

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: P270788

Luminaire Tested: **NVN-AF-01-LED-U-T3-7027-1200**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P270788  
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-T3-7027-1200  
Description: NAVION ROADWAY AND AREA LUMINAIRE  
(1) 70 CRI, 2700K, 1200mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

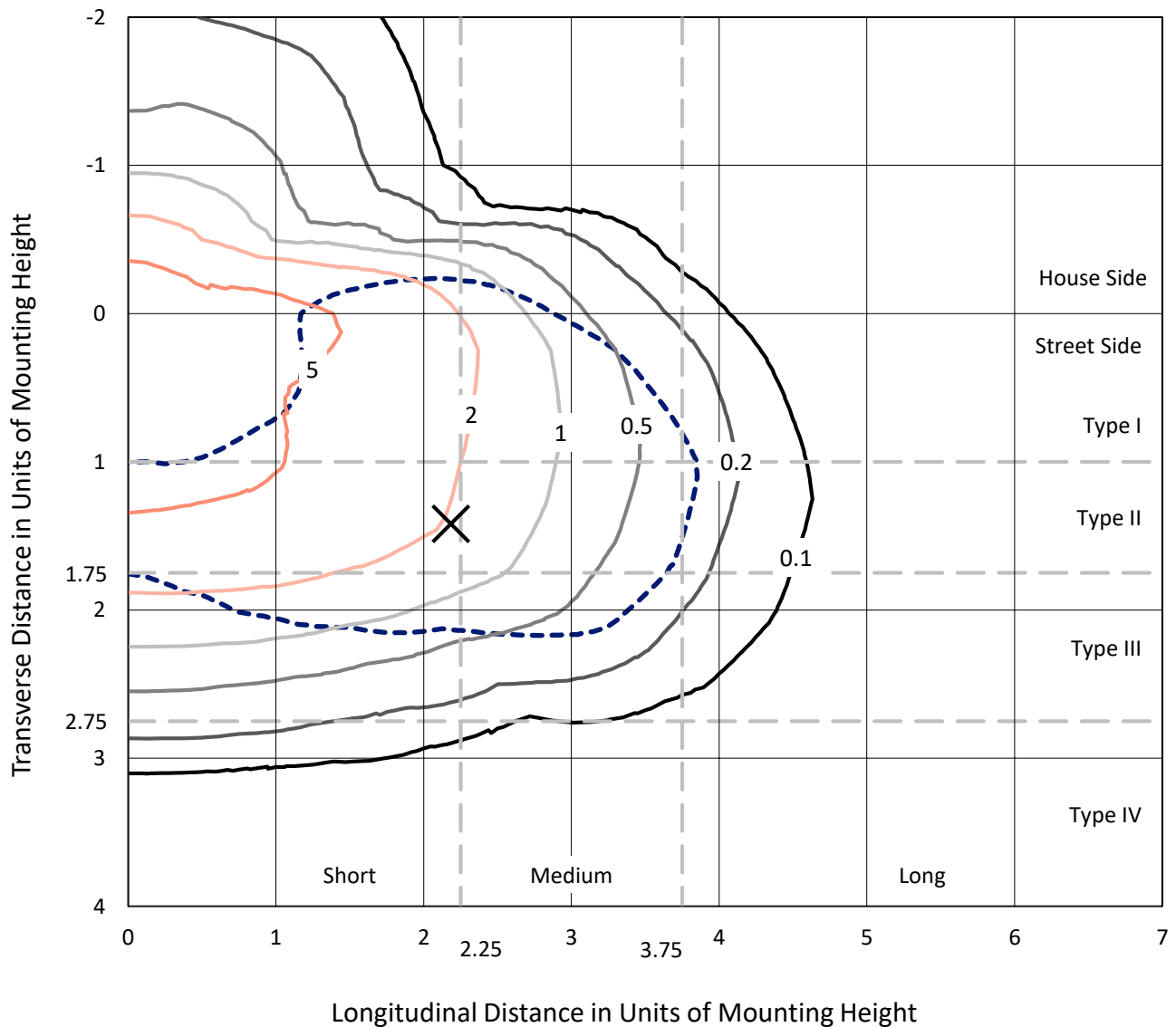
Lumens per Lamp: N/A  
Luminaire Lumens: 5824.1 lumens  
Efficiency: N/A  
Efficacy: 86.9 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type III - Short - Semi-Cutoff  
BUG Rating: B1 - U0 - G2  
  
Input Watts (W): 67  
Input Voltage (V): NR  
Input Current (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: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

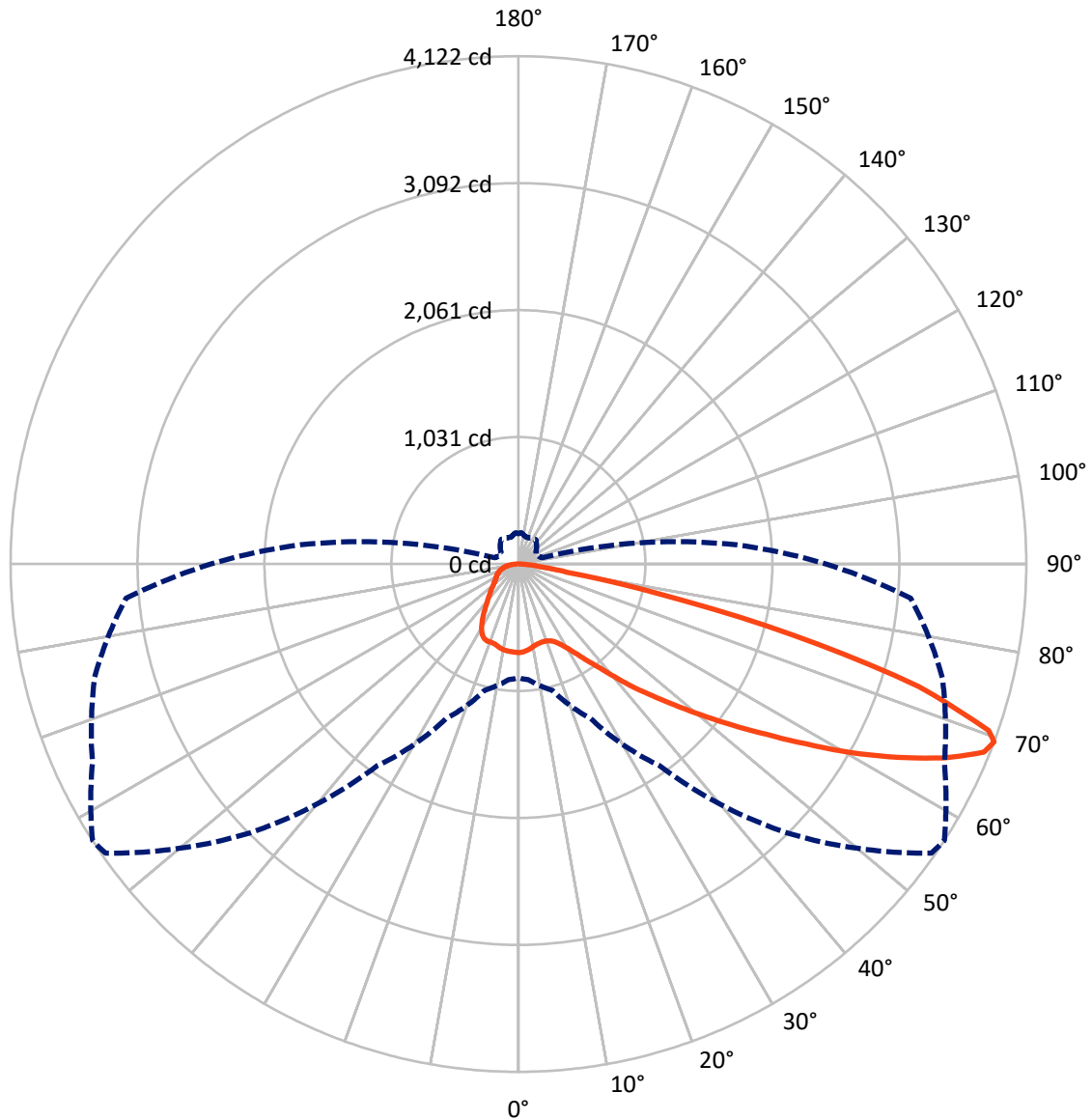
× Max cd  
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 7.4 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    | 1285.2   | 0.0    | 1285.2 |
|                    | % Fixture | 22.1     | 0.0    | 22.1   |
| <b>Street Side</b> | Lumens    | 4538.9   | 0.0    | 4538.9 |
|                    | % Fixture | 77.9     | 0.0    | 77.9   |
| <b>Total</b>       | Lumens    | 5824.1   | 0.0    | 5824.1 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 67.4   | 1.2       |
| 10°-20°   | 191.6  | 3.3       |
| 20°-30°   | 318.6  | 5.5       |
| 30°-40°   | 520.3  | 8.9       |
| 40°-50°   | 878.2  | 15.1      |
| 50°-60°   | 1366.1 | 23.5      |
| 60°-70°   | 1627.3 | 27.9      |
| 70°-80°   | 758.1  | 13.0      |
| 80°-90°   | 96.4   | 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°    | 5824.1 | 100.0     |
| 0°-180°   | 5824.1 | 100.0     |

**Coefficient of Utilization**



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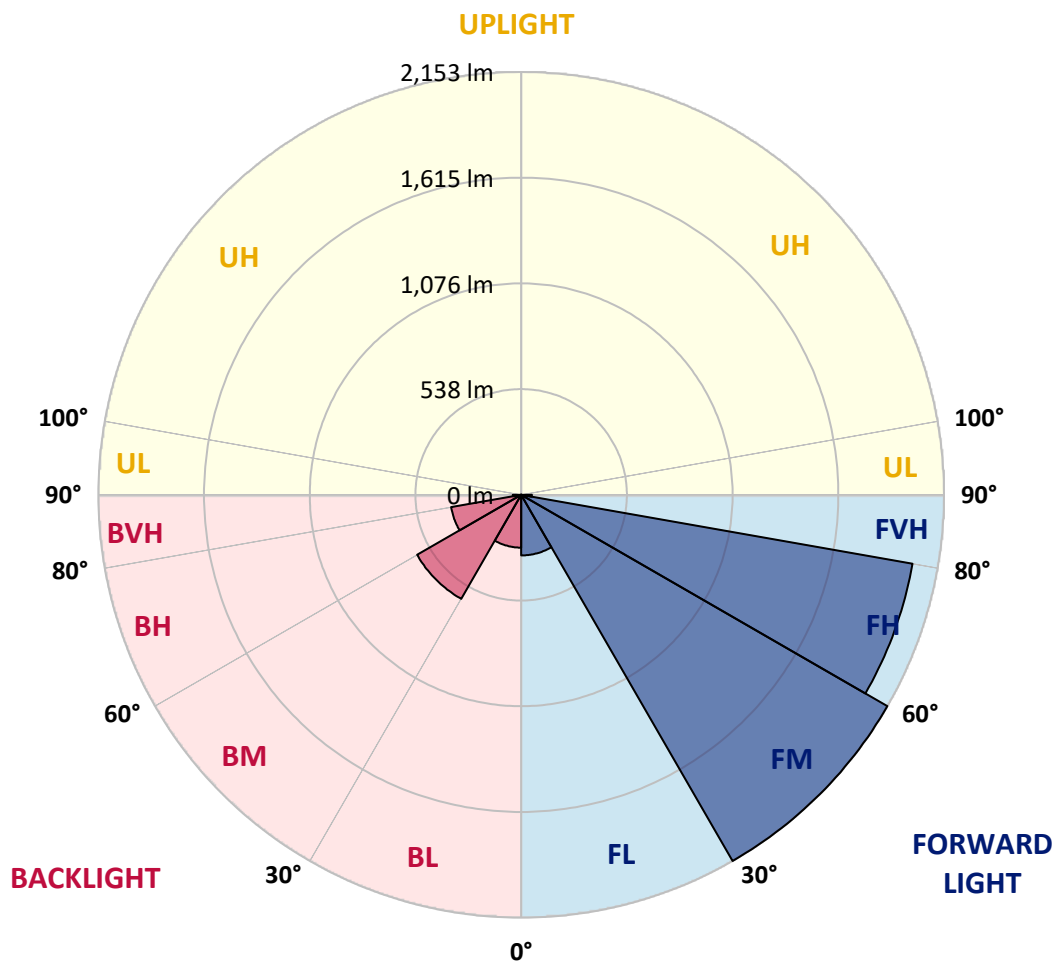
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 308.4  | 5.3       |                         |      |         |
| FM   | (30°-60°)   | 2153.0 | 37.0      |                         |      |         |
| FH   | (60°-80°)   | 2023.3 | 34.7      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 54.2   | 0.9       |                         |      | G1/100  |
| BL   | (0°-30°)    | 269.1  | 4.6       | B1/500                  |      |         |
| BM   | (30°-60°)   | 611.7  | 10.5      | B1/1000                 |      |         |
| BH   | (60°-80°)   | 362.1  | 6.2       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 42.2   | 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°    | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  | 719.6  |
| 2.5°  | 715.5  | 715.5  | 717.3  | 717.3  | 717.3  | 716.7  | 714.4  | 715.1  | 713.7  | 712.5  | 710.6  |
| 5°    | 700.9  | 701.8  | 703.9  | 704.7  | 705.8  | 706.2  | 706.2  | 705.8  | 706.2  | 706.2  | 705.1  |
| 7.5°  | 680.8  | 681.6  | 684.1  | 685.6  | 689.1  | 692.1  | 693.5  | 693.5  | 695.4  | 696.8  | 697.3  |
| 10°   | 668.6  | 668.6  | 670.0  | 670.0  | 672.7  | 674.2  | 678.9  | 678.6  | 683.8  | 688.7  | 690.9  |
| 12.5° | 667.0  | 667.0  | 666.4  | 663.7  | 662.2  | 661.8  | 666.7  | 667.4  | 675.3  | 683.8  | 687.9  |
| 15°   | 671.9  | 671.9  | 669.6  | 664.4  | 658.8  | 656.2  | 661.2  | 662.6  | 671.2  | 681.3  | 687.6  |
| 17.5° | 687.6  | 687.3  | 682.4  | 671.9  | 662.2  | 658.1  | 659.5  | 661.2  | 668.9  | 680.5  | 688.3  |
| 20°   | 722.2  | 722.2  | 711.7  | 692.9  | 676.1  | 666.4  | 664.0  | 665.1  | 670.8  | 681.6  | 691.6  |
| 22.5° | 783.1  | 784.1  | 765.4  | 734.2  | 705.4  | 685.0  | 676.1  | 677.1  | 679.7  | 690.2  | 701.3  |
| 25°   | 872.6  | 869.5  | 843.0  | 798.7  | 753.9  | 718.9  | 700.6  | 701.8  | 701.8  | 711.4  | 723.0  |
| 27.5° | 967.3  | 968.0  | 929.9  | 882.1  | 823.2  | 771.0  | 742.0  | 741.6  | 741.2  | 750.5  | 762.9  |
| 30°   | 1074.3 | 1074.6 | 1030.5 | 975.4  | 907.9  | 841.3  | 797.5  | 797.2  | 793.8  | 805.4  | 821.4  |
| 32.5° | 1191.3 | 1191.0 | 1139.8 | 1077.5 | 1002.6 | 927.0  | 870.3  | 869.9  | 867.3  | 882.9  | 902.3  |
| 35°   | 1321.0 | 1321.0 | 1270.4 | 1193.6 | 1112.6 | 1028.4 | 962.8  | 962.4  | 963.8  | 985.1  | 1003.3 |
| 37.5° | 1477.4 | 1480.6 | 1419.5 | 1326.3 | 1238.0 | 1148.0 | 1071.6 | 1069.3 | 1058.3 | 1094.0 | 1124.1 |
| 40°   | 1640.2 | 1649.6 | 1586.1 | 1477.4 | 1381.9 | 1289.0 | 1204.7 | 1203.2 | 1193.6 | 1231.5 | 1280.4 |
| 42.5° | 1816.6 | 1837.8 | 1767.3 | 1656.2 | 1552.2 | 1451.9 | 1367.3 | 1363.2 | 1325.9 | 1385.1 | 1461.6 |
| 45°   | 2047.7 | 2061.6 | 1959.5 | 1858.8 | 1760.7 | 1646.2 | 1545.5 | 1523.5 | 1486.2 | 1562.3 | 1661.4 |
| 47.5° | 2205.1 | 2198.4 | 2134.6 | 2067.2 | 2004.2 | 1894.5 | 1739.7 | 1711.8 | 1666.4 | 1767.0 | 1876.2 |
| 50°   | 2302.8 | 2307.7 | 2271.9 | 2268.5 | 2265.2 | 2188.7 | 1959.1 | 1925.4 | 1872.8 | 1992.3 | 2119.7 |
| 52.5° | 2367.4 | 2345.4 | 2351.7 | 2427.7 | 2519.8 | 2483.3 | 2207.0 | 2169.6 | 2115.6 | 2235.0 | 2378.9 |
| 55°   | 2340.4 | 2311.3 | 2369.9 | 2519.8 | 2736.4 | 2744.6 | 2479.1 | 2440.8 | 2394.5 | 2492.9 | 2690.6 |
| 57.5° | 2229.4 | 2243.8 | 2336.3 | 2544.8 | 2884.5 | 2978.8 | 2792.0 | 2752.9 | 2661.9 | 2761.7 | 2986.7 |
| 60°   | 2073.1 | 2102.6 | 2243.8 | 2505.3 | 2988.1 | 3161.1 | 3135.4 | 3109.4 | 2952.6 | 3023.5 | 3297.6 |
| 62.5° | 1905.3 | 1934.4 | 2108.1 | 2437.8 | 2941.5 | 3322.7 | 3472.5 | 3456.5 | 3273.8 | 3275.6 | 3494.9 |
| 65°   | 1657.4 | 1669.3 | 1846.7 | 2253.6 | 2812.1 | 3468.4 | 3809.9 | 3795.8 | 3580.6 | 3490.8 | 3550.0 |
| 67.5° | 1251.7 | 1266.6 | 1412.5 | 1779.0 | 2418.3 | 3389.3 | 4079.6 | 4077.2 | 3765.2 | 3570.6 | 3418.8 |
| 69°   | 924.4  | 942.6  | 1061.5 | 1381.1 | 1999.6 | 3088.1 | 4092.1 | 4122.4 | 3815.1 | 3562.3 | 3196.9 |
| 70°   | 676.3  | 697.3  | 807.2  | 1096.2 | 1665.5 | 2755.5 | 3983.7 | 4048.5 | 3796.1 | 3510.4 | 3024.0 |
| 72.5° | 287.5  | 294.6  | 348.6  | 494.7  | 844.9  | 1661.4 | 3263.0 | 3399.4 | 3428.6 | 3145.4 | 2362.5 |
| 75°   | 180.1  | 182.4  | 203.6  | 254.0  | 375.9  | 687.3  | 2113.1 | 2299.1 | 2559.7 | 2440.3 | 1581.6 |
| 77.5° | 135.7  | 137.6  | 149.8  | 174.9  | 233.4  | 256.6  | 980.3  | 1169.0 | 1466.2 | 1435.5 | 787.2  |
| 80°   | 104.1  | 105.1  | 113.4  | 127.1  | 164.4  | 160.6  | 318.1  | 399.7  | 611.8  | 539.9  | 278.6  |
| 82.5° | 81.7   | 82.0   | 89.1   | 91.7   | 114.9  | 108.2  | 159.5  | 177.9  | 247.3  | 205.4  | 136.2  |
| 85°   | 72.4   | 73.4   | 80.6   | 67.2   | 73.4   | 65.2   | 87.7   | 95.1   | 131.2  | 123.7  | 51.5   |
| 87.5° | 36.9   | 38.7   | 67.6   | 57.4   | 36.9   | 30.9   | 38.4   | 41.4   | 53.3   | 57.9   | 25.1   |
| 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°    | 719.6  | 719.6  | 719.6  | 719.6 | 719.6 | 719.6 | 719.6 | 719.6 | 719.6 | 719.6 | 719.6 |
| 2.5°  | 711.1  | 711.4  | 712.5  | 714.4 | 717.3 | 721.1 | 725.7 | 730.1 | 732.7 | 734.5 | 733.7 |
| 5°    | 705.1  | 705.4  | 707.7  | 711.1 | 714.8 | 720.4 | 727.8 | 733.5 | 737.5 | 740.2 | 739.8 |
| 7.5°  | 697.7  | 698.7  | 703.3  | 707.0 | 712.1 | 716.7 | 722.5 | 727.8 | 731.8 | 734.5 | 734.2 |
| 10°   | 692.1  | 693.1  | 698.7  | 703.6 | 708.0 | 708.9 | 707.7 | 706.2 | 705.8 | 707.7 | 707.0 |
| 12.5° | 689.4  | 691.6  | 696.8  | 700.1 | 698.3 | 691.2 | 683.2 | 679.7 | 678.6 | 682.4 | 682.7 |
| 15°   | 690.2  | 692.1  | 696.5  | 694.3 | 684.1 | 672.3 | 667.8 | 670.5 | 672.7 | 674.8 | 675.3 |
| 17.5° | 692.1  | 693.1  | 694.3  | 686.0 | 671.9 | 664.0 | 662.6 | 660.0 | 653.2 | 649.6 | 649.1 |
| 20°   | 695.4  | 696.8  | 695.0  | 682.0 | 669.2 | 658.8 | 640.9 | 625.0 | 609.6 | 601.4 | 598.1 |
| 22.5° | 707.0  | 708.0  | 702.5  | 689.8 | 670.5 | 636.4 | 600.2 | 572.7 | 549.3 | 536.6 | 531.6 |
| 25°   | 729.8  | 731.6  | 723.8  | 707.7 | 657.0 | 597.7 | 546.6 | 509.2 | 479.9 | 464.7 | 460.6 |
| 27.5° | 769.6  | 771.5  | 762.9  | 721.1 | 625.7 | 545.9 | 483.9 | 447.0 | 421.8 | 408.6 | 406.8 |
| 30°   | 829.2  | 831.9  | 824.0  | 720.7 | 577.9 | 479.9 | 422.8 | 401.3 | 386.7 | 377.6 | 377.4 |
| 32.5° | 912.0  | 921.8  | 889.6  | 708.0 | 519.0 | 413.1 | 376.6 | 369.2 | 362.0 | 356.1 | 356.1 |
| 35°   | 1017.2 | 1039.9 | 954.4  | 681.6 | 454.2 | 367.6 | 350.9 | 343.8 | 334.8 | 328.5 | 327.7 |
| 37.5° | 1142.9 | 1178.2 | 1000.7 | 634.7 | 398.2 | 345.7 | 335.2 | 323.7 | 309.5 | 297.2 | 294.1 |
| 40°   | 1315.5 | 1323.7 | 1023.4 | 558.1 | 356.4 | 333.7 | 320.6 | 306.1 | 288.3 | 274.4 | 272.9 |
| 42.5° | 1488.9 | 1462.0 | 1019.0 | 476.1 | 332.6 | 322.9 | 305.8 | 289.8 | 273.7 | 262.1 | 262.1 |
| 45°   | 1686.1 | 1582.9 | 985.1  | 393.7 | 311.0 | 310.6 | 291.9 | 276.7 | 264.3 | 255.7 | 254.0 |
| 47.5° | 1874.8 | 1691.2 | 926.5  | 332.9 | 288.5 | 298.2 | 283.0 | 270.7 | 259.5 | 251.3 | 249.8 |
| 50°   | 2103.7 | 1816.9 | 864.3  | 290.4 | 266.9 | 287.5 | 279.3 | 272.9 | 262.1 | 247.9 | 246.4 |
| 52.5° | 2331.1 | 1963.9 | 816.2  | 258.4 | 247.9 | 279.0 | 281.4 | 282.2 | 272.1 | 244.6 | 242.7 |
| 55°   | 2575.4 | 2120.9 | 765.4  | 233.4 | 232.3 | 274.8 | 286.6 | 286.0 | 281.1 | 245.3 | 242.4 |
| 57.5° | 2807.7 | 2278.6 | 689.8  | 216.0 | 219.9 | 270.7 | 287.8 | 275.9 | 267.3 | 249.1 | 244.2 |
| 60°   | 3000.1 | 2409.1 | 578.7  | 203.6 | 209.6 | 262.5 | 280.5 | 262.5 | 247.9 | 248.3 | 243.9 |
| 62.5° | 3093.7 | 2445.6 | 442.5  | 189.5 | 201.0 | 249.1 | 269.6 | 252.5 | 238.9 | 249.8 | 247.3 |
| 65°   | 3022.4 | 2341.6 | 315.5  | 176.3 | 190.5 | 233.4 | 263.3 | 243.9 | 234.5 | 257.3 | 254.3 |
| 67.5° | 2766.6 | 2058.1 | 229.0  | 164.7 | 180.5 | 217.4 | 251.3 | 236.1 | 230.1 | 262.8 | 256.1 |
| 69°   | 2494.9 | 1777.0 | 198.3  | 158.1 | 173.5 | 208.8 | 243.5 | 231.9 | 226.7 | 255.1 | 245.3 |
| 70°   | 2268.8 | 1560.4 | 183.1  | 154.0 | 167.4 | 203.9 | 237.5 | 229.2 | 223.4 | 245.7 | 234.2 |
| 72.5° | 1626.8 | 1008.5 | 154.0  | 141.8 | 151.8 | 193.1 | 224.4 | 219.6 | 210.7 | 221.8 | 214.3 |
| 75°   | 982.8  | 526.4  | 130.9  | 128.9 | 135.4 | 178.3 | 209.1 | 203.1 | 194.3 | 195.4 | 191.7 |
| 77.5° | 451.6  | 243.1  | 109.7  | 114.1 | 118.1 | 159.5 | 190.5 | 183.9 | 175.6 | 172.7 | 173.1 |
| 80°   | 197.9  | 142.0  | 91.7   | 97.3  | 99.5  | 143.5 | 170.4 | 163.0 | 154.0 | 170.0 | 157.7 |
| 82.5° | 107.0  | 82.5   | 71.5   | 75.3  | 81.7  | 125.0 | 148.0 | 138.2 | 129.7 | 151.1 | 121.9 |
| 85°   | 43.3   | 42.1   | 48.5   | 52.2  | 56.7  | 89.9  | 123.7 | 113.7 | 103.2 | 92.4  | 90.2  |
| 87.5° | 18.7   | 20.1   | 23.9   | 25.3  | 30.3  | 56.0  | 83.2  | 72.8  | 73.1  | 62.6  | 61.5  |
| 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)