

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: P237427

Luminaire Tested: **ARCH-L-AF72-140-D-U-T4W-7030-HSS**

Issue Date: 8/23/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237427  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 8/23/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-140-D-U-T4W-7030-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 3000K, 620mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 13188.7 lumens  
Efficiency: N/A  
Efficacy: 92.2 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G3

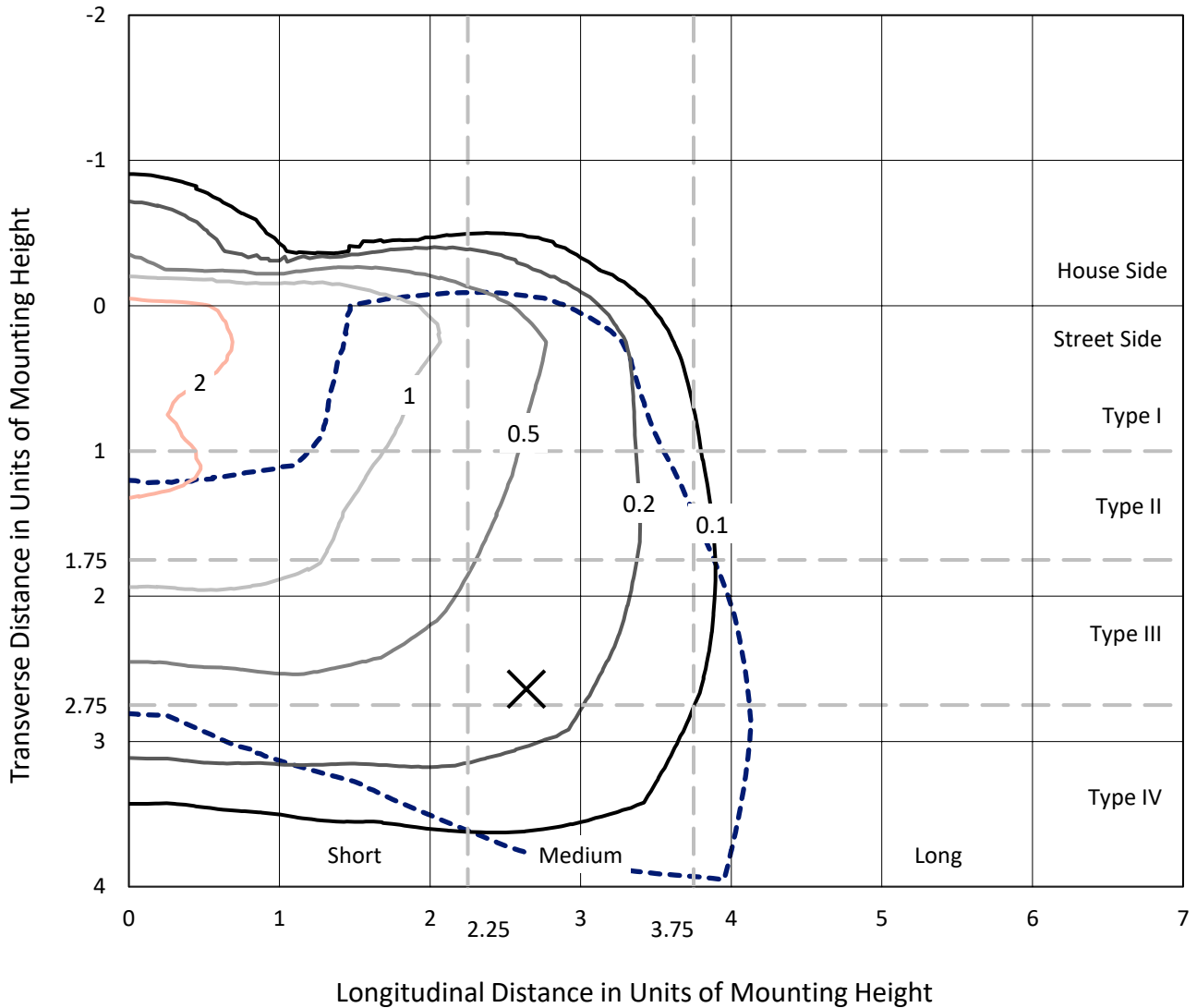
Input Watts (W): 143  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

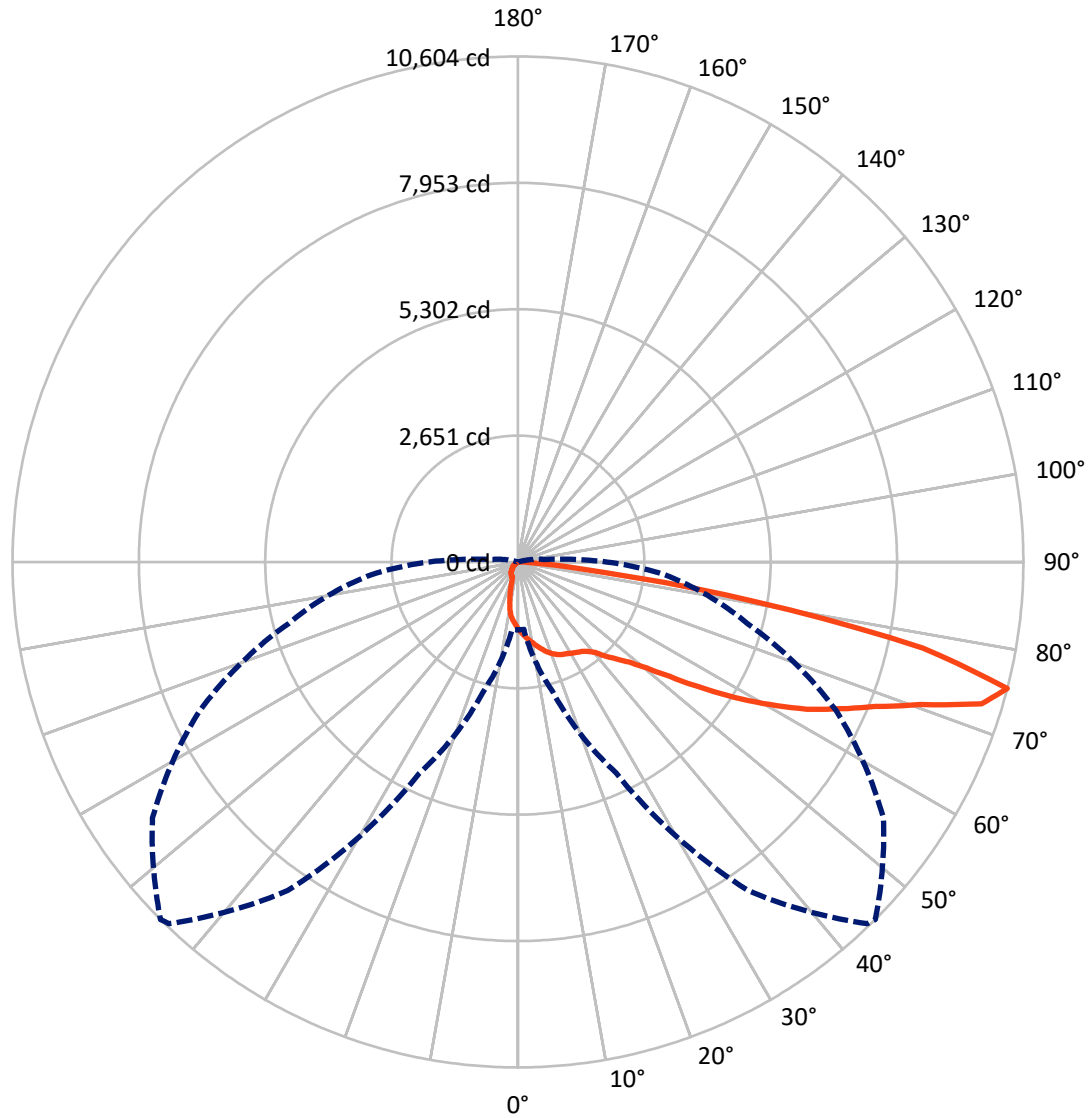
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral      - - - Horizontal Cone Through 75-Deg Vertical

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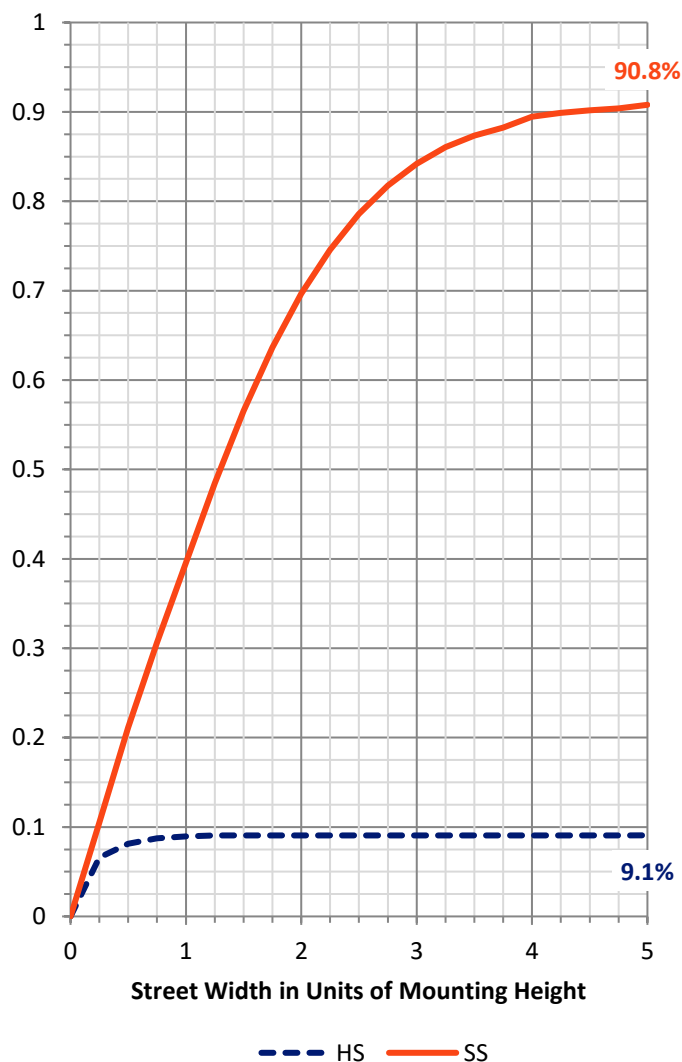
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1206.4   | 0.0    | 1206.4  |
|                    | % Fixture | 9.1      | 0.0    | 9.1     |
| <b>Street Side</b> | Lumens    | 11982.3  | 0.0    | 11982.3 |
|                    | % Fixture | 90.9     | 0.0    | 90.9    |
| <b>Total</b>       | Lumens    | 13188.7  | 0.0    | 13188.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 133.1   | 1.0       |
| 10°-20°   | 377.2   | 2.9       |
| 20°-30°   | 624.6   | 4.7       |
| 30°-40°   | 904.0   | 6.9       |
| 40°-50°   | 1480.2  | 11.2      |
| 50°-60°   | 2637.5  | 20.0      |
| 60°-70°   | 3877.4  | 29.4      |
| 70°-80°   | 2925.2  | 22.2      |
| 80°-90°   | 229.5   | 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°    | 13188.7 | 100.0     |
| 0°-180°   | 13188.7 | 100.0     |

**Coefficient of Utilization**



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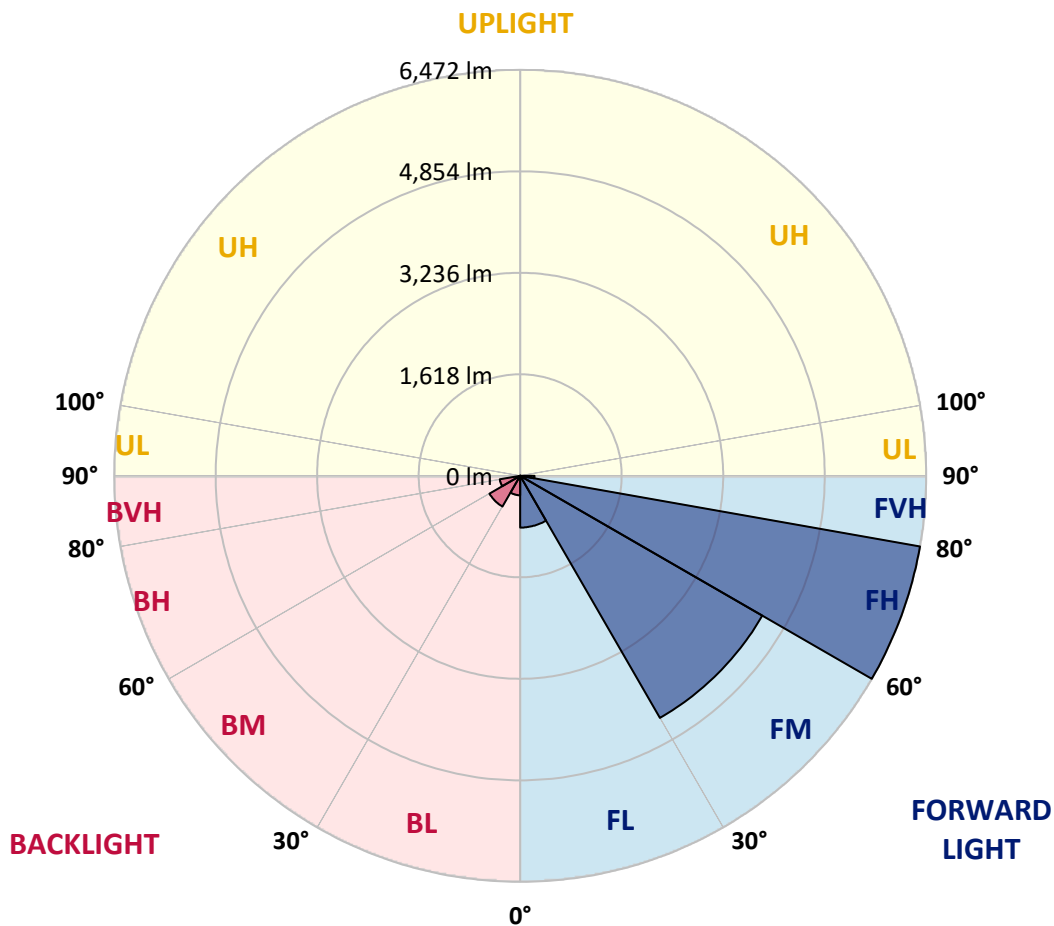
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|----------------|--------|-----------|-------------------------|------|---------|
|                |        |           | B                       | U    | G       |
| FL (0°-30°)    | 824.9  | 6.3       |                         |      |         |
| FM (30°-60°)   | 4456.4 | 33.8      |                         |      |         |
| FH (60°-80°)   | 6472.2 | 49.1      |                         |      | G3/7500 |
| FVH (80°-90°)  | 228.9  | 1.7       |                         |      | G3/500  |
| BL (0°-30°)    | 310.0  | 2.4       | B1/500                  |      |         |
| BM (30°-60°)   | 565.3  | 4.3       | B1/1000                 |      |         |
| BH (60°-80°)   | 330.4  | 2.5       | B1/500                  |      | G1/500  |
| BVH (80°-90°)  | 0.6    | 0.0       |                         |      | G0/10   |
| 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 Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 44°     | 45°     | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|---------|---------|--------|--------|--------|--------|
| 0°    | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6  | 1410.6  | 1410.6 | 1410.6 | 1410.6 | 1410.6 |
| 2.5°  | 1532.4 | 1532.4 | 1529.2 | 1526.1 | 1510.5 | 1494.8  | 1491.7  | 1482.4 | 1454.2 | 1435.5 | 1416.9 |
| 5°    | 1660.3 | 1663.4 | 1657.1 | 1641.5 | 1607.2 | 1572.9  | 1569.7  | 1544.8 | 1491.7 | 1454.2 | 1413.7 |
| 7.5°  | 1782.0 | 1788.2 | 1772.6 | 1744.6 | 1704.0 | 1654.0  | 1650.9  | 1604.2 | 1535.4 | 1482.4 | 1423.1 |
| 10°   | 1884.9 | 1884.9 | 1863.1 | 1828.8 | 1785.1 | 1732.1  | 1725.7  | 1672.8 | 1594.7 | 1529.2 | 1451.2 |
| 12.5° | 1997.3 | 1994.2 | 1963.0 | 1916.2 | 1866.2 | 1816.3  | 1813.1  | 1747.6 | 1672.8 | 1588.5 | 1491.7 |
| 15°   | 2100.3 | 2094.1 | 2053.5 | 2009.9 | 1956.8 | 1903.8  | 1900.6  | 1835.0 | 1757.0 | 1657.1 | 1551.1 |
| 17.5° | 2156.4 | 2153.4 | 2116.0 | 2072.2 | 2028.5 | 1988.0  | 1984.8  | 1916.2 | 1832.0 | 1728.9 | 1610.4 |
| 20°   | 2165.8 | 2168.9 | 2137.7 | 2100.3 | 2075.4 | 2053.5  | 2053.5  | 1991.0 | 1900.6 | 1791.3 | 1672.8 |
| 22.5° | 2168.9 | 2178.3 | 2156.4 | 2106.5 | 2100.3 | 2103.5  | 2109.7  | 2059.7 | 1966.1 | 1863.1 | 1738.4 |
| 25°   | 2190.7 | 2203.3 | 2187.7 | 2128.4 | 2122.2 | 2144.0  | 2150.2  | 2128.4 | 2044.1 | 1941.1 | 1813.1 |
| 27.5° | 2234.5 | 2247.0 | 2234.5 | 2159.6 | 2150.2 | 2172.1  | 2178.3  | 2190.7 | 2128.4 | 2016.1 | 1891.2 |
| 30°   | 2321.9 | 2325.0 | 2296.9 | 2203.3 | 2184.5 | 2212.6  | 2222.0  | 2256.3 | 2206.4 | 2087.8 | 1966.1 |
| 32.5° | 2474.8 | 2443.6 | 2359.4 | 2234.5 | 2218.8 | 2250.0  | 2259.5  | 2296.9 | 2278.2 | 2156.4 | 2044.1 |
| 35°   | 2786.8 | 2624.6 | 2431.1 | 2278.2 | 2262.5 | 2293.8  | 2306.3  | 2359.4 | 2368.7 | 2253.3 | 2140.8 |
| 37.5° | 2783.7 | 2637.1 | 2599.6 | 2362.4 | 2340.6 | 2362.4  | 2378.0  | 2443.6 | 2481.1 | 2381.2 | 2281.4 |
| 40°   | 2980.4 | 2918.0 | 2918.0 | 2521.6 | 2449.8 | 2481.1  | 2496.7  | 2562.1 | 2627.6 | 2549.7 | 2446.8 |
| 42.5° | 3598.2 | 3557.7 | 3514.0 | 2827.4 | 2602.8 | 2690.2  | 2699.5  | 2740.1 | 2818.2 | 2793.1 | 2671.4 |
| 45°   | 4288.0 | 4250.5 | 4082.0 | 3345.5 | 2864.9 | 2880.5  | 2902.4  | 2967.9 | 3080.2 | 3127.0 | 2983.5 |
| 47.5° | 4827.8 | 4790.5 | 4646.9 | 3969.6 | 3273.7 | 3136.4  | 3136.4  | 3264.3 | 3439.2 | 3557.7 | 3420.4 |
| 50°   | 5261.7 | 5218.0 | 5130.6 | 4634.3 | 3944.7 | 3504.7  | 3485.9  | 3635.7 | 3894.8 | 4078.8 | 3985.2 |
| 52.5° | 5683.0 | 5555.1 | 5502.0 | 5320.9 | 4703.1 | 4038.3  | 3988.4  | 4094.5 | 4453.4 | 4681.2 | 4603.2 |
| 55°   | 5963.8 | 5945.2 | 5889.0 | 5951.4 | 5498.8 | 4687.4  | 4643.7  | 4665.6 | 5115.0 | 5267.9 | 5171.1 |
| 57.5° | 6226.0 | 6222.9 | 6347.8 | 6637.9 | 6366.4 | 5430.1  | 5361.6  | 5327.2 | 5754.8 | 5717.3 | 5801.5 |
| 60°   | 6550.5 | 6494.4 | 6784.7 | 7199.6 | 7162.3 | 6154.2  | 6076.2  | 6007.5 | 6244.7 | 6138.6 | 6556.7 |
| 62.5° | 6566.2 | 6550.5 | 7140.4 | 7736.4 | 7951.8 | 6890.8  | 6800.2  | 6553.7 | 6672.3 | 6550.5 | 7277.6 |
| 65°   | 5970.0 | 6048.1 | 7290.3 | 8020.5 | 8613.5 | 7536.7  | 7427.6  | 7043.6 | 7053.0 | 6971.9 | 8126.6 |
| 67.5° | 5835.9 | 5876.5 | 6878.2 | 8326.3 | 9090.9 | 8189.0  | 8085.9  | 7608.5 | 7496.2 | 7502.4 | 8629.0 |
| 70°   | 5502.0 | 5564.3 | 6366.4 | 8304.5 | 9468.5 | 9059.7  | 8956.7  | 8438.6 | 8167.1 | 7864.4 | 8242.1 |
| 72.5° | 4203.8 | 4309.8 | 5364.6 | 7280.8 | 9365.4 | 10198.8 | 10170.7 | 9490.4 | 8435.5 | 7221.5 | 6235.3 |
| 75°   | 1423.1 | 1420.0 | 2818.2 | 4890.3 | 8413.7 | 10548.3 | 10604.4 | 9359.2 | 7358.8 | 4980.8 | 3095.9 |
| 77.5° | 305.8  | 308.9  | 580.5  | 1981.8 | 5589.3 | 8469.9  | 8685.2  | 7059.2 | 4746.8 | 2218.8 | 708.4  |
| 80°   | 149.8  | 153.0  | 240.3  | 524.3  | 2234.5 | 4749.8  | 5086.9  | 3629.5 | 1753.9 | 443.1  | 118.5  |
| 82.5° | 75.0   | 78.0   | 124.9  | 277.7  | 827.0  | 1688.4  | 1803.9  | 1335.7 | 502.5  | 249.6  | 59.3   |
| 85°   | 28.1   | 28.1   | 62.4   | 165.4  | 377.6  | 396.4   | 486.9   | 387.0  | 302.7  | 202.9  | 15.7   |
| 87.5° | 6.2    | 6.2    | 34.3   | 81.2   | 168.5  | 124.9   | 124.9   | 118.5  | 184.1  | 137.3  | 6.2    |
| 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°    | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 | 1410.6 |
| 2.5°  | 1407.5 | 1395.0 | 1373.2 | 1351.3 | 1335.7 | 1317.0 | 1307.7 | 1298.2 | 1295.2 | 1292.0 | 1298.2 |
| 5°    | 1391.9 | 1373.2 | 1332.6 | 1298.2 | 1267.1 | 1242.1 | 1223.3 | 1204.6 | 1195.3 | 1189.1 | 1192.1 |
| 7.5°  | 1391.9 | 1363.8 | 1304.4 | 1251.4 | 1201.6 | 1148.5 | 1095.5 | 1054.8 | 1023.6 | 1004.8 | 1008.0 |
| 10°   | 1407.5 | 1370.0 | 1292.0 | 1220.2 | 1126.6 | 1014.3 | 898.7  | 811.4  | 752.1  | 717.9  | 717.9  |
| 12.5° | 1441.7 | 1391.9 | 1295.2 | 1182.7 | 1023.6 | 827.0  | 652.3  | 546.2  | 502.5  | 477.5  | 480.6  |
| 15°   | 1488.6 | 1429.3 | 1310.8 | 1132.8 | 880.1  | 614.8  | 455.6  | 387.0  | 387.0  | 393.3  | 396.4  |
| 17.5° | 1541.6 | 1476.1 | 1323.2 | 1057.9 | 696.0  | 440.0  | 358.9  | 352.7  | 361.9  | 377.6  | 377.6  |
| 20°   | 1594.7 | 1523.0 | 1329.4 | 939.4  | 521.1  | 349.5  | 340.2  | 340.2  | 346.5  | 361.9  | 365.2  |
| 22.5° | 1660.3 | 1582.3 | 1323.2 | 792.6  | 390.0  | 330.8  | 327.7  | 327.7  | 327.7  | 346.5  | 346.5  |
| 25°   | 1728.9 | 1650.9 | 1298.2 | 636.7  | 330.8  | 318.3  | 315.2  | 312.1  | 312.1  | 327.7  | 330.8  |
| 27.5° | 1806.9 | 1722.7 | 1239.0 | 486.9  | 312.1  | 305.8  | 302.7  | 296.5  | 296.5  | 308.9  | 308.9  |
| 30°   | 1884.9 | 1803.9 | 1148.5 | 368.2  | 296.5  | 293.4  | 287.2  | 280.9  | 274.7  | 287.2  | 287.2  |
| 32.5° | 1969.2 | 1888.1 | 1029.9 | 293.4  | 274.7  | 274.7  | 271.5  | 262.1  | 255.8  | 262.1  | 265.3  |
| 35°   | 2081.6 | 1984.8 | 895.7  | 255.8  | 246.5  | 246.5  | 246.5  | 243.4  | 231.0  | 237.2  | 237.2  |
| 37.5° | 2231.4 | 2119.0 | 739.5  | 237.2  | 224.7  | 218.4  | 218.4  | 218.4  | 209.1  | 212.2  | 212.2  |
| 40°   | 2421.7 | 2275.1 | 589.8  | 221.6  | 209.1  | 193.5  | 187.3  | 190.3  | 184.1  | 184.1  | 181.1  |
| 42.5° | 2680.7 | 2443.6 | 443.1  | 209.1  | 196.5  | 174.9  | 162.2  | 159.2  | 153.0  | 149.8  | 149.8  |
| 45°   | 3052.1 | 2649.5 | 318.3  | 196.5  | 187.3  | 153.0  | 140.4  | 131.1  | 115.5  | 106.1  | 106.1  |
| 47.5° | 3532.8 | 2883.6 | 237.2  | 184.1  | 177.9  | 134.2  | 118.5  | 99.9   | 78.0   | 71.8   | 71.8   |
| 50°   | 4119.4 | 3145.8 | 199.7  | 165.4  | 162.2  | 118.5  | 93.6   | 65.5   | 43.7   | 37.4   | 40.5   |
| 52.5° | 4690.6 | 3392.3 | 177.9  | 146.6  | 143.5  | 103.0  | 68.7   | 34.3   | 18.7   | 18.7   | 18.7   |
| 55°   | 5171.1 | 3567.1 | 162.2  | 131.1  | 124.9  | 81.2   | 37.4   | 15.7   | 9.4    | 9.4    | 9.4    |
| 57.5° | 5605.0 | 3667.0 | 146.6  | 115.5  | 99.9   | 56.2   | 15.7   | 6.2    | 6.2    | 3.2    | 3.2    |
| 60°   | 6001.3 | 3726.3 | 128.0  | 99.9   | 78.0   | 31.2   | 6.2    | 3.2    | 3.2    | 0.0    | 0.0    |
| 62.5° | 6391.4 | 3769.9 | 109.3  | 81.2   | 59.3   | 12.4   | 3.2    | 3.2    | 0.0    | 0.0    | 0.0    |
| 65°   | 6687.9 | 3754.3 | 87.4   | 65.5   | 37.4   | 6.2    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 6678.5 | 3542.0 | 65.5   | 49.9   | 18.7   | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 5973.2 | 2983.5 | 43.7   | 31.2   | 6.2    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 4238.0 | 1913.0 | 28.1   | 18.7   | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 1866.2 | 580.5  | 15.7   | 9.4    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 365.2  | 134.2  | 9.4    | 6.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 87.4   | 15.7   | 3.2    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 37.4   | 6.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 9.4    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.2    | 3.2    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 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)