

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: P195539

Luminaire Tested: **NVN-AF-05-LED-U-AFL-7050-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195539
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24160)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-05-LED-U-AFL-7050-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(5) 70 CRI, 5000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND AUTOMOTIVE FRONTLINE OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 24892 lumens
Efficiency: N/A
Efficacy: 118.5 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1.5' x H: 0')
IES Classification: Type II - Short - Full Cutoff
BUG Rating: B3 - U0 - G2

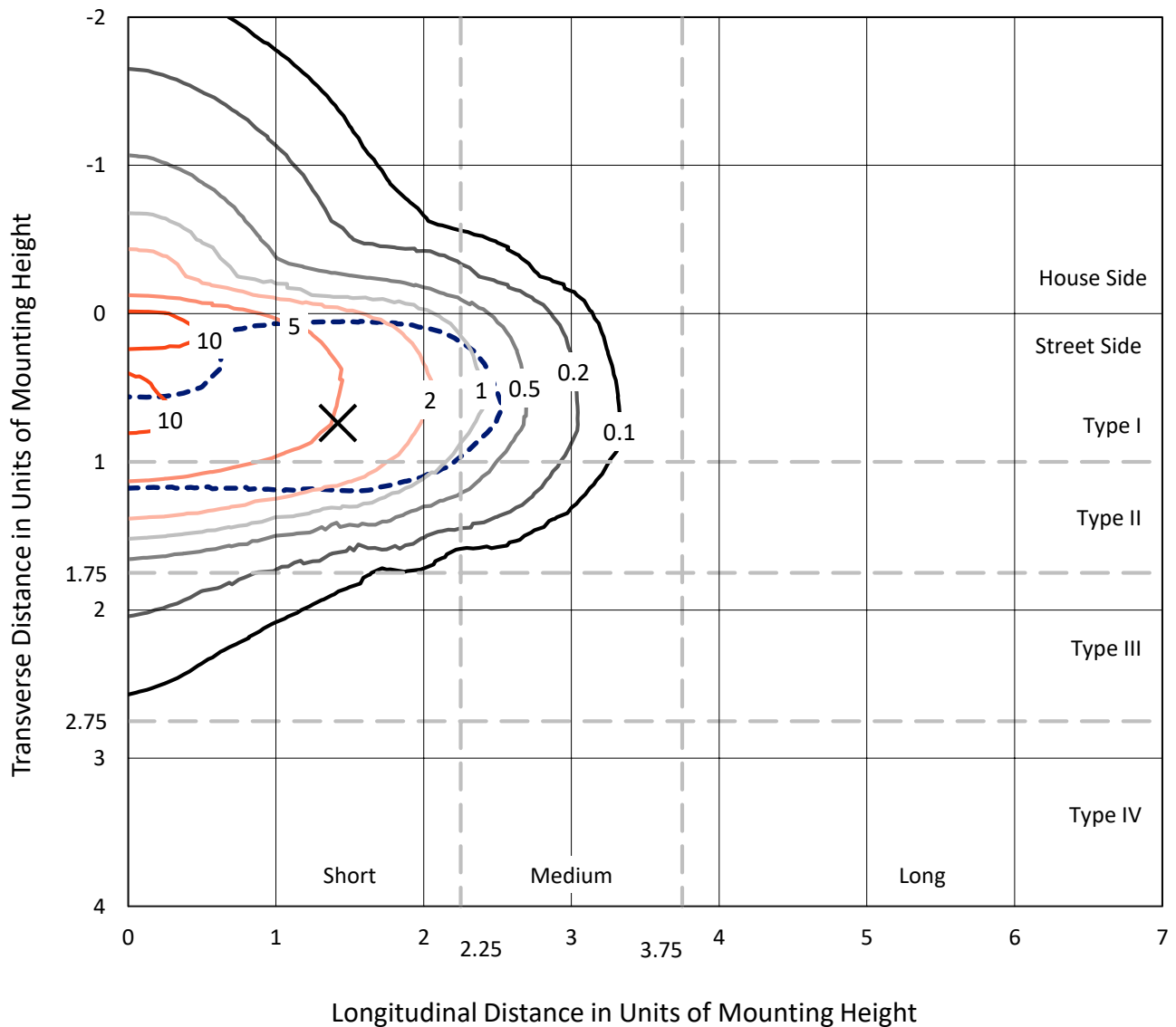
Input Watts (W): 210
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

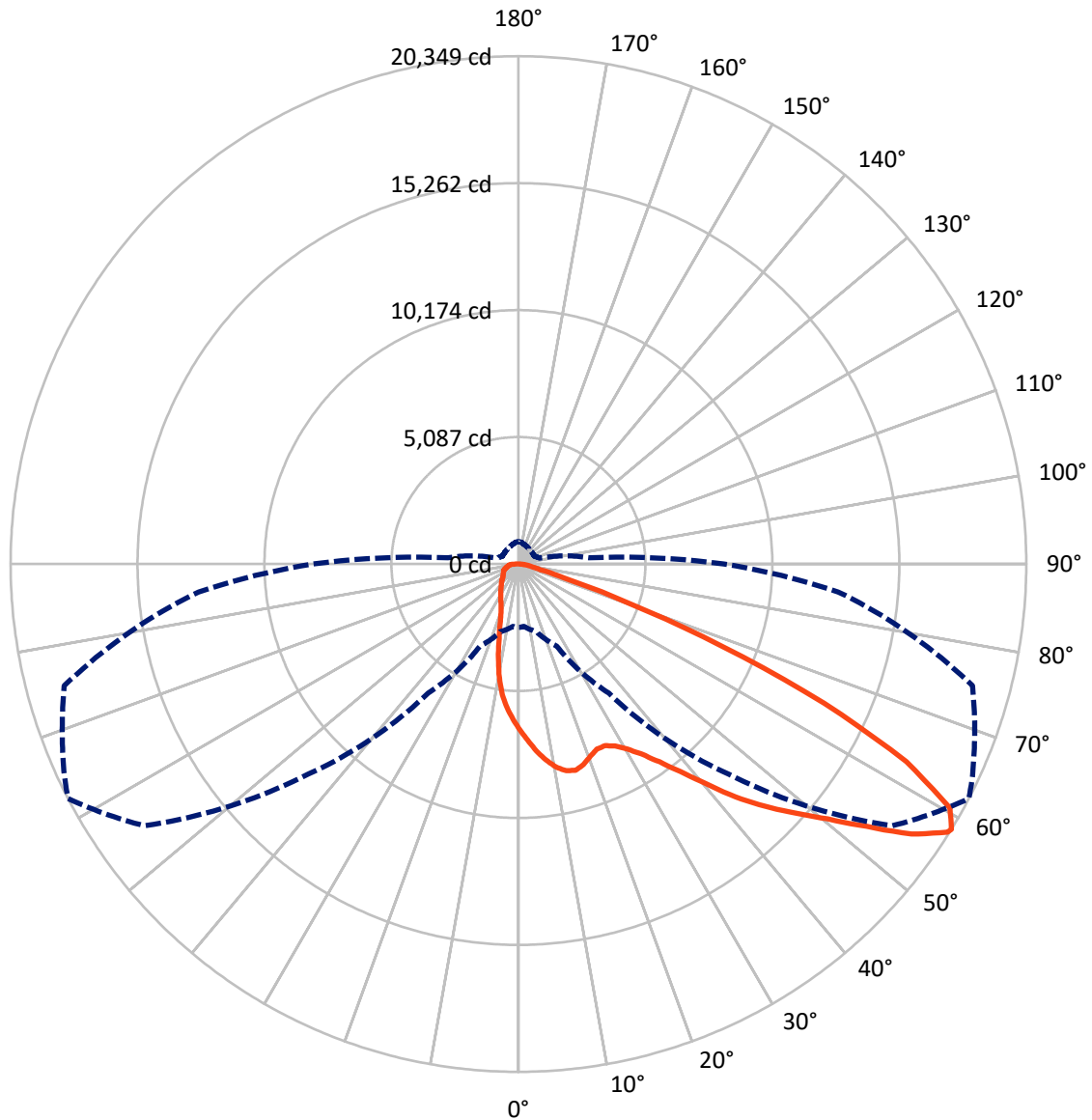
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 12.4 fc
 Type II - Short - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 62.5-Deg Lateral - - - Horizontal Cone Through 58-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 3821.9 | 0.0 | 3821.9 |
| | % Fixture | 15.4 | 0.0 | 15.4 |
| Street Side | Lumens | 21070.1 | 0.0 | 21070.1 |
| | % Fixture | 84.6 | 0.0 | 84.6 |
| Total | Lumens | 24892.0 | 0.0 | 24892.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 594.0 | 2.4 |
| 10°-20° | 1499.2 | 6.0 |
| 20°-30° | 2429.7 | 9.8 |
| 30°-40° | 3879.1 | 15.6 |
| 40°-50° | 5642.3 | 22.7 |
| 50°-60° | 5904.2 | 23.7 |
| 60°-70° | 3599.4 | 14.5 |
| 70°-80° | 1006.6 | 4.0 |
| 80°-90° | 337.4 | 1.4 |
| 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° | 24892.0 | 100.0 |
| 0°-180° | 24892.0 | 100.0 |

Coefficient of Utilization



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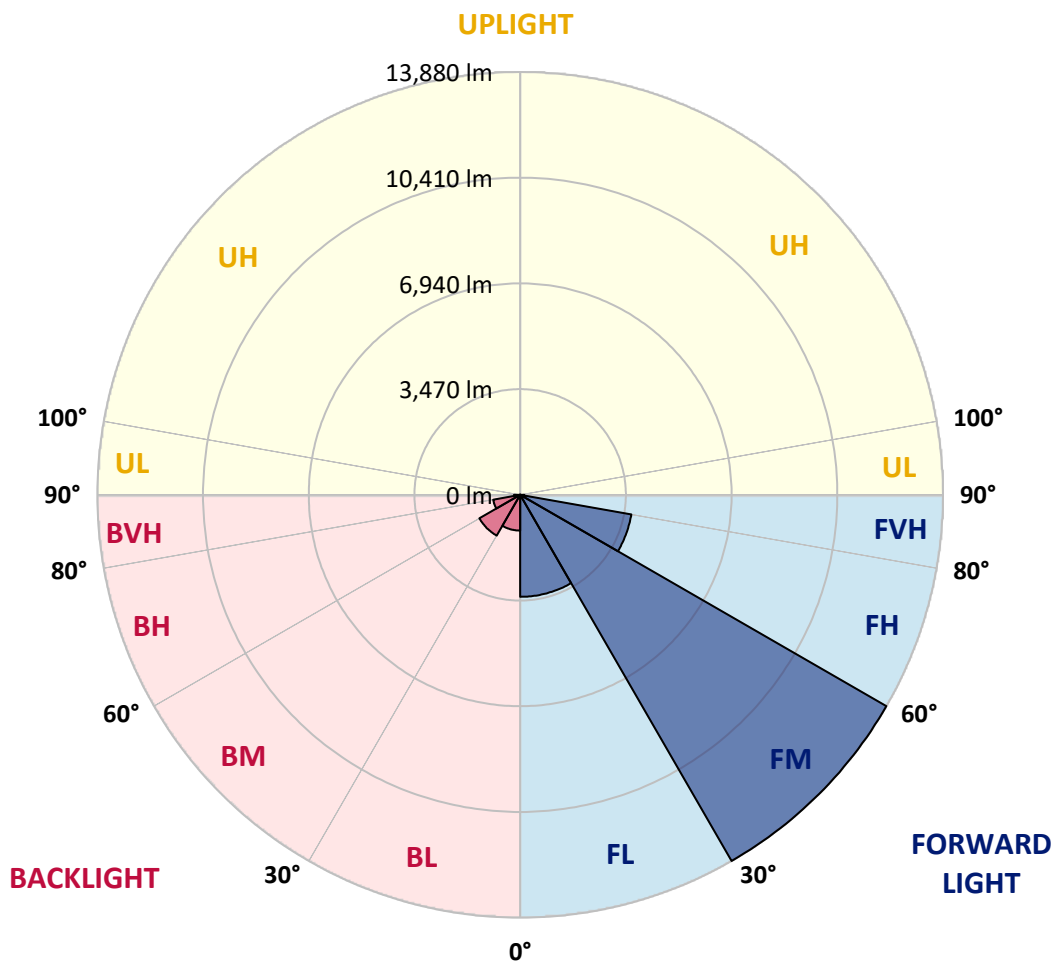
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|---------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 3348.1 | 13.5 | | | |
| FM | (30°-60°) | 13880.1 | 55.8 | | | |
| FH | (60°-80°) | 3706.3 | 14.9 | | | G2/5000 |
| FVH | (80°-90°) | 135.7 | 0.5 | | | G2/225 |
| BL | (0°-30°) | 1174.9 | 4.7 | B3/2500 | | |
| BM | (30°-60°) | 1545.6 | 6.2 | B2/2500 | | |
| BH | (60°-80°) | 899.7 | 3.6 | B2/1000 | | G2/1000 |
| BVH | (80°-90°) | 201.7 | 0.8 | | | G2/225 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G2

Type II Short





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 62.5° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 |
| 2.5° | 7543.6 | 7539.0 | 7475.2 | 7433.2 | 7383.4 | 7268.3 | 7153.2 | 7067.6 | 7024.0 | 6857.6 | 6695.8 |
| 5° | 8167.5 | 8148.8 | 8113.0 | 8067.9 | 8002.6 | 7857.9 | 7675.9 | 7518.8 | 7456.5 | 7160.9 | 6863.8 |
| 7.5° | 7837.7 | 7867.2 | 7977.7 | 8102.1 | 8232.8 | 8242.2 | 8113.0 | 7926.4 | 7857.9 | 7462.7 | 7027.2 |
| 10° | 6924.5 | 6912.0 | 7050.5 | 7293.2 | 7724.1 | 8150.4 | 8363.5 | 8271.7 | 8200.2 | 7749.0 | 7190.5 |
| 12.5° | 6647.6 | 6644.4 | 6667.8 | 6730.0 | 7000.7 | 7585.7 | 8299.7 | 8498.9 | 8474.0 | 8052.4 | 7364.7 |
| 15° | 6731.6 | 6734.7 | 6733.1 | 6740.9 | 6815.6 | 7094.0 | 7943.5 | 8575.1 | 8652.9 | 8352.6 | 7542.1 |
| 17.5° | 7000.7 | 6989.8 | 6955.6 | 6918.3 | 6929.1 | 7028.7 | 7559.2 | 8444.4 | 8677.8 | 8620.2 | 7691.4 |
| 20° | 7416.1 | 7416.1 | 7324.3 | 7220.1 | 7151.6 | 7173.4 | 7399.0 | 8220.4 | 8562.6 | 8847.3 | 7803.5 |
| 22.5° | 7937.2 | 7945.0 | 7809.7 | 7619.9 | 7464.3 | 7405.2 | 7490.8 | 8053.9 | 8422.6 | 9057.4 | 7903.0 |
| 25° | 8584.4 | 8582.9 | 8385.3 | 8113.0 | 7867.2 | 7725.7 | 7724.1 | 8061.7 | 8379.1 | 9303.2 | 8007.2 |
| 27.5° | 9385.6 | 9312.5 | 9082.2 | 8694.9 | 8347.9 | 8131.7 | 8033.7 | 8257.7 | 8470.9 | 9605.0 | 8147.3 |
| 30° | 10289.5 | 10214.8 | 9913.0 | 9415.2 | 8945.3 | 8629.5 | 8467.7 | 8596.9 | 8750.9 | 9989.2 | 8358.8 |
| 32.5° | 11184.0 | 11201.1 | 10846.4 | 10284.8 | 9681.2 | 9236.3 | 8996.7 | 9076.0 | 9183.4 | 10459.1 | 8645.1 |
| 35° | 12493.9 | 12492.4 | 12028.8 | 11327.1 | 10610.0 | 9993.9 | 9690.5 | 9732.5 | 9830.5 | 11121.8 | 9046.5 |
| 37.5° | 13470.9 | 13455.4 | 13156.7 | 12535.9 | 11728.5 | 10989.5 | 10550.8 | 10557.1 | 10641.1 | 11954.1 | 9575.4 |
| 40° | 13570.5 | 13567.4 | 13565.8 | 13477.1 | 12924.9 | 12227.9 | 11678.7 | 11565.2 | 11599.4 | 12837.7 | 10137.0 |
| 42.5° | 12809.7 | 12923.3 | 13250.0 | 13750.9 | 13905.0 | 13539.4 | 13019.8 | 12766.2 | 12691.5 | 13852.1 | 10731.3 |
| 45° | 11725.4 | 11783.0 | 12355.5 | 13481.8 | 14398.1 | 14771.5 | 14381.0 | 13845.8 | 13718.3 | 14838.4 | 11215.1 |
| 47.5° | 11221.3 | 11196.5 | 11527.8 | 12755.3 | 14349.9 | 15751.6 | 15779.6 | 14902.2 | 14685.9 | 15689.4 | 11627.4 |
| 50° | 10140.1 | 10107.5 | 10525.9 | 11686.5 | 13824.1 | 16238.5 | 17215.5 | 16053.4 | 15653.6 | 16498.3 | 12000.8 |
| 52.5° | 7985.5 | 7954.4 | 8516.0 | 10011.0 | 12647.9 | 16056.5 | 18425.9 | 17466.0 | 16784.6 | 17277.7 | 12349.2 |
| 55° | 5196.1 | 5199.2 | 5734.4 | 7276.1 | 10235.0 | 14995.5 | 18993.7 | 19097.9 | 18334.1 | 18057.1 | 12630.8 |
| 57.5° | 2861.0 | 2834.5 | 3215.7 | 4163.1 | 7041.2 | 12585.7 | 18520.7 | 20274.0 | 19875.8 | 18726.1 | 12834.6 |
| 58° | 2543.6 | 2512.5 | 2806.5 | 3623.3 | 6313.1 | 11905.9 | 18282.7 | 20348.7 | 20073.3 | 18836.6 | 12864.2 |
| 60° | 1812.4 | 1759.5 | 1714.4 | 2042.6 | 3637.3 | 8584.4 | 16695.9 | 19864.9 | 20130.9 | 19057.5 | 12836.2 |
| 62.5° | 1527.7 | 1467.0 | 1305.2 | 1292.8 | 1712.8 | 4198.9 | 13203.3 | 17445.8 | 18190.9 | 18548.8 | 12385.0 |
| 65° | 1418.8 | 1358.1 | 1145.0 | 1068.8 | 1162.1 | 1812.4 | 8164.4 | 13470.9 | 14466.6 | 16779.9 | 11249.4 |
| 67.5° | 1341.0 | 1269.5 | 1040.8 | 941.2 | 959.9 | 1084.3 | 3464.6 | 8810.0 | 9964.3 | 13085.1 | 9024.7 |
| 70° | 1271.0 | 1191.7 | 958.3 | 843.2 | 827.6 | 824.5 | 1353.5 | 4600.2 | 5712.6 | 8562.6 | 6045.5 |
| 72.5° | 1191.7 | 1113.9 | 885.2 | 762.3 | 728.1 | 669.0 | 813.6 | 1901.1 | 2605.8 | 4197.3 | 2770.7 |
| 75° | 1076.6 | 1012.8 | 804.3 | 695.4 | 636.3 | 542.9 | 600.5 | 911.6 | 1123.2 | 1607.1 | 1286.6 |
| 77.5° | 947.4 | 896.1 | 721.9 | 639.4 | 560.1 | 443.4 | 458.9 | 617.6 | 693.8 | 905.4 | 745.2 |
| 80° | 670.5 | 689.2 | 630.1 | 563.2 | 493.2 | 357.8 | 353.1 | 452.7 | 497.8 | 608.3 | 500.9 |
| 82.5° | 462.0 | 476.0 | 513.4 | 444.9 | 398.3 | 278.5 | 259.8 | 314.3 | 337.6 | 367.1 | 242.7 |
| 85° | 329.8 | 320.5 | 356.3 | 318.9 | 292.5 | 177.4 | 166.5 | 199.1 | 213.1 | 224.0 | 116.7 |
| 87.5° | 200.7 | 199.1 | 205.4 | 164.9 | 152.5 | 90.2 | 82.5 | 94.9 | 101.1 | 98.0 | 56.0 |
| 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° | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 | 6646.0 |
| 2.5° | 6635.1 | 6558.9 | 6392.4 | 6258.6 | 6113.9 | 6003.5 | 5893.0 | 5830.8 | 5762.4 | 5723.5 | 5718.8 |
| 5° | 6708.2 | 6552.7 | 6198.0 | 5868.1 | 5529.0 | 5224.1 | 4925.4 | 4704.5 | 4524.0 | 4421.3 | 4415.1 |
| 7.5° | 6789.1 | 6544.9 | 5997.3 | 5426.3 | 4822.7 | 4222.2 | 3691.7 | 3316.8 | 3075.6 | 2963.6 | 2955.9 |
| 10° | 6851.4 | 6512.2 | 5753.0 | 4864.7 | 3907.9 | 3114.5 | 2632.3 | 2411.4 | 2338.2 | 2319.6 | 2316.5 |
| 12.5° | 6926.0 | 6488.9 | 5445.0 | 4144.4 | 2987.0 | 2370.9 | 2224.7 | 2210.7 | 2226.2 | 2235.6 | 2237.1 |
| 15° | 6996.0 | 6443.8 | 5029.6 | 3346.3 | 2338.2 | 2118.9 | 2122.0 | 2151.5 | 2182.7 | 2196.7 | 2198.2 |
| 17.5° | 7028.7 | 6333.3 | 4483.6 | 2636.9 | 2045.8 | 2005.3 | 2041.1 | 2080.0 | 2108.0 | 2118.9 | 2118.9 |
| 20° | 7028.7 | 6156.0 | 3850.4 | 2136.0 | 1893.3 | 1901.1 | 1944.6 | 1974.2 | 1980.4 | 1971.1 | 1966.4 |
| 22.5° | 6999.1 | 5936.6 | 3234.3 | 1863.7 | 1768.8 | 1798.4 | 1832.6 | 1812.4 | 1739.3 | 1683.3 | 1672.4 |
| 25° | 6972.7 | 5676.8 | 2641.6 | 1697.3 | 1659.9 | 1698.8 | 1684.8 | 1546.4 | 1434.4 | 1376.8 | 1367.5 |
| 27.5° | 6929.1 | 5362.5 | 2146.9 | 1560.4 | 1554.2 | 1585.3 | 1446.8 | 1313.0 | 1257.0 | 1225.9 | 1219.7 |
| 30° | 6918.3 | 5021.8 | 1796.8 | 1439.0 | 1449.9 | 1406.4 | 1247.7 | 1204.1 | 1191.7 | 1174.6 | 1166.8 |
| 32.5° | 6954.0 | 4681.1 | 1577.5 | 1339.5 | 1350.4 | 1207.2 | 1146.6 | 1152.8 | 1151.2 | 1129.4 | 1121.7 |
| 35° | 7052.0 | 4349.8 | 1437.5 | 1249.2 | 1218.1 | 1081.2 | 1089.0 | 1107.7 | 1107.7 | 1081.2 | 1071.9 |
| 37.5° | 7223.2 | 4041.7 | 1348.8 | 1173.0 | 1065.7 | 1015.9 | 1036.1 | 1061.0 | 1061.0 | 1042.3 | 1034.5 |
| 40° | 7405.2 | 3741.5 | 1281.9 | 1112.3 | 969.2 | 970.8 | 991.0 | 1009.7 | 1017.4 | 1020.5 | 1014.3 |
| 42.5° | 7570.1 | 3430.3 | 1210.3 | 1047.0 | 925.6 | 936.5 | 945.9 | 959.9 | 992.5 | 1014.3 | 1011.2 |
| 45° | 7666.5 | 3117.6 | 1132.6 | 966.1 | 896.1 | 900.8 | 897.6 | 922.5 | 961.4 | 994.1 | 994.1 |
| 47.5° | 7755.2 | 2861.0 | 1068.8 | 885.2 | 866.5 | 866.5 | 857.2 | 882.1 | 917.9 | 956.8 | 959.9 |
| 50° | 7839.2 | 2694.5 | 1023.7 | 823.0 | 829.2 | 824.5 | 821.4 | 844.8 | 893.0 | 939.6 | 947.4 |
| 52.5° | 7924.8 | 2638.5 | 983.2 | 777.9 | 790.3 | 784.1 | 787.2 | 819.9 | 874.3 | 922.5 | 930.3 |
| 55° | 8044.6 | 2674.3 | 941.2 | 746.7 | 753.0 | 751.4 | 763.9 | 801.2 | 849.4 | 897.6 | 900.8 |
| 57.5° | 8192.4 | 2804.9 | 905.4 | 723.4 | 717.2 | 726.5 | 746.7 | 782.5 | 829.2 | 886.8 | 891.4 |
| 58° | 8221.9 | 2836.1 | 899.2 | 717.2 | 709.4 | 723.4 | 743.6 | 777.9 | 826.1 | 886.8 | 891.4 |
| 60° | 8267.1 | 2946.5 | 883.6 | 704.7 | 683.0 | 707.8 | 732.7 | 767.0 | 819.9 | 894.5 | 903.9 |
| 62.5° | 8049.3 | 2968.3 | 879.0 | 690.7 | 655.0 | 686.1 | 715.6 | 754.5 | 813.6 | 921.0 | 941.2 |
| 65° | 7294.7 | 2744.3 | 846.3 | 667.4 | 631.6 | 669.0 | 700.1 | 745.2 | 832.3 | 1000.3 | 1009.7 |
| 67.5° | 5855.7 | 2279.1 | 767.0 | 631.6 | 605.2 | 648.7 | 687.6 | 745.2 | 840.1 | 1012.8 | 1019.0 |
| 70° | 4026.2 | 1712.8 | 667.4 | 592.7 | 574.1 | 623.8 | 683.0 | 762.3 | 813.6 | 958.3 | 939.6 |
| 72.5° | 2103.3 | 1191.7 | 584.9 | 547.6 | 536.7 | 602.1 | 728.1 | 745.2 | 782.5 | 894.5 | 875.9 |
| 75° | 1059.4 | 810.5 | 514.9 | 496.3 | 494.7 | 594.3 | 815.2 | 717.2 | 749.9 | 841.6 | 882.1 |
| 77.5° | 625.4 | 634.7 | 458.9 | 448.0 | 455.8 | 580.3 | 816.7 | 689.2 | 712.5 | 774.7 | 818.3 |
| 80° | 427.8 | 524.3 | 415.4 | 412.3 | 418.5 | 533.6 | 753.0 | 655.0 | 669.0 | 732.7 | 779.4 |
| 82.5° | 241.1 | 289.4 | 364.0 | 384.3 | 381.1 | 437.2 | 650.3 | 595.8 | 613.0 | 866.5 | 916.3 |
| 85° | 116.7 | 174.2 | 304.9 | 359.4 | 325.1 | 290.9 | 528.9 | 528.9 | 533.6 | 620.7 | 628.5 |
| 87.5° | 43.6 | 77.8 | 205.4 | 284.7 | 227.1 | 174.2 | 359.4 | 374.9 | 416.9 | 429.4 | 438.7 |
| 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)