

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: P883313

Luminaire Tested: **NAV-SB3C-835-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P883313
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB3C-835-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(3) 80 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 13230 lumens
Efficiency: N/A
Efficacy: 88.7 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B2 - U0 - G3

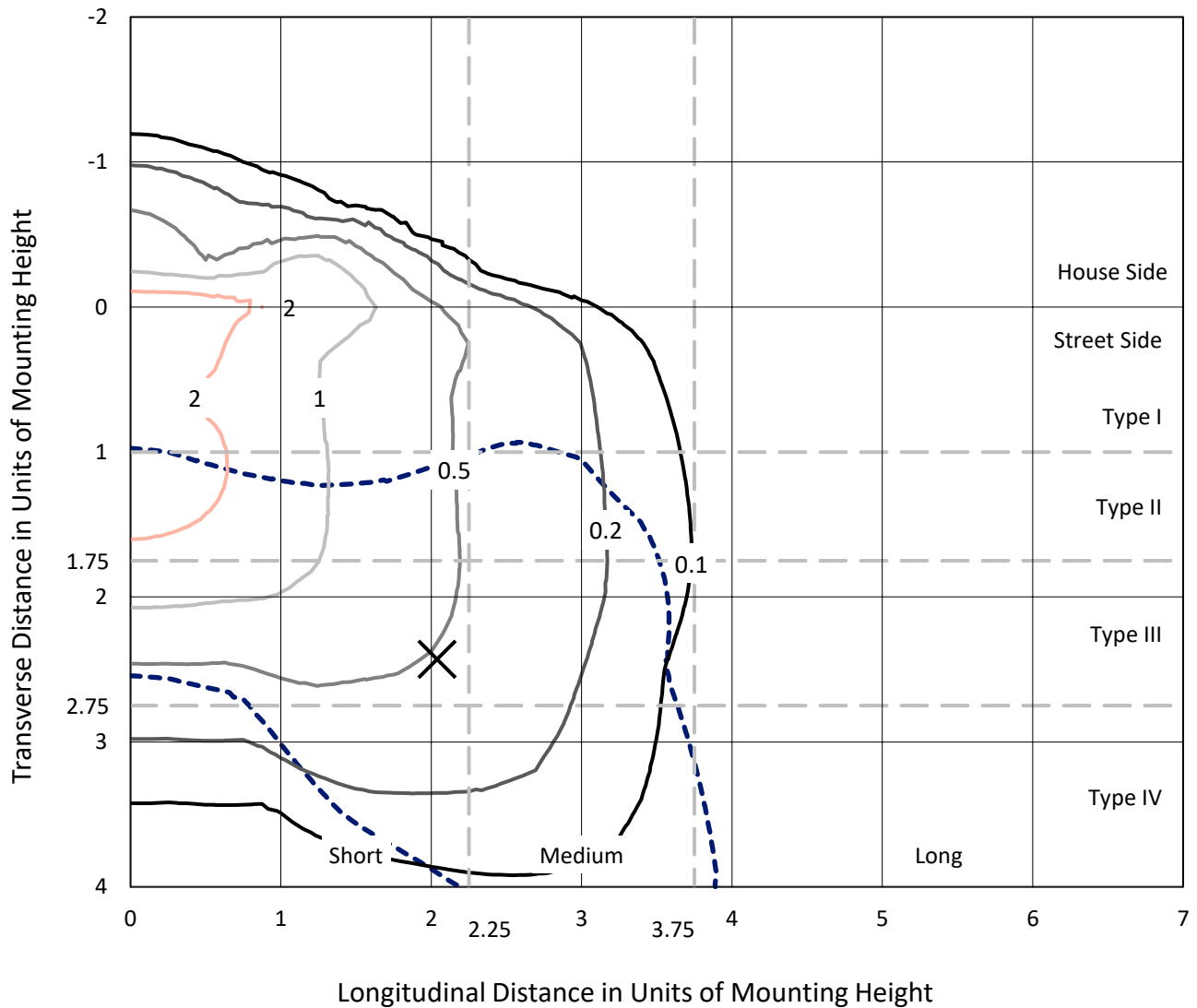
Input Watts (W): 149.1
Input Voltage (V): 120.0
Input Current (Ain): 1.259
Voltage Rise (V): NR
Power Factor: 0.997
Total Harmonic Distortion (THDi): 6.297
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

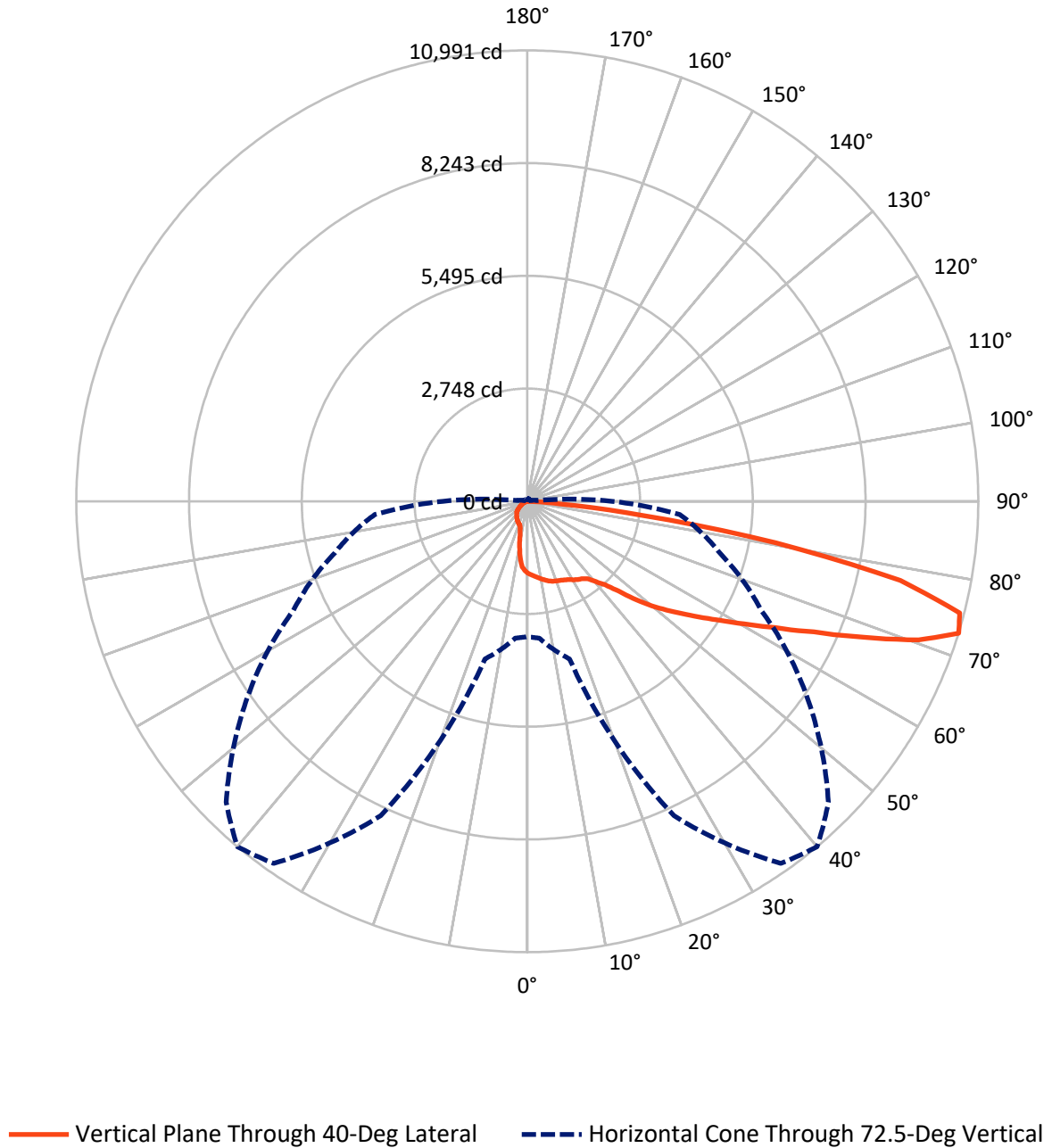
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 3.2 fc
 Type IV - Short - N/A

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Luminous Intensity Polar Plot



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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1708.5 | 0.0 | 1708.5 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 11521.5 | 0.0 | 11521.5 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 13230.0 | 0.0 | 13230.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 160.0 | 1.2 |
| 10°-20° | 434.5 | 3.3 |
| 20°-30° | 703.0 | 5.3 |
| 30°-40° | 1037.9 | 7.8 |
| 40°-50° | 1746.8 | 13.2 |
| 50°-60° | 2712.2 | 20.5 |
| 60°-70° | 3393.8 | 25.7 |
| 70°-80° | 2778.5 | 21.0 |
| 80°-90° | 263.5 | 2.0 |
| 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° | 13230.0 | 100.0 |
| 0°-180° | 13230.0 | 100.0 |



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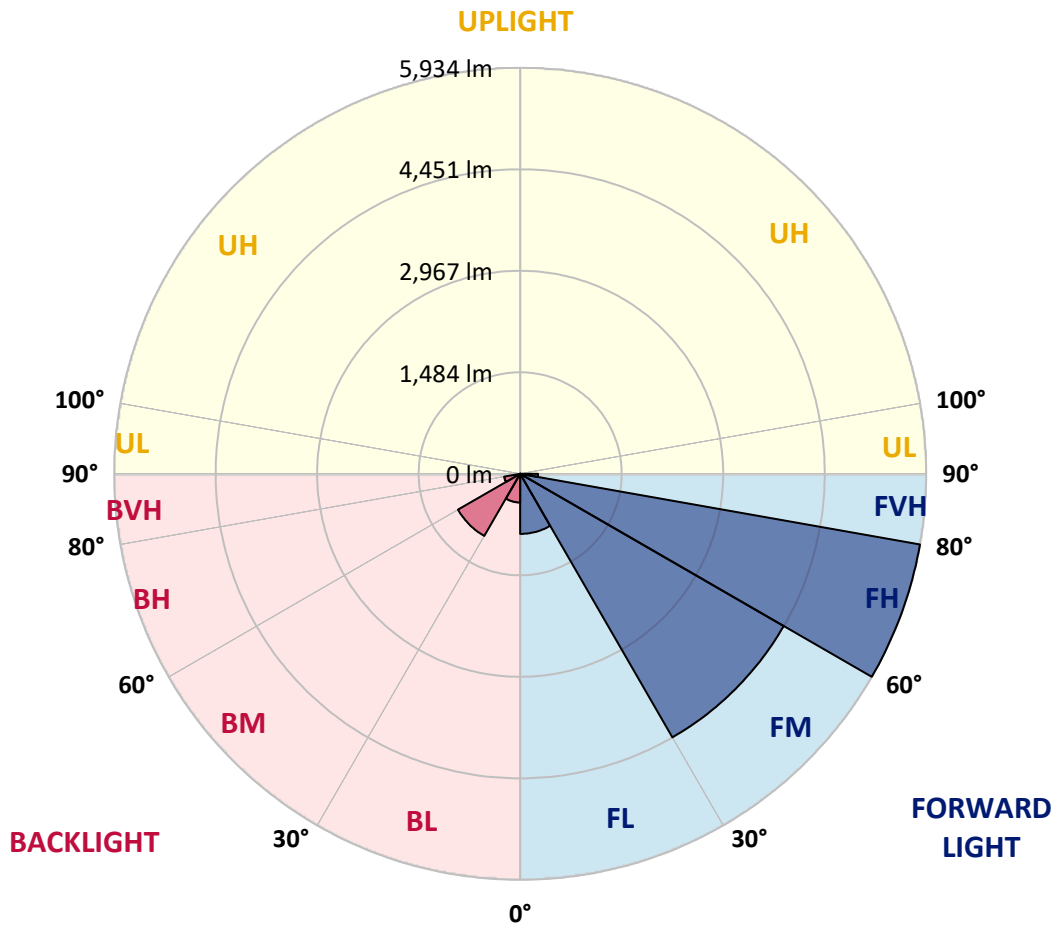
CATALOG NUMBER: NAV-SB3C-835-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 878.1 | 6.6 | | | |
| FM (30°-60°) | 4447.7 | 33.6 | | | |
| FH (60°-80°) | 5934.2 | 44.9 | | | G3/7500 |
| FVH (80°-90°) | 261.5 | 2.0 | | | G3/500 |
| BL (0°-30°) | 419.3 | 3.2 | B1/500 | | |
| BM (30°-60°) | 1049.1 | 7.9 | B2/2500 | | |
| BH (60°-80°) | 238.0 | 1.8 | B1/500 | | G1/500 |
| BVH (80°-90°) | 2.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B2-U0-G3

Type IV Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|---------|---------|---------|--------|--------|--------|--------|
| 0° | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 |
| 2.5° | 1804.6 | 1811.5 | 1807.6 | 1799.6 | 1797.6 | 1793.6 | 1788.6 | 1786.6 | 1779.7 | 1773.7 | 1766.7 |
| 5° | 1855.4 | 1862.4 | 1857.4 | 1846.4 | 1841.4 | 1836.5 | 1829.5 | 1823.5 | 1809.6 | 1796.6 | 1780.7 |
| 7.5° | 1911.2 | 1917.2 | 1911.2 | 1895.2 | 1887.3 | 1881.3 | 1871.3 | 1862.4 | 1846.4 | 1827.5 | 1807.6 |
| 10° | 1973.0 | 1978.0 | 1969.0 | 1948.1 | 1935.1 | 1926.1 | 1917.2 | 1907.2 | 1892.3 | 1871.3 | 1847.4 |
| 12.5° | 2030.8 | 2036.7 | 2022.8 | 1997.9 | 1982.9 | 1974.0 | 1964.0 | 1956.0 | 1941.1 | 1921.2 | 1896.2 |
| 15° | 2083.6 | 2092.5 | 2068.6 | 2041.7 | 2024.8 | 2017.8 | 2007.8 | 2002.9 | 1992.9 | 1978.9 | 1956.0 |
| 17.5° | 2123.4 | 2129.4 | 2104.5 | 2072.6 | 2053.7 | 2048.7 | 2041.7 | 2044.7 | 2042.7 | 2035.7 | 2020.8 |
| 20° | 2157.3 | 2161.3 | 2128.4 | 2089.6 | 2068.6 | 2069.6 | 2067.6 | 2077.6 | 2081.6 | 2081.6 | 2080.6 |
| 22.5° | 2199.2 | 2200.2 | 2158.3 | 2109.5 | 2084.6 | 2091.5 | 2094.5 | 2105.5 | 2113.5 | 2121.4 | 2139.4 |
| 25° | 2254.0 | 2252.0 | 2202.2 | 2135.4 | 2113.5 | 2123.4 | 2130.4 | 2134.4 | 2143.4 | 2156.3 | 2197.2 |
| 27.5° | 2335.7 | 2329.7 | 2265.9 | 2177.2 | 2151.3 | 2160.3 | 2173.3 | 2171.3 | 2167.3 | 2177.2 | 2246.0 |
| 30° | 2439.3 | 2431.3 | 2346.6 | 2236.0 | 2212.1 | 2220.1 | 2224.1 | 2206.1 | 2177.2 | 2186.2 | 2288.8 |
| 32.5° | 2603.7 | 2589.8 | 2472.2 | 2301.8 | 2264.9 | 2273.9 | 2268.9 | 2232.0 | 2189.2 | 2198.2 | 2331.7 |
| 35° | 2889.7 | 2855.8 | 2689.4 | 2439.3 | 2324.7 | 2314.8 | 2302.8 | 2266.9 | 2214.1 | 2205.1 | 2367.6 |
| 37.5° | 3497.5 | 3437.8 | 3153.8 | 2707.4 | 2460.2 | 2395.5 | 2358.6 | 2322.7 | 2241.0 | 2205.1 | 2408.4 |
| 40° | 4183.1 | 4122.3 | 3794.5 | 3155.8 | 2685.4 | 2575.8 | 2488.1 | 2388.5 | 2268.9 | 2218.1 | 2472.2 |
| 42.5° | 4898.5 | 4831.8 | 4495.0 | 3711.8 | 3007.3 | 2782.1 | 2618.7 | 2441.3 | 2314.8 | 2258.0 | 2556.9 |
| 45° | 5697.7 | 5614.0 | 5173.6 | 4291.7 | 3474.6 | 3124.9 | 2828.9 | 2549.9 | 2394.5 | 2328.7 | 2672.5 |
| 47.5° | 6540.7 | 6432.1 | 5850.2 | 4854.7 | 3977.8 | 3599.2 | 3213.6 | 2744.2 | 2512.1 | 2434.3 | 2828.9 |
| 50° | 7288.0 | 7180.4 | 6548.7 | 5443.6 | 4448.2 | 4050.6 | 3652.0 | 3013.3 | 2688.4 | 2583.8 | 3039.2 |
| 52.5° | 7825.1 | 7743.4 | 7184.4 | 6051.4 | 4937.4 | 4474.1 | 4049.6 | 3326.2 | 2911.6 | 2775.1 | 3287.3 |
| 55° | 8184.8 | 8110.1 | 7634.8 | 6627.4 | 5506.4 | 4940.4 | 4441.2 | 3665.9 | 3180.7 | 3004.3 | 3561.3 |
| 57.5° | 8403.1 | 8360.2 | 7960.6 | 7141.6 | 6070.4 | 5450.6 | 4889.6 | 4039.6 | 3497.5 | 3274.3 | 3867.2 |
| 60° | 8480.8 | 8445.9 | 8162.9 | 7631.8 | 6751.9 | 6063.4 | 5416.7 | 4461.1 | 3882.2 | 3581.2 | 4181.1 |
| 62.5° | 8273.5 | 8280.5 | 8308.4 | 8212.7 | 7470.4 | 6780.8 | 6048.5 | 4967.3 | 4308.7 | 3929.0 | 4476.1 |
| 65° | 7298.0 | 7355.8 | 7885.9 | 8856.4 | 8422.0 | 7679.6 | 6852.6 | 5585.1 | 4796.9 | 4324.6 | 4710.2 |
| 67.5° | 6042.5 | 6126.2 | 6785.8 | 9233.1 | 9436.4 | 8846.5 | 7972.6 | 6372.3 | 5378.8 | 4727.2 | 4798.9 |
| 70° | 4625.5 | 4715.2 | 5514.4 | 9154.4 | 10386.0 | 10121.9 | 9357.7 | 7373.7 | 5981.7 | 5006.2 | 4572.7 |
| 72.5° | 3301.2 | 3347.1 | 3976.8 | 8453.9 | 10775.6 | 10990.8 | 10378.0 | 8322.4 | 6289.6 | 4851.7 | 3729.7 |
| 75° | 2319.7 | 2311.8 | 2729.3 | 6807.7 | 10168.8 | 10885.2 | 10020.3 | 7809.2 | 5691.7 | 3854.3 | 2299.8 |
| 77.5° | 1010.4 | 1012.4 | 1363.1 | 4134.3 | 8116.1 | 9296.9 | 8329.3 | 4891.6 | 3967.9 | 2042.7 | 970.5 |
| 80° | 262.1 | 270.0 | 500.2 | 1646.1 | 4886.6 | 6136.1 | 5079.9 | 2150.3 | 1833.5 | 498.2 | 185.3 |
| 82.5° | 92.7 | 98.6 | 230.2 | 517.2 | 1802.6 | 2814.0 | 2261.9 | 687.6 | 478.3 | 142.5 | 49.8 |
| 85° | 26.9 | 31.9 | 123.6 | 158.4 | 372.7 | 795.2 | 549.0 | 133.5 | 117.6 | 73.7 | 13.0 |
| 87.5° | 0.0 | 4.0 | 24.9 | 21.9 | 21.9 | 14.9 | 27.9 | 14.9 | 18.9 | 9.0 | 4.0 |
| 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° | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 | 1751.8 |
| 2.5° | 1760.7 | 1753.8 | 1738.8 | 1722.9 | 1707.9 | 1694.0 | 1690.0 | 1675.0 | 1668.1 | 1669.1 | 1668.1 |
| 5° | 1769.7 | 1756.7 | 1727.8 | 1693.0 | 1657.1 | 1616.2 | 1582.4 | 1534.5 | 1493.7 | 1488.7 | 1485.7 |
| 7.5° | 1793.6 | 1772.7 | 1725.9 | 1658.1 | 1568.4 | 1455.8 | 1351.2 | 1247.6 | 1188.8 | 1156.9 | 1154.9 |
| 10° | 1830.5 | 1802.6 | 1730.8 | 1601.3 | 1411.0 | 1209.7 | 1051.3 | 920.7 | 854.0 | 823.1 | 817.1 |
| 12.5° | 1874.3 | 1843.4 | 1738.8 | 1504.6 | 1207.7 | 943.6 | 772.2 | 692.5 | 678.6 | 676.6 | 675.6 |
| 15° | 1936.1 | 1902.2 | 1747.8 | 1374.1 | 987.5 | 718.4 | 639.7 | 640.7 | 651.7 | 657.7 | 656.7 |
| 17.5° | 2004.9 | 1971.0 | 1734.8 | 1214.7 | 770.3 | 613.8 | 611.8 | 620.8 | 636.7 | 642.7 | 641.7 |
| 20° | 2074.6 | 2042.7 | 1689.0 | 1027.3 | 622.8 | 584.9 | 592.9 | 602.9 | 618.8 | 626.8 | 626.8 |
| 22.5° | 2146.4 | 2118.5 | 1616.2 | 828.1 | 562.0 | 564.0 | 574.0 | 583.9 | 601.9 | 610.8 | 610.8 |
| 25° | 2223.1 | 2199.2 | 1519.6 | 663.6 | 536.1 | 542.1 | 555.0 | 567.0 | 585.9 | 596.9 | 596.9 |
| 27.5° | 2300.8 | 2282.9 | 1410.0 | 554.0 | 512.2 | 519.2 | 534.1 | 550.0 | 569.0 | 581.9 | 582.9 |
| 30° | 2385.5 | 2375.5 | 1322.3 | 513.2 | 489.3 | 495.2 | 512.2 | 530.1 | 551.0 | 567.0 | 569.0 |
| 32.5° | 2472.2 | 2470.2 | 1279.4 | 543.1 | 468.3 | 472.3 | 487.3 | 505.2 | 531.1 | 551.0 | 553.0 |
| 35° | 2557.9 | 2561.9 | 1254.5 | 627.8 | 461.4 | 450.4 | 460.4 | 476.3 | 507.2 | 532.1 | 536.1 |
| 37.5° | 2667.5 | 2677.5 | 1253.5 | 719.4 | 478.3 | 428.5 | 435.4 | 446.4 | 473.3 | 502.2 | 507.2 |
| 40° | 2830.9 | 2883.7 | 1317.3 | 798.2 | 508.2 | 408.5 | 410.5 | 412.5 | 426.5 | 450.4 | 458.4 |
| 42.5° | 3048.1 | 3202.6 | 1547.5 | 852.0 | 520.1 | 390.6 | 383.6 | 372.7 | 370.7 | 383.6 | 390.6 |
| 45° | 3318.2 | 3588.2 | 1952.0 | 881.9 | 508.2 | 370.7 | 351.7 | 322.8 | 311.9 | 320.9 | 320.9 |
| 47.5° | 3636.0 | 4010.7 | 2431.3 | 888.8 | 488.3 | 345.8 | 311.9 | 274.0 | 265.1 | 268.0 | 267.0 |
| 50° | 3945.9 | 4327.6 | 2852.8 | 831.0 | 455.4 | 313.9 | 268.0 | 236.2 | 230.2 | 231.2 | 231.2 |
| 52.5° | 4220.0 | 4436.2 | 2972.4 | 694.5 | 411.5 | 275.0 | 230.2 | 208.3 | 204.3 | 204.3 | 203.3 |
| 55° | 4401.3 | 4318.6 | 2650.6 | 531.1 | 356.7 | 235.2 | 197.3 | 186.3 | 184.3 | 183.3 | 181.4 |
| 57.5° | 4439.2 | 3936.0 | 2001.9 | 383.6 | 279.0 | 198.3 | 175.4 | 169.4 | 165.4 | 161.4 | 159.4 |
| 60° | 4303.7 | 3298.2 | 1274.5 | 268.0 | 209.3 | 169.4 | 155.4 | 151.5 | 143.5 | 135.5 | 132.5 |
| 62.5° | 4010.7 | 2491.1 | 705.5 | 186.3 | 168.4 | 144.5 | 137.5 | 132.5 | 117.6 | 104.6 | 100.6 |
| 65° | 3617.1 | 1656.1 | 311.9 | 145.5 | 137.5 | 121.6 | 117.6 | 110.6 | 92.7 | 77.7 | 74.7 |
| 67.5° | 3221.5 | 953.6 | 140.5 | 116.6 | 110.6 | 99.6 | 96.7 | 91.7 | 78.7 | 64.8 | 62.8 |
| 70° | 2770.1 | 483.3 | 96.7 | 92.7 | 85.7 | 75.7 | 78.7 | 77.7 | 64.8 | 52.8 | 50.8 |
| 72.5° | 2062.7 | 240.1 | 72.7 | 69.8 | 61.8 | 53.8 | 64.8 | 63.8 | 50.8 | 39.9 | 37.9 |
| 75° | 1167.8 | 118.6 | 52.8 | 48.8 | 36.9 | 39.9 | 51.8 | 48.8 | 34.9 | 25.9 | 23.9 |
| 77.5° | 463.3 | 60.8 | 34.9 | 29.9 | 21.9 | 26.9 | 37.9 | 32.9 | 17.9 | 11.0 | 10.0 |
| 80° | 106.6 | 29.9 | 17.9 | 13.0 | 10.0 | 15.9 | 19.9 | 12.0 | 5.0 | 1.0 | 0.0 |
| 82.5° | 29.9 | 13.0 | 6.0 | 5.0 | 5.0 | 6.0 | 5.0 | 2.0 | 0.0 | 0.0 | 0.0 |
| 85° | 10.0 | 6.0 | 2.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.0 | 2.0 | 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)