

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: P961391

Luminaire Tested: **NAV-SB2A-735-U-AFL-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P961391
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-15)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB2A-735-U-AFL-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND AUTOMOTIVE
FRONTLINE OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 7840.2 lumens
Efficiency: N/A
Efficacy: 136.8 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type II - Short
BUG Rating: B1 - U0 - G1

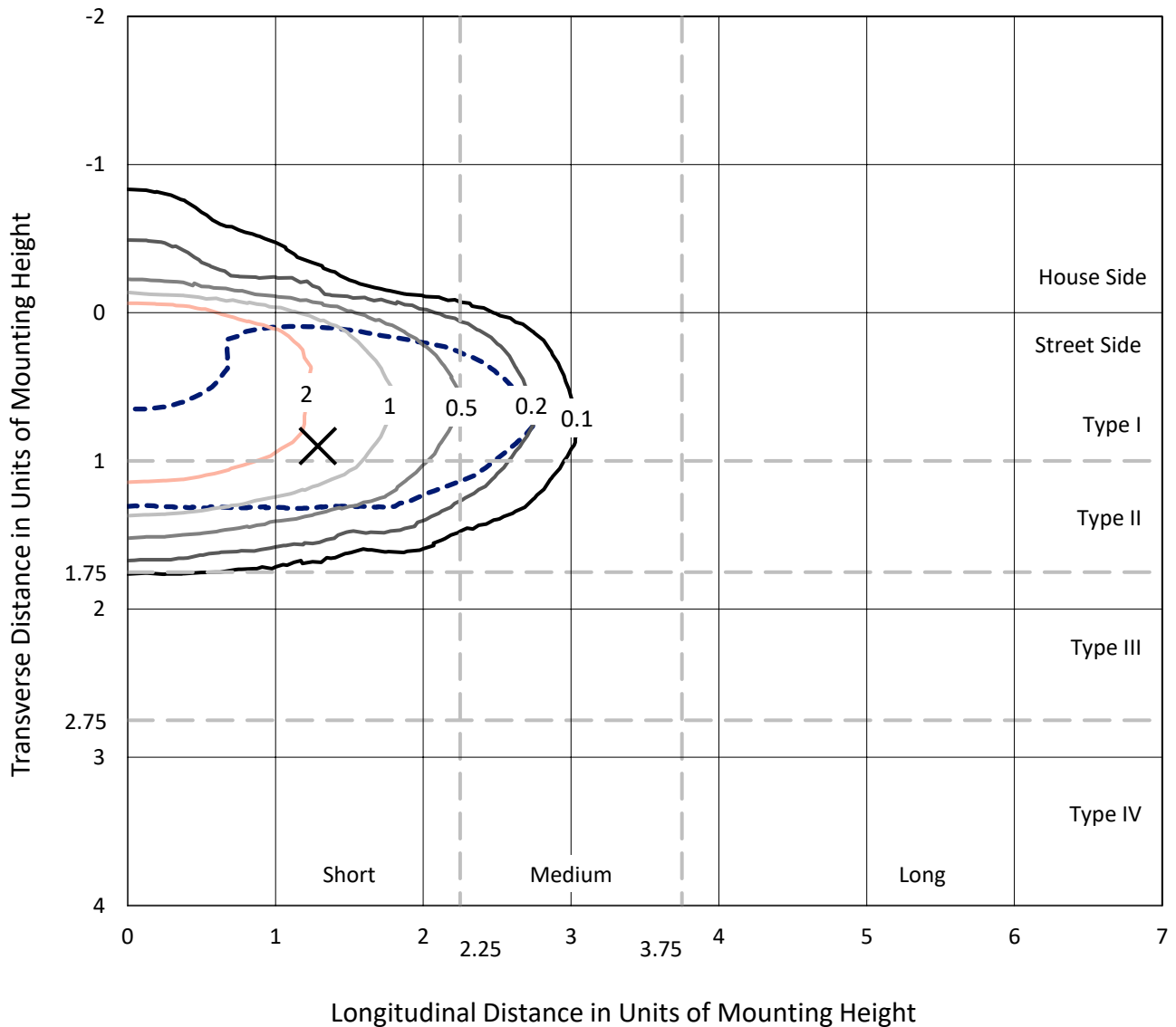
Input Watts (W): 57.3
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

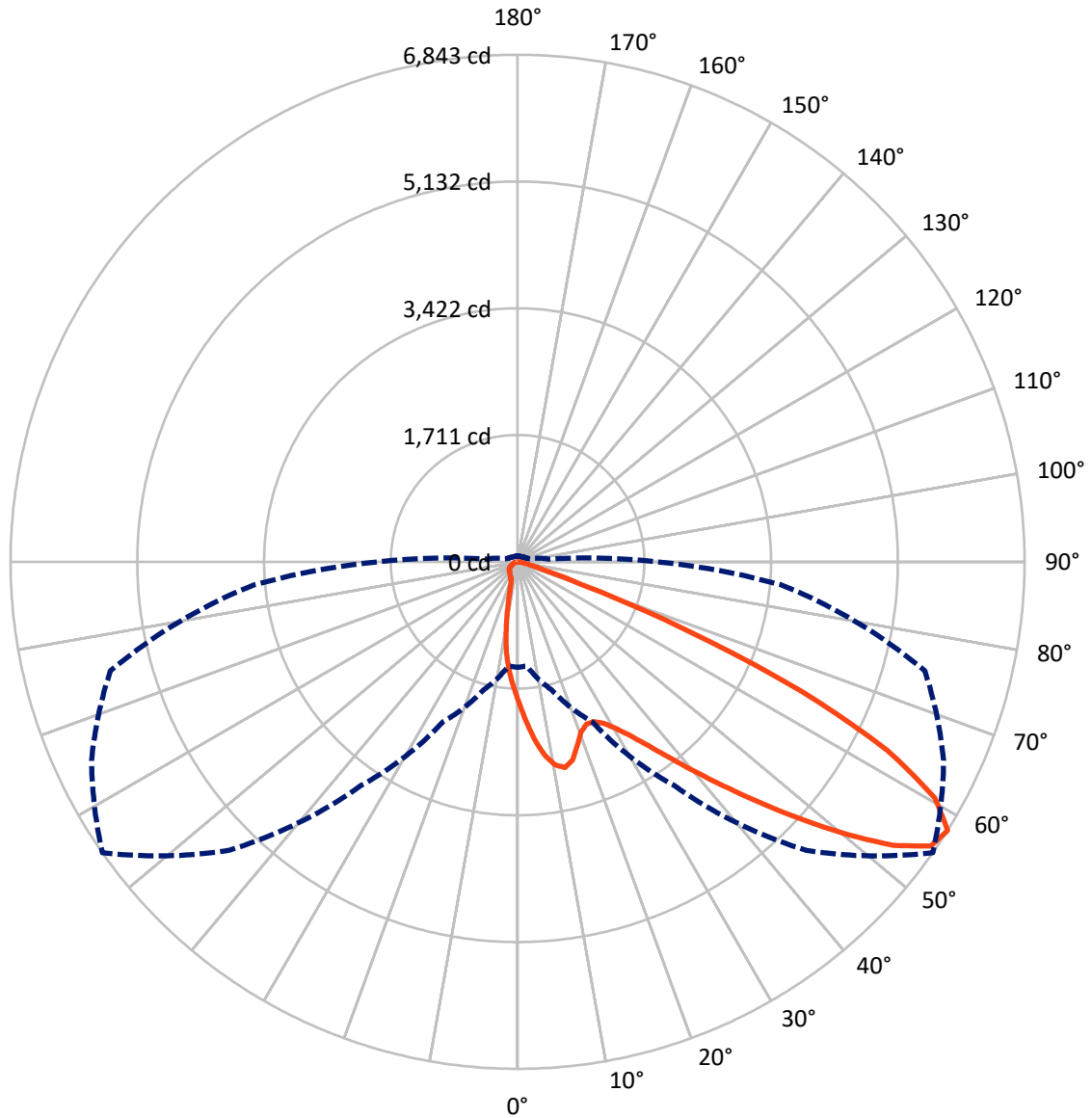
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 4.3 fc
 Type II - Short - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 55-Deg Lateral - - - Horizontal Cone Through 57.5-Deg Vertical

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FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 612.3 | 0.0 | 612.3 |
| | % Fixture | 7.8 | 0.0 | 7.8 |
| Street Side | Lumens | 7227.9 | 0.0 | 7227.9 |
| | % Fixture | 92.2 | 0.0 | 92.2 |
| Total | Lumens | 7840.2 | 0.0 | 7840.2 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 175.8 | 2.2 |
| 10°-20° | 424.6 | 5.4 |
| 20°-30° | 679.4 | 8.7 |
| 30°-40° | 1149.9 | 14.7 |
| 40°-50° | 1887.9 | 24.1 |
| 50°-60° | 2074.9 | 26.5 |
| 60°-70° | 1190.2 | 15.2 |
| 70°-80° | 243.2 | 3.1 |
| 80°-90° | 14.3 | 0.2 |
| 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° | 7840.2 | 100.0 |
| 0°-180° | 7840.2 | 100.0 |

Coefficient of Utilization



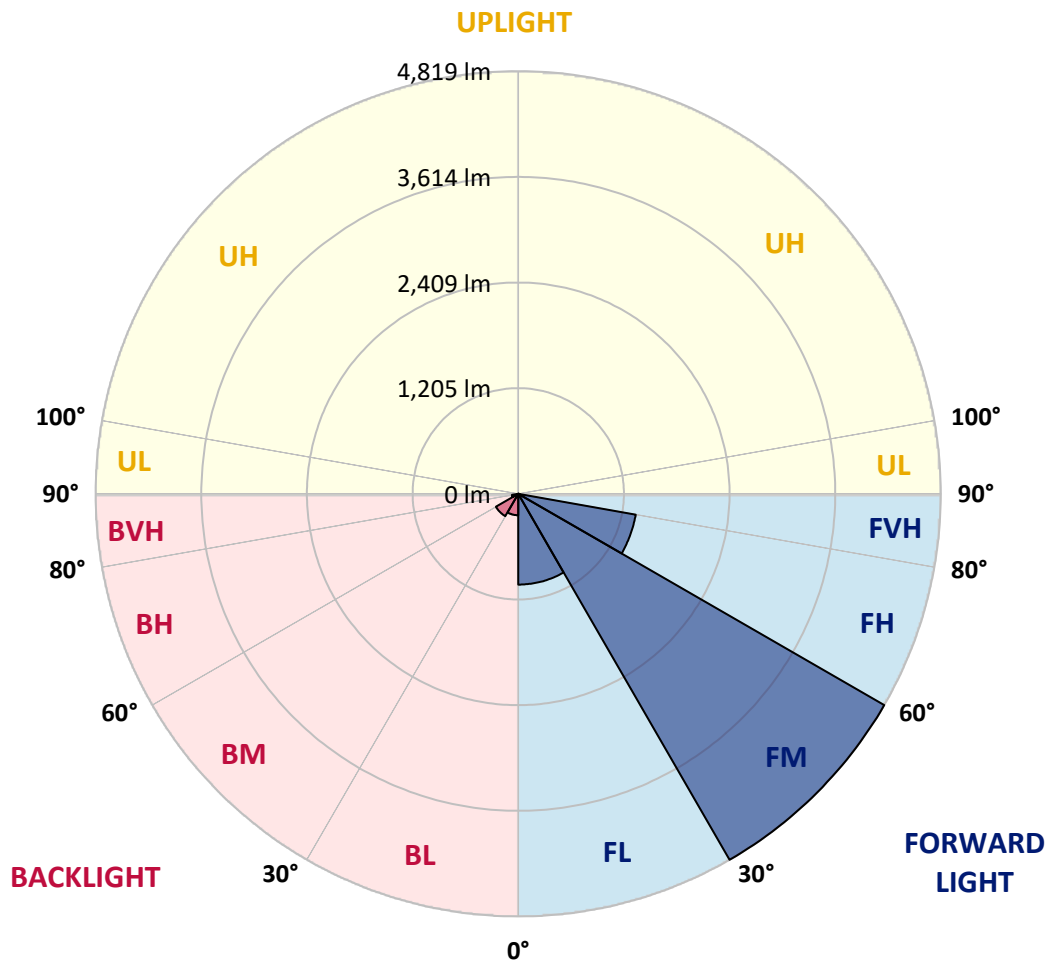
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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 1035.3 | 13.2 | | | |
| FM (30°-60°) | 4818.7 | 61.5 | | | |
| FH (60°-80°) | 1360.5 | 17.4 | | | G1/1800 |
| FVH (80°-90°) | 13.4 | 0.2 | | | G1/100 |
| BL (0°-30°) | 244.4 | 3.1 | B1/500 | | |
| BM (30°-60°) | 294.1 | 3.8 | B1/1000 | | |
| BH (60°-80°) | 72.8 | 0.9 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.0 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B1-U0-G1

Type II Short



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 |
| 2.5° | 2344.2 | 2314.8 | 2310.4 | 2304.6 | 2248.5 | 2206.4 | 2145.5 | 2078.8 | 2003.9 | 1927.5 | 1893.7 |
| 5° | 2708.3 | 2685.1 | 2680.7 | 2653.6 | 2589.8 | 2518.2 | 2410.0 | 2273.1 | 2133.4 | 1969.0 | 1898.5 |
| 7.5° | 2778.9 | 2774.5 | 2794.4 | 2793.3 | 2784.6 | 2728.0 | 2636.7 | 2473.7 | 2264.0 | 2020.3 | 1911.0 |
| 10° | 2464.1 | 2475.3 | 2534.2 | 2586.0 | 2725.7 | 2806.9 | 2787.1 | 2652.7 | 2398.4 | 2078.8 | 1925.1 |
| 12.5° | 2177.4 | 2164.4 | 2206.4 | 2264.9 | 2427.4 | 2669.1 | 2849.4 | 2802.0 | 2552.1 | 2145.0 | 1945.9 |
| 15° | 1997.6 | 1992.3 | 2016.0 | 2043.0 | 2166.7 | 2410.5 | 2776.9 | 2923.4 | 2700.1 | 2223.3 | 1977.3 |
| 17.5° | 1940.0 | 1935.7 | 1943.0 | 1949.8 | 2030.0 | 2218.5 | 2604.3 | 2997.8 | 2841.7 | 2312.8 | 2012.1 |
| 20° | 1987.0 | 1981.1 | 1980.2 | 1974.9 | 2008.2 | 2136.8 | 2448.2 | 3003.1 | 2968.8 | 2394.0 | 2042.1 |
| 22.5° | 2123.8 | 2117.0 | 2093.4 | 2072.0 | 2074.9 | 2148.0 | 2378.5 | 2950.0 | 3064.5 | 2469.9 | 2061.0 |
| 25° | 2371.7 | 2360.7 | 2311.4 | 2239.8 | 2194.3 | 2225.3 | 2389.2 | 2879.8 | 3156.0 | 2529.4 | 2051.7 |
| 27.5° | 2682.1 | 2667.7 | 2604.3 | 2497.9 | 2394.0 | 2356.3 | 2466.0 | 2831.6 | 3231.8 | 2574.8 | 2032.0 |
| 30° | 2986.2 | 2967.4 | 2905.1 | 2822.3 | 2670.5 | 2551.6 | 2604.8 | 2852.8 | 3322.2 | 2622.2 | 2005.8 |
| 32.5° | 3314.5 | 3296.6 | 3214.0 | 3111.5 | 2985.7 | 2825.7 | 2794.8 | 2956.7 | 3432.9 | 2688.5 | 1987.5 |
| 35° | 3729.8 | 3701.7 | 3584.2 | 3444.5 | 3311.2 | 3149.1 | 3051.9 | 3136.1 | 3580.4 | 2789.4 | 1997.6 |
| 37.5° | 4202.6 | 4164.9 | 4038.2 | 3845.3 | 3671.2 | 3490.0 | 3365.3 | 3382.7 | 3796.5 | 2924.8 | 2029.0 |
| 40° | 4648.3 | 4614.0 | 4497.0 | 4315.2 | 4096.7 | 3876.8 | 3743.8 | 3705.1 | 4094.8 | 3089.7 | 2084.1 |
| 42.5° | 4915.7 | 4884.7 | 4835.4 | 4758.6 | 4574.4 | 4350.0 | 4182.3 | 4098.7 | 4447.7 | 3287.0 | 2151.4 |
| 45° | 4930.7 | 4903.6 | 4969.8 | 5059.3 | 5023.0 | 4873.6 | 4669.1 | 4515.8 | 4802.0 | 3472.1 | 2221.0 |
| 47.5° | 4690.9 | 4672.5 | 4873.6 | 5185.9 | 5341.6 | 5404.4 | 5215.9 | 4898.3 | 5094.6 | 3605.0 | 2249.5 |
| 50° | 4037.3 | 4030.5 | 4444.3 | 5017.7 | 5462.9 | 5869.5 | 5792.6 | 5254.0 | 5321.3 | 3673.7 | 2222.4 |
| 52.5° | 3500.6 | 3476.0 | 3717.2 | 4479.1 | 5286.4 | 6114.1 | 6356.3 | 5603.2 | 5479.9 | 3686.7 | 2159.1 |
| 55° | 2655.1 | 2633.3 | 2935.9 | 3578.0 | 4717.5 | 6027.1 | 6768.7 | 5963.2 | 5593.4 | 3653.4 | 2045.5 |
| 57.5° | 1424.2 | 1410.7 | 1793.1 | 2381.5 | 3687.7 | 5505.0 | 6843.2 | 6344.2 | 5689.2 | 3565.0 | 1886.4 |
| 60° | 554.5 | 552.1 | 695.2 | 1155.5 | 2241.3 | 4478.6 | 6467.5 | 6572.9 | 5749.1 | 3456.1 | 1753.5 |
| 62.5° | 335.5 | 342.8 | 365.9 | 518.8 | 990.0 | 2782.3 | 5601.6 | 6312.8 | 5789.2 | 3356.6 | 1643.7 |
| 65° | 277.5 | 278.0 | 280.8 | 356.3 | 474.3 | 1164.1 | 4217.1 | 5457.1 | 5690.2 | 3179.1 | 1488.0 |
| 67.5° | 237.9 | 242.2 | 253.3 | 282.8 | 334.6 | 510.6 | 2427.8 | 4227.2 | 5087.3 | 2766.3 | 1245.4 |
| 70° | 187.6 | 193.4 | 207.4 | 232.6 | 258.2 | 319.6 | 897.3 | 2812.7 | 3886.4 | 2085.1 | 941.8 |
| 72.5° | 158.1 | 157.6 | 164.8 | 189.0 | 205.0 | 224.8 | 345.2 | 1576.0 | 2258.7 | 995.4 | 466.1 |
| 75° | 122.3 | 127.1 | 136.3 | 158.1 | 167.8 | 162.9 | 187.1 | 575.7 | 809.2 | 301.7 | 158.6 |
| 77.5° | 95.7 | 99.6 | 107.8 | 129.0 | 138.8 | 115.5 | 107.8 | 205.9 | 260.0 | 108.3 | 71.5 |
| 80° | 43.0 | 46.4 | 73.5 | 95.2 | 113.2 | 79.7 | 58.5 | 105.4 | 115.5 | 49.3 | 36.3 |
| 82.5° | 7.7 | 13.0 | 43.0 | 50.3 | 58.0 | 51.8 | 30.4 | 54.6 | 56.6 | 19.8 | 12.6 |
| 85° | 0.5 | 0.9 | 15.0 | 18.3 | 23.2 | 16.9 | 9.2 | 21.7 | 18.9 | 6.8 | 4.8 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.5 | 0.5 | 2.5 | 2.9 | 3.9 | 2.9 | 2.5 | 1.9 |
| 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):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 | 1889.3 |
| 2.5° | 1858.8 | 1790.2 | 1723.4 | 1668.8 | 1636.9 | 1582.8 | 1547.0 | 1541.2 | 1526.2 | 1539.2 |
| 5° | 1823.1 | 1700.3 | 1576.0 | 1464.8 | 1373.5 | 1255.5 | 1167.5 | 1130.3 | 1097.9 | 1109.0 |
| 7.5° | 1806.2 | 1612.3 | 1418.9 | 1228.9 | 1033.6 | 845.0 | 704.9 | 646.4 | 601.9 | 608.1 |
| 10° | 1783.4 | 1520.9 | 1217.8 | 927.7 | 666.1 | 480.1 | 383.3 | 347.6 | 327.8 | 328.3 |
| 12.5° | 1766.0 | 1411.6 | 984.3 | 628.9 | 405.6 | 306.5 | 276.5 | 267.8 | 262.0 | 262.5 |
| 15° | 1757.4 | 1283.1 | 753.7 | 419.1 | 290.1 | 259.6 | 252.4 | 248.5 | 244.7 | 244.2 |
| 17.5° | 1742.8 | 1140.0 | 551.7 | 306.1 | 253.8 | 243.1 | 236.9 | 232.6 | 227.7 | 226.7 |
| 20° | 1721.1 | 977.5 | 403.2 | 258.6 | 237.9 | 229.6 | 220.9 | 215.1 | 209.3 | 208.4 |
| 22.5° | 1680.9 | 805.9 | 309.9 | 239.3 | 226.2 | 217.1 | 206.4 | 199.7 | 193.8 | 192.9 |
| 25° | 1606.5 | 644.9 | 261.1 | 227.2 | 216.1 | 205.0 | 193.4 | 184.2 | 178.9 | 177.9 |
| 27.5° | 1512.2 | 506.7 | 236.9 | 216.1 | 203.1 | 192.9 | 179.9 | 171.2 | 166.3 | 165.3 |
| 30° | 1401.1 | 390.1 | 222.8 | 203.6 | 187.6 | 178.9 | 167.3 | 160.0 | 157.1 | 157.1 |
| 32.5° | 1281.1 | 311.8 | 217.1 | 191.0 | 174.0 | 164.4 | 155.2 | 152.3 | 151.3 | 150.9 |
| 35° | 1168.5 | 270.7 | 214.1 | 180.8 | 162.0 | 152.7 | 148.9 | 149.3 | 151.3 | 151.3 |
| 37.5° | 1068.5 | 257.7 | 212.7 | 173.5 | 151.3 | 143.1 | 145.5 | 149.9 | 147.9 | 147.9 |
| 40° | 978.1 | 259.1 | 211.8 | 168.2 | 142.6 | 137.8 | 142.6 | 139.2 | 134.4 | 133.9 |
| 42.5° | 908.9 | 271.2 | 209.8 | 163.9 | 137.2 | 133.9 | 132.0 | 126.7 | 126.2 | 127.1 |
| 45° | 858.6 | 281.9 | 209.3 | 162.0 | 131.5 | 125.3 | 122.8 | 117.5 | 127.1 | 129.6 |
| 47.5° | 799.1 | 281.9 | 209.3 | 155.2 | 121.9 | 119.4 | 115.5 | 109.8 | 119.4 | 121.9 |
| 50° | 722.2 | 263.9 | 201.1 | 147.5 | 114.1 | 112.6 | 105.9 | 98.6 | 96.7 | 98.1 |
| 52.5° | 625.0 | 231.5 | 180.3 | 136.8 | 106.4 | 103.4 | 95.2 | 89.9 | 88.5 | 88.5 |
| 55° | 514.3 | 193.8 | 152.3 | 121.4 | 98.1 | 92.9 | 87.0 | 84.6 | 83.1 | 82.2 |
| 57.5° | 418.2 | 159.1 | 122.3 | 107.8 | 90.4 | 83.6 | 81.7 | 78.8 | 76.4 | 74.9 |
| 60° | 343.3 | 125.3 | 101.1 | 95.7 | 82.7 | 76.4 | 75.8 | 72.1 | 65.7 | 64.8 |
| 62.5° | 265.0 | 91.8 | 85.1 | 83.1 | 74.9 | 69.6 | 68.7 | 60.9 | 51.2 | 49.3 |
| 65° | 187.1 | 71.5 | 68.7 | 73.0 | 66.7 | 61.9 | 59.4 | 47.9 | 37.7 | 36.3 |
| 67.5° | 131.5 | 60.0 | 54.1 | 63.9 | 58.0 | 51.8 | 50.3 | 40.6 | 31.5 | 30.4 |
| 70° | 93.8 | 48.8 | 44.5 | 54.6 | 46.4 | 45.4 | 42.5 | 33.8 | 25.6 | 24.7 |
| 72.5° | 66.2 | 37.2 | 34.3 | 47.4 | 31.9 | 39.2 | 34.8 | 26.1 | 19.4 | 18.3 |
| 75° | 48.8 | 26.5 | 24.2 | 27.6 | 23.2 | 29.5 | 24.7 | 17.4 | 12.1 | 11.6 |
| 77.5° | 35.8 | 16.9 | 14.5 | 13.5 | 13.5 | 18.3 | 13.5 | 7.3 | 5.3 | 4.8 |
| 80° | 25.1 | 7.7 | 6.8 | 5.8 | 5.3 | 4.3 | 1.9 | 0.9 | 0.5 | 0.5 |
| 82.5° | 15.0 | 3.4 | 3.4 | 2.5 | 1.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 3.4 | 1.4 | 1.4 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.5 | 0.5 | 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 |

(END OF REPORT)