

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: P961843

Luminaire Tested: **NAV-SB2B-722-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961843
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-16)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2B-722-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 2200K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9662.7 lumens
Efficiency: N/A
Efficacy: 130.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

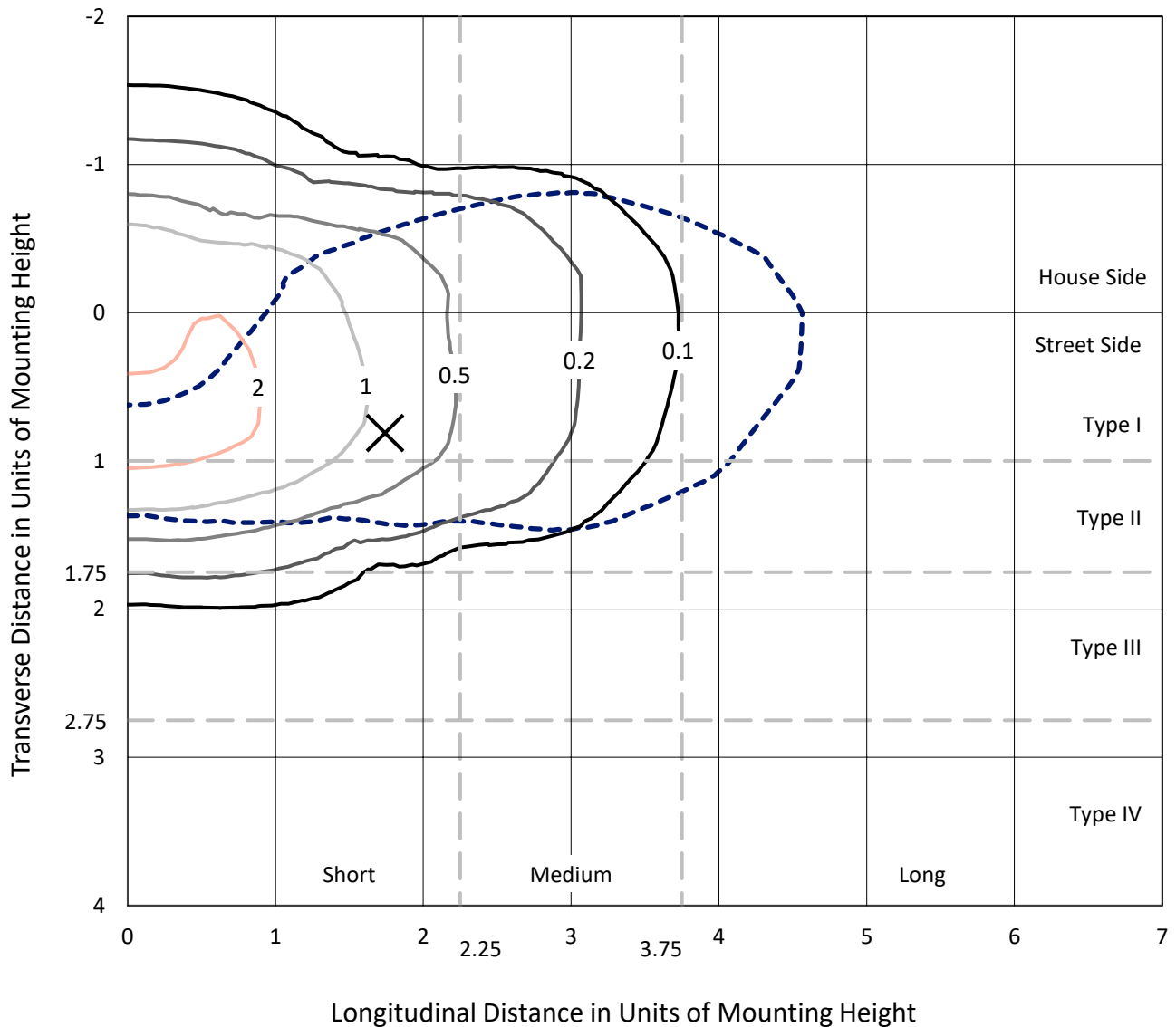
Input Watts (W): 73.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

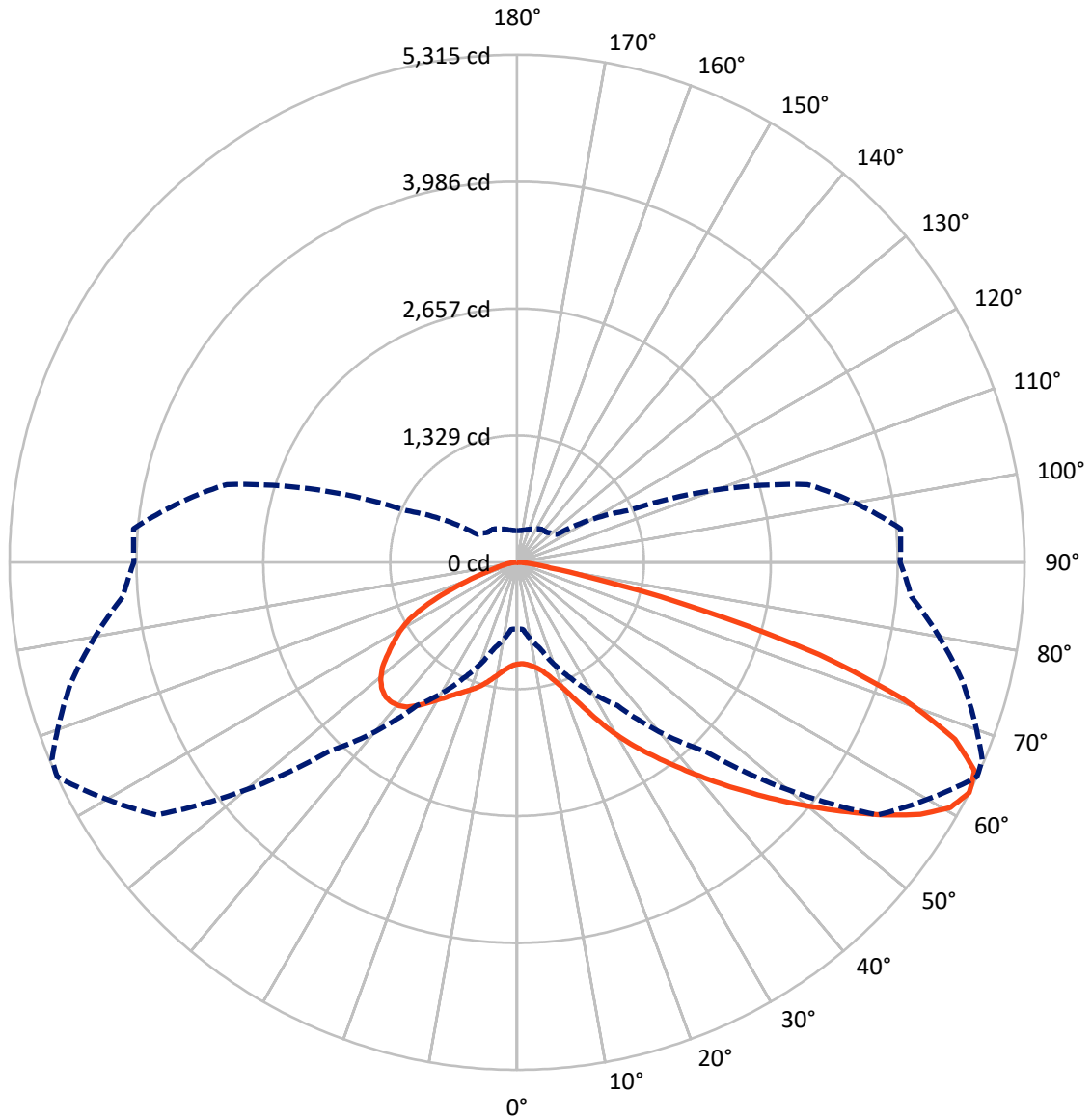
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.7 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 65-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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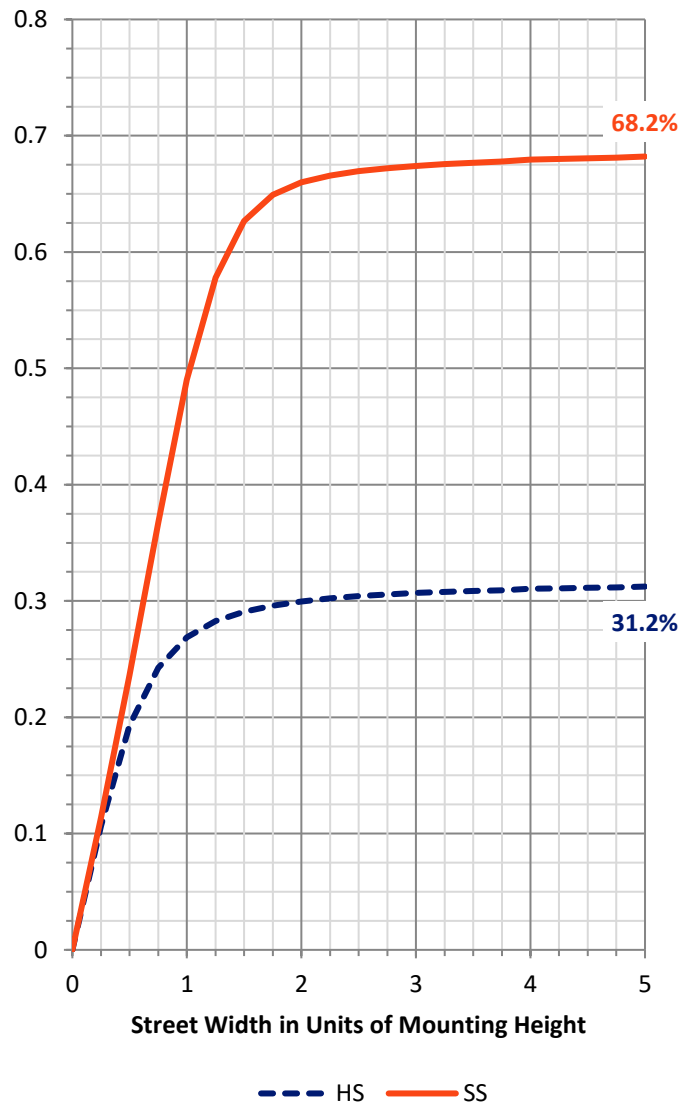
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 3049.1 | 0.0 | 3049.1 |
| | % Fixture | 31.6 | 0.0 | 31.6 |
| Street Side | Lumens | 6613.6 | 0.0 | 6613.6 |
| | % Fixture | 68.4 | 0.0 | 68.4 |
| Total | Lumens | 9662.7 | 0.0 | 9662.7 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 106.2 | 1.1 |
| 10°-20° | 360.0 | 3.7 |
| 20°-30° | 729.9 | 7.6 |
| 30°-40° | 1263.1 | 13.1 |
| 40°-50° | 1911.5 | 19.8 |
| 50°-60° | 2241.1 | 23.2 |
| 60°-70° | 1878.9 | 19.4 |
| 70°-80° | 1037.3 | 10.7 |
| 80°-90° | 134.7 | 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° | 9662.7 | 100.0 |
| 0°-180° | 9662.7 | 100.0 |

Coefficient of Utilization

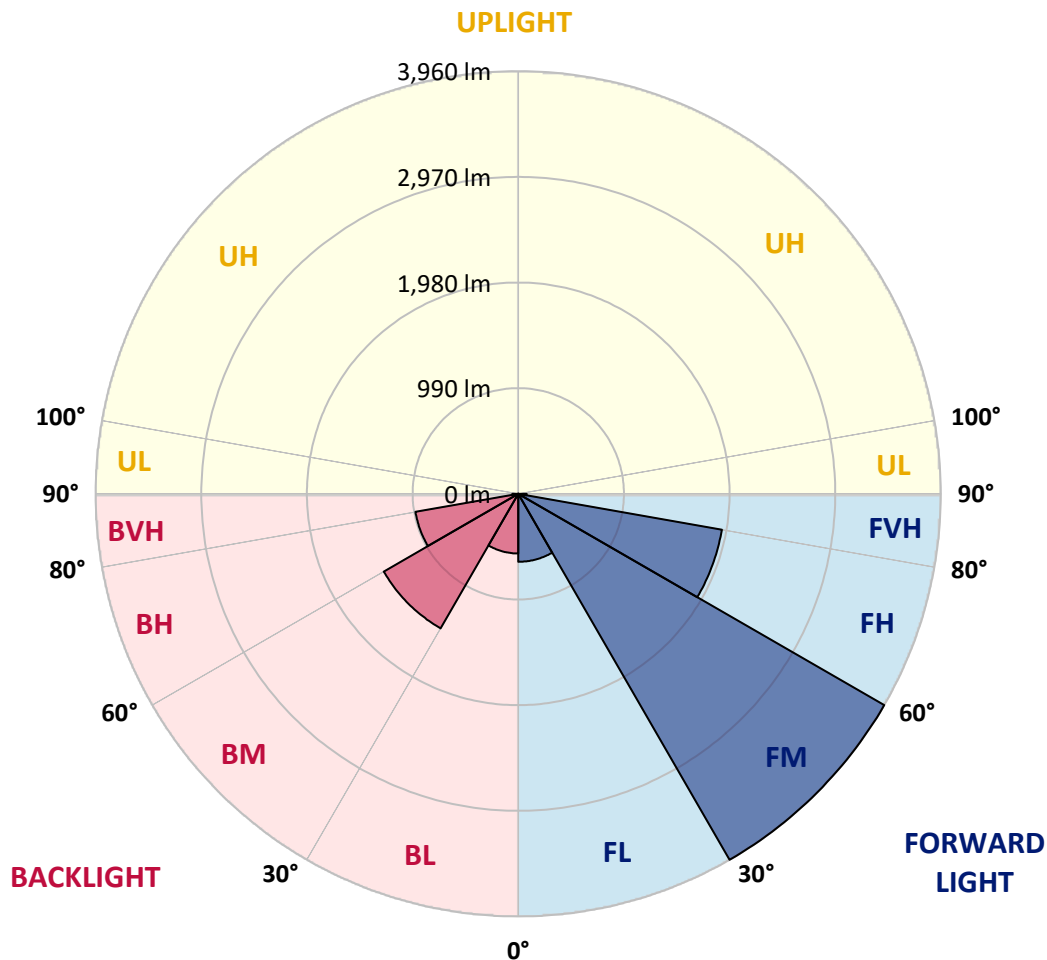


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 636.9 | 6.6 | | | |
| FM (30°-60°) | 3960.1 | 41.0 | | | |
| FH (60°-80°) | 1938.1 | 20.1 | | | G2/5000 |
| FVH (80°-90°) | 78.5 | 0.8 | | | G1/100 |
| BL (0°-30°) | 559.2 | 5.8 | B2/1000 | | |
| BM (30°-60°) | 1455.6 | 15.1 | B2/2500 | | |
| BH (60°-80°) | 978.1 | 10.1 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 56.2 | 0.6 | | | 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 Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 |
| 2.5° | 1057.8 | 1054.7 | 1057.3 | 1057.3 | 1058.3 | 1057.8 | 1061.3 | 1062.3 | 1063.7 | 1066.8 | 1066.8 |
| 5° | 1047.2 | 1046.7 | 1051.2 | 1055.2 | 1059.2 | 1062.8 | 1067.3 | 1073.8 | 1074.8 | 1078.3 | 1082.8 |
| 7.5° | 1043.8 | 1040.7 | 1047.8 | 1052.8 | 1062.3 | 1070.8 | 1082.8 | 1093.9 | 1098.4 | 1099.9 | 1108.4 |
| 10° | 1070.8 | 1065.8 | 1072.4 | 1075.3 | 1083.3 | 1091.8 | 1105.9 | 1123.4 | 1128.4 | 1134.5 | 1144.0 |
| 12.5° | 1116.9 | 1111.4 | 1120.9 | 1125.4 | 1132.9 | 1140.5 | 1150.0 | 1167.1 | 1169.5 | 1180.6 | 1189.6 |
| 15° | 1180.1 | 1173.5 | 1179.6 | 1185.1 | 1197.6 | 1204.7 | 1214.2 | 1230.7 | 1230.7 | 1239.2 | 1245.8 |
| 17.5° | 1265.8 | 1257.3 | 1261.8 | 1263.8 | 1271.8 | 1282.4 | 1298.4 | 1312.9 | 1320.4 | 1317.4 | 1308.4 |
| 20° | 1393.7 | 1383.1 | 1383.1 | 1373.1 | 1370.1 | 1378.6 | 1399.6 | 1419.7 | 1427.7 | 1412.1 | 1390.1 |
| 22.5° | 1585.7 | 1570.6 | 1562.1 | 1528.0 | 1514.4 | 1515.5 | 1536.5 | 1561.1 | 1567.6 | 1540.1 | 1490.4 |
| 25° | 1829.8 | 1806.3 | 1794.7 | 1744.6 | 1714.0 | 1687.5 | 1704.0 | 1735.5 | 1744.6 | 1710.5 | 1630.3 |
| 27.5° | 2073.9 | 2075.4 | 2064.4 | 2004.3 | 1953.6 | 1905.0 | 1896.5 | 1929.6 | 1939.1 | 1900.5 | 1801.2 |
| 30° | 2416.3 | 2380.8 | 2359.7 | 2287.5 | 2215.3 | 2147.1 | 2112.0 | 2125.5 | 2128.1 | 2082.0 | 1966.7 |
| 32.5° | 2711.6 | 2702.6 | 2657.4 | 2594.3 | 2501.5 | 2394.8 | 2336.1 | 2314.6 | 2310.6 | 2244.9 | 2108.0 |
| 35° | 3047.9 | 3042.9 | 2995.4 | 2920.1 | 2819.9 | 2671.5 | 2565.7 | 2504.1 | 2499.1 | 2406.8 | 2247.9 |
| 37.5° | 3389.9 | 3389.9 | 3343.2 | 3261.0 | 3157.3 | 2971.8 | 2810.9 | 2713.1 | 2697.1 | 2576.7 | 2390.3 |
| 40° | 3662.5 | 3646.0 | 3654.5 | 3620.0 | 3501.2 | 3304.2 | 3083.1 | 2941.2 | 2919.6 | 2775.3 | 2541.7 |
| 42.5° | 3817.5 | 3812.0 | 3863.1 | 3901.7 | 3853.1 | 3695.6 | 3382.8 | 3188.4 | 3158.2 | 2993.8 | 2716.1 |
| 45° | 3852.1 | 3846.1 | 3937.3 | 4078.7 | 4146.8 | 4082.2 | 3708.7 | 3448.5 | 3411.9 | 3222.4 | 2903.1 |
| 47.5° | 3772.4 | 3760.3 | 3894.2 | 4117.2 | 4335.9 | 4449.6 | 4061.7 | 3730.8 | 3677.6 | 3445.0 | 3095.1 |
| 50° | 3532.8 | 3521.2 | 3723.7 | 4020.0 | 4399.5 | 4699.3 | 4444.6 | 4030.0 | 3948.8 | 3683.6 | 3289.1 |
| 52.5° | 3011.9 | 3017.4 | 3334.7 | 3741.8 | 4315.8 | 4854.7 | 4774.4 | 4345.4 | 4247.6 | 3927.8 | 3471.1 |
| 55° | 2346.1 | 2358.2 | 2748.2 | 3196.4 | 3980.9 | 4831.1 | 4999.5 | 4670.2 | 4572.9 | 4157.4 | 3659.0 |
| 57.5° | 1679.9 | 1733.1 | 2098.5 | 2542.1 | 3337.7 | 4457.6 | 5048.7 | 4979.0 | 4884.7 | 4408.0 | 3843.0 |
| 60° | 1088.9 | 1098.4 | 1474.4 | 1921.6 | 2541.7 | 3793.9 | 4948.9 | 5213.2 | 5139.5 | 4663.6 | 3997.0 |
| 62.5° | 697.8 | 704.4 | 933.5 | 1344.0 | 1829.3 | 2806.9 | 4613.1 | 5314.9 | 5292.4 | 4832.7 | 4144.8 |
| 65° | 512.8 | 507.8 | 627.1 | 888.4 | 1232.3 | 1731.0 | 3960.9 | 5265.7 | 5310.4 | 4938.4 | 4267.2 |
| 67.5° | 428.1 | 421.1 | 479.8 | 615.1 | 907.8 | 983.1 | 2930.7 | 4946.4 | 5109.8 | 4926.4 | 4356.9 |
| 70° | 390.0 | 384.0 | 419.6 | 456.7 | 708.4 | 658.3 | 1477.3 | 4300.3 | 4551.9 | 4789.5 | 4342.3 |
| 72.5° | 330.4 | 319.8 | 368.5 | 405.6 | 550.9 | 504.8 | 610.6 | 3303.2 | 3609.9 | 4350.9 | 4137.8 |
| 75° | 256.1 | 249.2 | 290.8 | 356.9 | 414.1 | 394.0 | 386.0 | 2005.7 | 2340.6 | 3364.8 | 3620.0 |
| 77.5° | 203.1 | 193.5 | 231.6 | 278.2 | 372.5 | 297.2 | 281.3 | 863.8 | 1195.7 | 2148.1 | 2708.6 |
| 80° | 152.9 | 144.4 | 176.0 | 220.1 | 286.3 | 224.1 | 181.9 | 352.4 | 450.7 | 1088.3 | 1362.0 |
| 82.5° | 108.8 | 101.3 | 122.8 | 161.4 | 192.5 | 201.0 | 111.8 | 197.5 | 222.1 | 419.6 | 304.3 |
| 85° | 69.7 | 65.2 | 82.2 | 101.3 | 122.3 | 129.4 | 68.2 | 103.3 | 113.3 | 172.9 | 126.8 |
| 87.5° | 38.1 | 31.1 | 44.1 | 47.2 | 56.7 | 51.7 | 32.6 | 37.6 | 40.6 | 62.6 | 53.6 |
| 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° | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 | 1064.8 |
| 2.5° | 1068.8 | 1070.3 | 1075.3 | 1076.9 | 1080.4 | 1084.9 | 1087.8 | 1090.8 | 1090.8 | 1093.9 | 1093.9 |
| 5° | 1083.3 | 1086.8 | 1097.4 | 1102.9 | 1111.9 | 1120.9 | 1126.5 | 1132.9 | 1136.9 | 1139.0 | 1140.0 |
| 7.5° | 1111.4 | 1116.9 | 1132.0 | 1141.4 | 1157.0 | 1169.5 | 1178.0 | 1187.2 | 1189.1 | 1194.6 | 1192.6 |
| 10° | 1149.5 | 1156.0 | 1173.1 | 1191.2 | 1209.7 | 1225.2 | 1233.2 | 1239.7 | 1242.3 | 1243.2 | 1240.8 |
| 12.5° | 1193.1 | 1202.6 | 1224.7 | 1246.8 | 1266.3 | 1279.8 | 1281.9 | 1280.3 | 1273.4 | 1267.3 | 1267.3 |
| 15° | 1246.8 | 1255.3 | 1279.8 | 1303.9 | 1323.0 | 1325.4 | 1312.9 | 1304.9 | 1296.4 | 1294.9 | 1294.9 |
| 17.5° | 1311.0 | 1315.5 | 1338.0 | 1361.6 | 1363.0 | 1354.5 | 1336.0 | 1328.5 | 1320.4 | 1315.0 | 1315.5 |
| 20° | 1385.6 | 1384.2 | 1400.1 | 1410.2 | 1399.6 | 1373.6 | 1345.5 | 1333.0 | 1324.9 | 1318.5 | 1319.0 |
| 22.5° | 1474.9 | 1463.3 | 1461.3 | 1458.8 | 1430.7 | 1376.1 | 1338.0 | 1321.9 | 1309.4 | 1300.4 | 1303.4 |
| 25° | 1604.7 | 1560.6 | 1530.0 | 1513.0 | 1449.8 | 1362.5 | 1313.9 | 1278.4 | 1254.8 | 1239.2 | 1245.3 |
| 27.5° | 1767.1 | 1692.9 | 1615.7 | 1574.1 | 1449.8 | 1335.0 | 1255.8 | 1198.1 | 1159.6 | 1143.5 | 1151.5 |
| 30° | 1922.0 | 1844.3 | 1730.5 | 1647.8 | 1446.3 | 1289.9 | 1162.0 | 1081.8 | 1036.7 | 1020.7 | 1030.2 |
| 32.5° | 2054.4 | 1969.6 | 1852.4 | 1728.6 | 1437.8 | 1216.7 | 1045.7 | 957.0 | 913.4 | 894.3 | 903.8 |
| 35° | 2177.2 | 2087.0 | 1974.7 | 1817.2 | 1415.2 | 1109.4 | 917.9 | 850.2 | 801.6 | 771.0 | 781.0 |
| 37.5° | 2303.1 | 2195.8 | 2090.5 | 1897.5 | 1374.6 | 984.1 | 819.7 | 762.0 | 704.9 | 663.7 | 674.8 |
| 40° | 2439.9 | 2311.6 | 2214.3 | 1945.0 | 1307.9 | 864.8 | 743.4 | 690.8 | 630.2 | 586.5 | 595.0 |
| 42.5° | 2599.8 | 2450.4 | 2352.2 | 1969.6 | 1216.7 | 780.0 | 693.8 | 642.2 | 585.1 | 549.4 | 556.5 |
| 45° | 2766.8 | 2603.3 | 2477.9 | 1969.1 | 1114.9 | 740.5 | 677.7 | 626.7 | 563.4 | 526.3 | 532.4 |
| 47.5° | 2941.6 | 2763.2 | 2586.8 | 1937.0 | 1026.6 | 746.0 | 668.7 | 593.1 | 523.4 | 487.3 | 492.3 |
| 50° | 3117.1 | 2938.2 | 2692.1 | 1876.9 | 989.1 | 733.9 | 635.2 | 545.9 | 463.7 | 431.1 | 433.2 |
| 52.5° | 3291.1 | 3124.2 | 2782.8 | 1791.2 | 951.0 | 689.3 | 592.0 | 484.7 | 439.1 | 416.6 | 416.6 |
| 55° | 3466.0 | 3308.2 | 2881.6 | 1666.3 | 855.8 | 637.1 | 519.9 | 461.7 | 419.6 | 399.0 | 397.1 |
| 57.5° | 3641.5 | 3520.7 | 2975.3 | 1541.5 | 735.9 | 573.0 | 480.2 | 433.7 | 400.1 | 382.5 | 379.5 |
| 60° | 3824.0 | 3763.8 | 3072.0 | 1426.7 | 617.7 | 490.8 | 451.2 | 411.0 | 377.0 | 357.4 | 355.9 |
| 62.5° | 4012.0 | 4031.5 | 3147.8 | 1278.9 | 508.8 | 440.6 | 425.1 | 384.0 | 351.0 | 332.4 | 331.9 |
| 65° | 4201.5 | 4289.7 | 3197.4 | 1073.8 | 412.6 | 393.0 | 397.1 | 354.4 | 320.8 | 304.8 | 304.3 |
| 67.5° | 4344.4 | 4475.7 | 3183.3 | 812.6 | 338.4 | 347.9 | 361.9 | 323.4 | 291.7 | 279.2 | 279.7 |
| 70° | 4360.5 | 4453.6 | 3045.0 | 556.5 | 283.2 | 303.8 | 322.9 | 292.7 | 260.1 | 251.1 | 251.6 |
| 72.5° | 4146.8 | 4152.9 | 2659.5 | 363.5 | 239.6 | 266.7 | 281.8 | 261.7 | 230.1 | 221.1 | 220.6 |
| 75° | 3586.9 | 3434.5 | 1952.6 | 239.6 | 200.5 | 229.1 | 243.1 | 229.1 | 198.5 | 200.5 | 193.5 |
| 77.5° | 2717.6 | 2432.3 | 1185.6 | 170.5 | 167.5 | 192.5 | 211.6 | 201.5 | 175.5 | 197.0 | 173.4 |
| 80° | 1400.1 | 1315.9 | 528.9 | 127.3 | 132.3 | 153.9 | 173.9 | 160.9 | 138.9 | 132.3 | 120.8 |
| 82.5° | 320.8 | 373.0 | 208.6 | 91.2 | 95.7 | 110.8 | 132.8 | 120.8 | 99.7 | 84.3 | 83.2 |
| 85° | 112.3 | 122.8 | 92.2 | 57.2 | 56.2 | 69.2 | 90.2 | 80.7 | 67.6 | 54.1 | 57.2 |
| 87.5° | 35.6 | 46.6 | 34.5 | 23.1 | 24.1 | 31.1 | 41.6 | 38.1 | 31.6 | 20.6 | 21.5 |
| 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)