

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: P399982

Luminaire Tested: **ARCH-L-PA3-220-722-U-T4W**

Issue Date: 5/19/2020

**Test Information**

Test Method: LM-79-08  
Report Number: P399982  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-1910-568-11)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/19/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-PA3-220-722-U-T4W  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 2200K, 945mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 22660 lumens  
Efficiency: N/A  
Efficacy: 102.1 lumens/watt  
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

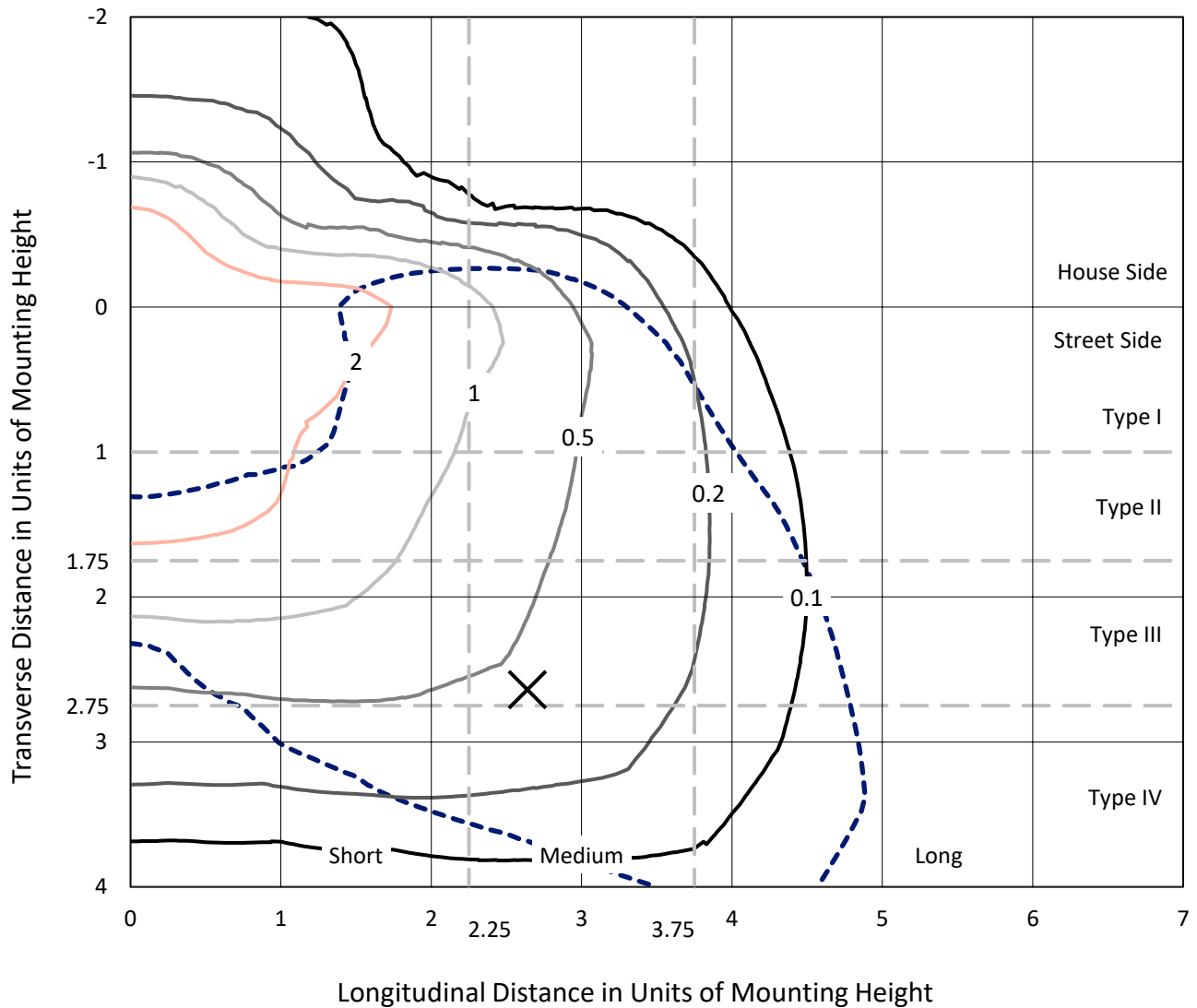
Input Watts (W): 222  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 28.75 FT



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### Iso-Footcandle Lines of Horizontal Illumination

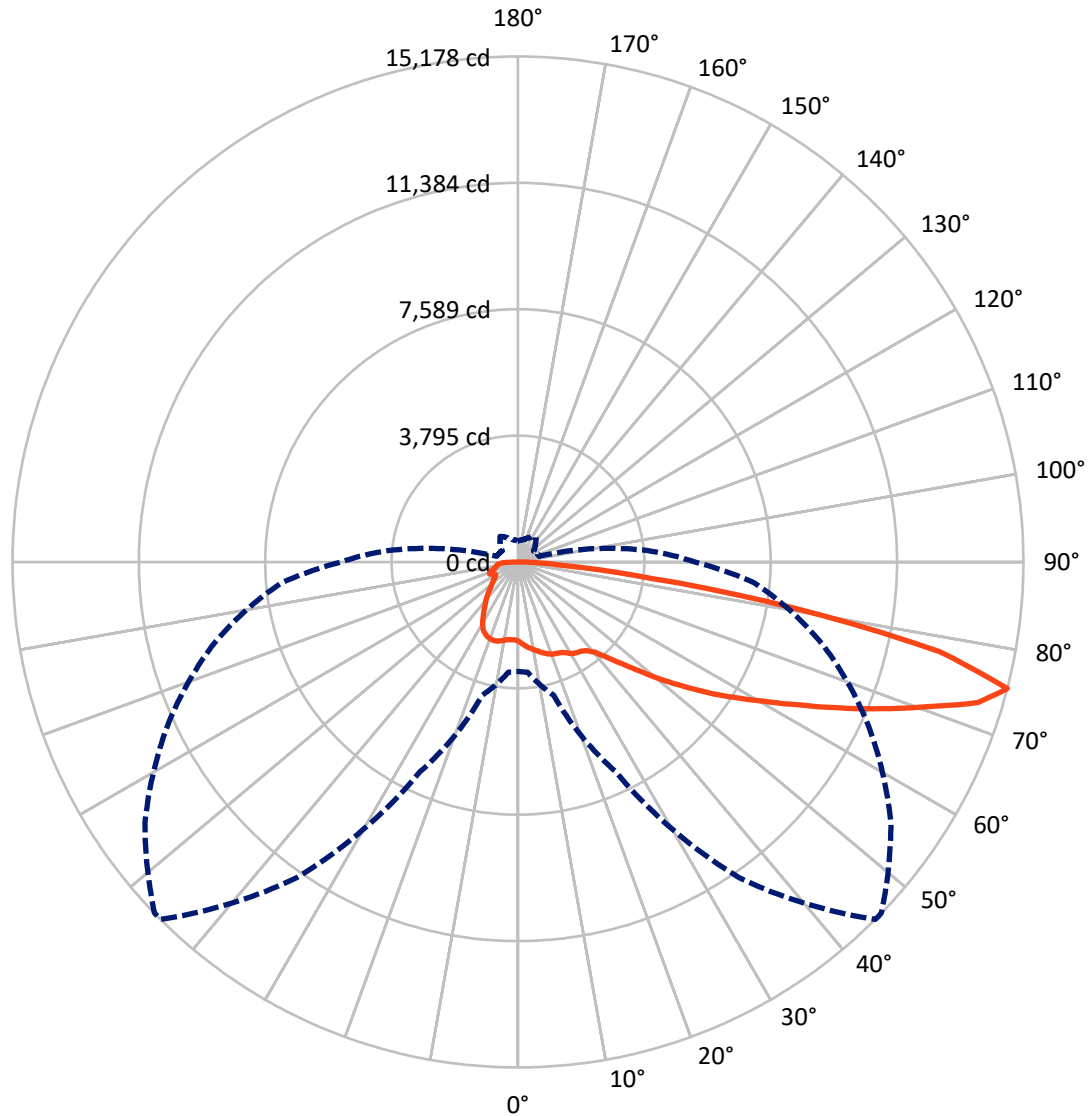
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.5 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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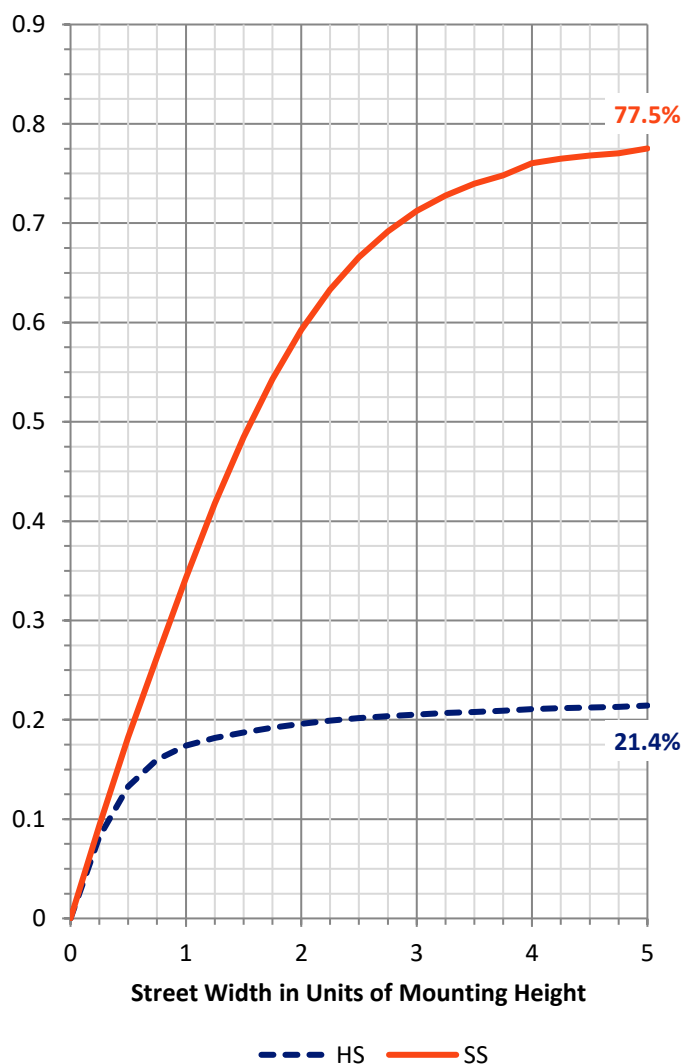
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5007.7   | 0.0    | 5007.7  |
|                    | % Fixture | 22.1     | 0.0    | 22.1    |
| <b>Street Side</b> | Lumens    | 17652.3  | 0.0    | 17652.3 |
|                    | % Fixture | 77.9     | 0.0    | 77.9    |
| <b>Total</b>       | Lumens    | 22660.0  | 0.0    | 22660.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 235.4   | 1.0       |
| 10°-20°   | 749.0   | 3.3       |
| 20°-30°   | 1276.9  | 5.6       |
| 30°-40°   | 1789.1  | 7.9       |
| 40°-50°   | 2628.5  | 11.6      |
| 50°-60°   | 4183.2  | 18.5      |
| 60°-70°   | 5950.7  | 26.3      |
| 70°-80°   | 4982.5  | 22.0      |
| 80°-90°   | 864.7   | 3.8       |
| 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°    | 22660.0 | 100.0     |
| 0°-180°   | 22660.0 | 100.0     |

**Coefficient of Utilization**

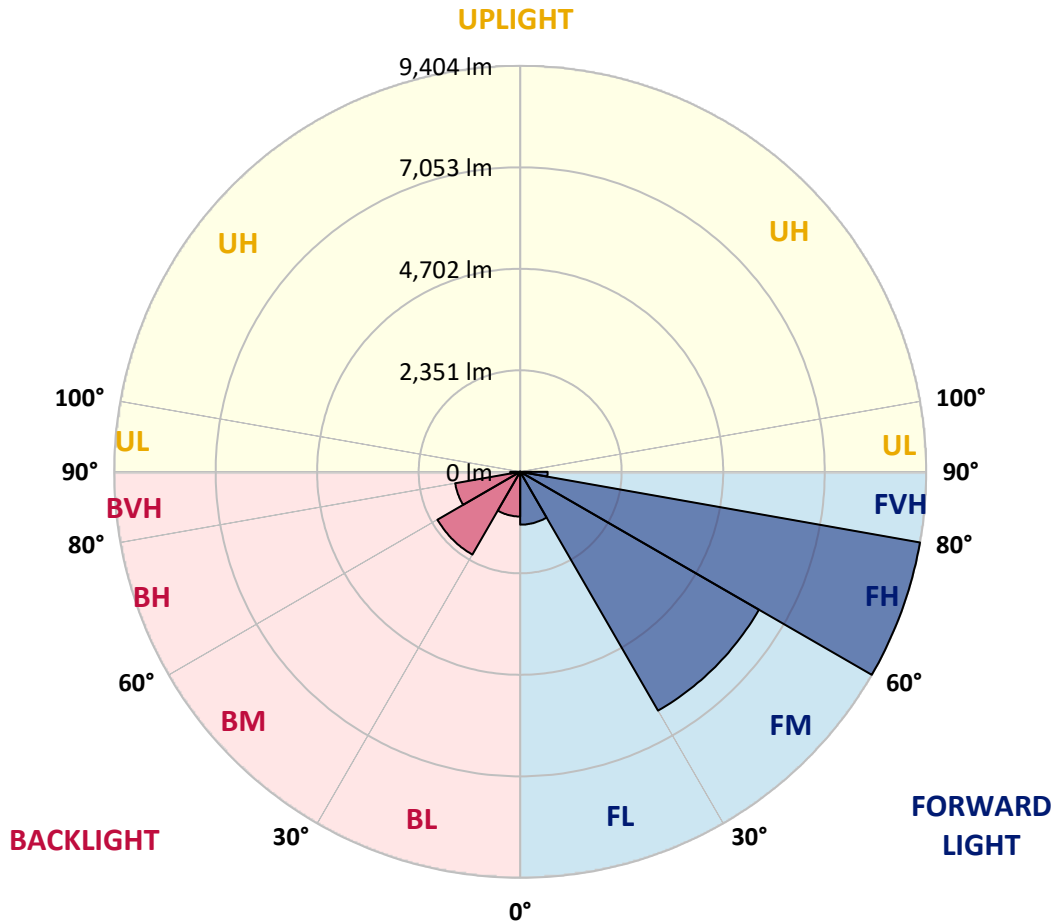


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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|--------|-----------|-------------------------|------|----------|
|                |        |           | B                       | U    | G        |
| FL (0°-30°)    | 1224.9 | 5.4       |                         |      |          |
| FM (30°-60°)   | 6387.2 | 28.2      |                         |      |          |
| FH (60°-80°)   | 9404.5 | 41.5      |                         |      | G4/12000 |
| FVH (80°-90°)  | 635.7  | 2.8       |                         |      | G4/750   |
| BL (0°-30°)    | 1036.4 | 4.6       | B3/2500                 |      |          |
| BM (30°-60°)   | 2213.7 | 9.8       | B2/2500                 |      |          |
| BH (60°-80°)   | 1528.7 | 6.7       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 229.0  | 1.0       |                         |      | G3/500   |
| UL (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |          |
| UH (100°-180°) | 0.0    | 0.0       |                         | U0/0 |          |

**BUG Rating: B3-U0-G4**  
 Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 2379.8 | 2379.8 | 2379.8 | 2379.8  | 2379.8  | 2379.8  | 2379.8  | 2379.8  | 2379.8  | 2379.8  | 2379.8  |
| 2.5°  | 2516.0 | 2503.9 | 2497.9 | 2497.9  | 2473.7  | 2458.5  | 2455.5  | 2434.3  | 2416.1  | 2398.0  | 2382.8  |
| 5°    | 2661.4 | 2652.3 | 2634.1 | 2619.0  | 2585.7  | 2543.3  | 2537.2  | 2491.8  | 2446.4  | 2404.0  | 2367.7  |
| 7.5°  | 2794.6 | 2776.4 | 2755.2 | 2725.0  | 2670.5  | 2612.9  | 2603.8  | 2540.3  | 2476.7  | 2413.1  | 2364.7  |
| 10°   | 2906.6 | 2888.5 | 2858.2 | 2815.8  | 2746.2  | 2676.5  | 2667.4  | 2600.8  | 2534.2  | 2458.5  | 2388.9  |
| 12.5° | 3012.6 | 2997.5 | 2952.0 | 2894.5  | 2812.8  | 2749.2  | 2740.1  | 2682.6  | 2612.9  | 2528.2  | 2437.3  |
| 15°   | 3103.4 | 3088.3 | 3039.8 | 2973.2  | 2879.4  | 2830.9  | 2818.8  | 2764.3  | 2694.7  | 2603.8  | 2510.0  |
| 17.5° | 3148.8 | 3148.8 | 3097.4 | 3024.7  | 2936.9  | 2900.6  | 2891.5  | 2824.9  | 2761.3  | 2673.5  | 2579.6  |
| 20°   | 3164.0 | 3170.0 | 3133.7 | 3045.9  | 2970.2  | 2955.1  | 2946.0  | 2891.5  | 2818.8  | 2734.0  | 2646.2  |
| 22.5° | 3173.1 | 3185.2 | 3154.9 | 3055.0  | 2991.4  | 2982.3  | 2976.3  | 2939.9  | 2882.4  | 2800.7  | 2712.8  |
| 25°   | 3203.3 | 3203.3 | 3182.1 | 3070.1  | 3018.6  | 3015.6  | 3015.6  | 2994.4  | 2955.1  | 2885.4  | 2797.6  |
| 27.5° | 3248.8 | 3245.7 | 3218.5 | 3103.4  | 3079.2  | 3088.3  | 3085.3  | 3082.2  | 3055.0  | 2985.3  | 2891.5  |
| 30°   | 3324.4 | 3324.4 | 3294.2 | 3170.0  | 3154.9  | 3194.3  | 3197.3  | 3203.3  | 3161.0  | 3052.0  | 2976.3  |
| 32.5° | 3439.5 | 3427.4 | 3397.1 | 3236.6  | 3212.4  | 3248.8  | 3254.8  | 3251.8  | 3215.4  | 3112.5  | 3076.2  |
| 35°   | 3793.7 | 3766.5 | 3657.5 | 3385.0  | 3263.9  | 3285.1  | 3288.1  | 3303.3  | 3309.3  | 3227.6  | 3209.4  |
| 37.5° | 4414.4 | 4378.1 | 4211.6 | 3736.2  | 3427.4  | 3375.9  | 3372.9  | 3412.3  | 3445.6  | 3372.9  | 3372.9  |
| 40°   | 5089.6 | 5059.3 | 4962.4 | 4341.8  | 3730.2  | 3560.6  | 3548.5  | 3584.8  | 3627.2  | 3575.7  | 3590.9  |
| 42.5° | 5670.9 | 5695.2 | 5704.2 | 4983.6  | 4184.3  | 3905.8  | 3872.5  | 3821.0  | 3887.6  | 3842.2  | 3902.7  |
| 45°   | 6106.9 | 6094.8 | 6261.3 | 5640.7  | 4771.7  | 4338.7  | 4293.3  | 4154.0  | 4238.8  | 4235.8  | 4369.0  |
| 47.5° | 6570.2 | 6549.0 | 6618.6 | 6258.3  | 5440.8  | 4868.6  | 4799.0  | 4593.1  | 4720.2  | 4808.0  | 5029.1  |
| 50°   | 7009.2 | 7015.3 | 7039.5 | 6745.8  | 6167.5  | 5513.5  | 5425.7  | 5150.2  | 5331.8  | 5516.5  | 5828.4  |
| 52.5° | 7581.4 | 7539.0 | 7508.8 | 7315.0  | 6981.9  | 6185.7  | 6128.1  | 5813.2  | 6067.6  | 6285.6  | 6700.4  |
| 55°   | 8081.0 | 8053.8 | 8035.6 | 8026.5  | 7663.2  | 6927.4  | 6866.9  | 6539.9  | 6906.3  | 7060.7  | 7672.3  |
| 57.5° | 8613.9 | 8598.8 | 8695.6 | 8850.1  | 8704.7  | 7681.4  | 7617.8  | 7302.9  | 7711.6  | 7820.6  | 8725.9  |
| 60°   | 9004.5 | 9013.6 | 9280.0 | 9673.6  | 9573.7  | 8498.8  | 8423.1  | 8144.6  | 8495.8  | 8592.7  | 9779.6  |
| 62.5° | 9007.5 | 9098.3 | 9716.0 | 10421.4 | 10536.5 | 9440.5  | 9352.7  | 9049.9  | 9301.2  | 9301.2  | 10724.2 |
| 65°   | 8147.6 | 8250.6 | 9637.3 | 10606.1 | 11511.4 | 10560.7 | 10475.9 | 10000.6 | 10094.5 | 9967.3  | 11611.3 |
| 67.5° | 7290.8 | 7411.9 | 8716.8 | 10621.3 | 12195.7 | 11759.7 | 11659.8 | 10951.3 | 10790.8 | 10469.9 | 12232.0 |
| 70°   | 6721.6 | 6806.3 | 7896.3 | 10424.5 | 12607.5 | 13013.2 | 12937.5 | 11853.6 | 11338.8 | 10890.7 | 12101.8 |
| 72.5° | 5658.8 | 5628.6 | 6670.1 | 9488.9  | 12837.6 | 14436.2 | 14372.6 | 12834.5 | 11814.2 | 10690.9 | 10321.5 |
| 75°   | 3285.1 | 3321.4 | 4138.9 | 6951.7  | 11572.0 | 15178.0 | 15172.0 | 13673.2 | 11605.3 | 9443.5  | 7112.1  |
| 77.5° | 947.7  | 974.9  | 1359.5 | 3055.0  | 7318.0  | 12946.6 | 13361.4 | 12504.5 | 9809.8  | 6730.6  | 3687.8  |
| 80°   | 414.8  | 436.0  | 590.4  | 1017.3  | 3151.9  | 8456.5  | 8819.8  | 8456.5  | 5916.2  | 3088.3  | 1447.3  |
| 82.5° | 245.2  | 260.4  | 384.5  | 629.8   | 1510.8  | 4023.9  | 4514.3  | 3942.1  | 2552.4  | 1311.0  | 599.5   |
| 85°   | 139.3  | 145.3  | 221.0  | 399.7   | 950.7   | 1407.9  | 1580.5  | 1480.6  | 1244.4  | 744.8   | 314.9   |
| 87.5° | 63.6   | 66.6   | 109.0  | 187.7   | 532.9   | 475.4   | 493.5   | 654.0   | 720.6   | 454.2   | 157.4   |
| 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°    | 2379.8  | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 | 2379.8 |
| 2.5°  | 2376.8  | 2367.7 | 2349.5 | 2343.5 | 2334.4 | 2337.4 | 2340.4 | 2340.4 | 2343.5 | 2334.4 | 2334.4 |
| 5°    | 2352.5  | 2337.4 | 2319.2 | 2319.2 | 2319.2 | 2343.5 | 2364.7 | 2376.8 | 2382.8 | 2382.8 | 2376.8 |
| 7.5°  | 2343.5  | 2325.3 | 2304.1 | 2310.2 | 2316.2 | 2346.5 | 2385.9 | 2425.2 | 2437.3 | 2437.3 | 2431.3 |
| 10°   | 2361.6  | 2343.5 | 2328.3 | 2337.4 | 2352.5 | 2376.8 | 2407.0 | 2443.4 | 2473.7 | 2476.7 | 2473.7 |
| 12.5° | 2404.0  | 2382.8 | 2367.7 | 2385.9 | 2404.0 | 2419.2 | 2434.3 | 2449.4 | 2488.8 | 2494.8 | 2494.8 |
| 15°   | 2473.7  | 2452.5 | 2434.3 | 2449.4 | 2455.5 | 2455.5 | 2455.5 | 2455.5 | 2494.8 | 2500.9 | 2500.9 |
| 17.5° | 2543.3  | 2525.1 | 2507.0 | 2510.0 | 2491.8 | 2467.6 | 2458.5 | 2455.5 | 2476.7 | 2494.8 | 2497.9 |
| 20°   | 2609.9  | 2594.8 | 2576.6 | 2546.3 | 2500.9 | 2455.5 | 2440.4 | 2440.4 | 2452.5 | 2479.7 | 2479.7 |
| 22.5° | 2682.6  | 2664.4 | 2634.1 | 2564.5 | 2488.8 | 2425.2 | 2410.1 | 2419.2 | 2434.3 | 2470.6 | 2467.6 |
| 25°   | 2764.3  | 2740.1 | 2688.6 | 2558.4 | 2449.4 | 2373.7 | 2376.8 | 2404.0 | 2431.3 | 2470.6 | 2470.6 |
| 27.5° | 2855.1  | 2821.8 | 2718.9 | 2510.0 | 2361.6 | 2289.0 | 2316.2 | 2379.8 | 2419.2 | 2461.5 | 2467.6 |
| 30°   | 2955.1  | 2924.8 | 2743.1 | 2425.2 | 2219.3 | 2152.7 | 2219.3 | 2322.3 | 2382.8 | 2422.2 | 2431.3 |
| 32.5° | 3076.2  | 3052.0 | 2764.3 | 2316.2 | 2034.6 | 1977.1 | 2074.0 | 2201.2 | 2298.0 | 2343.5 | 2352.5 |
| 35°   | 3227.6  | 3203.3 | 2791.6 | 2192.1 | 1862.1 | 1801.5 | 1889.3 | 2019.5 | 2146.7 | 2204.2 | 2222.4 |
| 37.5° | 3424.4  | 3388.0 | 2815.8 | 2058.9 | 1716.7 | 1647.1 | 1689.5 | 1807.6 | 1922.6 | 2001.3 | 2022.5 |
| 40°   | 3675.7  | 3618.1 | 2837.0 | 1907.5 | 1589.6 | 1510.8 | 1526.0 | 1583.5 | 1650.1 | 1719.8 | 1747.0 |
| 42.5° | 4029.9  | 3914.9 | 2840.0 | 1747.0 | 1459.4 | 1386.7 | 1380.6 | 1398.8 | 1398.8 | 1398.8 | 1407.9 |
| 45°   | 4523.4  | 4305.4 | 2846.1 | 1595.6 | 1326.1 | 1250.5 | 1232.3 | 1226.2 | 1180.8 | 1093.0 | 1087.0 |
| 47.5° | 5147.1  | 4817.1 | 2873.3 | 1468.4 | 1186.9 | 1120.3 | 1096.0 | 1071.8 | 987.0  | 896.2  | 878.0  |
| 50°   | 5946.5  | 5410.6 | 2927.8 | 1347.3 | 1068.8 | 1023.4 | 993.1  | 935.6  | 841.7  | 772.1  | 753.9  |
| 52.5° | 6866.9  | 6116.0 | 2979.3 | 1220.2 | 981.0  | 950.7  | 914.4  | 844.7  | 744.8  | 702.4  | 696.4  |
| 55°   | 7923.6  | 6903.2 | 3082.2 | 1108.1 | 905.3  | 884.1  | 850.8  | 784.2  | 708.5  | 678.2  | 675.2  |
| 57.5° | 9004.5  | 7784.3 | 3227.6 | 1008.2 | 832.6  | 820.5  | 820.5  | 763.0  | 714.5  | 702.4  | 702.4  |
| 60°   | 10046.0 | 8541.2 | 3115.5 | 914.4  | 766.0  | 772.1  | 829.6  | 814.5  | 778.1  | 793.3  | 802.3  |
| 62.5° | 10854.4 | 8986.3 | 2528.2 | 838.7  | 717.6  | 772.1  | 920.4  | 920.4  | 878.0  | 872.0  | 872.0  |
| 65°   | 11199.6 | 8980.2 | 1777.3 | 781.2  | 699.4  | 847.8  | 1026.4 | 978.0  | 865.9  | 823.5  | 814.5  |
| 67.5° | 11111.8 | 8586.6 | 1226.2 | 741.8  | 693.4  | 926.5  | 1074.8 | 938.6  | 811.4  | 775.1  | 747.8  |
| 70°   | 10339.7 | 7754.0 | 944.7  | 705.5  | 684.3  | 893.2  | 1059.7 | 893.2  | 769.0  | 735.7  | 711.5  |
| 72.5° | 8341.4  | 6219.0 | 784.2  | 669.1  | 647.9  | 826.6  | 1008.2 | 850.8  | 735.7  | 699.4  | 675.2  |
| 75°   | 5319.7  | 3911.8 | 663.1  | 620.7  | 578.3  | 741.8  | 938.6  | 808.4  | 699.4  | 651.0  | 632.8  |
| 77.5° | 2558.4  | 1686.4 | 578.3  | 563.2  | 520.8  | 687.3  | 869.0  | 753.9  | 651.0  | 611.6  | 599.5  |
| 80°   | 1035.5  | 772.1  | 502.6  | 505.6  | 478.4  | 654.0  | 820.5  | 702.4  | 602.5  | 560.1  | 538.9  |
| 82.5° | 538.9   | 448.1  | 423.9  | 436.0  | 436.0  | 623.7  | 784.2  | 660.0  | 560.1  | 542.0  | 472.3  |
| 85°   | 290.7   | 278.6  | 327.0  | 351.2  | 378.5  | 563.2  | 729.7  | 614.6  | 511.7  | 439.0  | 423.9  |
| 87.5° | 142.3   | 181.7  | 184.7  | 211.9  | 263.4  | 451.1  | 614.6  | 514.7  | 426.9  | 354.2  | 348.2  |
| 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)