

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: P963990

Luminaire Tested: **NAV-SB3B-727-U-T4W-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P963990
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3B-727-U-T4W-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 70 CRI, 2700K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE
OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 12372.8 lumens
Efficiency: N/A
Efficacy: 113.3 lumens/watt
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G3

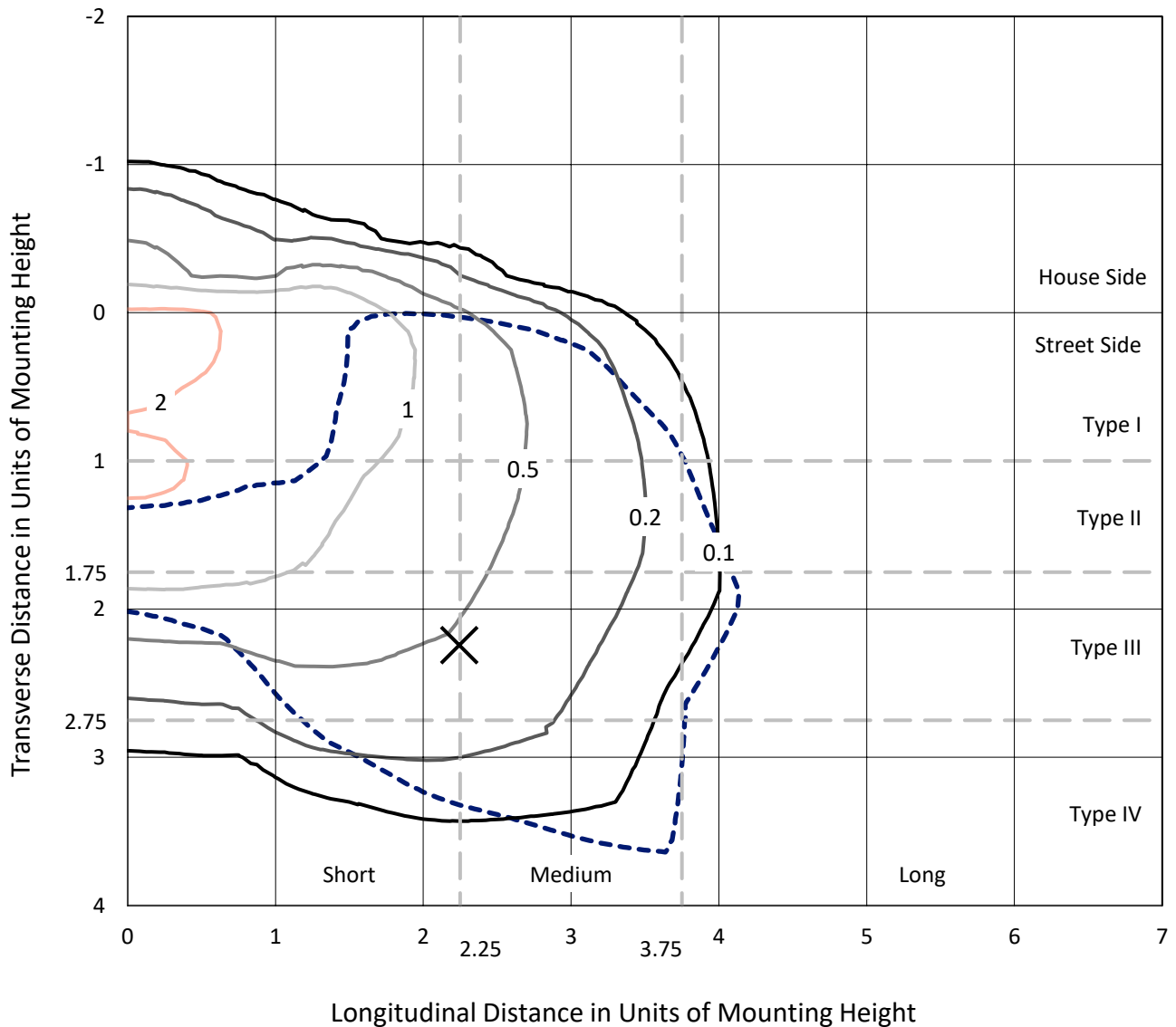
Input Watts (W): 109.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

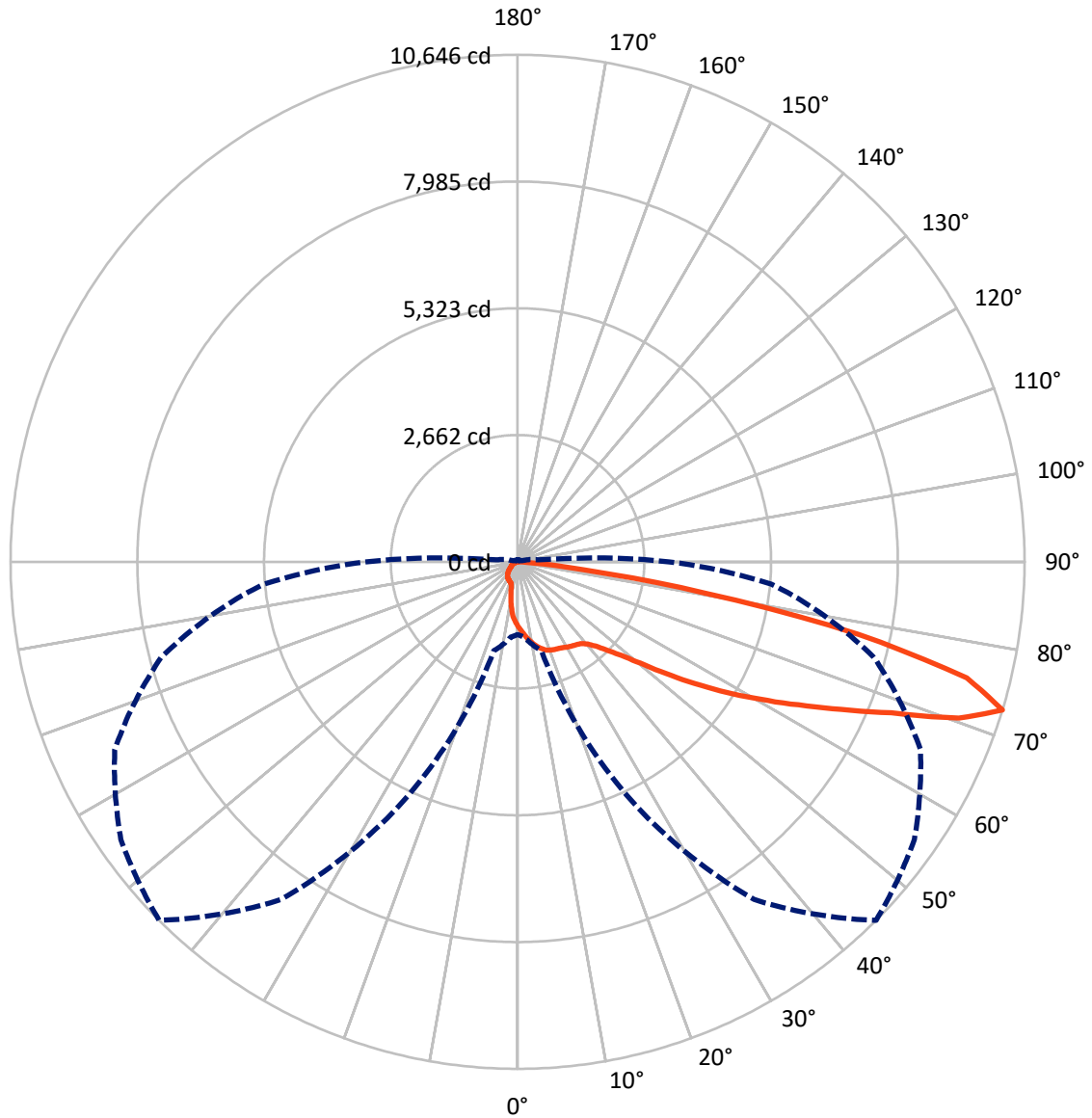
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 45-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

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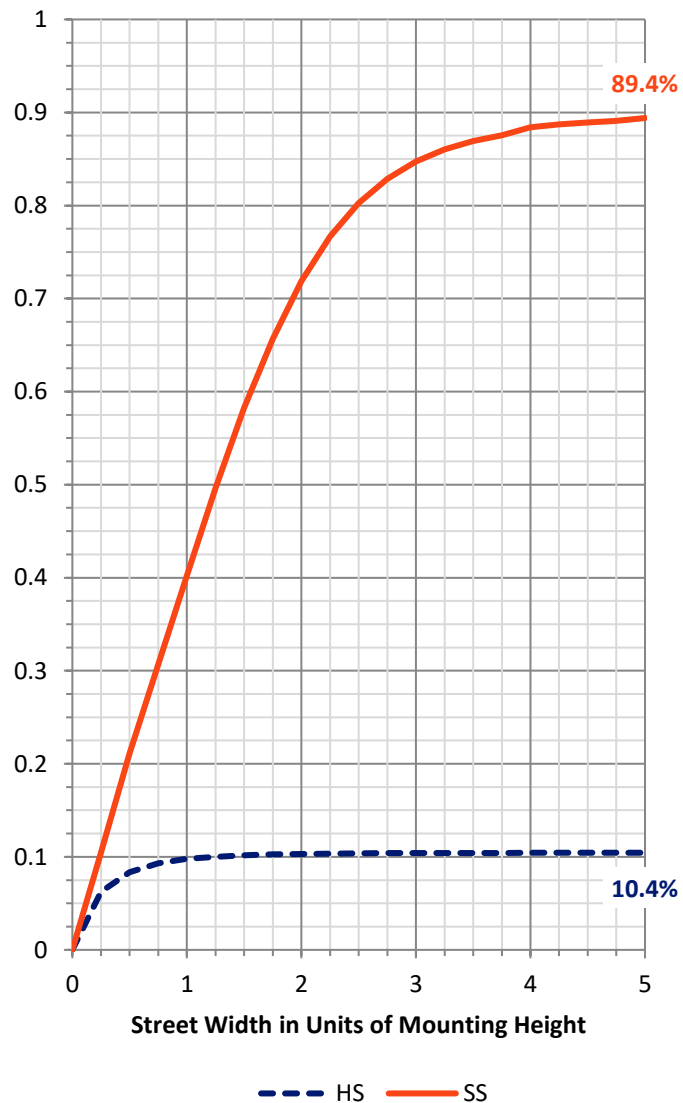
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1300.0 | 0.0 | 1300.0 |
| | % Fixture | 10.5 | 0.0 | 10.5 |
| Street Side | Lumens | 11072.7 | 0.0 | 11072.7 |
| | % Fixture | 89.5 | 0.0 | 89.5 |
| Total | Lumens | 12372.8 | 0.0 | 12372.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 127.7 | 1.0 |
| 10°-20° | 373.2 | 3.0 |
| 20°-30° | 612.9 | 5.0 |
| 30°-40° | 869.3 | 7.0 |
| 40°-50° | 1436.8 | 11.6 |
| 50°-60° | 2581.1 | 20.9 |
| 60°-70° | 3584.0 | 29.0 |
| 70°-80° | 2599.7 | 21.0 |
| 80°-90° | 187.9 | 1.5 |
| 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° | 12372.8 | 100.0 |
| 0°-180° | 12372.8 | 100.0 |

Coefficient of Utilization



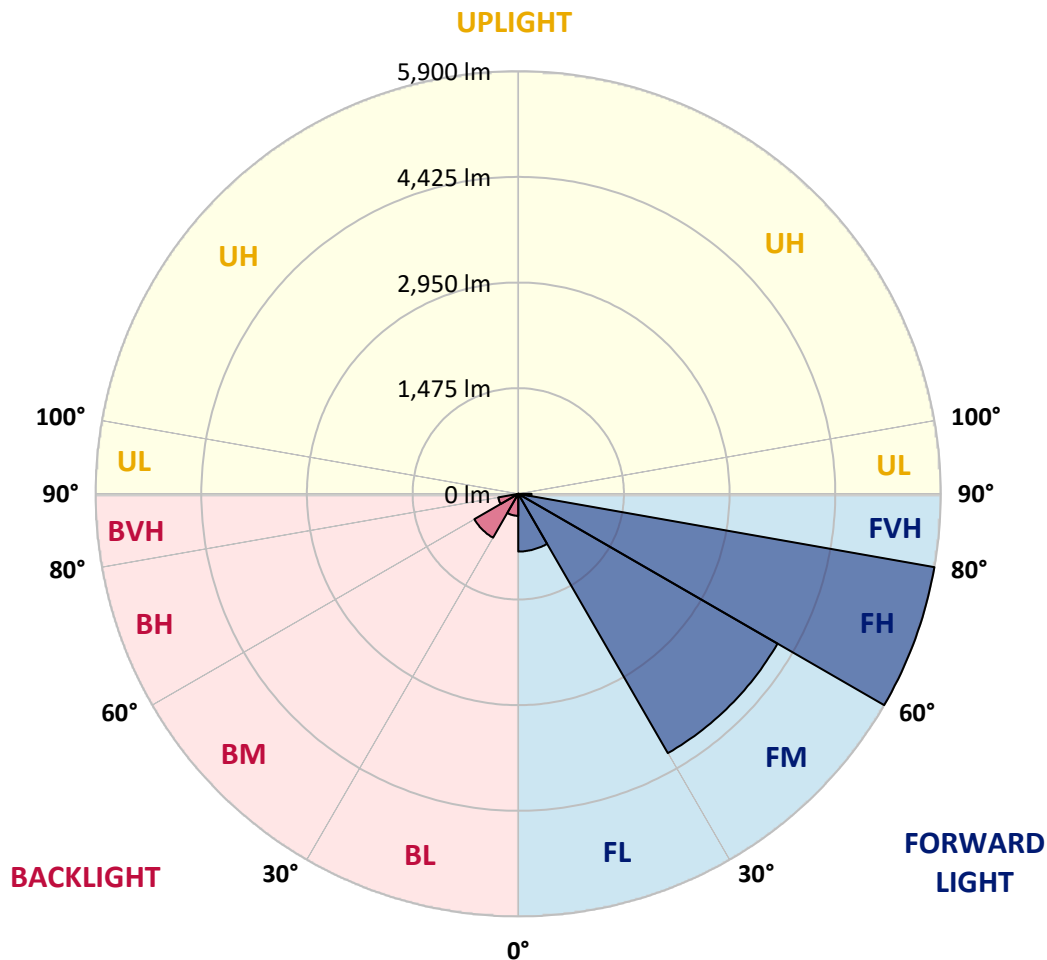
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 806.0 | 6.5 | | | |
| FM (30°-60°) | 4180.2 | 33.8 | | | |
| FH (60°-80°) | 5900.2 | 47.7 | | | G3/7500 |
| FVH (80°-90°) | 186.4 | 1.5 | | | G2/225 |
| BL (0°-30°) | 307.9 | 2.5 | B1/500 | | |
| BM (30°-60°) | 707.0 | 5.7 | B1/1000 | | |
| BH (60°-80°) | 283.5 | 2.3 | B1/500 | | G1/500 |
| BVH (80°-90°) | 1.6 | 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-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 46° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|
| 0° | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 |
| 2.5° | 1480.4 | 1483.0 | 1481.3 | 1471.2 | 1454.3 | 1444.9 | 1439.9 | 1423.0 | 1412.0 | 1392.7 | 1372.4 |
| 5° | 1616.4 | 1626.6 | 1620.6 | 1600.3 | 1568.2 | 1545.5 | 1538.7 | 1504.1 | 1472.8 | 1436.5 | 1394.3 |
| 7.5° | 1760.8 | 1765.9 | 1754.9 | 1728.8 | 1685.7 | 1646.9 | 1640.9 | 1592.7 | 1542.9 | 1487.2 | 1429.8 |
| 10° | 1885.8 | 1891.7 | 1874.8 | 1836.8 | 1787.9 | 1739.7 | 1731.3 | 1678.0 | 1619.0 | 1550.5 | 1477.0 |
| 12.5° | 1990.5 | 1996.5 | 1974.5 | 1928.9 | 1874.8 | 1825.0 | 1816.6 | 1760.8 | 1695.8 | 1619.8 | 1528.6 |
| 15° | 2069.9 | 2081.0 | 2051.3 | 2002.3 | 1944.1 | 1894.3 | 1890.0 | 1835.2 | 1771.8 | 1687.4 | 1590.3 |
| 17.5° | 2116.4 | 2127.4 | 2099.5 | 2040.4 | 1990.5 | 1948.3 | 1943.3 | 1897.7 | 1838.5 | 1757.5 | 1650.2 |
| 20° | 2124.0 | 2134.2 | 2104.5 | 2053.1 | 2011.7 | 1977.8 | 1975.4 | 1942.4 | 1899.3 | 1821.6 | 1715.2 |
| 22.5° | 2101.1 | 2113.9 | 2086.8 | 2045.5 | 2016.7 | 1999.0 | 1995.6 | 1977.0 | 1952.5 | 1886.7 | 1776.0 |
| 25° | 2077.6 | 2087.6 | 2067.4 | 2031.0 | 2015.9 | 2014.2 | 2016.7 | 2013.3 | 2008.3 | 1952.5 | 1846.9 |
| 27.5° | 2075.8 | 2086.8 | 2064.0 | 2029.4 | 2021.0 | 2038.7 | 2041.2 | 2057.3 | 2061.5 | 2012.5 | 1915.4 |
| 30° | 2090.2 | 2097.8 | 2075.8 | 2039.5 | 2035.3 | 2075.8 | 2076.6 | 2105.5 | 2112.1 | 2063.2 | 1983.0 |
| 32.5° | 2121.4 | 2129.8 | 2107.9 | 2054.7 | 2048.8 | 2105.5 | 2107.9 | 2145.9 | 2156.9 | 2117.2 | 2053.9 |
| 35° | 2194.9 | 2205.1 | 2179.8 | 2096.9 | 2075.8 | 2133.2 | 2140.9 | 2185.6 | 2207.5 | 2174.6 | 2127.4 |
| 37.5° | 2378.2 | 2348.6 | 2314.0 | 2182.2 | 2137.5 | 2177.2 | 2189.8 | 2242.2 | 2281.0 | 2243.1 | 2215.2 |
| 40° | 2833.4 | 2740.4 | 2632.4 | 2327.5 | 2245.6 | 2270.9 | 2281.0 | 2333.4 | 2386.6 | 2349.5 | 2336.0 |
| 42.5° | 3516.6 | 3406.8 | 3232.8 | 2661.9 | 2408.5 | 2421.3 | 2428.8 | 2474.5 | 2549.6 | 2520.1 | 2523.4 |
| 45° | 4125.5 | 4085.9 | 3908.4 | 3232.8 | 2713.5 | 2651.0 | 2660.3 | 2683.9 | 2794.6 | 2783.6 | 2805.5 |
| 47.5° | 4593.3 | 4570.6 | 4433.7 | 3888.2 | 3228.6 | 2932.2 | 2958.4 | 2969.3 | 3129.0 | 3167.9 | 3226.9 |
| 50° | 4953.1 | 4944.7 | 4822.2 | 4470.9 | 3901.7 | 3346.8 | 3356.2 | 3332.5 | 3571.5 | 3667.8 | 3780.1 |
| 52.5° | 5292.7 | 5321.4 | 5231.0 | 5012.2 | 4620.4 | 3889.9 | 3888.2 | 3776.7 | 4099.3 | 4244.6 | 4436.3 |
| 55° | 5599.2 | 5609.3 | 5618.6 | 5564.6 | 5343.3 | 4508.1 | 4492.1 | 4309.6 | 4711.6 | 4862.0 | 5069.6 |
| 57.5° | 5887.2 | 5891.4 | 5974.2 | 6084.8 | 6095.8 | 5171.8 | 5142.3 | 4923.6 | 5380.4 | 5487.7 | 5615.3 |
| 60° | 6080.6 | 6100.0 | 6274.8 | 6582.2 | 6716.5 | 5856.7 | 5840.8 | 5617.8 | 6061.1 | 6110.9 | 6087.4 |
| 62.5° | 5801.9 | 5920.1 | 6360.9 | 6970.7 | 7302.6 | 6616.0 | 6608.4 | 6399.0 | 6777.3 | 6736.8 | 6534.1 |
| 65° | 4696.4 | 4896.5 | 5671.8 | 7233.3 | 7877.7 | 7463.9 | 7474.9 | 7252.0 | 7512.9 | 7381.1 | 6897.2 |
| 67.5° | 3285.2 | 3496.4 | 4413.4 | 7254.4 | 8520.4 | 8459.6 | 8523.0 | 8173.4 | 8294.1 | 7998.5 | 6983.4 |
| 70° | 2271.8 | 2380.8 | 2977.8 | 6800.2 | 9021.2 | 9831.1 | 9829.4 | 9304.9 | 9071.0 | 8279.7 | 6544.2 |
| 72.5° | 1527.8 | 1584.3 | 1934.0 | 5394.8 | 8653.0 | 10646.1 | 10597.1 | 10169.7 | 9332.8 | 7743.5 | 5346.7 |
| 75° | 644.4 | 685.7 | 895.2 | 3031.8 | 6845.8 | 9740.0 | 9607.3 | 8987.4 | 8292.4 | 6097.5 | 3335.9 |
| 77.5° | 204.4 | 222.1 | 353.0 | 1085.2 | 3770.8 | 7321.2 | 7181.0 | 5612.7 | 5557.9 | 3058.9 | 1219.5 |
| 80° | 97.2 | 113.2 | 198.4 | 435.7 | 1483.8 | 3981.9 | 3962.5 | 2546.2 | 2390.8 | 825.9 | 244.9 |
| 82.5° | 42.2 | 49.8 | 109.8 | 233.1 | 663.8 | 1420.4 | 1449.2 | 866.4 | 717.0 | 313.3 | 75.1 |
| 85° | 13.5 | 17.7 | 50.6 | 107.2 | 280.3 | 353.0 | 348.8 | 206.0 | 288.8 | 170.6 | 26.1 |
| 87.5° | 0.0 | 0.0 | 16.9 | 24.5 | 28.7 | 20.3 | 22.8 | 17.7 | 80.3 | 47.3 | 9.3 |
| 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° | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 | 1355.5 |
| 2.5° | 1362.2 | 1348.7 | 1325.0 | 1303.1 | 1283.7 | 1264.2 | 1252.4 | 1235.5 | 1233.9 | 1233.9 | 1238.1 |
| 5° | 1371.6 | 1349.5 | 1307.3 | 1262.6 | 1211.0 | 1162.0 | 1113.0 | 1065.8 | 1050.6 | 1039.7 | 1044.7 |
| 7.5° | 1398.5 | 1363.9 | 1297.2 | 1211.9 | 1114.0 | 1006.7 | 931.5 | 850.4 | 819.2 | 802.3 | 804.8 |
| 10° | 1437.4 | 1390.1 | 1288.7 | 1139.3 | 980.5 | 834.4 | 727.1 | 639.3 | 605.6 | 591.1 | 591.1 |
| 12.5° | 1480.4 | 1422.2 | 1273.6 | 1048.9 | 834.4 | 659.6 | 554.8 | 514.3 | 509.2 | 509.2 | 509.2 |
| 15° | 1532.0 | 1461.0 | 1247.3 | 942.5 | 681.5 | 521.9 | 484.7 | 486.5 | 491.5 | 494.9 | 494.9 |
| 17.5° | 1585.2 | 1502.4 | 1206.0 | 823.4 | 546.4 | 469.6 | 470.4 | 472.9 | 477.1 | 480.5 | 480.5 |
| 20° | 1642.6 | 1543.8 | 1151.1 | 696.7 | 468.7 | 454.4 | 456.8 | 459.4 | 462.8 | 464.5 | 465.4 |
| 22.5° | 1704.3 | 1582.6 | 1086.1 | 572.6 | 442.5 | 441.7 | 442.5 | 445.1 | 449.3 | 449.3 | 451.0 |
| 25° | 1770.2 | 1625.8 | 1011.8 | 482.3 | 429.1 | 429.1 | 430.7 | 432.4 | 435.7 | 435.7 | 436.6 |
| 27.5° | 1837.7 | 1665.4 | 933.2 | 434.9 | 417.2 | 416.4 | 416.4 | 418.9 | 420.6 | 421.4 | 422.3 |
| 30° | 1912.0 | 1711.9 | 854.6 | 424.8 | 408.0 | 403.6 | 401.2 | 402.8 | 404.6 | 405.4 | 407.0 |
| 32.5° | 1988.0 | 1756.6 | 784.5 | 429.1 | 398.6 | 391.0 | 382.5 | 380.9 | 380.9 | 384.3 | 386.8 |
| 35° | 2072.4 | 1805.6 | 730.5 | 443.4 | 393.6 | 372.5 | 359.0 | 351.4 | 352.2 | 357.2 | 359.8 |
| 37.5° | 2173.8 | 1864.7 | 690.8 | 456.0 | 390.2 | 351.4 | 329.3 | 320.1 | 314.2 | 320.1 | 318.4 |
| 40° | 2306.4 | 1951.7 | 662.2 | 466.2 | 385.9 | 326.9 | 297.2 | 282.1 | 271.1 | 274.5 | 272.8 |
| 42.5° | 2501.5 | 2088.5 | 651.1 | 467.0 | 376.7 | 298.1 | 264.3 | 244.1 | 228.1 | 228.9 | 225.5 |
| 45° | 2775.1 | 2304.7 | 707.8 | 456.0 | 356.4 | 266.9 | 229.7 | 202.6 | 192.6 | 190.0 | 186.7 |
| 47.5° | 3150.0 | 2619.7 | 838.7 | 433.3 | 326.9 | 236.5 | 196.0 | 173.1 | 165.5 | 161.3 | 158.8 |
| 50° | 3652.6 | 3024.3 | 983.9 | 408.0 | 297.2 | 207.8 | 168.1 | 153.8 | 148.6 | 144.4 | 143.6 |
| 52.5° | 4235.3 | 3434.7 | 1102.9 | 382.5 | 267.7 | 182.4 | 150.4 | 141.9 | 137.7 | 134.3 | 133.5 |
| 55° | 4769.8 | 3717.6 | 1096.2 | 355.6 | 239.0 | 162.2 | 137.7 | 132.6 | 127.5 | 124.1 | 122.5 |
| 57.5° | 5102.7 | 3757.3 | 903.6 | 326.0 | 206.0 | 146.1 | 125.9 | 122.5 | 116.5 | 112.3 | 111.5 |
| 60° | 5255.5 | 3530.9 | 633.3 | 287.1 | 173.1 | 130.9 | 113.2 | 111.5 | 103.8 | 98.0 | 96.2 |
| 62.5° | 5283.4 | 3110.4 | 422.3 | 239.0 | 144.4 | 116.5 | 100.4 | 98.0 | 87.8 | 77.7 | 72.7 |
| 65° | 5170.2 | 2509.1 | 292.2 | 186.7 | 123.3 | 101.4 | 86.1 | 81.1 | 70.1 | 60.0 | 56.6 |
| 67.5° | 4812.1 | 1761.7 | 203.6 | 134.3 | 104.8 | 80.3 | 68.4 | 66.7 | 58.3 | 49.8 | 47.3 |
| 70° | 4155.9 | 1004.1 | 136.0 | 100.4 | 82.7 | 54.9 | 54.0 | 55.8 | 47.3 | 40.5 | 37.2 |
| 72.5° | 3186.4 | 459.4 | 84.5 | 73.5 | 56.6 | 37.2 | 43.0 | 43.9 | 36.3 | 30.4 | 27.1 |
| 75° | 1875.6 | 196.8 | 53.2 | 47.3 | 28.7 | 24.5 | 31.3 | 32.1 | 24.5 | 19.5 | 16.9 |
| 77.5° | 638.5 | 74.3 | 33.8 | 27.9 | 14.3 | 13.5 | 20.3 | 20.3 | 13.5 | 7.6 | 5.9 |
| 80° | 145.2 | 27.9 | 16.9 | 11.0 | 6.8 | 5.9 | 6.8 | 5.9 | 3.4 | 0.8 | 0.0 |
| 82.5° | 41.4 | 11.0 | 6.8 | 4.2 | 2.6 | 2.6 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 11.8 | 5.0 | 1.6 | 1.6 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 5.0 | 0.8 | 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)