

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: P399963

Luminaire Tested: **ARCH-L-PA3-210-827-U-T4W-HSS**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P399963  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-15)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-PA3-210-827-U-T4W-HSS  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 80 CRI, 2700K, 900mA 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: 15848 lumens  
Efficiency: N/A  
Efficacy: 75.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B1 - U0 - G4

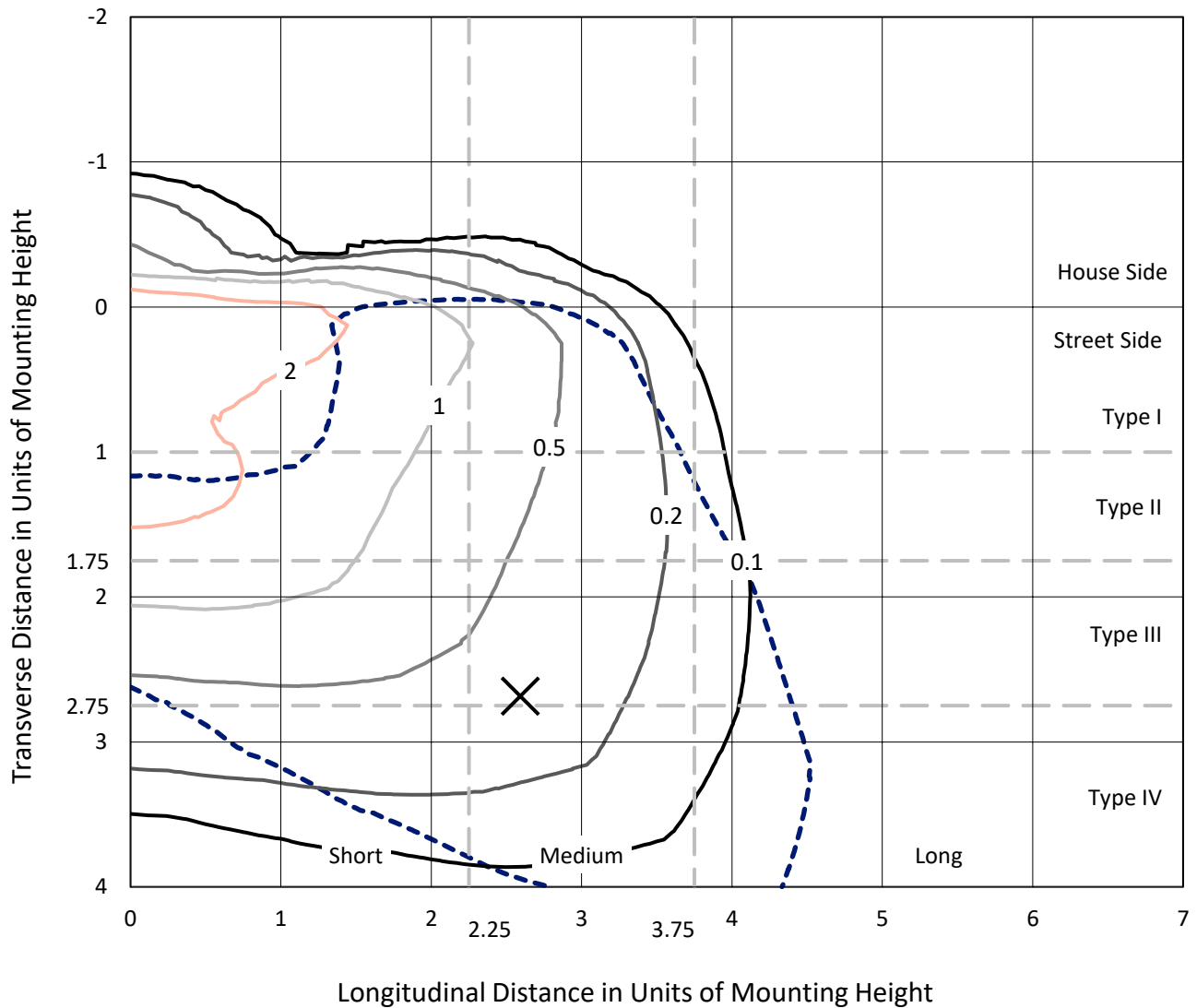
Input Watts (W): 211  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

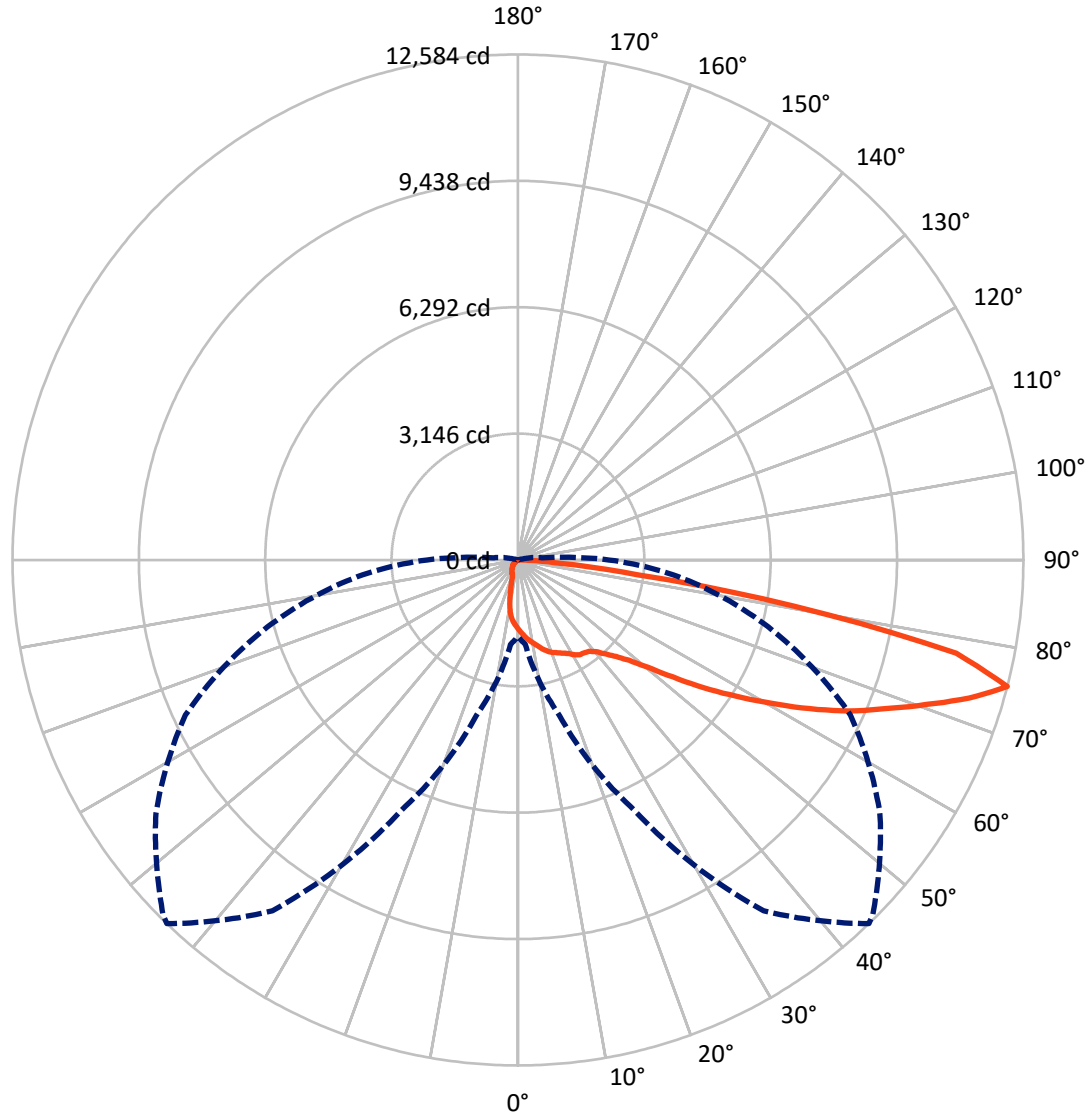
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.7 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 44-Deg Lateral    - - - Horizontal Cone Through 75-Deg Vertical

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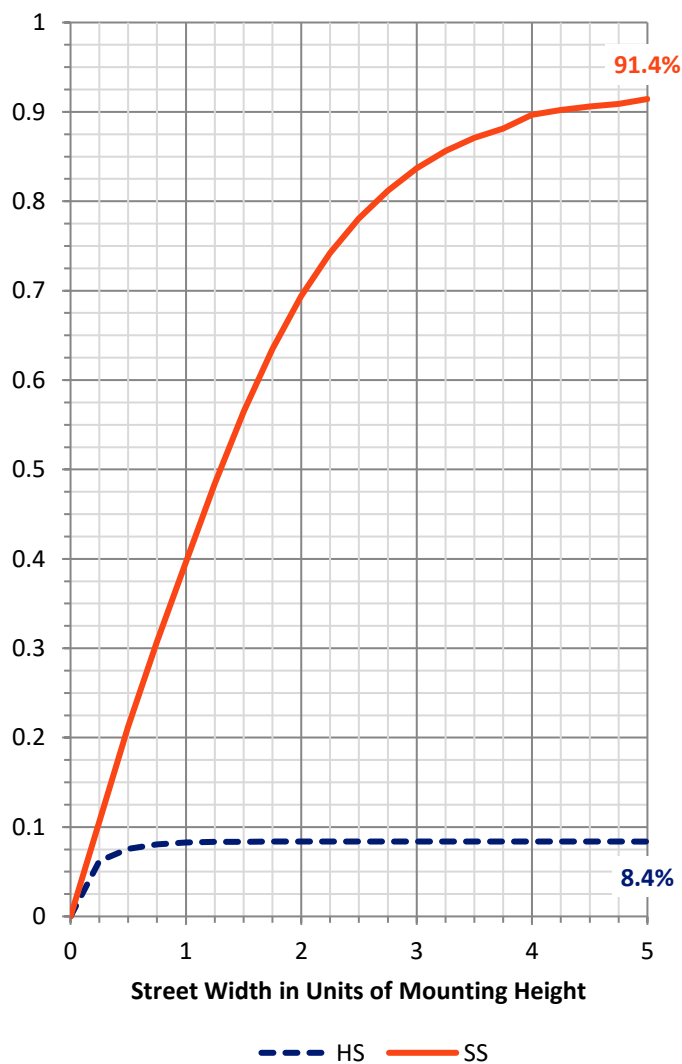
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1336.5   | 0.0    | 1336.5  |
|                    | % Fixture | 8.4      | 0.0    | 8.4     |
| <b>Street Side</b> | Lumens    | 14511.5  | 0.0    | 14511.5 |
|                    | % Fixture | 91.6     | 0.0    | 91.6    |
| <b>Total</b>       | Lumens    | 15848.0  | 0.0    | 15848.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 162.7   | 1.0       |
| 10°-20°   | 455.8   | 2.9       |
| 20°-30°   | 752.3   | 4.7       |
| 30°-40°   | 1091.9  | 6.9       |
| 40°-50°   | 1774.9  | 11.2      |
| 50°-60°   | 3128.9  | 19.7      |
| 60°-70°   | 4496.9  | 28.4      |
| 70°-80°   | 3601.0  | 22.7      |
| 80°-90°   | 383.7   | 2.4       |
| 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°    | 15848.0 | 100.0     |
| 0°-180°   | 15848.0 | 100.0     |

**Coefficient of Utilization**



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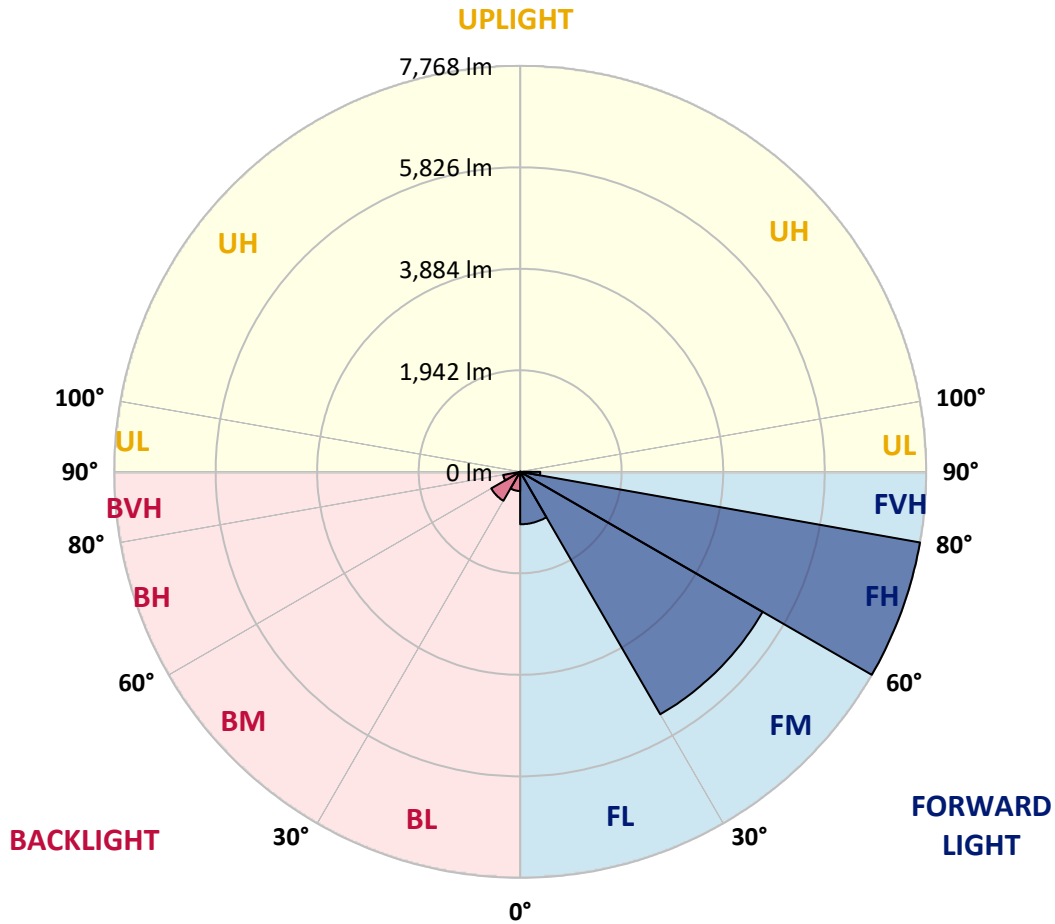
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1003.6 | 6.3       |                         |      |          |
| FM (30°-60°)   | 5356.8 | 33.8      |                         |      |          |
| FH (60°-80°)   | 7768.4 | 49.0      |                         |      | G4/12000 |
| FVH (80°-90°)  | 382.7  | 2.4       |                         |      | G3/500   |
| BL (0°-30°)    | 367.2  | 2.3       | B1/500                  |      |          |
| BM (30°-60°)   | 638.9  | 4.0       | B1/1000                 |      |          |
| BH (60°-80°)   | 329.5  | 2.1       | B1/500                  |      | G1/500   |
| BVH (80°-90°)  | 1.0    | 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-G4**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°     | 44°     | 45°     | 55°     | 65°    | 75°    | 85°     |
|-------|--------|--------|--------|--------|---------|---------|---------|---------|--------|--------|---------|
| 0°    | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0  | 1725.0  | 1725.0  | 1725.0  | 1725.0 | 1725.0 | 1725.0  |
| 2.5°  | 1880.0 | 1877.0 | 1868.3 | 1853.6 | 1839.0  | 1824.4  | 1821.5  | 1798.1  | 1771.8 | 1751.3 | 1733.8  |
| 5°    | 2046.6 | 2043.7 | 2029.1 | 1996.9 | 1964.7  | 1926.7  | 1923.8  | 1868.3  | 1818.6 | 1763.0 | 1716.2  |
| 7.5°  | 2219.1 | 2213.3 | 2186.9 | 2137.2 | 2081.7  | 2023.2  | 2017.4  | 1935.5  | 1862.4 | 1789.3 | 1722.1  |
| 10°   | 2353.6 | 2347.7 | 2309.7 | 2251.3 | 2175.2  | 2102.2  | 2093.4  | 2008.6  | 1935.5 | 1841.9 | 1751.3  |
| 12.5° | 2485.2 | 2473.5 | 2423.8 | 2359.4 | 2265.9  | 2195.7  | 2186.9  | 2099.2  | 2011.5 | 1915.0 | 1803.9  |
| 15°   | 2608.0 | 2593.3 | 2546.6 | 2464.7 | 2365.3  | 2298.0  | 2292.2  | 2198.6  | 2108.0 | 1996.9 | 1874.1  |
| 17.5° | 2692.7 | 2686.9 | 2631.3 | 2540.7 | 2444.2  | 2388.7  | 2382.8  | 2286.3  | 2195.7 | 2078.8 | 1947.2  |
| 20°   | 2736.6 | 2736.6 | 2684.0 | 2584.6 | 2496.9  | 2458.8  | 2450.1  | 2359.4  | 2271.7 | 2160.6 | 2023.2  |
| 22.5° | 2745.4 | 2754.1 | 2713.2 | 2605.0 | 2540.7  | 2508.6  | 2502.7  | 2423.8  | 2339.0 | 2236.6 | 2108.0  |
| 25°   | 2762.9 | 2762.9 | 2742.4 | 2625.5 | 2578.7  | 2569.9  | 2567.0  | 2496.9  | 2420.8 | 2318.5 | 2192.8  |
| 27.5° | 2783.4 | 2783.4 | 2768.8 | 2654.7 | 2637.2  | 2634.3  | 2631.3  | 2599.2  | 2537.8 | 2417.9 | 2292.2  |
| 30°   | 2836.0 | 2838.9 | 2827.2 | 2713.2 | 2701.5  | 2733.7  | 2739.5  | 2722.0  | 2646.0 | 2496.9 | 2394.5  |
| 32.5° | 2967.6 | 2941.3 | 2909.1 | 2754.1 | 2774.6  | 2815.5  | 2818.5  | 2783.4  | 2701.5 | 2581.6 | 2517.3  |
| 35°   | 3298.0 | 3143.0 | 2996.8 | 2789.2 | 2798.0  | 2838.9  | 2844.8  | 2841.9  | 2792.2 | 2689.8 | 2657.7  |
| 37.5° | 3604.9 | 3385.7 | 3178.1 | 2871.1 | 2841.9  | 2885.7  | 2897.4  | 2947.1  | 2909.1 | 2838.9 | 2847.7  |
| 40°   | 3783.3 | 3698.5 | 3552.3 | 3096.2 | 2929.6  | 2996.8  | 3008.5  | 3084.5  | 3069.9 | 3040.7 | 3096.2  |
| 42.5° | 4333.0 | 4338.8 | 4180.9 | 3432.4 | 3090.4  | 3198.5  | 3213.2  | 3274.6  | 3295.0 | 3309.7 | 3444.1  |
| 45°   | 4970.3 | 4990.8 | 4952.8 | 4037.7 | 3394.4  | 3429.5  | 3450.0  | 3531.9  | 3607.9 | 3701.4 | 3947.0  |
| 47.5° | 5736.3 | 5718.8 | 5578.5 | 4777.4 | 3923.6  | 3727.7  | 3742.4  | 3900.2  | 4031.8 | 4236.5 | 4587.3  |
| 50°   | 6414.6 | 6458.5 | 6192.4 | 5467.4 | 4669.2  | 4198.5  | 4183.8  | 4338.8  | 4575.6 | 4862.1 | 5303.6  |
| 52.5° | 7098.8 | 7034.5 | 6674.9 | 6151.5 | 5552.1  | 4838.8  | 4794.9  | 4879.7  | 5213.0 | 5552.1 | 6005.3  |
| 55°   | 7280.1 | 7285.9 | 7163.1 | 6900.0 | 6288.9  | 5616.5  | 5543.4  | 5537.5  | 5952.7 | 6183.7 | 6742.1  |
| 57.5° | 7636.8 | 7651.4 | 7680.6 | 7733.2 | 7443.8  | 6394.2  | 6318.2  | 6236.3  | 6639.8 | 6774.3 | 7481.8  |
| 60°   | 7999.3 | 8016.8 | 8195.2 | 8478.8 | 8285.8  | 7233.3  | 7151.4  | 6958.5  | 7183.6 | 7364.9 | 8259.5  |
| 62.5° | 7952.5 | 8075.3 | 8592.8 | 9157.1 | 9133.7  | 8154.3  | 8051.9  | 7587.1  | 7730.3 | 7888.2 | 8972.9  |
| 65°   | 7180.7 | 7312.2 | 8475.9 | 9344.2 | 9984.5  | 9063.5  | 8896.9  | 8236.1  | 8244.9 | 8434.9 | 9660.0  |
| 67.5° | 6490.7 | 6633.9 | 7744.9 | 9265.3 | 10545.9 | 9879.2  | 9706.7  | 8888.1  | 8750.7 | 9066.5 | 10028.4 |
| 70°   | 6093.0 | 6236.3 | 7163.1 | 9019.7 | 10703.7 | 10782.7 | 10633.6 | 9633.7  | 9353.0 | 9642.4 | 9616.1  |
| 72.5° | 4768.6 | 4993.7 | 6420.5 | 8551.9 | 10873.3 | 11750.4 | 11633.5 | 10578.0 | 9864.6 | 9040.1 | 7321.0  |
| 75°   | 1900.4 | 2108.0 | 4008.4 | 6882.4 | 10659.9 | 12583.7 | 12493.1 | 11002.0 | 9130.8 | 6455.6 | 3748.2  |
| 77.5° | 573.0  | 614.0  | 1113.9 | 3403.2 | 7815.1  | 11156.9 | 11127.7 | 9250.6  | 6461.4 | 2996.8 | 1023.3  |
| 80°   | 190.0  | 210.5  | 342.1  | 938.5  | 3566.9  | 6970.1  | 7101.7  | 5894.2  | 2935.4 | 687.1  | 207.6   |
| 82.5° | 78.9   | 87.7   | 172.5  | 377.2  | 1263.0  | 3002.7  | 2958.8  | 2640.1  | 1023.3 | 426.9  | 76.0    |
| 85°   | 20.5   | 26.3   | 78.9   | 216.4  | 461.9   | 1035.0  | 1087.6  | 885.9   | 578.9  | 353.8  | 23.4    |
| 87.5° | 0.0    | 0.0    | 38.0   | 87.7   | 207.6   | 312.8   | 327.5   | 269.0   | 327.5  | 266.1  | 11.7    |
| 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°    | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 | 1725.0 |
| 2.5°  | 1719.1 | 1704.5 | 1678.2 | 1660.7 | 1637.3 | 1631.4 | 1619.7 | 1605.1 | 1602.2 | 1587.6 | 1590.5 |
| 5°    | 1689.9 | 1666.5 | 1619.7 | 1587.6 | 1549.6 | 1537.9 | 1517.4 | 1502.8 | 1491.1 | 1470.6 | 1473.6 |
| 7.5°  | 1684.1 | 1649.0 | 1584.7 | 1523.3 | 1461.9 | 1418.0 | 1356.6 | 1306.9 | 1266.0 | 1222.1 | 1230.9 |
| 10°   | 1704.5 | 1660.7 | 1570.0 | 1485.2 | 1374.1 | 1233.8 | 1073.0 | 967.8  | 915.1  | 862.5  | 868.3  |
| 12.5° | 1745.5 | 1692.8 | 1575.9 | 1447.2 | 1222.1 | 982.4  | 760.2  | 616.9  | 578.9  | 555.5  | 558.4  |
| 15°   | 1806.9 | 1742.5 | 1593.4 | 1374.1 | 1017.5 | 710.5  | 505.8  | 444.4  | 459.0  | 467.8  | 467.8  |
| 17.5° | 1871.2 | 1798.1 | 1608.0 | 1242.6 | 786.5  | 497.0  | 412.2  | 406.4  | 426.9  | 447.3  | 447.3  |
| 20°   | 1950.1 | 1856.6 | 1611.0 | 1075.9 | 567.2  | 403.5  | 388.9  | 388.9  | 403.5  | 426.9  | 426.9  |
| 22.5° | 2026.1 | 1920.9 | 1584.7 | 885.9  | 432.7  | 374.2  | 374.2  | 374.2  | 383.0  | 406.4  | 409.3  |
| 25°   | 2116.8 | 1999.8 | 1529.1 | 684.2  | 371.3  | 356.7  | 356.7  | 359.6  | 365.5  | 385.9  | 388.9  |
| 27.5° | 2213.3 | 2081.7 | 1435.5 | 500.0  | 339.2  | 336.2  | 339.2  | 342.1  | 345.0  | 365.5  | 371.3  |
| 30°   | 2324.4 | 2172.3 | 1315.7 | 374.2  | 309.9  | 309.9  | 318.7  | 324.5  | 324.5  | 342.1  | 347.9  |
| 32.5° | 2453.0 | 2292.2 | 1172.4 | 309.9  | 280.7  | 277.8  | 292.4  | 301.1  | 301.1  | 315.8  | 321.6  |
| 35°   | 2613.8 | 2415.0 | 999.9  | 274.8  | 257.3  | 251.4  | 257.3  | 271.9  | 277.8  | 289.4  | 292.4  |
| 37.5° | 2827.2 | 2561.2 | 815.7  | 254.4  | 239.7  | 228.1  | 228.1  | 231.0  | 242.7  | 254.4  | 257.3  |
| 40°   | 3099.1 | 2722.0 | 634.4  | 239.7  | 222.2  | 210.5  | 201.7  | 198.8  | 195.9  | 204.7  | 210.5  |
| 42.5° | 3441.2 | 2903.3 | 473.6  | 225.1  | 207.6  | 190.0  | 178.3  | 166.7  | 152.0  | 149.1  | 152.0  |
| 45°   | 3879.8 | 3125.5 | 350.8  | 213.4  | 198.8  | 172.5  | 152.0  | 131.6  | 105.3  | 96.5   | 99.4   |
| 47.5° | 4397.3 | 3356.4 | 274.8  | 201.7  | 193.0  | 152.0  | 125.7  | 90.6   | 64.3   | 58.5   | 61.4   |
| 50°   | 4946.9 | 3578.6 | 233.9  | 187.1  | 181.3  | 131.6  | 90.6   | 55.6   | 38.0   | 38.0   | 40.9   |
| 52.5° | 5414.7 | 3704.4 | 213.4  | 175.4  | 163.7  | 108.2  | 58.5   | 32.2   | 23.4   | 23.4   | 26.3   |
| 55°   | 5867.9 | 3771.6 | 198.8  | 163.7  | 140.3  | 76.0   | 32.2   | 20.5   | 14.6   | 14.6   | 14.6   |
| 57.5° | 6335.7 | 3800.8 | 181.3  | 149.1  | 111.1  | 46.8   | 17.5   | 11.7   | 8.8    | 8.8    | 8.8    |
| 60°   | 6750.9 | 3745.3 | 155.0  | 122.8  | 73.1   | 23.4   | 8.8    | 8.8    | 5.8    | 2.9    | 2.9    |
| 62.5° | 7098.8 | 3640.0 | 108.2  | 87.7   | 43.9   | 11.7   | 5.8    | 2.9    | 0.0    | 0.0    | 0.0    |
| 65°   | 7312.2 | 3470.5 | 70.2   | 58.5   | 26.3   | 8.8    | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    |
| 67.5° | 7250.8 | 3151.8 | 43.9   | 38.0   | 11.7   | 5.8    | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    |
| 70°   | 6543.3 | 2584.6 | 32.2   | 23.4   | 8.8    | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 72.5° | 4716.0 | 1748.4 | 23.4   | 14.6   | 5.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 75°   | 2268.8 | 622.8  | 14.6   | 11.7   | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 77.5° | 555.5  | 137.4  | 8.8    | 5.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 80°   | 122.8  | 26.3   | 5.8    | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 82.5° | 40.9   | 11.7   | 2.9    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 14.6   | 5.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 8.8    | 2.9    | 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)