

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: P959752

Luminaire Tested: **NAV-SB1B-727-U-SL2**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959752
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-10)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1B-727-U-SL2
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 2700K, 450mA LIGHTSQUARE WITH 26 LEDS AND TYPE II SPILL LIGHT
ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5322.8 lumens
Efficiency: N/A
Efficacy: 133.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type II - Medium
BUG Rating: B1 - U0 - G1

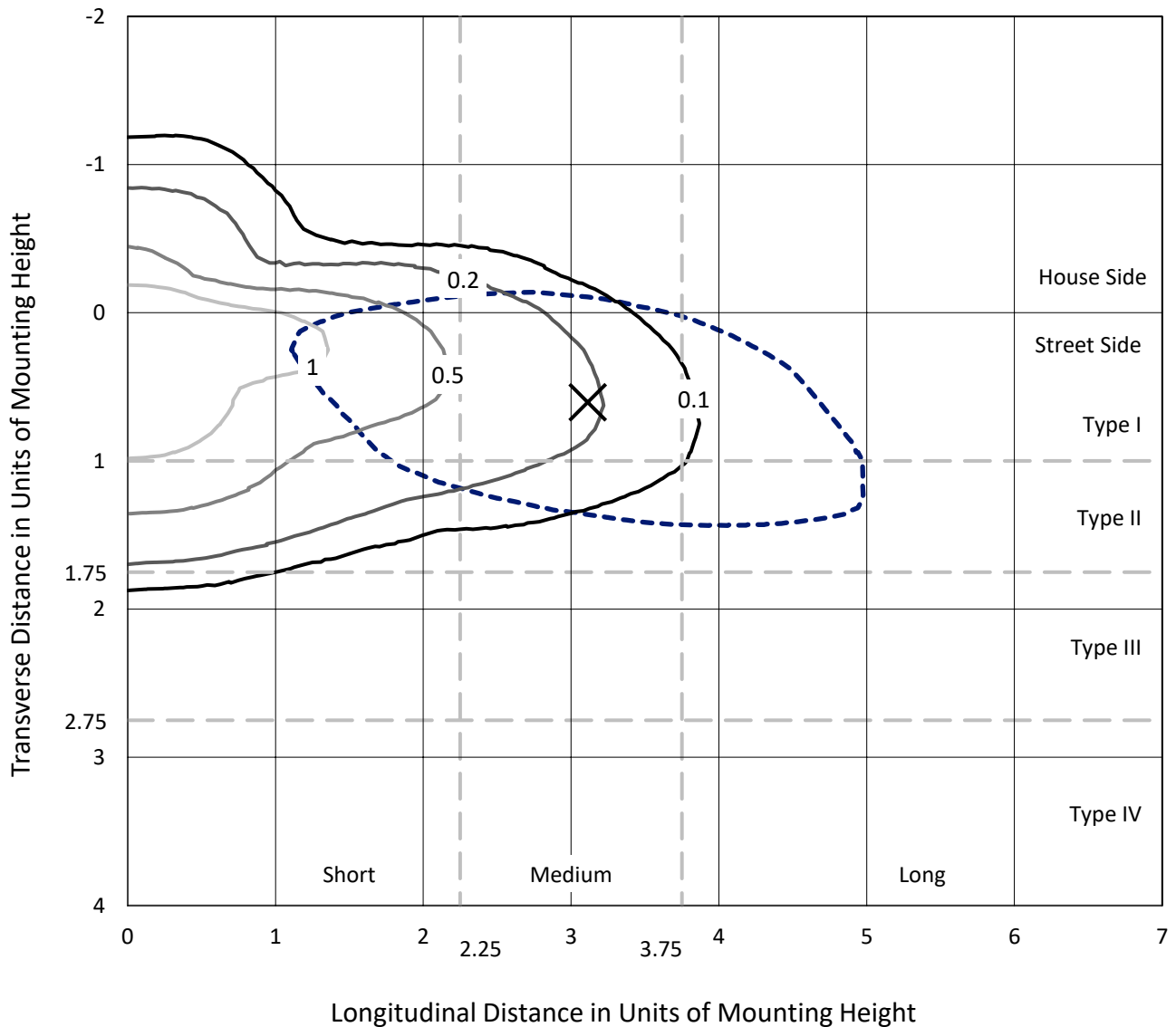
Input Watts (W): 39.8
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

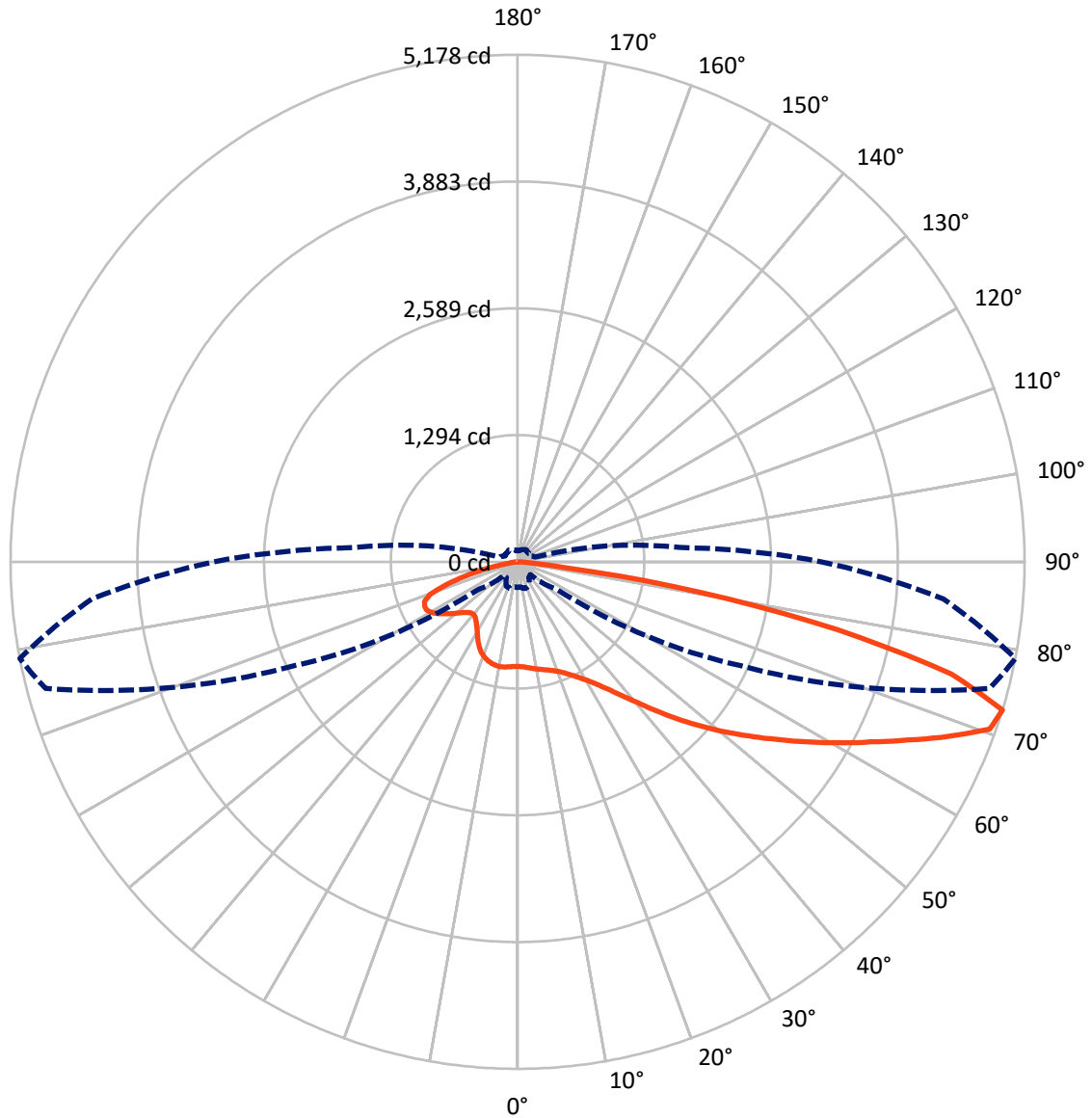
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.7 fc
 Type II - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 79-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 1171.3 | 0.0 | 1171.3 |
| | % Fixture | 22.0 | 0.0 | 22.0 |
| Street Side | Lumens | 4151.5 | 0.0 | 4151.5 |
| | % Fixture | 78.0 | 0.0 | 78.0 |
| Total | Lumens | 5322.8 | 0.0 | 5322.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 97.0 | 1.8 |
| 10°-20° | 253.6 | 4.8 |
| 20°-30° | 409.2 | 7.7 |
| 30°-40° | 614.1 | 11.5 |
| 40°-50° | 871.1 | 16.4 |
| 50°-60° | 1100.2 | 20.7 |
| 60°-70° | 1117.3 | 21.0 |
| 70°-80° | 761.5 | 14.3 |
| 80°-90° | 98.8 | 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° | 5322.8 | 100.0 |
| 0°-180° | 5322.8 | 100.0 |

Coefficient of Utilization

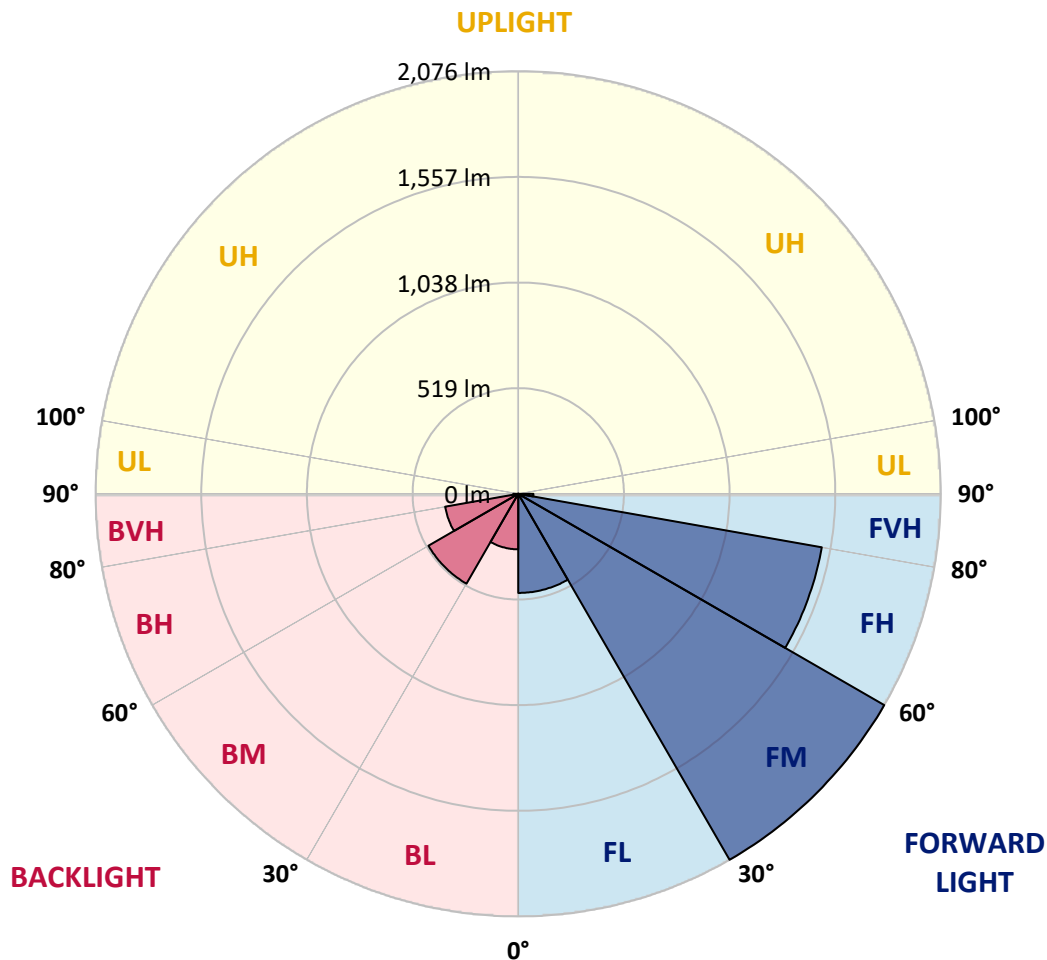


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 486.9 | 9.1 | | | |
| FM (30°-60°) | 2076.0 | 39.0 | | | |
| FH (60°-80°) | 1514.2 | 28.4 | | | G1/1800 |
| FVH (80°-90°) | 74.4 | 1.4 | | | G1/100 |
| BL (0°-30°) | 272.8 | 5.1 | B1/500 | | |
| BM (30°-60°) | 509.4 | 9.6 | B1/1000 | | |
| BH (60°-80°) | 364.7 | 6.9 | B1/500 | | G1/500 |
| BVH (80°-90°) | 24.4 | 0.5 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1
 Type II Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 79° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 |
| 2.5° | 1069.1 | 1064.1 | 1067.1 | 1066.0 | 1067.3 | 1069.1 | 1069.6 | 1070.5 | 1073.3 | 1073.0 | 1072.8 |
| 5° | 1066.8 | 1061.8 | 1066.0 | 1064.6 | 1068.3 | 1072.1 | 1075.5 | 1078.6 | 1083.1 | 1085.2 | 1082.3 |
| 7.5° | 1062.0 | 1058.6 | 1062.9 | 1067.1 | 1073.9 | 1079.7 | 1084.6 | 1091.6 | 1098.1 | 1099.2 | 1101.2 |
| 10° | 1034.1 | 1031.7 | 1041.5 | 1052.5 | 1071.0 | 1087.1 | 1097.5 | 1105.7 | 1112.7 | 1113.9 | 1116.6 |
| 12.5° | 1005.1 | 1002.0 | 1013.0 | 1028.0 | 1058.1 | 1087.1 | 1109.0 | 1119.7 | 1126.0 | 1129.7 | 1133.9 |
| 15° | 1000.4 | 997.8 | 1004.0 | 1017.0 | 1042.0 | 1079.5 | 1116.9 | 1136.6 | 1142.0 | 1146.3 | 1147.9 |
| 17.5° | 1023.5 | 1018.6 | 1021.2 | 1025.7 | 1040.4 | 1072.5 | 1123.1 | 1155.8 | 1164.0 | 1168.5 | 1168.5 |
| 20° | 1077.0 | 1070.2 | 1066.2 | 1057.3 | 1054.7 | 1073.6 | 1122.6 | 1178.9 | 1189.6 | 1195.3 | 1196.6 |
| 22.5° | 1148.2 | 1143.7 | 1135.2 | 1112.4 | 1087.6 | 1087.3 | 1133.2 | 1208.5 | 1228.5 | 1233.8 | 1230.4 |
| 25° | 1234.3 | 1227.5 | 1216.9 | 1185.9 | 1138.4 | 1114.7 | 1151.3 | 1246.2 | 1279.7 | 1281.0 | 1271.2 |
| 27.5° | 1333.4 | 1323.3 | 1308.7 | 1267.8 | 1203.7 | 1157.4 | 1178.9 | 1289.6 | 1338.5 | 1337.9 | 1317.6 |
| 30° | 1437.9 | 1427.7 | 1412.2 | 1362.7 | 1282.0 | 1215.2 | 1217.2 | 1336.3 | 1408.4 | 1405.3 | 1370.6 |
| 32.5° | 1514.2 | 1506.6 | 1503.5 | 1465.2 | 1372.1 | 1283.3 | 1261.1 | 1388.1 | 1494.6 | 1491.7 | 1443.3 |
| 35° | 1572.8 | 1562.9 | 1566.6 | 1547.1 | 1470.3 | 1359.7 | 1314.9 | 1449.8 | 1599.2 | 1599.0 | 1538.7 |
| 37.5° | 1630.8 | 1622.1 | 1625.1 | 1612.2 | 1561.3 | 1456.5 | 1380.5 | 1525.2 | 1729.1 | 1735.2 | 1654.1 |
| 40° | 1683.7 | 1674.4 | 1686.8 | 1674.7 | 1631.9 | 1559.5 | 1455.1 | 1610.5 | 1879.4 | 1891.2 | 1793.7 |
| 42.5° | 1715.5 | 1708.2 | 1728.8 | 1729.1 | 1693.3 | 1646.6 | 1537.0 | 1704.6 | 2053.4 | 2079.8 | 1965.5 |
| 45° | 1726.5 | 1723.9 | 1754.9 | 1761.5 | 1747.6 | 1697.0 | 1610.8 | 1807.1 | 2241.0 | 2288.2 | 2161.2 |
| 47.5° | 1714.7 | 1709.9 | 1752.6 | 1776.6 | 1787.6 | 1720.6 | 1671.9 | 1918.0 | 2432.3 | 2501.6 | 2374.6 |
| 50° | 1655.0 | 1645.7 | 1709.3 | 1759.7 | 1798.9 | 1736.0 | 1733.6 | 2046.1 | 2650.0 | 2725.8 | 2589.1 |
| 52.5° | 1547.7 | 1540.7 | 1613.0 | 1700.6 | 1774.1 | 1743.6 | 1802.8 | 2186.0 | 2856.7 | 2954.7 | 2809.1 |
| 55° | 1410.6 | 1401.3 | 1481.0 | 1595.3 | 1712.5 | 1741.2 | 1872.1 | 2342.5 | 3100.5 | 3199.8 | 3036.3 |
| 57.5° | 1193.2 | 1174.6 | 1275.4 | 1410.6 | 1611.9 | 1738.1 | 1944.1 | 2498.2 | 3348.3 | 3467.4 | 3278.8 |
| 60° | 876.2 | 848.6 | 972.2 | 1132.4 | 1415.4 | 1708.0 | 2033.4 | 2672.8 | 3645.6 | 3752.8 | 3543.4 |
| 62.5° | 510.1 | 494.2 | 574.9 | 724.5 | 1066.8 | 1530.5 | 2083.5 | 2875.8 | 3937.8 | 4050.5 | 3803.6 |
| 65° | 396.2 | 391.7 | 398.7 | 410.2 | 593.8 | 1145.9 | 1928.9 | 3073.8 | 4309.5 | 4388.3 | 4074.7 |
| 67.5° | 362.3 | 359.0 | 362.1 | 340.4 | 301.2 | 638.3 | 1526.0 | 3123.9 | 4707.6 | 4755.5 | 4312.1 |
| 70° | 322.1 | 318.2 | 328.3 | 309.8 | 237.1 | 290.3 | 986.0 | 2942.0 | 5024.3 | 5114.2 | 4492.5 |
| 72.5° | 262.4 | 257.9 | 281.6 | 273.1 | 199.7 | 186.3 | 495.3 | 2509.8 | 4991.1 | 5177.6 | 4363.3 |
| 75° | 201.6 | 199.1 | 227.2 | 234.2 | 162.8 | 146.7 | 237.6 | 1865.6 | 4392.3 | 4580.1 | 3760.4 |
| 77.5° | 156.5 | 154.6 | 168.9 | 194.5 | 131.2 | 113.8 | 146.2 | 1183.4 | 3309.9 | 3342.9 | 2591.4 |
| 80° | 117.4 | 111.8 | 125.0 | 150.7 | 102.2 | 83.0 | 99.1 | 690.1 | 2092.2 | 1896.6 | 1127.9 |
| 82.5° | 73.5 | 70.6 | 81.7 | 100.6 | 72.1 | 57.2 | 64.5 | 381.2 | 838.4 | 493.8 | 217.6 |
| 85° | 41.9 | 40.8 | 44.5 | 57.4 | 39.2 | 32.9 | 36.9 | 168.4 | 153.1 | 105.3 | 65.6 |
| 87.5° | 16.9 | 16.3 | 20.3 | 25.6 | 14.3 | 12.1 | 12.9 | 40.6 | 33.8 | 31.3 | 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° | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 | 1068.5 |
| 2.5° | 1071.6 | 1071.6 | 1067.6 | 1061.5 | 1054.4 | 1049.9 | 1042.6 | 1040.7 | 1033.0 | 1030.7 | 1034.4 |
| 5° | 1084.6 | 1082.3 | 1070.2 | 1052.8 | 1028.8 | 1006.9 | 982.7 | 967.4 | 946.1 | 938.4 | 944.0 |
| 7.5° | 1100.8 | 1094.7 | 1073.9 | 1035.6 | 985.4 | 936.1 | 884.9 | 846.0 | 808.9 | 795.7 | 797.3 |
| 10° | 1115.8 | 1107.1 | 1071.6 | 1004.6 | 917.9 | 832.6 | 750.9 | 693.7 | 650.4 | 632.6 | 636.6 |
| 12.5° | 1130.8 | 1114.7 | 1056.7 | 953.0 | 821.8 | 706.1 | 619.1 | 574.6 | 547.9 | 526.5 | 533.5 |
| 15° | 1144.8 | 1122.3 | 1033.6 | 884.1 | 716.6 | 599.1 | 534.9 | 499.5 | 478.1 | 464.0 | 466.6 |
| 17.5° | 1161.1 | 1128.7 | 999.0 | 796.5 | 616.3 | 525.1 | 472.7 | 451.3 | 447.1 | 445.5 | 446.6 |
| 20° | 1184.0 | 1134.7 | 953.4 | 698.5 | 542.5 | 466.0 | 438.9 | 437.0 | 436.6 | 435.8 | 438.7 |
| 22.5° | 1208.5 | 1141.7 | 893.1 | 609.6 | 479.8 | 429.1 | 424.4 | 420.4 | 417.8 | 417.6 | 420.7 |
| 25° | 1237.5 | 1144.0 | 817.6 | 536.7 | 426.3 | 411.6 | 406.0 | 400.1 | 398.4 | 398.4 | 400.1 |
| 27.5° | 1265.6 | 1136.3 | 729.8 | 473.3 | 396.2 | 395.5 | 388.3 | 386.3 | 386.0 | 386.8 | 389.1 |
| 30° | 1293.8 | 1122.0 | 642.5 | 414.7 | 378.7 | 378.7 | 376.2 | 377.6 | 378.7 | 381.5 | 383.5 |
| 32.5° | 1331.8 | 1106.8 | 569.6 | 371.4 | 363.5 | 360.7 | 363.2 | 366.0 | 367.2 | 370.8 | 373.9 |
| 35° | 1387.5 | 1096.1 | 511.6 | 347.7 | 347.7 | 344.1 | 345.4 | 344.9 | 342.3 | 340.7 | 344.6 |
| 37.5° | 1461.2 | 1095.5 | 463.7 | 336.7 | 334.5 | 333.9 | 334.3 | 330.6 | 320.7 | 308.8 | 309.1 |
| 40° | 1550.0 | 1110.7 | 426.8 | 329.1 | 327.5 | 330.9 | 329.1 | 319.3 | 292.2 | 271.7 | 271.1 |
| 42.5° | 1669.1 | 1154.1 | 403.2 | 319.8 | 324.9 | 329.1 | 322.4 | 288.3 | 270.0 | 256.2 | 255.6 |
| 45° | 1809.3 | 1224.5 | 391.0 | 310.0 | 320.1 | 325.2 | 292.5 | 277.6 | 263.0 | 246.4 | 245.3 |
| 47.5° | 1968.1 | 1313.2 | 388.3 | 300.7 | 309.4 | 312.5 | 279.8 | 273.1 | 256.5 | 238.5 | 237.1 |
| 50° | 2140.9 | 1418.2 | 395.9 | 289.8 | 294.0 | 283.2 | 275.6 | 269.5 | 252.3 | 234.5 | 232.6 |
| 52.5° | 2319.8 | 1533.9 | 411.0 | 274.8 | 278.5 | 266.6 | 274.0 | 268.7 | 249.7 | 225.8 | 224.2 |
| 55° | 2495.5 | 1650.5 | 425.7 | 257.4 | 262.7 | 251.7 | 269.2 | 265.3 | 238.2 | 211.2 | 209.7 |
| 57.5° | 2673.9 | 1766.5 | 440.0 | 241.9 | 247.5 | 237.4 | 261.6 | 256.2 | 225.3 | 197.6 | 197.1 |
| 60° | 2859.4 | 1879.1 | 446.8 | 226.9 | 230.8 | 224.2 | 250.0 | 240.8 | 210.6 | 183.9 | 183.0 |
| 62.5° | 3033.2 | 1972.8 | 435.8 | 212.0 | 214.5 | 211.8 | 234.8 | 222.4 | 196.0 | 168.4 | 168.1 |
| 65° | 3207.5 | 2028.6 | 402.1 | 197.4 | 197.9 | 196.5 | 213.4 | 202.7 | 178.8 | 154.9 | 153.1 |
| 67.5° | 3365.5 | 2059.8 | 348.3 | 181.6 | 180.2 | 179.7 | 193.4 | 181.3 | 162.2 | 141.3 | 139.6 |
| 70° | 3398.9 | 1980.5 | 266.1 | 163.0 | 163.0 | 161.6 | 171.5 | 159.1 | 143.9 | 127.0 | 126.4 |
| 72.5° | 3104.4 | 1665.9 | 188.9 | 141.9 | 144.1 | 141.3 | 149.5 | 139.1 | 125.3 | 114.0 | 110.7 |
| 75° | 2503.4 | 1221.7 | 137.4 | 120.2 | 124.1 | 119.4 | 127.0 | 119.6 | 107.8 | 107.5 | 96.9 |
| 77.5° | 1720.1 | 755.4 | 99.6 | 99.1 | 101.9 | 95.7 | 104.4 | 100.6 | 89.8 | 85.1 | 79.6 |
| 80° | 734.0 | 301.2 | 72.7 | 76.6 | 76.6 | 70.9 | 81.1 | 82.2 | 72.9 | 70.6 | 70.6 |
| 82.5° | 146.2 | 85.6 | 50.9 | 52.7 | 49.5 | 47.9 | 57.4 | 63.7 | 87.8 | 97.7 | 98.0 |
| 85° | 44.0 | 31.6 | 30.6 | 28.7 | 25.3 | 25.6 | 33.8 | 64.0 | 78.8 | 45.1 | 38.8 |
| 87.5° | 12.1 | 7.9 | 8.2 | 6.5 | 5.3 | 7.1 | 11.6 | 48.4 | 26.4 | 11.3 | 9.5 |
| 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)