

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: P197217

Luminaire Tested: **NVN-AF-03-LED-U-T2-8030-800**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P197217
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24136)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: NVN-AF-03-LED-U-T2-8030-800
Description: NAVION ROADWAY AND AREA LUMINAIRE
(3) 80 CRI, 3000K, 800mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE II OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 11689 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type II - Medium - Full Cutoff
BUG Rating: B2 - U0 - G2

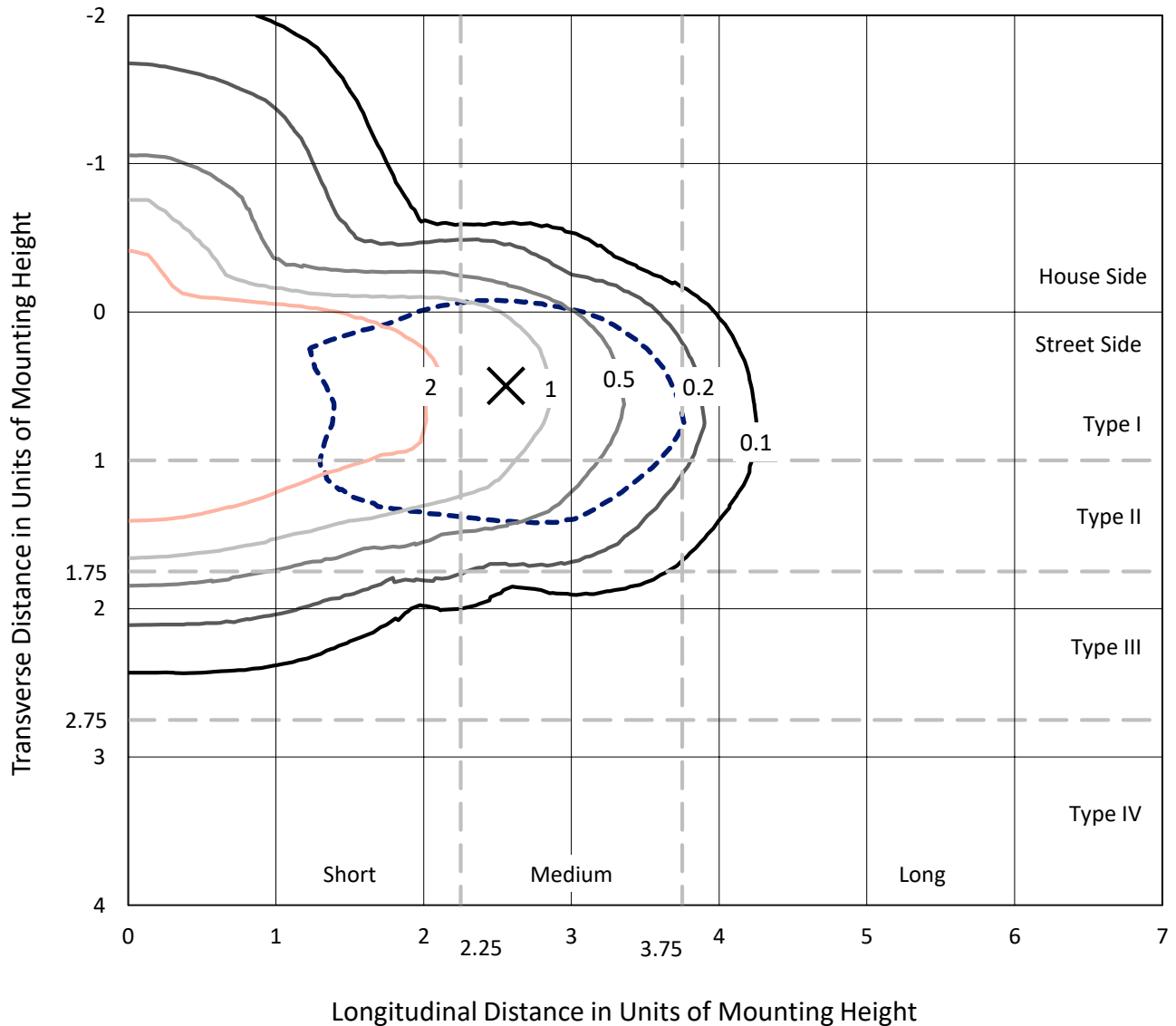
Input Watts (W): 124
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

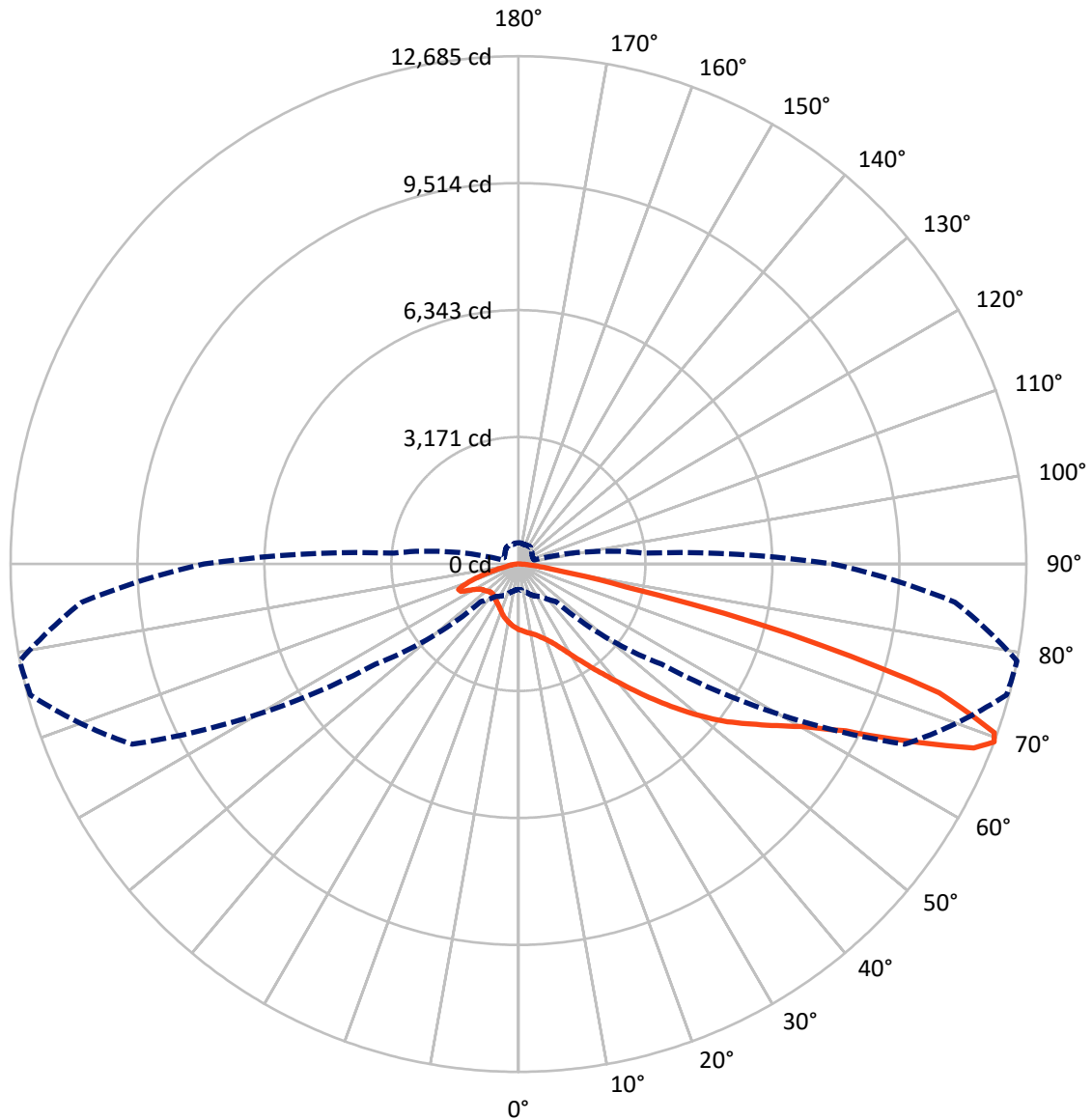
× Max cd
 - - - 1/2 Max cd



Based on 20 foot mounting height. Maximum calculated value = 5 fc
 Type II - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 69-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 2198.9 | 0.0 | 2198.9 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 9490.1 | 0.0 | 9490.1 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 11689.0 | 0.0 | 11689.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 152.1 | 1.3 |
| 10°-20° | 436.0 | 3.7 |
| 20°-30° | 720.4 | 6.2 |
| 30°-40° | 1166.5 | 10.0 |
| 40°-50° | 1863.5 | 15.9 |
| 50°-60° | 2668.8 | 22.8 |
| 60°-70° | 2973.4 | 25.4 |
| 70°-80° | 1487.6 | 12.7 |
| 80°-90° | 220.8 | 1.9 |
| 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° | 11689.0 | 100.0 |
| 0°-180° | 11689.0 | 100.0 |

Coefficient of Utilization



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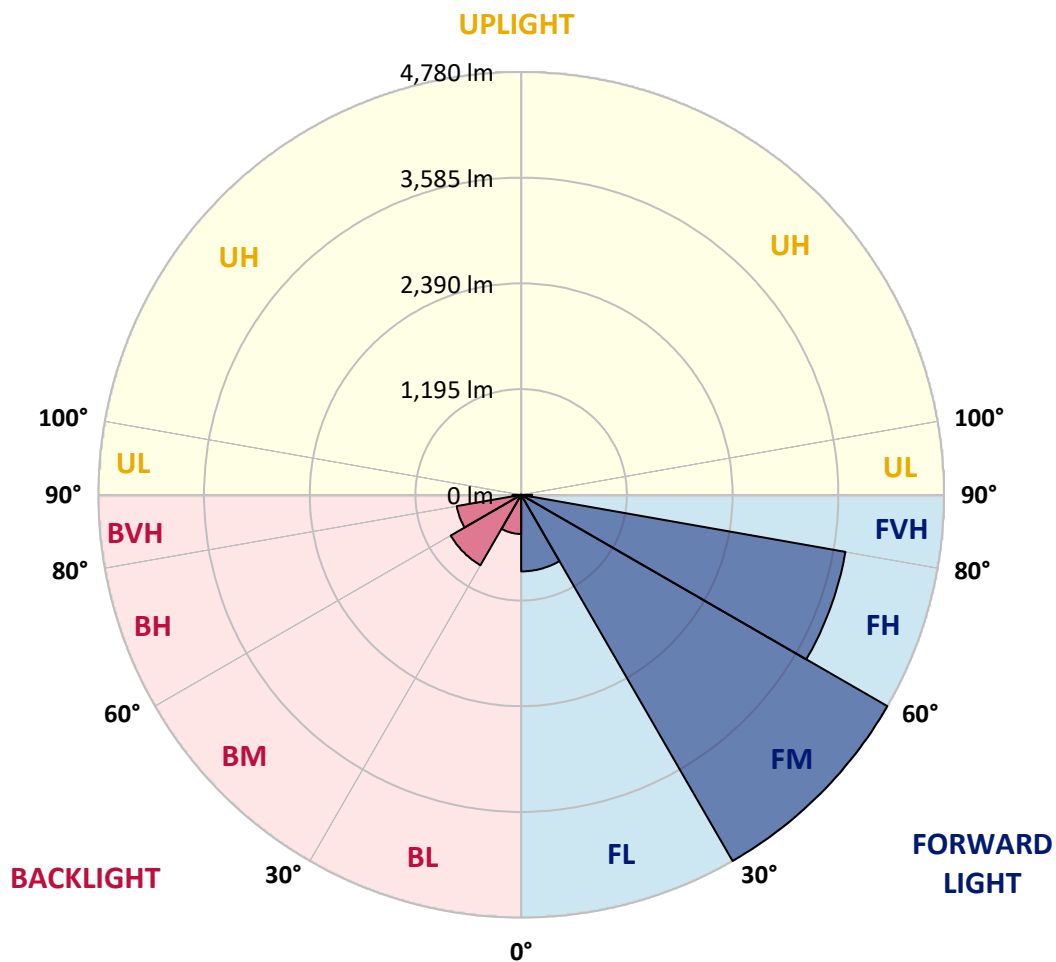
CATALOG NUMBER: NVN-AF-03-LED-U-T2-8030-800

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 865.5 | 7.4 | | | |
| FM (30°-60°) | 4779.7 | 40.9 | | | |
| FH (60°-80°) | 3721.6 | 31.8 | | | G2/5000 |
| FVH (80°-90°) | 123.4 | 1.1 | | | G2/225 |
| BL (0°-30°) | 443.0 | 3.8 | B1/500 | | |
| BM (30°-60°) | 919.2 | 7.9 | B1/1000 | | |
| BH (60°-80°) | 739.4 | 6.3 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 97.4 | 0.8 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G2

Type II Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|---------|---------|
| 0° | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 |
| 2.5° | 1800.9 | 1797.1 | 1796.3 | 1784.9 | 1778.8 | 1765.8 | 1735.2 | 1703.8 | 1674.7 | 1659.5 | 1643.4 |
| 5° | 1951.6 | 1943.9 | 1940.1 | 1921.0 | 1904.2 | 1875.1 | 1826.9 | 1777.2 | 1725.2 | 1698.5 | 1666.3 |
| 7.5° | 2042.6 | 2043.3 | 2043.3 | 2028.1 | 2011.2 | 1976.1 | 1914.9 | 1846.8 | 1769.6 | 1734.4 | 1683.9 |
| 10° | 2050.2 | 2051.0 | 2062.5 | 2066.3 | 2070.1 | 2051.8 | 1995.2 | 1909.5 | 1810.1 | 1764.2 | 1698.5 |
| 12.5° | 1974.5 | 1979.9 | 1999.0 | 2026.5 | 2065.5 | 2085.4 | 2060.9 | 1976.8 | 1862.1 | 1806.3 | 1726.0 |
| 15° | 1872.8 | 1878.2 | 1902.6 | 1944.7 | 2007.4 | 2073.9 | 2108.3 | 2054.1 | 1930.2 | 1864.4 | 1766.5 |
| 17.5° | 1823.1 | 1829.2 | 1846.0 | 1879.7 | 1940.9 | 2030.3 | 2133.6 | 2136.6 | 2010.5 | 1934.8 | 1814.7 |
| 20° | 1799.4 | 1804.0 | 1825.4 | 1852.9 | 1899.6 | 1985.2 | 2135.9 | 2223.8 | 2106.1 | 2018.1 | 1873.6 |
| 22.5° | 1853.7 | 1855.2 | 1865.9 | 1881.2 | 1912.6 | 1978.3 | 2134.3 | 2314.1 | 2225.4 | 2122.9 | 1949.3 |
| 25° | 2012.8 | 2002.8 | 1995.2 | 1976.1 | 1983.7 | 2030.3 | 2158.8 | 2410.4 | 2378.3 | 2260.5 | 2050.2 |
| 27.5° | 2200.9 | 2199.4 | 2179.5 | 2135.1 | 2106.8 | 2136.6 | 2228.4 | 2518.2 | 2565.7 | 2435.7 | 2182.5 |
| 30° | 2410.4 | 2411.2 | 2390.5 | 2336.2 | 2278.9 | 2281.9 | 2339.3 | 2642.9 | 2789.7 | 2646.7 | 2345.4 |
| 32.5° | 2629.9 | 2643.7 | 2605.4 | 2551.1 | 2481.5 | 2459.4 | 2498.4 | 2793.5 | 3049.0 | 2896.0 | 2534.3 |
| 35° | 2892.2 | 2894.5 | 2852.4 | 2772.9 | 2703.3 | 2668.1 | 2704.1 | 2981.7 | 3348.0 | 3188.9 | 2764.5 |
| 37.5° | 3164.4 | 3166.0 | 3122.4 | 3020.7 | 2932.7 | 2909.8 | 2949.5 | 3210.3 | 3664.6 | 3522.3 | 3035.2 |
| 40° | 3387.0 | 3403.0 | 3368.6 | 3273.0 | 3184.3 | 3170.6 | 3227.9 | 3484.1 | 4069.1 | 3916.9 | 3357.1 |
| 42.5° | 3639.3 | 3657.7 | 3616.4 | 3517.0 | 3446.6 | 3442.0 | 3531.5 | 3796.1 | 4471.3 | 4373.5 | 3721.9 |
| 45° | 3923.8 | 3949.8 | 3892.5 | 3780.8 | 3721.2 | 3822.1 | 3827.5 | 4141.8 | 4934.8 | 4884.3 | 4132.6 |
| 47.5° | 4234.3 | 4255.7 | 4209.0 | 4089.0 | 4024.0 | 4170.0 | 4117.3 | 4515.7 | 5435.7 | 5431.8 | 4576.9 |
| 50° | 4473.6 | 4497.4 | 4501.9 | 4449.2 | 4381.1 | 4399.5 | 4435.4 | 4908.8 | 5935.0 | 5994.7 | 5036.5 |
| 52.5° | 4430.1 | 4453.0 | 4556.2 | 4694.6 | 4804.0 | 4756.6 | 4800.2 | 5326.3 | 6417.6 | 6543.8 | 5473.1 |
| 55° | 4078.3 | 4090.5 | 4284.0 | 4612.8 | 5078.5 | 5304.9 | 5308.0 | 5780.6 | 6876.4 | 7053.1 | 5887.6 |
| 57.5° | 3444.3 | 3445.9 | 3697.4 | 4182.3 | 4918.7 | 5660.5 | 6109.4 | 6351.0 | 7355.1 | 7615.9 | 6401.5 |
| 60° | 2437.2 | 2443.3 | 2736.2 | 3370.1 | 4345.9 | 5617.7 | 6971.2 | 7372.0 | 7909.6 | 8248.3 | 7063.8 |
| 62.5° | 1446.9 | 1460.6 | 1681.6 | 2190.2 | 3227.9 | 5067.1 | 7480.5 | 9188.2 | 8726.3 | 9175.9 | 8123.7 |
| 65° | 941.4 | 952.8 | 1085.1 | 1340.6 | 1907.2 | 3686.7 | 7313.1 | 10947.0 | 10271.8 | 10635.0 | 9647.0 |
| 67.5° | 725.0 | 734.1 | 838.1 | 992.6 | 1170.0 | 1992.9 | 5847.1 | 11315.6 | 12153.0 | 12266.2 | 10932.5 |
| 69° | 637.0 | 644.7 | 721.1 | 869.5 | 985.0 | 1319.2 | 4357.4 | 10646.5 | 12623.3 | 12685.3 | 10948.6 |
| 70° | 590.4 | 596.5 | 668.4 | 796.8 | 904.7 | 1053.0 | 3335.0 | 9869.5 | 12451.3 | 12609.6 | 10632.7 |
| 72.5° | 486.4 | 491.7 | 543.0 | 641.6 | 739.5 | 750.2 | 1477.4 | 7206.8 | 10484.4 | 10990.6 | 8997.8 |
| 75° | 406.1 | 409.1 | 442.8 | 514.7 | 598.8 | 597.3 | 754.8 | 4082.1 | 6397.7 | 7001.1 | 5555.7 |
| 77.5° | 338.8 | 341.1 | 363.2 | 407.6 | 472.6 | 470.3 | 531.5 | 1761.9 | 2824.9 | 2725.5 | 1912.6 |
| 80° | 299.0 | 300.5 | 312.0 | 323.5 | 364.8 | 362.5 | 393.8 | 809.1 | 1149.4 | 1062.2 | 723.4 |
| 82.5° | 227.1 | 230.2 | 288.3 | 293.7 | 282.9 | 273.0 | 274.5 | 471.1 | 588.8 | 536.1 | 388.5 |
| 85° | 128.5 | 129.2 | 185.1 | 216.4 | 246.2 | 185.1 | 178.2 | 243.2 | 290.6 | 254.7 | 169.8 |
| 87.5° | 57.4 | 59.6 | 88.7 | 102.5 | 133.1 | 108.6 | 101.7 | 103.2 | 125.4 | 104.0 | 67.3 |
| 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° | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 | 1640.3 |
| 2.5° | 1628.1 | 1615.1 | 1584.5 | 1553.2 | 1521.8 | 1501.9 | 1481.3 | 1462.2 | 1454.5 | 1453.7 | 1439.2 |
| 5° | 1635.0 | 1604.4 | 1534.8 | 1458.3 | 1385.7 | 1329.1 | 1281.7 | 1251.1 | 1221.3 | 1215.9 | 1202.9 |
| 7.5° | 1637.3 | 1587.6 | 1474.4 | 1352.0 | 1241.1 | 1163.1 | 1115.7 | 1095.1 | 1080.6 | 1076.7 | 1072.1 |
| 10° | 1636.5 | 1566.2 | 1407.1 | 1239.6 | 1113.4 | 1054.6 | 1037.0 | 1041.6 | 1047.7 | 1050.7 | 1050.7 |
| 12.5° | 1648.7 | 1556.2 | 1339.8 | 1134.1 | 1030.8 | 1002.6 | 1016.3 | 1040.0 | 1058.4 | 1066.0 | 1067.6 |
| 15° | 1670.9 | 1550.1 | 1265.6 | 1042.3 | 972.7 | 979.6 | 1013.3 | 1047.7 | 1073.7 | 1085.1 | 1088.2 |
| 17.5° | 1698.5 | 1541.7 | 1180.0 | 966.6 | 939.1 | 962.8 | 1006.4 | 1050.0 | 1081.3 | 1095.9 | 1098.1 |
| 20° | 1729.0 | 1529.5 | 1091.3 | 910.0 | 909.3 | 939.1 | 982.7 | 1031.6 | 1065.3 | 1081.3 | 1080.6 |
| 22.5° | 1770.3 | 1518.0 | 1008.7 | 868.7 | 876.4 | 903.9 | 939.8 | 984.2 | 1015.6 | 1030.1 | 1027.0 |
| 25° | 1825.4 | 1507.3 | 934.5 | 832.0 | 838.9 | 857.3 | 882.5 | 916.1 | 938.3 | 946.0 | 940.6 |
| 27.5° | 1899.6 | 1498.9 | 876.4 | 798.4 | 797.6 | 806.0 | 821.3 | 839.7 | 850.4 | 848.1 | 839.7 |
| 30° | 1990.6 | 1490.4 | 833.6 | 768.5 | 757.8 | 757.1 | 764.0 | 774.7 | 781.5 | 767.8 | 760.9 |
| 32.5° | 2092.3 | 1475.9 | 795.3 | 742.5 | 723.4 | 716.5 | 719.6 | 734.1 | 762.4 | 748.7 | 743.3 |
| 35° | 2212.4 | 1459.1 | 757.1 | 714.3 | 699.7 | 686.7 | 689.0 | 720.4 | 806.0 | 796.1 | 790.7 |
| 37.5° | 2356.9 | 1443.8 | 721.9 | 683.7 | 682.9 | 666.8 | 665.3 | 702.8 | 817.5 | 796.1 | 791.5 |
| 40° | 2530.5 | 1440.7 | 690.5 | 650.0 | 662.3 | 656.1 | 650.8 | 673.7 | 754.0 | 710.4 | 702.0 |
| 42.5° | 2740.0 | 1454.5 | 667.6 | 617.9 | 638.5 | 653.1 | 643.1 | 648.5 | 681.4 | 642.4 | 635.5 |
| 45° | 2984.7 | 1492.0 | 650.8 | 589.6 | 613.3 | 650.8 | 639.3 | 634.7 | 640.1 | 618.7 | 614.1 |
| 47.5° | 3270.0 | 1558.5 | 639.3 | 565.9 | 589.6 | 644.7 | 637.8 | 628.6 | 626.3 | 614.1 | 611.0 |
| 50° | 3575.1 | 1648.0 | 631.7 | 544.5 | 568.2 | 634.0 | 637.0 | 624.0 | 620.2 | 614.8 | 613.3 |
| 52.5° | 3877.9 | 1745.1 | 622.5 | 526.1 | 550.6 | 621.0 | 637.8 | 619.4 | 614.1 | 611.0 | 609.5 |
| 55° | 4179.2 | 1846.0 | 605.7 | 510.1 | 537.6 | 605.7 | 637.0 | 613.3 | 607.2 | 607.2 | 607.2 |
| 57.5° | 4570.0 | 1999.8 | 583.5 | 497.1 | 520.8 | 585.8 | 627.1 | 606.4 | 598.0 | 598.8 | 599.5 |
| 60° | 5134.4 | 2257.5 | 559.0 | 482.5 | 498.6 | 562.8 | 611.8 | 594.2 | 584.3 | 587.3 | 588.1 |
| 62.5° | 6077.3 | 2707.9 | 525.4 | 461.9 | 475.7 | 538.4 | 591.9 | 577.4 | 568.2 | 573.5 | 574.3 |
| 65° | 7334.5 | 3253.1 | 481.0 | 435.9 | 452.0 | 510.8 | 566.7 | 557.5 | 547.5 | 560.5 | 559.8 |
| 67.5° | 8101.5 | 3413.0 | 434.4 | 408.4 | 429.0 | 481.8 | 535.3 | 531.5 | 524.6 | 547.5 | 546.0 |
| 69° | 7849.9 | 3123.9 | 407.6 | 390.8 | 413.0 | 461.9 | 515.4 | 513.9 | 508.5 | 530.7 | 529.2 |
| 70° | 7459.1 | 2854.0 | 390.8 | 379.3 | 404.5 | 449.7 | 502.4 | 502.4 | 497.1 | 516.2 | 512.4 |
| 72.5° | 5991.6 | 2116.8 | 351.8 | 350.2 | 375.5 | 416.0 | 467.2 | 471.1 | 468.0 | 474.9 | 471.1 |
| 75° | 3517.7 | 1275.6 | 313.5 | 318.1 | 340.3 | 380.1 | 428.2 | 431.3 | 428.2 | 427.5 | 428.2 |
| 77.5° | 1219.7 | 572.0 | 276.8 | 283.7 | 302.8 | 343.4 | 385.4 | 391.5 | 387.0 | 381.6 | 383.1 |
| 80° | 477.2 | 332.7 | 237.1 | 247.0 | 263.1 | 302.1 | 342.6 | 346.4 | 339.5 | 338.8 | 332.7 |
| 82.5° | 286.8 | 202.7 | 184.3 | 200.4 | 220.2 | 262.3 | 295.9 | 294.4 | 289.1 | 320.4 | 280.7 |
| 85° | 124.7 | 112.4 | 134.6 | 150.7 | 160.6 | 196.5 | 250.1 | 243.2 | 230.2 | 202.7 | 198.1 |
| 87.5° | 50.5 | 58.1 | 74.2 | 89.5 | 96.4 | 126.9 | 171.3 | 165.2 | 167.5 | 137.7 | 136.9 |
| 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)