

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: P237445

Luminaire Tested: **ARCH-L-AF72-120-D-U-T4W-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P237445
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29625)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-L-AF72-120-D-U-T4W-HSS
Description: ARCHEON-L ROADWAY AND AREA LUMINAIRE
(3) 70 CRI, 4000K, 530mA 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: 12232.4 lumens
Efficiency: N/A
Efficacy: 99.5 lumens/watt
Luminous Opening: Rectangular (W 0.75' x L: 1.5' x H: 0')
IES Classification: Type IV - Medium - Non-Cutoff
BUG Rating: B1 - U0 - G3

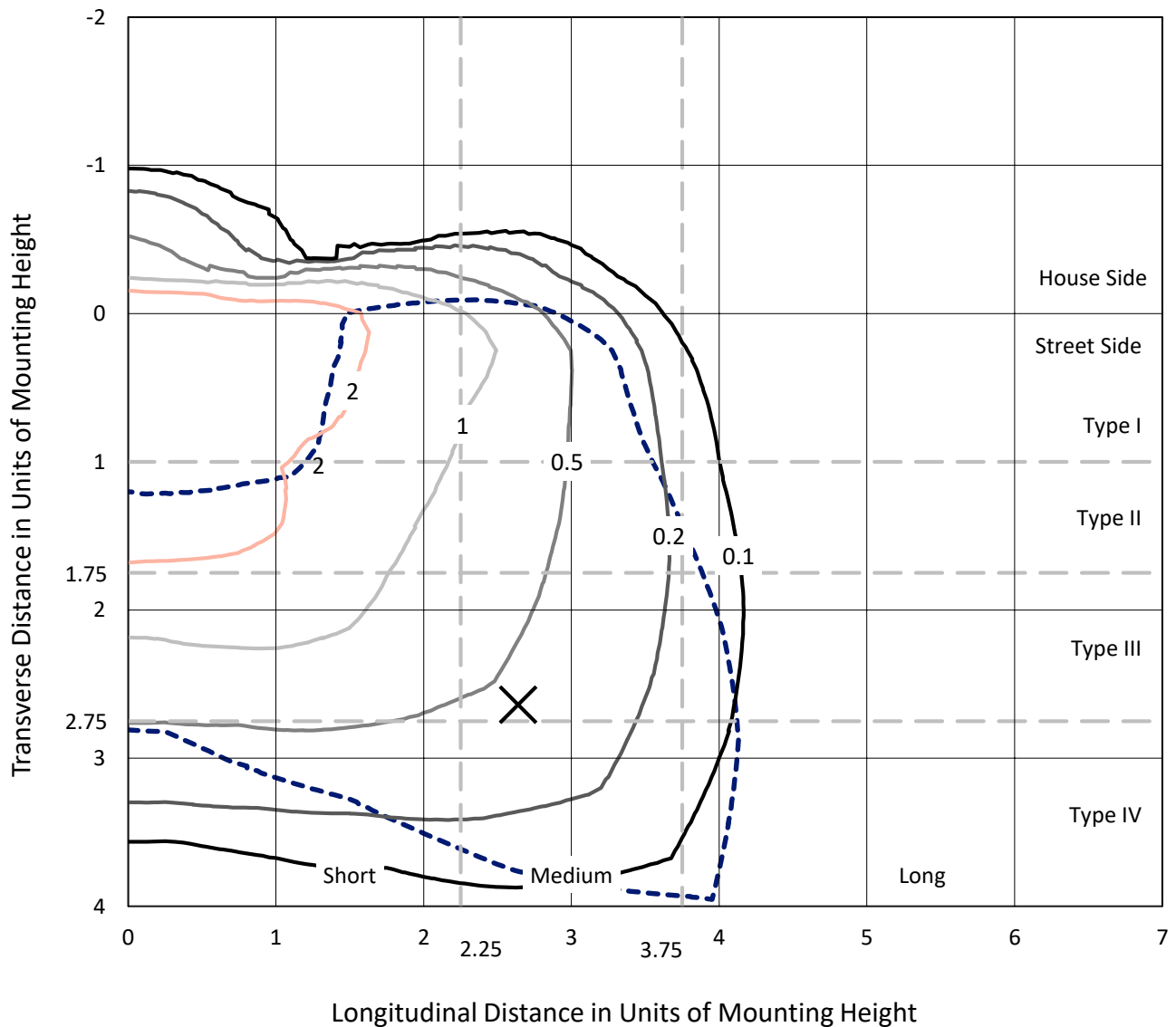
Input Watts (W): 123
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

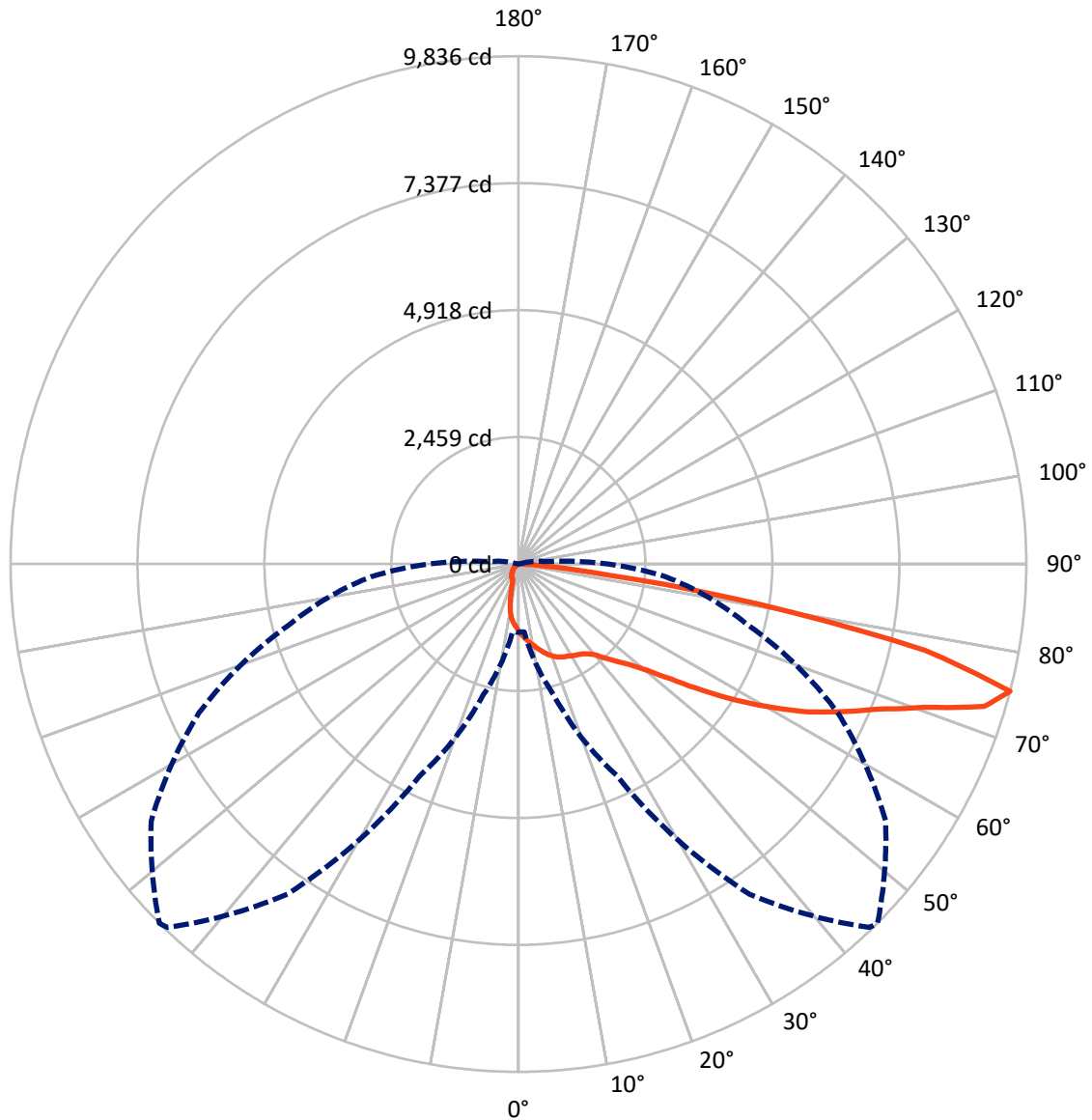
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 4.4 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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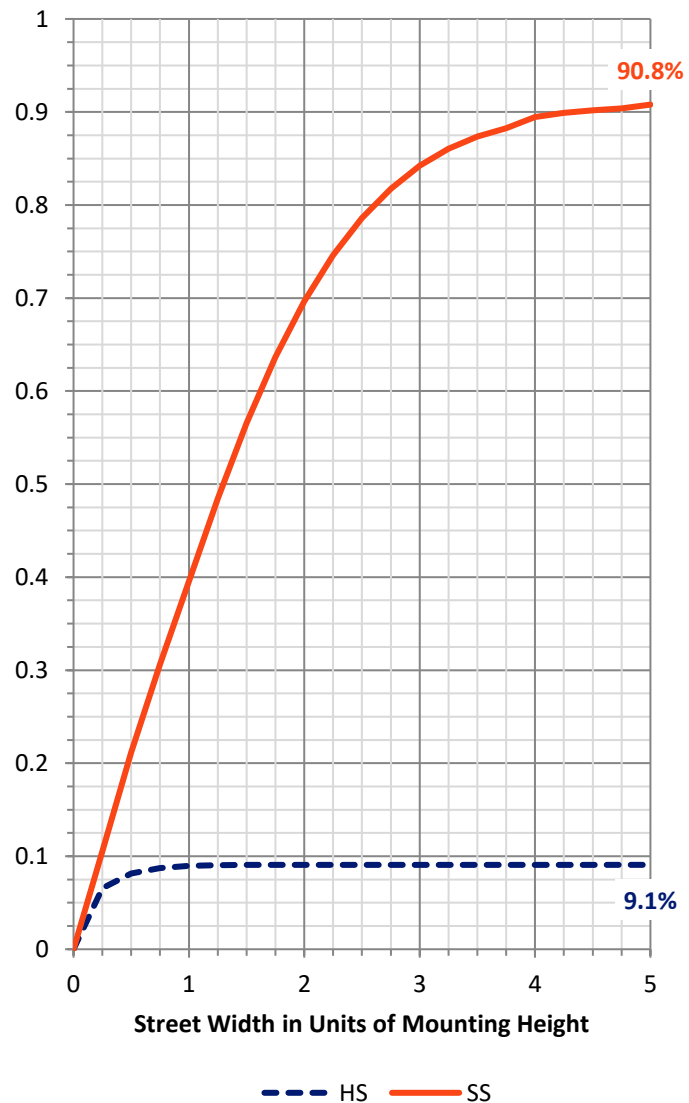
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1118.9 | 0.0 | 1118.9 |
| | % Fixture | 9.1 | 0.0 | 9.1 |
| Street Side | Lumens | 11113.6 | 0.0 | 11113.6 |
| | % Fixture | 90.9 | 0.0 | 90.9 |
| Total | Lumens | 12232.4 | 0.0 | 12232.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 123.5 | 1.0 |
| 10°-20° | 349.8 | 2.9 |
| 20°-30° | 579.3 | 4.7 |
| 30°-40° | 838.4 | 6.9 |
| 40°-50° | 1372.9 | 11.2 |
| 50°-60° | 2446.2 | 20.0 |
| 60°-70° | 3596.3 | 29.4 |
| 70°-80° | 2713.1 | 22.2 |
| 80°-90° | 212.9 | 1.7 |
| 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° | 12232.4 | 100.0 |
| 0°-180° | 12232.4 | 100.0 |



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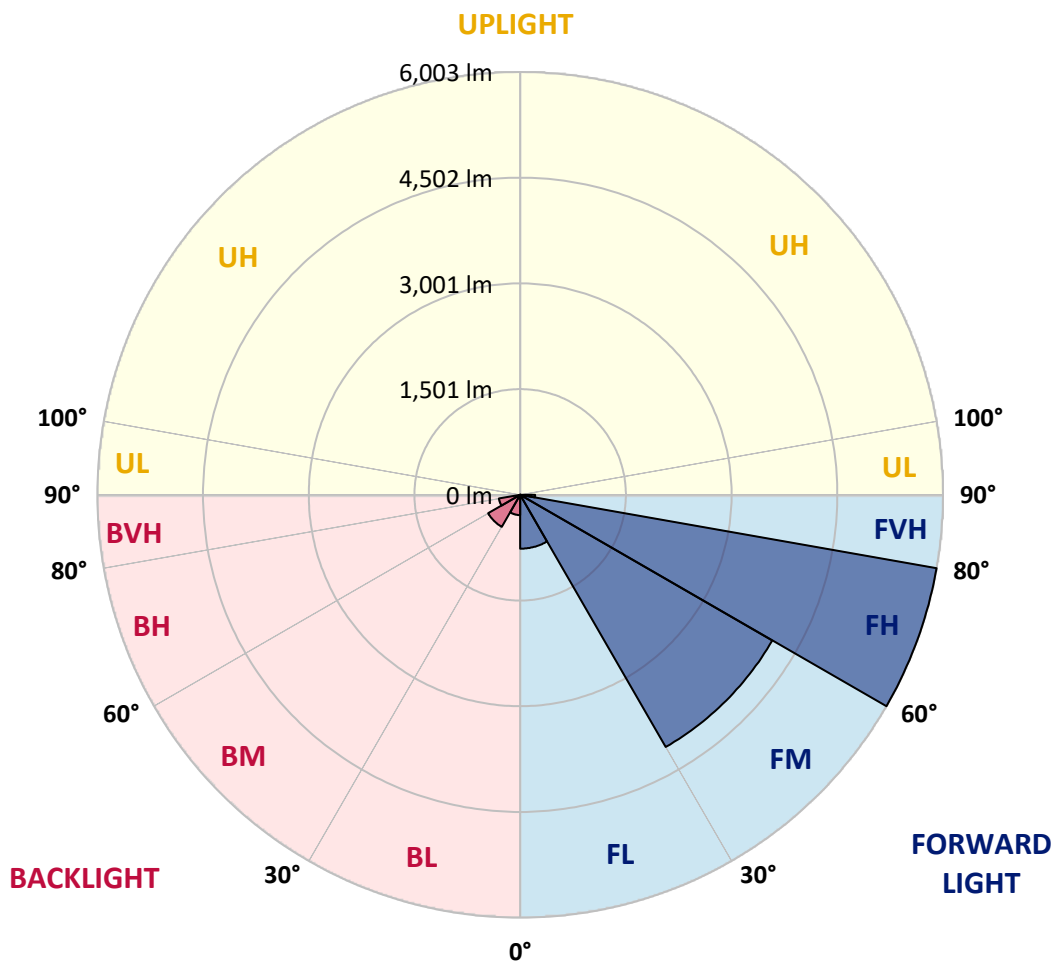
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 765.1 | 6.3 | | | |
| FM | (30°-60°) | 4133.3 | 33.8 | | | |
| FH | (60°-80°) | 6002.9 | 49.1 | | | G3/7500 |
| FVH | (80°-90°) | 212.3 | 1.7 | | | G2/225 |
| BL | (0°-30°) | 287.5 | 2.4 | B1/500 | | |
| BM | (30°-60°) | 524.3 | 4.3 | B1/1000 | | |
| BH | (60°-80°) | 306.5 | 2.5 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 0.6 | 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-G3

Type IV Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 44° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 |
| 2.5° | 1421.2 | 1421.2 | 1418.3 | 1415.5 | 1400.9 | 1386.5 | 1383.5 | 1374.9 | 1348.9 | 1331.5 | 1314.1 |
| 5° | 1539.8 | 1542.8 | 1537.0 | 1522.6 | 1490.6 | 1458.8 | 1456.0 | 1432.7 | 1383.5 | 1348.9 | 1311.2 |
| 7.5° | 1652.8 | 1658.6 | 1644.1 | 1618.0 | 1580.5 | 1534.1 | 1531.3 | 1487.8 | 1424.2 | 1374.9 | 1319.9 |
| 10° | 1748.3 | 1748.3 | 1728.1 | 1696.2 | 1655.6 | 1606.4 | 1600.7 | 1551.5 | 1479.1 | 1418.3 | 1346.0 |
| 12.5° | 1852.5 | 1849.6 | 1820.6 | 1777.3 | 1730.9 | 1684.6 | 1681.7 | 1621.0 | 1551.5 | 1473.4 | 1383.5 |
| 15° | 1948.0 | 1942.3 | 1904.6 | 1864.1 | 1814.9 | 1765.6 | 1762.7 | 1702.0 | 1629.7 | 1537.0 | 1438.6 |
| 17.5° | 2000.1 | 1997.2 | 1962.5 | 1921.9 | 1881.4 | 1843.8 | 1840.9 | 1777.3 | 1699.1 | 1603.6 | 1493.6 |
| 20° | 2008.8 | 2011.7 | 1982.8 | 1948.0 | 1924.9 | 1904.6 | 1904.6 | 1846.7 | 1762.7 | 1661.5 | 1551.5 |
| 22.5° | 2011.7 | 2020.4 | 2000.1 | 1953.8 | 1948.0 | 1950.9 | 1956.7 | 1910.4 | 1823.5 | 1728.1 | 1612.3 |
| 25° | 2032.0 | 2043.5 | 2029.0 | 1974.1 | 1968.3 | 1988.5 | 1994.3 | 1974.1 | 1895.9 | 1800.4 | 1681.7 |
| 27.5° | 2072.5 | 2084.1 | 2072.5 | 2003.0 | 1994.3 | 2014.6 | 2020.4 | 2032.0 | 1974.1 | 1869.9 | 1754.1 |
| 30° | 2153.5 | 2156.4 | 2130.4 | 2043.5 | 2026.2 | 2052.2 | 2060.9 | 2092.8 | 2046.4 | 1936.4 | 1823.5 |
| 32.5° | 2295.4 | 2266.4 | 2188.3 | 2072.5 | 2058.0 | 2086.9 | 2095.6 | 2130.4 | 2113.0 | 2000.1 | 1895.9 |
| 35° | 2584.8 | 2434.3 | 2254.8 | 2113.0 | 2098.5 | 2127.4 | 2139.1 | 2188.3 | 2197.0 | 2089.9 | 1985.6 |
| 37.5° | 2581.9 | 2445.9 | 2411.1 | 2191.2 | 2170.9 | 2191.2 | 2205.6 | 2266.4 | 2301.1 | 2208.6 | 2115.9 |
| 40° | 2764.3 | 2706.4 | 2706.4 | 2338.8 | 2272.2 | 2301.1 | 2315.7 | 2376.4 | 2437.2 | 2364.9 | 2269.3 |
| 42.5° | 3337.4 | 3299.7 | 3259.2 | 2622.4 | 2414.1 | 2495.1 | 2503.8 | 2541.4 | 2613.7 | 2590.6 | 2477.7 |
| 45° | 3977.1 | 3942.4 | 3786.0 | 3102.9 | 2657.2 | 2671.6 | 2691.9 | 2752.7 | 2856.9 | 2900.3 | 2767.2 |
| 47.5° | 4477.9 | 4443.1 | 4310.0 | 3681.8 | 3036.3 | 2909.0 | 2909.0 | 3027.6 | 3189.8 | 3299.7 | 3172.4 |
| 50° | 4880.2 | 4839.7 | 4758.6 | 4298.3 | 3658.7 | 3250.5 | 3233.1 | 3372.2 | 3612.3 | 3783.2 | 3696.3 |
| 52.5° | 5271.0 | 5152.3 | 5103.1 | 4935.1 | 4362.1 | 3745.5 | 3699.2 | 3797.6 | 4130.5 | 4341.8 | 4269.4 |
| 55° | 5531.4 | 5514.1 | 5461.9 | 5519.8 | 5100.1 | 4347.5 | 4307.0 | 4327.3 | 4744.1 | 4885.9 | 4796.2 |
| 57.5° | 5774.6 | 5771.7 | 5887.5 | 6156.6 | 5904.9 | 5036.5 | 4972.8 | 4941.0 | 5337.6 | 5302.8 | 5380.9 |
| 60° | 6075.6 | 6023.5 | 6292.7 | 6677.7 | 6642.9 | 5708.0 | 5635.6 | 5572.0 | 5791.9 | 5693.5 | 6081.4 |
| 62.5° | 6090.0 | 6075.6 | 6622.7 | 7175.5 | 7375.3 | 6391.1 | 6307.2 | 6078.5 | 6188.5 | 6075.6 | 6750.0 |
| 65° | 5537.2 | 5609.6 | 6761.6 | 7438.9 | 7988.9 | 6990.3 | 6889.0 | 6533.0 | 6541.7 | 6466.4 | 7537.3 |
| 67.5° | 5412.7 | 5450.4 | 6379.5 | 7722.6 | 8431.8 | 7595.2 | 7499.8 | 7056.8 | 6952.7 | 6958.4 | 8003.4 |
| 70° | 5103.1 | 5161.0 | 5904.9 | 7702.3 | 8782.0 | 8402.8 | 8307.3 | 7826.8 | 7575.0 | 7294.3 | 7644.4 |
| 72.5° | 3899.0 | 3997.4 | 4975.7 | 6752.9 | 8686.5 | 9459.3 | 9433.2 | 8802.3 | 7823.9 | 6698.0 | 5783.3 |
| 75° | 1319.9 | 1317.0 | 2613.7 | 4535.8 | 7803.7 | 9783.5 | 9835.6 | 8680.7 | 6825.3 | 4619.6 | 2871.3 |
| 77.5° | 283.7 | 286.5 | 538.4 | 1838.0 | 5184.1 | 7855.8 | 8055.4 | 6547.4 | 4402.6 | 2058.0 | 657.0 |
| 80° | 138.9 | 141.8 | 222.9 | 486.3 | 2072.5 | 4405.4 | 4718.1 | 3366.3 | 1626.7 | 411.0 | 110.0 |
| 82.5° | 69.5 | 72.3 | 115.8 | 257.6 | 767.0 | 1565.9 | 1673.0 | 1238.9 | 466.1 | 231.6 | 55.0 |
| 85° | 26.1 | 26.1 | 57.9 | 153.4 | 350.3 | 367.6 | 451.5 | 359.0 | 280.8 | 188.1 | 14.4 |
| 87.5° | 5.8 | 5.8 | 31.8 | 75.3 | 156.3 | 115.8 | 115.8 | 110.0 | 170.7 | 127.4 | 5.8 |
| 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° | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 | 1308.4 |
| 2.5° | 1305.4 | 1293.8 | 1273.6 | 1253.3 | 1238.9 | 1221.5 | 1212.8 | 1204.1 | 1201.3 | 1198.3 | 1204.1 |
| 5° | 1291.0 | 1273.6 | 1235.9 | 1204.1 | 1175.2 | 1152.0 | 1134.7 | 1117.3 | 1108.6 | 1102.8 | 1105.7 |
| 7.5° | 1291.0 | 1264.9 | 1209.9 | 1160.7 | 1114.4 | 1065.2 | 1016.0 | 978.4 | 949.4 | 932.0 | 935.0 |
| 10° | 1305.4 | 1270.7 | 1198.3 | 1131.8 | 1044.9 | 940.7 | 833.6 | 752.6 | 697.6 | 665.7 | 665.7 |
| 12.5° | 1337.3 | 1291.0 | 1201.3 | 1097.0 | 949.4 | 767.0 | 605.0 | 506.6 | 466.1 | 442.8 | 445.8 |
| 15° | 1380.7 | 1325.7 | 1215.7 | 1050.7 | 816.2 | 570.2 | 422.6 | 359.0 | 359.0 | 364.7 | 367.6 |
| 17.5° | 1429.9 | 1369.1 | 1227.2 | 981.2 | 645.5 | 408.2 | 332.9 | 327.0 | 335.7 | 350.3 | 350.3 |
| 20° | 1479.1 | 1412.5 | 1233.1 | 871.2 | 483.3 | 324.2 | 315.5 | 315.5 | 321.3 | 335.7 | 338.7 |
| 22.5° | 1539.8 | 1467.5 | 1227.2 | 735.2 | 361.8 | 306.8 | 303.9 | 303.9 | 303.9 | 321.3 | 321.3 |
| 25° | 1603.6 | 1531.3 | 1204.1 | 590.4 | 306.8 | 295.2 | 292.4 | 289.5 | 289.5 | 303.9 | 306.8 |
| 27.5° | 1675.9 | 1597.7 | 1149.1 | 451.5 | 289.5 | 283.7 | 280.8 | 275.0 | 275.0 | 286.5 | 286.5 |
| 30° | 1748.3 | 1673.0 | 1065.2 | 341.6 | 275.0 | 272.1 | 266.3 | 260.5 | 254.7 | 266.3 | 266.3 |
| 32.5° | 1826.5 | 1751.2 | 955.2 | 272.1 | 254.7 | 254.7 | 251.9 | 243.2 | 237.3 | 243.2 | 246.0 |
| 35° | 1930.6 | 1840.9 | 830.7 | 237.3 | 228.6 | 228.6 | 228.6 | 225.8 | 214.2 | 219.9 | 219.9 |
| 37.5° | 2069.6 | 1965.4 | 686.0 | 219.9 | 208.4 | 202.6 | 202.6 | 202.6 | 194.0 | 196.8 | 196.8 |
| 40° | 2246.2 | 2110.1 | 547.1 | 205.5 | 194.0 | 179.4 | 173.7 | 176.6 | 170.7 | 170.7 | 167.9 |
| 42.5° | 2486.4 | 2266.4 | 411.0 | 194.0 | 182.4 | 162.1 | 150.5 | 147.6 | 141.8 | 138.9 | 138.9 |
| 45° | 2830.8 | 2457.4 | 295.2 | 182.4 | 173.7 | 141.8 | 130.2 | 121.5 | 107.1 | 98.4 | 98.4 |
| 47.5° | 3276.6 | 2674.5 | 219.9 | 170.7 | 165.0 | 124.5 | 110.0 | 92.6 | 72.3 | 66.6 | 66.6 |
| 50° | 3820.8 | 2917.7 | 185.3 | 153.4 | 150.5 | 110.0 | 86.8 | 60.8 | 40.5 | 34.8 | 37.6 |
| 52.5° | 4350.5 | 3146.4 | 165.0 | 136.1 | 133.2 | 95.5 | 63.7 | 31.8 | 17.4 | 17.4 | 17.4 |
| 55° | 4796.2 | 3308.4 | 150.5 | 121.5 | 115.8 | 75.3 | 34.8 | 14.4 | 8.7 | 8.7 | 8.7 |
| 57.5° | 5198.5 | 3401.1 | 136.1 | 107.1 | 92.6 | 52.1 | 14.4 | 5.8 | 5.8 | 2.9 | 2.9 |
| 60° | 5566.2 | 3456.0 | 118.7 | 92.6 | 72.3 | 28.9 | 5.8 | 2.9 | 2.9 | 0.0 | 0.0 |
| 62.5° | 5928.0 | 3496.5 | 101.3 | 75.3 | 55.0 | 11.6 | 2.9 | 2.9 | 0.0 | 0.0 | 0.0 |
| 65° | 6203.0 | 3482.1 | 81.0 | 60.8 | 34.8 | 5.8 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 6194.3 | 3285.3 | 60.8 | 46.3 | 17.4 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 5540.1 | 2767.2 | 40.5 | 28.9 | 5.8 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 3930.8 | 1774.3 | 26.1 | 17.4 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 1730.9 | 538.4 | 14.4 | 8.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 338.7 | 124.5 | 8.7 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 81.0 | 14.4 | 2.9 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 34.8 | 5.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 8.7 | 2.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.8 | 2.9 | 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)