

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: LUMARK

Report Number: P960807

Luminaire Tested: **NAV-SB1D-727-U-SL3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P960807
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1D-727-U-SL3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7793.1 lumens
Efficiency: N/A
Efficacy: 97.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B1 - U0 - G2

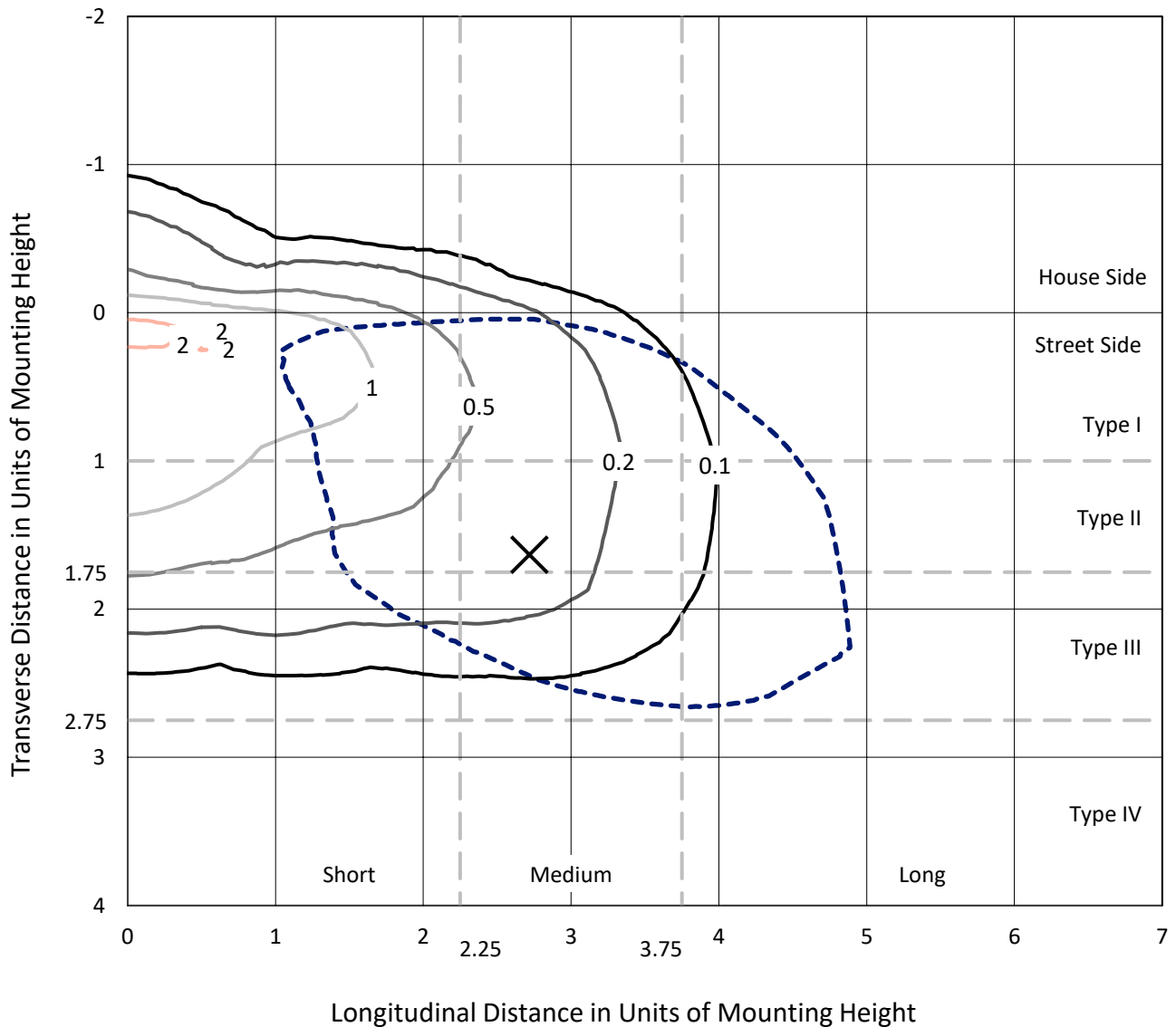
Input Watts (W): 79.6
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

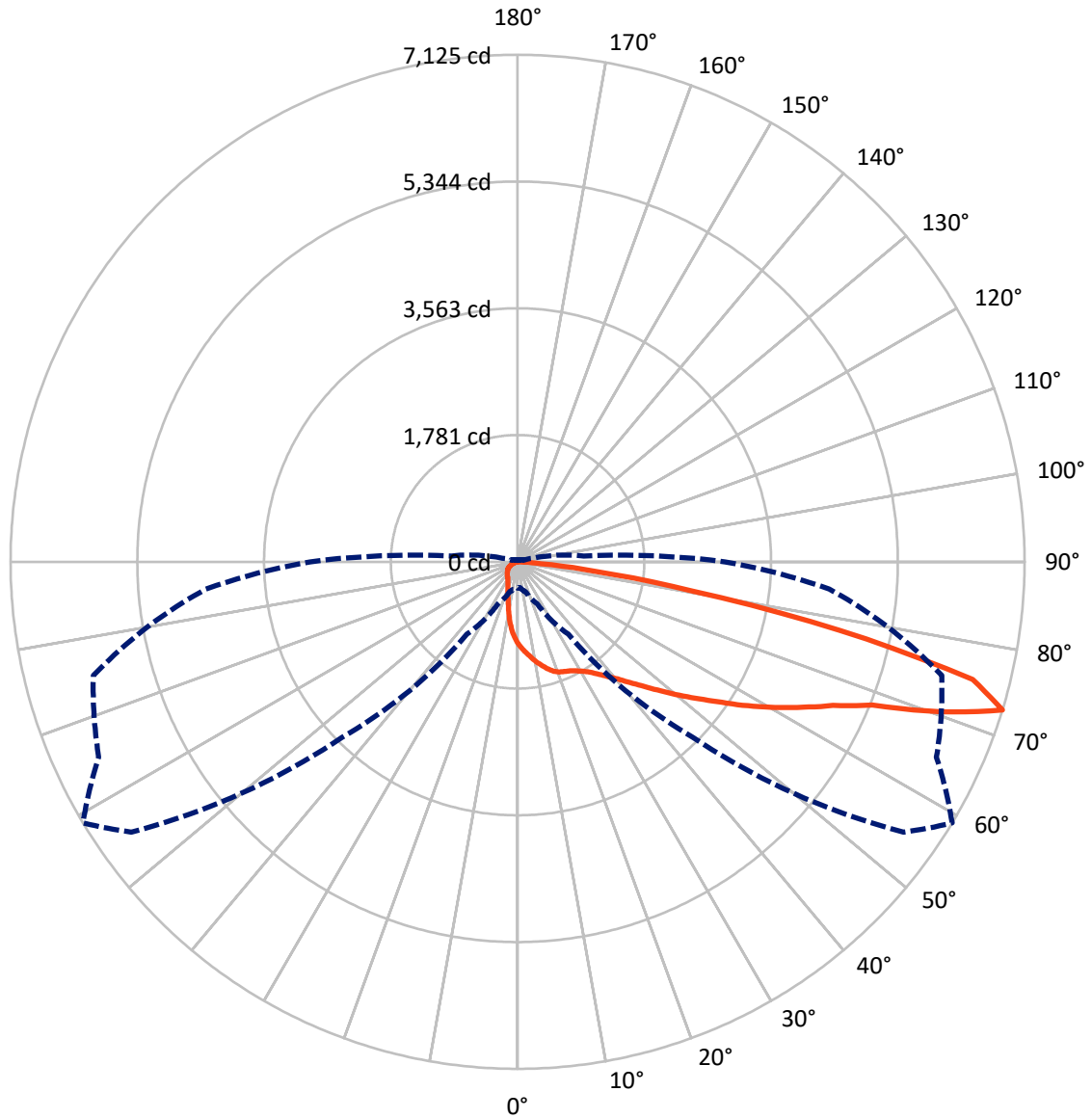
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.3 fc
 Type III - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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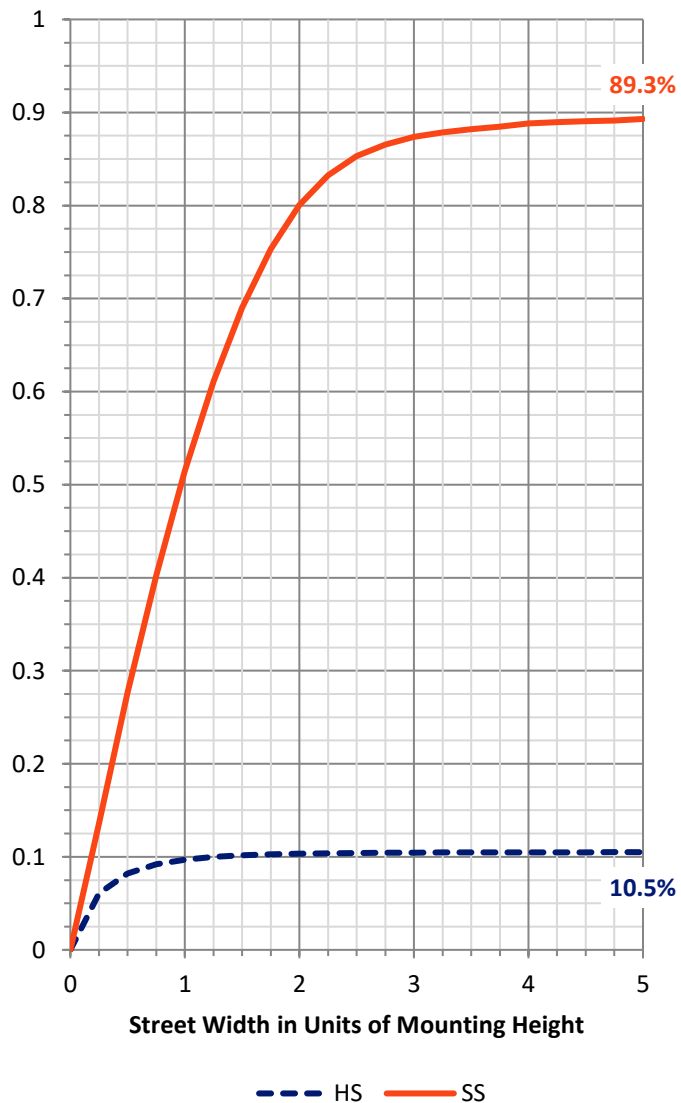
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 823.1 | 0.0 | 823.1 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| Street Side | Lumens | 6970.0 | 0.0 | 6970.0 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| Total | Lumens | 7793.1 | 0.0 | 7793.1 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 104.3 | 1.3 |
| 10°-20° | 276.9 | 3.6 |
| 20°-30° | 438.9 | 5.6 |
| 30°-40° | 704.4 | 9.0 |
| 40°-50° | 1125.0 | 14.4 |
| 50°-60° | 1628.8 | 20.9 |
| 60°-70° | 1933.0 | 24.8 |
| 70°-80° | 1435.0 | 18.4 |
| 80°-90° | 146.7 | 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° | 7793.1 | 100.0 |
| 0°-180° | 7793.1 | 100.0 |

Coefficient of Utilization

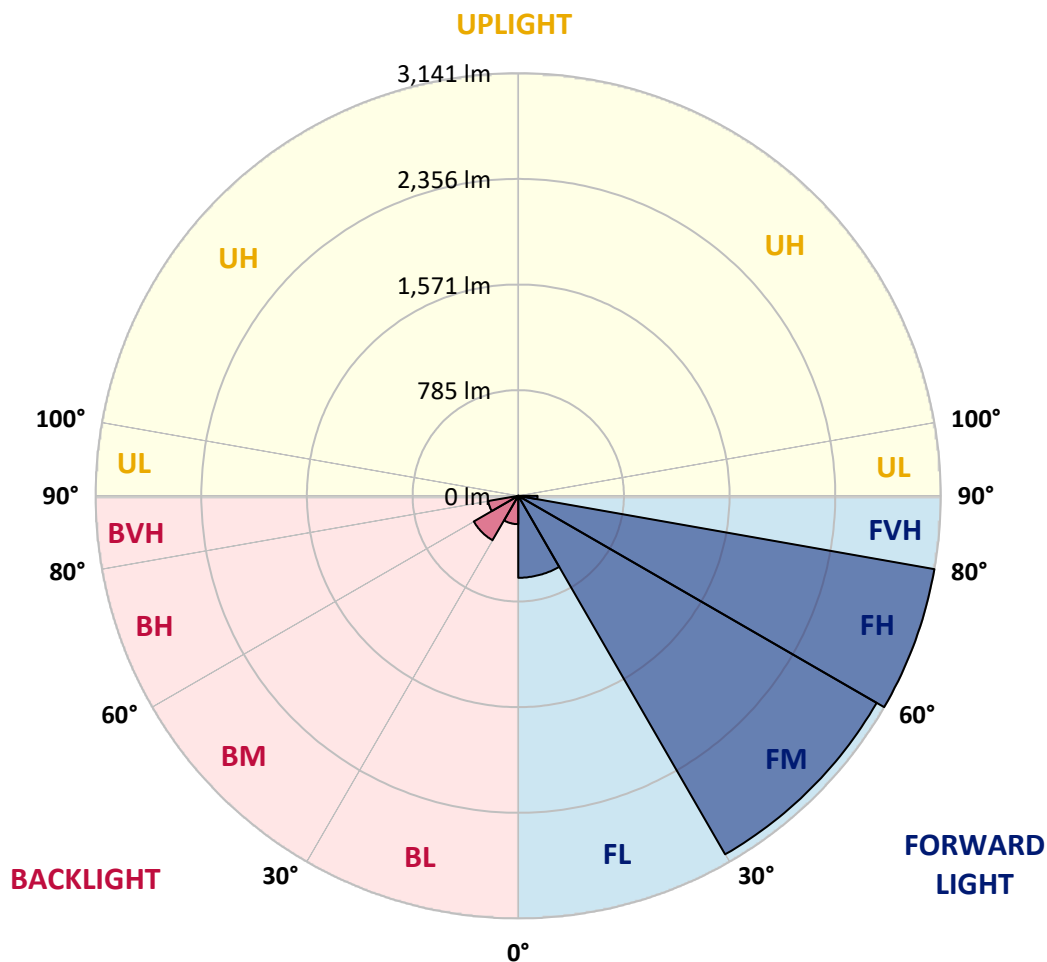


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 609.2 | 7.8 | | | |
| FM (30°-60°) | 3076.6 | 39.5 | | | |
| FH (60°-80°) | 3141.1 | 40.3 | | | G2/5000 |
| FVH (80°-90°) | 143.1 | 1.8 | | | G2/225 |
| BL (0°-30°) | 210.9 | 2.7 | B1/500 | | |
| BM (30°-60°) | 381.6 | 4.9 | B1/1000 | | |
| BH (60°-80°) | 227.0 | 2.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 3.6 | 0.0 | | | G0/10 |
| 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° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 |
| 2.5° | 1278.6 | 1271.5 | 1272.4 | 1260.2 | 1251.6 | 1242.5 | 1224.7 | 1222.1 | 1209.4 | 1187.1 | 1164.1 |
| 5° | 1390.0 | 1385.4 | 1381.4 | 1367.7 | 1349.8 | 1327.5 | 1297.4 | 1286.7 | 1263.3 | 1224.7 | 1179.9 |
| 7.5° | 1471.4 | 1465.9 | 1467.9 | 1454.2 | 1439.9 | 1414.9 | 1373.7 | 1353.9 | 1322.9 | 1263.8 | 1196.2 |
| 10° | 1487.2 | 1484.1 | 1497.3 | 1502.4 | 1502.4 | 1486.7 | 1446.5 | 1426.7 | 1381.4 | 1306.1 | 1213.0 |
| 12.5° | 1398.7 | 1399.1 | 1432.2 | 1471.9 | 1523.9 | 1538.6 | 1511.6 | 1490.2 | 1445.5 | 1350.8 | 1234.3 |
| 15° | 1295.4 | 1295.9 | 1328.0 | 1378.8 | 1463.8 | 1548.8 | 1570.1 | 1556.4 | 1510.1 | 1399.1 | 1259.2 |
| 17.5° | 1233.3 | 1230.7 | 1252.1 | 1293.9 | 1382.9 | 1502.4 | 1605.8 | 1614.9 | 1577.3 | 1452.6 | 1286.7 |
| 20° | 1224.7 | 1220.1 | 1231.2 | 1252.1 | 1315.7 | 1444.4 | 1609.8 | 1653.0 | 1646.5 | 1513.1 | 1318.3 |
| 22.5° | 1277.6 | 1270.5 | 1264.3 | 1265.4 | 1292.3 | 1396.2 | 1599.6 | 1674.4 | 1717.7 | 1585.9 | 1361.5 |
| 25° | 1382.4 | 1371.1 | 1351.4 | 1325.9 | 1320.3 | 1385.9 | 1592.5 | 1697.8 | 1783.8 | 1679.1 | 1418.5 |
| 27.5° | 1510.6 | 1494.9 | 1456.6 | 1418.5 | 1385.9 | 1414.4 | 1607.3 | 1735.0 | 1858.6 | 1787.4 | 1484.6 |
| 30° | 1651.6 | 1632.2 | 1594.1 | 1521.8 | 1469.8 | 1478.0 | 1642.4 | 1783.8 | 1954.3 | 1910.0 | 1567.5 |
| 32.5° | 1858.6 | 1813.8 | 1747.2 | 1636.8 | 1568.0 | 1546.7 | 1695.2 | 1845.9 | 2072.9 | 2073.4 | 1687.7 |
| 35° | 2036.2 | 2011.3 | 1944.1 | 1806.7 | 1665.8 | 1637.7 | 1764.9 | 1933.4 | 2237.2 | 2289.5 | 1855.6 |
| 37.5° | 2152.7 | 2118.6 | 2059.5 | 1956.3 | 1817.4 | 1731.4 | 1858.1 | 2040.8 | 2411.1 | 2535.8 | 2062.6 |
| 40° | 2283.0 | 2249.4 | 2171.1 | 2073.8 | 1993.4 | 1892.2 | 1975.6 | 2164.4 | 2602.0 | 2788.7 | 2299.2 |
| 42.5° | 2440.1 | 2396.4 | 2303.8 | 2199.0 | 2115.1 | 2103.8 | 2129.3 | 2318.5 | 2797.8 | 3063.4 | 2545.5 |
| 45° | 2624.8 | 2583.6 | 2477.3 | 2345.0 | 2271.2 | 2251.4 | 2322.6 | 2498.1 | 3016.1 | 3364.7 | 2794.3 |
| 47.5° | 2797.8 | 2750.0 | 2635.6 | 2514.9 | 2433.0 | 2370.4 | 2528.2 | 2710.3 | 3263.4 | 3679.5 | 3029.4 |
| 50° | 2944.9 | 2896.0 | 2791.2 | 2662.5 | 2607.1 | 2525.1 | 2730.2 | 2946.9 | 3508.6 | 3999.6 | 3244.0 |
| 52.5° | 3045.6 | 3002.3 | 2879.2 | 2791.7 | 2754.1 | 2712.9 | 2966.8 | 3197.8 | 3752.8 | 4292.7 | 3456.2 |
| 55° | 3022.7 | 2984.1 | 2875.6 | 2869.6 | 2867.0 | 2910.3 | 3249.7 | 3482.1 | 4001.6 | 4570.0 | 3667.3 |
| 57.5° | 2950.0 | 2906.2 | 2770.9 | 2864.0 | 2954.0 | 3086.3 | 3555.9 | 3818.4 | 4274.4 | 4831.4 | 3870.9 |
| 60° | 2735.7 | 2720.5 | 2638.0 | 2853.3 | 2990.6 | 3258.8 | 3906.0 | 4156.3 | 4569.4 | 5061.4 | 4051.5 |
| 62.5° | 2282.5 | 2295.7 | 2295.2 | 2875.6 | 3056.9 | 3455.2 | 4224.0 | 4498.2 | 4857.9 | 5282.7 | 4212.2 |
| 65° | 1709.0 | 1754.8 | 1813.3 | 2674.2 | 3145.3 | 3805.7 | 4604.1 | 4869.2 | 5151.0 | 5540.2 | 4375.6 |
| 67.5° | 1148.3 | 1185.0 | 1224.7 | 2193.9 | 2881.8 | 4174.1 | 5235.5 | 5377.4 | 5502.1 | 5825.7 | 4559.3 |
| 70° | 657.3 | 669.0 | 724.5 | 1370.2 | 2221.4 | 4072.3 | 6263.7 | 6315.1 | 6025.6 | 6177.3 | 4693.1 |
| 72.5° | 368.4 | 364.3 | 437.6 | 650.3 | 1241.5 | 3487.3 | 6624.0 | 7125.1 | 6494.2 | 6171.6 | 4394.4 |
| 75° | 246.2 | 246.7 | 301.2 | 410.1 | 483.9 | 2441.1 | 5708.1 | 6606.6 | 6213.3 | 5472.6 | 3590.6 |
| 77.5° | 167.9 | 173.5 | 221.3 | 316.9 | 223.9 | 1191.0 | 3776.2 | 4628.0 | 5030.4 | 4226.0 | 2478.9 |
| 80° | 72.8 | 73.3 | 146.1 | 227.4 | 151.1 | 379.0 | 1957.9 | 2479.4 | 3155.1 | 2373.0 | 982.0 |
| 82.5° | 37.6 | 42.7 | 93.1 | 147.1 | 95.1 | 132.8 | 925.0 | 1083.2 | 1323.9 | 696.5 | 201.5 |
| 85° | 13.2 | 15.8 | 57.5 | 72.3 | 47.9 | 47.4 | 322.1 | 328.2 | 280.3 | 104.9 | 55.5 |
| 87.5° | 0.0 | 2.6 | 22.3 | 17.8 | 6.1 | 5.6 | 38.1 | 32.1 | 25.4 | 14.8 | 18.3 |
| 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° | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 | 1152.4 |
| 2.5° | 1153.4 | 1139.7 | 1117.4 | 1089.8 | 1057.8 | 1040.5 | 1015.6 | 1000.3 | 986.6 | 987.1 | 998.2 |
| 5° | 1155.0 | 1132.0 | 1075.1 | 1014.5 | 947.4 | 898.0 | 843.1 | 804.4 | 774.9 | 767.7 | 778.5 |
| 7.5° | 1159.6 | 1120.8 | 1027.8 | 927.0 | 815.1 | 732.2 | 656.3 | 608.5 | 581.6 | 574.4 | 581.6 |
| 10° | 1165.6 | 1108.6 | 974.4 | 820.2 | 681.3 | 581.6 | 518.4 | 487.9 | 475.7 | 466.6 | 472.1 |
| 12.5° | 1170.8 | 1095.9 | 907.1 | 709.8 | 562.2 | 484.4 | 436.5 | 411.1 | 400.5 | 393.8 | 397.4 |
| 15° | 1179.4 | 1079.1 | 834.5 | 607.0 | 481.9 | 418.2 | 372.9 | 354.1 | 351.1 | 352.1 | 353.6 |
| 17.5° | 1188.0 | 1062.8 | 753.0 | 526.6 | 422.8 | 360.2 | 332.7 | 329.7 | 333.7 | 337.8 | 339.4 |
| 20° | 1197.7 | 1039.5 | 670.6 | 466.1 | 368.4 | 320.0 | 312.9 | 315.0 | 316.9 | 324.1 | 326.2 |
| 22.5° | 1212.0 | 1009.9 | 598.3 | 414.7 | 323.1 | 300.7 | 297.1 | 298.7 | 300.2 | 307.3 | 309.3 |
| 25° | 1232.3 | 978.4 | 539.9 | 367.4 | 294.6 | 285.0 | 281.4 | 281.4 | 283.4 | 290.0 | 292.5 |
| 27.5° | 1253.7 | 933.7 | 492.5 | 323.6 | 277.8 | 267.6 | 261.5 | 261.5 | 264.0 | 271.7 | 274.7 |
| 30° | 1277.6 | 892.9 | 455.4 | 291.0 | 263.5 | 250.3 | 242.2 | 240.2 | 243.2 | 252.9 | 255.4 |
| 32.5° | 1320.8 | 866.4 | 428.9 | 275.7 | 250.8 | 234.5 | 223.3 | 217.8 | 220.8 | 232.0 | 235.0 |
| 35° | 1386.4 | 860.4 | 410.6 | 268.1 | 238.6 | 220.3 | 204.5 | 195.9 | 198.4 | 210.1 | 213.7 |
| 37.5° | 1463.3 | 873.1 | 392.8 | 258.0 | 226.9 | 206.5 | 185.7 | 174.6 | 178.6 | 189.3 | 192.3 |
| 40° | 1573.7 | 926.0 | 379.0 | 250.3 | 215.2 | 190.2 | 166.9 | 155.7 | 162.3 | 171.5 | 173.0 |
| 42.5° | 1707.0 | 1020.1 | 375.5 | 243.2 | 201.0 | 173.0 | 149.5 | 141.4 | 146.6 | 155.2 | 156.7 |
| 45° | 1872.4 | 1140.2 | 391.8 | 234.0 | 185.2 | 156.2 | 135.8 | 131.3 | 132.8 | 141.4 | 145.5 |
| 47.5° | 2049.9 | 1263.3 | 436.5 | 225.9 | 171.5 | 142.5 | 125.2 | 121.1 | 120.0 | 128.2 | 133.4 |
| 50° | 2229.5 | 1372.7 | 489.4 | 219.8 | 161.7 | 131.3 | 117.1 | 111.9 | 109.4 | 114.5 | 116.5 |
| 52.5° | 2407.1 | 1459.7 | 524.1 | 209.6 | 152.1 | 120.0 | 109.9 | 102.3 | 97.7 | 100.2 | 102.3 |
| 55° | 2587.2 | 1536.1 | 526.1 | 194.3 | 143.0 | 113.0 | 102.8 | 94.1 | 88.6 | 88.6 | 89.6 |
| 57.5° | 2755.6 | 1603.2 | 496.1 | 174.0 | 130.3 | 106.3 | 93.1 | 86.0 | 79.8 | 77.8 | 78.3 |
| 60° | 2904.6 | 1653.0 | 446.2 | 151.1 | 119.1 | 97.7 | 83.4 | 77.8 | 70.2 | 66.1 | 65.1 |
| 62.5° | 3037.5 | 1677.5 | 378.0 | 127.7 | 105.4 | 87.5 | 74.3 | 68.2 | 58.0 | 52.9 | 52.4 |
| 65° | 3149.9 | 1652.5 | 306.8 | 105.8 | 93.6 | 76.4 | 63.6 | 57.5 | 46.3 | 40.2 | 40.2 |
| 67.5° | 3261.3 | 1538.6 | 232.0 | 89.1 | 81.4 | 64.1 | 52.4 | 46.8 | 38.6 | 33.6 | 33.6 |
| 70° | 3275.6 | 1299.0 | 162.3 | 74.8 | 67.6 | 49.3 | 42.2 | 38.6 | 31.6 | 27.0 | 26.4 |
| 72.5° | 2915.9 | 934.7 | 98.7 | 61.1 | 52.9 | 35.2 | 33.6 | 30.5 | 23.4 | 20.4 | 19.9 |
| 75° | 2330.7 | 572.9 | 58.0 | 45.8 | 35.2 | 24.9 | 24.9 | 21.8 | 15.8 | 13.2 | 13.2 |
| 77.5° | 1610.8 | 299.7 | 34.1 | 29.5 | 20.9 | 14.8 | 16.3 | 13.2 | 7.6 | 6.1 | 6.1 |
| 80° | 645.1 | 114.0 | 18.3 | 13.7 | 9.6 | 6.7 | 5.6 | 3.1 | 1.5 | 1.0 | 1.5 |
| 82.5° | 128.7 | 30.0 | 6.1 | 3.6 | 3.6 | 1.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 33.1 | 6.7 | 1.5 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 10.1 | 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)