

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: P962123

Luminaire Tested: **NAV-SB2B-835-U-T2**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P962123  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-3)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB2B-835-U-T2  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(2) 80 CRI, 3500K, 450mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II OPTICS  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 10607.7 lumens  
Efficiency: N/A  
Efficacy: 143.5 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')  
IES Classification: Type II - Medium  
BUG Rating: B2 - U0 - G2

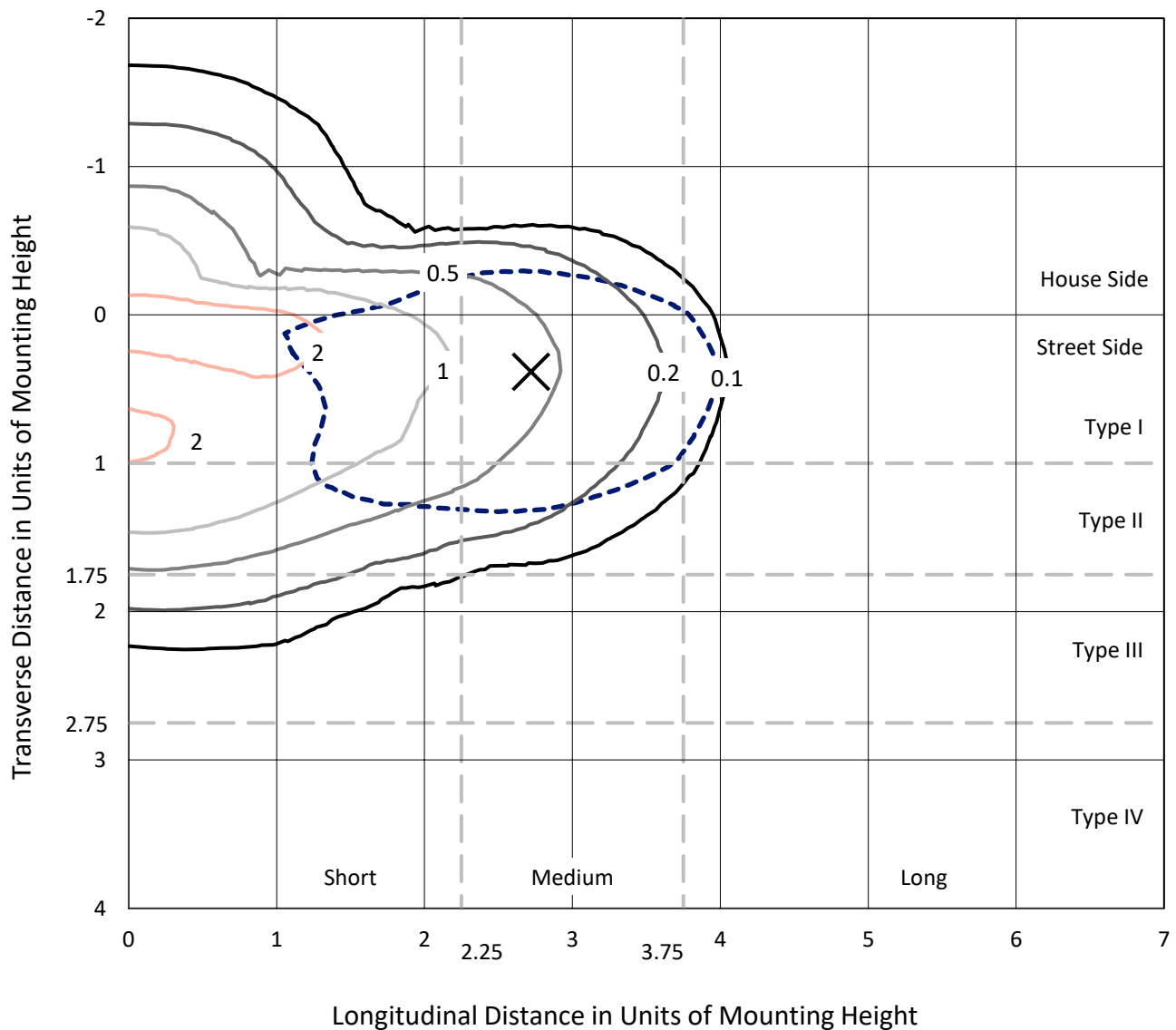
Input Watts (W): 73.9  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P962123  
CATALOG NUMBER: NAV-SB2B-835-U-T2

## Iso-Footcandle Lines of Horizontal Illumination

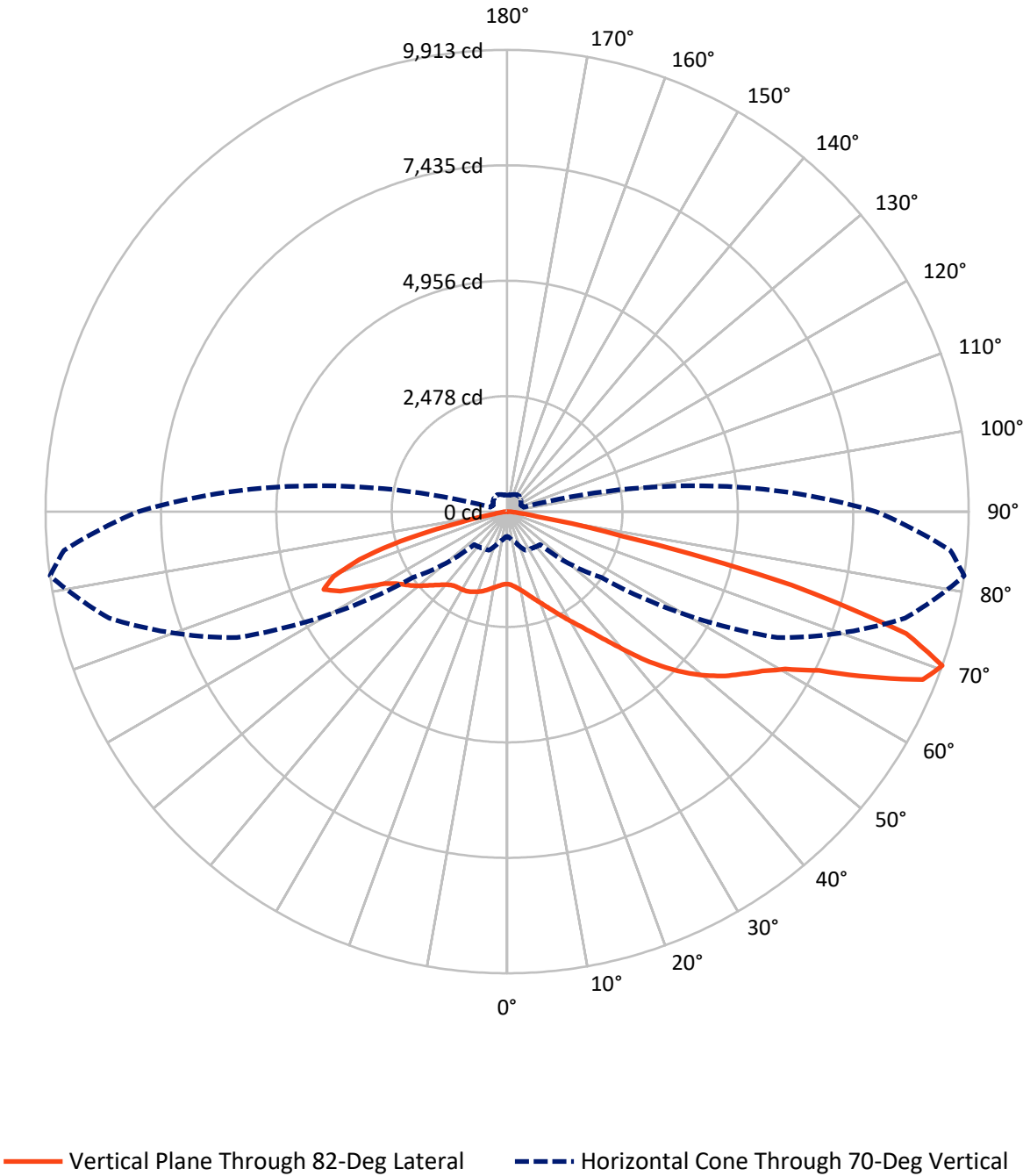
× Max cd  
- - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.8 fc  
Type II - Medium - N/A

REPORT NUMBER: P962123  
CATALOG NUMBER: NAV-SB2B-835-U-T2

Luminous Intensity Polar Plot



REPORT NUMBER: P962123

CATALOG NUMBER: NAV-SB2B-835-U-T2

**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 2615.1   | 0.0    | 2615.1  |
|                    | % Fixture | 24.7     | 0.0    | 24.7    |
| <b>Street Side</b> | Lumens    | 7992.7   | 0.0    | 7992.7  |
|                    | % Fixture | 75.3     | 0.0    | 75.3    |
| <b>Total</b>       | Lumens    | 10607.7  | 0.0    | 10607.7 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 146.8   | 1.4       |
| 10°-20°   | 421.9   | 4.0       |
| 20°-30°   | 705.8   | 6.7       |
| 30°-40°   | 1102.6  | 10.4      |
| 40°-50°   | 1756.0  | 16.6      |
| 50°-60°   | 2443.7  | 23.0      |
| 60°-70°   | 2556.2  | 24.1      |
| 70°-80°   | 1336.0  | 12.6      |
| 80°-90°   | 138.7   | 1.3       |
| 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°    | 10607.7 | 100.0     |
| 0°-180°   | 10607.7 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P962123

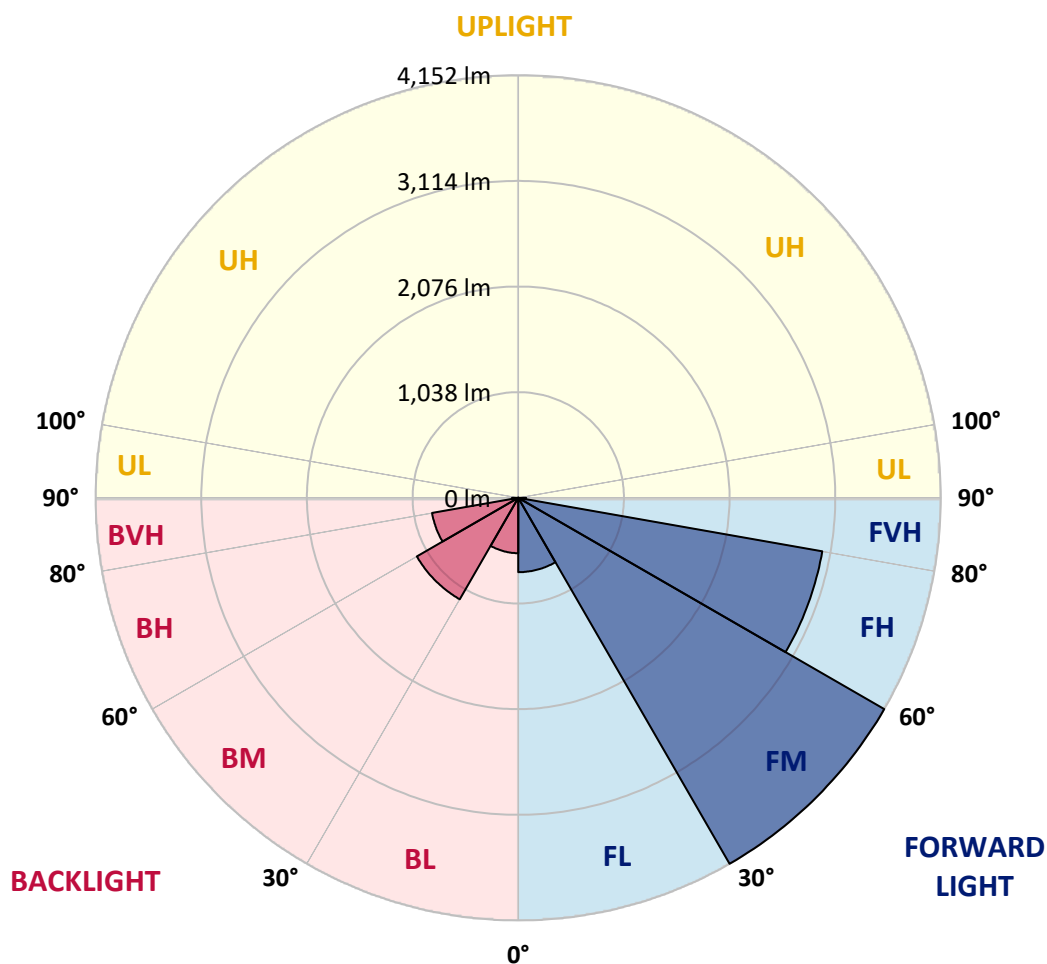
CATALOG NUMBER: NAV-SB2B-835-U-T2

**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 730.5  | 6.9       |                         |      |         |
| FM   | (30°-60°)   | 4151.8 | 39.1      |                         |      |         |
| FH   | (60°-80°)   | 3032.8 | 28.6      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 77.7   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 544.0  | 5.1       | B2/1000                 |      |         |
| BM   | (30°-60°)   | 1150.5 | 10.8      | B2/2500                 |      |         |
| BH   | (60°-80°)   | 859.4  | 8.1       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 61.1   | 0.6       |                         |      | G1/100  |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B2-U0-G2**

Type II Medium



REPORT NUMBER: P962123

CATALOG NUMBER: NAV-SB2B-835-U-T2

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 82°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 |
| 2.5°  | 1592.3 | 1601.4 | 1598.6 | 1595.7 | 1595.7 | 1591.8 | 1591.2 | 1585.6 | 1581.2 | 1573.8 | 1572.1 |
| 5°    | 1612.6 | 1622.2 | 1621.0 | 1623.3 | 1630.7 | 1632.3 | 1634.1 | 1630.7 | 1621.7 | 1612.6 | 1608.7 |
| 7.5°  | 1594.6 | 1605.4 | 1608.7 | 1622.2 | 1644.7 | 1665.0 | 1680.2 | 1686.3 | 1677.9 | 1665.0 | 1658.8 |
| 10°   | 1533.8 | 1545.7 | 1557.5 | 1589.6 | 1629.5 | 1677.4 | 1717.9 | 1742.1 | 1740.4 | 1728.0 | 1717.3 |
| 12.5° | 1410.6 | 1422.9 | 1448.3 | 1510.7 | 1583.9 | 1668.4 | 1743.8 | 1794.5 | 1811.9 | 1802.9 | 1784.3 |
| 15°   | 1312.1 | 1322.8 | 1341.9 | 1406.1 | 1501.2 | 1629.5 | 1753.4 | 1851.9 | 1896.4 | 1891.2 | 1868.8 |
| 17.5° | 1309.2 | 1313.7 | 1325.5 | 1356.0 | 1429.2 | 1568.8 | 1743.2 | 1908.1 | 1993.1 | 1992.6 | 1964.4 |
| 20°   | 1358.7 | 1360.5 | 1367.2 | 1373.4 | 1415.1 | 1522.5 | 1717.3 | 1954.9 | 2101.8 | 2101.8 | 2071.4 |
| 22.5° | 1427.4 | 1426.3 | 1433.1 | 1427.4 | 1447.7 | 1518.6 | 1701.0 | 1996.0 | 2222.8 | 2231.8 | 2193.5 |
| 25°   | 1530.4 | 1524.8 | 1523.1 | 1510.2 | 1514.1 | 1555.2 | 1719.0 | 2042.7 | 2366.3 | 2384.9 | 2337.1 |
| 27.5° | 1667.8 | 1658.8 | 1652.6 | 1622.8 | 1612.6 | 1630.7 | 1774.2 | 2099.0 | 2526.2 | 2558.3 | 2497.5 |
| 30°   | 1846.8 | 1830.4 | 1821.4 | 1769.7 | 1733.1 | 1735.9 | 1857.5 | 2173.8 | 2693.4 | 2745.2 | 2668.1 |
| 32.5° | 2091.1 | 2065.8 | 2041.6 | 1956.5 | 1889.6 | 1867.7 | 1965.0 | 2277.3 | 2874.6 | 2957.3 | 2858.3 |
| 35°   | 2364.7 | 2344.4 | 2318.4 | 2187.4 | 2084.3 | 2033.7 | 2110.3 | 2422.1 | 3086.8 | 3218.0 | 3089.0 |
| 37.5° | 2628.1 | 2610.6 | 2623.0 | 2446.3 | 2313.4 | 2239.7 | 2300.5 | 2616.2 | 3348.6 | 3542.2 | 3378.4 |
| 40°   | 2900.5 | 2887.0 | 2888.7 | 2719.8 | 2565.1 | 2482.2 | 2531.2 | 2860.0 | 3648.6 | 3927.7 | 3726.3 |
| 42.5° | 3196.6 | 3186.4 | 3152.7 | 3002.9 | 2829.0 | 2751.9 | 2796.9 | 3141.4 | 3970.5 | 4366.8 | 4107.9 |
| 45°   | 3528.2 | 3521.9 | 3490.4 | 3318.7 | 3119.5 | 3032.8 | 3093.6 | 3452.1 | 4294.1 | 4780.0 | 4491.1 |
| 47.5° | 3814.6 | 3819.7 | 3815.8 | 3671.0 | 3464.5 | 3337.3 | 3409.9 | 3776.3 | 4595.3 | 5168.4 | 4858.7 |
| 50°   | 3952.5 | 3978.9 | 4017.8 | 3972.8 | 3844.5 | 3715.0 | 3729.1 | 4089.3 | 4882.4 | 5532.5 | 5211.1 |
| 52.5° | 3880.4 | 3930.6 | 4036.3 | 4108.4 | 4157.9 | 4131.0 | 4093.2 | 4400.0 | 5152.6 | 5861.3 | 5544.3 |
| 55°   | 3612.0 | 3682.3 | 3858.0 | 4031.8 | 4284.6 | 4481.1 | 4530.6 | 4744.5 | 5416.0 | 6150.5 | 5859.5 |
| 57.5° | 3122.9 | 3237.1 | 3394.7 | 3746.5 | 4172.1 | 4650.5 | 5040.5 | 5222.4 | 5695.2 | 6459.5 | 6189.4 |
| 60°   | 2284.1 | 2437.2 | 2633.1 | 3156.6 | 3778.0 | 4559.8 | 5474.5 | 5956.4 | 6092.0 | 6859.8 | 6618.8 |
| 62.5° | 1461.8 | 1556.4 | 1736.5 | 2229.6 | 2943.8 | 4095.5 | 5607.4 | 6873.9 | 6764.6 | 7516.1 | 7262.7 |
| 65°   | 1000.8 | 1061.6 | 1226.5 | 1503.5 | 1903.1 | 3048.6 | 5251.6 | 7561.6 | 7832.9 | 8556.3 | 8363.8 |
| 67.5° | 727.2  | 773.4  | 914.1  | 1156.7 | 1240.0 | 1804.0 | 4075.2 | 7530.2 | 8871.5 | 9628.0 | 9328.5 |
| 70°   | 530.2  | 562.8  | 681.1  | 914.1  | 954.1  | 1003.6 | 2468.8 | 6401.0 | 8848.9 | 9912.8 | 9554.2 |
| 72.5° | 392.9  | 415.4  | 494.8  | 709.2  | 772.2  | 677.7  | 1222.0 | 4652.2 | 7603.9 | 8966.1 | 8678.4 |
| 75°   | 284.2  | 301.1  | 359.7  | 542.6  | 618.1  | 516.2  | 609.6  | 2718.7 | 5304.0 | 6307.0 | 6357.7 |
| 77.5° | 217.3  | 230.2  | 268.4  | 397.4  | 494.8  | 387.2  | 378.2  | 1250.7 | 2514.9 | 2527.3 | 2669.2 |
| 80°   | 174.5  | 183.0  | 203.8  | 279.7  | 379.4  | 289.9  | 246.5  | 504.9  | 794.8  | 672.6  | 705.8  |
| 82.5° | 128.3  | 142.4  | 172.2  | 196.5  | 271.3  | 199.8  | 150.3  | 255.0  | 302.3  | 260.0  | 262.3  |
| 85°   | 73.2   | 82.7   | 104.1  | 140.7  | 173.3  | 122.2  | 86.1   | 113.2  | 140.7  | 115.4  | 103.0  |
| 87.5° | 25.9   | 33.7   | 36.6   | 55.1   | 75.4   | 50.6   | 33.2   | 32.7   | 46.1   | 34.3   | 28.7   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

REPORT NUMBER: P962123

CATALOG NUMBER: NAV-SB2B-835-U-T2

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 | 1555.2 |
| 2.5°  | 1566.5 | 1563.6 | 1552.4 | 1537.2 | 1521.4 | 1506.2 | 1501.2 | 1490.5 | 1483.2 | 1479.3 | 1483.8 |
| 5°    | 1598.0 | 1589.0 | 1562.5 | 1528.8 | 1493.3 | 1455.0 | 1428.0 | 1403.2 | 1385.3 | 1368.4 | 1375.1 |
| 7.5°  | 1643.1 | 1627.3 | 1581.7 | 1522.5 | 1459.5 | 1395.9 | 1348.7 | 1312.6 | 1288.4 | 1272.6 | 1276.0 |
| 10°   | 1695.4 | 1671.2 | 1601.4 | 1513.0 | 1415.6 | 1324.4 | 1268.7 | 1237.8 | 1222.5 | 1214.1 | 1216.4 |
| 12.5° | 1755.6 | 1721.3 | 1621.7 | 1491.1 | 1348.7 | 1244.6 | 1206.2 | 1197.2 | 1197.8 | 1198.3 | 1199.5 |
| 15°   | 1829.9 | 1782.1 | 1637.9 | 1443.2 | 1261.4 | 1183.2 | 1176.4 | 1191.0 | 1206.2 | 1213.6 | 1213.0 |
| 17.5° | 1913.8 | 1846.2 | 1640.8 | 1364.4 | 1175.9 | 1143.8 | 1165.1 | 1196.7 | 1219.8 | 1229.9 | 1232.2 |
| 20°   | 2003.9 | 1911.5 | 1620.5 | 1253.0 | 1105.5 | 1111.7 | 1149.9 | 1190.4 | 1215.9 | 1228.8 | 1232.2 |
| 22.5° | 2106.9 | 1981.3 | 1572.1 | 1135.9 | 1048.1 | 1076.8 | 1121.8 | 1161.2 | 1187.7 | 1200.6 | 1204.0 |
| 25°   | 2224.5 | 2059.5 | 1496.1 | 1037.4 | 998.6  | 1037.4 | 1082.4 | 1115.1 | 1136.4 | 1148.3 | 1151.7 |
| 27.5° | 2355.0 | 2141.2 | 1394.8 | 959.1  | 955.2  | 996.8  | 1034.0 | 1059.3 | 1070.6 | 1079.6 | 1083.0 |
| 30°   | 2486.2 | 2215.4 | 1272.1 | 900.1  | 917.5  | 956.8  | 983.4  | 994.6  | 997.9  | 999.7  | 1003.6 |
| 32.5° | 2628.1 | 2279.6 | 1143.2 | 851.1  | 881.5  | 918.1  | 933.8  | 938.9  | 923.1  | 912.5  | 915.8  |
| 35°   | 2799.8 | 2348.3 | 1017.1 | 812.2  | 846.0  | 877.5  | 882.6  | 878.1  | 859.5  | 837.5  | 838.7  |
| 37.5° | 3012.0 | 2433.9 | 916.4  | 784.6  | 812.8  | 833.6  | 827.4  | 826.3  | 828.0  | 802.1  | 803.8  |
| 40°   | 3272.0 | 2545.3 | 842.7  | 763.2  | 785.8  | 790.3  | 772.8  | 782.4  | 790.9  | 751.4  | 752.6  |
| 42.5° | 3560.7 | 2679.9 | 795.9  | 748.7  | 763.2  | 752.6  | 725.6  | 736.3  | 735.1  | 683.4  | 682.8  |
| 45°   | 3855.1 | 2826.2 | 779.6  | 737.9  | 742.4  | 721.1  | 691.3  | 694.0  | 670.3  | 623.7  | 625.4  |
| 47.5° | 4147.9 | 2983.3 | 789.8  | 728.9  | 716.6  | 692.4  | 669.2  | 656.9  | 622.0  | 587.1  | 587.1  |
| 50°   | 4434.9 | 3148.2 | 826.9  | 710.9  | 681.1  | 667.0  | 650.2  | 628.1  | 591.0  | 561.2  | 558.9  |
| 52.5° | 4701.2 | 3314.2 | 868.5  | 681.1  | 636.6  | 645.0  | 634.4  | 609.1  | 572.5  | 542.0  | 542.6  |
| 55°   | 4953.3 | 3480.3 | 884.9  | 640.0  | 594.9  | 626.0  | 619.7  | 573.0  | 529.1  | 504.3  | 502.0  |
| 57.5° | 5228.0 | 3680.1 | 866.8  | 587.6  | 561.2  | 603.9  | 580.4  | 528.5  | 503.2  | 484.6  | 483.0  |
| 60°   | 5608.5 | 3993.6 | 828.0  | 523.0  | 529.1  | 571.3  | 530.7  | 509.4  | 481.9  | 461.0  | 459.9  |
| 62.5° | 6240.6 | 4578.5 | 765.5  | 458.8  | 491.4  | 523.0  | 507.2  | 485.7  | 457.7  | 437.4  | 437.4  |
| 65°   | 7175.0 | 5391.2 | 647.9  | 408.7  | 449.2  | 475.6  | 481.9  | 460.4  | 431.1  | 409.8  | 410.9  |
| 67.5° | 7963.0 | 5901.2 | 490.3  | 367.0  | 405.8  | 437.4  | 454.8  | 434.0  | 403.0  | 382.2  | 382.7  |
| 70°   | 7919.7 | 5530.8 | 374.3  | 326.0  | 367.6  | 399.6  | 422.2  | 405.8  | 372.6  | 352.9  | 354.6  |
| 72.5° | 7034.3 | 4626.8 | 302.8  | 284.2  | 328.7  | 360.3  | 387.2  | 374.8  | 341.1  | 322.0  | 322.0  |
| 75°   | 5167.7 | 3284.4 | 242.0  | 242.0  | 280.3  | 319.2  | 349.0  | 341.1  | 310.2  | 296.6  | 292.7  |
| 77.5° | 2178.3 | 1377.9 | 189.7  | 200.9  | 233.0  | 274.1  | 311.3  | 314.1  | 287.1  | 303.9  | 275.8  |
| 80°   | 579.2  | 380.0  | 144.6  | 158.2  | 183.0  | 226.3  | 270.7  | 269.6  | 240.4  | 224.6  | 208.8  |
| 82.5° | 220.7  | 149.8  | 103.0  | 111.4  | 132.2  | 173.3  | 214.4  | 221.2  | 192.0  | 166.0  | 166.0  |
| 85°   | 85.0   | 64.2   | 63.7   | 66.9   | 77.1   | 114.8  | 162.2  | 167.7  | 144.6  | 122.7  | 126.7  |
| 87.5° | 21.9   | 19.2   | 23.7   | 22.5   | 35.5   | 61.4   | 92.9   | 96.2   | 88.4   | 51.2   | 73.2   |
| 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)