

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: P195842

Luminaire Tested: **NVN-AF-02-LED-U-T3R-7050-600**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P195842
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: NVN-AF-02-LED-U-T3R-7050-600
Description: NAVION ROADWAY AND AREA LUMINAIRE
(2) 70 CRI, 5000K, 615mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III
ROADWAY OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 8163 lumens
Efficiency: N/A
Efficacy: 123.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type III - Medium - Full Cutoff
BUG Rating: B1 - U0 - G2

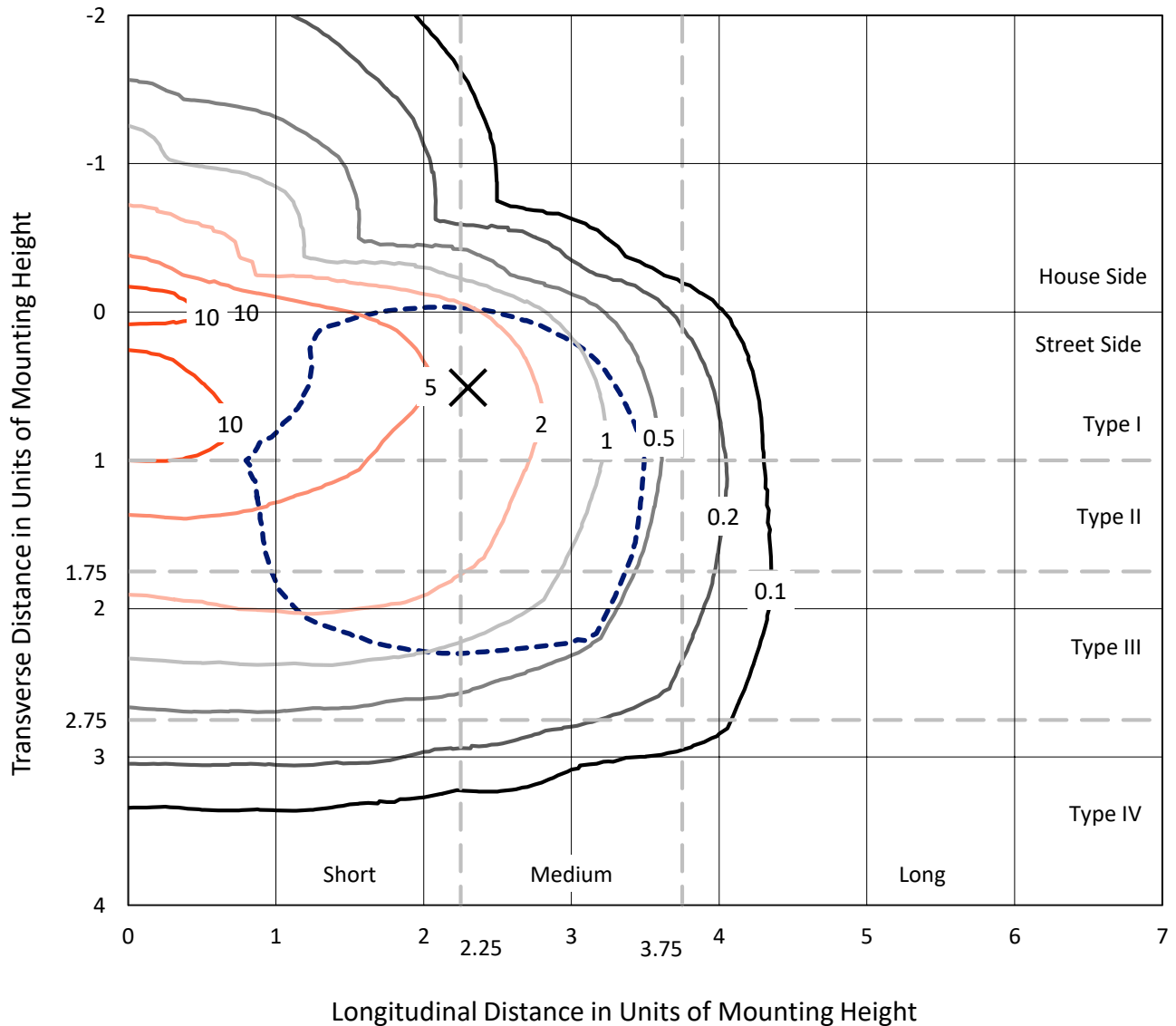
Input Watts (W): 66
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 28.75 FT



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Iso-Footcandle Lines of Horizontal Illumination

✕ Max cd
 - - - 1/2 Max cd

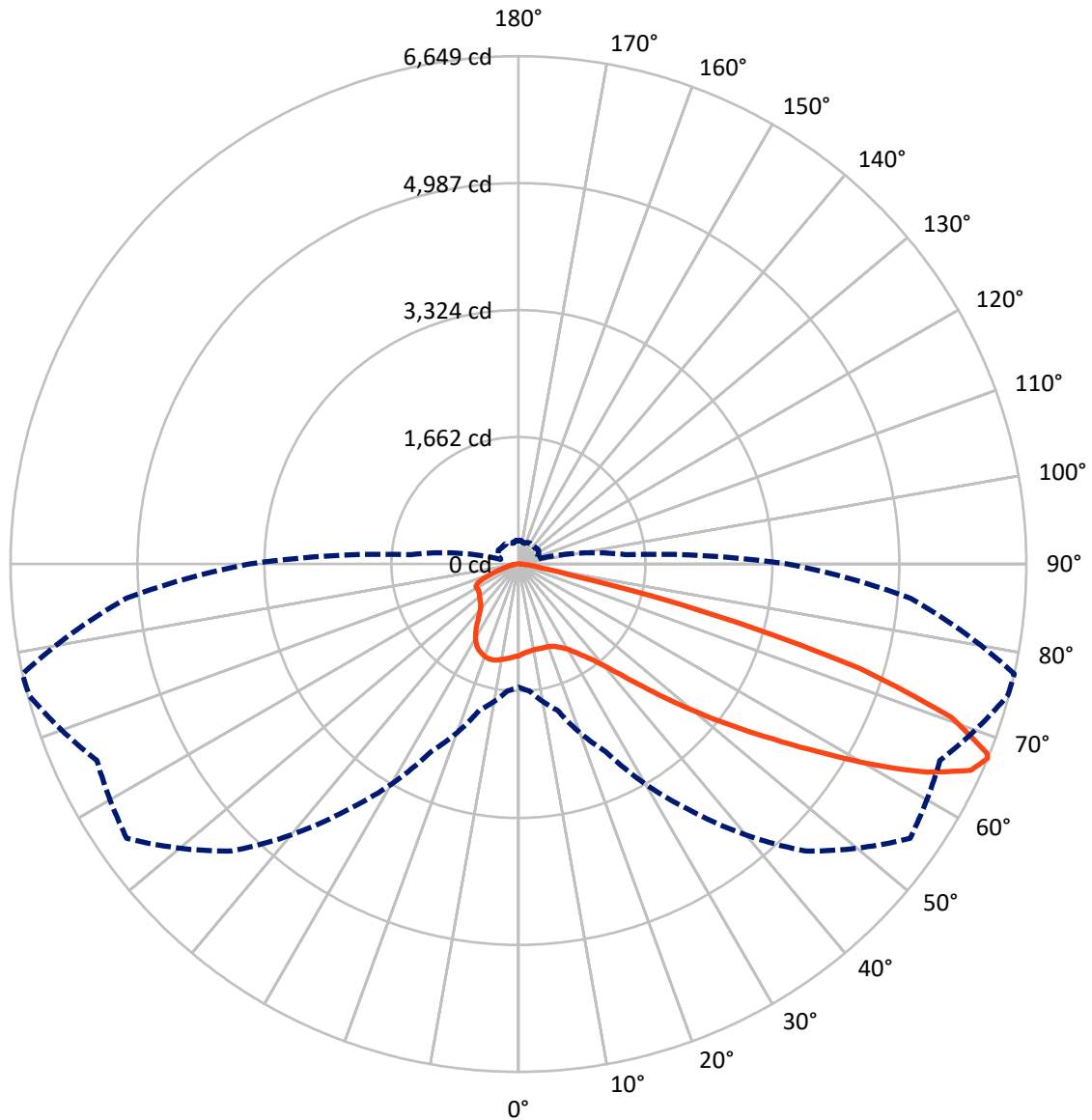


Based on 10 foot mounting height. Maximum calculated value = 14.4 fc
 Type III - Medium - Full Cutoff

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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 | 1402.8 | 0.0 | 1402.8 |
| | % Fixture | 17.2 | 0.0 | 17.2 |
| Street Side | Lumens | 6760.2 | 0.0 | 6760.2 |
| | % Fixture | 82.8 | 0.0 | 82.8 |
| Total | Lumens | 8163.0 | 0.0 | 8163.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 107.0 | 1.3 |
| 10°-20° | 296.3 | 3.6 |
| 20°-30° | 503.5 | 6.2 |
| 30°-40° | 805.5 | 9.9 |
| 40°-50° | 1240.0 | 15.2 |
| 50°-60° | 1720.4 | 21.1 |
| 60°-70° | 2294.9 | 28.1 |
| 70°-80° | 1092.1 | 13.4 |
| 80°-90° | 103.4 | 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° | 8163.0 | 100.0 |
| 0°-180° | 8163.0 | 100.0 |



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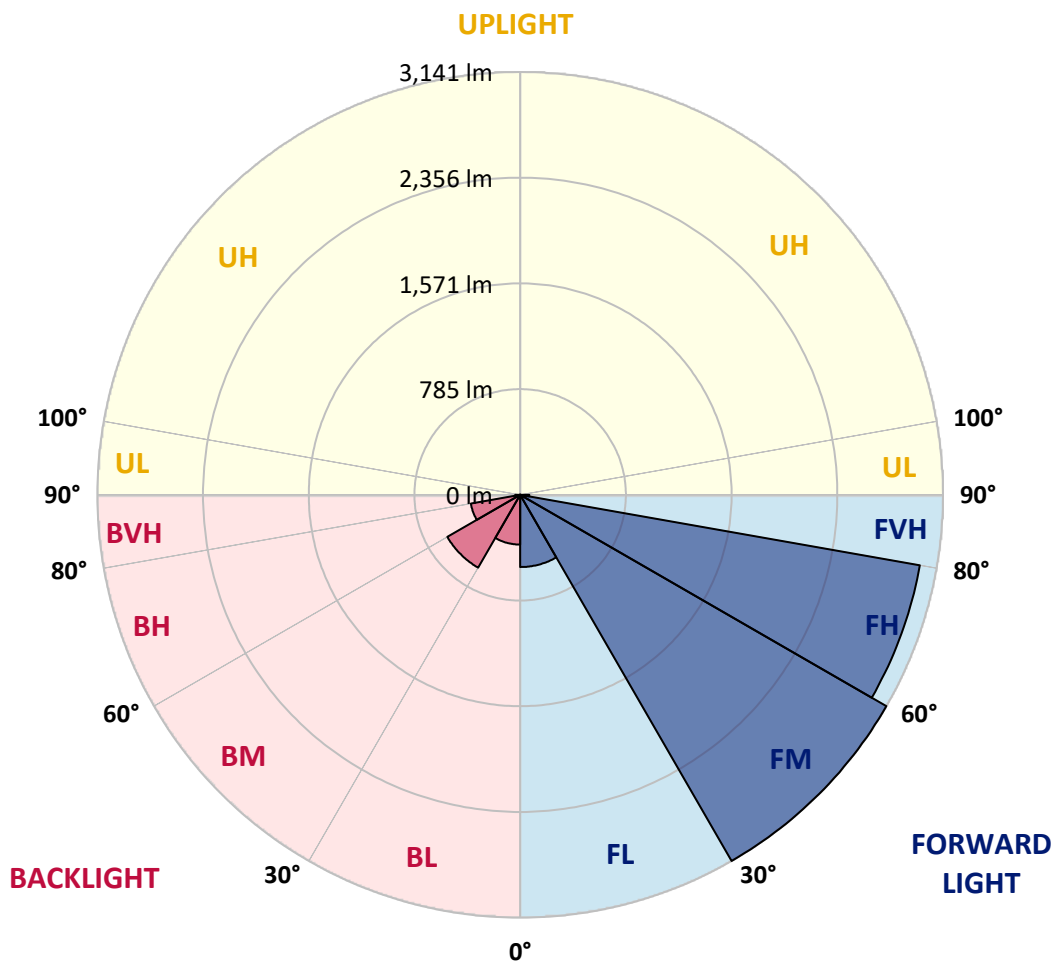
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 536.8 | 6.6 | | | |
| FM | (30°-60°) | 3141.2 | 38.5 | | | |
| FH | (60°-80°) | 3015.0 | 36.9 | | | G2/5000 |
| FVH | (80°-90°) | 67.2 | 0.8 | | | G1/100 |
| BL | (0°-30°) | 370.0 | 4.5 | B1/500 | | |
| BM | (30°-60°) | 624.6 | 7.7 | B1/1000 | | |
| BH | (60°-80°) | 372.0 | 4.6 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 36.2 | 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° | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 |
| 2.5° | 1077.3 | 1082.3 | 1082.8 | 1097.4 | 1104.0 | 1120.6 | 1138.8 | 1155.0 | 1169.1 | 1174.1 | 1183.2 |
| 5° | 969.3 | 969.3 | 970.8 | 980.4 | 999.0 | 1025.8 | 1063.6 | 1105.0 | 1148.4 | 1159.0 | 1185.7 |
| 7.5° | 912.8 | 913.8 | 914.8 | 924.4 | 939.0 | 962.7 | 1000.6 | 1057.1 | 1129.2 | 1146.9 | 1193.8 |
| 10° | 917.8 | 916.3 | 911.3 | 909.2 | 915.3 | 930.4 | 963.2 | 1021.2 | 1113.1 | 1140.3 | 1208.4 |
| 12.5° | 997.0 | 994.0 | 977.4 | 953.1 | 930.9 | 925.4 | 948.1 | 1003.1 | 1105.5 | 1140.3 | 1233.2 |
| 15° | 1132.8 | 1134.8 | 1102.0 | 1051.5 | 993.5 | 954.1 | 951.1 | 996.5 | 1103.0 | 1143.4 | 1261.9 |
| 17.5° | 1309.4 | 1310.4 | 1265.0 | 1191.8 | 1095.4 | 1014.2 | 971.8 | 996.5 | 1103.0 | 1146.4 | 1289.7 |
| 20° | 1497.1 | 1490.0 | 1438.5 | 1346.7 | 1221.6 | 1097.4 | 1009.6 | 1002.6 | 1106.0 | 1150.9 | 1315.9 |
| 22.5° | 1658.0 | 1651.5 | 1597.5 | 1501.1 | 1357.8 | 1195.8 | 1060.6 | 1022.8 | 1122.7 | 1169.6 | 1352.7 |
| 25° | 1798.8 | 1802.8 | 1750.4 | 1641.9 | 1493.5 | 1306.8 | 1136.8 | 1069.2 | 1157.5 | 1203.4 | 1398.2 |
| 27.5° | 1969.8 | 1962.3 | 1901.7 | 1798.3 | 1633.3 | 1421.9 | 1232.2 | 1127.7 | 1198.9 | 1244.3 | 1453.7 |
| 30° | 2167.6 | 2164.1 | 2082.4 | 1975.9 | 1787.2 | 1550.5 | 1326.5 | 1190.8 | 1252.8 | 1300.3 | 1523.3 |
| 32.5° | 2407.8 | 2407.3 | 2319.5 | 2188.8 | 1960.3 | 1695.9 | 1438.0 | 1277.1 | 1331.6 | 1379.5 | 1615.6 |
| 35° | 2679.8 | 2679.3 | 2588.4 | 2415.9 | 2159.6 | 1856.8 | 1569.2 | 1382.0 | 1428.9 | 1479.4 | 1725.6 |
| 37.5° | 2868.5 | 2865.4 | 2818.0 | 2650.5 | 2380.1 | 2044.0 | 1733.2 | 1523.3 | 1539.4 | 1596.0 | 1858.3 |
| 40° | 2904.8 | 2923.0 | 2963.8 | 2864.9 | 2620.7 | 2251.9 | 1897.7 | 1675.2 | 1690.3 | 1763.0 | 2025.3 |
| 42.5° | 2865.4 | 2889.2 | 3024.9 | 3052.6 | 2861.4 | 2503.7 | 2103.5 | 1885.6 | 1904.7 | 1995.1 | 2221.6 |
| 45° | 2831.1 | 2851.8 | 3021.9 | 3156.6 | 3099.1 | 2778.2 | 2360.4 | 2142.4 | 2178.7 | 2290.7 | 2445.6 |
| 47.5° | 2772.6 | 2791.8 | 2962.3 | 3175.3 | 3234.8 | 3042.6 | 2669.7 | 2451.2 | 2513.8 | 2649.5 | 2701.0 |
| 50° | 2769.6 | 2778.2 | 2881.1 | 3112.7 | 3281.7 | 3243.4 | 3012.3 | 2812.5 | 2908.3 | 3064.8 | 2983.5 |
| 52.5° | 2692.9 | 2752.9 | 2846.3 | 3012.8 | 3282.7 | 3360.4 | 3349.8 | 3208.6 | 3356.4 | 3529.5 | 3293.3 |
| 55° | 2223.6 | 2292.8 | 2730.2 | 2963.8 | 3276.7 | 3460.8 | 3658.1 | 3629.9 | 3861.0 | 4043.1 | 3640.5 |
| 57.5° | 2076.3 | 2105.6 | 2395.2 | 2978.5 | 3327.1 | 3626.8 | 3966.4 | 4082.5 | 4438.2 | 4637.0 | 4056.7 |
| 60° | 2035.9 | 2066.7 | 2328.1 | 2985.5 | 3463.9 | 3929.1 | 4384.7 | 4593.6 | 5116.8 | 5327.7 | 4529.5 |
| 62.5° | 1991.0 | 2030.9 | 2333.1 | 2992.1 | 3704.0 | 4376.1 | 4939.7 | 5148.1 | 5813.6 | 6001.8 | 4972.5 |
| 65° | 1859.8 | 1912.8 | 2239.8 | 2950.7 | 3966.9 | 4937.2 | 5673.4 | 5726.4 | 6389.4 | 6508.9 | 5240.0 |
| 67° | 1611.1 | 1669.1 | 1983.5 | 2711.6 | 3942.7 | 5315.1 | 6260.2 | 6088.1 | 6634.1 | 6648.7 | 5153.2 |
| 67.5° | 1532.4 | 1592.4 | 1896.7 | 2612.2 | 3873.6 | 5364.6 | 6364.1 | 6138.1 | 6632.1 | 6615.9 | 5072.4 |
| 70° | 1031.8 | 1099.5 | 1343.2 | 1917.9 | 3107.1 | 4992.7 | 6338.9 | 5984.2 | 6197.1 | 6011.9 | 4358.0 |
| 72.5° | 512.1 | 514.2 | 670.1 | 1050.5 | 1882.5 | 3580.9 | 5287.9 | 5119.4 | 5023.5 | 4673.8 | 3198.0 |
| 75° | 246.7 | 251.3 | 316.4 | 464.2 | 793.7 | 1848.7 | 3606.2 | 3454.3 | 2941.1 | 2546.6 | 1600.5 |
| 77.5° | 188.2 | 192.7 | 245.7 | 302.2 | 331.0 | 603.0 | 1786.2 | 1443.6 | 852.2 | 680.7 | 451.1 |
| 80° | 145.3 | 153.9 | 207.4 | 232.1 | 219.0 | 241.7 | 561.6 | 442.0 | 331.5 | 304.3 | 223.5 |
| 82.5° | 113.5 | 118.6 | 176.1 | 176.1 | 151.4 | 162.0 | 261.4 | 255.3 | 205.9 | 185.7 | 120.1 |
| 85° | 80.2 | 90.3 | 141.8 | 131.2 | 99.4 | 100.4 | 156.4 | 149.9 | 106.0 | 85.3 | 46.9 |
| 87.5° | 35.8 | 45.9 | 100.9 | 85.8 | 53.0 | 40.9 | 64.1 | 55.0 | 41.9 | 32.3 | 21.7 |
| 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° | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 | 1201.4 |
| 2.5° | 1193.3 | 1201.4 | 1214.0 | 1221.6 | 1231.7 | 1235.7 | 1239.7 | 1246.8 | 1252.3 | 1250.8 | 1248.3 |
| 5° | 1204.4 | 1218.0 | 1233.7 | 1238.7 | 1238.7 | 1233.7 | 1230.6 | 1231.1 | 1229.6 | 1228.6 | 1225.6 |
| 7.5° | 1220.6 | 1239.2 | 1250.3 | 1245.3 | 1229.6 | 1210.0 | 1191.3 | 1180.2 | 1169.6 | 1163.0 | 1165.1 |
| 10° | 1243.3 | 1263.9 | 1264.5 | 1242.2 | 1204.9 | 1162.0 | 1125.2 | 1101.5 | 1078.8 | 1068.7 | 1071.7 |
| 12.5° | 1276.1 | 1296.7 | 1279.1 | 1231.1 | 1165.6 | 1098.4 | 1030.8 | 981.9 | 938.0 | 927.4 | 924.4 |
| 15° | 1311.4 | 1327.5 | 1288.2 | 1207.4 | 1109.0 | 998.5 | 885.0 | 811.9 | 762.9 | 754.3 | 751.3 |
| 17.5° | 1342.2 | 1351.2 | 1283.6 | 1165.1 | 1019.7 | 845.7 | 713.5 | 664.0 | 653.9 | 659.0 | 659.0 |
| 20° | 1369.4 | 1366.4 | 1263.9 | 1099.5 | 879.0 | 676.1 | 599.4 | 598.9 | 612.5 | 625.2 | 626.2 |
| 22.5° | 1403.7 | 1380.0 | 1232.7 | 1002.1 | 710.9 | 564.1 | 551.0 | 564.1 | 579.2 | 593.4 | 594.9 |
| 25° | 1444.6 | 1395.1 | 1190.8 | 863.3 | 571.7 | 512.1 | 517.7 | 528.8 | 538.4 | 549.5 | 550.0 |
| 27.5° | 1485.5 | 1406.7 | 1131.7 | 700.3 | 496.0 | 478.8 | 484.9 | 489.4 | 492.0 | 499.0 | 499.0 |
| 30° | 1532.9 | 1415.8 | 1046.5 | 561.1 | 461.2 | 449.6 | 446.0 | 444.0 | 446.0 | 455.6 | 456.1 |
| 32.5° | 1592.4 | 1432.0 | 929.9 | 481.4 | 445.0 | 428.9 | 410.7 | 400.6 | 407.7 | 424.8 | 427.9 |
| 35° | 1660.0 | 1451.1 | 790.2 | 449.6 | 439.5 | 418.8 | 385.5 | 369.8 | 372.4 | 388.0 | 390.5 |
| 37.5° | 1744.8 | 1475.9 | 652.4 | 442.0 | 445.0 | 417.8 | 373.9 | 351.7 | 340.6 | 341.1 | 340.6 |
| 40° | 1853.3 | 1500.6 | 543.4 | 444.0 | 457.1 | 420.3 | 368.3 | 333.5 | 310.3 | 311.3 | 313.3 |
| 42.5° | 1966.8 | 1516.7 | 474.3 | 450.1 | 471.8 | 423.8 | 366.3 | 315.9 | 295.7 | 312.8 | 328.5 |
| 45° | 2099.5 | 1512.2 | 438.5 | 455.6 | 482.9 | 425.4 | 358.7 | 313.8 | 297.2 | 348.7 | 377.9 |
| 47.5° | 2251.9 | 1492.5 | 418.3 | 458.1 | 485.9 | 424.8 | 353.2 | 320.4 | 309.8 | 399.1 | 432.4 |
| 50° | 2417.4 | 1461.7 | 402.1 | 454.1 | 484.4 | 422.8 | 359.3 | 328.5 | 314.9 | 410.2 | 435.9 |
| 52.5° | 2598.5 | 1433.5 | 385.5 | 445.0 | 476.8 | 416.8 | 366.8 | 324.9 | 300.7 | 377.9 | 397.6 |
| 55° | 2813.0 | 1426.9 | 366.8 | 429.4 | 464.2 | 410.2 | 362.8 | 313.8 | 285.1 | 335.0 | 347.1 |
| 57.5° | 3058.2 | 1467.8 | 342.6 | 410.2 | 447.0 | 397.1 | 353.2 | 307.8 | 279.5 | 304.8 | 311.3 |
| 60° | 3369.5 | 1558.1 | 316.9 | 390.0 | 425.9 | 377.4 | 344.6 | 309.3 | 281.0 | 300.2 | 301.7 |
| 62.5° | 3612.7 | 1639.3 | 293.7 | 365.3 | 397.6 | 353.7 | 335.5 | 310.8 | 285.6 | 306.3 | 303.8 |
| 65° | 3701.0 | 1599.5 | 264.9 | 328.5 | 357.7 | 327.5 | 322.9 | 311.8 | 285.6 | 309.8 | 304.3 |
| 67° | 3519.9 | 1409.3 | 237.7 | 291.6 | 319.9 | 304.3 | 310.8 | 307.8 | 280.5 | 309.3 | 299.7 |
| 67.5° | 3433.6 | 1342.2 | 230.6 | 285.6 | 309.8 | 297.2 | 307.8 | 305.8 | 279.0 | 308.3 | 297.2 |
| 70° | 2831.6 | 962.7 | 194.8 | 239.7 | 259.3 | 261.9 | 289.1 | 292.7 | 266.9 | 289.6 | 269.4 |
| 72.5° | 2014.7 | 602.5 | 168.0 | 185.7 | 209.4 | 224.0 | 263.9 | 275.0 | 250.8 | 251.8 | 235.1 |
| 75° | 997.0 | 323.4 | 149.9 | 143.3 | 163.0 | 186.7 | 230.1 | 250.8 | 227.1 | 209.9 | 204.4 |
| 77.5° | 336.5 | 183.2 | 126.6 | 115.5 | 126.6 | 149.9 | 190.7 | 219.0 | 200.3 | 177.6 | 174.1 |
| 80° | 174.1 | 133.2 | 98.9 | 92.8 | 99.9 | 116.1 | 149.4 | 182.1 | 171.0 | 172.1 | 141.8 |
| 82.5° | 108.5 | 81.2 | 71.1 | 70.6 | 75.7 | 88.8 | 110.0 | 147.8 | 146.8 | 125.6 | 91.3 |
| 85° | 50.5 | 46.9 | 45.4 | 46.9 | 48.4 | 50.5 | 71.6 | 105.5 | 111.5 | 67.6 | 60.0 |
| 87.5° | 21.2 | 20.7 | 18.2 | 19.7 | 21.7 | 21.2 | 28.8 | 44.9 | 62.6 | 42.4 | 38.9 |
| 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)