

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: P237355

Luminaire Tested: **ARCH-L-AF72-220-D-U-T4W-7050**

Issue Date: 2/14/2018

**Test Information**

Test Method: LM-79-08  
Report Number: P237355  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)  
Test Lab: INNOVATION CENTER-P2  
Issue Date: 2/14/2018  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: STREETWORKS  
Catalog Number: ARCH-L-AF72-220-D-U-T4W-7050  
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE  
(3) 70 CRI, 5000K, 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: 25941 lumens  
Efficiency: N/A  
Efficacy: 116.9 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

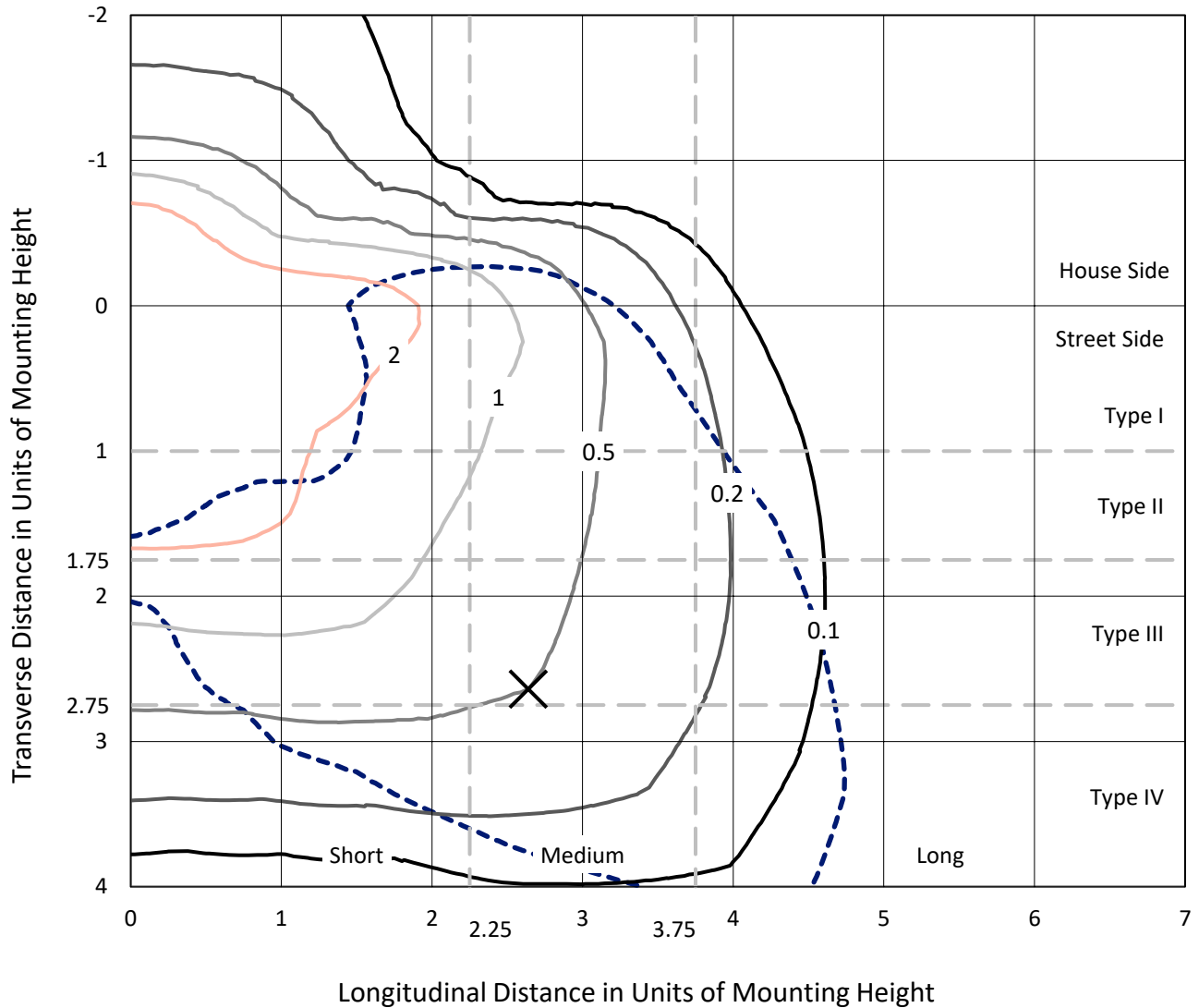
Input Watts (W): 222  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

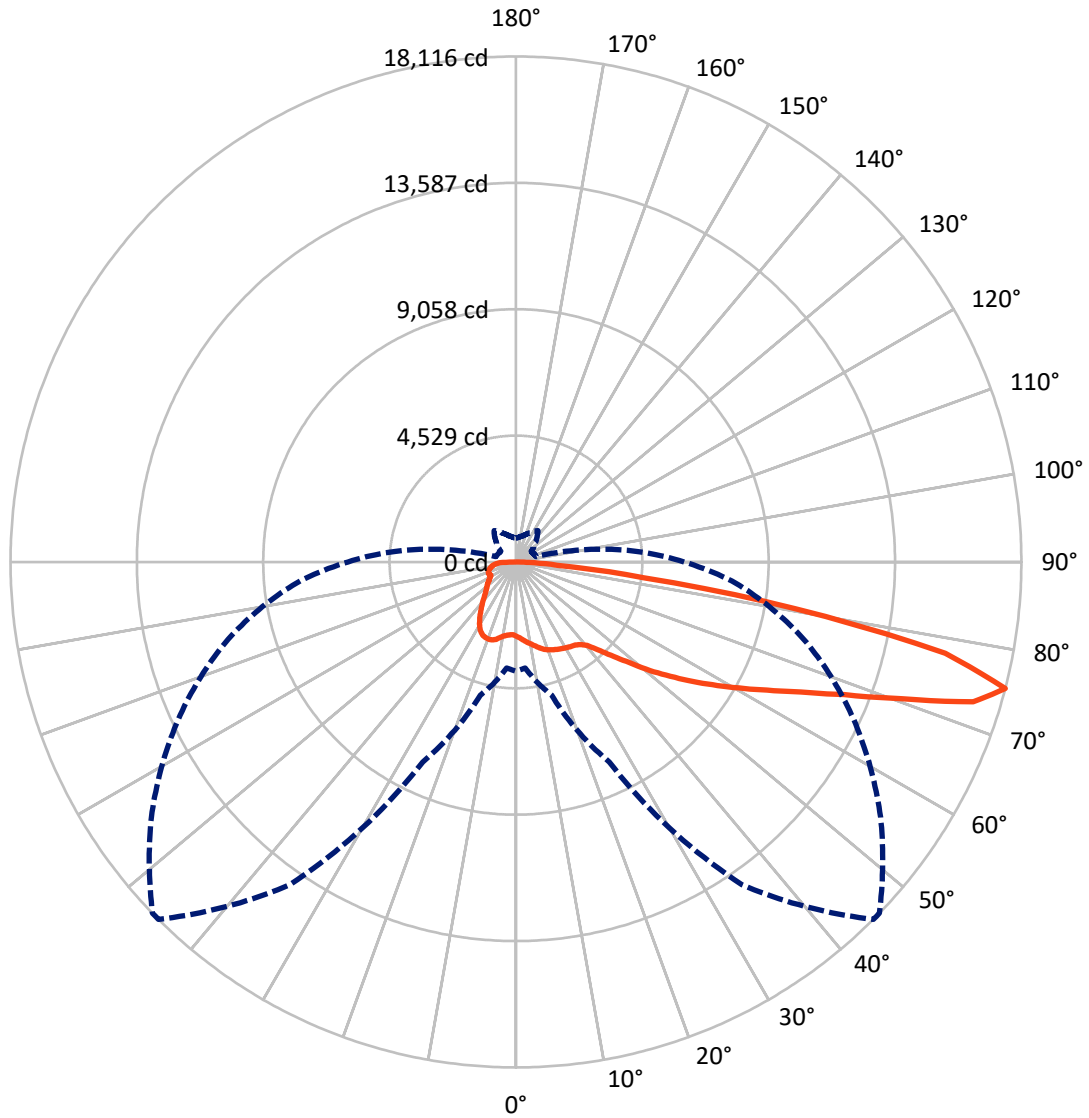
× Max cd  
 - - - 1/2 Max cd



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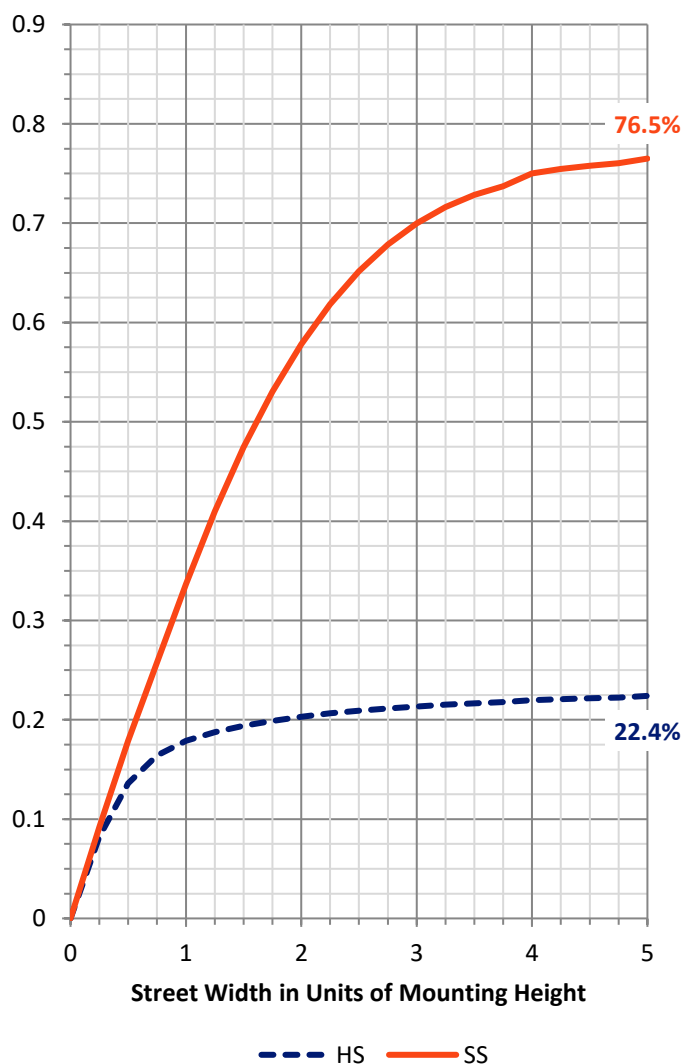
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 6009.5   | 0.0    | 6009.5  |
|                    | % Fixture | 23.2     | 0.0    | 23.2    |
| <b>Street Side</b> | Lumens    | 19931.5  | 0.0    | 19931.5 |
|                    | % Fixture | 76.8     | 0.0    | 76.8    |
| <b>Total</b>       | Lumens    | 25941.0  | 0.0    | 25941.0 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 263.5   | 1.0       |
| 10°-20°   | 854.0   | 3.3       |
| 20°-30°   | 1465.5  | 5.6       |
| 30°-40°   | 2049.6  | 7.9       |
| 40°-50°   | 3006.6  | 11.6      |
| 50°-60°   | 4683.6  | 18.1      |
| 60°-70°   | 6739.3  | 26.0      |
| 70°-80°   | 5870.6  | 22.6      |
| 80°-90°   | 1008.2  | 3.9       |
| 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°    | 25941.0 | 100.0     |
| 0°-180°   | 25941.0 | 100.0     |

**Coefficient of Utilization**



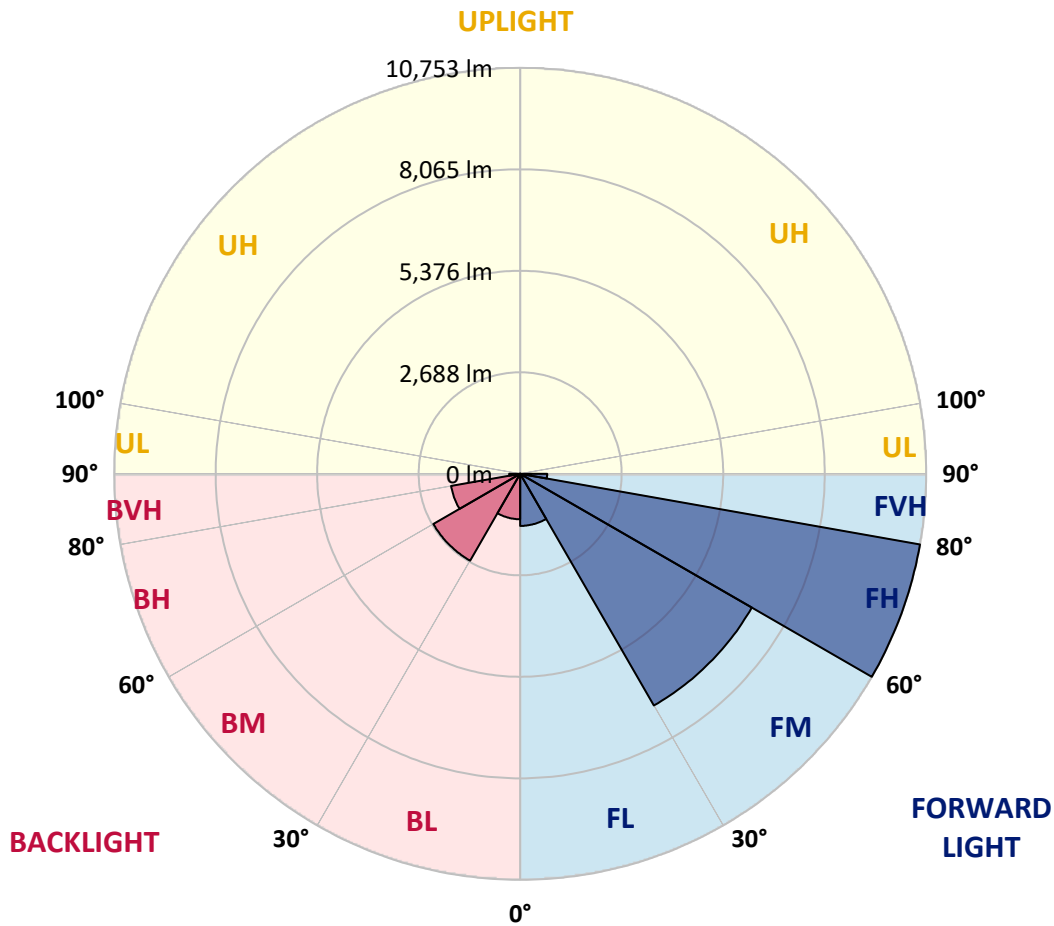
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone           | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |          |
|----------------|---------|-----------|-------------------------|------|----------|
|                |         |           | B                       | U    | G        |
| FL (0°-30°)    | 1379.4  | 5.3       |                         |      |          |
| FM (30°-60°)   | 7084.0  | 27.3      |                         |      |          |
| FH (60°-80°)   | 10752.8 | 41.5      |                         |      | G4/12000 |
| FVH (80°-90°)  | 715.3   | 2.8       |                         |      | G4/750   |
| BL (0°-30°)    | 1203.6  | 4.6       | B3/2500                 |      |          |
| BM (30°-60°)   | 2655.9  | 10.2      | B3/5000                 |      |          |
| BH (60°-80°)   | 1857.1  | 7.2       | B3/2500                 |      | G3/2500  |
| BVH (80°-90°)  | 292.9   | 1.1       |                         |      | 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°    | 2659.3 | 2659.3 | 2659.3  | 2659.3  | 2659.3  | 2659.3  | 2659.3  | 2659.3  | 2659.3  | 2659.3  | 2659.3  |
| 2.5°  | 2790.5 | 2770.3 | 2770.3  | 2755.2  | 2755.2  | 2730.0  | 2719.9  | 2714.8  | 2689.6  | 2674.5  | 2659.3  |
| 5°    | 2952.0 | 2926.8 | 2921.7  | 2886.4  | 2871.3  | 2815.8  | 2810.7  | 2775.4  | 2730.0  | 2684.6  | 2649.2  |
| 7.5°  | 3098.3 | 3083.2 | 3058.0  | 3022.6  | 2977.2  | 2906.6  | 2901.5  | 2846.0  | 2770.3  | 2709.8  | 2659.3  |
| 10°   | 3204.3 | 3194.2 | 3158.9  | 3113.5  | 3063.0  | 2992.4  | 2987.3  | 2926.8  | 2835.9  | 2765.3  | 2694.6  |
| 12.5° | 3330.5 | 3315.3 | 3269.9  | 3209.4  | 3153.8  | 3088.2  | 3083.2  | 3032.7  | 2931.8  | 2841.0  | 2750.2  |
| 15°   | 3451.6 | 3431.4 | 3375.9  | 3315.3  | 3254.8  | 3199.3  | 3199.3  | 3143.8  | 3037.8  | 2931.8  | 2825.8  |
| 17.5° | 3512.1 | 3502.0 | 3446.5  | 3380.9  | 3330.5  | 3290.1  | 3285.0  | 3234.6  | 3128.6  | 3017.6  | 2901.5  |
| 20°   | 3532.3 | 3537.4 | 3486.9  | 3416.2  | 3380.9  | 3360.7  | 3355.7  | 3320.4  | 3204.3  | 3098.3  | 2987.3  |
| 22.5° | 3527.3 | 3542.4 | 3502.0  | 3426.3  | 3416.2  | 3416.2  | 3416.2  | 3375.9  | 3285.0  | 3179.1  | 3068.1  |
| 25°   | 3547.4 | 3567.6 | 3537.4  | 3446.5  | 3446.5  | 3466.7  | 3466.7  | 3446.5  | 3365.8  | 3275.0  | 3163.9  |
| 27.5° | 3618.1 | 3633.2 | 3608.0  | 3481.8  | 3486.9  | 3517.2  | 3512.1  | 3517.2  | 3466.7  | 3380.9  | 3269.9  |
| 30°   | 3703.9 | 3724.1 | 3693.8  | 3537.4  | 3532.3  | 3562.6  | 3562.6  | 3587.8  | 3552.5  | 3461.7  | 3370.8  |
| 32.5° | 3936.0 | 3931.0 | 3835.1  | 3597.9  | 3582.8  | 3613.0  | 3613.0  | 3638.3  | 3618.1  | 3547.4  | 3461.7  |
| 35°   | 4627.3 | 4551.6 | 4339.7  | 3794.7  | 3643.3  | 3658.5  | 3658.5  | 3703.9  | 3714.0  | 3658.5  | 3582.8  |
| 37.5° | 5333.8 | 5308.5 | 5147.1  | 4319.5  | 3865.4  | 3754.3  | 3749.3  | 3814.9  | 3860.3  | 3814.9  | 3764.4  |
| 40°   | 6045.3 | 6025.1 | 5989.8  | 5020.9  | 4329.6  | 3925.9  | 3910.8  | 3966.3  | 4047.0  | 4016.7  | 3986.5  |
| 42.5° | 6706.3 | 6696.2 | 6731.6  | 5712.2  | 4920.0  | 4294.3  | 4248.9  | 4183.3  | 4299.3  | 4289.2  | 4289.2  |
| 45°   | 7226.1 | 7251.3 | 7271.5  | 6358.1  | 5560.9  | 4768.6  | 4713.1  | 4491.1  | 4647.5  | 4687.9  | 4718.1  |
| 47.5° | 7518.8 | 7538.9 | 7609.6  | 6988.9  | 6201.7  | 5318.6  | 5278.3  | 4914.9  | 5121.8  | 5242.9  | 5328.7  |
| 50°   | 7937.6 | 7882.1 | 7942.6  | 7604.5  | 6973.8  | 6035.2  | 5924.2  | 5485.2  | 5747.6  | 5959.5  | 6161.3  |
| 52.5° | 8341.3 | 8250.5 | 8300.9  | 8316.1  | 7851.8  | 6736.6  | 6620.5  | 6156.3  | 6484.3  | 6817.3  | 7175.6  |
| 55°   | 8704.6 | 8699.6 | 8750.0  | 9007.4  | 8699.6  | 7488.5  | 7357.3  | 6898.1  | 7372.4  | 7730.7  | 8336.2  |
| 57.5° | 8997.3 | 9047.7 | 9269.8  | 9809.7  | 9678.5  | 8306.0  | 8159.6  | 7761.0  | 8321.1  | 8679.4  | 9683.6  |
| 60°   | 9340.4 | 9421.2 | 9789.5  | 10490.9 | 10571.7 | 9163.8  | 9012.4  | 8724.8  | 9295.0  | 9658.3  | 11242.8 |
| 62.5° | 9456.5 | 9572.5 | 10329.5 | 11207.5 | 11505.2 | 10102.4 | 9966.1  | 9774.4  | 10319.4 | 10647.4 | 12797.0 |
| 65°   | 8684.4 | 8906.5 | 10627.2 | 11575.9 | 12509.4 | 11232.7 | 11116.7 | 10950.1 | 11338.7 | 11555.7 | 13851.7 |
| 67.5° | 8472.5 | 8573.4 | 10046.9 | 12105.7 | 13453.0 | 12686.0 | 12570.0 | 12282.3 | 12292.4 | 12201.6 | 14194.8 |
| 70°   | 8174.8 | 8285.8 | 9451.4  | 12504.4 | 14805.4 | 14674.2 | 14532.9 | 13685.2 | 13165.4 | 12615.4 | 13518.6 |
| 72.5° | 6963.7 | 6928.4 | 8144.5  | 11429.5 | 15456.4 | 17136.7 | 16970.2 | 15194.0 | 13811.3 | 12257.1 | 11409.3 |
| 75°   | 3910.8 | 3809.8 | 4940.2  | 7907.3  | 14114.1 | 18115.7 | 18110.6 | 15955.9 | 13357.2 | 10677.7 | 7766.0  |
| 77.5° | 1135.4 | 1105.1 | 1629.9  | 3315.3  | 9501.9  | 15738.9 | 15930.7 | 14391.6 | 11146.9 | 7670.1  | 4264.0  |
| 80°   | 534.9  | 545.0  | 701.4   | 1095.0  | 4057.1  | 10157.9 | 10707.9 | 9476.7  | 6660.9  | 3537.4  | 1761.1  |
| 82.5° | 338.1  | 343.1  | 479.4   | 706.5   | 1715.7  | 4612.2  | 5066.3  | 4264.0  | 2639.1  | 1529.0  | 777.1   |
| 85°   | 211.9  | 211.9  | 317.9   | 464.2   | 1024.4  | 1473.5  | 1599.6  | 1453.3  | 1130.3  | 832.6   | 423.9   |
| 87.5° | 116.1  | 116.1  | 191.8   | 267.4   | 560.1   | 474.3   | 489.5   | 580.3   | 706.5   | 509.7   | 211.9   |
| 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°    | 2659.3  | 2659.3  | 2659.3 | 2659.3 | 2659.3 | 2659.3 | 2659.3 | 2659.3 | 2659.3 | 2659.3 | 2659.3 |
| 2.5°  | 2654.3  | 2644.2  | 2629.0 | 2624.0 | 2619.0 | 2613.9 | 2619.0 | 2629.0 | 2619.0 | 2619.0 | 2624.0 |
| 5°    | 2639.1  | 2629.0  | 2608.9 | 2608.9 | 2613.9 | 2619.0 | 2644.2 | 2659.3 | 2664.4 | 2664.4 | 2664.4 |
| 7.5°  | 2639.1  | 2624.0  | 2608.9 | 2613.9 | 2624.0 | 2644.2 | 2684.6 | 2709.8 | 2730.0 | 2735.0 | 2735.0 |
| 10°   | 2664.4  | 2644.2  | 2634.1 | 2644.2 | 2674.5 | 2689.6 | 2730.0 | 2770.3 | 2795.6 | 2805.7 | 2805.7 |
| 12.5° | 2709.8  | 2689.6  | 2689.6 | 2709.8 | 2750.2 | 2770.3 | 2805.7 | 2835.9 | 2866.2 | 2881.4 | 2881.4 |
| 15°   | 2785.5  | 2760.2  | 2765.3 | 2800.6 | 2846.0 | 2866.2 | 2891.4 | 2901.5 | 2926.8 | 2947.0 | 2947.0 |
| 17.5° | 2856.1  | 2830.9  | 2841.0 | 2881.4 | 2911.6 | 2921.7 | 2936.9 | 2931.8 | 2941.9 | 2957.0 | 2962.1 |
| 20°   | 2936.9  | 2911.6  | 2916.7 | 2941.9 | 2947.0 | 2936.9 | 2936.9 | 2921.7 | 2916.7 | 2941.9 | 2952.0 |
| 22.5° | 3017.6  | 2992.4  | 2987.3 | 2972.2 | 2947.0 | 2921.7 | 2906.6 | 2891.4 | 2881.4 | 2906.6 | 2916.7 |
| 25°   | 3113.5  | 3078.2  | 3052.9 | 2987.3 | 2921.7 | 2876.3 | 2856.1 | 2846.0 | 2841.0 | 2866.2 | 2876.3 |
| 27.5° | 3219.4  | 3184.1  | 3108.4 | 2967.1 | 2861.2 | 2785.5 | 2770.3 | 2770.3 | 2780.4 | 2795.6 | 2805.7 |
| 30°   | 3320.4  | 3285.0  | 3148.8 | 2921.7 | 2755.2 | 2644.2 | 2629.0 | 2644.2 | 2669.4 | 2684.6 | 2699.7 |
| 32.5° | 3421.3  | 3386.0  | 3174.0 | 2851.1 | 2598.8 | 2457.5 | 2447.4 | 2472.6 | 2513.0 | 2523.1 | 2533.2 |
| 35°   | 3557.5  | 3522.2  | 3204.3 | 2750.2 | 2402.0 | 2250.6 | 2240.5 | 2255.6 | 2291.0 | 2306.1 | 2321.2 |
| 37.5° | 3749.3  | 3729.1  | 3249.7 | 2639.1 | 2220.3 | 2053.8 | 2023.5 | 2013.4 | 2033.6 | 2028.6 | 2048.7 |
| 40°   | 4001.6  | 4016.7  | 3330.5 | 2492.8 | 2043.7 | 1872.1 | 1806.5 | 1776.2 | 1756.1 | 1715.7 | 1735.9 |
| 42.5° | 4370.0  | 4380.1  | 3421.3 | 2326.3 | 1892.3 | 1700.6 | 1614.8 | 1559.3 | 1518.9 | 1453.3 | 1463.4 |
| 45°   | 4909.9  | 4824.1  | 3527.3 | 2149.7 | 1756.1 | 1564.3 | 1463.4 | 1397.8 | 1342.3 | 1286.8 | 1291.8 |
| 47.5° | 5626.5  | 5364.1  | 3643.3 | 2003.3 | 1619.8 | 1453.3 | 1362.5 | 1286.8 | 1221.2 | 1175.8 | 1180.8 |
| 50°   | 6509.5  | 6035.2  | 3759.4 | 1867.1 | 1483.6 | 1367.5 | 1286.8 | 1206.0 | 1140.4 | 1095.0 | 1090.0 |
| 52.5° | 7675.2  | 6842.6  | 3835.1 | 1715.7 | 1347.3 | 1291.8 | 1221.2 | 1145.5 | 1064.7 | 1009.2 | 1004.2 |
| 55°   | 8886.3  | 7781.2  | 3900.7 | 1534.0 | 1216.1 | 1206.0 | 1170.7 | 1084.9 | 989.0  | 918.4  | 908.3  |
| 57.5° | 10218.5 | 8785.3  | 3951.1 | 1357.4 | 1115.2 | 1135.4 | 1125.3 | 1024.4 | 918.4  | 852.8  | 847.8  |
| 60°   | 11429.5 | 9824.9  | 3789.7 | 1201.0 | 1024.4 | 1064.7 | 1074.8 | 989.0  | 933.5  | 948.7  | 953.7  |
| 62.5° | 12650.7 | 10627.2 | 3174.0 | 1084.9 | 963.8  | 1019.3 | 1105.1 | 1100.1 | 1074.8 | 1100.1 | 1105.1 |
| 65°   | 13089.7 | 10793.7 | 2250.6 | 989.0  | 903.3  | 1039.5 | 1201.0 | 1190.9 | 1074.8 | 1029.4 | 1019.3 |
| 67.5° | 12842.4 | 10299.2 | 1513.8 | 913.4  | 857.8  | 1064.7 | 1301.9 | 1190.9 | 1034.5 | 973.9  | 953.7  |
| 70°   | 11666.7 | 9083.1  | 1110.2 | 837.7  | 817.5  | 1059.7 | 1357.4 | 1185.8 | 1014.3 | 948.7  | 923.4  |
| 72.5° | 9305.1  | 7009.1  | 893.2  | 767.0  | 756.9  | 1034.5 | 1387.7 | 1175.8 | 994.1  | 923.4  | 893.2  |
| 75°   | 6025.1  | 4359.9  | 751.9  | 696.4  | 666.1  | 994.1  | 1372.6 | 1145.5 | 968.9  | 878.0  | 857.8  |
| 77.5° | 2795.6  | 1877.2  | 640.9  | 615.6  | 580.3  | 933.5  | 1327.1 | 1084.9 | 913.4  | 827.6  | 802.3  |
| 80°   | 1301.9  | 888.1   | 539.9  | 534.9  | 519.8  | 883.1  | 1266.6 | 1014.3 | 847.8  | 777.1  | 736.7  |
| 82.5° | 696.4   | 534.9   | 439.0  | 439.0  | 454.2  | 822.5  | 1190.9 | 928.5  | 762.0  | 726.6  | 620.7  |
| 85°   | 368.4   | 307.8   | 317.9  | 343.1  | 388.6  | 726.6  | 1090.0 | 837.7  | 666.1  | 555.1  | 539.9  |
| 87.5° | 186.7   | 196.8   | 196.8  | 232.1  | 297.7  | 590.4  | 898.2  | 691.3  | 565.2  | 454.2  | 444.1  |
| 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)