

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: P399990

Luminaire Tested: **ARCH-L-PA3-220-727-U-T4W-HSS**

Issue Date: 5/19/2020

Test Information

Test Method: LM-79-08
Report Number: P399990
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-PA3-220-727-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 2700K, 945mA 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: 18661 lumens
Efficiency: N/A
Efficacy: 84.1 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

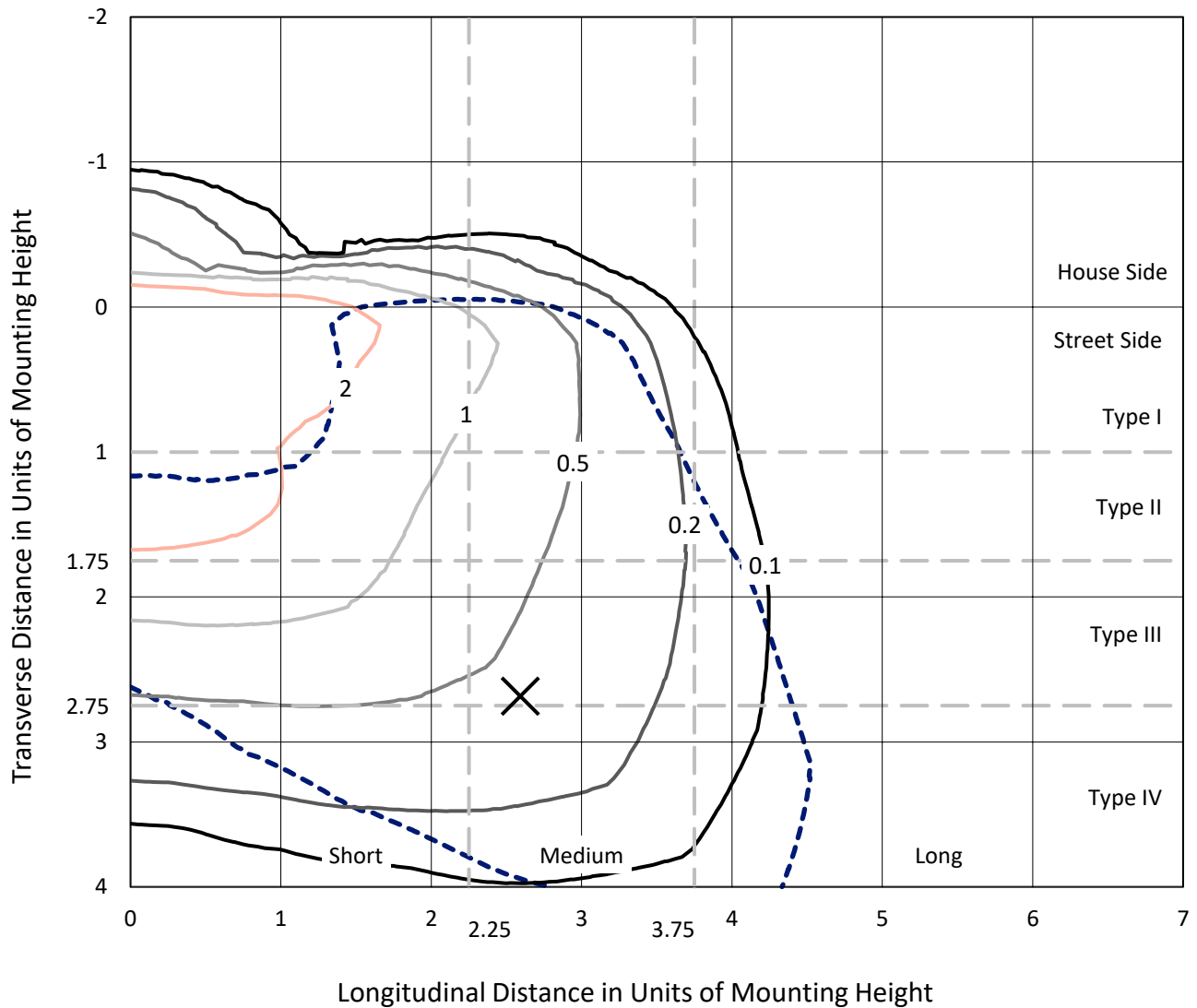
Input Watts (W): 222
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

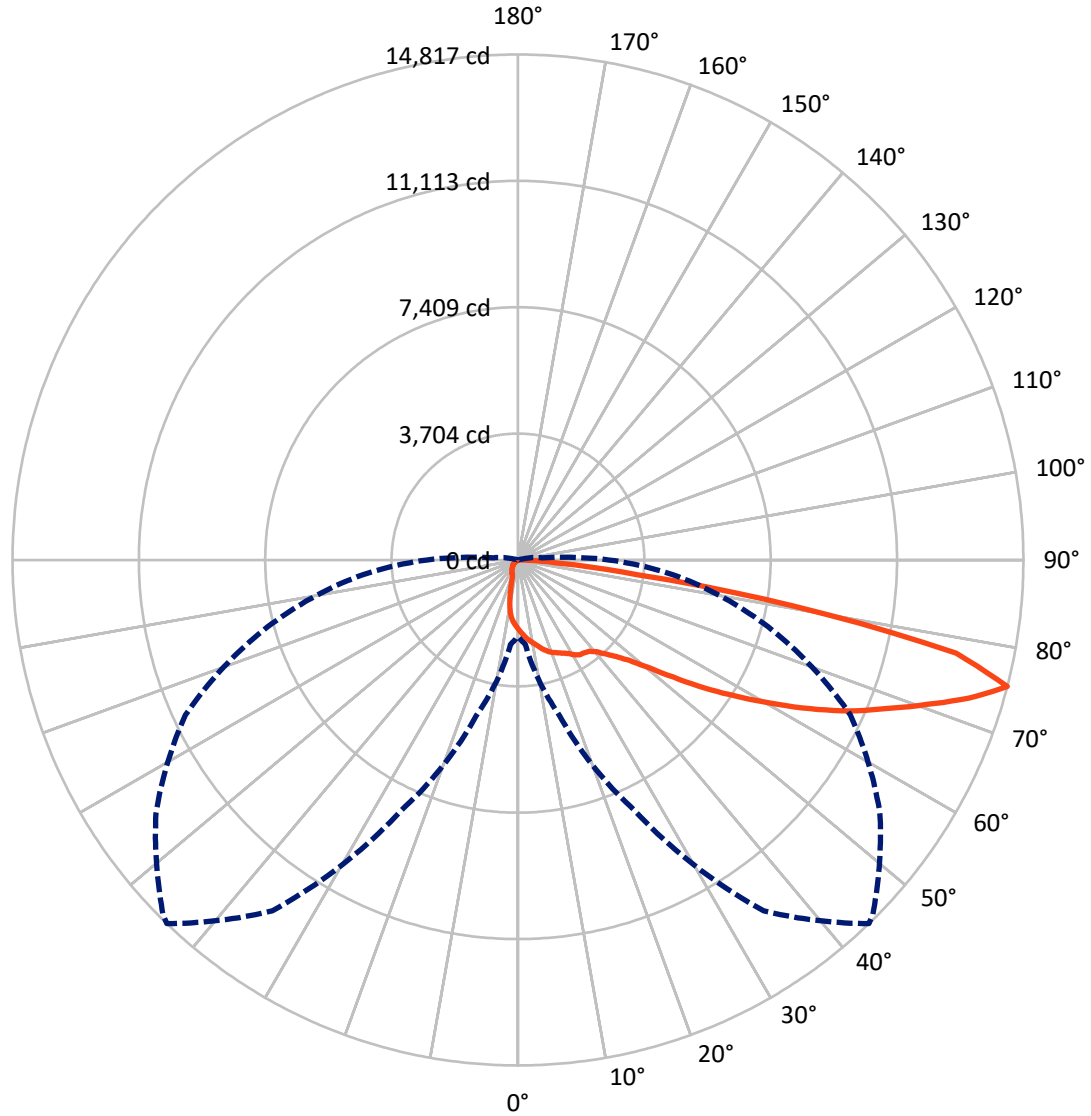
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.4 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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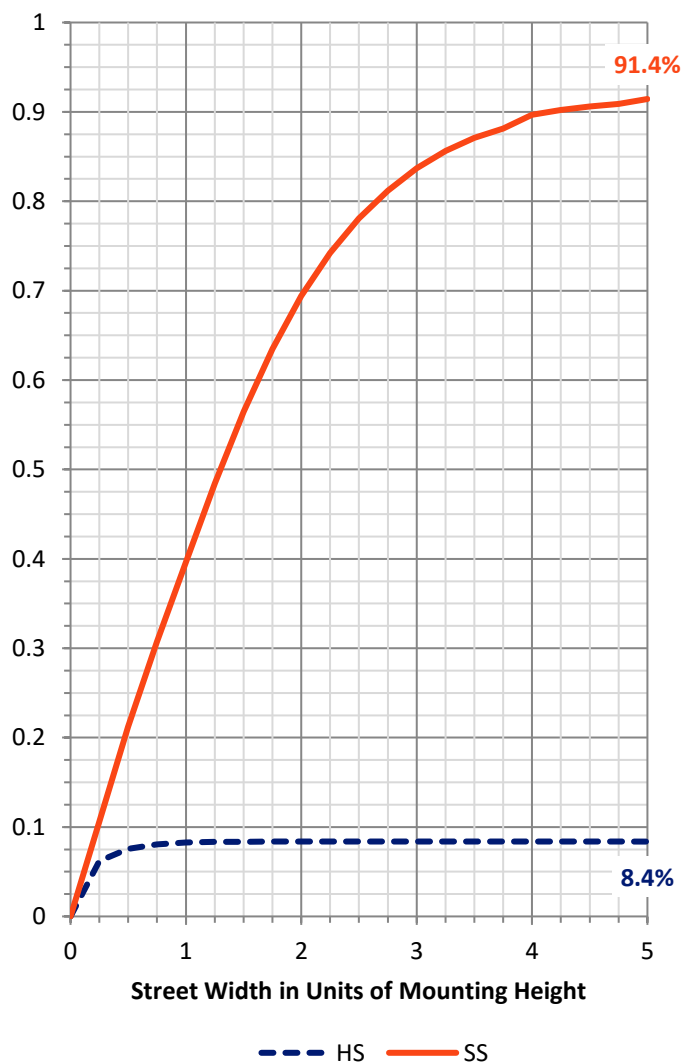
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1573.7 | 0.0 | 1573.7 |
| | % Fixture | 8.4 | 0.0 | 8.4 |
| Street Side | Lumens | 17087.3 | 0.0 | 17087.3 |
| | % Fixture | 91.6 | 0.0 | 91.6 |
| Total | Lumens | 18661.0 | 0.0 | 18661.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 191.6 | 1.0 |
| 10°-20° | 536.8 | 2.9 |
| 20°-30° | 885.8 | 4.7 |
| 30°-40° | 1285.7 | 6.9 |
| 40°-50° | 2089.9 | 11.2 |
| 50°-60° | 3684.3 | 19.7 |
| 60°-70° | 5295.1 | 28.4 |
| 70°-80° | 4240.2 | 22.7 |
| 80°-90° | 451.8 | 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° | 18661.0 | 100.0 |
| 0°-180° | 18661.0 | 100.0 |

Coefficient of Utilization

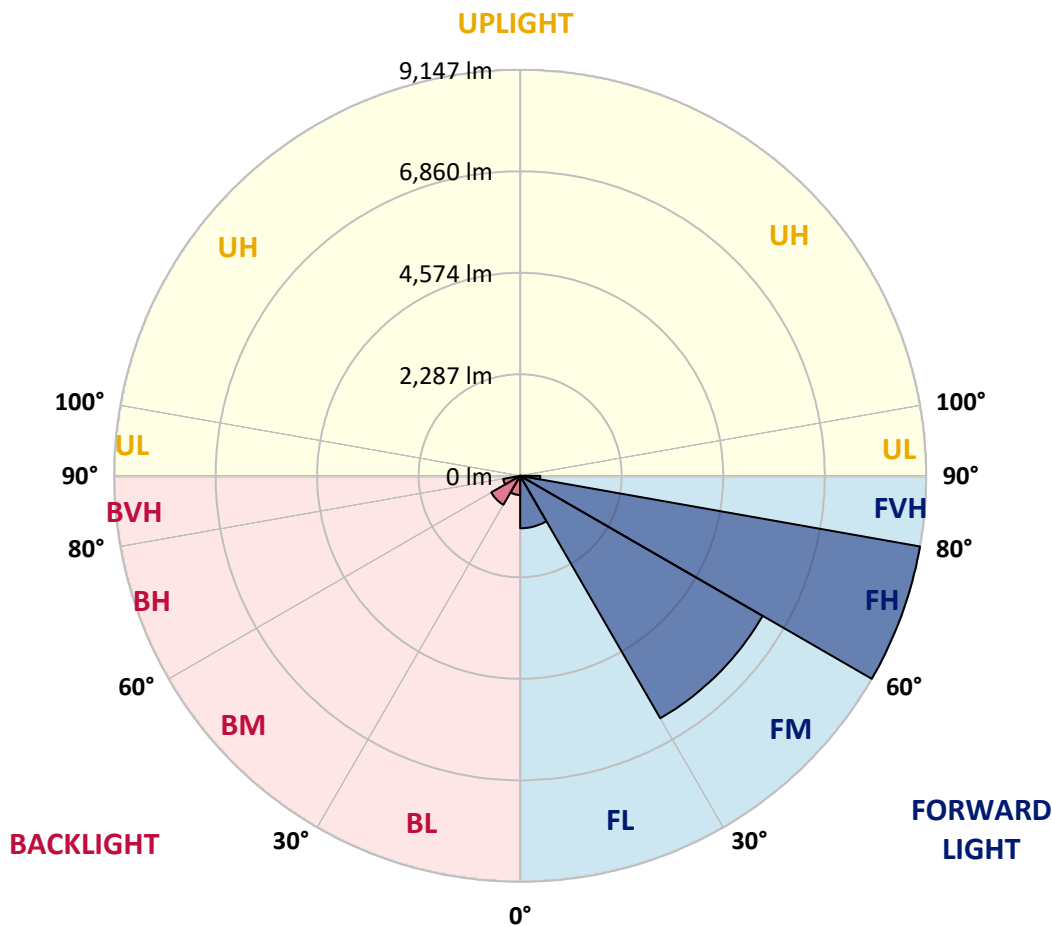


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 1181.8 | 6.3 | | | |
| FM (30°-60°) | 6307.6 | 33.8 | | | |
| FH (60°-80°) | 9147.3 | 49.0 | | | G4/12000 |
| FVH (80°-90°) | 450.6 | 2.4 | | | G3/500 |
| BL (0°-30°) | 432.4 | 2.3 | B1/500 | | |
| BM (30°-60°) | 752.3 | 4.0 | B1/1000 | | |
| BH (60°-80°) | 388.0 | 2.1 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.1 | 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° | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 |
| 2.5° | 2213.6 | 2210.2 | 2199.9 | 2182.7 | 2165.4 | 2148.2 | 2144.8 | 2117.2 | 2086.3 | 2062.2 | 2041.5 |
| 5° | 2409.9 | 2406.4 | 2389.2 | 2351.3 | 2313.5 | 2268.7 | 2265.3 | 2199.9 | 2141.3 | 2075.9 | 2020.9 |
| 7.5° | 2613.0 | 2606.1 | 2575.1 | 2516.6 | 2451.2 | 2382.3 | 2375.4 | 2279.1 | 2193.0 | 2106.9 | 2027.7 |
| 10° | 2771.4 | 2764.5 | 2719.7 | 2650.9 | 2561.4 | 2475.3 | 2465.0 | 2365.1 | 2279.1 | 2168.9 | 2062.2 |
| 12.5° | 2926.3 | 2912.5 | 2854.0 | 2778.2 | 2668.1 | 2585.5 | 2575.1 | 2471.8 | 2368.6 | 2255.0 | 2124.1 |
| 15° | 3070.9 | 3053.7 | 2998.6 | 2902.2 | 2785.1 | 2705.9 | 2699.1 | 2588.9 | 2482.2 | 2351.3 | 2206.8 |
| 17.5° | 3170.7 | 3163.8 | 3098.4 | 2991.7 | 2878.1 | 2812.7 | 2805.8 | 2692.2 | 2585.5 | 2447.7 | 2292.8 |
| 20° | 3222.3 | 3222.3 | 3160.4 | 3043.3 | 2940.0 | 2895.3 | 2885.0 | 2778.2 | 2675.0 | 2544.1 | 2382.3 |
| 22.5° | 3232.7 | 3243.0 | 3194.8 | 3067.4 | 2991.7 | 2953.8 | 2946.9 | 2854.0 | 2754.1 | 2633.6 | 2482.2 |
| 25° | 3253.3 | 3253.3 | 3229.2 | 3091.5 | 3036.4 | 3026.1 | 3022.7 | 2940.0 | 2850.5 | 2730.0 | 2582.0 |
| 27.5° | 3277.4 | 3277.4 | 3260.2 | 3126.0 | 3105.3 | 3101.9 | 3098.4 | 3060.5 | 2988.2 | 2847.1 | 2699.1 |
| 30° | 3339.4 | 3342.8 | 3329.1 | 3194.8 | 3181.0 | 3218.9 | 3225.8 | 3205.1 | 3115.6 | 2940.0 | 2819.6 |
| 32.5° | 3494.3 | 3463.3 | 3425.5 | 3243.0 | 3267.1 | 3315.3 | 3318.7 | 3277.4 | 3181.0 | 3039.9 | 2964.1 |
| 35° | 3883.3 | 3700.9 | 3528.7 | 3284.3 | 3294.6 | 3342.8 | 3349.7 | 3346.3 | 3287.8 | 3167.3 | 3129.4 |
| 37.5° | 4244.8 | 3986.6 | 3742.2 | 3380.7 | 3346.3 | 3397.9 | 3411.7 | 3470.2 | 3425.5 | 3342.8 | 3353.2 |
| 40° | 4454.8 | 4355.0 | 4182.9 | 3645.8 | 3449.6 | 3528.7 | 3542.5 | 3632.0 | 3614.8 | 3580.4 | 3645.8 |
| 42.5° | 5102.0 | 5108.9 | 4923.0 | 4041.7 | 3638.9 | 3766.3 | 3783.5 | 3855.8 | 3879.9 | 3897.1 | 4055.5 |
| 45° | 5852.5 | 5876.6 | 5831.9 | 4754.3 | 3996.9 | 4038.3 | 4062.4 | 4158.8 | 4248.3 | 4358.4 | 4647.6 |
| 47.5° | 6754.5 | 6733.9 | 6568.6 | 5625.3 | 4620.1 | 4389.4 | 4406.6 | 4592.5 | 4747.5 | 4988.4 | 5401.6 |
| 50° | 7553.2 | 7604.9 | 7291.6 | 6437.8 | 5498.0 | 4943.7 | 4926.5 | 5108.9 | 5387.8 | 5725.2 | 6245.0 |
| 52.5° | 8358.8 | 8283.1 | 7859.6 | 7243.4 | 6537.6 | 5697.6 | 5646.0 | 5745.8 | 6138.3 | 6537.6 | 7071.3 |
| 55° | 8572.3 | 8579.1 | 8434.6 | 8124.7 | 7405.2 | 6613.4 | 6527.3 | 6520.4 | 7009.3 | 7281.3 | 7938.8 |
| 57.5° | 8992.3 | 9009.5 | 9043.9 | 9105.9 | 8765.1 | 7529.1 | 7439.6 | 7343.2 | 7818.3 | 7976.7 | 8809.8 |
| 60° | 9419.2 | 9439.8 | 9649.8 | 9983.8 | 9756.5 | 8517.2 | 8420.8 | 8193.6 | 8458.7 | 8672.1 | 9725.6 |
| 62.5° | 9364.1 | 9508.7 | 10118.0 | 10782.5 | 10754.9 | 9601.6 | 9481.1 | 8933.7 | 9102.4 | 9288.3 | 10565.6 |
| 65° | 8455.2 | 8610.1 | 9980.3 | 11002.8 | 11756.7 | 10672.3 | 10476.1 | 9698.0 | 9708.3 | 9932.1 | 11374.6 |
| 67.5° | 7642.7 | 7811.4 | 9119.6 | 10909.8 | 12417.7 | 11632.8 | 11429.7 | 10465.7 | 10303.9 | 10675.7 | 11808.4 |
| 70° | 7174.5 | 7343.2 | 8434.6 | 10620.7 | 12603.6 | 12696.6 | 12521.0 | 11343.6 | 11013.1 | 11353.9 | 11323.0 |
| 72.5° | 5615.0 | 5880.1 | 7560.1 | 10069.8 | 12803.3 | 13836.1 | 13698.4 | 12455.6 | 11615.6 | 10644.8 | 8620.5 |
| 75° | 2237.7 | 2482.2 | 4719.9 | 8104.1 | 12552.0 | 14817.3 | 14710.6 | 12954.8 | 10751.5 | 7601.4 | 4413.5 |
| 77.5° | 674.8 | 723.0 | 1311.7 | 4007.3 | 9202.3 | 13137.3 | 13102.8 | 10892.6 | 7608.3 | 3528.7 | 1204.9 |
| 80° | 223.8 | 247.9 | 402.8 | 1105.1 | 4200.1 | 8207.3 | 8362.3 | 6940.4 | 3456.4 | 809.0 | 244.4 |
| 82.5° | 93.0 | 103.3 | 203.1 | 444.1 | 1487.2 | 3535.6 | 3484.0 | 3108.7 | 1204.9 | 502.6 | 89.5 |
| 85° | 24.1 | 31.0 | 93.0 | 254.8 | 543.9 | 1218.7 | 1280.7 | 1043.1 | 681.6 | 416.6 | 27.5 |
| 87.5° | 0.0 | 0.0 | 44.8 | 103.3 | 244.4 | 368.4 | 385.6 | 316.7 | 385.6 | 313.3 | 13.8 |
| 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° | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 | 2031.2 |
| 2.5° | 2024.3 | 2007.1 | 1976.1 | 1955.4 | 1927.9 | 1921.0 | 1907.2 | 1890.0 | 1886.6 | 1869.4 | 1872.8 |
| 5° | 1989.9 | 1962.3 | 1907.2 | 1869.4 | 1824.6 | 1810.8 | 1786.7 | 1769.5 | 1755.8 | 1731.7 | 1735.1 |
| 7.5° | 1983.0 | 1941.7 | 1865.9 | 1793.6 | 1721.3 | 1669.7 | 1597.4 | 1538.9 | 1490.7 | 1439.0 | 1449.4 |
| 10° | 2007.1 | 1955.4 | 1848.7 | 1748.9 | 1618.1 | 1452.8 | 1263.5 | 1139.5 | 1077.6 | 1015.6 | 1022.5 |
| 12.5° | 2055.3 | 1993.3 | 1855.6 | 1704.1 | 1439.0 | 1156.7 | 895.1 | 726.4 | 681.6 | 654.1 | 657.6 |
| 15° | 2127.6 | 2051.8 | 1876.3 | 1618.1 | 1198.1 | 836.6 | 595.6 | 523.3 | 540.5 | 550.8 | 550.8 |
| 17.5° | 2203.3 | 2117.2 | 1893.5 | 1463.1 | 926.1 | 585.3 | 485.4 | 478.5 | 502.6 | 526.7 | 526.7 |
| 20° | 2296.3 | 2186.1 | 1896.9 | 1266.9 | 667.9 | 475.1 | 457.9 | 457.9 | 475.1 | 502.6 | 502.6 |
| 22.5° | 2385.8 | 2261.8 | 1865.9 | 1043.1 | 509.5 | 440.7 | 440.7 | 440.7 | 451.0 | 478.5 | 482.0 |
| 25° | 2492.5 | 2354.8 | 1800.5 | 805.6 | 437.2 | 420.0 | 420.0 | 423.4 | 430.3 | 454.4 | 457.9 |
| 27.5° | 2606.1 | 2451.2 | 1690.4 | 588.7 | 399.4 | 395.9 | 399.4 | 402.8 | 406.2 | 430.3 | 437.2 |
| 30° | 2736.9 | 2557.9 | 1549.2 | 440.7 | 364.9 | 364.9 | 375.3 | 382.1 | 382.1 | 402.8 | 409.7 |
| 32.5° | 2888.4 | 2699.1 | 1380.5 | 364.9 | 330.5 | 327.1 | 344.3 | 354.6 | 354.6 | 371.8 | 378.7 |
| 35° | 3077.8 | 2843.7 | 1177.4 | 323.6 | 303.0 | 296.1 | 303.0 | 320.2 | 327.1 | 340.8 | 344.3 |
| 37.5° | 3329.1 | 3015.8 | 960.5 | 299.5 | 282.3 | 268.5 | 268.5 | 272.0 | 285.7 | 299.5 | 303.0 |
| 40° | 3649.2 | 3205.1 | 747.1 | 282.3 | 261.6 | 247.9 | 237.5 | 234.1 | 230.7 | 241.0 | 247.9 |
| 42.5° | 4052.0 | 3418.6 | 557.7 | 265.1 | 244.4 | 223.8 | 210.0 | 196.2 | 179.0 | 175.6 | 179.0 |
| 45° | 4568.4 | 3680.2 | 413.1 | 251.3 | 234.1 | 203.1 | 179.0 | 154.9 | 123.9 | 113.6 | 117.1 |
| 47.5° | 5177.8 | 3952.2 | 323.6 | 237.5 | 227.2 | 179.0 | 148.0 | 106.7 | 75.7 | 68.9 | 72.3 |
| 50° | 5825.0 | 4213.8 | 275.4 | 220.3 | 213.4 | 154.9 | 106.7 | 65.4 | 44.8 | 44.8 | 48.2 |
| 52.5° | 6375.8 | 4361.9 | 251.3 | 206.6 | 192.8 | 127.4 | 68.9 | 37.9 | 27.5 | 27.5 | 31.0 |
| 55° | 6909.5 | 4441.1 | 234.1 | 192.8 | 165.2 | 89.5 | 37.9 | 24.1 | 17.2 | 17.2 | 17.2 |
| 57.5° | 7460.3 | 4475.5 | 213.4 | 175.6 | 130.8 | 55.1 | 20.7 | 13.8 | 10.3 | 10.3 | 10.3 |
| 60° | 7949.1 | 4410.1 | 182.5 | 144.6 | 86.1 | 27.5 | 10.3 | 10.3 | 6.9 | 3.4 | 3.4 |
| 62.5° | 8358.8 | 4286.1 | 127.4 | 103.3 | 51.6 | 13.8 | 6.9 | 3.4 | 0.0 | 0.0 | 0.0 |
| 65° | 8610.1 | 4086.5 | 82.6 | 68.9 | 31.0 | 10.3 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 8537.8 | 3711.2 | 51.6 | 44.8 | 13.8 | 6.9 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 7704.7 | 3043.3 | 37.9 | 27.5 | 10.3 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 5553.0 | 2058.7 | 27.5 | 17.2 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 2671.5 | 733.3 | 17.2 | 13.8 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 654.1 | 161.8 | 10.3 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 144.6 | 31.0 | 6.9 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 48.2 | 13.8 | 3.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 17.2 | 6.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.3 | 3.4 | 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)