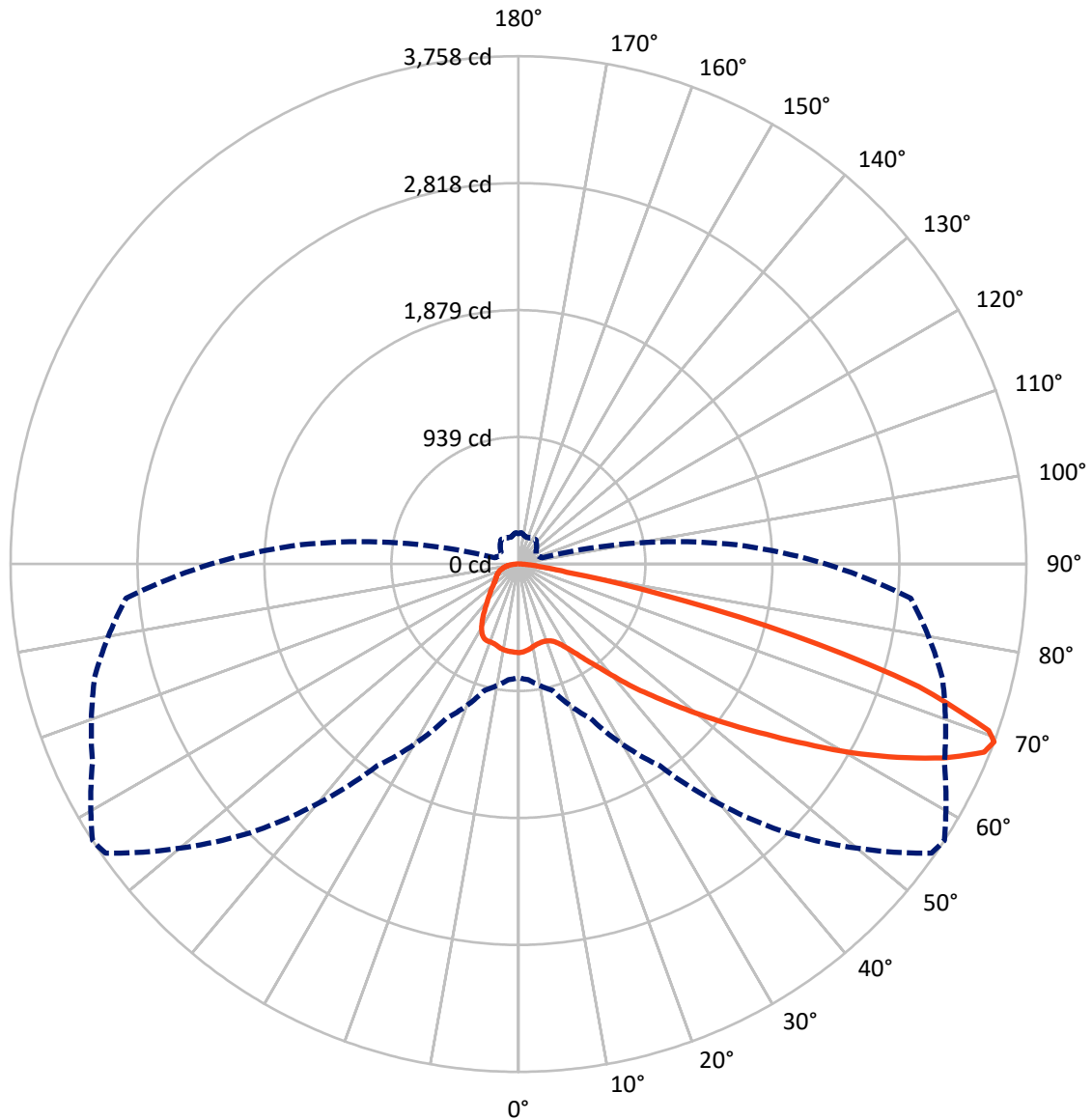
✕ Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 6.7 fc  
 Type III - Short - Semi-Cutoff

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### Luminous Intensity Polar Plot



— Vertical Plane Through 57-Deg Lateral      - - - Horizontal Cone Through 69-Deg Vertical



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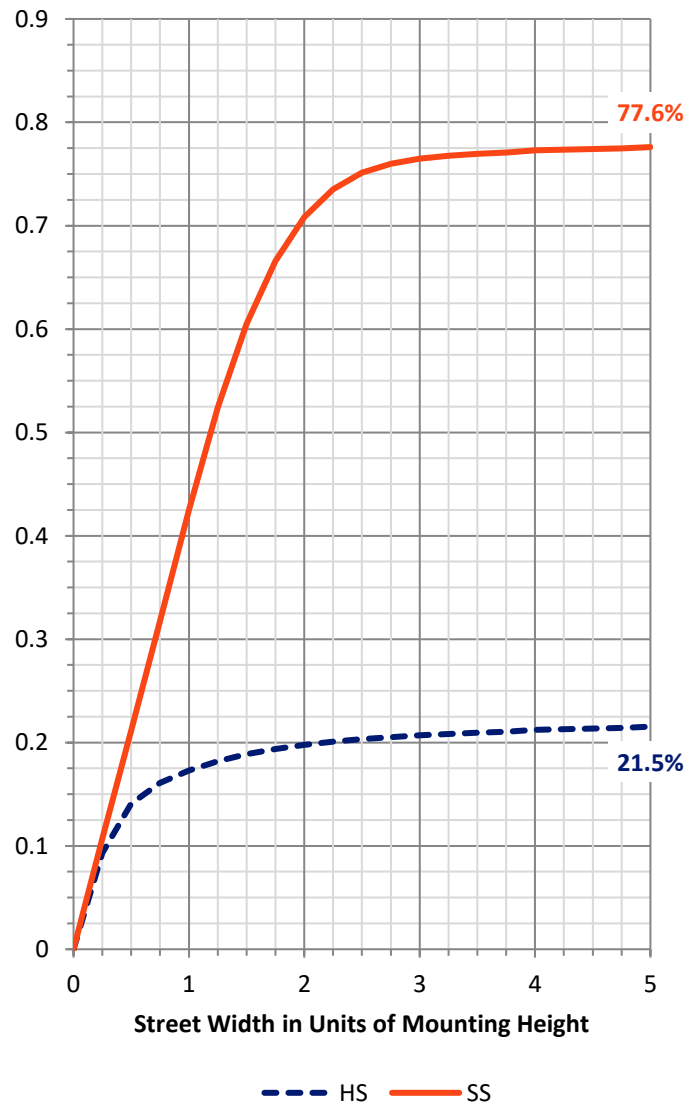
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 1171.5   | 0.0    | 1171.5 |
|                    | % Fixture | 22.1     | 0.0    | 22.1   |
| <b>Street Side</b> | Lumens    | 4137.4   | 0.0    | 4137.4 |
|                    | % Fixture | 77.9     | 0.0    | 77.9   |
| <b>Total</b>       | Lumens    | 5308.8   | 0.0    | 5308.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**Coefficient of Utilization**

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 61.4   | 1.2       |
| 10°-20°   | 174.6  | 3.3       |
| 20°-30°   | 290.5  | 5.5       |
| 30°-40°   | 474.3  | 8.9       |
| 40°-50°   | 800.5  | 15.1      |
| 50°-60°   | 1245.2 | 23.5      |
| 60°-70°   | 1483.4 | 27.9      |
| 70°-80°   | 691.0  | 13.0      |
| 80°-90°   | 87.9   | 1.7       |
| 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°    | 5308.8 | 100.0     |
| 0°-180°   | 5308.8 | 100.0     |



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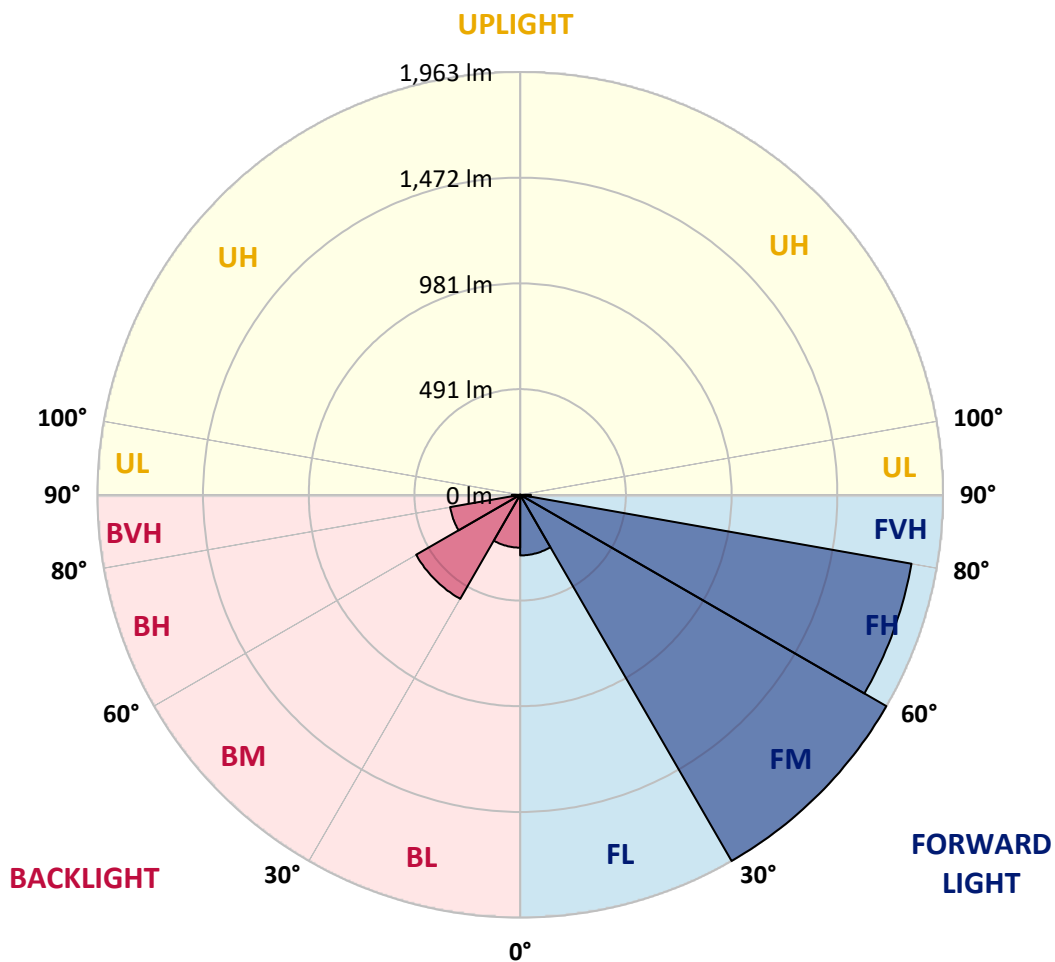
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 281.1  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 1962.5 | 37.0      |                         |      |         |
| FH   | (60°-80°)   | 1844.3 | 34.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 49.4   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 245.3  | 4.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 557.6  | 10.5      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 330.1  | 6.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 38.5   | 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-G2**

Type III Short





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 57°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  | 655.9  |
| 2.5°  | 652.2  | 652.2  | 654.0  | 654.0  | 654.0  | 653.2  | 651.2  | 651.9  | 650.6  | 649.6  | 647.8  |
| 5°    | 639.0  | 639.7  | 641.7  | 642.4  | 643.4  | 643.7  | 643.7  | 643.4  | 643.7  | 643.7  | 642.6  |
| 7.5°  | 620.5  | 621.3  | 623.7  | 625.0  | 628.0  | 630.8  | 632.1  | 632.1  | 633.8  | 635.2  | 635.6  |
| 10°   | 609.4  | 609.4  | 610.8  | 610.8  | 613.2  | 614.5  | 618.9  | 618.6  | 623.3  | 627.7  | 629.8  |
| 12.5° | 608.1  | 608.1  | 607.3  | 605.0  | 603.7  | 603.3  | 607.8  | 608.4  | 615.5  | 623.3  | 627.0  |
| 15°   | 612.5  | 612.5  | 610.4  | 605.6  | 600.5  | 598.2  | 602.7  | 604.0  | 611.7  | 621.0  | 626.7  |
| 17.5° | 626.7  | 626.4  | 621.9  | 612.5  | 603.7  | 599.9  | 601.2  | 602.7  | 609.7  | 620.3  | 627.3  |
| 20°   | 658.4  | 658.4  | 648.8  | 631.5  | 616.1  | 607.3  | 605.3  | 606.4  | 611.4  | 621.3  | 630.5  |
| 22.5° | 713.8  | 714.7  | 697.8  | 669.1  | 643.0  | 624.3  | 616.1  | 617.2  | 619.7  | 629.2  | 639.4  |
| 25°   | 795.3  | 792.6  | 768.5  | 727.9  | 687.3  | 655.3  | 638.6  | 639.7  | 639.7  | 648.4  | 659.0  |
| 27.5° | 881.6  | 882.3  | 847.6  | 804.2  | 750.4  | 702.8  | 676.3  | 676.1  | 675.6  | 684.1  | 695.4  |
| 30°   | 979.2  | 979.5  | 939.4  | 889.1  | 827.6  | 766.8  | 727.0  | 726.6  | 723.6  | 734.2  | 748.7  |
| 32.5° | 1086.0 | 1085.5 | 1039.0 | 982.2  | 913.9  | 844.9  | 793.3  | 792.9  | 790.6  | 804.8  | 822.5  |
| 35°   | 1204.2 | 1204.2 | 1157.9 | 1087.9 | 1014.1 | 937.4  | 877.6  | 877.3  | 878.6  | 897.9  | 914.7  |
| 37.5° | 1346.6 | 1349.7 | 1293.9 | 1208.8 | 1128.5 | 1046.4 | 976.7  | 974.8  | 964.6  | 997.2  | 1024.7 |
| 40°   | 1495.0 | 1503.7 | 1445.8 | 1346.6 | 1259.6 | 1175.0 | 1098.2 | 1096.8 | 1087.9 | 1122.6 | 1167.2 |
| 42.5° | 1655.8 | 1675.2 | 1611.0 | 1509.7 | 1414.9 | 1323.5 | 1246.3 | 1242.5 | 1208.6 | 1262.7 | 1332.2 |
| 45°   | 1866.6 | 1879.2 | 1786.0 | 1694.3 | 1604.9 | 1500.6 | 1408.8 | 1388.7 | 1354.7 | 1424.1 | 1514.5 |
| 47.5° | 2010.0 | 2003.8 | 1945.8 | 1884.3 | 1826.9 | 1726.9 | 1585.9 | 1560.4 | 1518.9 | 1610.8 | 1710.3 |
| 50°   | 2099.1 | 2103.6 | 2070.9 | 2067.8 | 2064.8 | 1995.0 | 1785.7 | 1755.1 | 1707.1 | 1816.0 | 1932.2 |
| 52.5° | 2157.9 | 2137.7 | 2143.5 | 2213.0 | 2296.8 | 2263.5 | 2011.8 | 1977.7 | 1928.4 | 2037.1 | 2168.4 |
| 55°   | 2133.4 | 2106.9 | 2160.2 | 2296.8 | 2494.4 | 2501.8 | 2259.9 | 2224.8 | 2182.7 | 2272.4 | 2452.6 |
| 57.5° | 2032.1 | 2045.4 | 2129.6 | 2319.7 | 2629.2 | 2715.2 | 2545.0 | 2509.2 | 2426.3 | 2517.5 | 2722.5 |
| 60°   | 1889.8 | 1916.5 | 2045.4 | 2283.6 | 2723.8 | 2881.5 | 2858.0 | 2834.2 | 2691.4 | 2756.0 | 3005.9 |
| 62.5° | 1736.8 | 1763.3 | 1921.7 | 2222.0 | 2681.4 | 3028.6 | 3165.3 | 3150.6 | 2984.1 | 2985.7 | 3185.7 |
| 65°   | 1510.7 | 1521.5 | 1683.5 | 2054.2 | 2563.4 | 3161.6 | 3472.8 | 3459.9 | 3263.8 | 3181.8 | 3236.0 |
| 67.5° | 1140.9 | 1154.5 | 1287.5 | 1621.5 | 2204.4 | 3089.5 | 3718.5 | 3716.6 | 3432.1 | 3254.6 | 3116.3 |
| 69°   | 842.5  | 859.1  | 967.7  | 1258.9 | 1822.8 | 2814.8 | 3730.1 | 3757.7 | 3477.6 | 3247.2 | 2914.1 |
| 70°   | 616.5  | 635.6  | 735.8  | 999.3  | 1518.2 | 2511.8 | 3631.2 | 3690.3 | 3460.4 | 3199.9 | 2756.4 |
| 72.5° | 262.0  | 268.6  | 317.8  | 450.9  | 770.1  | 1514.5 | 2974.3 | 3098.7 | 3125.2 | 2867.2 | 2153.4 |
| 75°   | 164.2  | 166.1  | 185.6  | 231.5  | 342.7  | 626.4  | 1926.1 | 2095.7 | 2333.3 | 2224.6 | 1441.8 |
| 77.5° | 123.6  | 125.5  | 136.6  | 159.4  | 212.8  | 233.7  | 893.5  | 1065.5 | 1336.4 | 1308.6 | 717.4  |
| 80°   | 94.9   | 95.8   | 103.3  | 115.9  | 149.8  | 146.5  | 290.0  | 364.4  | 557.8  | 492.1  | 254.0  |
| 82.5° | 74.4   | 74.7   | 81.2   | 83.6   | 104.7  | 98.5   | 145.4  | 162.1  | 225.4  | 187.2  | 124.1  |
| 85°   | 65.9   | 67.0   | 73.4   | 61.2   | 67.0   | 59.5   | 79.9   | 86.6   | 119.7  | 112.8  | 46.9   |
| 87.5° | 33.6   | 35.4   | 61.5   | 52.3   | 33.6   | 28.1   | 35.0   | 37.6   | 48.6   | 52.7   | 22.7   |
| 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°    | 655.9  | 655.9  | 655.9 | 655.9 | 655.9 | 655.9 | 655.9 | 655.9 | 655.9 | 655.9 | 655.9 |
| 2.5°  | 648.1  | 648.4  | 649.6 | 651.2 | 654.0 | 657.3 | 661.4 | 665.5 | 667.9 | 669.5 | 668.9 |
| 5°    | 642.6  | 643.0  | 645.2 | 648.1 | 651.5 | 656.7 | 663.5 | 668.5 | 672.3 | 674.6 | 674.3 |
| 7.5°  | 635.9  | 636.9  | 641.0 | 644.4 | 649.1 | 653.2 | 658.6 | 663.5 | 667.3 | 669.5 | 669.1 |
| 10°   | 630.8  | 631.8  | 636.9 | 641.3 | 645.4 | 646.2 | 645.2 | 643.7 | 643.4 | 645.2 | 644.4 |
| 12.5° | 628.5  | 630.5  | 635.2 | 638.2 | 636.5 | 630.2 | 622.6 | 619.7 | 618.6 | 621.9 | 622.3 |
| 15°   | 629.2  | 630.8  | 634.9 | 632.9 | 623.7 | 612.9 | 608.7 | 611.0 | 613.2 | 615.2 | 615.5 |
| 17.5° | 630.8  | 631.8  | 632.9 | 625.4 | 612.5 | 605.3 | 604.0 | 601.5 | 595.4 | 592.1 | 591.8 |
| 20°   | 633.8  | 635.2  | 633.6 | 621.6 | 610.0 | 600.5 | 584.3 | 569.6 | 555.7 | 548.2 | 545.1 |
| 22.5° | 644.4  | 645.4  | 640.3 | 628.8 | 611.0 | 580.1 | 547.2 | 522.0 | 500.6 | 489.0 | 484.6 |
| 25°   | 665.1  | 666.8  | 659.6 | 645.2 | 598.9 | 544.8 | 498.3 | 464.2 | 437.5 | 423.6 | 419.8 |
| 27.5° | 701.4  | 703.3  | 695.4 | 657.3 | 570.3 | 497.7 | 441.2 | 407.6 | 384.5 | 372.4 | 370.8 |
| 30°   | 755.8  | 758.3  | 751.2 | 657.0 | 526.8 | 437.5 | 385.5 | 365.7 | 352.4 | 344.3 | 344.0 |
| 32.5° | 831.3  | 840.2  | 810.9 | 645.4 | 473.0 | 376.6 | 343.3 | 336.4 | 329.9 | 324.6 | 324.6 |
| 35°   | 927.2  | 947.9  | 870.1 | 621.3 | 413.9 | 335.1 | 319.8 | 313.4 | 305.2 | 299.4 | 298.7 |
| 37.5° | 1041.8 | 1074.1 | 912.1 | 578.5 | 362.9 | 315.0 | 305.6 | 295.1 | 282.1 | 270.8 | 268.1 |
| 40°   | 1199.1 | 1206.6 | 933.0 | 508.8 | 324.9 | 304.2 | 292.3 | 279.1 | 262.8 | 250.2 | 248.8 |
| 42.5° | 1357.1 | 1332.6 | 928.8 | 434.1 | 303.2 | 294.4 | 278.7 | 264.1 | 249.5 | 238.9 | 238.9 |
| 45°   | 1536.9 | 1442.8 | 897.9 | 359.0 | 283.4 | 283.1 | 266.1 | 252.2 | 240.9 | 233.2 | 231.5 |
| 47.5° | 1708.8 | 1541.8 | 844.5 | 303.4 | 263.1 | 271.8 | 258.0 | 246.8 | 236.6 | 229.1 | 227.7 |
| 50°   | 1917.6 | 1656.2 | 787.9 | 264.8 | 243.4 | 262.0 | 254.6 | 248.8 | 238.9 | 226.1 | 224.7 |
| 52.5° | 2124.9 | 1790.1 | 743.9 | 235.5 | 226.1 | 254.2 | 256.6 | 257.3 | 248.1 | 223.0 | 221.3 |
| 55°   | 2347.5 | 1933.2 | 697.8 | 212.8 | 211.7 | 250.4 | 261.3 | 260.7 | 256.2 | 223.7 | 221.0 |
| 57.5° | 2559.2 | 2077.1 | 628.8 | 196.8 | 200.5 | 246.8 | 262.3 | 251.5 | 243.7 | 227.0 | 222.6 |
| 60°   | 2734.6 | 2195.9 | 527.5 | 185.6 | 191.0 | 239.3 | 255.6 | 239.3 | 226.1 | 226.4 | 222.3 |
| 62.5° | 2819.9 | 2229.2 | 403.3 | 172.7 | 183.2 | 227.0 | 245.7 | 230.1 | 217.8 | 227.7 | 225.4 |
| 65°   | 2755.0 | 2134.5 | 287.5 | 160.7 | 173.7 | 212.8 | 239.9 | 222.3 | 213.7 | 234.5 | 231.9 |
| 67.5° | 2521.9 | 1876.1 | 208.6 | 150.2 | 164.5 | 198.2 | 229.1 | 215.1 | 209.8 | 239.6 | 233.5 |
| 69°   | 2274.1 | 1619.9 | 180.7 | 144.1 | 158.0 | 190.4 | 221.9 | 211.5 | 206.6 | 232.5 | 223.7 |
| 70°   | 2068.2 | 1422.3 | 166.8 | 140.3 | 152.6 | 185.9 | 216.5 | 209.0 | 203.6 | 223.9 | 213.4 |
| 72.5° | 1482.9 | 919.3  | 140.3 | 129.1 | 138.2 | 176.1 | 204.6 | 200.2 | 192.1 | 202.2 | 195.4 |
| 75°   | 895.9  | 480.0  | 119.3 | 117.6 | 123.3 | 162.5 | 190.7 | 185.2 | 177.1 | 178.1 | 174.7 |
| 77.5° | 411.7  | 221.6  | 99.9  | 104.1 | 107.7 | 145.4 | 173.7 | 167.5 | 160.1 | 157.4 | 157.7 |
| 80°   | 180.5  | 129.4  | 83.6  | 88.8  | 90.8  | 130.9 | 155.3 | 148.5 | 140.3 | 155.0 | 143.8 |
| 82.5° | 97.6   | 75.1   | 65.2  | 68.7  | 74.4  | 113.8 | 134.9 | 126.1 | 118.2 | 137.6 | 111.1 |
| 85°   | 39.4   | 38.4   | 44.1  | 47.6  | 51.7  | 81.9  | 112.8 | 103.7 | 94.1  | 84.4  | 82.3  |
| 87.5° | 17.0   | 18.3   | 21.7  | 23.0  | 27.5  | 50.9  | 75.7  | 66.3  | 66.7  | 57.1  | 56.1  |
| 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)