

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: P882727

Luminaire Tested: **NVN-SB2D-727-U-T2**

Issue Date: 10/7/2024

**Test Information**

Test Method: LM-79-08  
Report Number: P882727  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 10/7/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: NVN-SB2D-727-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 70 CRI, 2700K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

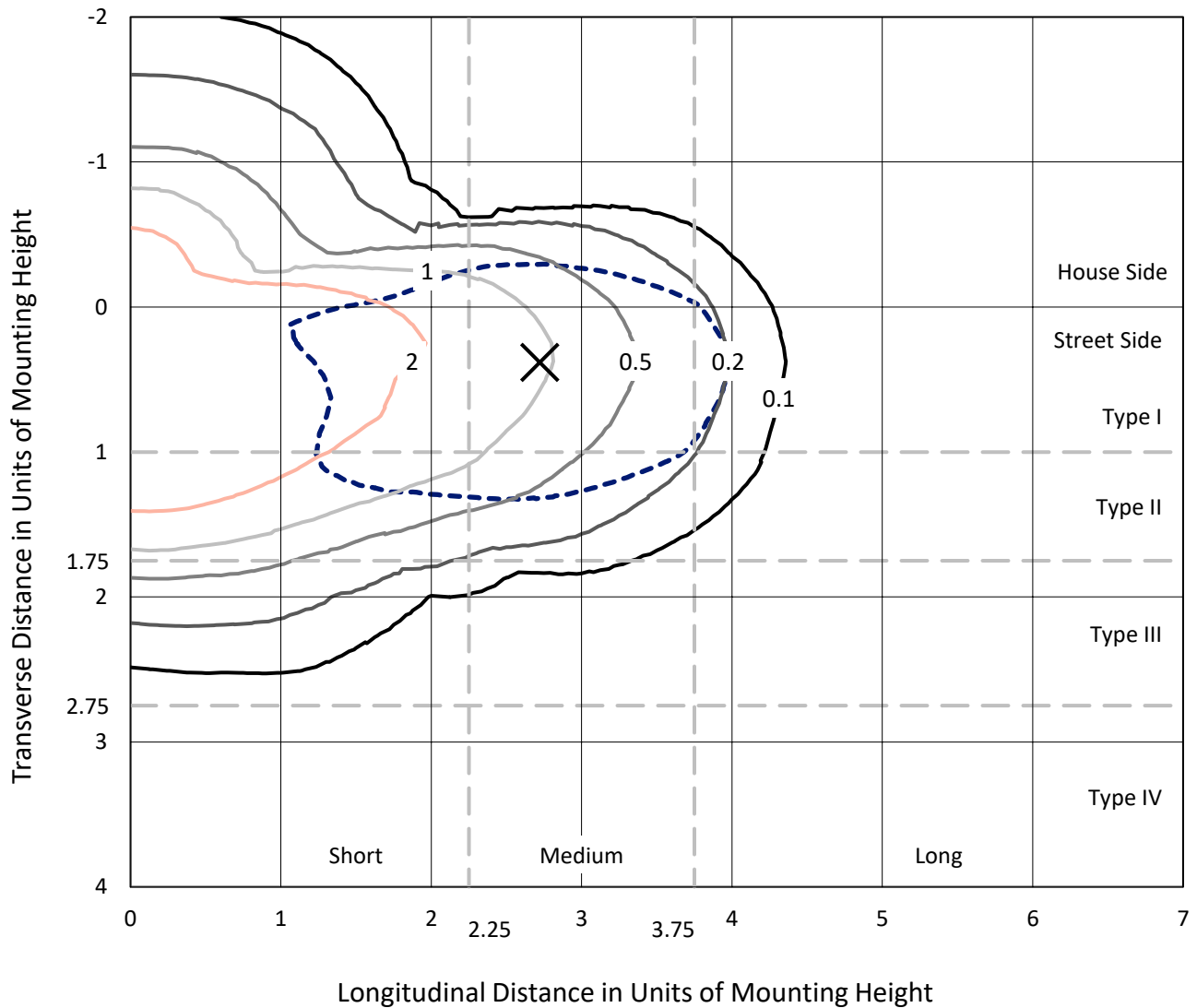
Lumens per Lamp: N/A  
Luminaire Lumens: 18623 lumens  
Efficiency: N/A  
Efficacy: 126.2 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3  
  
Input Watts (W): 147.6  
Input Voltage (V): 120.0  
Input Current (Ain): 1.234  
Voltage Rise (V): NR  
Power Factor: 0.999  
Total Harmonic Distortion (THDi): 3.108  
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

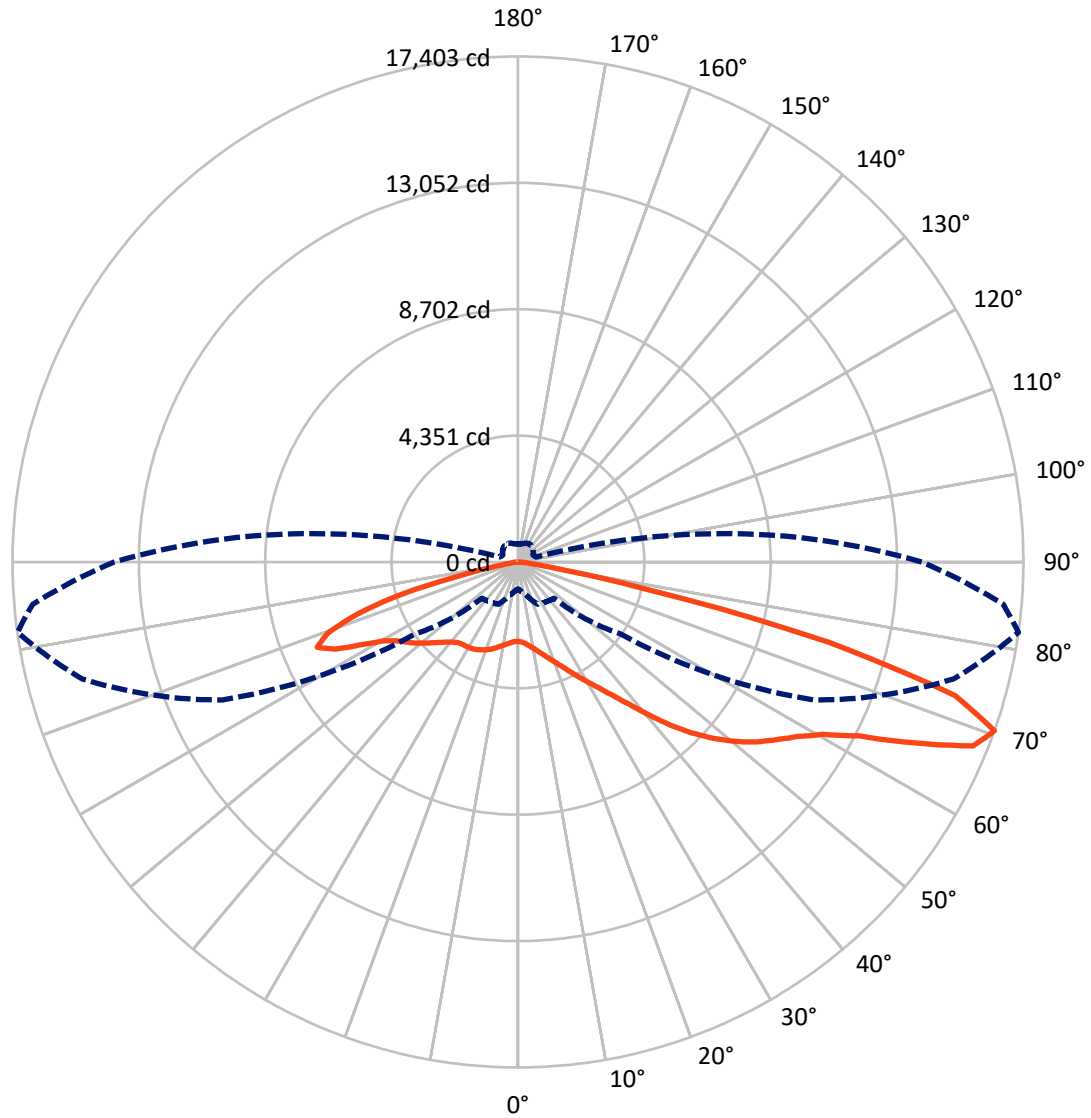
✕ Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 5 fc  
 Type II - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 82-Deg Lateral      - - - Horizontal Cone Through 70-Deg Vertical

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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4591.0   | 0.0    | 4591.0  |
|                    | % Fixture | 24.7     | 0.0    | 24.7    |
| <b>Street Side</b> | Lumens    | 14032.0  | 0.0    | 14032.0 |
|                    | % Fixture | 75.3     | 0.0    | 75.3    |
| <b>Total</b>       | Lumens    | 18623.0  | 0.0    | 18623.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 257.8   | 1.4       |
| 10°-20°   | 740.7   | 4.0       |
| 20°-30°   | 1239.0  | 6.7       |
| 30°-40°   | 1935.7  | 10.4      |
| 40°-50°   | 3082.9  | 16.6      |
| 50°-60°   | 4290.2  | 23.0      |
| 60°-70°   | 4487.7  | 24.1      |
| 70°-80°   | 2345.5  | 12.6      |
| 80°-90°   | 243.6   | 1.3       |
| 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°    | 18623.0 | 100.0     |
| 0°-180°   | 18623.0 | 100.0     |

**Coefficient of Utilization**



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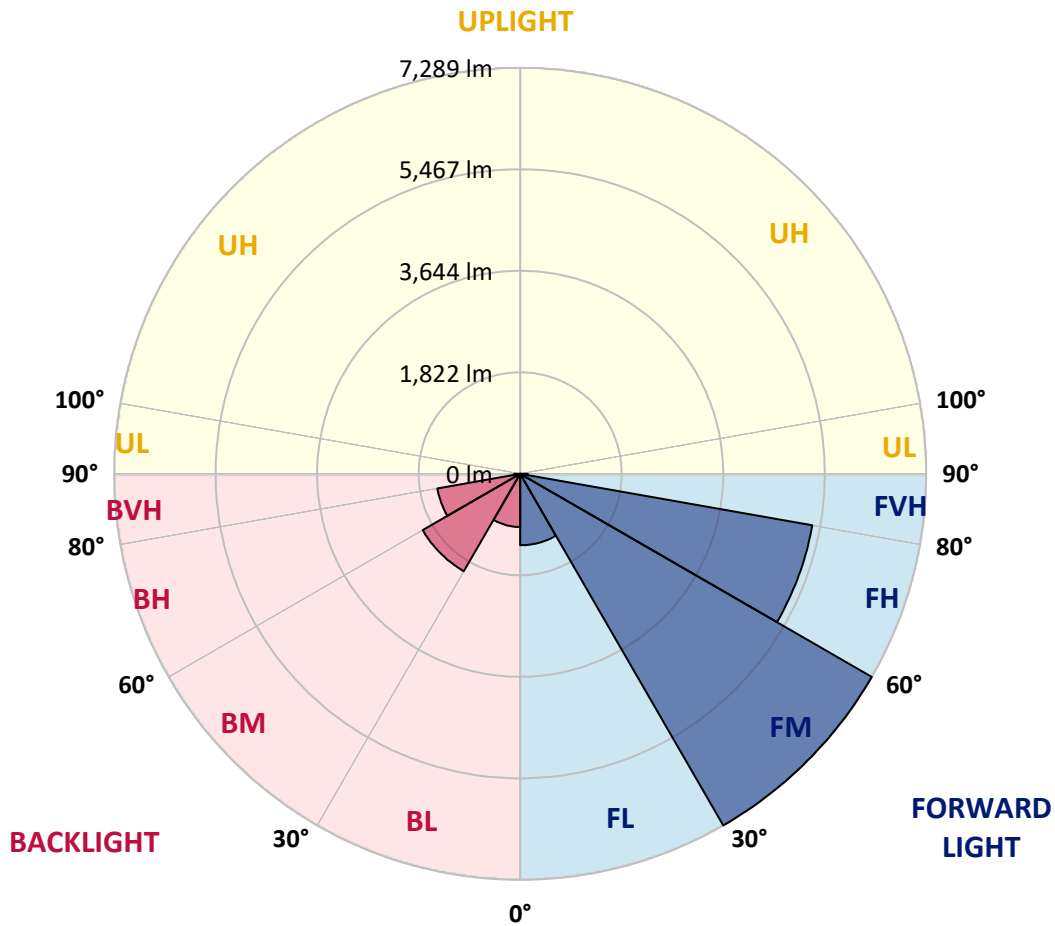
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 1282.4 | 6.9       |                         |      |         |
| FM (30°-60°)   | 7288.9 | 39.1      |                         |      |         |
| FH (60°-80°)   | 5324.4 | 28.6      |                         |      | G3/7500 |
| FVH (80°-90°)  | 136.3  | 0.7       |                         |      | G2/225  |
| BL (0°-30°)    | 955.1  | 5.1       | B2/1000                 |      |         |
| BM (30°-60°)   | 2019.9 | 10.8      | B2/2500                 |      |         |
| BH (60°-80°)   | 1508.8 | 8.1       | B3/2500                 |      | G3/2500 |
| BVH (80°-90°)  | 107.2  | 0.6       |                         |      | G2/225  |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B3-U0-G3**

Type II Medium



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°     | 75°     | 82°     | 85°     |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0°    | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4  | 2730.4  | 2730.4  | 2730.4  |
| 2.5°  | 2795.6 | 2811.4 | 2806.5 | 2801.5 | 2801.5 | 2794.6 | 2793.6 | 2783.7  | 2775.8  | 2763.0  | 2760.0  |
| 5°    | 2831.2 | 2848.0 | 2846.0 | 2849.9 | 2862.8 | 2865.7 | 2868.7 | 2862.8  | 2847.0  | 2831.2  | 2824.2  |
| 7.5°  | 2799.5 | 2818.3 | 2824.2 | 2848.0 | 2887.5 | 2923.1 | 2949.7 | 2960.6  | 2945.8  | 2923.1  | 2912.2  |
| 10°   | 2692.8 | 2713.6 | 2734.3 | 2790.6 | 2860.8 | 2944.8 | 3016.0 | 3058.4  | 3055.5  | 3033.7  | 3015.0  |
| 12.5° | 2476.4 | 2498.1 | 2542.6 | 2652.3 | 2780.8 | 2929.0 | 3061.4 | 3150.3  | 3181.0  | 3165.2  | 3132.6  |
| 15°   | 2303.5 | 2322.2 | 2355.8 | 2468.5 | 2635.5 | 2860.8 | 3078.2 | 3251.1  | 3329.2  | 3320.3  | 3280.8  |
| 17.5° | 2298.5 | 2306.4 | 2327.2 | 2380.5 | 2509.0 | 2754.1 | 3060.4 | 3350.0  | 3499.2  | 3498.2  | 3448.8  |
| 20°   | 2385.5 | 2388.5 | 2400.3 | 2411.2 | 2484.3 | 2673.0 | 3015.0 | 3432.0  | 3689.9  | 3689.9  | 3636.5  |
| 22.5° | 2506.0 | 2504.1 | 2515.9 | 2506.0 | 2541.6 | 2666.1 | 2986.3 | 3504.1  | 3902.4  | 3918.2  | 3851.0  |
| 25°   | 2686.9 | 2677.0 | 2674.0 | 2651.3 | 2658.2 | 2730.4 | 3017.9 | 3586.1  | 4154.3  | 4187.0  | 4103.0  |
| 27.5° | 2928.0 | 2912.2 | 2901.3 | 2848.9 | 2831.2 | 2862.8 | 3114.8 | 3685.0  | 4435.0  | 4491.3  | 4384.6  |
| 30°   | 3242.2 | 3213.6 | 3197.8 | 3106.9 | 3042.6 | 3047.6 | 3261.0 | 3816.4  | 4728.5  | 4819.4  | 4684.0  |
| 32.5° | 3671.1 | 3626.7 | 3584.2 | 3434.9 | 3317.3 | 3278.8 | 3449.8 | 3998.2  | 5046.7  | 5191.9  | 5018.0  |
| 35°   | 4151.4 | 4115.8 | 4070.3 | 3840.1 | 3659.3 | 3570.3 | 3704.7 | 4252.2  | 5419.2  | 5649.5  | 5423.2  |
| 37.5° | 4613.9 | 4583.2 | 4605.0 | 4294.7 | 4061.5 | 3932.0 | 4038.7 | 4593.1  | 5878.7  | 6218.7  | 5931.1  |
| 40°   | 5092.1 | 5068.4 | 5071.4 | 4774.9 | 4503.2 | 4357.9 | 4443.9 | 5021.0  | 6405.4  | 6895.6  | 6541.8  |
| 42.5° | 5611.9 | 5594.1 | 5534.8 | 5272.0 | 4966.6 | 4831.3 | 4910.3 | 5515.1  | 6970.7  | 7666.4  | 7211.8  |
| 45°   | 6194.0 | 6183.1 | 6127.8 | 5826.4 | 5476.5 | 5324.4 | 5431.1 | 6060.6  | 7538.9  | 8391.7  | 7884.8  |
| 47.5° | 6697.0 | 6705.8 | 6698.9 | 6445.0 | 6082.3 | 5859.0 | 5986.4 | 6629.8  | 8067.6  | 9073.5  | 8530.0  |
| 50°   | 6939.1 | 6985.5 | 7053.7 | 6974.6 | 6749.3 | 6522.0 | 6546.7 | 7179.2  | 8571.5  | 9712.9  | 9148.6  |
| 52.5° | 6812.6 | 6900.5 | 7086.3 | 7212.8 | 7299.7 | 7252.3 | 7186.1 | 7724.7  | 9045.9  | 10290.0 | 9733.7  |
| 55°   | 6341.2 | 6464.7 | 6773.0 | 7078.4 | 7522.1 | 7867.0 | 7953.9 | 8329.4  | 9508.3  | 10797.9 | 10287.0 |
| 57.5° | 5482.5 | 5683.1 | 5959.8 | 6577.4 | 7324.5 | 8164.4 | 8849.2 | 9168.4  | 9998.5  | 11340.5 | 10866.1 |
| 60°   | 4010.1 | 4278.9 | 4622.7 | 5541.8 | 6632.7 | 8005.3 | 9611.1 | 10457.0 | 10695.2 | 12043.1 | 11620.1 |
| 62.5° | 2566.3 | 2732.3 | 3048.6 | 3914.2 | 5168.2 | 7190.1 | 9844.3 | 12067.8 | 11876.0 | 13195.3 | 12750.6 |
| 65°   | 1757.0 | 1863.7 | 2153.3 | 2639.5 | 3341.1 | 5352.0 | 9219.8 | 13275.3 | 13751.6 | 15021.5 | 14683.5 |
| 67.5° | 1276.7 | 1357.8 | 1604.8 | 2030.7 | 2177.0 | 3167.1 | 7154.5 | 13220.0 | 15574.8 | 16903.0 | 16377.2 |
| 70°   | 930.9  | 988.2  | 1195.7 | 1604.8 | 1675.0 | 1761.9 | 4334.2 | 11237.7 | 15535.3 | 17403.0 | 16773.5 |
| 72.5° | 689.8  | 729.3  | 868.6  | 1245.1 | 1355.8 | 1189.8 | 2145.4 | 8167.4  | 13349.4 | 15740.9 | 15235.9 |
| 75°   | 499.0  | 528.7  | 631.5  | 952.6  | 1085.0 | 906.2  | 1070.2 | 4773.0  | 9311.7  | 11072.7 | 11161.6 |
| 77.5° | 381.4  | 404.2  | 471.4  | 697.7  | 868.6  | 679.9  | 664.1  | 2195.8  | 4415.2  | 4437.0  | 4686.0  |
| 80°   | 306.3  | 321.2  | 357.7  | 491.1  | 666.0  | 508.9  | 432.8  | 886.4   | 1395.3  | 1180.9  | 1239.2  |
| 82.5° | 225.3  | 250.0  | 302.4  | 344.9  | 476.3  | 350.8  | 263.8  | 447.6   | 530.7   | 456.5   | 460.5   |
| 85°   | 128.5  | 145.3  | 182.8  | 247.0  | 304.4  | 214.4  | 151.2  | 198.6   | 247.0   | 202.6   | 180.8   |
| 87.5° | 45.5   | 59.3   | 64.2   | 96.8   | 132.4  | 88.9   | 58.3   | 57.3    | 81.0    | 60.3    | 50.4    |
| 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°    | 2730.4  | 2730.4  | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 | 2730.4 |
| 2.5°  | 2750.1  | 2745.2  | 2725.4 | 2698.7 | 2671.1 | 2644.4 | 2635.5 | 2616.7 | 2603.9 | 2597.0 | 2604.9 |
| 5°    | 2805.5  | 2789.7  | 2743.2 | 2683.9 | 2621.7 | 2554.5 | 2507.0 | 2463.6 | 2431.9 | 2402.3 | 2414.1 |
| 7.5°  | 2884.5  | 2856.9  | 2776.8 | 2673.0 | 2562.4 | 2450.7 | 2367.7 | 2304.5 | 2262.0 | 2234.3 | 2240.2 |
| 10°   | 2976.4  | 2933.9  | 2811.4 | 2656.3 | 2485.3 | 2325.2 | 2227.4 | 2173.0 | 2146.3 | 2131.5 | 2135.5 |
| 12.5° | 3082.2  | 3021.9  | 2847.0 | 2617.7 | 2367.7 | 2184.9 | 2117.7 | 2101.9 | 2102.9 | 2103.9 | 2105.8 |
| 15°   | 3212.6  | 3128.6  | 2875.6 | 2533.7 | 2214.5 | 2077.2 | 2065.3 | 2091.0 | 2117.7 | 2130.5 | 2129.5 |
| 17.5° | 3359.8  | 3241.3  | 2880.6 | 2395.4 | 2064.3 | 2008.0 | 2045.6 | 2100.9 | 2141.4 | 2159.2 | 2163.1 |
| 20°   | 3518.0  | 3355.9  | 2845.0 | 2199.7 | 1940.8 | 1951.7 | 2018.9 | 2090.0 | 2134.5 | 2157.2 | 2163.1 |
| 22.5° | 3698.8  | 3478.4  | 2760.0 | 1994.2 | 1840.0 | 1890.4 | 1969.5 | 2038.6 | 2085.1 | 2107.8 | 2113.7 |
| 25°   | 3905.3  | 3615.8  | 2626.6 | 1821.2 | 1753.0 | 1821.2 | 1900.3 | 1957.6 | 1995.2 | 2015.9 | 2021.8 |
| 27.5° | 4134.6  | 3759.1  | 2448.7 | 1683.9 | 1677.0 | 1750.1 | 1815.3 | 1859.8 | 1879.5 | 1895.3 | 1901.3 |
| 30°   | 4364.8  | 3889.5  | 2233.3 | 1580.1 | 1610.7 | 1679.9 | 1726.4 | 1746.1 | 1752.1 | 1755.0 | 1761.9 |
| 32.5° | 4613.9  | 4002.2  | 2007.0 | 1494.1 | 1547.5 | 1611.7 | 1639.4 | 1648.3 | 1620.6 | 1601.9 | 1607.8 |
| 35°   | 4915.2  | 4122.7  | 1785.7 | 1426.0 | 1485.2 | 1540.6 | 1549.5 | 1541.6 | 1509.0 | 1470.4 | 1472.4 |
| 37.5° | 5287.8  | 4272.9  | 1608.8 | 1377.5 | 1426.9 | 1463.5 | 1452.6 | 1450.7 | 1453.6 | 1408.2 | 1411.1 |
| 40°   | 5744.3  | 4468.6  | 1479.3 | 1340.0 | 1379.5 | 1387.4 | 1356.8 | 1373.6 | 1388.4 | 1319.2 | 1321.2 |
| 42.5° | 6251.3  | 4704.8  | 1397.3 | 1314.3 | 1340.0 | 1321.2 | 1273.8 | 1292.6 | 1290.6 | 1199.7 | 1198.7 |
| 45°   | 6768.1  | 4961.7  | 1368.6 | 1295.5 | 1303.4 | 1265.9 | 1213.5 | 1218.4 | 1176.9 | 1094.9 | 1097.9 |
| 47.5° | 7282.0  | 5237.4  | 1386.4 | 1279.7 | 1258.0 | 1215.5 | 1175.0 | 1153.2 | 1091.9 | 1030.7 | 1030.7 |
| 50°   | 7785.9  | 5526.9  | 1451.6 | 1248.1 | 1195.7 | 1171.0 | 1141.4 | 1102.8 | 1037.6 | 985.2  | 981.3  |
| 52.5° | 8253.3  | 5818.5  | 1524.8 | 1195.7 | 1117.6 | 1132.5 | 1113.7 | 1069.2 | 1005.0 | 951.6  | 952.6  |
| 55°   | 8696.1  | 6110.0  | 1553.4 | 1123.6 | 1044.5 | 1098.9 | 1088.0 | 1006.0 | 928.9  | 885.4  | 881.5  |
| 57.5° | 9178.3  | 6460.8  | 1521.8 | 1031.7 | 985.2  | 1060.3 | 1018.8 | 927.9  | 883.4  | 850.8  | 847.9  |
| 60°   | 9846.3  | 7011.2  | 1453.6 | 918.0  | 928.9  | 1003.0 | 931.9  | 894.3  | 845.9  | 809.3  | 807.3  |
| 62.5° | 10956.0 | 8037.9  | 1343.9 | 805.4  | 862.7  | 918.0  | 890.4  | 852.8  | 803.4  | 767.8  | 767.8  |
| 65°   | 12596.4 | 9464.9  | 1137.4 | 717.4  | 788.6  | 835.0  | 845.9  | 808.3  | 757.0  | 719.4  | 721.4  |
| 67.5° | 13979.9 | 10360.2 | 860.7  | 644.3  | 712.5  | 767.8  | 798.5  | 761.9  | 707.5  | 671.0  | 672.0  |
| 70°   | 13903.8 | 9709.9  | 657.1  | 572.2  | 645.3  | 701.6  | 741.1  | 712.5  | 654.2  | 619.6  | 622.6  |
| 72.5° | 12349.4 | 8122.9  | 531.6  | 499.0  | 577.1  | 632.4  | 679.9  | 658.1  | 598.8  | 565.2  | 565.2  |
| 75°   | 9072.6  | 5766.1  | 424.9  | 424.9  | 492.1  | 560.3  | 612.7  | 598.8  | 544.5  | 520.8  | 513.9  |
| 77.5° | 3824.3  | 2419.1  | 333.0  | 352.8  | 409.1  | 481.2  | 546.5  | 551.4  | 504.0  | 533.6  | 484.2  |
| 80°   | 1016.8  | 667.0   | 254.0  | 277.7  | 321.2  | 397.3  | 475.3  | 473.3  | 422.0  | 394.3  | 366.6  |
| 82.5° | 387.4   | 262.9   | 180.8  | 195.7  | 232.2  | 304.4  | 376.5  | 388.4  | 337.0  | 291.5  | 291.5  |
| 85°   | 149.2   | 112.7   | 111.7  | 117.6  | 135.4  | 201.6  | 284.6  | 294.5  | 254.0  | 215.4  | 222.3  |
| 87.5° | 38.5    | 33.6    | 41.5   | 39.5   | 62.3   | 107.7  | 163.1  | 169.0  | 155.1  | 89.9   | 128.5  |
| 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)