

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: P198622

Luminaire Tested: **XNV-AF-01-LED-U-T3R-7030**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P198622
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24250)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: STREETWORKS
Catalog Number: XNV-AF-01-LED-U-T3R-7030
Description: XNV ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 3000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5446 lumens
Efficiency: N/A
Efficacy: 93.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

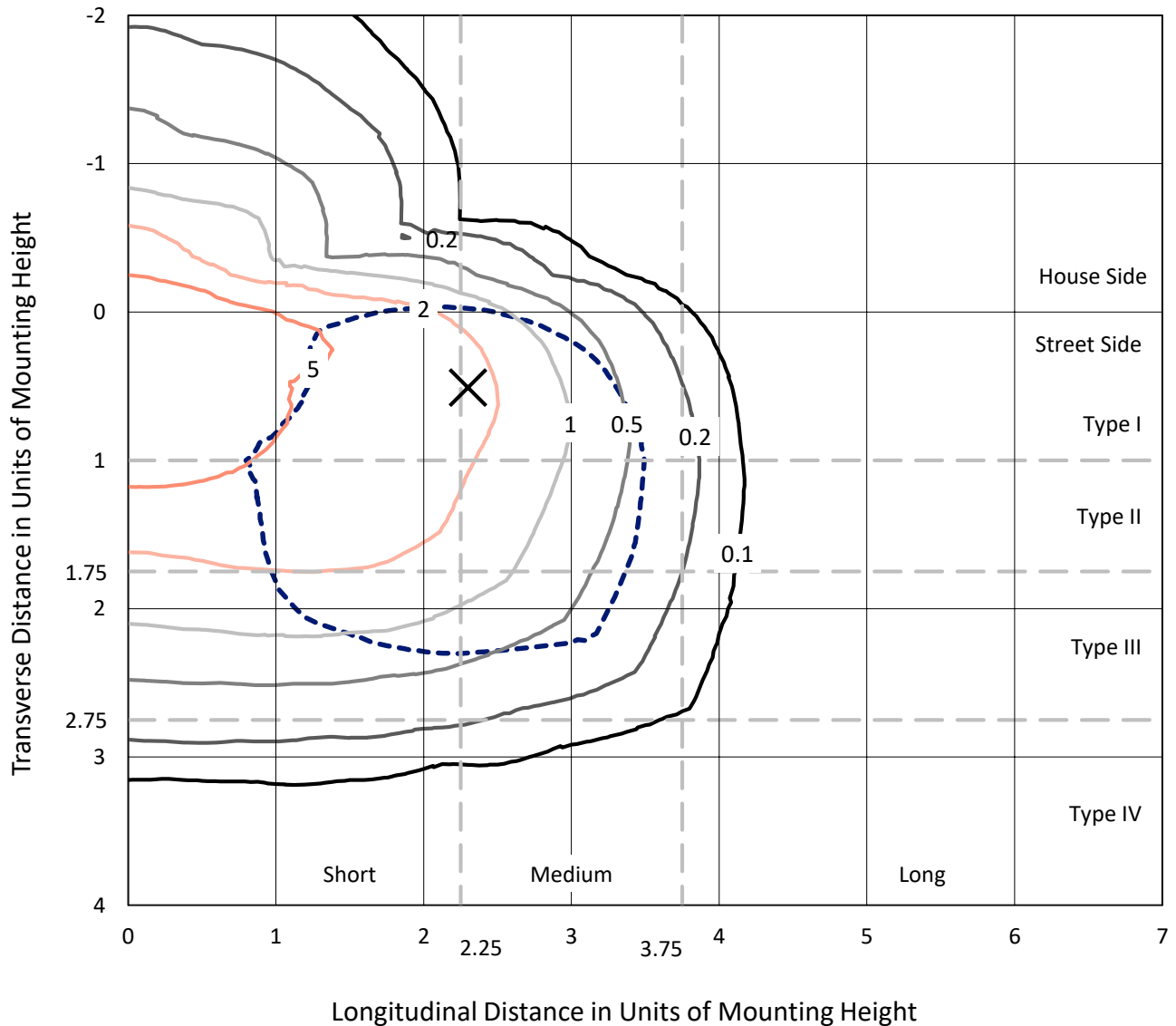
Input Watts (W): 58
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

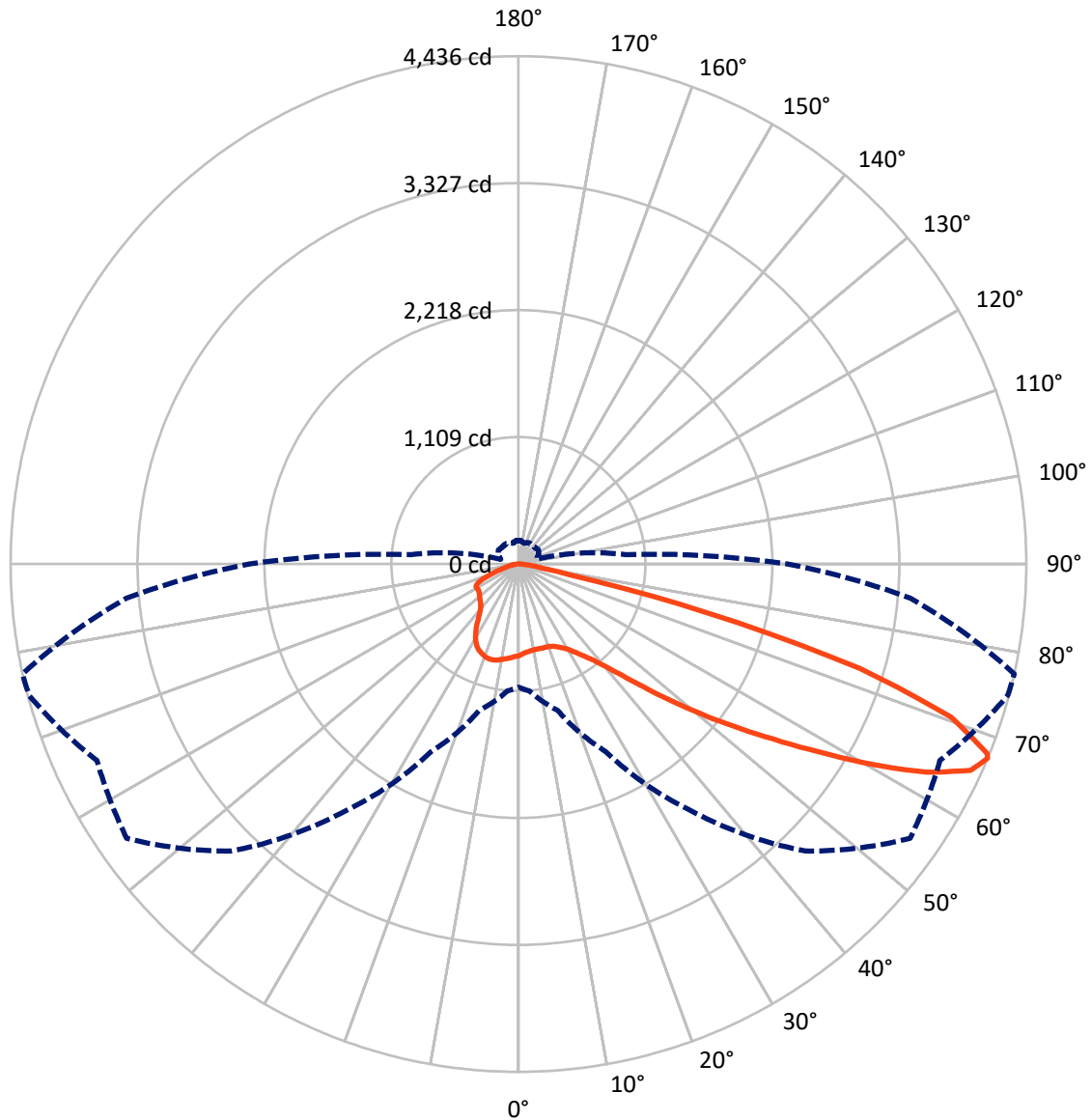
✕ Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 9.6 fc
 Type III - Medium - Full Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 77.5-Deg Lateral - - - Horizontal Cone Through 67-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 935.9 | 0.0 | 935.9 |
| | % Fixture | 17.2 | 0.0 | 17.2 |
| Street Side | Lumens | 4510.1 | 0.0 | 4510.1 |
| | % Fixture | 82.8 | 0.0 | 82.8 |
| Total | Lumens | 5446.0 | 0.0 | 5446.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 71.4 | 1.3 |
| 10°-20° | 197.7 | 3.6 |
| 20°-30° | 335.9 | 6.2 |
| 30°-40° | 537.4 | 9.9 |
| 40°-50° | 827.3 | 15.2 |
| 50°-60° | 1147.8 | 21.1 |
| 60°-70° | 1531.0 | 28.1 |
| 70°-80° | 728.6 | 13.4 |
| 80°-90° | 69.0 | 1.3 |
| 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° | 5446.0 | 100.0 |
| 0°-180° | 5446.0 | 100.0 |



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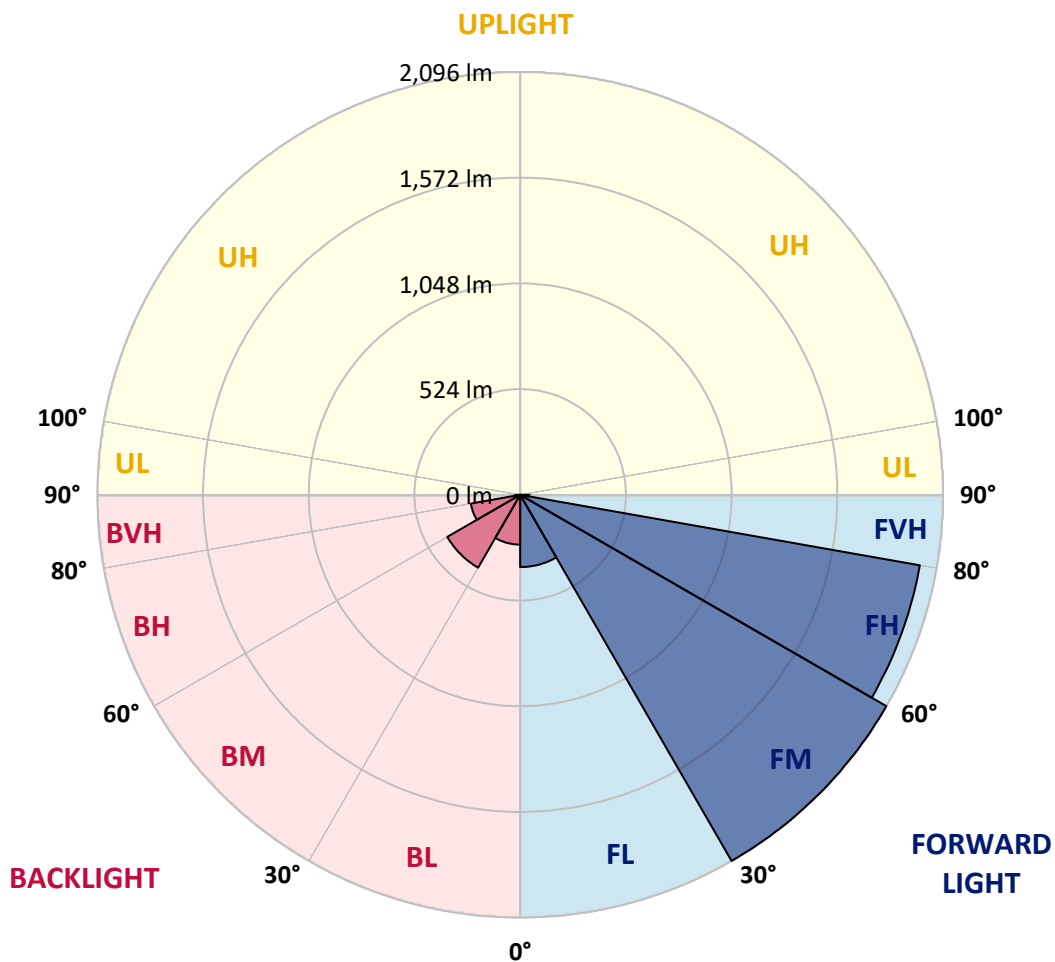
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 358.1 | 6.6 | | | |
| FM | (30°-60°) | 2095.7 | 38.5 | | | |
| FH | (60°-80°) | 2011.5 | 36.9 | | | G2/5000 |
| FVH | (80°-90°) | 44.8 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 246.9 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 416.7 | 7.7 | B1/1000 | | |
| BH | (60°-80°) | 248.1 | 4.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 24.2 | 0.4 | | | G1/100 |
| UL | (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH | (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G2

Type III Medium





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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 77.5° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 |
| 2.5° | 718.7 | 722.1 | 722.4 | 732.2 | 736.5 | 747.6 | 759.8 | 770.5 | 780.0 | 783.3 | 789.4 |
| 5° | 646.7 | 646.7 | 647.7 | 654.1 | 666.5 | 684.4 | 709.6 | 737.2 | 766.2 | 773.2 | 791.1 |
| 7.5° | 609.0 | 609.6 | 610.3 | 616.7 | 626.5 | 642.3 | 667.5 | 705.2 | 753.4 | 765.2 | 796.5 |
| 10° | 612.3 | 611.3 | 607.9 | 606.6 | 610.6 | 620.7 | 642.6 | 681.3 | 742.6 | 760.8 | 806.2 |
| 12.5° | 665.2 | 663.2 | 652.0 | 635.9 | 621.1 | 617.4 | 632.5 | 669.2 | 737.5 | 760.8 | 822.7 |
| 15° | 755.7 | 757.1 | 735.2 | 701.5 | 662.8 | 636.6 | 634.5 | 664.8 | 735.9 | 762.8 | 841.9 |
| 17.5° | 873.5 | 874.2 | 843.9 | 795.1 | 730.8 | 676.6 | 648.3 | 664.8 | 735.9 | 764.8 | 860.4 |
| 20° | 998.8 | 994.1 | 959.7 | 898.5 | 815.0 | 732.2 | 673.6 | 668.9 | 737.9 | 767.8 | 877.9 |
| 22.5° | 1106.2 | 1101.8 | 1065.8 | 1001.5 | 905.9 | 797.8 | 707.6 | 682.3 | 749.0 | 780.3 | 902.5 |
| 25° | 1200.1 | 1202.8 | 1167.8 | 1095.4 | 996.4 | 871.9 | 758.4 | 713.3 | 772.2 | 802.9 | 932.8 |
| 27.5° | 1314.2 | 1309.1 | 1268.7 | 1199.7 | 1089.7 | 948.6 | 822.0 | 752.4 | 799.8 | 830.1 | 969.8 |
| 30° | 1446.1 | 1443.8 | 1389.3 | 1318.2 | 1192.3 | 1034.5 | 885.0 | 794.4 | 835.8 | 867.5 | 1016.3 |
| 32.5° | 1606.4 | 1606.0 | 1547.5 | 1460.3 | 1307.8 | 1131.4 | 959.4 | 852.0 | 888.4 | 920.3 | 1077.9 |
| 35° | 1787.8 | 1787.5 | 1726.9 | 1611.8 | 1440.8 | 1238.8 | 1046.9 | 922.0 | 953.3 | 987.0 | 1151.3 |
| 37.5° | 1913.7 | 1911.7 | 1880.1 | 1768.3 | 1587.9 | 1363.7 | 1156.3 | 1016.3 | 1027.0 | 1064.8 | 1239.8 |
| 40° | 1938.0 | 1950.1 | 1977.3 | 1911.4 | 1748.4 | 1502.4 | 1266.1 | 1117.6 | 1127.7 | 1176.2 | 1351.2 |
| 42.5° | 1911.7 | 1927.5 | 2018.1 | 2036.6 | 1909.0 | 1670.3 | 1403.4 | 1258.0 | 1270.8 | 1331.0 | 1482.2 |
| 45° | 1888.8 | 1902.6 | 2016.1 | 2105.9 | 2067.6 | 1853.5 | 1574.7 | 1429.3 | 1453.6 | 1528.3 | 1631.6 |
| 47.5° | 1849.8 | 1862.6 | 1976.3 | 2118.4 | 2158.1 | 2029.9 | 1781.1 | 1635.3 | 1677.1 | 1767.6 | 1802.0 |
| 50° | 1847.7 | 1853.5 | 1922.1 | 2076.6 | 2189.4 | 2163.8 | 2009.7 | 1876.4 | 1940.3 | 2044.7 | 1990.5 |
| 52.5° | 1796.6 | 1836.6 | 1898.9 | 2010.0 | 2190.1 | 2241.9 | 2234.9 | 2140.6 | 2239.2 | 2354.7 | 2197.2 |
| 55° | 1483.5 | 1529.6 | 1821.5 | 1977.3 | 2186.1 | 2308.9 | 2440.5 | 2421.7 | 2575.9 | 2697.4 | 2428.8 |
| 57.5° | 1385.2 | 1404.7 | 1598.0 | 1987.1 | 2219.7 | 2419.7 | 2646.2 | 2723.6 | 2961.0 | 3093.6 | 2706.5 |
| 60° | 1358.3 | 1378.8 | 1553.2 | 1991.8 | 2310.9 | 2621.3 | 2925.3 | 3064.6 | 3413.7 | 3554.4 | 3021.9 |
| 62.5° | 1328.3 | 1354.9 | 1556.6 | 1996.2 | 2471.2 | 2919.6 | 3295.6 | 3434.6 | 3878.6 | 4004.2 | 3317.5 |
| 65° | 1240.8 | 1276.2 | 1494.3 | 1968.6 | 2646.6 | 3293.9 | 3785.0 | 3820.4 | 4262.7 | 4342.5 | 3495.9 |
| 67° | 1074.8 | 1113.6 | 1323.3 | 1809.0 | 2630.4 | 3546.0 | 4176.5 | 4061.7 | 4426.0 | 4435.7 | 3438.0 |
| 67.5° | 1022.3 | 1062.4 | 1265.4 | 1742.7 | 2584.3 | 3579.0 | 4245.9 | 4095.1 | 4424.6 | 4413.8 | 3384.1 |
| 70° | 688.4 | 733.5 | 896.1 | 1279.5 | 2072.9 | 3330.9 | 4229.0 | 3992.4 | 4134.4 | 4010.9 | 2907.4 |
| 72.5° | 341.7 | 343.0 | 447.0 | 700.9 | 1256.0 | 2389.0 | 3527.8 | 3415.4 | 3351.5 | 3118.2 | 2133.5 |
| 75° | 164.6 | 167.6 | 211.1 | 309.7 | 529.5 | 1233.4 | 2405.9 | 2304.5 | 1962.2 | 1699.0 | 1067.8 |
| 77.5° | 125.6 | 128.6 | 163.9 | 201.6 | 220.8 | 402.3 | 1191.7 | 963.1 | 568.6 | 454.1 | 300.9 |
| 80° | 96.9 | 102.7 | 138.4 | 154.8 | 146.1 | 161.2 | 374.7 | 294.9 | 221.2 | 203.0 | 149.1 |
| 82.5° | 75.7 | 79.1 | 117.5 | 117.5 | 101.0 | 108.1 | 174.4 | 170.3 | 137.3 | 123.9 | 80.1 |
| 85° | 53.5 | 60.3 | 94.6 | 87.5 | 66.3 | 67.0 | 104.4 | 100.0 | 70.7 | 56.9 | 31.3 |
| 87.5° | 23.9 | 30.6 | 67.3 | 57.2 | 35.3 | 27.3 | 42.8 | 36.7 | 27.9 | 21.5 | 14.5 |
| 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° | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 | 801.5 |
| 2.5° | 796.1 | 801.5 | 809.9 | 815.0 | 821.7 | 824.4 | 827.1 | 831.8 | 835.5 | 834.5 | 832.8 |
| 5° | 803.5 | 812.6 | 823.1 | 826.4 | 826.4 | 823.1 | 821.0 | 821.4 | 820.4 | 819.7 | 817.7 |
| 7.5° | 814.3 | 826.8 | 834.2 | 830.8 | 820.4 | 807.2 | 794.8 | 787.4 | 780.3 | 775.9 | 777.3 |
| 10° | 829.4 | 843.2 | 843.6 | 828.8 | 803.9 | 775.3 | 750.7 | 734.9 | 719.7 | 713.0 | 715.0 |
| 12.5° | 851.3 | 865.1 | 853.3 | 821.4 | 777.6 | 732.8 | 687.7 | 655.1 | 625.8 | 618.7 | 616.7 |
| 15° | 874.9 | 885.7 | 859.4 | 805.5 | 739.9 | 666.2 | 590.4 | 541.6 | 509.0 | 503.3 | 501.2 |
| 17.5° | 895.4 | 901.5 | 856.4 | 777.3 | 680.3 | 564.2 | 476.0 | 443.0 | 436.3 | 439.6 | 439.6 |
| 20° | 913.6 | 911.6 | 843.2 | 733.5 | 586.4 | 451.1 | 399.9 | 399.6 | 408.7 | 417.1 | 417.8 |
| 22.5° | 936.5 | 920.7 | 822.4 | 668.5 | 474.3 | 376.3 | 367.6 | 376.3 | 386.4 | 395.9 | 396.9 |
| 25° | 963.8 | 930.8 | 794.4 | 576.0 | 381.4 | 341.7 | 345.4 | 352.8 | 359.2 | 366.6 | 366.9 |
| 27.5° | 991.0 | 938.5 | 755.1 | 467.2 | 330.9 | 319.5 | 323.5 | 326.5 | 328.2 | 332.9 | 332.9 |
| 30° | 1022.7 | 944.6 | 698.2 | 374.3 | 307.7 | 299.9 | 297.6 | 296.2 | 297.6 | 304.0 | 304.3 |
| 32.5° | 1062.4 | 955.3 | 620.4 | 321.1 | 296.9 | 286.1 | 274.0 | 267.3 | 272.0 | 283.4 | 285.5 |
| 35° | 1107.5 | 968.1 | 527.2 | 299.9 | 293.2 | 279.4 | 257.2 | 246.7 | 248.4 | 258.9 | 260.5 |
| 37.5° | 1164.1 | 984.6 | 435.3 | 294.9 | 296.9 | 278.7 | 249.4 | 234.6 | 227.2 | 227.6 | 227.2 |
| 40° | 1236.4 | 1001.1 | 362.5 | 296.2 | 305.0 | 280.4 | 245.7 | 222.5 | 207.0 | 207.7 | 209.0 |
| 42.5° | 1312.2 | 1011.9 | 316.4 | 300.3 | 314.7 | 282.8 | 244.4 | 210.7 | 197.3 | 208.7 | 219.1 |
| 45° | 1400.7 | 1008.9 | 292.5 | 304.0 | 322.2 | 283.8 | 239.3 | 209.4 | 198.3 | 232.6 | 252.1 |
| 47.5° | 1502.4 | 995.7 | 279.1 | 305.7 | 324.2 | 283.4 | 235.6 | 213.8 | 206.7 | 266.3 | 288.5 |
| 50° | 1612.8 | 975.2 | 268.3 | 303.0 | 323.2 | 282.1 | 239.7 | 219.1 | 210.1 | 273.7 | 290.8 |
| 52.5° | 1733.6 | 956.4 | 257.2 | 296.9 | 318.1 | 278.1 | 244.7 | 216.8 | 200.6 | 252.1 | 265.3 |
| 55° | 1876.7 | 952.0 | 244.7 | 286.5 | 309.7 | 273.7 | 242.0 | 209.4 | 190.2 | 223.5 | 231.6 |
| 57.5° | 2040.3 | 979.2 | 228.6 | 273.7 | 298.3 | 264.9 | 235.6 | 205.3 | 186.5 | 203.3 | 207.7 |
| 60° | 2248.0 | 1039.5 | 211.4 | 260.2 | 284.1 | 251.8 | 229.9 | 206.4 | 187.5 | 200.3 | 201.3 |
| 62.5° | 2410.2 | 1093.7 | 195.9 | 243.7 | 265.3 | 236.0 | 223.9 | 207.4 | 190.5 | 204.3 | 202.6 |
| 65° | 2469.2 | 1067.1 | 176.7 | 219.1 | 238.7 | 218.5 | 215.4 | 208.0 | 190.5 | 206.7 | 203.0 |
| 67° | 2348.3 | 940.2 | 158.6 | 194.6 | 213.4 | 203.0 | 207.4 | 205.3 | 187.2 | 206.4 | 200.0 |
| 67.5° | 2290.7 | 895.4 | 153.8 | 190.5 | 206.7 | 198.3 | 205.3 | 204.0 | 186.2 | 205.7 | 198.3 |
| 70° | 1889.1 | 642.3 | 129.9 | 159.9 | 173.0 | 174.7 | 192.9 | 195.2 | 178.1 | 193.2 | 179.8 |
| 72.5° | 1344.2 | 401.9 | 112.1 | 123.9 | 139.7 | 149.5 | 176.1 | 183.5 | 167.3 | 168.0 | 156.9 |
| 75° | 665.2 | 215.8 | 100.0 | 95.6 | 108.7 | 124.6 | 153.5 | 167.3 | 151.5 | 140.0 | 136.3 |
| 77.5° | 224.5 | 122.2 | 84.5 | 77.1 | 84.5 | 100.0 | 127.2 | 146.1 | 133.6 | 118.5 | 116.1 |
| 80° | 116.1 | 88.9 | 66.0 | 61.9 | 66.7 | 77.4 | 99.6 | 121.5 | 114.1 | 114.8 | 94.6 |
| 82.5° | 72.4 | 54.2 | 47.5 | 47.1 | 50.5 | 59.2 | 73.4 | 98.6 | 98.0 | 83.8 | 60.9 |
| 85° | 33.7 | 31.3 | 30.3 | 31.3 | 32.3 | 33.7 | 47.8 | 70.4 | 74.4 | 45.1 | 40.1 |
| 87.5° | 14.1 | 13.8 | 12.1 | 13.1 | 14.5 | 14.1 | 19.2 | 30.0 | 41.7 | 28.3 | 25.9 |
| 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)