

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: P965779

Luminaire Tested: **NAV-SB4A-830-U-T2U-HSS**

Issue Date: 1/21/2025

**Test Information**

Test Method: LM-79-08  
Report Number: P965779  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-17)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB4A-830-U-T2U-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(4) 80 CRI, 3000K, 350mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE II U  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 12654.6 lumens  
Efficiency: N/A  
Efficacy: 111.0 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type II - Short  
BUG Rating: B1 - U0 - G2

Input Watts (W): 114  
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

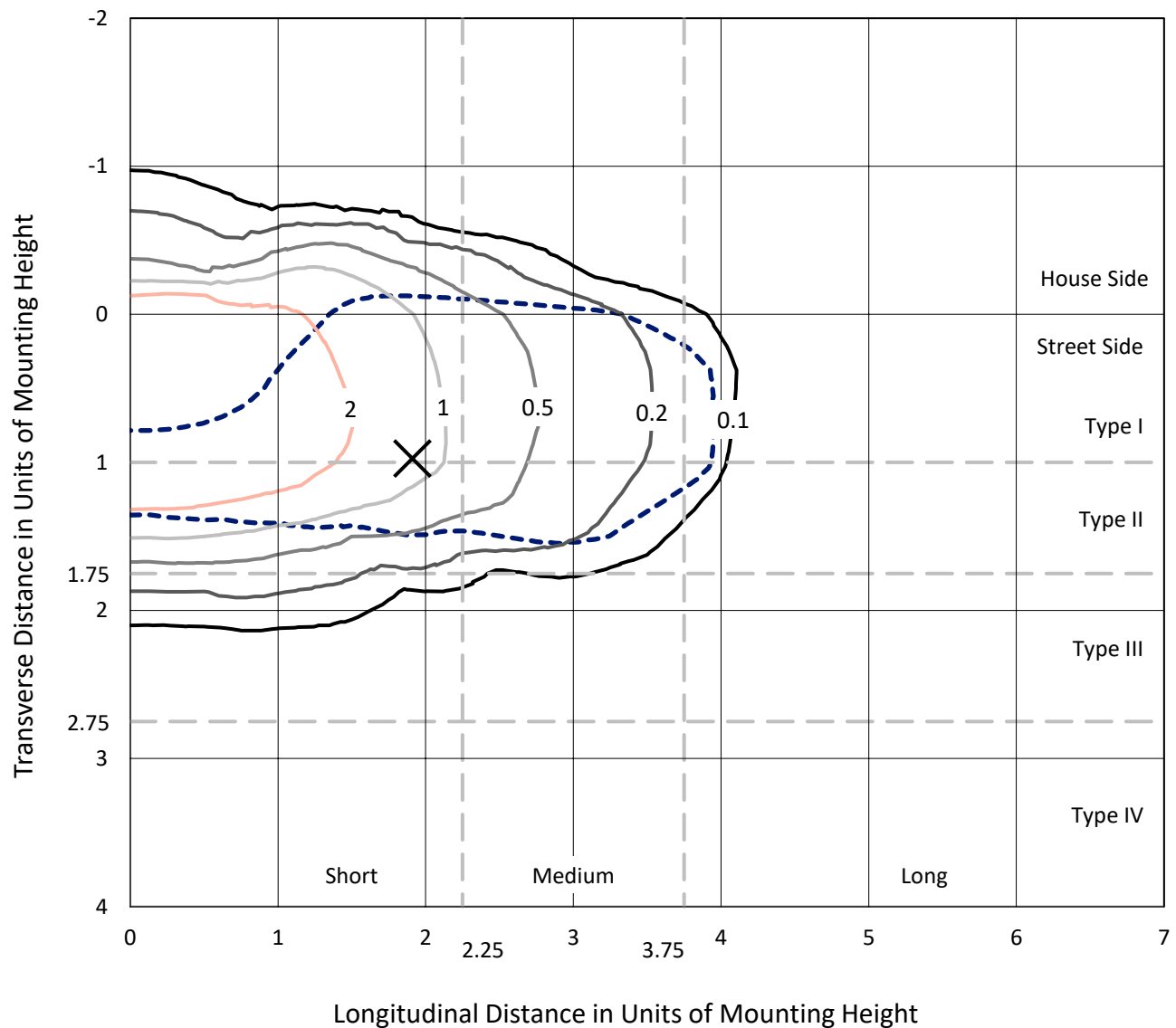


REPORT NUMBER: P965779

CATALOG NUMBER: NAV-SB4A-830-U-T2U-HSS

## Iso-Footcandle Lines of Horizontal Illumination

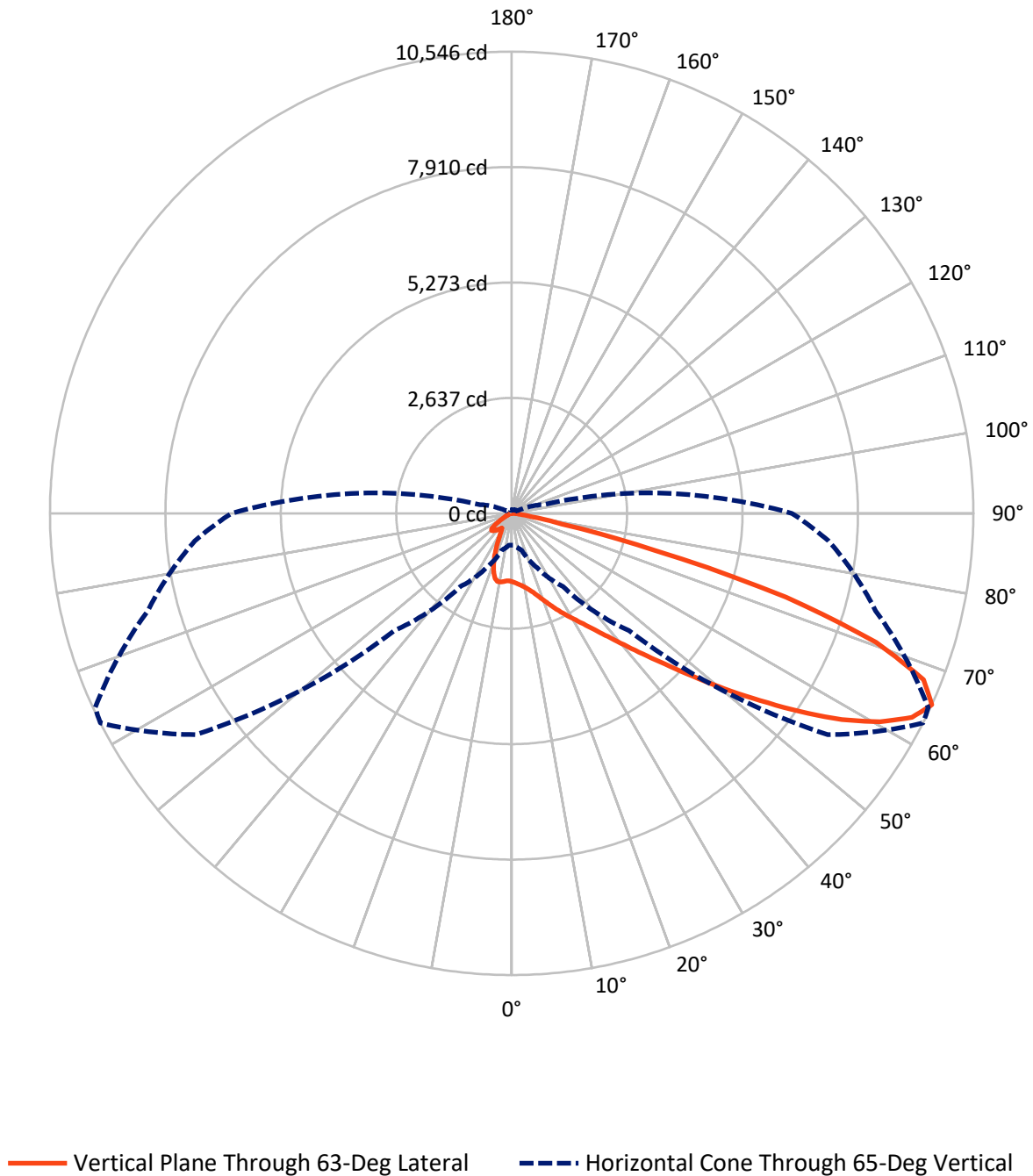
× Max cd  
- - - 1/2 Max cd



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

REPORT NUMBER: P965779  
CATALOG NUMBER: NAV-SB4A-830-U-T2U-HSS

## Luminous Intensity Polar Plot



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**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 1860.1   | 0.0    | 1860.1  |
|                    | % Fixture | 14.7     | 0.0    | 14.7    |
| <b>Street Side</b> | Lumens    | 10794.5  | 0.0    | 10794.5 |
|                    | % Fixture | 85.3     | 0.0    | 85.3    |
| <b>Total</b>       | Lumens    | 12654.6  | 0.0    | 12654.6 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 147.2   | 1.2       |
| 10°-20°   | 408.3   | 3.2       |
| 20°-30°   | 710.9   | 5.6       |
| 30°-40°   | 1281.4  | 10.1      |
| 40°-50°   | 2541.4  | 20.1      |
| 50°-60°   | 3461.9  | 27.4      |
| 60°-70°   | 2763.2  | 21.8      |
| 70°-80°   | 1250.4  | 9.9       |
| 80°-90°   | 89.9    | 0.7       |
| 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°    | 12654.6 | 100.0     |
| 0°-180°   | 12654.6 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P965779

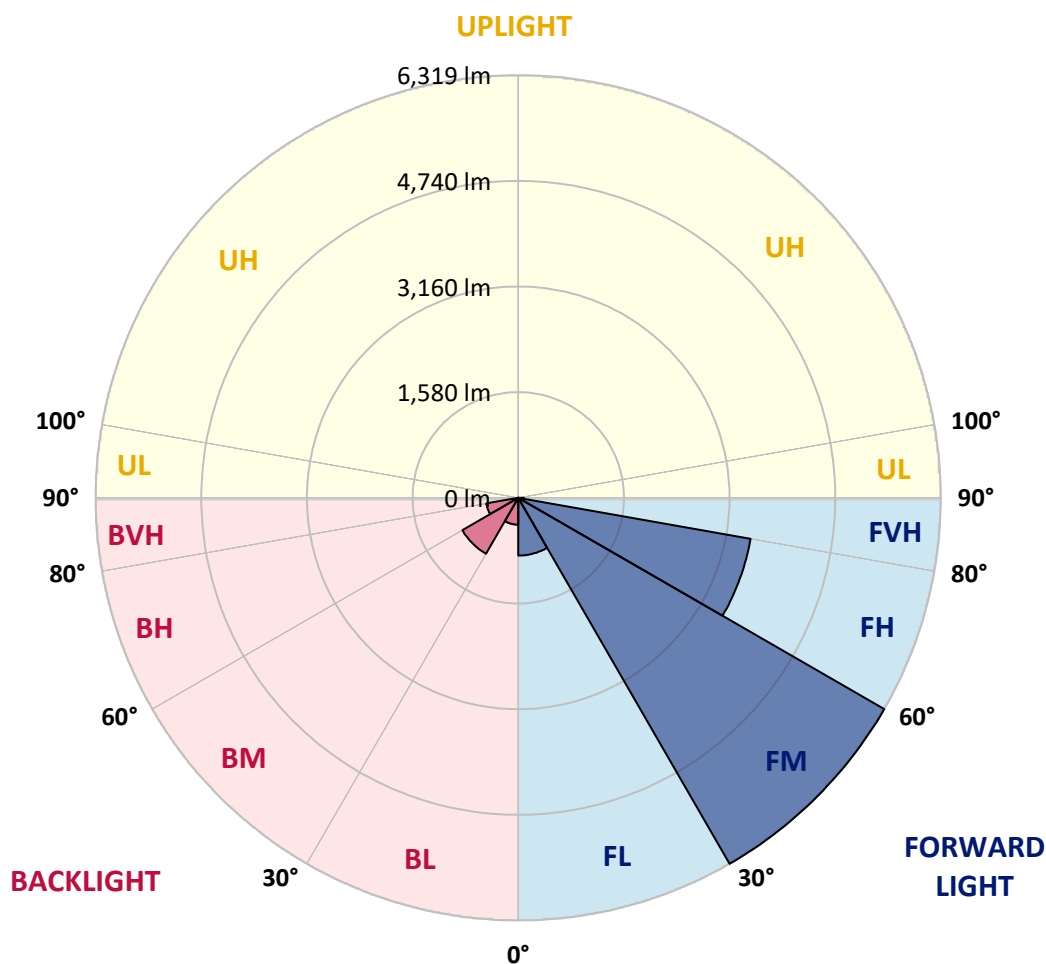
CATALOG NUMBER: NAV-SB4A-830-U-T2U-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 863.8  | 6.8       |                         |      |         |
| FM   | (30°-60°)   | 6319.4 | 49.9      |                         |      |         |
| FH   | (60°-80°)   | 3528.1 | 27.9      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 83.2   | 0.7       |                         |      | G1/100  |
| BL   | (0°-30°)    | 402.6  | 3.2       | B1/500                  |      |         |
| BM   | (30°-60°)   | 965.3  | 7.6       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 485.6  | 3.8       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 6.7    | 0.1       |                         |      | G0/10   |
| UL   | (90°-100°)  | 0.0    | 0.0       |                         | U0/0 |         |
| UH   | (100°-180°) | 0.0    | 0.0       |                         | U0/0 |         |

**BUG Rating: B1-U0-G2**

Type II Short



REPORT NUMBER: P965779

CATALOG NUMBER: NAV-SB4A-830-U-T2U-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 63°     | 65°     | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|---------|---------|--------|--------|
| 0°    | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8  | 1561.8  | 1561.8 | 1561.8 |
| 2.5°  | 1598.4 | 1594.1 | 1600.1 | 1597.6 | 1595.8 | 1592.3 | 1590.6 | 1588.9  | 1585.4  | 1582.7 | 1572.2 |
| 5°    | 1602.7 | 1600.1 | 1606.2 | 1611.4 | 1616.6 | 1621.9 | 1624.5 | 1628.0  | 1624.5  | 1617.6 | 1607.1 |
| 7.5°  | 1566.2 | 1564.5 | 1577.5 | 1593.2 | 1616.6 | 1636.7 | 1658.4 | 1670.6  | 1671.5  | 1668.9 | 1657.6 |
| 10°   | 1563.5 | 1559.2 | 1572.2 | 1591.4 | 1621.9 | 1657.6 | 1695.9 | 1722.0  | 1725.5  | 1736.8 | 1724.7 |
| 12.5° | 1604.4 | 1600.1 | 1618.4 | 1639.3 | 1670.6 | 1708.1 | 1755.1 | 1791.7  | 1796.9  | 1812.5 | 1803.8 |
| 15°   | 1673.2 | 1667.2 | 1688.1 | 1715.0 | 1755.1 | 1797.7 | 1847.4 | 1880.5  | 1884.8  | 1903.9 | 1888.3 |
| 17.5° | 1753.4 | 1747.2 | 1771.6 | 1800.4 | 1843.9 | 1902.2 | 1959.7 | 1996.3  | 2001.5  | 2013.6 | 1984.9 |
| 20°   | 1856.1 | 1848.3 | 1867.4 | 1893.5 | 1939.6 | 2009.3 | 2078.1 | 2130.4  | 2129.4  | 2129.4 | 2082.4 |
| 22.5° | 1975.4 | 1963.2 | 1979.7 | 2000.6 | 2044.2 | 2128.6 | 2219.9 | 2281.8  | 2281.8  | 2257.5 | 2180.0 |
| 25°   | 2103.3 | 2091.1 | 2109.4 | 2128.6 | 2166.8 | 2262.7 | 2369.7 | 2446.4  | 2449.9  | 2408.0 | 2284.4 |
| 27.5° | 2263.5 | 2247.8 | 2261.8 | 2284.4 | 2307.1 | 2404.5 | 2531.6 | 2620.4  | 2622.2  | 2557.8 | 2383.6 |
| 30°   | 2571.7 | 2527.3 | 2483.8 | 2459.4 | 2469.8 | 2566.5 | 2702.3 | 2800.7  | 2809.3  | 2720.6 | 2491.6 |
| 32.5° | 3135.9 | 3127.2 | 2973.9 | 2773.6 | 2669.2 | 2740.5 | 2893.0 | 3011.3  | 3016.6  | 2902.5 | 2631.8 |
| 35°   | 4012.5 | 4002.1 | 3755.7 | 3374.4 | 3034.0 | 2973.9 | 3124.5 | 3264.7  | 3261.2  | 3132.4 | 2813.7 |
| 37.5° | 5059.0 | 5049.4 | 4724.6 | 4214.5 | 3663.5 | 3326.5 | 3423.1 | 3570.3  | 3592.0  | 3423.1 | 3048.8 |
| 40°   | 5953.0 | 5917.3 | 5711.9 | 5220.0 | 4499.1 | 3911.5 | 3848.0 | 3945.4  | 3968.1  | 3767.9 | 3347.3 |
| 42.5° | 6630.3 | 6599.9 | 6495.4 | 6188.1 | 5510.8 | 4776.9 | 4348.6 | 4386.0  | 4411.2  | 4170.9 | 3690.4 |
| 45°   | 6981.2 | 6974.2 | 7016.0 | 6987.3 | 6541.5 | 5839.0 | 5064.2 | 4908.3  | 4918.0  | 4617.5 | 4079.5 |
| 47.5° | 7030.8 | 7027.3 | 7217.9 | 7487.8 | 7427.8 | 7036.9 | 5982.6 | 5559.5  | 5525.6  | 5121.6 | 4502.6 |
| 50°   | 6738.4 | 6731.4 | 7097.0 | 7602.8 | 8019.8 | 8043.3 | 7025.6 | 6293.4  | 6218.6  | 5643.1 | 4944.0 |
| 52.5° | 5804.2 | 5802.4 | 6403.2 | 7245.0 | 8227.9 | 8924.4 | 8056.4 | 7099.6  | 6974.2  | 6195.1 | 5410.7 |
| 55°   | 4466.1 | 4498.3 | 5186.9 | 6182.0 | 7848.3 | 9348.3 | 8981.8 | 7994.6  | 7802.2  | 6750.4 | 5840.8 |
| 57.5° | 3163.7 | 3210.7 | 3891.5 | 4777.7 | 6671.3 | 9097.6 | 9607.7 | 8891.3  | 8684.0  | 7304.2 | 6276.9 |
| 60°   | 1699.3 | 1741.2 | 2422.8 | 3480.6 | 4963.2 | 8162.6 | 9937.7 | 9669.5  | 9473.7  | 7830.0 | 6670.4 |
| 62.5° | 1012.5 | 1026.4 | 1308.5 | 2247.0 | 3357.0 | 6236.0 | 9797.6 | 10262.4 | 10101.4 | 8271.4 | 7012.5 |
| 65°   | 726.9  | 729.6  | 871.5  | 1372.1 | 2038.0 | 3788.8 | 8814.6 | 10546.2 | 10496.6 | 8604.0 | 7265.9 |
| 67.5° | 612.0  | 610.3  | 669.4  | 911.5  | 1388.6 | 1897.9 | 6755.7 | 10144.8 | 10355.6 | 8814.6 | 7409.5 |
| 70°   | 525.0  | 527.6  | 597.3  | 667.7  | 1043.9 | 1074.3 | 3358.7 | 8832.9  | 9282.1  | 8870.3 | 7400.8 |
| 72.5° | 390.9  | 399.6  | 464.0  | 608.5  | 787.9  | 739.1  | 1159.6 | 6549.3  | 7361.7  | 8357.5 | 7016.8 |
| 75°   | 275.9  | 280.3  | 326.5  | 511.9  | 587.6  | 538.0  | 592.0  | 3385.7  | 4426.9  | 6407.5 | 5743.2 |
| 77.5° | 212.4  | 220.3  | 247.2  | 357.8  | 578.9  | 377.8  | 362.1  | 1171.8  | 1800.4  | 3870.6 | 3937.6 |
| 80°   | 114.9  | 128.8  | 178.5  | 258.6  | 406.5  | 267.2  | 179.4  | 466.7   | 610.3   | 1809.9 | 1518.3 |
| 82.5° | 59.2   | 66.2   | 124.5  | 186.3  | 231.5  | 233.3  | 88.8   | 194.1   | 251.6   | 558.9  | 208.1  |
| 85°   | 23.5   | 28.7   | 83.5   | 102.7  | 119.3  | 114.9  | 40.1   | 78.3    | 90.5    | 155.0  | 63.6   |
| 87.5° | 5.2    | 8.7    | 30.4   | 23.5   | 22.7   | 24.4   | 9.5    | 18.2    | 17.4    | 18.2   | 11.3   |
| 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: P965779

CATALOG NUMBER: NAV-SB4A-830-U-T2U-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 | 1561.8 |
| 2.5°  | 1571.4 | 1567.9 | 1558.3 | 1547.9 | 1535.7 | 1528.8 | 1524.4 | 1523.6 | 1517.4 | 1513.1 | 1517.4 |
| 5°    | 1597.6 | 1594.1 | 1575.7 | 1554.0 | 1530.5 | 1512.2 | 1494.8 | 1479.1 | 1456.5 | 1452.1 | 1450.4 |
| 7.5°  | 1649.7 | 1640.2 | 1610.6 | 1581.0 | 1536.6 | 1483.5 | 1419.0 | 1345.0 | 1278.9 | 1258.9 | 1249.3 |
| 10°   | 1714.2 | 1701.1 | 1663.7 | 1611.4 | 1513.1 | 1368.6 | 1212.7 | 1068.2 | 953.2  | 921.1  | 908.9  |
| 12.5° | 1787.3 | 1776.0 | 1726.4 | 1629.7 | 1414.7 | 1152.6 | 914.1  | 734.7  | 623.3  | 595.5  | 587.6  |
| 15°   | 1874.3 | 1857.8 | 1789.0 | 1601.9 | 1238.8 | 875.8  | 627.7  | 521.5  | 481.4  | 476.2  | 471.0  |
| 17.5° | 1966.7 | 1939.6 | 1844.8 | 1501.7 | 1002.0 | 622.5  | 484.9  | 454.5  | 437.1  | 431.8  | 429.2  |
| 20°   | 2051.1 | 2016.3 | 1877.8 | 1350.2 | 748.7  | 484.9  | 434.4  | 414.4  | 398.7  | 392.7  | 389.2  |
| 22.5° | 2135.5 | 2085.9 | 1877.8 | 1143.9 | 561.5  | 430.1  | 398.7  | 380.5  | 362.1  | 354.3  | 349.9  |
| 25°   | 2223.4 | 2157.3 | 1844.8 | 914.1  | 451.8  | 394.4  | 364.8  | 344.7  | 329.1  | 319.5  | 316.0  |
| 27.5° | 2308.8 | 2217.4 | 1769.0 | 696.5  | 402.2  | 363.1  | 333.4  | 314.3  | 299.5  | 292.5  | 292.5  |
| 30°   | 2389.8 | 2276.5 | 1662.9 | 528.5  | 370.0  | 332.6  | 304.7  | 288.1  | 273.4  | 266.4  | 267.2  |
| 32.5° | 2499.5 | 2351.5 | 1549.6 | 433.6  | 342.1  | 303.8  | 278.6  | 262.9  | 249.9  | 244.7  | 244.7  |
| 35°   | 2651.8 | 2462.0 | 1452.1 | 425.7  | 318.7  | 280.3  | 255.1  | 240.3  | 227.2  | 222.8  | 222.8  |
| 37.5° | 2867.7 | 2640.5 | 1400.8 | 478.0  | 299.5  | 259.4  | 236.0  | 220.3  | 208.1  | 204.6  | 203.7  |
| 40°   | 3134.1 | 2882.5 | 1428.6 | 530.2  | 286.4  | 241.2  | 218.5  | 202.8  | 192.4  | 188.1  | 187.2  |
| 42.5° | 3450.2 | 3181.1 | 1582.7 | 570.2  | 277.7  | 225.5  | 201.9  | 184.6  | 177.6  | 175.9  | 175.9  |
| 45°   | 3813.1 | 3509.3 | 1818.7 | 612.8  | 263.8  | 210.6  | 185.4  | 172.4  | 167.2  | 166.3  | 165.4  |
| 47.5° | 4225.8 | 3869.8 | 2092.0 | 666.0  | 249.9  | 196.8  | 172.4  | 163.7  | 159.3  | 157.5  | 157.5  |
| 50°   | 4634.9 | 4232.7 | 2373.2 | 695.6  | 238.5  | 183.7  | 162.0  | 155.0  | 151.5  | 150.6  | 150.6  |
| 52.5° | 5063.3 | 4606.2 | 2600.4 | 667.7  | 229.0  | 173.2  | 153.2  | 148.0  | 144.5  | 143.6  | 143.6  |
| 55°   | 5471.6 | 4908.3 | 2639.6 | 566.7  | 209.8  | 162.8  | 143.6  | 141.0  | 136.6  | 136.6  | 135.8  |
| 57.5° | 5823.3 | 5059.8 | 2362.7 | 416.2  | 190.6  | 147.1  | 134.1  | 131.5  | 128.0  | 127.1  | 126.3  |
| 60°   | 6146.3 | 5016.2 | 1823.9 | 280.3  | 169.7  | 131.5  | 121.9  | 120.1  | 116.6  | 112.3  | 111.4  |
| 62.5° | 6328.2 | 4824.8 | 1247.5 | 182.9  | 148.8  | 114.9  | 107.9  | 107.1  | 99.2   | 90.5   | 88.8   |
| 65°   | 6397.0 | 4431.3 | 778.3  | 133.2  | 124.5  | 98.4   | 93.2   | 91.4   | 80.1   | 70.5   | 69.6   |
| 67.5° | 6337.0 | 3783.6 | 392.7  | 105.4  | 98.4   | 81.8   | 76.6   | 76.6   | 68.8   | 60.1   | 59.2   |
| 70°   | 6096.7 | 2836.4 | 165.4  | 84.5   | 75.7   | 62.7   | 62.7   | 66.2   | 58.3   | 48.8   | 47.9   |
| 72.5° | 5575.2 | 1908.3 | 87.9   | 64.5   | 56.6   | 44.4   | 51.4   | 54.0   | 46.1   | 36.6   | 36.6   |
| 75°   | 4432.1 | 1164.0 | 61.0   | 47.9   | 35.7   | 31.4   | 39.2   | 40.9   | 31.4   | 24.4   | 23.5   |
| 77.5° | 3031.3 | 668.6  | 40.9   | 30.4   | 22.7   | 18.2   | 27.0   | 25.2   | 16.5   | 11.3   | 12.2   |
| 80°   | 1331.2 | 278.6  | 23.5   | 13.9   | 8.7    | 7.0    | 9.5    | 7.0    | 5.2    | 3.5    | 3.5    |
| 82.5° | 155.8  | 65.3   | 8.7    | 5.2    | 3.5    | 1.7    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 32.2   | 7.8    | 4.3    | 1.7    | 0.8    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 6.0    | 1.7    | 0.8    | 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)