

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: P842709

Luminaire Tested: **ARCH4-80-750-U-T4W**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P842709  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2310-189-19)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-80-750-U-T4W  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 685mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 14807 lumens  
Efficiency: N/A  
Efficacy: 177.5 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B2 - U0 - G2

Input Watts (W): 83.4  
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



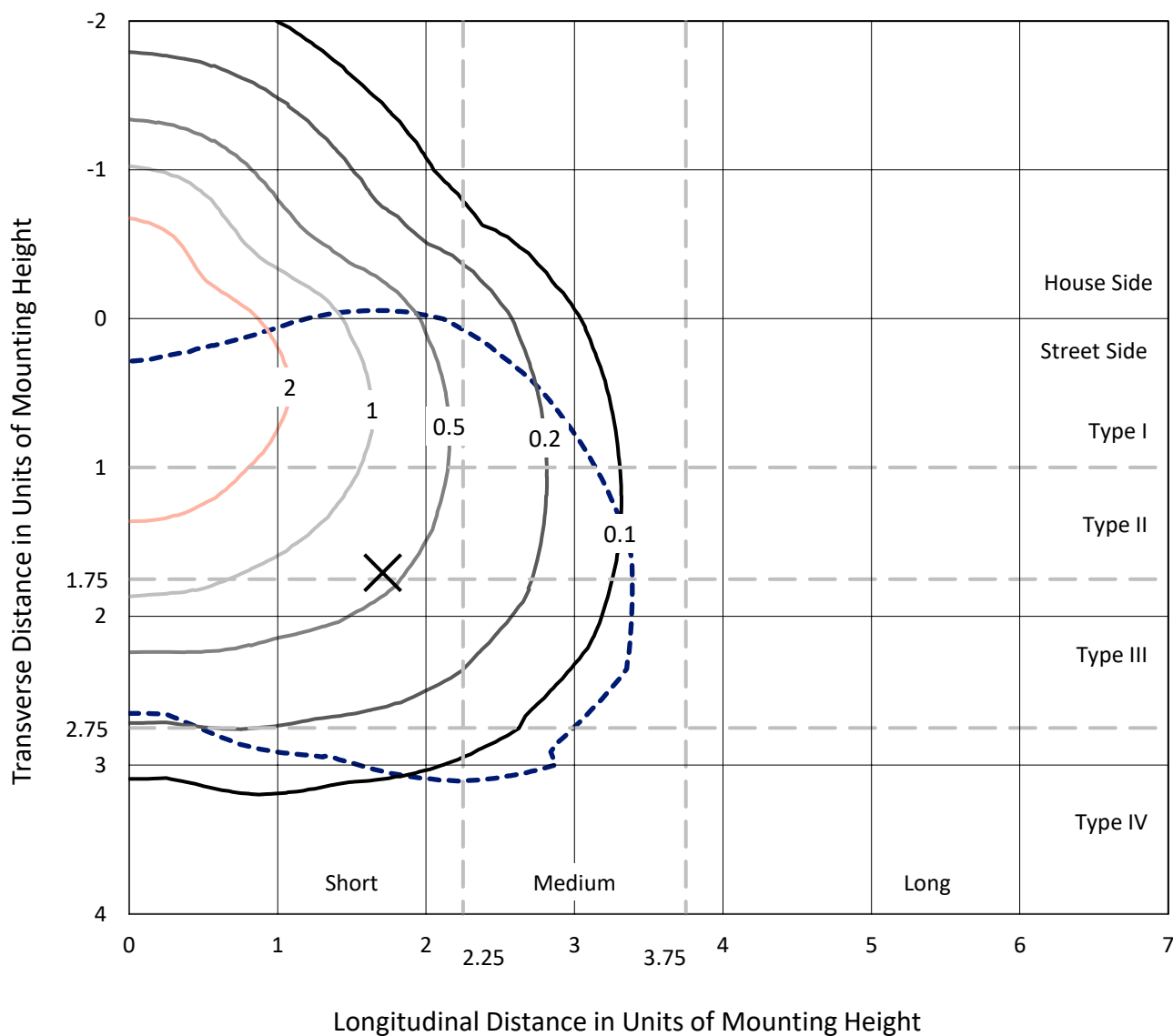
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CATALOG NUMBER: ARCH4-80-750-U-T4W

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

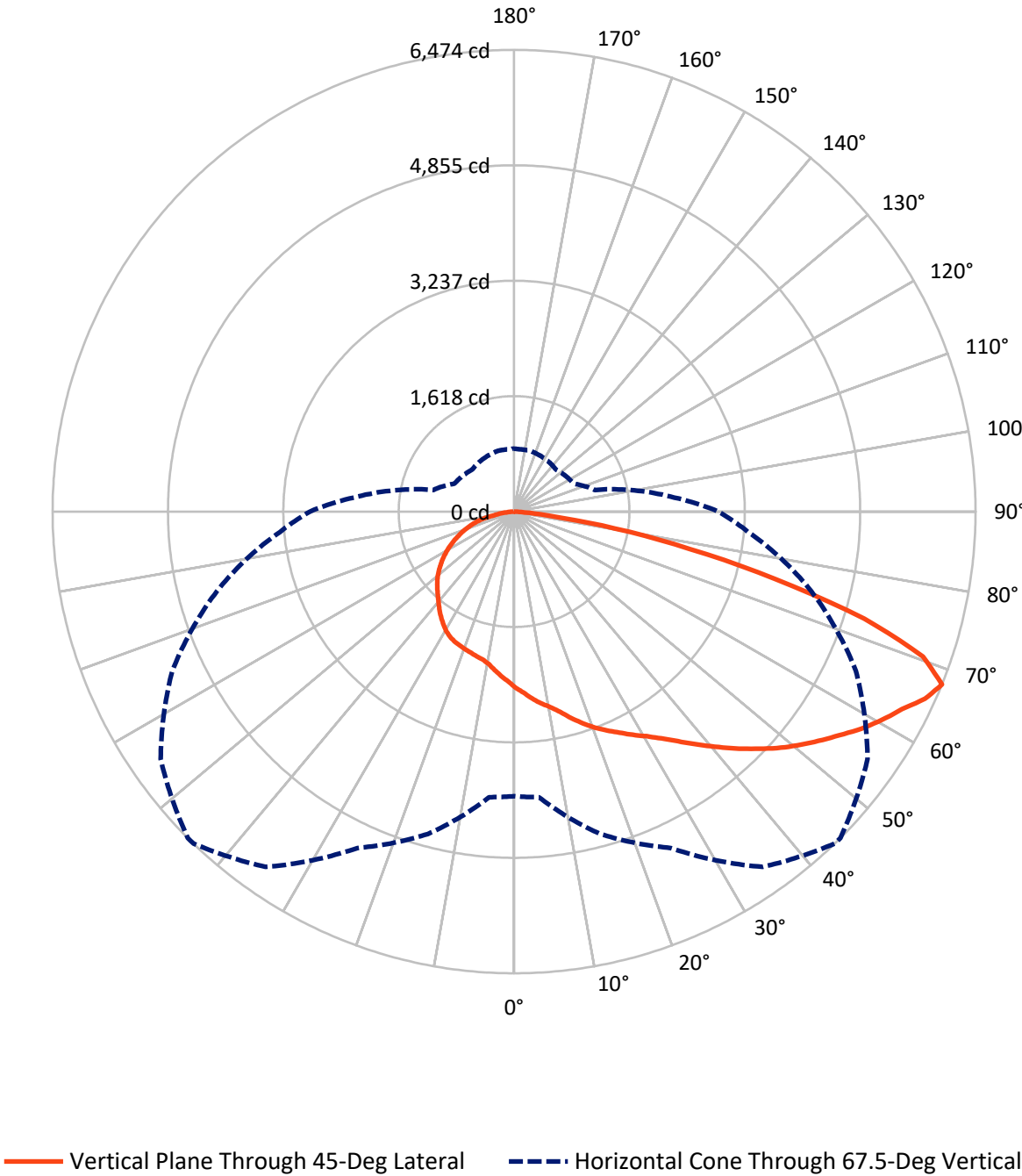


Based on 25 foot mounting height. Maximum calculated value = 4.6 fc

Type IV - Short - N/A

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Luminous Intensity Polar Plot



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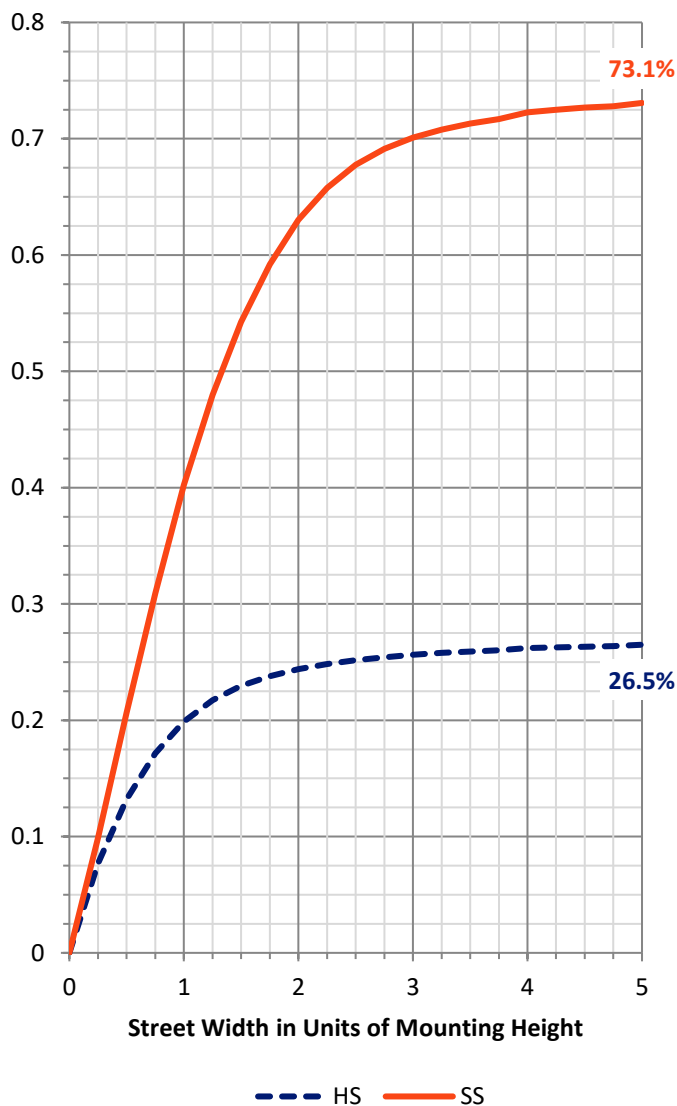
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 3955.7   | 0.0    | 3955.7  |
|                    | % Fixture | 26.7     | 0.0    | 26.7    |
| <b>Street Side</b> | Lumens    | 10851.3  | 0.0    | 10851.3 |
|                    | % Fixture | 73.3     | 0.0    | 73.3    |
| <b>Total</b>       | Lumens    | 14807.0  | 0.0    | 14807.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 236.4   | 1.6       |
| 10°-20°   | 730.4   | 4.9       |
| 20°-30°   | 1260.8  | 8.5       |
| 30°-40°   | 1859.2  | 12.6      |
| 40°-50°   | 2518.8  | 17.0      |
| 50°-60°   | 3078.6  | 20.8      |
| 60°-70°   | 3175.2  | 21.4      |
| 70°-80°   | 1739.1  | 11.7      |
| 80°-90°   | 208.4   | 1.4       |
| 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°    | 14807.0 | 100.0     |
| 0°-180°   | 14807.0 | 100.0     |

**Coefficient of Utilization**



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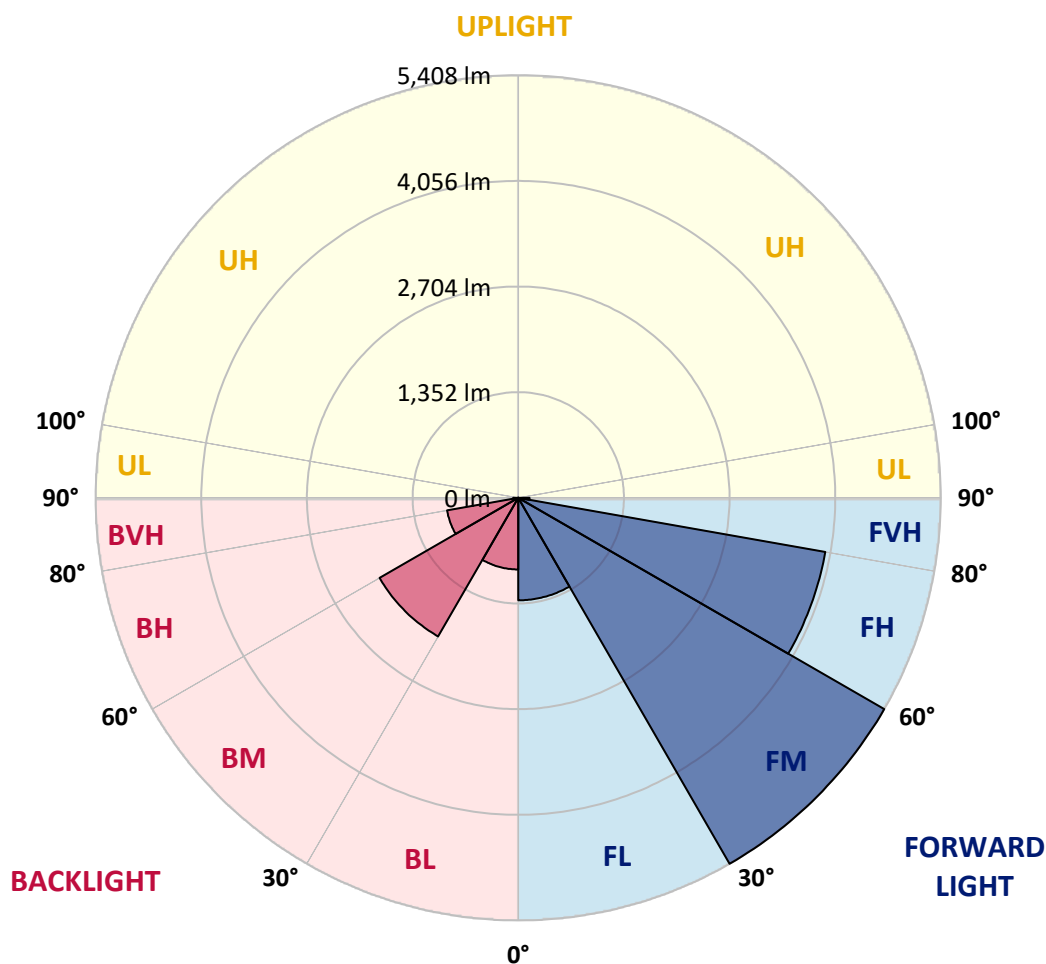
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1310.8 | 8.9       |                         |      |         |
| FM   | (30°-60°)   | 5407.7 | 36.5      |                         |      |         |
| FH   | (60°-80°)   | 3989.2 | 26.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 143.6  | 1.0       |                         |      | G2/225  |
| BL   | (0°-30°)    | 916.8  | 6.2       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 2049.0 | 13.8      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 925.1  | 6.2       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 64.8   | 0.4       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type IV Short



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 44°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 |
| 2.5°  | 2577.7 | 2575.4 | 2579.9 | 2564.2 | 2543.9 | 2541.6 | 2541.6 | 2528.1 | 2512.3 | 2480.8 | 2456.0 |
| 5°    | 2699.4 | 2694.8 | 2697.1 | 2674.6 | 2647.5 | 2634.0 | 2631.8 | 2602.5 | 2566.4 | 2516.8 | 2471.8 |
| 7.5°  | 2812.0 | 2807.5 | 2805.3 | 2780.5 | 2739.9 | 2717.4 | 2715.1 | 2672.3 | 2629.5 | 2552.9 | 2487.6 |
| 10°   | 2917.9 | 2913.4 | 2908.9 | 2875.1 | 2825.5 | 2791.7 | 2787.2 | 2733.2 | 2679.1 | 2584.4 | 2501.1 |
| 12.5° | 3053.1 | 3044.1 | 3039.6 | 2999.0 | 2926.9 | 2890.9 | 2884.1 | 2812.0 | 2744.4 | 2629.5 | 2528.1 |
| 15°   | 3195.1 | 3188.3 | 3181.5 | 3143.2 | 3062.1 | 3014.8 | 3003.5 | 2913.4 | 2821.0 | 2688.1 | 2568.7 |
| 17.5° | 3301.0 | 3294.2 | 3294.2 | 3260.4 | 3186.1 | 3132.0 | 3123.0 | 3014.8 | 2899.9 | 2742.2 | 2600.2 |
| 20°   | 3366.3 | 3359.5 | 3366.3 | 3346.0 | 3289.7 | 3244.6 | 3235.6 | 3116.2 | 2978.8 | 2791.7 | 2627.3 |
| 22.5° | 3413.6 | 3406.9 | 3418.1 | 3409.1 | 3368.6 | 3341.5 | 3334.8 | 3217.6 | 3059.9 | 2843.6 | 2654.3 |
| 25°   | 3497.0 | 3497.0 | 3497.0 | 3481.2 | 3442.9 | 3433.9 | 3433.9 | 3332.5 | 3163.5 | 2911.2 | 2694.8 |
| 27.5° | 3663.7 | 3654.7 | 3643.5 | 3598.4 | 3533.0 | 3530.8 | 3544.3 | 3449.7 | 3282.9 | 2999.0 | 2744.4 |
| 30°   | 3909.3 | 3904.8 | 3862.0 | 3767.4 | 3657.0 | 3645.7 | 3654.7 | 3575.9 | 3411.4 | 3091.4 | 2800.7 |
| 32.5° | 4227.0 | 4211.3 | 4123.4 | 3981.4 | 3823.7 | 3771.9 | 3789.9 | 3706.5 | 3546.6 | 3186.1 | 2854.8 |
| 35°   | 4452.4 | 4456.9 | 4393.8 | 4265.3 | 4078.3 | 3940.9 | 3954.4 | 3853.0 | 3693.0 | 3292.0 | 2922.4 |
| 37.5° | 4711.5 | 4727.3 | 4632.6 | 4535.7 | 4362.2 | 4127.9 | 4141.4 | 4004.0 | 3839.5 | 3424.9 | 2994.5 |
| 40°   | 5069.7 | 5038.2 | 4878.2 | 4763.3 | 4571.8 | 4323.9 | 4335.2 | 4173.0 | 4008.5 | 3551.1 | 3077.9 |
| 42.5° | 5369.4 | 5313.1 | 5119.3 | 4972.9 | 4743.0 | 4531.2 | 4542.5 | 4355.5 | 4179.7 | 3690.8 | 3170.3 |
| 45°   | 5799.8 | 5644.3 | 5364.9 | 5292.8 | 4918.8 | 4734.0 | 4745.3 | 4549.2 | 4360.0 | 3839.5 | 3269.4 |
| 47.5° | 6049.9 | 5802.0 | 5624.0 | 5585.7 | 5112.6 | 4943.6 | 4957.1 | 4754.3 | 4553.8 | 4008.5 | 3373.1 |
| 50°   | 6034.1 | 5874.1 | 5822.3 | 5727.7 | 5283.8 | 5139.6 | 5153.1 | 4966.1 | 4749.8 | 4175.2 | 3472.2 |
| 52.5° | 5930.5 | 5959.8 | 5932.7 | 5775.0 | 5455.0 | 5328.9 | 5344.6 | 5175.6 | 4950.3 | 4330.7 | 3564.6 |
| 55°   | 6090.4 | 6110.7 | 6058.9 | 5851.6 | 5644.3 | 5518.1 | 5536.2 | 5396.5 | 5148.6 | 4468.1 | 3643.5 |
| 57.5° | 6282.0 | 6209.9 | 6158.0 | 5986.8 | 5840.3 | 5723.2 | 5743.5 | 5621.8 | 5319.8 | 4578.5 | 3704.3 |
| 60°   | 6273.0 | 6122.0 | 6173.8 | 5995.8 | 5973.3 | 5912.4 | 5930.5 | 5806.5 | 5450.5 | 4659.7 | 3729.1 |
| 62.5° | 5811.0 | 5729.9 | 5991.3 | 5930.5 | 6081.4 | 6081.4 | 6104.0 | 5919.2 | 5529.4 | 4693.5 | 3715.6 |
| 65°   | 5008.9 | 5013.4 | 5473.1 | 5725.4 | 6209.9 | 6313.5 | 6331.5 | 5989.1 | 5484.3 | 4594.3 | 3589.4 |
| 67.5° | 3990.4 | 4019.7 | 4679.9 | 5204.9 | 6081.4 | 6471.2 | 6473.5 | 6052.1 | 5290.6 | 4314.9 | 3296.5 |
| 70°   | 2920.2 | 2942.7 | 3722.3 | 4360.0 | 5475.3 | 6122.0 | 6085.9 | 5874.1 | 4869.2 | 3828.2 | 2839.1 |
| 72.5° | 1973.8 | 1994.1 | 2796.2 | 3348.3 | 4492.9 | 5213.9 | 5135.1 | 5191.4 | 4150.4 | 3145.5 | 2282.5 |
| 75°   | 1327.1 | 1351.9 | 1989.6 | 2395.2 | 3305.5 | 3958.9 | 3783.2 | 3931.9 | 3210.8 | 2381.7 | 1665.1 |
| 77.5° | 835.9  | 851.7  | 1264.1 | 1570.5 | 2257.7 | 2694.8 | 2519.1 | 2521.4 | 1849.9 | 1282.1 | 894.5  |
| 80°   | 531.8  | 536.3  | 766.1  | 905.8  | 1306.9 | 1620.1 | 1433.0 | 1164.9 | 833.7  | 680.5  | 534.0  |
| 82.5° | 308.7  | 301.9  | 457.4  | 511.5  | 621.9  | 615.1  | 509.2  | 482.2  | 365.0  | 340.2  | 272.6  |
| 85°   | 123.9  | 114.9  | 200.5  | 187.0  | 189.3  | 200.5  | 148.7  | 148.7  | 119.4  | 92.4   | 67.6   |
| 87.5° | 24.8   | 24.8   | 27.0   | 24.8   | 24.8   | 27.0   | 20.3   | 20.3   | 18.0   | 18.0   | 18.0   |
| 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°    | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 | 2469.5 |
| 2.5°  | 2451.5 | 2447.0 | 2435.7 | 2406.4 | 2390.7 | 2381.7 | 2368.1 | 2363.6 | 2361.4 | 2363.6 | 2370.4 |
| 5°    | 2458.3 | 2442.5 | 2410.9 | 2363.6 | 2332.1 | 2311.8 | 2289.3 | 2280.3 | 2273.5 | 2273.5 | 2280.3 |
| 7.5°  | 2462.8 | 2438.0 | 2383.9 | 2314.1 | 2269.0 | 2237.4 | 2210.4 | 2199.1 | 2196.9 | 2203.6 | 2205.9 |
| 10°   | 2465.0 | 2429.0 | 2352.4 | 2264.5 | 2205.9 | 2165.3 | 2138.3 | 2131.5 | 2138.3 | 2151.8 | 2154.1 |
| 12.5° | 2480.8 | 2431.2 | 2334.3 | 2230.7 | 2160.8 | 2120.3 | 2100.0 | 2100.0 | 2118.0 | 2142.8 | 2145.1 |
| 15°   | 2507.8 | 2447.0 | 2325.3 | 2203.6 | 2131.5 | 2095.5 | 2088.7 | 2100.0 | 2127.0 | 2165.3 | 2169.8 |
| 17.5° | 2528.1 | 2456.0 | 2305.0 | 2167.6 | 2093.2 | 2070.7 | 2082.0 | 2109.0 | 2147.3 | 2199.1 | 2203.6 |
| 20°   | 2541.6 | 2456.0 | 2275.8 | 2124.8 | 2054.9 | 2050.4 | 2082.0 | 2124.8 | 2165.3 | 2226.2 | 2232.9 |
| 22.5° | 2555.1 | 2451.5 | 2242.0 | 2073.0 | 2012.1 | 2025.6 | 2084.2 | 2138.3 | 2178.9 | 2244.2 | 2255.5 |
| 25°   | 2579.9 | 2458.3 | 2208.2 | 2021.1 | 1967.1 | 2005.4 | 2082.0 | 2147.3 | 2190.1 | 2257.7 | 2275.8 |
| 27.5° | 2613.7 | 2474.0 | 2183.4 | 1973.8 | 1922.0 | 1973.8 | 2066.2 | 2145.1 | 2190.1 | 2255.5 | 2275.8 |
| 30°   | 2649.8 | 2492.1 | 2154.1 | 1922.0 | 1870.2 | 1928.8 | 2032.4 | 2120.3 | 2172.1 | 2232.9 | 2257.7 |
| 32.5° | 2688.1 | 2512.3 | 2129.3 | 1865.7 | 1807.1 | 1867.9 | 1982.8 | 2082.0 | 2138.3 | 2194.6 | 2221.7 |
| 35°   | 2739.9 | 2548.4 | 2115.8 | 1820.6 | 1750.8 | 1804.8 | 1919.7 | 2032.4 | 2093.2 | 2145.1 | 2176.6 |
| 37.5° | 2803.0 | 2593.5 | 2109.0 | 1775.5 | 1689.9 | 1735.0 | 1852.1 | 1971.6 | 2036.9 | 2079.7 | 2109.0 |
| 40°   | 2875.1 | 2649.8 | 2106.8 | 1732.7 | 1629.1 | 1662.9 | 1782.3 | 1901.7 | 1964.8 | 1998.6 | 2023.4 |
| 42.5° | 2956.2 | 2712.9 | 2102.3 | 1689.9 | 1568.2 | 1595.3 | 1714.7 | 1831.9 | 1885.9 | 1915.2 | 1937.8 |
| 45°   | 3041.8 | 2776.0 | 2093.2 | 1638.1 | 1502.9 | 1534.4 | 1644.8 | 1748.5 | 1804.8 | 1829.6 | 1854.4 |
| 47.5° | 3127.5 | 2839.1 | 2075.2 | 1579.5 | 1444.3 | 1473.6 | 1570.5 | 1660.6 | 1705.7 | 1728.2 | 1753.0 |
| 50°   | 3210.8 | 2895.4 | 2032.4 | 1511.9 | 1383.5 | 1410.5 | 1484.9 | 1545.7 | 1579.5 | 1597.5 | 1622.3 |
| 52.5° | 3285.2 | 2933.7 | 1971.6 | 1433.0 | 1322.6 | 1336.2 | 1385.7 | 1437.6 | 1464.6 | 1466.8 | 1489.4 |
| 55°   | 3348.3 | 2954.0 | 1883.7 | 1351.9 | 1257.3 | 1259.5 | 1286.6 | 1327.1 | 1338.4 | 1329.4 | 1345.2 |
| 57.5° | 3384.3 | 2942.7 | 1786.8 | 1268.6 | 1189.7 | 1180.7 | 1201.0 | 1221.2 | 1223.5 | 1201.0 | 1216.7 |
| 60°   | 3393.3 | 2890.9 | 1660.6 | 1185.2 | 1122.1 | 1097.3 | 1104.1 | 1099.6 | 1095.1 | 1086.1 | 1099.6 |
| 62.5° | 3348.3 | 2780.5 | 1520.9 | 1104.1 | 1050.0 | 1011.7 | 1009.4 | 1007.2 | 1013.9 | 1016.2 | 1018.5 |
| 65°   | 3183.8 | 2573.2 | 1354.2 | 1020.7 | 973.4  | 921.6  | 919.3  | 946.4  | 955.4  | 941.8  | 946.4  |
| 67.5° | 2866.1 | 2255.5 | 1171.7 | 923.8  | 876.5  | 831.4  | 849.5  | 865.2  | 881.0  | 876.5  | 881.0  |
| 70°   | 2415.4 | 1852.1 | 1004.9 | 815.7  | 770.6  | 745.8  | 766.1  | 779.6  | 781.9  | 777.4  | 781.9  |
| 72.5° | 1899.5 | 1446.6 | 849.5  | 705.3  | 664.7  | 653.4  | 678.2  | 689.5  | 709.8  | 718.8  | 721.0  |
| 75°   | 1372.2 | 1068.0 | 696.2  | 585.8  | 552.0  | 552.0  | 574.6  | 594.8  | 612.9  | 601.6  | 594.8  |
| 77.5° | 766.1  | 637.7  | 500.2  | 403.3  | 410.1  | 441.6  | 450.6  | 473.2  | 491.2  | 488.9  | 484.4  |
| 80°   | 464.2  | 398.8  | 338.0  | 261.4  | 259.1  | 283.9  | 342.5  | 380.8  | 389.8  | 369.5  | 367.3  |
| 82.5° | 241.1  | 209.5  | 180.3  | 146.5  | 162.2  | 189.3  | 198.3  | 238.8  | 263.6  | 254.6  | 265.9  |
| 85°   | 60.8   | 58.6   | 65.3   | 67.6   | 83.4   | 92.4   | 101.4  | 119.4  | 78.9   | 38.3   | 38.3   |
| 87.5° | 18.0   | 18.0   | 22.5   | 22.5   | 29.3   | 36.1   | 33.8   | 33.8   | 18.0   | 2.3    | 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)