

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: P842775

Luminaire Tested: **ARCH4-90-750-U-T2R**

Issue Date: 5/27/2024

### Test Information

Test Method: LM-79-08  
Report Number: P842775  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2403-329-1)  
Test Lab: INNOVATION CENTER  
Issue Date: 5/27/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH4-90-750-U-T2R  
Description: ARCHEON CONTEMPORARY ROADWAY AND AREA LUMINAIRE  
(2) 70 CRI, 5000K, 765mA LIGHTSQUARES WITH 40 LEDS EACH AND TYPE II  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 16869 lumens  
Efficiency: N/A  
Efficacy: 181.2 lumens/watt  
Luminous Opening: Rectangular (W 1.17' x L: 0.58' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B3 - U0 - G3

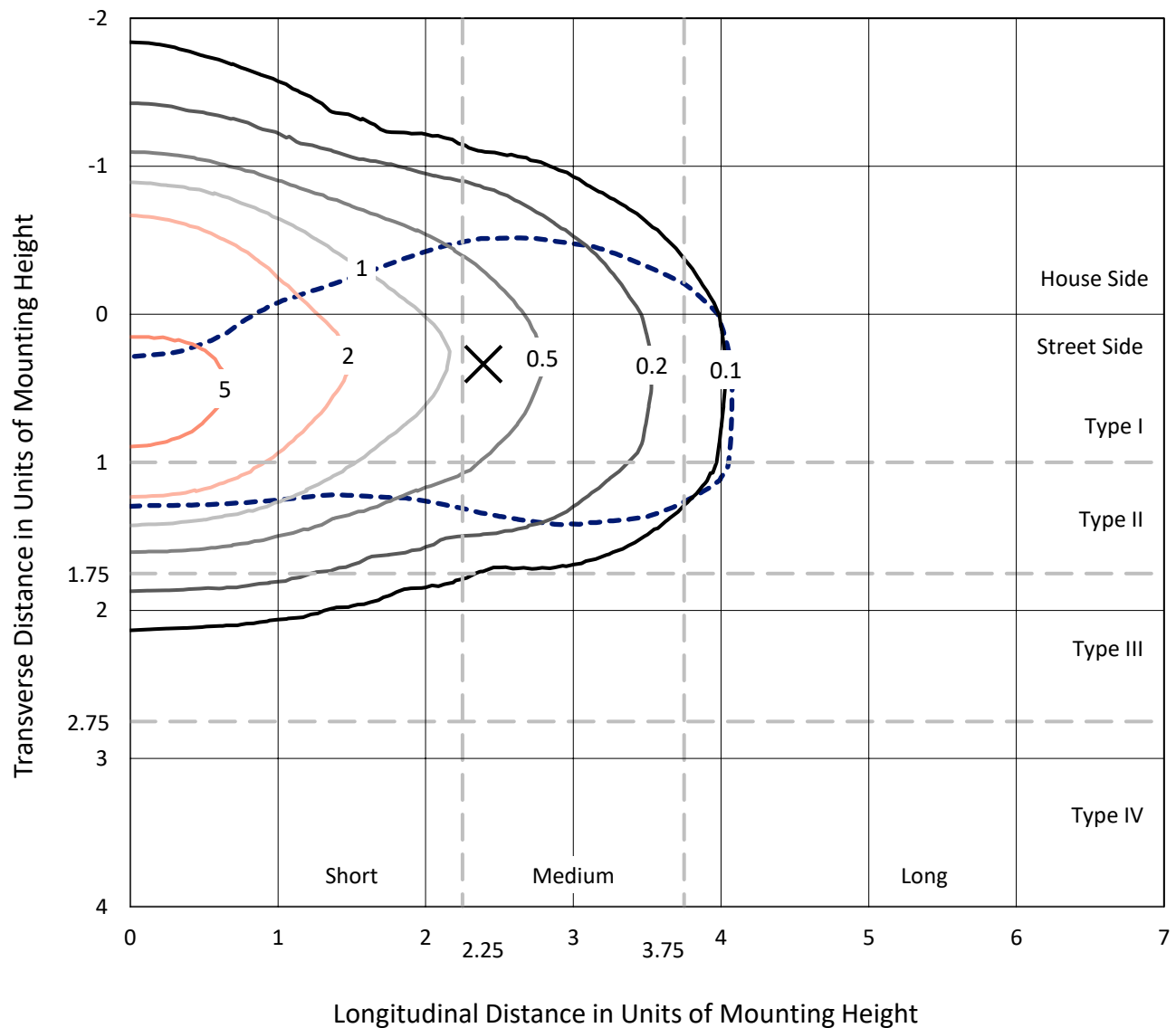
Input Watts (W): 93.1  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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## Iso-Footcandle Lines of Horizontal Illumination

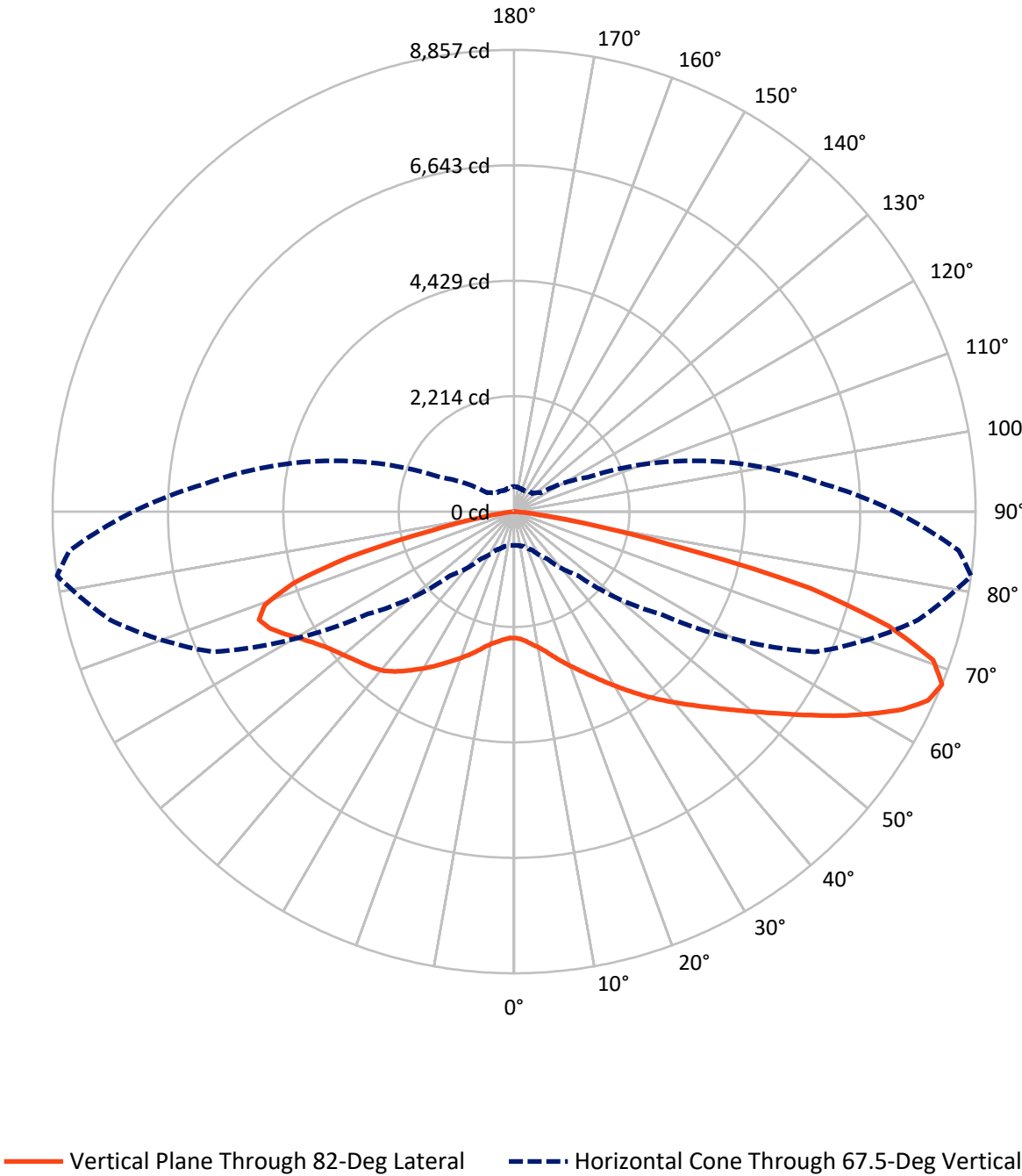
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 7.4 fc  
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



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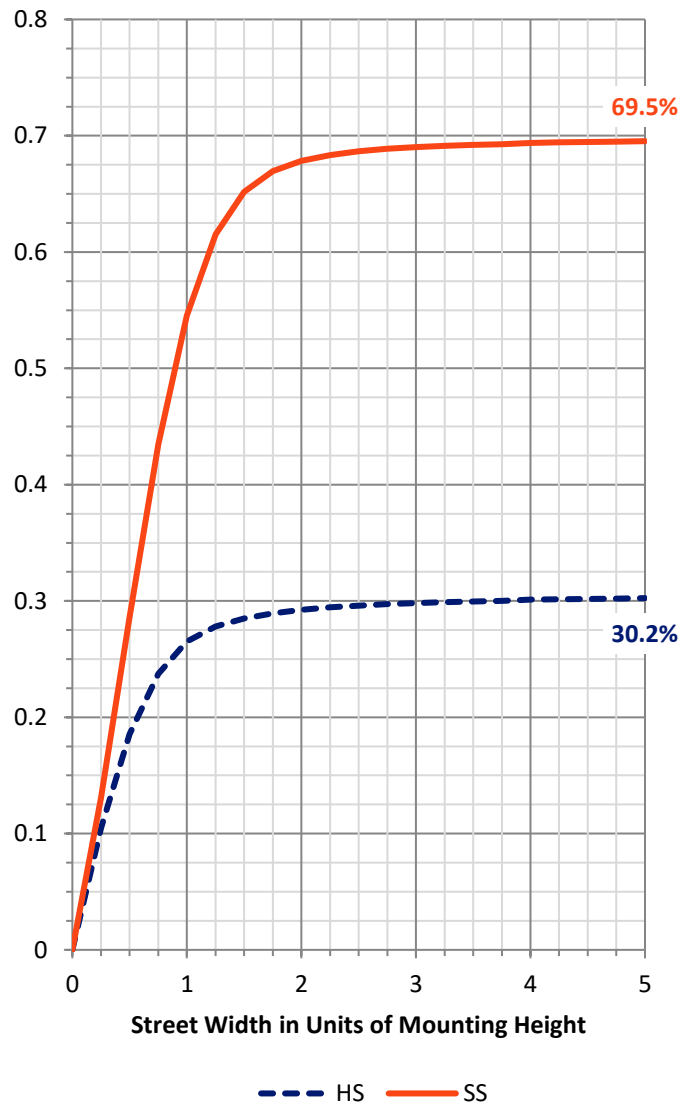
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 5137.3   | 0.0    | 5137.3  |
|                    | % Fixture | 30.5     | 0.0    | 30.5    |
| <b>Street Side</b> | Lumens    | 11731.7  | 0.0    | 11731.7 |
|                    | % Fixture | 69.5     | 0.0    | 69.5    |
| <b>Total</b>       | Lumens    | 16869.0  | 0.0    | 16869.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 250.6   | 1.5       |
| 10°-20°   | 902.7   | 5.4       |
| 20°-30°   | 1814.2  | 10.8      |
| 30°-40°   | 2849.8  | 16.9      |
| 40°-50°   | 3471.7  | 20.6      |
| 50°-60°   | 3280.3  | 19.4      |
| 60°-70°   | 2708.8  | 16.1      |
| 70°-80°   | 1475.0  | 8.7       |
| 80°-90°   | 116.0   | 0.7       |
| 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°    | 16869.0 | 100.0     |
| 0°-180°   | 16869.0 | 100.0     |

**Coefficient of Utilization**



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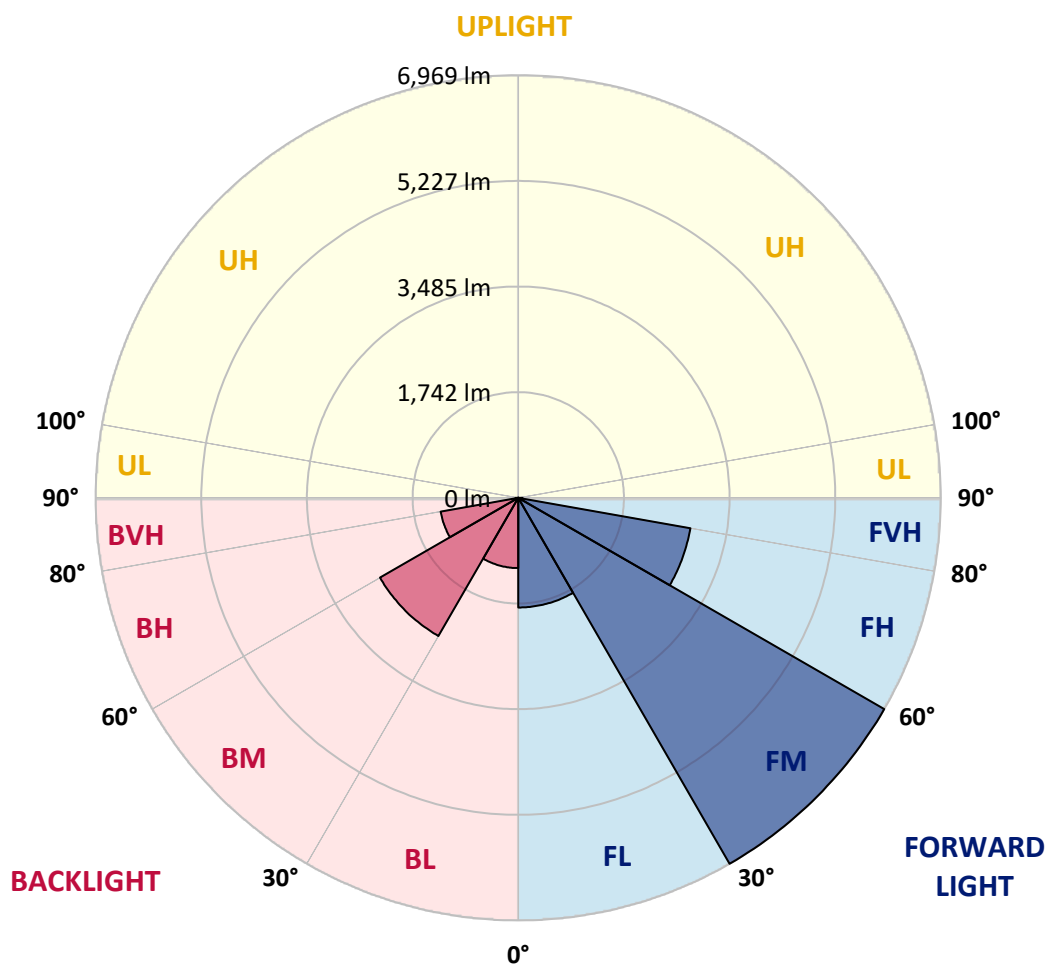
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 1809.0 | 10.7      |                         |      |         |
| FM   | (30°-60°)   | 6969.3 | 41.3      |                         |      |         |
| FH   | (60°-80°)   | 2883.5 | 17.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 69.9   | 0.4       |                         |      | G1/100  |
| BL   | (0°-30°)    | 1158.5 | 6.9       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2632.5 | 15.6      | B3/5000                 |      |         |
| BH   | (60°-80°)   | 1300.3 | 7.7       | B3/2500                 |      | G3/2500 |
| BVH  | (80°-90°)   | 46.1   | 0.3       |                         |      | G1/100  |
| 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°    | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 |
| 2.5°  | 2535.1 | 2535.1 | 2554.7 | 2554.7 | 2537.6 | 2510.6 | 2503.3 | 2473.9 | 2447.0 | 2447.0 | 2449.4 |
| 5°    | 2777.6 | 2775.2 | 2789.9 | 2770.3 | 2728.6 | 2674.7 | 2638.0 | 2574.3 | 2520.4 | 2503.3 | 2500.8 |
| 7.5°  | 3074.0 | 3071.6 | 3078.9 | 3047.1 | 2968.7 | 2880.5 | 2807.0 | 2704.1 | 2616.0 | 2579.2 | 2569.4 |
| 10°   | 3404.7 | 3402.2 | 3394.9 | 3341.0 | 3235.7 | 3098.5 | 2988.3 | 2846.2 | 2713.9 | 2655.2 | 2642.9 |
| 12.5° | 3784.3 | 3779.4 | 3762.3 | 3683.9 | 3539.4 | 3363.0 | 3203.8 | 3020.1 | 2843.8 | 2762.9 | 2736.0 |
| 15°   | 4208.1 | 4200.7 | 4168.9 | 4073.4 | 3879.9 | 3657.0 | 3451.2 | 3216.1 | 3000.5 | 2895.2 | 2858.5 |
| 17.5° | 4653.9 | 4653.9 | 4604.9 | 4462.8 | 4247.3 | 3970.5 | 3715.7 | 3416.9 | 3164.6 | 3034.8 | 2990.7 |
| 20°   | 5107.0 | 5104.6 | 5043.3 | 4871.9 | 4617.1 | 4298.7 | 3975.4 | 3647.2 | 3333.6 | 3176.9 | 3123.0 |
| 22.5° | 5584.6 | 5579.7 | 5503.8 | 5307.9 | 5004.1 | 4644.1 | 4266.9 | 3875.0 | 3519.8 | 3331.2 | 3262.6 |
| 25°   | 6133.3 | 6126.0 | 6032.9 | 5792.8 | 5432.8 | 5026.2 | 4595.1 | 4141.9 | 3732.9 | 3502.6 | 3421.8 |
| 27.5° | 6716.3 | 6706.5 | 6596.2 | 6317.0 | 5922.7 | 5432.8 | 4957.6 | 4450.6 | 3968.0 | 3693.7 | 3603.1 |
| 30°   | 7235.5 | 7228.2 | 7108.2 | 6821.6 | 6368.5 | 5836.9 | 5303.0 | 4759.2 | 4215.4 | 3897.0 | 3784.3 |
| 32.5° | 7627.4 | 7627.4 | 7519.7 | 7238.0 | 6767.7 | 6223.9 | 5650.8 | 5050.7 | 4472.6 | 4115.0 | 3982.7 |
| 35°   | 7865.0 | 7872.4 | 7779.3 | 7554.0 | 7110.6 | 6588.9 | 6010.8 | 5393.6 | 4746.9 | 4347.7 | 4205.6 |
| 37.5° | 7899.3 | 7923.8 | 7869.9 | 7718.1 | 7348.2 | 6892.6 | 6363.6 | 5724.3 | 5031.1 | 4582.8 | 4423.6 |
| 40°   | 7740.1 | 7757.3 | 7759.7 | 7700.9 | 7446.2 | 7110.6 | 6674.6 | 6074.5 | 5332.4 | 4830.2 | 4646.5 |
| 42.5° | 7421.7 | 7433.9 | 7456.0 | 7473.1 | 7375.2 | 7206.1 | 6912.2 | 6400.3 | 5653.2 | 5082.5 | 4867.0 |
| 45°   | 7010.2 | 7007.7 | 7044.5 | 7118.0 | 7113.1 | 7152.3 | 7044.5 | 6696.7 | 5986.3 | 5369.1 | 5111.9 |
| 47.5° | 6395.4 | 6383.1 | 6513.0 | 6679.5 | 6762.8 | 6946.5 | 7046.9 | 6929.4 | 6348.9 | 5685.1 | 5391.1 |
| 50°   | 5432.8 | 5420.5 | 5704.7 | 6096.6 | 6341.5 | 6620.7 | 6912.2 | 7069.0 | 6728.5 | 6040.2 | 5694.9 |
| 52.5° | 4262.0 | 4249.7 | 4609.8 | 5295.6 | 5829.6 | 6236.2 | 6640.3 | 7100.8 | 7088.6 | 6437.0 | 6037.8 |
| 55°   | 3169.5 | 3159.7 | 3510.0 | 4252.2 | 5116.8 | 5790.4 | 6307.2 | 7017.5 | 7426.6 | 6892.6 | 6454.2 |
| 57.5° | 2233.9 | 2229.0 | 2532.7 | 3147.5 | 4200.7 | 5246.6 | 5986.3 | 6855.9 | 7737.7 | 7387.4 | 6924.5 |
| 60°   | 1567.6 | 1560.3 | 1780.7 | 2255.9 | 3176.9 | 4426.1 | 5667.9 | 6640.3 | 7970.4 | 7874.8 | 7424.1 |
| 62.5° | 1055.7 | 1050.8 | 1207.6 | 1604.4 | 2255.9 | 3407.1 | 5185.4 | 6495.8 | 8102.6 | 8364.7 | 7928.7 |
| 65°   | 801.0  | 798.5  | 869.5  | 1087.5 | 1597.0 | 2447.0 | 4418.7 | 6478.7 | 8119.8 | 8732.1 | 8357.4 |
| 67.5° | 646.6  | 649.1  | 688.3  | 813.2  | 1104.7 | 1739.1 | 3426.7 | 6370.9 | 8029.1 | 8857.0 | 8565.6 |
| 70°   | 529.1  | 529.1  | 546.2  | 629.5  | 815.7  | 1173.3 | 2393.1 | 5881.0 | 7776.9 | 8531.3 | 8318.2 |
| 72.5° | 404.2  | 406.6  | 460.5  | 509.5  | 614.8  | 823.0  | 1533.3 | 4867.0 | 7181.7 | 7522.1 | 7360.5 |
| 75°   | 320.9  | 318.4  | 350.3  | 418.8  | 477.6  | 587.9  | 940.6  | 3490.4 | 6111.3 | 5878.6 | 5775.7 |
| 77.5° | 230.2  | 227.8  | 252.3  | 311.1  | 362.5  | 416.4  | 560.9  | 1761.1 | 3323.8 | 3054.4 | 2978.5 |
| 80°   | 156.8  | 151.9  | 173.9  | 215.5  | 240.0  | 244.9  | 274.3  | 676.0  | 1450.0 | 1366.8 | 1349.6 |
| 82.5° | 80.8   | 80.8   | 93.1   | 122.5  | 124.9  | 127.4  | 122.5  | 218.0  | 480.1  | 448.2  | 428.6  |
| 85°   | 31.8   | 31.8   | 34.3   | 41.6   | 41.6   | 44.1   | 44.1   | 56.3   | 51.4   | 49.0   | 46.5   |
| 87.5° | 2.4    | 2.4    | 4.9    | 4.9    | 7.3    | 7.3    | 7.3    | 9.8    | 12.2   | 12.2   | 12.2   |
| 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°    | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 | 2424.9 |
| 2.5°  | 2444.5 | 2434.7 | 2402.9 | 2395.5 | 2390.6 | 2383.3 | 2385.7 | 2368.6 | 2361.2 | 2363.7 | 2353.9 |
| 5°    | 2488.6 | 2471.4 | 2432.3 | 2415.1 | 2410.2 | 2402.9 | 2410.2 | 2398.0 | 2385.7 | 2390.6 | 2385.7 |
| 7.5°  | 2549.8 | 2525.3 | 2476.3 | 2459.2 | 2456.8 | 2449.4 | 2459.2 | 2449.4 | 2439.6 | 2444.5 | 2434.7 |
| 10°   | 2613.5 | 2581.7 | 2527.8 | 2510.6 | 2510.6 | 2508.2 | 2518.0 | 2503.3 | 2493.5 | 2495.9 | 2491.0 |
| 12.5° | 2706.6 | 2665.0 | 2606.2 | 2591.5 | 2584.1 | 2591.5 | 2593.9 | 2574.3 | 2557.2 | 2559.6 | 2552.3 |
| 15°   | 2819.3 | 2772.7 | 2709.0 | 2687.0 | 2682.1 | 2679.6 | 2669.9 | 2645.4 | 2623.3 | 2620.9 | 2613.5 |
| 17.5° | 2941.7 | 2882.9 | 2807.0 | 2785.0 | 2762.9 | 2755.6 | 2731.1 | 2699.2 | 2665.0 | 2665.0 | 2655.2 |
| 20°   | 3059.3 | 2993.2 | 2902.5 | 2870.7 | 2838.9 | 2809.5 | 2767.8 | 2716.4 | 2672.3 | 2665.0 | 2655.2 |
| 22.5° | 3186.7 | 3108.3 | 3003.0 | 2956.4 | 2900.1 | 2841.3 | 2770.3 | 2701.7 | 2645.4 | 2633.1 | 2625.8 |
| 25°   | 3328.7 | 3230.8 | 3105.8 | 3037.3 | 2946.6 | 2856.0 | 2750.7 | 2662.5 | 2596.4 | 2576.8 | 2571.9 |
| 27.5° | 3485.5 | 3367.9 | 3216.1 | 3115.6 | 2983.4 | 2841.3 | 2706.6 | 2601.3 | 2520.4 | 2495.9 | 2488.6 |
| 30°   | 3644.7 | 3505.1 | 3316.5 | 3169.5 | 2983.4 | 2794.8 | 2625.8 | 2503.3 | 2410.2 | 2375.9 | 2371.0 |
| 32.5° | 3803.9 | 3647.2 | 3407.1 | 3198.9 | 2954.0 | 2716.4 | 2520.4 | 2375.9 | 2270.6 | 2229.0 | 2238.8 |
| 35°   | 3995.0 | 3803.9 | 3490.4 | 3211.2 | 2905.0 | 2620.9 | 2400.4 | 2231.4 | 2123.6 | 2086.9 | 2094.2 |
| 37.5° | 4193.4 | 3960.7 | 3556.5 | 3201.4 | 2836.4 | 2513.1 | 2265.7 | 2101.6 | 1966.9 | 1903.2 | 1910.5 |
| 40°   | 4364.8 | 4102.8 | 3603.1 | 3167.1 | 2748.2 | 2390.6 | 2133.4 | 1917.9 | 1731.7 | 1670.5 | 1663.1 |
| 42.5° | 4526.5 | 4208.1 | 3627.6 | 3115.6 | 2647.8 | 2248.6 | 1944.8 | 1668.0 | 1481.9 | 1406.0 | 1408.4 |
| 45°   | 4695.5 | 4311.0 | 3617.8 | 3047.1 | 2522.9 | 2082.0 | 1702.3 | 1423.1 | 1259.0 | 1190.4 | 1192.9 |
| 47.5° | 4889.0 | 4421.2 | 3608.0 | 2973.6 | 2371.0 | 1866.4 | 1469.6 | 1207.6 | 1065.5 | 1016.5 | 1011.6 |
| 50°   | 5094.8 | 4543.6 | 3595.7 | 2882.9 | 2202.0 | 1626.4 | 1239.4 | 1006.7 | 886.7  | 854.8  | 847.5  |
| 52.5° | 5327.5 | 4675.9 | 3588.4 | 2775.2 | 1998.7 | 1371.7 | 1033.6 | 830.3  | 749.5  | 727.5  | 725.0  |
| 55°   | 5606.7 | 4830.2 | 3598.2 | 2645.4 | 1753.8 | 1131.6 | 859.7  | 715.2  | 661.3  | 649.1  | 646.6  |
| 57.5° | 5947.2 | 5028.6 | 3627.6 | 2493.5 | 1496.6 | 923.4  | 732.4  | 644.2  | 609.9  | 600.1  | 600.1  |
| 60°   | 6317.0 | 5254.0 | 3681.5 | 2322.0 | 1239.4 | 761.8  | 649.1  | 587.9  | 573.2  | 585.4  | 585.4  |
| 62.5° | 6716.3 | 5518.5 | 3777.0 | 2113.8 | 999.4  | 644.2  | 583.0  | 541.3  | 531.5  | 556.0  | 558.5  |
| 65°   | 7086.1 | 5775.7 | 3838.2 | 1864.0 | 793.6  | 558.5  | 531.5  | 494.8  | 499.7  | 524.2  | 521.7  |
| 67.5° | 7313.9 | 5988.8 | 3752.5 | 1550.5 | 629.5  | 494.8  | 477.6  | 445.8  | 458.0  | 477.6  | 480.1  |
| 70°   | 7174.3 | 5868.8 | 3328.7 | 1170.8 | 492.3  | 431.1  | 418.8  | 399.3  | 409.1  | 433.5  | 443.3  |
| 72.5° | 6490.9 | 5256.4 | 2589.0 | 791.2  | 396.8  | 362.5  | 367.4  | 357.6  | 369.9  | 391.9  | 413.9  |
| 75°   | 5268.7 | 3972.9 | 1736.6 | 507.0  | 313.5  | 308.6  | 316.0  | 308.6  | 313.5  | 335.6  | 347.8  |
| 77.5° | 2750.7 | 1937.5 | 864.6  | 316.0  | 232.7  | 240.0  | 252.3  | 254.7  | 269.4  | 274.3  | 279.2  |
| 80°   | 1283.5 | 872.0  | 360.1  | 176.4  | 154.3  | 169.0  | 193.5  | 196.0  | 200.9  | 208.2  | 210.6  |
| 82.5° | 418.8  | 262.1  | 166.6  | 95.5   | 88.2   | 95.5   | 124.9  | 149.4  | 151.9  | 166.6  | 166.6  |
| 85°   | 44.1   | 26.9   | 36.7   | 39.2   | 34.3   | 41.6   | 56.3   | 53.9   | 24.5   | 14.7   | 14.7   |
| 87.5° | 12.2   | 9.8    | 12.2   | 12.2   | 9.8    | 9.8    | 7.3    | 2.4    | 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)