

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: P961409

Luminaire Tested: **NAV-SB2A-735-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961409
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-SB2A-735-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 9318.3 lumens
Efficiency: N/A
Efficacy: 162.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B2 - U0 - G2

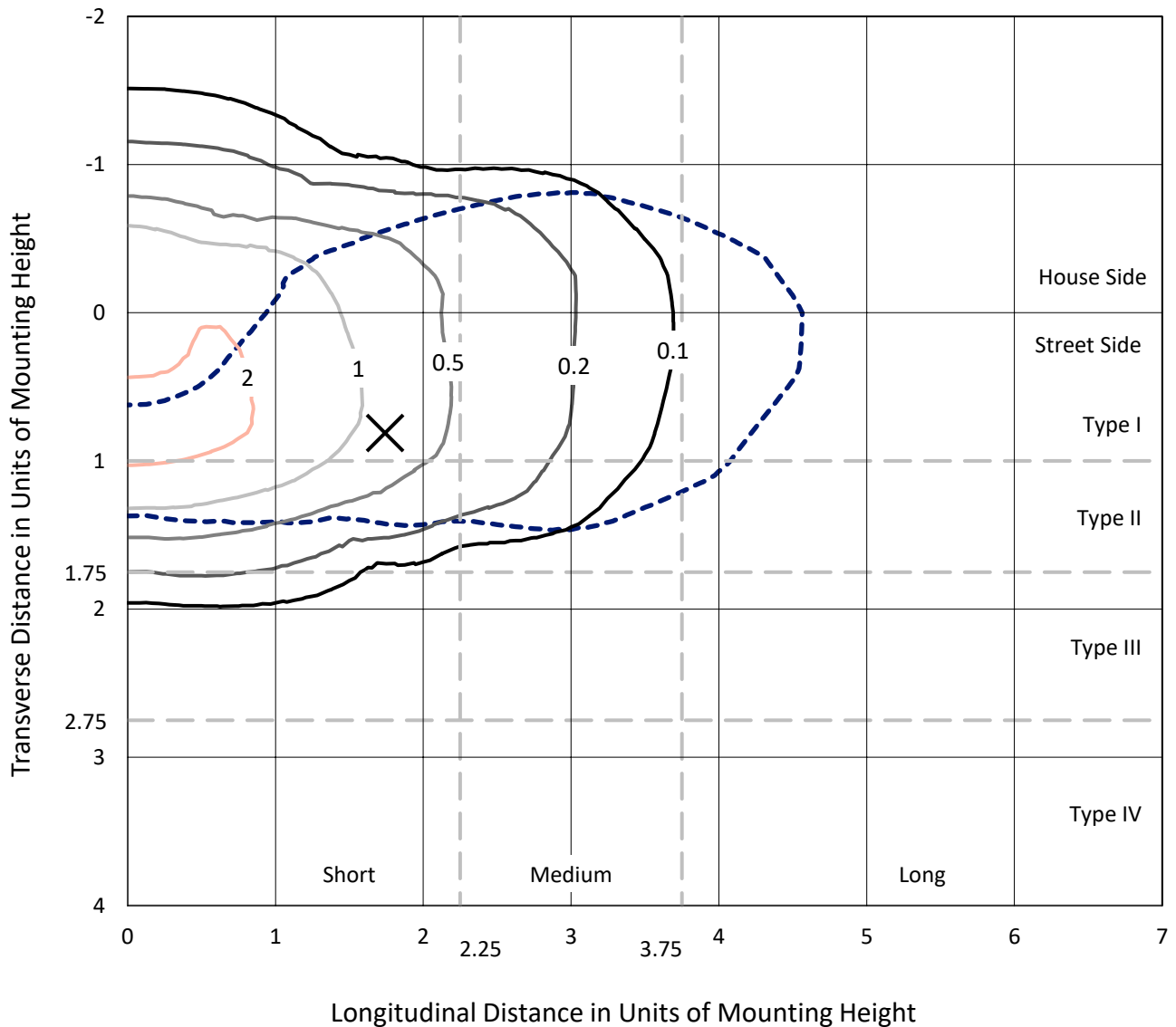
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

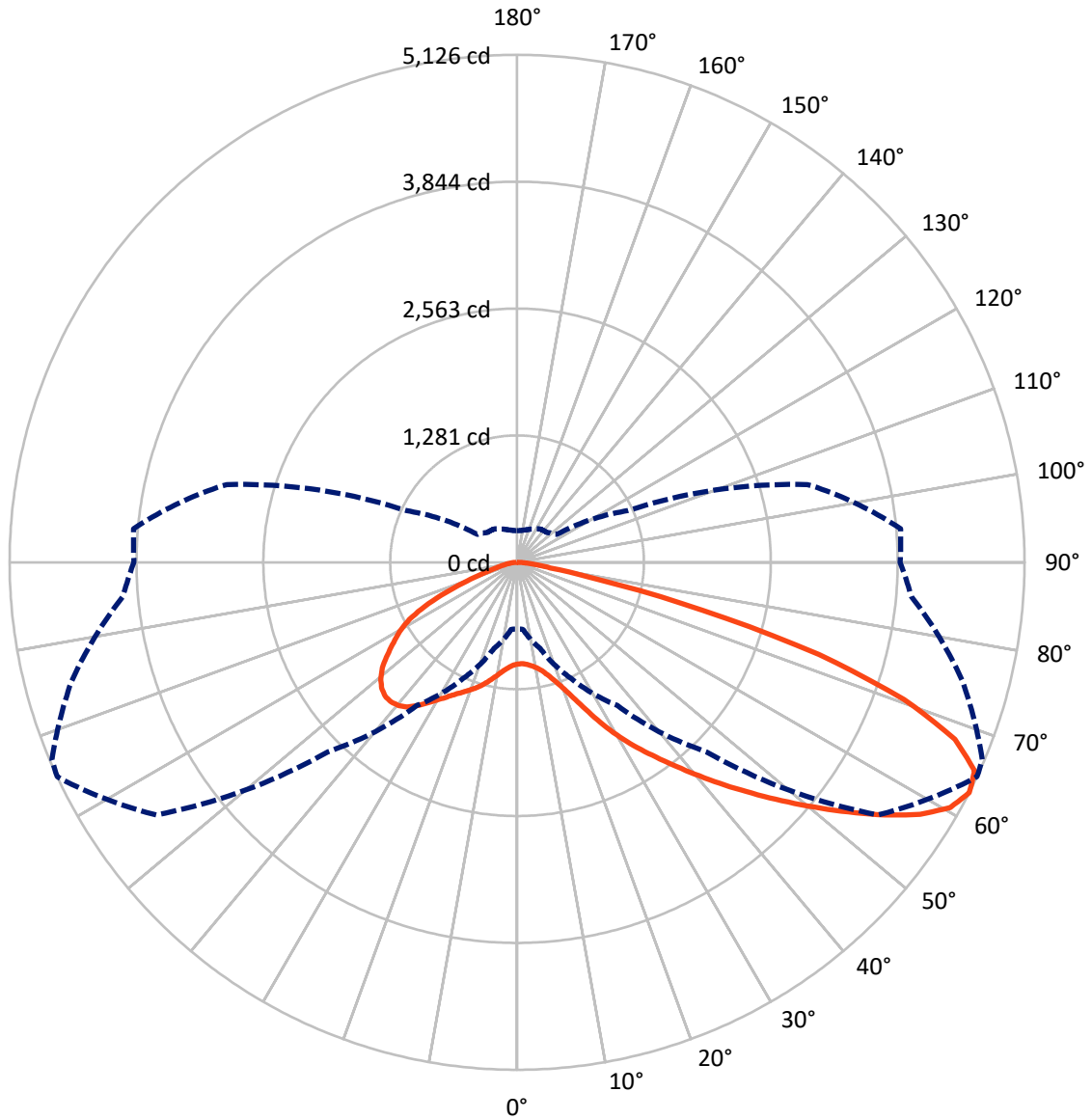
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 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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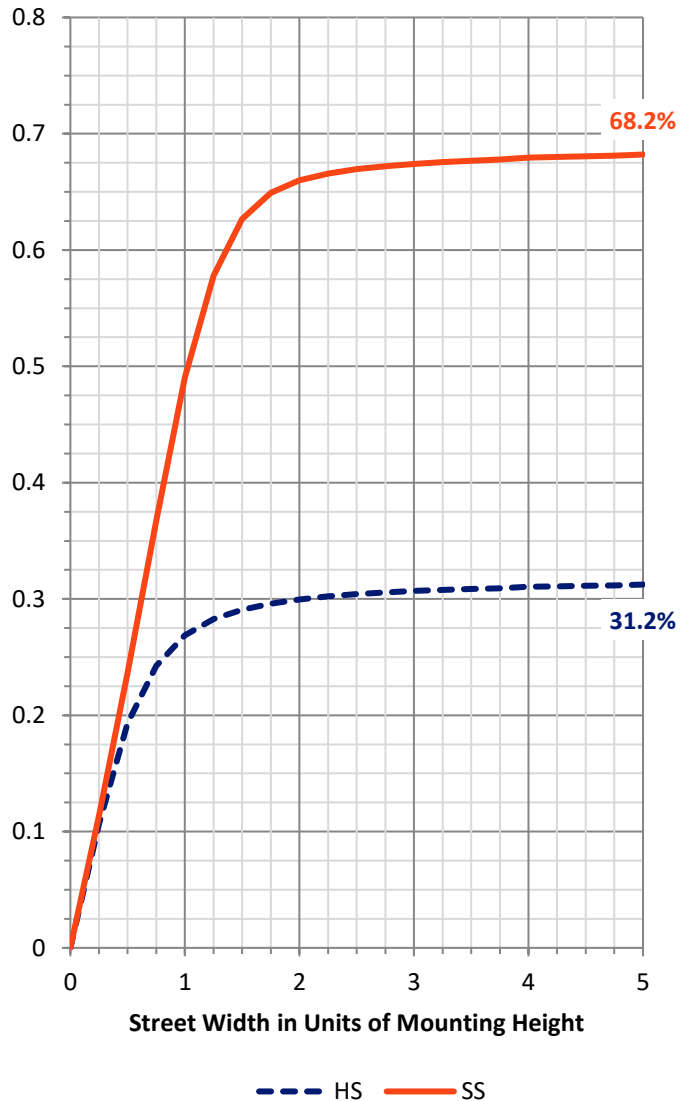
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 2940.4 | 0.0 | 2940.4 |
| | % Fixture | 31.6 | 0.0 | 31.6 |
| Street Side | Lumens | 6377.8 | 0.0 | 6377.8 |
| | % Fixture | 68.4 | 0.0 | 68.4 |
| Total | Lumens | 9318.3 | 0.0 | 9318.3 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 102.4 | 1.1 |
| 10°-20° | 347.2 | 3.7 |
| 20°-30° | 703.9 | 7.6 |
| 30°-40° | 1218.1 | 13.1 |
| 40°-50° | 1843.3 | 19.8 |
| 50°-60° | 2161.2 | 23.2 |
| 60°-70° | 1811.9 | 19.4 |
| 70°-80° | 1000.3 | 10.7 |
| 80°-90° | 129.9 | 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° | 9318.3 | 100.0 |
| 0°-180° | 9318.3 | 100.0 |

Coefficient of Utilization



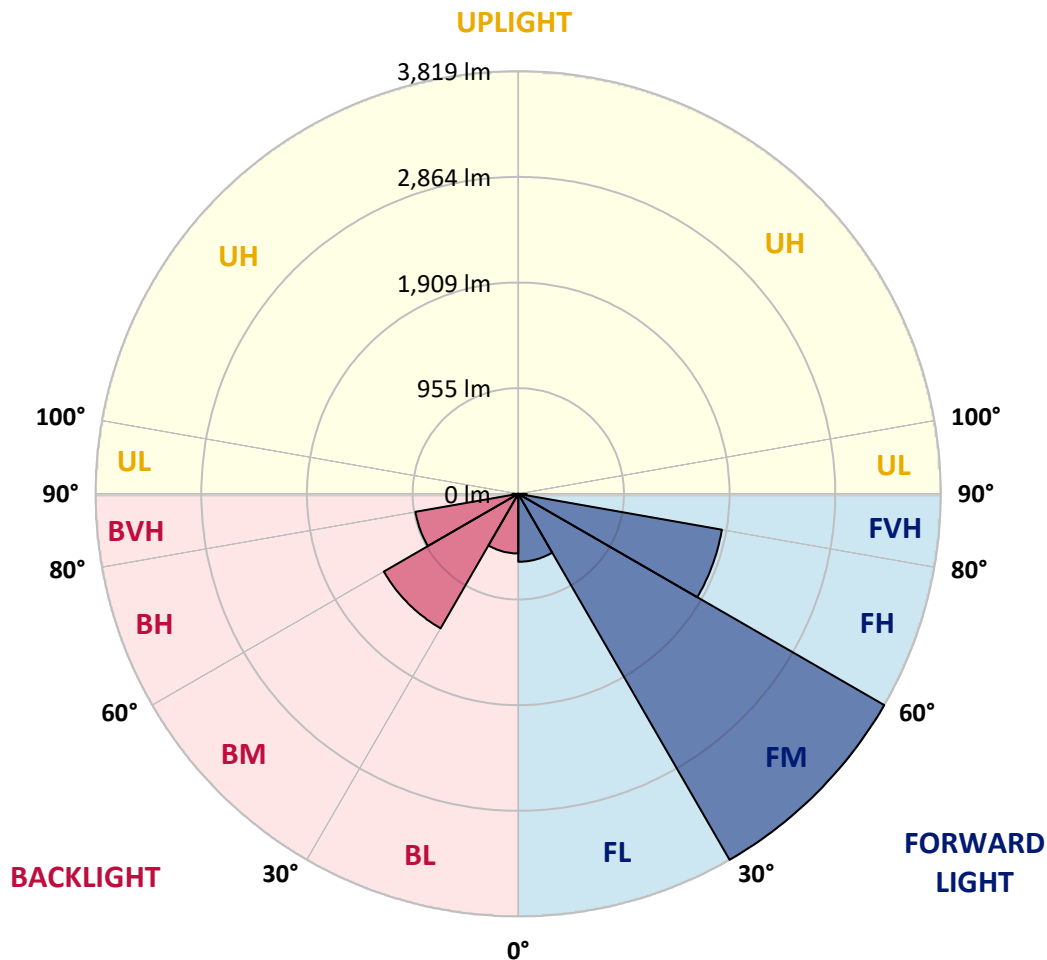
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 614.2 | 6.6 | | | |
| FM (30°-60°) | 3818.9 | 41.0 | | | |
| FH (60°-80°) | 1869.0 | 20.1 | | | G2/5000 |
| FVH (80°-90°) | 75.7 | 0.8 | | | G1/100 |
| BL (0°-30°) | 539.2 | 5.8 | B2/1000 | | |
| BM (30°-60°) | 1403.7 | 15.1 | B2/2500 | | |
| BH (60°-80°) | 943.3 | 10.1 | B2/1000 | | G2/1000 |
| BVH (80°-90°) | 54.2 | 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° | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 |
| 2.5° | 1020.1 | 1017.2 | 1019.6 | 1019.6 | 1020.6 | 1020.1 | 1023.5 | 1024.4 | 1025.8 | 1028.8 | 1028.8 |
| 5° | 1009.9 | 1009.4 | 1013.8 | 1017.6 | 1021.5 | 1024.9 | 1029.2 | 1035.6 | 1036.5 | 1039.9 | 1044.3 |
| 7.5° | 1006.6 | 1003.6 | 1010.4 | 1015.3 | 1024.4 | 1032.6 | 1044.3 | 1054.8 | 1059.2 | 1060.7 | 1068.9 |
| 10° | 1032.6 | 1027.8 | 1034.1 | 1037.0 | 1044.7 | 1053.0 | 1066.5 | 1083.4 | 1088.2 | 1094.0 | 1103.2 |
| 12.5° | 1077.1 | 1071.8 | 1081.0 | 1085.4 | 1092.5 | 1099.8 | 1109.0 | 1125.4 | 1127.9 | 1138.5 | 1147.2 |
| 15° | 1138.1 | 1131.7 | 1137.5 | 1142.9 | 1155.0 | 1161.7 | 1170.9 | 1186.8 | 1186.8 | 1195.0 | 1201.4 |
| 17.5° | 1220.7 | 1212.5 | 1216.8 | 1218.7 | 1226.5 | 1236.7 | 1252.1 | 1266.2 | 1273.4 | 1270.5 | 1261.8 |
| 20° | 1344.0 | 1333.8 | 1333.8 | 1324.2 | 1321.2 | 1329.4 | 1349.8 | 1369.1 | 1376.9 | 1361.8 | 1340.6 |
| 22.5° | 1529.1 | 1514.6 | 1506.4 | 1473.5 | 1460.5 | 1461.4 | 1481.7 | 1505.4 | 1511.8 | 1485.1 | 1437.3 |
| 25° | 1764.5 | 1741.9 | 1730.7 | 1682.3 | 1652.9 | 1627.3 | 1643.2 | 1673.7 | 1682.3 | 1649.5 | 1572.1 |
| 27.5° | 2000.0 | 2001.4 | 1990.9 | 1932.8 | 1884.0 | 1837.1 | 1828.9 | 1860.8 | 1869.9 | 1832.7 | 1737.0 |
| 30° | 2330.2 | 2295.9 | 2275.6 | 2205.9 | 2136.3 | 2070.6 | 2036.8 | 2049.8 | 2052.3 | 2007.8 | 1896.6 |
| 32.5° | 2615.0 | 2606.3 | 2562.7 | 2501.8 | 2412.3 | 2309.4 | 2252.8 | 2232.0 | 2228.1 | 2164.9 | 2032.9 |
| 35° | 2939.3 | 2934.5 | 2888.6 | 2816.1 | 2719.3 | 2576.2 | 2474.2 | 2414.8 | 2410.0 | 2321.0 | 2167.8 |
| 37.5° | 3269.0 | 3269.0 | 3224.0 | 3144.8 | 3044.8 | 2865.9 | 2710.7 | 2616.4 | 2600.9 | 2484.9 | 2305.0 |
| 40° | 3532.0 | 3516.1 | 3524.3 | 3490.9 | 3376.4 | 3186.4 | 2973.2 | 2836.4 | 2815.6 | 2676.4 | 2451.1 |
| 42.5° | 3681.4 | 3676.1 | 3725.5 | 3762.7 | 3715.7 | 3563.9 | 3262.3 | 3074.7 | 3045.7 | 2887.1 | 2619.3 |
| 45° | 3714.8 | 3709.0 | 3797.0 | 3933.3 | 3999.0 | 3936.7 | 3576.5 | 3325.6 | 3290.4 | 3107.6 | 2799.6 |
| 47.5° | 3637.9 | 3626.3 | 3755.4 | 3970.5 | 4181.3 | 4291.1 | 3916.8 | 3597.7 | 3546.5 | 3322.2 | 2984.8 |
| 50° | 3406.8 | 3395.7 | 3591.0 | 3876.8 | 4242.7 | 4531.8 | 4286.2 | 3886.4 | 3808.1 | 3552.3 | 3171.9 |
| 52.5° | 2904.5 | 2909.9 | 3215.8 | 3608.4 | 4162.0 | 4681.7 | 4604.3 | 4190.5 | 4096.2 | 3787.8 | 3347.3 |
| 55° | 2262.5 | 2274.2 | 2650.2 | 3082.5 | 3839.0 | 4658.9 | 4821.4 | 4503.7 | 4410.0 | 4009.2 | 3528.7 |
| 57.5° | 1620.0 | 1671.3 | 2023.7 | 2451.5 | 3218.8 | 4298.7 | 4868.8 | 4801.5 | 4710.7 | 4250.9 | 3706.1 |
| 60° | 1050.0 | 1059.2 | 1421.8 | 1853.0 | 2451.1 | 3658.7 | 4772.5 | 5027.3 | 4956.3 | 4497.5 | 3854.5 |
| 62.5° | 672.9 | 679.3 | 900.2 | 1296.1 | 1764.1 | 2706.8 | 4448.6 | 5125.5 | 5103.7 | 4660.4 | 3997.1 |
| 65° | 494.6 | 489.7 | 604.8 | 856.7 | 1188.3 | 1669.3 | 3819.7 | 5078.1 | 5121.1 | 4762.4 | 4115.1 |
| 67.5° | 412.9 | 406.1 | 462.7 | 593.2 | 875.6 | 948.0 | 2826.2 | 4770.1 | 4927.7 | 4750.8 | 4201.6 |
| 70° | 376.1 | 370.3 | 404.7 | 440.4 | 683.1 | 634.8 | 1424.7 | 4146.9 | 4389.7 | 4618.9 | 4187.5 |
| 72.5° | 318.6 | 308.4 | 355.4 | 391.1 | 531.3 | 486.9 | 588.9 | 3185.4 | 3481.3 | 4195.8 | 3990.3 |
| 75° | 247.0 | 240.3 | 280.4 | 344.2 | 399.3 | 380.0 | 372.3 | 1934.3 | 2257.2 | 3244.8 | 3490.9 |
| 77.5° | 195.8 | 186.7 | 223.3 | 268.3 | 359.2 | 286.7 | 271.2 | 833.0 | 1153.0 | 2071.5 | 2612.0 |
| 80° | 147.5 | 139.2 | 169.6 | 212.3 | 276.0 | 216.1 | 175.5 | 339.9 | 434.6 | 1049.6 | 1313.5 |
| 82.5° | 104.9 | 97.7 | 118.5 | 155.7 | 185.6 | 193.8 | 107.8 | 190.4 | 214.1 | 404.7 | 293.5 |
| 85° | 67.2 | 62.8 | 79.3 | 97.7 | 118.0 | 124.7 | 65.7 | 99.6 | 109.3 | 166.8 | 122.3 |
| 87.5° | 36.7 | 29.9 | 42.5 | 45.4 | 54.6 | 49.8 | 31.5 | 36.3 | 39.2 | 60.5 | 51.8 |
| 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° | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 | 1026.8 |
| 2.5° | 1030.7 | 1032.2 | 1037.0 | 1038.4 | 1041.8 | 1046.2 | 1049.1 | 1052.0 | 1052.0 | 1054.8 | 1054.8 |
| 5° | 1044.7 | 1048.1 | 1058.2 | 1063.5 | 1072.3 | 1081.0 | 1086.3 | 1092.5 | 1096.4 | 1098.4 | 1099.3 |
| 7.5° | 1071.8 | 1077.1 | 1091.6 | 1100.8 | 1115.8 | 1127.9 | 1136.1 | 1144.8 | 1146.8 | 1152.0 | 1150.2 |
| 10° | 1108.5 | 1114.8 | 1131.3 | 1148.6 | 1166.6 | 1181.5 | 1189.3 | 1195.6 | 1198.0 | 1198.9 | 1196.5 |
| 12.5° | 1150.6 | 1159.8 | 1181.0 | 1202.3 | 1221.2 | 1234.2 | 1236.1 | 1234.7 | 1227.9 | 1222.1 | 1222.1 |
| 15° | 1202.3 | 1210.5 | 1234.2 | 1257.5 | 1275.8 | 1278.2 | 1266.2 | 1258.4 | 1250.2 | 1248.8 | 1248.8 |
| 17.5° | 1264.2 | 1268.5 | 1290.3 | 1313.0 | 1314.5 | 1306.3 | 1288.4 | 1281.1 | 1273.4 | 1268.0 | 1268.5 |
| 20° | 1336.2 | 1334.8 | 1350.2 | 1360.0 | 1349.8 | 1324.6 | 1297.5 | 1285.5 | 1277.8 | 1271.4 | 1271.9 |
| 22.5° | 1422.3 | 1411.2 | 1409.3 | 1406.8 | 1379.8 | 1327.1 | 1290.3 | 1274.8 | 1262.8 | 1254.1 | 1257.0 |
| 25° | 1547.5 | 1505.0 | 1475.5 | 1459.0 | 1398.1 | 1314.0 | 1267.1 | 1232.8 | 1210.0 | 1195.0 | 1200.9 |
| 27.5° | 1704.2 | 1632.6 | 1558.1 | 1518.0 | 1398.1 | 1287.4 | 1211.0 | 1155.4 | 1118.2 | 1102.7 | 1110.5 |
| 30° | 1853.5 | 1778.6 | 1668.8 | 1589.1 | 1394.7 | 1243.9 | 1120.6 | 1043.2 | 999.8 | 984.3 | 993.4 |
| 32.5° | 1981.1 | 1899.4 | 1786.4 | 1667.0 | 1386.5 | 1173.3 | 1008.5 | 922.9 | 880.8 | 862.4 | 871.7 |
| 35° | 2099.6 | 2012.6 | 1904.2 | 1752.4 | 1364.8 | 1069.9 | 885.2 | 819.9 | 773.1 | 743.5 | 753.2 |
| 37.5° | 2221.0 | 2117.4 | 2016.0 | 1829.8 | 1325.6 | 949.0 | 790.5 | 734.8 | 679.7 | 640.1 | 650.7 |
| 40° | 2352.9 | 2229.2 | 2135.4 | 1875.7 | 1261.3 | 833.9 | 717.0 | 666.1 | 607.7 | 565.6 | 573.9 |
| 42.5° | 2507.1 | 2363.0 | 2268.3 | 1899.4 | 1173.3 | 752.2 | 669.1 | 619.3 | 564.2 | 529.8 | 536.6 |
| 45° | 2668.1 | 2510.5 | 2389.7 | 1898.9 | 1075.2 | 714.0 | 653.6 | 604.3 | 543.4 | 507.6 | 513.4 |
| 47.5° | 2836.9 | 2664.7 | 2494.5 | 1868.1 | 990.0 | 719.3 | 644.9 | 571.9 | 504.7 | 469.9 | 474.8 |
| 50° | 3006.0 | 2833.5 | 2596.1 | 1810.0 | 953.9 | 707.8 | 612.5 | 526.4 | 447.2 | 415.7 | 417.7 |
| 52.5° | 3173.8 | 3012.8 | 2683.6 | 1727.3 | 917.1 | 664.7 | 570.9 | 467.5 | 423.5 | 401.7 | 401.7 |
| 55° | 3342.5 | 3190.2 | 2778.9 | 1607.0 | 825.2 | 614.5 | 501.3 | 445.3 | 404.7 | 384.8 | 382.8 |
| 57.5° | 3511.8 | 3395.2 | 2869.3 | 1486.6 | 709.7 | 552.6 | 463.1 | 418.2 | 385.8 | 368.9 | 365.9 |
| 60° | 3687.7 | 3629.7 | 2962.6 | 1375.9 | 595.6 | 473.2 | 435.1 | 396.5 | 363.6 | 344.7 | 343.3 |
| 62.5° | 3869.0 | 3887.8 | 3035.5 | 1233.3 | 490.7 | 425.0 | 410.0 | 370.3 | 338.5 | 320.5 | 320.0 |
| 65° | 4051.7 | 4136.8 | 3083.4 | 1035.6 | 397.9 | 379.0 | 382.8 | 341.8 | 309.4 | 294.0 | 293.5 |
| 67.5° | 4189.5 | 4316.2 | 3069.9 | 783.6 | 326.4 | 335.5 | 349.0 | 311.8 | 281.4 | 269.3 | 269.8 |
| 70° | 4205.0 | 4295.0 | 2936.4 | 536.6 | 273.2 | 292.9 | 311.3 | 282.3 | 250.9 | 242.2 | 242.7 |
| 72.5° | 3999.0 | 4004.9 | 2564.7 | 350.4 | 231.0 | 257.2 | 271.7 | 252.4 | 221.9 | 213.2 | 212.7 |
| 75° | 3459.1 | 3312.1 | 1883.0 | 231.0 | 193.4 | 220.9 | 234.5 | 220.9 | 191.5 | 193.4 | 186.7 |
| 77.5° | 2620.7 | 2345.7 | 1143.4 | 164.4 | 161.4 | 185.6 | 204.0 | 194.3 | 169.2 | 190.0 | 167.3 |
| 80° | 1350.2 | 1269.1 | 510.0 | 122.8 | 127.6 | 148.4 | 167.8 | 155.2 | 133.9 | 127.6 | 116.5 |
| 82.5° | 309.4 | 359.7 | 201.1 | 87.9 | 92.4 | 106.8 | 128.1 | 116.5 | 96.2 | 81.2 | 80.3 |
| 85° | 108.3 | 118.5 | 89.0 | 55.1 | 54.1 | 66.7 | 87.0 | 77.8 | 65.3 | 52.2 | 55.1 |
| 87.5° | 34.3 | 45.0 | 33.3 | 22.2 | 23.2 | 29.9 | 40.1 | 36.7 | 30.4 | 19.8 | 20.8 |
| 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)