

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: P237329

Luminaire Tested: **ARCH-L-AF72-160-D-U-T4W**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237329
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29615)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-160-D-U-T4W
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 705mA LIGHT ENGINES WITH 24 LEDS AND TYPE IV WIDE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 21367.4 lumens
Efficiency: N/A
Efficacy: 131.9 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B3 - U0 - G4

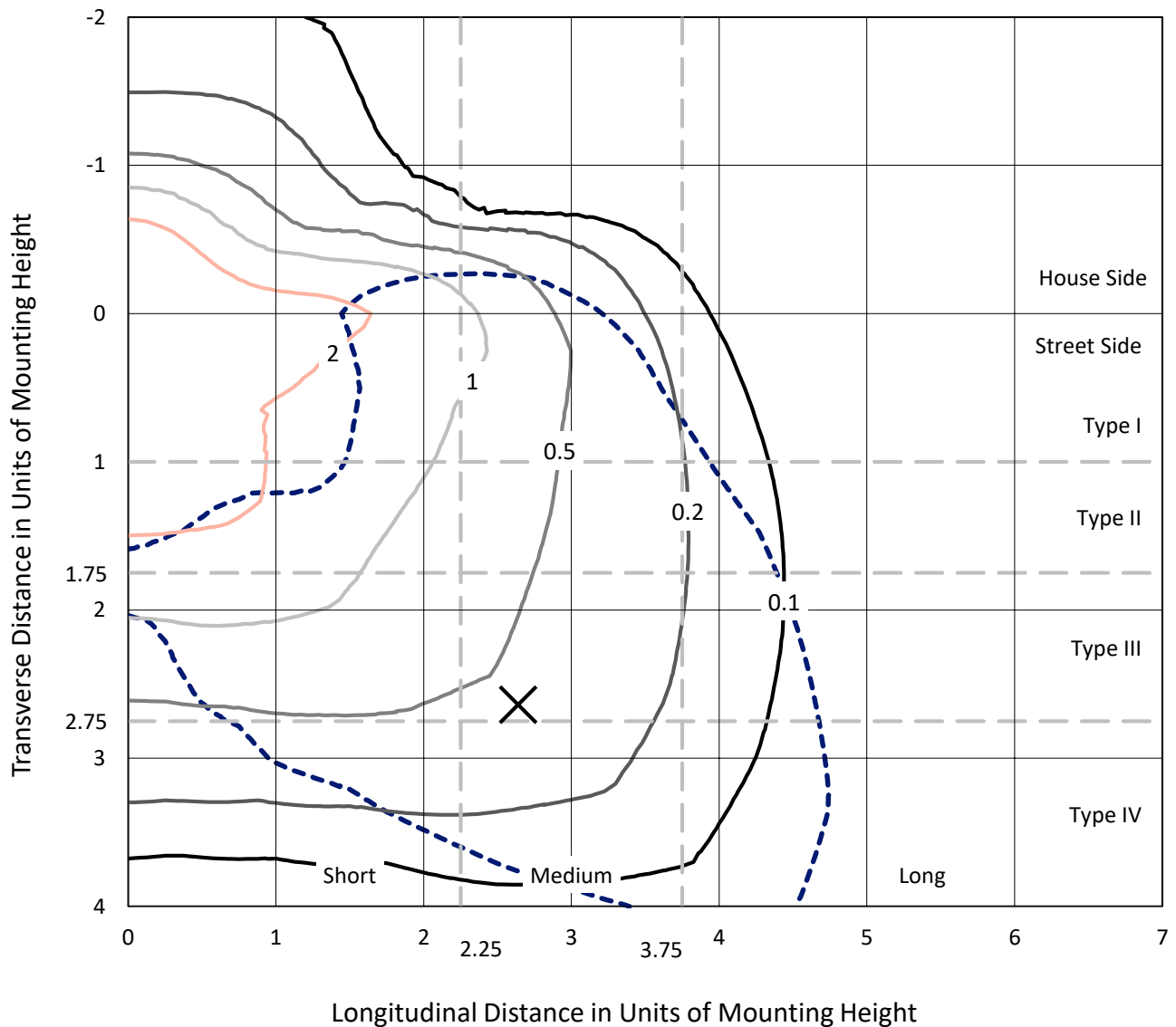
Input Watts (W): 162
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

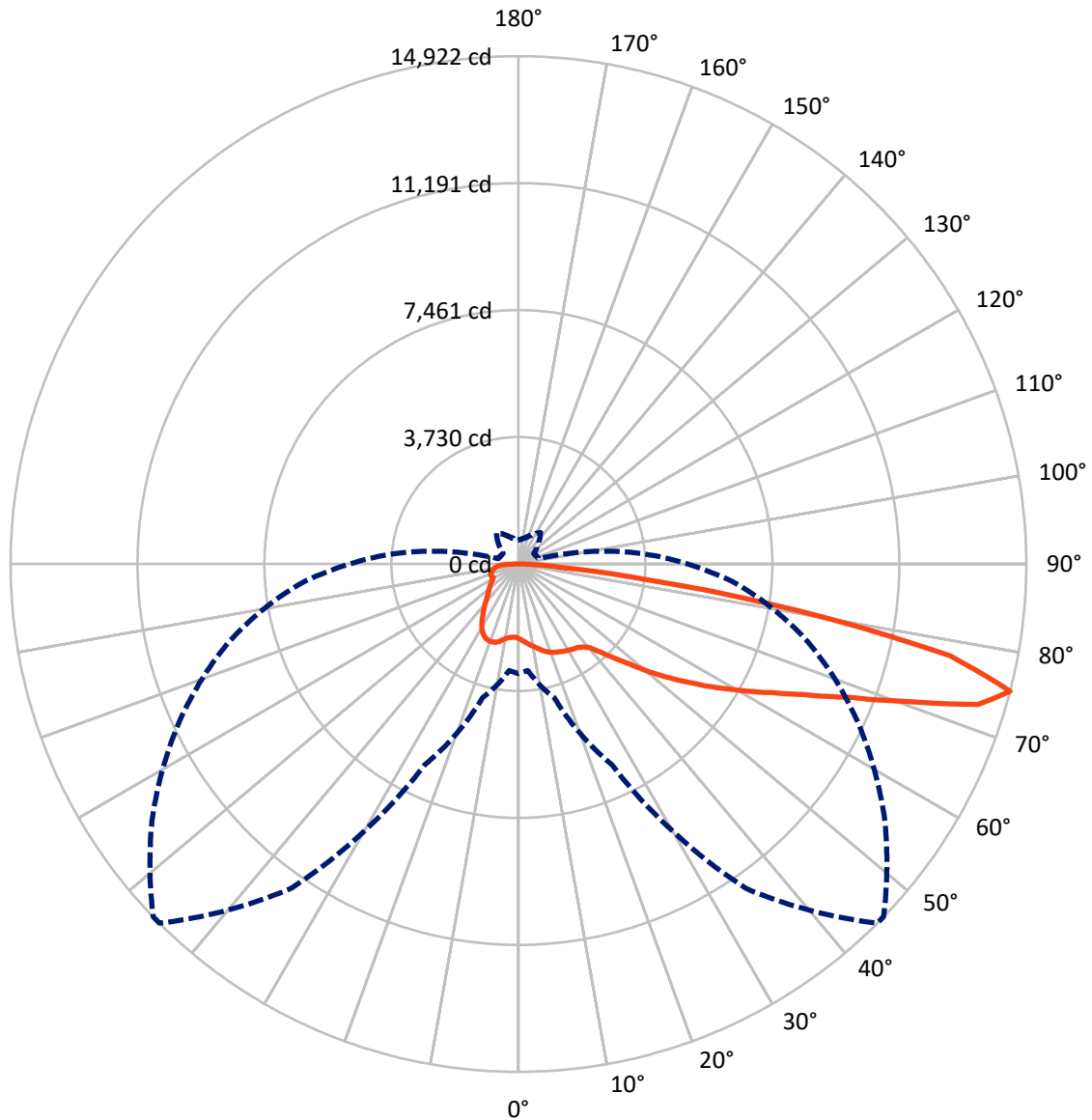


Based on 25 foot mounting height. Maximum calculated value = 4.1 fc
 Type IV - Medium - Non-Cutoff

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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 |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 4949.9 | 0.0 | 4949.9 |
| | % Fixture | 23.2 | 0.0 | 23.2 |
| Street Side | Lumens | 16417.5 | 0.0 | 16417.5 |
| | % Fixture | 76.8 | 0.0 | 76.8 |
| Total | Lumens | 21367.4 | 0.0 | 21367.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 217.1 | 1.0 |
| 10°-20° | 703.4 | 3.3 |
| 20°-30° | 1207.1 | 5.6 |
| 30°-40° | 1688.3 | 7.9 |
| 40°-50° | 2476.5 | 11.6 |
| 50°-60° | 3857.8 | 18.1 |
| 60°-70° | 5551.1 | 26.0 |
| 70°-80° | 4835.6 | 22.6 |
| 80°-90° | 830.5 | 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° | 21367.4 | 100.0 |
| 0°-180° | 21367.4 | 100.0 |

Coefficient of Utilization



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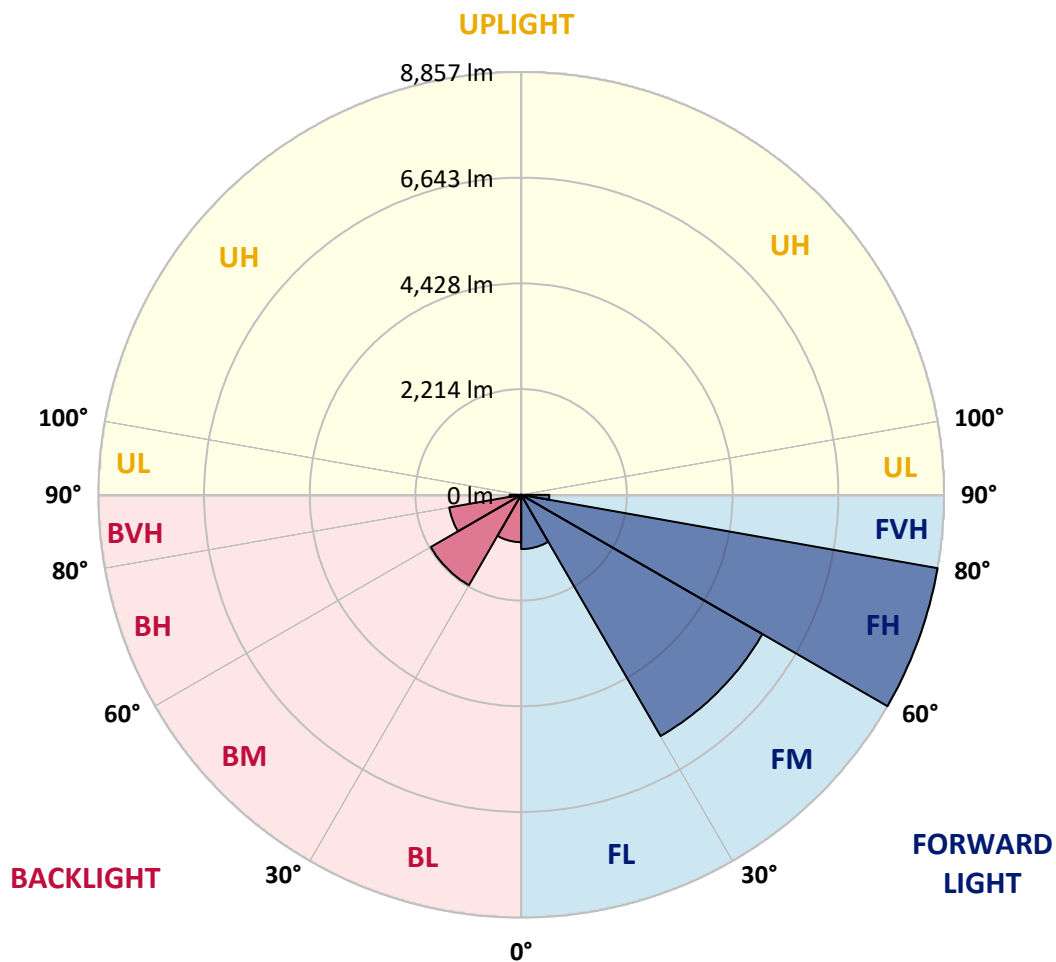
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|----------|
| | | | | B | U | G |
| FL | (0°-30°) | 1136.2 | 5.3 | | | |
| FM | (30°-60°) | 5835.0 | 27.3 | | | |
| FH | (60°-80°) | 8857.0 | 41.5 | | | G4/12000 |
| FVH | (80°-90°) | 589.2 | 2.8 | | | G4/750 |
| BL | (0°-30°) | 991.4 | 4.6 | B2/1000 | | |
| BM | (30°-60°) | 2187.6 | 10.2 | B2/2500 | | |
| BH | (60°-80°) | 1529.7 | 7.2 | B3/2500 | | G3/2500 |
| BVH | (80°-90°) | 241.3 | 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° | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 |
| 2.5° | 2298.6 | 2281.9 | 2281.9 | 2269.4 | 2269.4 | 2248.7 | 2240.4 | 2236.2 | 2215.4 | 2202.9 | 2190.4 |
| 5° | 2431.6 | 2410.8 | 2406.6 | 2377.5 | 2365.1 | 2319.3 | 2315.1 | 2286.1 | 2248.7 | 2211.2 | 2182.2 |
| 7.5° | 2552.1 | 2539.6 | 2518.8 | 2489.8 | 2452.3 | 2394.1 | 2390.0 | 2344.3 | 2281.9 | 2232.0 | 2190.4 |
| 10° | 2639.3 | 2631.0 | 2602.0 | 2564.5 | 2523.0 | 2464.8 | 2460.6 | 2410.8 | 2335.9 | 2277.7 | 2219.6 |
| 12.5° | 2743.2 | 2730.8 | 2693.4 | 2643.5 | 2597.8 | 2543.8 | 2539.6 | 2498.0 | 2414.9 | 2340.1 | 2265.3 |
| 15° | 2843.0 | 2826.4 | 2780.7 | 2730.8 | 2680.9 | 2635.2 | 2635.2 | 2589.5 | 2502.2 | 2414.9 | 2327.6 |
| 17.5° | 2892.9 | 2884.6 | 2838.9 | 2784.9 | 2743.2 | 2710.0 | 2705.9 | 2664.3 | 2577.0 | 2485.6 | 2390.0 |
| 20° | 2909.6 | 2913.7 | 2872.1 | 2813.9 | 2784.9 | 2768.2 | 2764.0 | 2735.0 | 2639.3 | 2552.1 | 2460.6 |
| 22.5° | 2905.4 | 2917.9 | 2884.6 | 2822.2 | 2813.9 | 2813.9 | 2813.9 | 2780.7 | 2705.9 | 2618.5 | 2527.1 |
| 25° | 2922.0 | 2938.6 | 2913.7 | 2838.9 | 2838.9 | 2855.5 | 2855.5 | 2838.9 | 2772.4 | 2697.5 | 2606.1 |
| 27.5° | 2980.2 | 2992.6 | 2971.9 | 2867.9 | 2872.1 | 2897.1 | 2892.9 | 2897.1 | 2855.5 | 2784.9 | 2693.4 |
| 30° | 3050.8 | 3067.5 | 3042.6 | 2913.7 | 2909.6 | 2934.4 | 2934.4 | 2955.2 | 2926.2 | 2851.4 | 2776.5 |
| 32.5° | 3242.0 | 3237.8 | 3158.9 | 2963.6 | 2951.1 | 2976.1 | 2976.1 | 2996.8 | 2980.2 | 2922.0 | 2851.4 |
| 35° | 3811.5 | 3749.1 | 3574.6 | 3125.6 | 3000.9 | 3013.4 | 3013.4 | 3050.8 | 3059.1 | 3013.4 | 2951.1 |
| 37.5° | 4393.4 | 4372.6 | 4239.6 | 3557.9 | 3183.8 | 3092.4 | 3088.3 | 3142.3 | 3179.7 | 3142.3 | 3100.8 |
| 40° | 4979.4 | 4962.8 | 4933.7 | 4135.7 | 3566.2 | 3233.8 | 3221.3 | 3267.0 | 3333.5 | 3308.5 | 3283.6 |
| 42.5° | 5523.9 | 5515.6 | 5544.7 | 4705.2 | 4052.5 | 3537.2 | 3499.7 | 3445.7 | 3541.4 | 3533.0 | 3533.0 |
| 45° | 5952.0 | 5972.8 | 5989.5 | 5237.2 | 4580.5 | 3927.8 | 3882.1 | 3699.3 | 3828.1 | 3861.3 | 3886.3 |
| 47.5° | 6193.1 | 6209.7 | 6267.9 | 5756.8 | 5108.3 | 4380.9 | 4347.6 | 4048.4 | 4218.9 | 4318.6 | 4389.3 |
| 50° | 6538.1 | 6492.4 | 6542.3 | 6263.8 | 5744.3 | 4971.1 | 4879.7 | 4518.1 | 4734.2 | 4908.8 | 5075.1 |
| 52.5° | 6870.6 | 6795.9 | 6837.4 | 6849.9 | 6467.5 | 5548.9 | 5453.2 | 5070.9 | 5341.0 | 5615.4 | 5910.5 |
| 55° | 7170.0 | 7165.8 | 7207.3 | 7419.3 | 7165.8 | 6168.2 | 6060.2 | 5681.9 | 6072.6 | 6367.8 | 6866.5 |
| 57.5° | 7411.0 | 7452.6 | 7635.4 | 8080.2 | 7972.2 | 6841.6 | 6721.0 | 6392.6 | 6854.0 | 7149.1 | 7976.3 |
| 60° | 7693.6 | 7760.1 | 8063.5 | 8641.3 | 8707.8 | 7548.1 | 7423.5 | 7186.5 | 7656.2 | 7955.5 | 9260.7 |
| 62.5° | 7789.3 | 7884.8 | 8508.3 | 9231.5 | 9476.7 | 8321.3 | 8209.1 | 8051.1 | 8500.0 | 8770.2 | 10540.8 |
| 65° | 7153.3 | 7336.2 | 8753.5 | 9534.9 | 10303.9 | 9252.3 | 9156.7 | 9019.6 | 9339.6 | 9518.4 | 11409.5 |
| 67.5° | 6978.7 | 7061.8 | 8275.6 | 9971.4 | 11081.1 | 10449.3 | 10353.8 | 10116.9 | 10125.2 | 10050.4 | 11692.1 |
| 70° | 6733.5 | 6824.9 | 7785.1 | 10299.8 | 12195.1 | 12087.0 | 11970.7 | 11272.3 | 10844.2 | 10391.1 | 11135.2 |
| 72.5° | 5735.9 | 5706.8 | 6708.5 | 9414.4 | 12731.2 | 14115.4 | 13978.2 | 12515.2 | 11376.2 | 10096.1 | 9397.7 |
| 75° | 3221.3 | 3138.1 | 4069.2 | 6513.2 | 11625.6 | 14921.8 | 14917.6 | 13142.8 | 11002.1 | 8795.1 | 6396.8 |
| 77.5° | 935.2 | 910.2 | 1342.5 | 2730.8 | 7826.6 | 12964.1 | 13122.0 | 11854.3 | 9181.7 | 6317.8 | 3512.2 |
| 80° | 440.6 | 448.9 | 577.8 | 901.9 | 3341.8 | 8367.0 | 8820.1 | 7805.8 | 5486.5 | 2913.7 | 1450.6 |
| 82.5° | 278.4 | 282.6 | 394.9 | 582.0 | 1413.2 | 3799.0 | 4173.1 | 3512.2 | 2173.9 | 1259.5 | 640.1 |
| 85° | 174.6 | 174.6 | 261.9 | 382.4 | 843.7 | 1213.7 | 1317.6 | 1197.1 | 931.1 | 685.8 | 349.1 |
| 87.5° | 95.6 | 95.6 | 157.9 | 220.3 | 461.4 | 390.7 | 403.1 | 478.0 | 582.0 | 419.8 | 174.6 |
| 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° | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 | 2190.4 |
| 2.5° | 2186.4 | 2178.0 | 2165.5 | 2161.4 | 2157.2 | 2153.0 | 2157.2 | 2165.5 | 2157.2 | 2157.2 | 2161.4 |
| 5° | 2173.9 | 2165.5 | 2148.9 | 2148.9 | 2153.0 | 2157.2 | 2178.0 | 2190.4 | 2194.6 | 2194.6 | 2194.6 |
| 7.5° | 2173.9 | 2161.4 | 2148.9 | 2153.0 | 2161.4 | 2178.0 | 2211.2 | 2232.0 | 2248.7 | 2252.8 | 2252.8 |
| 10° | 2194.6 | 2178.0 | 2169.7 | 2178.0 | 2202.9 | 2215.4 | 2248.7 | 2281.9 | 2302.7 | 2310.9 | 2310.9 |
| 12.5° | 2232.0 | 2215.4 | 2215.4 | 2232.0 | 2265.3 | 2281.9 | 2310.9 | 2335.9 | 2360.9 | 2373.3 | 2373.3 |
| 15° | 2294.4 | 2273.6 | 2277.7 | 2306.9 | 2344.3 | 2360.9 | 2381.6 | 2390.0 | 2410.8 | 2427.4 | 2427.4 |
| 17.5° | 2352.6 | 2331.8 | 2340.1 | 2373.3 | 2398.3 | 2406.6 | 2419.1 | 2414.9 | 2423.3 | 2435.6 | 2439.8 |
| 20° | 2419.1 | 2398.3 | 2402.4 | 2423.3 | 2427.4 | 2419.1 | 2419.1 | 2406.6 | 2402.4 | 2423.3 | 2431.6 |
| 22.5° | 2485.6 | 2464.8 | 2460.6 | 2448.1 | 2427.4 | 2406.6 | 2394.1 | 2381.6 | 2373.3 | 2394.1 | 2402.4 |
| 25° | 2564.5 | 2535.5 | 2514.6 | 2460.6 | 2406.6 | 2369.2 | 2352.6 | 2344.3 | 2340.1 | 2360.9 | 2369.2 |
| 27.5° | 2651.8 | 2622.7 | 2560.3 | 2444.0 | 2356.7 | 2294.4 | 2281.9 | 2281.9 | 2290.2 | 2302.7 | 2310.9 |
| 30° | 2735.0 | 2705.9 | 2593.6 | 2406.6 | 2269.4 | 2178.0 | 2165.5 | 2178.0 | 2198.7 | 2211.2 | 2223.7 |
| 32.5° | 2818.1 | 2789.0 | 2614.5 | 2348.4 | 2140.6 | 2024.2 | 2015.9 | 2036.7 | 2069.9 | 2078.2 | 2086.5 |
| 35° | 2930.3 | 2901.2 | 2639.3 | 2265.3 | 1978.5 | 1853.8 | 1845.5 | 1858.0 | 1887.0 | 1899.5 | 1912.0 |
| 37.5° | 3088.3 | 3071.6 | 2676.8 | 2173.9 | 1828.8 | 1691.7 | 1666.8 | 1658.4 | 1675.1 | 1670.9 | 1687.6 |
| 40° | 3296.0 | 3308.5 | 2743.2 | 2053.3 | 1683.4 | 1542.1 | 1488.0 | 1463.1 | 1446.5 | 1413.2 | 1429.8 |
| 42.5° | 3599.5 | 3607.8 | 2818.1 | 1916.1 | 1558.7 | 1400.7 | 1330.0 | 1284.3 | 1251.1 | 1197.1 | 1205.3 |
| 45° | 4044.2 | 3973.6 | 2905.4 | 1770.6 | 1446.5 | 1288.5 | 1205.3 | 1151.3 | 1105.6 | 1059.9 | 1064.1 |
| 47.5° | 4634.5 | 4418.3 | 3000.9 | 1650.1 | 1334.2 | 1197.1 | 1122.3 | 1059.9 | 1005.9 | 968.4 | 972.6 |
| 50° | 5361.9 | 4971.1 | 3096.6 | 1537.9 | 1222.0 | 1126.4 | 1059.9 | 993.4 | 939.4 | 901.9 | 897.8 |
| 52.5° | 6322.0 | 5636.2 | 3158.9 | 1413.2 | 1109.8 | 1064.1 | 1005.9 | 943.6 | 877.0 | 831.2 | 827.2 |
| 55° | 7319.5 | 6409.3 | 3213.0 | 1263.5 | 1001.7 | 993.4 | 964.3 | 893.6 | 814.7 | 756.5 | 748.2 |
| 57.5° | 8416.8 | 7236.5 | 3254.5 | 1118.1 | 918.6 | 935.2 | 926.9 | 843.7 | 756.5 | 702.5 | 698.3 |
| 60° | 9414.4 | 8092.7 | 3121.5 | 989.2 | 843.7 | 877.0 | 885.4 | 814.7 | 769.0 | 781.4 | 785.5 |
| 62.5° | 10420.3 | 8753.5 | 2614.5 | 893.6 | 793.9 | 839.6 | 910.2 | 906.1 | 885.4 | 906.1 | 910.2 |
| 65° | 10781.9 | 8890.7 | 1853.8 | 814.7 | 744.0 | 856.2 | 989.2 | 980.9 | 885.4 | 847.9 | 839.6 |
| 67.5° | 10578.2 | 8483.3 | 1247.0 | 752.3 | 706.6 | 877.0 | 1072.4 | 980.9 | 852.1 | 802.2 | 785.5 |
| 70° | 9609.8 | 7481.7 | 914.4 | 690.0 | 673.3 | 872.9 | 1118.1 | 976.8 | 835.4 | 781.4 | 760.7 |
| 72.5° | 7664.6 | 5773.3 | 735.7 | 631.8 | 623.5 | 852.1 | 1143.0 | 968.4 | 818.9 | 760.7 | 735.7 |
| 75° | 4962.8 | 3591.2 | 619.3 | 573.6 | 548.6 | 818.9 | 1130.6 | 943.6 | 798.0 | 723.2 | 706.6 |
| 77.5° | 2302.7 | 1546.2 | 527.8 | 507.1 | 478.0 | 769.0 | 1093.1 | 893.6 | 752.3 | 681.7 | 660.9 |
| 80° | 1072.4 | 731.5 | 444.8 | 440.6 | 428.1 | 727.4 | 1043.3 | 835.4 | 698.3 | 640.1 | 606.8 |
| 82.5° | 573.6 | 440.6 | 361.6 | 361.6 | 374.1 | 677.5 | 980.9 | 764.8 | 627.6 | 598.5 | 511.3 |
| 85° | 303.4 | 253.6 | 261.9 | 282.6 | 320.1 | 598.5 | 897.8 | 690.0 | 548.6 | 457.3 | 444.8 |
| 87.5° | 153.7 | 162.1 | 162.1 | 191.2 | 245.2 | 486.3 | 739.9 | 569.5 | 465.5 | 374.1 | 365.8 |
| 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)