

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: P265897

Luminaire Tested: **ARCH-AF16-50-D-U-T2R-7027-HSS**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P265897
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P29623)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: ARCH-AF16-50-D-U-T2R-7027-HSS
Description: ARCHEON ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 2700K, 980mA LIGHT ENGINE WITH 16 LEDS AND TYPE II ROADWAY OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4024.1 lumens
Efficiency: N/A
Efficacy: 75.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.75' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B0 - U0 - G1

Input Watts (W): 53
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

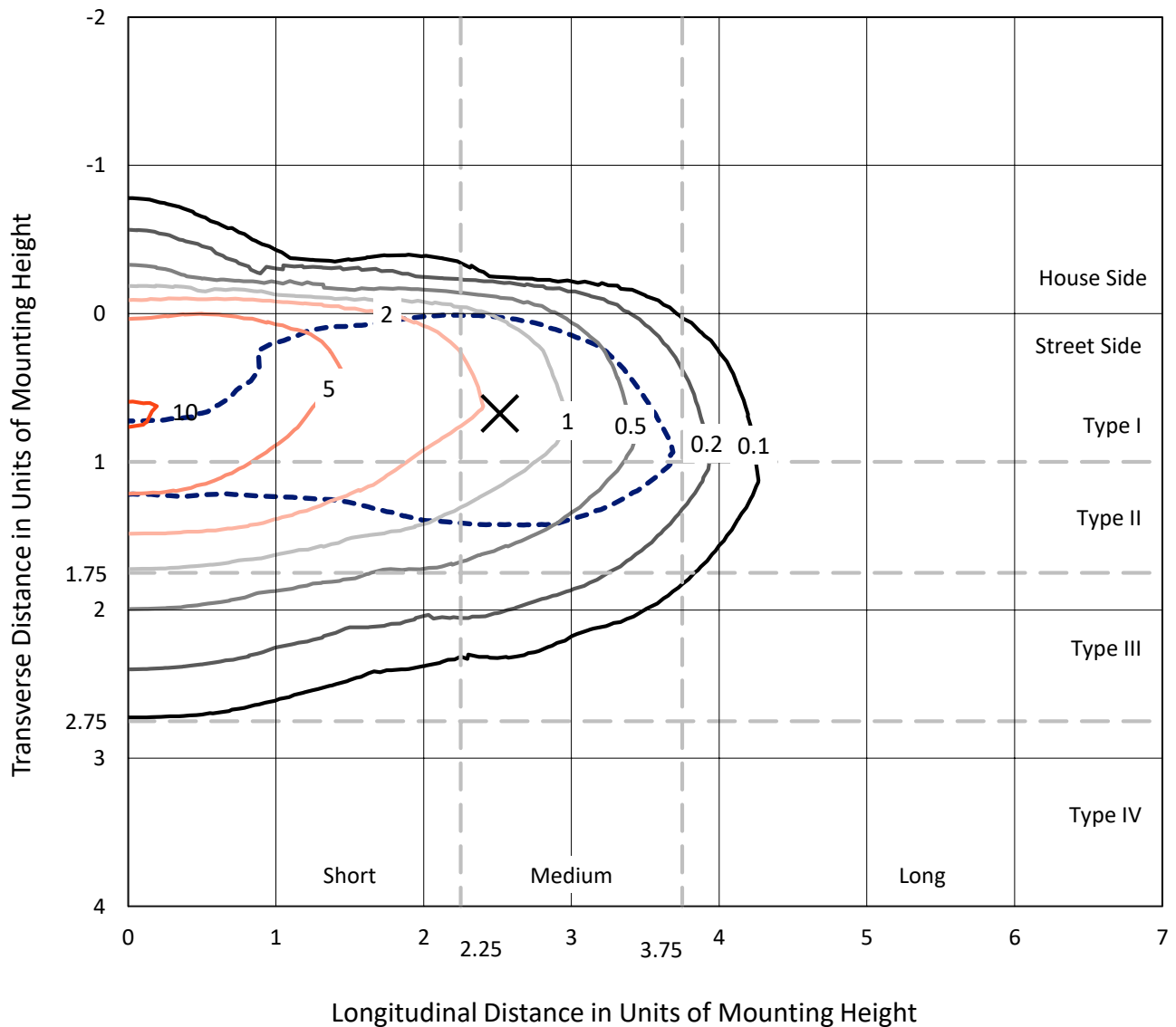


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Iso-Footcandle Lines of Horizontal Illumination

× Max cd
 - - - 1/2 Max cd

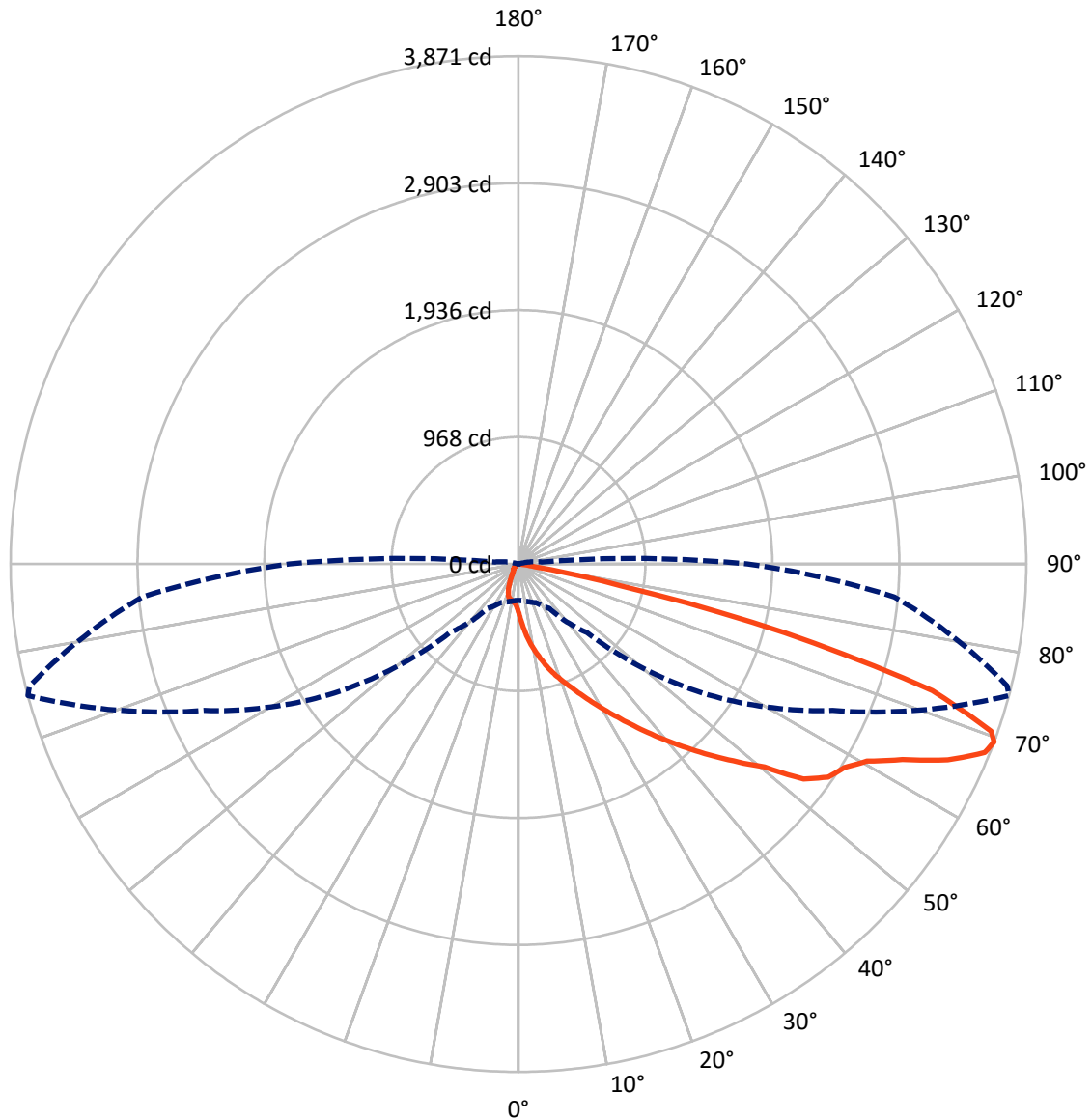


Based on 10 foot mounting height. Maximum calculated value = 10.3 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 75-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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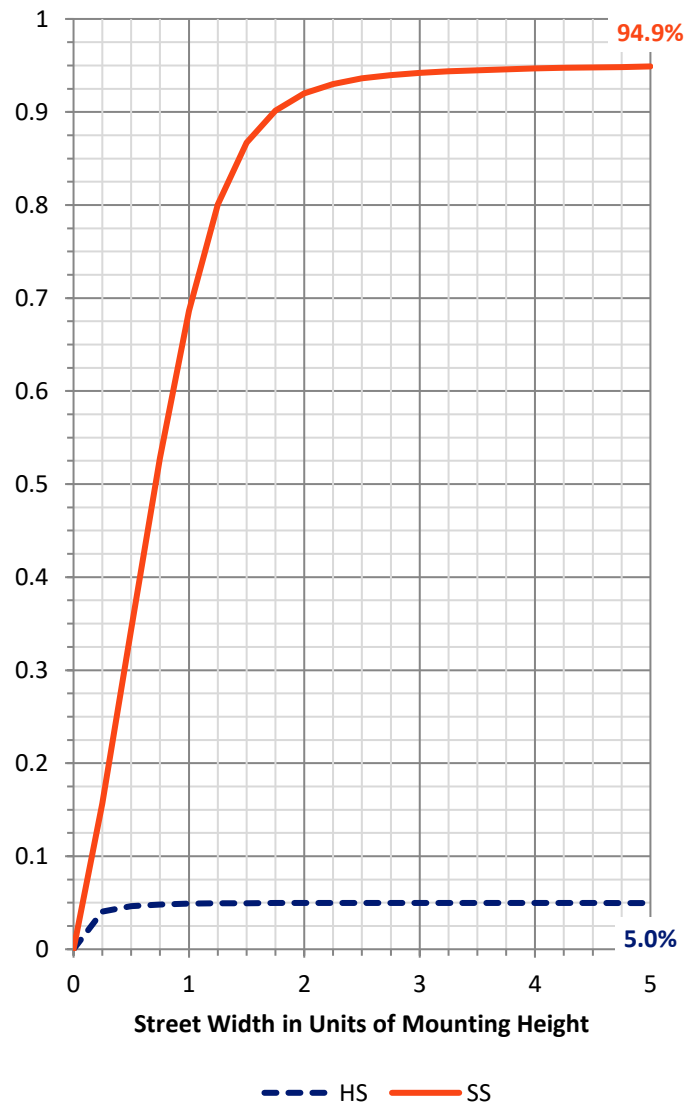
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 200.8 | 0.0 | 200.8 |
| | % Fixture | 5.0 | 0.0 | 5.0 |
| Street Side | Lumens | 3823.3 | 0.0 | 3823.3 |
| | % Fixture | 95.0 | 0.0 | 95.0 |
| Total | Lumens | 4024.1 | 0.0 | 4024.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 43.7 | 1.1 |
| 10°-20° | 156.1 | 3.9 |
| 20°-30° | 298.0 | 7.4 |
| 30°-40° | 534.5 | 13.3 |
| 40°-50° | 819.0 | 20.4 |
| 50°-60° | 951.8 | 23.7 |
| 60°-70° | 842.9 | 20.9 |
| 70°-80° | 363.6 | 9.0 |
| 80°-90° | 14.6 | 0.4 |
| 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° | 4024.1 | 100.0 |
| 0°-180° | 4024.1 | 100.0 |

Coefficient of Utilization



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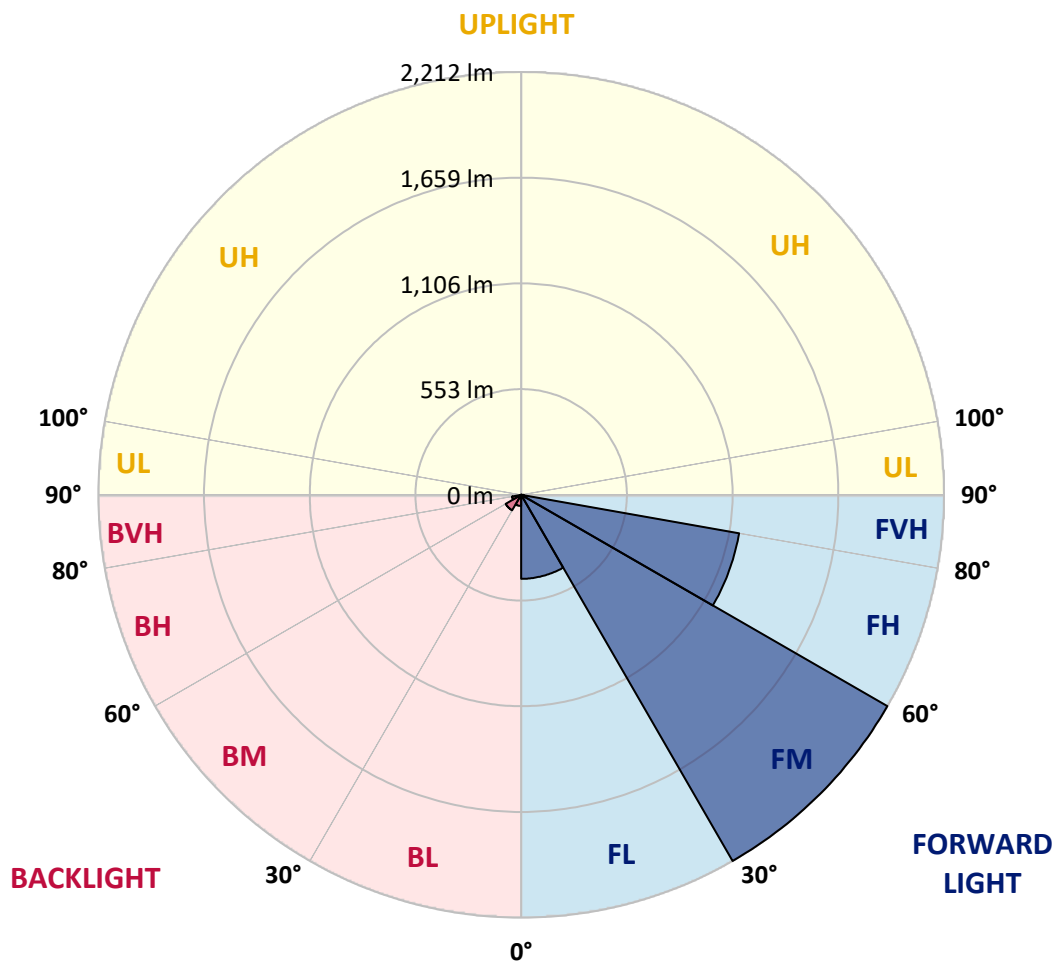
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 439.4 | 10.9 | | | |
| FM | (30°-60°) | 2211.7 | 55.0 | | | |
| FH | (60°-80°) | 1157.8 | 28.8 | | | G1/1800 |
| FVH | (80°-90°) | 14.4 | 0.4 | | | G1/100 |
| BL | (0°-30°) | 58.3 | 1.4 | B0/110 | | |
| BM | (30°-60°) | 93.6 | 2.3 | B0/220 | | |
| BH | (60°-80°) | 48.6 | 1.2 | B0/110 | | G0/110 |
| BVH | (80°-90°) | 0.2 | 0.0 | | | G0/10 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 76° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 |
| 2.5° | 616.9 | 610.8 | 604.6 | 597.7 | 582.1 | 555.2 | 521.2 | 484.7 | 439.6 | 431.7 | 395.3 |
| 5° | 748.8 | 746.3 | 740.3 | 730.6 | 713.3 | 683.7 | 645.5 | 591.7 | 516.0 | 503.1 | 425.6 |
| 7.5° | 841.8 | 840.0 | 834.9 | 823.6 | 807.9 | 778.4 | 738.4 | 680.2 | 592.5 | 577.7 | 464.0 |
| 10° | 925.3 | 924.4 | 920.0 | 909.7 | 894.0 | 861.8 | 819.3 | 758.3 | 665.5 | 648.9 | 508.3 |
| 12.5° | 1000.8 | 1001.7 | 1000.0 | 994.8 | 983.5 | 953.0 | 904.5 | 838.4 | 735.8 | 717.6 | 561.3 |
| 15° | 1045.1 | 1047.8 | 1054.7 | 1065.1 | 1068.5 | 1044.3 | 993.9 | 920.9 | 807.9 | 792.3 | 622.0 |
| 17.5° | 1030.4 | 1033.1 | 1054.7 | 1090.4 | 1124.1 | 1127.6 | 1082.5 | 999.0 | 879.3 | 863.5 | 682.0 |
| 20° | 994.8 | 998.1 | 1020.8 | 1069.4 | 1135.5 | 1181.5 | 1163.2 | 1084.3 | 947.0 | 927.8 | 739.3 |
| 22.5° | 1034.7 | 1034.7 | 1041.7 | 1071.1 | 1131.1 | 1203.2 | 1227.5 | 1169.4 | 1016.4 | 992.9 | 796.6 |
| 25° | 1172.0 | 1169.4 | 1154.6 | 1142.5 | 1161.6 | 1225.8 | 1276.2 | 1256.2 | 1098.1 | 1071.1 | 857.5 |
| 27.5° | 1345.8 | 1357.9 | 1330.1 | 1285.7 | 1242.4 | 1270.2 | 1319.7 | 1342.2 | 1188.5 | 1160.7 | 920.0 |
| 30° | 1540.4 | 1545.5 | 1512.6 | 1453.5 | 1377.0 | 1350.1 | 1371.0 | 1416.1 | 1286.6 | 1256.2 | 985.3 |
| 32.5° | 1715.9 | 1711.5 | 1683.7 | 1622.0 | 1527.3 | 1469.1 | 1437.0 | 1475.1 | 1393.5 | 1358.7 | 1052.0 |
| 35° | 1871.3 | 1874.9 | 1840.9 | 1769.8 | 1676.7 | 1615.1 | 1538.5 | 1542.1 | 1513.4 | 1473.4 | 1129.3 |
| 37.5° | 2011.1 | 2005.0 | 1972.9 | 1901.7 | 1817.5 | 1750.5 | 1669.8 | 1611.6 | 1644.5 | 1602.8 | 1216.2 |
| 40° | 2125.0 | 2118.9 | 2085.1 | 2015.5 | 1936.4 | 1881.8 | 1818.3 | 1704.5 | 1782.6 | 1734.9 | 1309.2 |
| 42.5° | 2215.4 | 2208.5 | 2179.7 | 2112.9 | 2036.4 | 1987.7 | 1957.3 | 1819.2 | 1930.4 | 1882.6 | 1413.6 |
| 45° | 2259.6 | 2253.6 | 2236.2 | 2185.8 | 2118.9 | 2076.3 | 2091.2 | 1951.3 | 2088.5 | 2048.6 | 1528.1 |
| 47.5° | 2207.6 | 2204.9 | 2224.9 | 2216.2 | 2178.0 | 2155.5 | 2206.6 | 2095.4 | 2254.4 | 2215.4 | 1660.2 |
| 50° | 2049.5 | 2053.7 | 2111.9 | 2184.0 | 2202.4 | 2229.2 | 2301.4 | 2247.5 | 2432.5 | 2390.8 | 1812.2 |
| 52.5° | 1659.3 | 1688.9 | 1864.4 | 2038.2 | 2172.8 | 2274.4 | 2412.6 | 2464.7 | 2722.8 | 2681.9 | 2049.5 |
| 55° | 1238.9 | 1251.0 | 1442.1 | 1739.3 | 2053.7 | 2270.9 | 2495.1 | 2592.4 | 2866.0 | 2824.5 | 2111.9 |
| 57.5° | 982.6 | 986.9 | 1081.6 | 1384.7 | 1808.7 | 2192.8 | 2538.5 | 2638.4 | 2928.7 | 2893.9 | 2204.9 |
| 60° | 771.5 | 776.7 | 845.3 | 1053.8 | 1463.9 | 1981.7 | 2476.0 | 2678.3 | 3051.2 | 3023.3 | 2367.5 |
| 62.5° | 600.2 | 605.5 | 647.1 | 769.8 | 1098.1 | 1656.7 | 2350.1 | 2742.6 | 3283.9 | 3270.9 | 2633.2 |
| 65° | 464.9 | 466.5 | 495.1 | 552.5 | 775.7 | 1304.9 | 2196.3 | 2802.6 | 3598.4 | 3587.1 | 2848.6 |
| 67.5° | 343.2 | 345.8 | 365.8 | 401.4 | 523.9 | 937.4 | 1944.3 | 2756.5 | 3835.7 | 3802.5 | 2926.9 |
| 69° | 277.1 | 279.7 | 297.1 | 325.7 | 413.5 | 738.4 | 1714.1 | 2642.9 | 3871.2 | 3840.0 | 2877.4 |
| 70° | 237.2 | 238.9 | 256.2 | 280.6 | 352.8 | 627.2 | 1531.6 | 2544.5 | 3824.4 | 3793.9 | 2764.4 |
| 72.5° | 152.1 | 160.7 | 178.1 | 193.8 | 233.6 | 415.2 | 1033.8 | 2110.3 | 3299.6 | 3247.5 | 2164.9 |
| 75° | 84.4 | 86.9 | 118.1 | 137.4 | 155.4 | 270.2 | 575.2 | 1316.1 | 2098.9 | 2062.5 | 1158.0 |
| 77.5° | 69.4 | 71.2 | 83.5 | 104.3 | 104.3 | 151.2 | 217.2 | 518.6 | 798.5 | 720.3 | 313.6 |
| 80° | 48.7 | 50.3 | 63.4 | 68.6 | 74.6 | 85.1 | 70.3 | 113.8 | 123.3 | 109.5 | 46.9 |
| 82.5° | 33.9 | 35.7 | 43.5 | 56.5 | 59.9 | 40.0 | 26.1 | 33.9 | 35.7 | 35.7 | 18.2 |
| 85° | 6.1 | 8.8 | 32.2 | 46.9 | 35.7 | 12.1 | 14.7 | 12.1 | 11.3 | 12.1 | 4.3 |
| 87.5° | 0.0 | 0.0 | 20.0 | 22.5 | 19.1 | 5.2 | 6.1 | 4.3 | 2.6 | 3.5 | 1.7 |
| 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° | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 | 374.5 |
| 2.5° | 377.1 | 358.9 | 327.5 | 305.0 | 285.8 | 271.1 | 265.0 | 255.4 | 248.6 | 252.0 | 247.7 |
| 5° | 387.4 | 355.3 | 305.0 | 272.7 | 250.2 | 231.1 | 215.5 | 203.2 | 193.8 | 192.0 | 190.3 |
| 7.5° | 404.0 | 358.0 | 291.9 | 252.0 | 218.1 | 188.6 | 164.2 | 146.0 | 132.1 | 132.1 | 126.8 |
| 10° | 426.5 | 364.9 | 284.0 | 231.1 | 180.6 | 140.8 | 116.4 | 99.1 | 92.0 | 91.2 | 89.6 |
| 12.5° | 457.9 | 377.8 | 278.0 | 204.2 | 140.8 | 102.4 | 87.8 | 81.7 | 79.1 | 78.2 | 77.3 |
| 15° | 500.4 | 397.1 | 271.1 | 171.1 | 106.9 | 84.4 | 78.2 | 73.0 | 70.3 | 69.4 | 68.6 |
| 17.5° | 541.3 | 414.4 | 256.2 | 137.4 | 86.9 | 76.4 | 69.4 | 65.1 | 61.7 | 60.8 | 60.8 |
| 20° | 579.4 | 429.2 | 231.1 | 106.9 | 78.2 | 68.6 | 61.7 | 56.5 | 53.0 | 52.1 | 52.1 |
| 22.5° | 619.4 | 441.3 | 199.9 | 86.9 | 71.2 | 60.8 | 53.9 | 48.7 | 45.2 | 44.2 | 43.5 |
| 25° | 662.1 | 450.1 | 164.2 | 77.3 | 64.3 | 53.9 | 46.1 | 41.7 | 39.0 | 38.2 | 37.4 |
| 27.5° | 708.0 | 453.6 | 130.3 | 70.3 | 56.5 | 46.9 | 40.0 | 35.7 | 33.9 | 33.0 | 33.0 |
| 30° | 749.7 | 450.1 | 100.8 | 62.5 | 49.5 | 40.9 | 34.8 | 31.4 | 29.6 | 28.7 | 28.7 |
| 32.5° | 793.3 | 441.3 | 80.8 | 55.7 | 43.5 | 34.8 | 29.6 | 26.9 | 26.1 | 25.2 | 25.2 |
| 35° | 839.2 | 430.1 | 69.4 | 49.5 | 37.4 | 30.5 | 26.1 | 24.3 | 23.4 | 22.5 | 22.5 |
| 37.5° | 893.0 | 416.2 | 63.4 | 44.2 | 33.0 | 26.9 | 22.5 | 21.6 | 20.8 | 20.8 | 20.8 |
| 40° | 953.9 | 398.8 | 59.1 | 40.0 | 29.6 | 23.4 | 20.0 | 19.1 | 18.2 | 18.2 | 18.2 |
| 42.5° | 1018.1 | 378.7 | 54.7 | 35.7 | 26.1 | 20.0 | 17.3 | 17.3 | 16.4 | 16.4 | 15.6 |
| 45° | 1090.4 | 358.9 | 50.3 | 31.4 | 22.5 | 17.3 | 14.7 | 14.0 | 14.0 | 13.0 | 13.0 |
| 47.5° | 1175.4 | 340.5 | 46.1 | 27.8 | 20.0 | 14.7 | 13.0 | 12.1 | 11.3 | 10.4 | 10.4 |
| 50° | 1295.4 | 338.8 | 40.9 | 24.3 | 18.2 | 12.1 | 10.4 | 9.5 | 8.8 | 7.8 | 7.8 |
| 52.5° | 1414.3 | 323.2 | 34.8 | 20.0 | 14.7 | 10.4 | 7.8 | 6.9 | 6.1 | 6.1 | 5.2 |
| 55° | 1441.3 | 297.1 | 30.5 | 17.3 | 11.3 | 7.8 | 6.1 | 4.3 | 4.3 | 3.5 | 3.5 |
| 57.5° | 1500.3 | 284.9 | 26.1 | 14.0 | 8.8 | 6.1 | 3.5 | 2.6 | 2.6 | 2.6 | 2.6 |
| 60° | 1616.8 | 281.4 | 22.5 | 12.1 | 6.1 | 4.3 | 2.6 | 1.7 | 1.7 | 0.9 | 0.9 |
| 62.5° | 1777.4 | 278.0 | 19.1 | 10.4 | 4.3 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 |
| 65° | 1866.0 | 254.6 | 15.6 | 7.8 | 3.5 | 2.6 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 67.5° | 1842.7 | 210.3 | 14.0 | 5.2 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 69° | 1744.5 | 177.2 | 11.3 | 4.3 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 70° | 1626.3 | 152.9 | 10.4 | 3.5 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 |
| 72.5° | 1154.6 | 79.9 | 6.9 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 539.5 | 35.7 | 4.3 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 119.0 | 16.4 | 2.6 | 1.7 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 22.5 | 6.1 | 1.7 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 7.8 | 2.6 | 0.9 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 2.6 | 0.9 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.9 | 0.0 | 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)