

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: P963517

Luminaire Tested: **NAV-SB3A-735-U-T2U**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963517
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-SB3A-735-U-T2U
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 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: 13980 lumens
Efficiency: N/A
Efficacy: 165.1 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B3 - U0 - G3

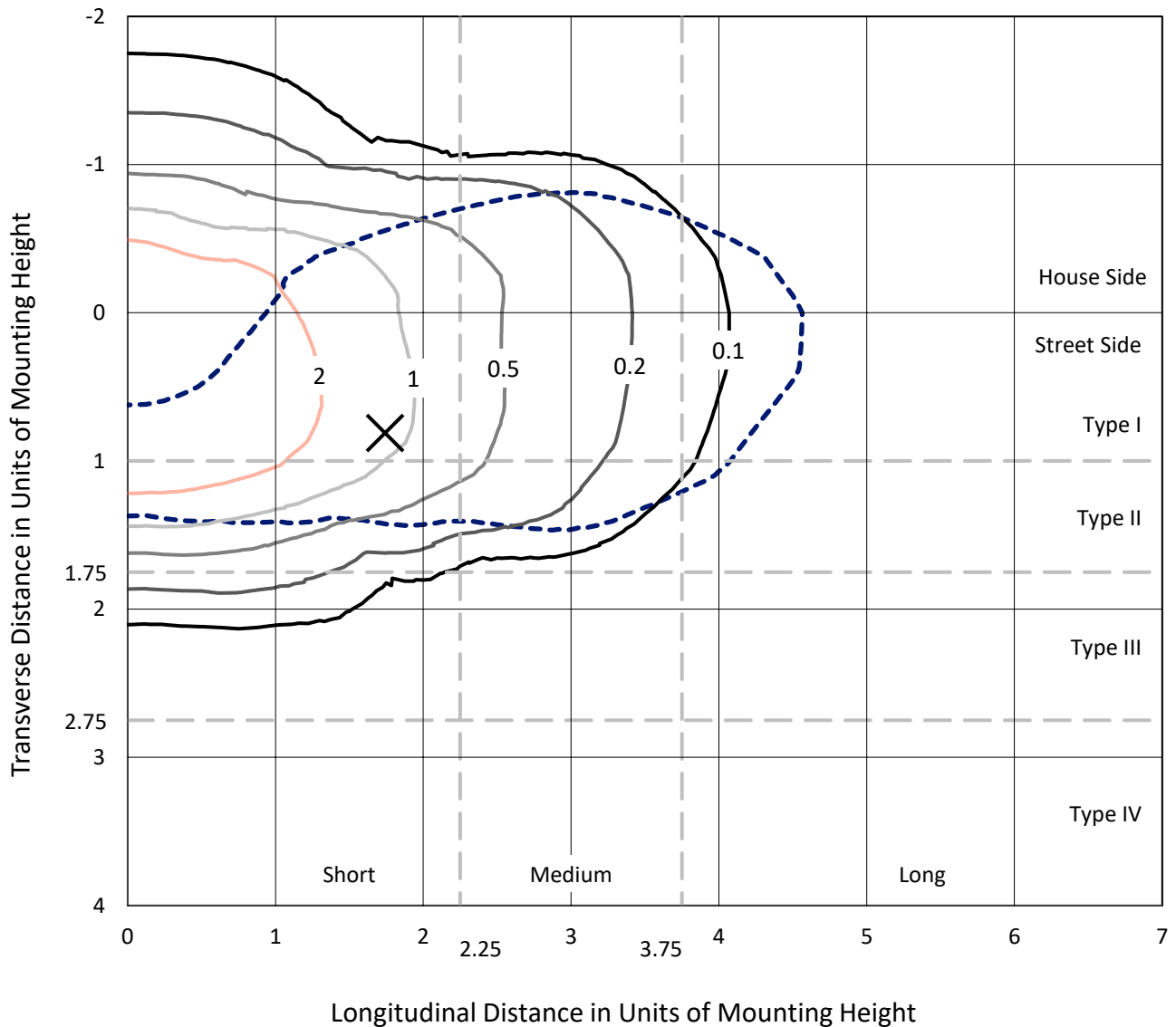
Input Watts (W): 84.7
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

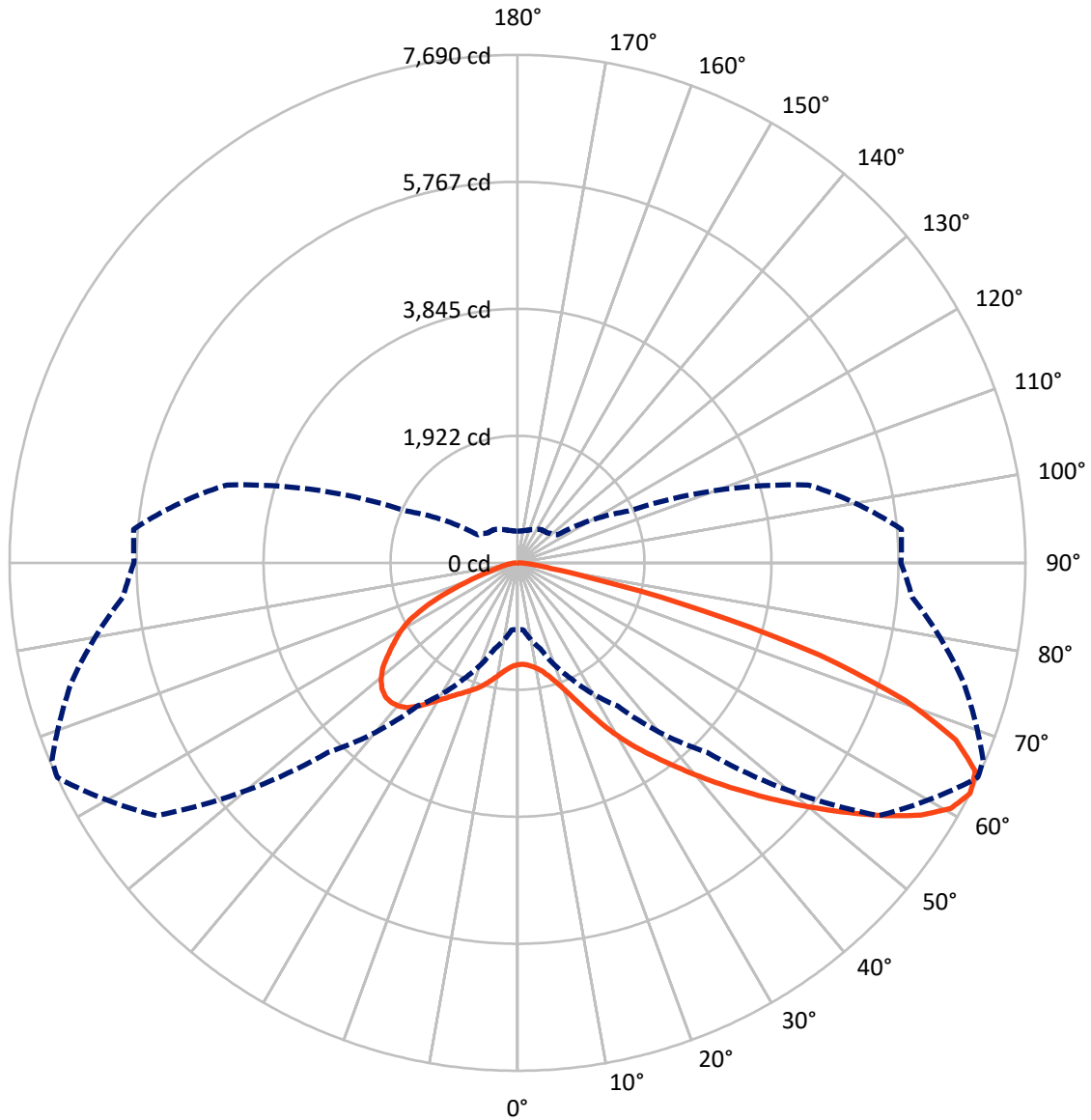
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.9 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 | 4411.5 | 0.0 | 4411.5 |
| | % Fixture | 31.6 | 0.0 | 31.6 |
| Street Side | Lumens | 9568.5 | 0.0 | 9568.5 |
| | % Fixture | 68.4 | 0.0 | 68.4 |
| Total | Lumens | 13980.0 | 0.0 | 13980.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 153.6 | 1.1 |
| 10°-20° | 520.8 | 3.7 |
| 20°-30° | 1056.0 | 7.6 |
| 30°-40° | 1827.5 | 13.1 |
| 40°-50° | 2765.5 | 19.8 |
| 50°-60° | 3242.4 | 23.2 |
| 60°-70° | 2718.4 | 19.4 |
| 70°-80° | 1500.8 | 10.7 |
| 80°-90° | 194.9 | 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° | 13980.0 | 100.0 |
| 0°-180° | 13980.0 | 100.0 |

Coefficient of Utilization



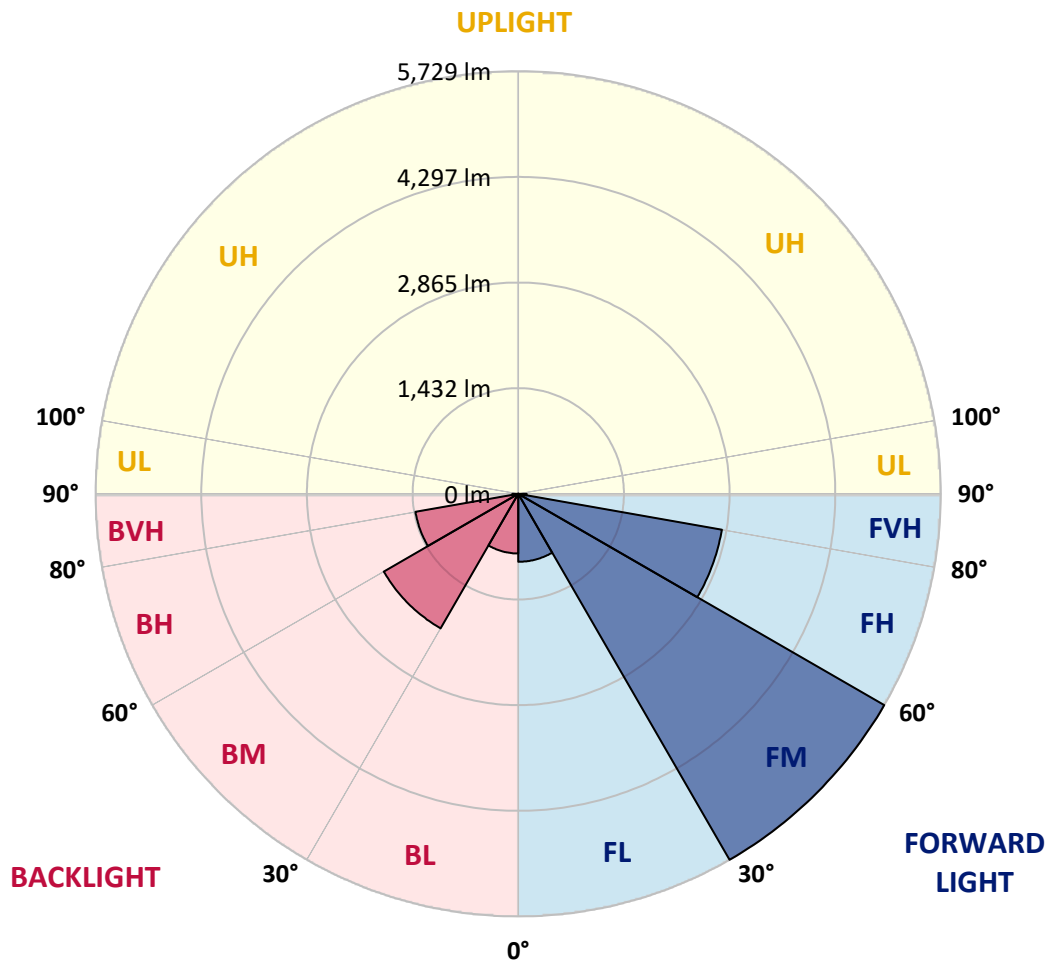
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 921.5 | 6.6 | | | |
| FM (30°-60°) | 5729.4 | 41.0 | | | |
| FH (60°-80°) | 2804.0 | 20.1 | | | G2/5000 |
| FVH (80°-90°) | 113.6 | 0.8 | | | G2/225 |
| BL (0°-30°) | 809.0 | 5.8 | B2/1000 | | |
| BM (30°-60°) | 2106.0 | 15.1 | B2/2500 | | |
| BH (60°-80°) | 1415.2 | 10.1 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 81.3 | 0.6 | | | G1/100 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G3

Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 67° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 |
| 2.5° | 1530.4 | 1526.0 | 1529.6 | 1529.6 | 1531.1 | 1530.4 | 1535.4 | 1536.9 | 1539.0 | 1543.4 | 1543.4 |
| 5° | 1515.2 | 1514.4 | 1521.0 | 1526.7 | 1532.6 | 1537.6 | 1544.2 | 1553.6 | 1555.0 | 1560.2 | 1566.6 |
| 7.5° | 1510.0 | 1505.7 | 1515.9 | 1523.1 | 1536.9 | 1549.2 | 1566.6 | 1582.6 | 1589.2 | 1591.3 | 1603.6 |
| 10° | 1549.2 | 1542.0 | 1551.4 | 1555.7 | 1567.3 | 1579.7 | 1600.0 | 1625.3 | 1632.6 | 1641.3 | 1655.2 |
| 12.5° | 1615.9 | 1608.0 | 1621.8 | 1628.3 | 1639.2 | 1650.0 | 1663.9 | 1688.5 | 1692.1 | 1708.1 | 1721.2 |
| 15° | 1707.3 | 1697.9 | 1706.6 | 1714.6 | 1732.8 | 1742.9 | 1756.6 | 1780.6 | 1780.6 | 1792.9 | 1802.4 |
| 17.5° | 1831.4 | 1819.1 | 1825.5 | 1828.5 | 1840.1 | 1855.4 | 1878.5 | 1899.5 | 1910.4 | 1906.1 | 1893.1 |
| 20° | 2016.3 | 2001.1 | 2001.1 | 1986.6 | 1982.2 | 1994.5 | 2025.0 | 2054.0 | 2065.7 | 2043.1 | 2011.3 |
| 22.5° | 2294.2 | 2272.3 | 2260.0 | 2210.7 | 2191.1 | 2192.6 | 2223.0 | 2258.6 | 2268.0 | 2228.1 | 2156.3 |
| 25° | 2647.4 | 2613.2 | 2596.5 | 2524.1 | 2479.8 | 2441.3 | 2465.3 | 2510.9 | 2524.1 | 2474.8 | 2358.6 |
| 27.5° | 3000.6 | 3002.7 | 2986.7 | 2899.7 | 2826.4 | 2756.1 | 2743.8 | 2791.7 | 2805.4 | 2749.6 | 2606.0 |
| 30° | 3496.0 | 3444.4 | 3414.0 | 3309.5 | 3205.1 | 3106.5 | 3055.7 | 3075.3 | 3078.9 | 3012.2 | 2845.3 |
| 32.5° | 3923.1 | 3910.1 | 3844.8 | 3753.4 | 3619.3 | 3464.7 | 3379.9 | 3348.7 | 3342.9 | 3247.9 | 3049.9 |
| 35° | 4409.9 | 4402.6 | 4333.7 | 4224.8 | 4079.8 | 3865.1 | 3712.0 | 3622.9 | 3615.6 | 3482.1 | 3252.2 |
| 37.5° | 4904.4 | 4904.4 | 4837.0 | 4718.1 | 4567.9 | 4299.6 | 4066.8 | 3925.3 | 3902.1 | 3728.0 | 3458.2 |
| 40° | 5299.0 | 5275.1 | 5287.5 | 5237.3 | 5065.4 | 4780.4 | 4460.6 | 4255.3 | 4224.1 | 4015.2 | 3677.3 |
| 42.5° | 5523.1 | 5515.1 | 5589.1 | 5645.0 | 5574.7 | 5346.9 | 4894.3 | 4612.9 | 4569.3 | 4331.4 | 3929.6 |
| 45° | 5573.2 | 5564.5 | 5696.5 | 5901.0 | 5999.6 | 5906.0 | 5365.8 | 4989.3 | 4936.4 | 4662.2 | 4200.2 |
| 47.5° | 5457.8 | 5440.5 | 5634.1 | 5956.9 | 6273.1 | 6437.7 | 5876.3 | 5397.6 | 5320.8 | 4984.3 | 4478.0 |
| 50° | 5111.2 | 5094.5 | 5387.5 | 5816.2 | 6365.2 | 6798.9 | 6430.4 | 5830.7 | 5713.1 | 5329.5 | 4758.7 |
| 52.5° | 4357.6 | 4365.6 | 4824.7 | 5413.6 | 6244.1 | 7023.8 | 6907.8 | 6286.8 | 6145.5 | 5682.7 | 5022.0 |
| 55° | 3394.4 | 3411.8 | 3976.1 | 4624.5 | 5759.6 | 6989.7 | 7233.4 | 6756.9 | 6616.2 | 6014.9 | 5293.9 |
| 57.5° | 2430.5 | 2507.4 | 3036.0 | 3678.0 | 4829.1 | 6449.3 | 7304.5 | 7203.7 | 7067.3 | 6377.5 | 5560.1 |
| 60° | 1575.3 | 1589.2 | 2133.1 | 2780.1 | 3677.3 | 5489.1 | 7160.1 | 7542.4 | 7435.8 | 6747.5 | 5782.8 |
| 62.5° | 1009.6 | 1019.1 | 1350.5 | 1944.5 | 2646.7 | 4060.9 | 6674.2 | 7689.7 | 7657.0 | 6991.8 | 5996.8 |
| 65° | 742.0 | 734.7 | 907.3 | 1285.2 | 1782.8 | 2504.5 | 5730.6 | 7618.5 | 7683.1 | 7144.9 | 6173.8 |
| 67.5° | 619.4 | 609.3 | 694.1 | 889.9 | 1313.5 | 1422.3 | 4240.1 | 7156.6 | 7392.9 | 7127.5 | 6303.5 |
| 70° | 564.3 | 555.6 | 607.1 | 660.7 | 1024.8 | 952.3 | 2137.4 | 6221.6 | 6585.7 | 6929.5 | 6282.5 |
| 72.5° | 478.0 | 462.8 | 533.1 | 586.8 | 797.1 | 730.4 | 883.4 | 4779.0 | 5222.9 | 6294.8 | 5986.6 |
| 75° | 370.6 | 360.5 | 420.7 | 516.4 | 599.1 | 570.1 | 558.5 | 2901.9 | 3386.4 | 4868.2 | 5237.3 |
| 77.5° | 293.8 | 279.9 | 335.1 | 402.5 | 538.9 | 430.1 | 406.9 | 1249.7 | 1729.8 | 3107.9 | 3918.8 |
| 80° | 221.2 | 208.9 | 254.6 | 318.4 | 414.1 | 324.2 | 263.3 | 509.8 | 652.0 | 1574.6 | 1970.7 |
| 82.5° | 157.4 | 146.5 | 177.7 | 233.5 | 278.5 | 290.9 | 161.7 | 285.8 | 321.3 | 607.1 | 440.2 |
| 85° | 100.9 | 94.3 | 118.9 | 146.5 | 177.0 | 187.2 | 98.6 | 149.4 | 163.9 | 250.2 | 183.5 |
| 87.5° | 55.1 | 45.0 | 63.9 | 68.2 | 82.0 | 74.7 | 47.2 | 54.4 | 58.7 | 90.7 | 77.6 |
| 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° | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 | 1540.6 |
| 2.5° | 1546.3 | 1548.5 | 1555.7 | 1557.9 | 1563.0 | 1569.6 | 1573.9 | 1578.3 | 1578.3 | 1582.6 | 1582.6 |
| 5° | 1567.3 | 1572.5 | 1587.7 | 1595.6 | 1608.7 | 1621.8 | 1629.7 | 1639.2 | 1645.0 | 1647.9 | 1649.3 |
| 7.5° | 1608.0 | 1615.9 | 1637.7 | 1651.5 | 1674.0 | 1692.1 | 1704.5 | 1717.5 | 1720.4 | 1728.4 | 1725.5 |
| 10° | 1663.1 | 1672.5 | 1697.2 | 1723.3 | 1750.2 | 1772.6 | 1784.2 | 1793.6 | 1797.3 | 1798.8 | 1795.1 |
| 12.5° | 1726.2 | 1740.0 | 1771.9 | 1803.8 | 1832.1 | 1851.7 | 1854.6 | 1852.4 | 1842.2 | 1833.5 | 1833.5 |
| 15° | 1803.8 | 1816.1 | 1851.7 | 1886.5 | 1914.1 | 1917.7 | 1899.5 | 1887.9 | 1875.6 | 1873.5 | 1873.5 |
| 17.5° | 1896.7 | 1903.2 | 1935.8 | 1969.9 | 1972.1 | 1959.8 | 1932.9 | 1922.1 | 1910.4 | 1902.5 | 1903.2 |
| 20° | 2004.7 | 2002.5 | 2025.7 | 2040.3 | 2025.0 | 1987.3 | 1946.7 | 1928.5 | 1917.0 | 1907.5 | 1908.2 |
| 22.5° | 2133.8 | 2117.1 | 2114.3 | 2110.6 | 2070.0 | 1991.0 | 1935.8 | 1912.6 | 1894.5 | 1881.4 | 1885.8 |
| 25° | 2321.7 | 2257.9 | 2213.6 | 2189.0 | 2097.6 | 1971.4 | 1901.0 | 1849.5 | 1815.4 | 1792.9 | 1801.6 |
| 27.5° | 2556.7 | 2449.3 | 2337.6 | 2277.4 | 2097.6 | 1931.5 | 1816.9 | 1733.5 | 1677.6 | 1654.5 | 1666.0 |
| 30° | 2780.8 | 2668.4 | 2503.8 | 2384.0 | 2092.4 | 1866.2 | 1681.2 | 1565.2 | 1499.9 | 1476.7 | 1490.5 |
| 32.5° | 2972.3 | 2849.7 | 2680.0 | 2500.8 | 2080.1 | 1760.3 | 1513.0 | 1384.6 | 1321.5 | 1294.0 | 1307.7 |
| 35° | 3149.9 | 3019.4 | 2857.0 | 2629.2 | 2047.5 | 1605.0 | 1328.0 | 1230.1 | 1159.8 | 1115.5 | 1130.1 |
| 37.5° | 3332.0 | 3176.8 | 3024.5 | 2745.3 | 1988.8 | 1423.7 | 1185.8 | 1102.5 | 1019.8 | 960.3 | 976.2 |
| 40° | 3530.0 | 3344.4 | 3203.6 | 2814.1 | 1892.3 | 1251.1 | 1075.6 | 999.5 | 911.7 | 848.6 | 860.9 |
| 42.5° | 3761.4 | 3545.3 | 3403.1 | 2849.7 | 1760.3 | 1128.5 | 1003.8 | 929.1 | 846.4 | 794.9 | 805.0 |
| 45° | 4002.9 | 3766.5 | 3585.1 | 2849.0 | 1613.0 | 1071.2 | 980.6 | 906.6 | 815.3 | 761.6 | 770.3 |
| 47.5° | 4256.0 | 3997.8 | 3742.6 | 2802.6 | 1485.4 | 1079.2 | 967.5 | 858.0 | 757.2 | 705.0 | 712.3 |
| 50° | 4509.9 | 4251.0 | 3894.9 | 2715.5 | 1431.0 | 1061.8 | 918.9 | 789.9 | 670.9 | 623.7 | 626.7 |
| 52.5° | 4761.5 | 4520.0 | 4026.1 | 2591.5 | 1375.9 | 997.3 | 856.6 | 701.4 | 635.4 | 602.7 | 602.7 |
| 55° | 5014.7 | 4786.2 | 4169.0 | 2410.9 | 1238.1 | 921.9 | 752.1 | 668.0 | 607.1 | 577.4 | 574.4 |
| 57.5° | 5268.6 | 5093.7 | 4304.7 | 2230.3 | 1064.8 | 829.0 | 694.8 | 627.4 | 578.8 | 553.4 | 549.1 |
| 60° | 5532.5 | 5445.5 | 4444.6 | 2064.2 | 893.6 | 710.0 | 652.7 | 594.7 | 545.4 | 517.1 | 515.0 |
| 62.5° | 5804.6 | 5832.9 | 4554.2 | 1850.2 | 736.2 | 637.6 | 615.1 | 555.6 | 507.7 | 480.8 | 480.1 |
| 65° | 6078.8 | 6206.4 | 4625.9 | 1553.6 | 597.0 | 568.7 | 574.4 | 512.8 | 464.2 | 441.0 | 440.2 |
| 67.5° | 6285.4 | 6475.4 | 4605.6 | 1175.7 | 489.5 | 503.4 | 523.7 | 467.8 | 422.1 | 404.0 | 404.7 |
| 70° | 6308.7 | 6443.6 | 4405.4 | 805.0 | 409.8 | 439.5 | 467.1 | 423.5 | 376.4 | 363.4 | 364.1 |
| 72.5° | 5999.6 | 6008.3 | 3847.7 | 525.8 | 346.7 | 385.8 | 407.6 | 378.6 | 332.9 | 319.9 | 319.1 |
| 75° | 5189.5 | 4969.0 | 2825.0 | 346.7 | 290.1 | 331.5 | 351.8 | 331.5 | 287.2 | 290.1 | 279.9 |
| 77.5° | 3931.8 | 3519.1 | 1715.3 | 246.6 | 242.2 | 278.5 | 306.1 | 291.6 | 253.9 | 285.1 | 250.9 |
| 80° | 2025.7 | 1903.9 | 765.2 | 184.2 | 191.5 | 222.6 | 251.6 | 232.8 | 200.9 | 191.5 | 174.8 |
| 82.5° | 464.2 | 539.7 | 301.8 | 132.0 | 138.6 | 160.3 | 192.2 | 174.8 | 144.3 | 121.9 | 120.4 |
| 85° | 162.5 | 177.7 | 133.5 | 82.7 | 81.3 | 100.0 | 130.6 | 116.7 | 97.9 | 78.3 | 82.7 |
| 87.5° | 51.5 | 67.4 | 50.0 | 33.3 | 34.8 | 45.0 | 60.2 | 55.1 | 45.7 | 29.7 | 31.2 |
| 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)