

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: P968682

Luminaire Tested: **NAV-SB5C-722-U-SL3**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P968682
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-12)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB5C-722-U-SL3
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(5) 70 CRI, 2200K, 615mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE III
SPILL LIGHT ELIMINATOR OPTICS
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 31306.6 lumens
Efficiency: N/A
Efficacy: 125.5 lumens/watt
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')
IES Classification: Type IV - Medium
BUG Rating: B3 - U0 - G5

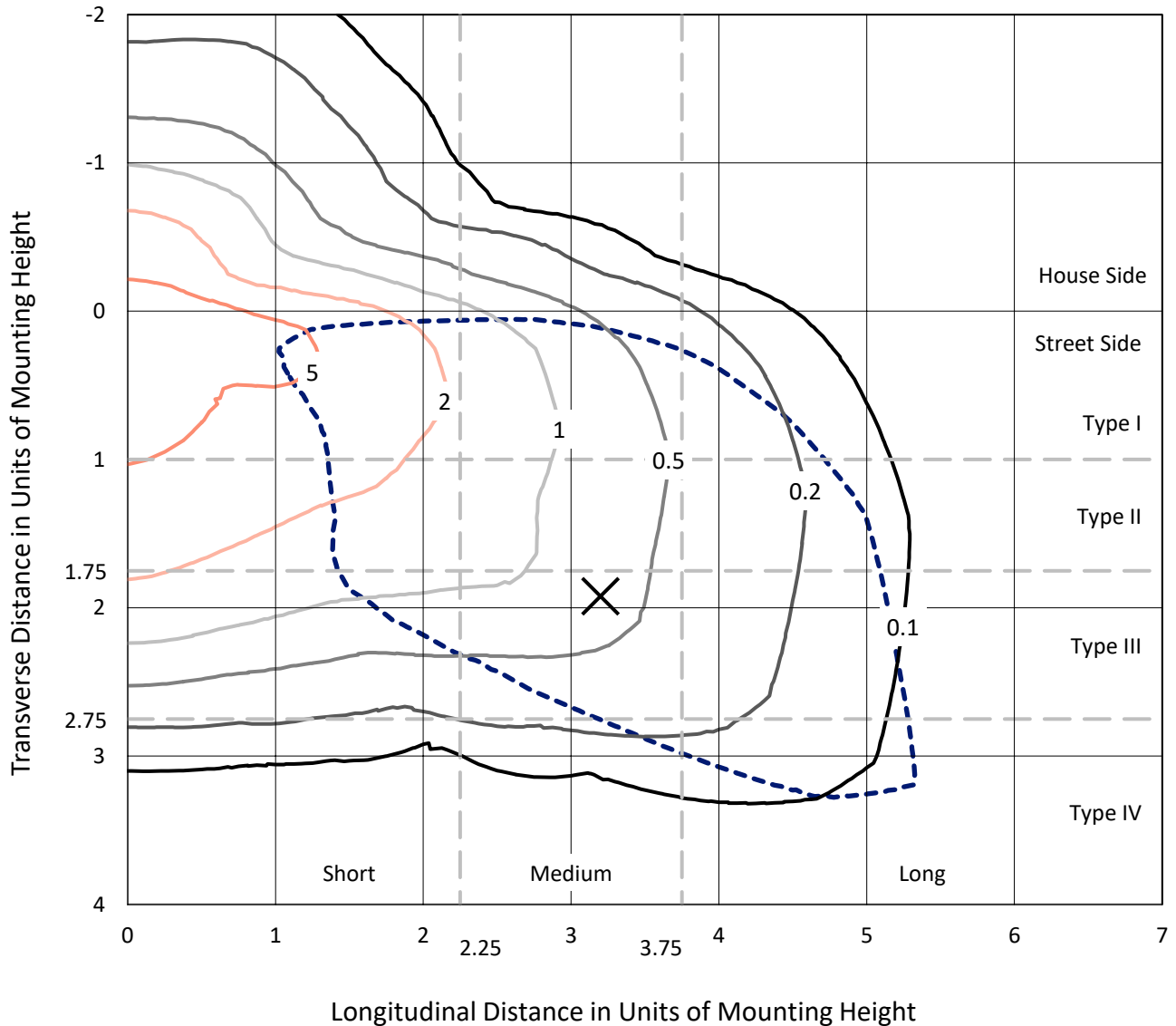
Input Watts (W): 249.5
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



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Iso-Footcandle Lines of Horizontal Illumination

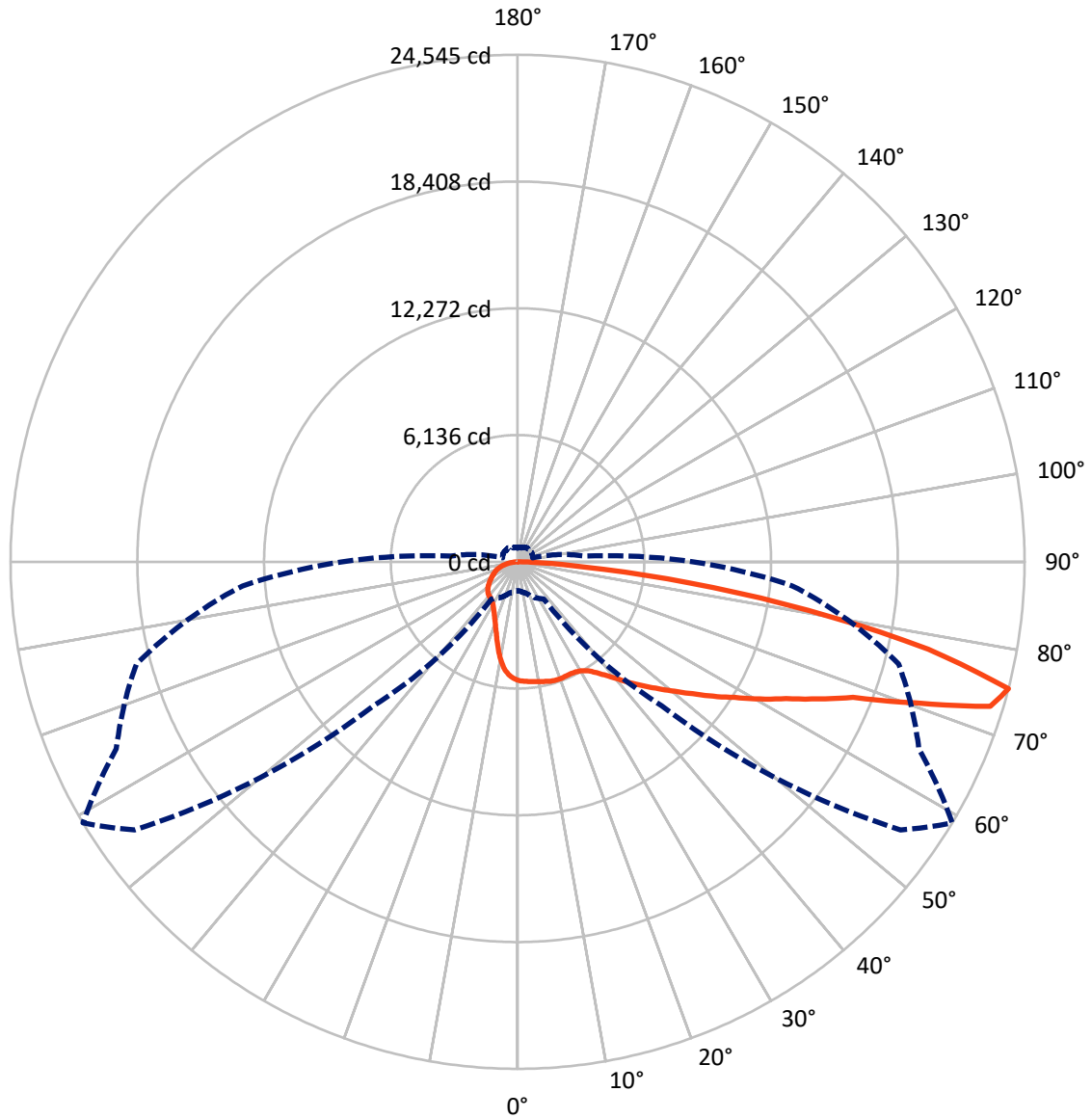
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 9.2 fc
 Type IV - Medium - N/A

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Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 75-Deg Vertical

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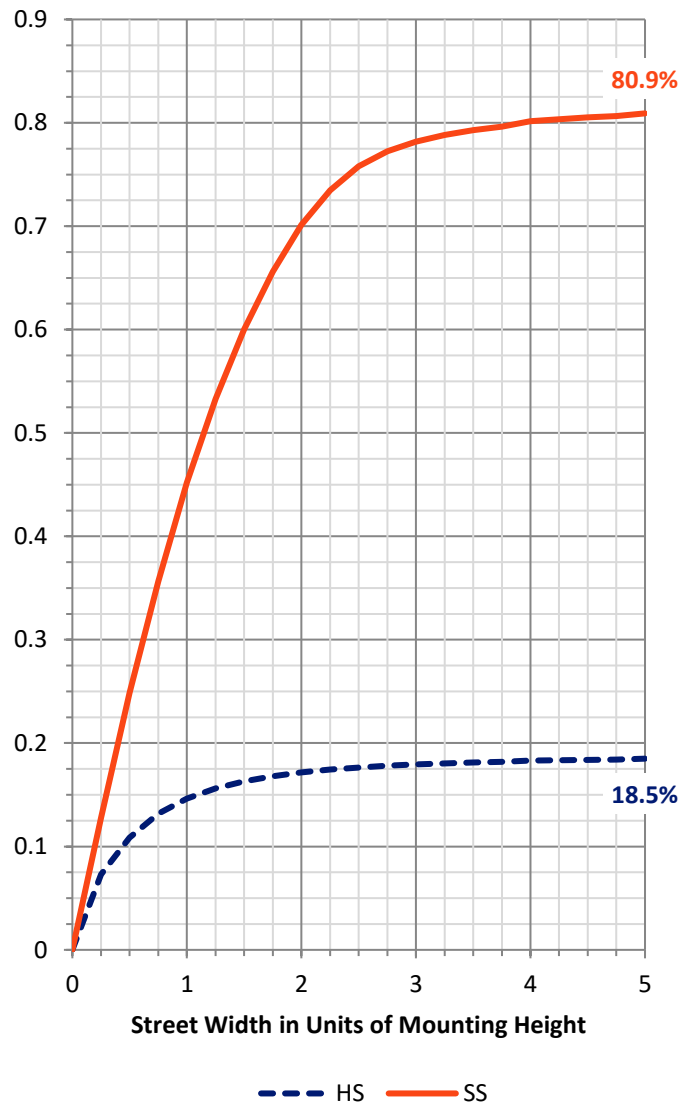
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 5871.8 | 0.0 | 5871.8 |
| | % Fixture | 18.8 | 0.0 | 18.8 |
| Street Side | Lumens | 25434.8 | 0.0 | 25434.8 |
| | % Fixture | 81.2 | 0.0 | 81.2 |
| Total | Lumens | 31306.6 | 0.0 | 31306.6 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 515.2 | 1.6 |
| 10°-20° | 1317.0 | 4.2 |
| 20°-30° | 2000.4 | 6.4 |
| 30°-40° | 2973.6 | 9.5 |
| 40°-50° | 4422.2 | 14.1 |
| 50°-60° | 6002.6 | 19.2 |
| 60°-70° | 7328.2 | 23.4 |
| 70°-80° | 5751.1 | 18.4 |
| 80°-90° | 996.2 | 3.2 |
| 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° | 31306.6 | 100.0 |
| 0°-180° | 31306.6 | 100.0 |

Coefficient of Utilization

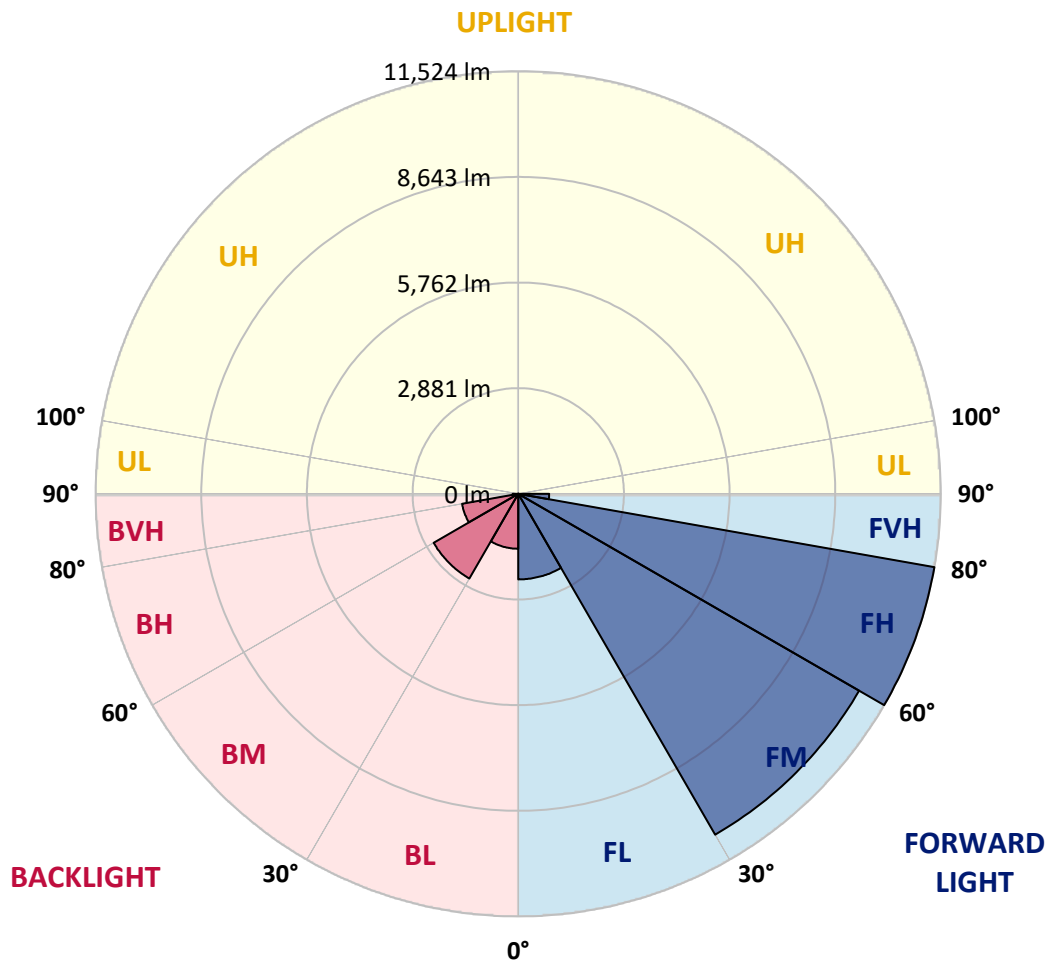


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LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|---------|-----------|-------------------------|------|----------|
| | | | B | U | G |
| FL (0°-30°) | 2334.2 | 7.5 | | | |
| FM (30°-60°) | 10733.2 | 34.3 | | | |
| FH (60°-80°) | 11523.6 | 36.8 | | | G4/12000 |
| FVH (80°-90°) | 843.7 | 2.7 | | | G5 |
| BL (0°-30°) | 1498.4 | 4.8 | B3/2500 | | |
| BM (30°-60°) | 2665.2 | 8.5 | B3/5000 | | |
| BH (60°-80°) | 1555.6 | 5.0 | B3/2500 | | G3/2500 |
| BVH (80°-90°) | 152.5 | 0.5 | | | G2/225 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B3-U0-G5
 Type IV Medium



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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0° | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 |
| 2.5° | 5795.0 | 5774.8 | 5795.0 | 5786.6 | 5783.3 | 5776.6 | 5778.2 | 5790.0 | 5783.3 | 5791.8 | 5763.1 |
| 5° | 5756.4 | 5744.6 | 5764.8 | 5759.7 | 5781.6 | 5785.0 | 5806.8 | 5820.4 | 5828.8 | 5830.5 | 5808.6 |
| 7.5° | 5692.3 | 5680.5 | 5709.2 | 5732.8 | 5780.0 | 5793.4 | 5838.9 | 5860.7 | 5872.5 | 5892.7 | 5860.7 |
| 10° | 5458.2 | 5453.2 | 5523.9 | 5613.2 | 5724.3 | 5793.4 | 5862.5 | 5899.5 | 5918.0 | 5972.0 | 5934.9 |
| 12.5° | 5043.9 | 5050.7 | 5143.3 | 5315.1 | 5537.5 | 5759.7 | 5889.4 | 5943.3 | 5972.0 | 6039.3 | 6022.5 |
| 15° | 4648.2 | 4646.5 | 4747.6 | 4931.2 | 5242.7 | 5611.6 | 5902.9 | 5995.5 | 6044.3 | 6143.7 | 6130.2 |
| 17.5° | 4419.2 | 4412.4 | 4483.1 | 4623.0 | 4912.6 | 5384.1 | 5869.2 | 6024.1 | 6128.6 | 6253.2 | 6241.4 |
| 20° | 4377.1 | 4363.6 | 4400.6 | 4469.7 | 4675.1 | 5134.9 | 5781.6 | 6024.1 | 6195.9 | 6357.6 | 6350.9 |
| 22.5° | 4530.3 | 4508.5 | 4493.3 | 4484.9 | 4575.8 | 4929.4 | 5682.3 | 6003.9 | 6295.2 | 6507.5 | 6495.7 |
| 25° | 4838.5 | 4804.8 | 4727.4 | 4651.6 | 4624.6 | 4836.9 | 5594.7 | 5998.9 | 6443.5 | 6709.5 | 6665.8 |
| 27.5° | 5337.0 | 5294.9 | 5138.3 | 4956.4 | 4793.0 | 4884.0 | 5555.9 | 6029.2 | 6606.8 | 6923.5 | 6835.9 |
| 30° | 5955.0 | 5909.6 | 5712.5 | 5433.0 | 5140.0 | 5059.1 | 5604.8 | 6118.4 | 6815.6 | 7208.1 | 7036.3 |
| 32.5° | 6509.2 | 6458.6 | 6290.2 | 6005.6 | 5609.8 | 5362.3 | 5759.7 | 6288.6 | 7144.0 | 7603.9 | 7337.8 |
| 35° | 7001.0 | 6942.0 | 6790.4 | 6527.7 | 6185.8 | 5788.4 | 6039.3 | 6590.0 | 7610.6 | 8247.2 | 7746.9 |
| 37.5° | 7482.6 | 7413.5 | 7248.5 | 6970.6 | 6731.5 | 6355.9 | 6425.0 | 6977.4 | 8230.3 | 9028.6 | 8289.3 |
| 40° | 8021.5 | 7922.1 | 7721.7 | 7447.2 | 7214.8 | 7021.1 | 6931.9 | 7452.3 | 8860.2 | 9901.0 | 8966.3 |
| 42.5° | 8543.6 | 8449.3 | 8210.1 | 7976.0 | 7684.7 | 7629.1 | 7519.6 | 8008.0 | 9549.0 | 10859.3 | 9653.4 |
| 45° | 9106.1 | 8993.2 | 8703.6 | 8407.2 | 8223.6 | 8033.3 | 8088.9 | 8563.8 | 10224.4 | 11836.1 | 10374.2 |
| 47.5° | 9633.3 | 9506.9 | 9165.0 | 8835.0 | 8733.9 | 8373.5 | 8610.9 | 9175.2 | 10926.6 | 12826.3 | 11088.3 |
| 50° | 9917.8 | 9793.3 | 9508.6 | 9210.5 | 9131.3 | 8792.9 | 9176.8 | 9847.1 | 11662.6 | 13813.2 | 11773.8 |
| 52.5° | 10155.3 | 10020.6 | 9648.4 | 9483.3 | 9459.7 | 9249.3 | 9874.0 | 10615.1 | 12398.6 | 14685.6 | 12435.6 |
| 55° | 10408.0 | 10258.0 | 9783.1 | 9634.9 | 9742.7 | 9761.2 | 10701.0 | 11485.7 | 13176.7 | 15536.1 | 13060.4 |
| 57.5° | 10699.3 | 10509.0 | 9912.8 | 9762.9 | 10018.9 | 10360.8 | 11650.8 | 12388.5 | 13941.2 | 16324.3 | 13616.2 |
| 60° | 10973.8 | 10781.8 | 10162.1 | 9966.7 | 10316.9 | 11056.3 | 12740.4 | 13481.4 | 14806.8 | 17026.6 | 14141.6 |
| 62.5° | 11027.7 | 10869.4 | 10360.8 | 10359.1 | 10721.2 | 11868.1 | 14030.5 | 14584.5 | 15563.1 | 17720.4 | 14613.2 |
| 65° | 10094.7 | 9995.3 | 9693.8 | 10343.9 | 11300.5 | 13036.9 | 15467.0 | 15995.8 | 16524.6 | 18326.7 | 15027.5 |
| 67.5° | 7683.0 | 7696.5 | 7674.6 | 8929.3 | 10832.3 | 14715.9 | 17547.0 | 17506.5 | 17712.0 | 19007.1 | 15504.1 |
| 70° | 3513.1 | 3592.2 | 4107.6 | 6163.9 | 8678.4 | 14909.6 | 20986.0 | 20462.2 | 19202.5 | 19887.9 | 15916.7 |
| 72.5° | 1898.0 | 1958.7 | 2169.2 | 2985.9 | 5217.5 | 13255.8 | 23555.9 | 23928.1 | 21184.7 | 20480.7 | 15463.7 |
| 75° | 1392.8 | 1426.5 | 1573.0 | 1898.0 | 2191.0 | 9852.2 | 22634.7 | 24544.5 | 21432.2 | 19098.0 | 13353.5 |
| 77.5° | 1042.5 | 1057.6 | 1177.2 | 1503.9 | 1121.7 | 5193.9 | 18085.9 | 20327.5 | 18346.9 | 15691.0 | 9864.0 |
| 80° | 756.1 | 773.1 | 862.2 | 1128.3 | 786.5 | 1899.7 | 12418.8 | 14268.0 | 12565.3 | 10002.1 | 4916.0 |
| 82.5° | 522.0 | 528.8 | 567.5 | 767.9 | 549.0 | 737.7 | 7046.4 | 8366.8 | 7014.4 | 3509.7 | 1327.1 |
| 85° | 315.0 | 323.4 | 340.2 | 448.0 | 311.6 | 350.3 | 3041.6 | 3145.9 | 2096.7 | 838.7 | 412.6 |
| 87.5° | 129.7 | 138.1 | 151.6 | 188.6 | 122.9 | 97.7 | 501.8 | 629.9 | 392.4 | 245.9 | 128.0 |
| 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° | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 | 5746.3 |
| 2.5° | 5754.7 | 5742.9 | 5710.9 | 5667.1 | 5626.6 | 5576.2 | 5554.3 | 5535.7 | 5518.9 | 5486.9 | 5471.8 |
| 5° | 5790.0 | 5758.0 | 5672.1 | 5561.0 | 5434.7 | 5296.6 | 5161.9 | 5069.2 | 4990.1 | 4931.2 | 4882.3 |
| 7.5° | 5843.9 | 5783.3 | 5626.6 | 5399.3 | 5109.6 | 4813.2 | 4545.5 | 4355.1 | 4212.0 | 4159.8 | 4068.8 |
| 10° | 5899.5 | 5827.1 | 5554.3 | 5153.4 | 4653.3 | 4196.9 | 3841.5 | 3646.1 | 3531.6 | 3494.5 | 3437.3 |
| 12.5° | 5965.2 | 5859.1 | 5441.4 | 4811.6 | 4142.9 | 3642.7 | 3332.9 | 3218.4 | 3159.5 | 3139.3 | 3144.3 |
| 15° | 6061.2 | 5886.1 | 5271.4 | 4383.8 | 3656.3 | 3238.6 | 3038.2 | 2959.0 | 2928.7 | 2927.0 | 2933.8 |
| 17.5° | 6133.6 | 5891.1 | 5006.9 | 3925.7 | 3282.4 | 2994.3 | 2829.3 | 2799.1 | 2819.3 | 2849.5 | 2861.3 |
| 20° | 6214.5 | 5845.6 | 4660.0 | 3508.1 | 3019.6 | 2780.5 | 2711.4 | 2731.6 | 2780.5 | 2824.3 | 2839.5 |
| 22.5° | 6271.7 | 5763.1 | 4240.6 | 3183.0 | 2792.3 | 2657.5 | 2654.2 | 2696.3 | 2723.2 | 2745.2 | 2756.9 |
| 25° | 6322.2 | 5623.4 | 3796.0 | 2910.2 | 2605.3 | 2583.4 | 2620.5 | 2607.0 | 2588.5 | 2607.0 | 2618.8 |
| 27.5° | 6359.3 | 5402.7 | 3398.6 | 2671.0 | 2473.9 | 2533.0 | 2511.0 | 2480.7 | 2479.1 | 2489.1 | 2506.0 |
| 30° | 6347.5 | 5108.0 | 3071.8 | 2443.7 | 2381.4 | 2438.6 | 2386.4 | 2381.4 | 2376.3 | 2381.4 | 2399.9 |
| 32.5° | 6347.5 | 4772.8 | 2820.9 | 2287.1 | 2322.4 | 2300.5 | 2295.5 | 2283.7 | 2263.5 | 2261.8 | 2283.7 |
| 35° | 6382.9 | 4437.6 | 2605.3 | 2202.8 | 2273.6 | 2221.4 | 2224.8 | 2196.1 | 2154.0 | 2133.7 | 2154.0 |
| 37.5° | 6455.2 | 4168.3 | 2391.4 | 2162.4 | 2187.7 | 2186.0 | 2172.5 | 2123.7 | 2049.6 | 1985.6 | 2007.5 |
| 40° | 6630.4 | 4089.0 | 2245.0 | 2143.9 | 2147.3 | 2167.5 | 2132.1 | 2037.8 | 1869.4 | 1764.9 | 1778.5 |
| 42.5° | 6904.9 | 4222.1 | 2213.0 | 2098.4 | 2120.3 | 2140.5 | 2071.5 | 1852.6 | 1733.0 | 1670.6 | 1670.6 |
| 45° | 7253.5 | 4454.5 | 2282.0 | 2032.8 | 2056.4 | 2091.7 | 1886.2 | 1781.9 | 1727.9 | 1729.6 | 1738.0 |
| 47.5° | 7694.8 | 4698.7 | 2410.0 | 1975.5 | 1963.7 | 1983.9 | 1763.3 | 1699.2 | 1625.1 | 1643.7 | 1690.8 |
| 50° | 8205.1 | 4946.2 | 2531.2 | 1898.0 | 1861.0 | 1795.3 | 1684.2 | 1623.5 | 1529.2 | 1485.4 | 1497.2 |
| 52.5° | 8757.5 | 5185.5 | 2580.1 | 1803.7 | 1749.8 | 1674.0 | 1630.3 | 1556.2 | 1441.7 | 1369.2 | 1367.6 |
| 55° | 9281.3 | 5402.7 | 2526.2 | 1690.8 | 1638.7 | 1579.7 | 1573.0 | 1527.5 | 1404.6 | 1303.5 | 1303.5 |
| 57.5° | 9776.3 | 5584.6 | 2391.4 | 1576.3 | 1525.8 | 1490.5 | 1536.0 | 1514.0 | 1359.0 | 1229.4 | 1222.7 |
| 60° | 10195.7 | 5709.2 | 2196.1 | 1460.1 | 1424.7 | 1406.2 | 1475.3 | 1468.5 | 1295.1 | 1150.3 | 1145.2 |
| 62.5° | 10529.2 | 5758.0 | 1980.5 | 1349.0 | 1340.6 | 1306.9 | 1391.1 | 1391.1 | 1214.2 | 1072.8 | 1067.7 |
| 65° | 10790.2 | 5710.9 | 1761.6 | 1239.5 | 1256.3 | 1205.8 | 1288.3 | 1278.3 | 1128.3 | 1003.8 | 997.0 |
| 67.5° | 11020.9 | 5555.9 | 1519.0 | 1131.7 | 1170.4 | 1106.5 | 1180.6 | 1157.0 | 1034.0 | 934.7 | 927.9 |
| 70° | 11123.7 | 5195.5 | 1242.9 | 1024.0 | 1071.1 | 1008.8 | 1072.8 | 1029.0 | 927.9 | 860.6 | 847.2 |
| 72.5° | 10298.5 | 4318.1 | 978.5 | 911.1 | 951.5 | 901.0 | 956.6 | 906.1 | 813.4 | 783.1 | 757.9 |
| 75° | 8520.0 | 3240.2 | 752.8 | 788.1 | 818.5 | 779.7 | 816.8 | 779.7 | 695.6 | 717.4 | 655.1 |
| 77.5° | 6187.5 | 2187.7 | 575.9 | 658.5 | 672.0 | 651.8 | 683.8 | 641.6 | 565.9 | 560.8 | 535.6 |
| 80° | 3076.9 | 1281.7 | 451.3 | 520.4 | 515.4 | 501.8 | 538.9 | 518.8 | 454.7 | 481.6 | 476.6 |
| 82.5° | 890.9 | 549.0 | 328.4 | 365.4 | 355.4 | 358.7 | 385.7 | 395.8 | 592.9 | 587.7 | 601.3 |
| 85° | 279.5 | 215.6 | 197.0 | 203.8 | 193.7 | 198.7 | 227.3 | 451.3 | 417.7 | 244.2 | 264.4 |
| 87.5° | 72.5 | 74.1 | 48.8 | 52.2 | 53.9 | 64.0 | 72.5 | 274.5 | 131.4 | 85.9 | 90.9 |
| 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)