

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: P969322

Luminaire Tested: **NAV-SB5D-735-U-T4W-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P969322  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-2)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB5D-735-U-T4W-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(5) 70 CRI, 3500K, 900mA LIGHTSQUARES WITH 26 LEDS EACH AND TYPE IV WIDE  
OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 40585.9 lumens  
Efficiency: N/A  
Efficacy: 111.2 lumens/watt  
Luminous Opening: Rectangular (W 1.5' x L: 1' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B3 - U0 - G5

Input Watts (W): 364.9  
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



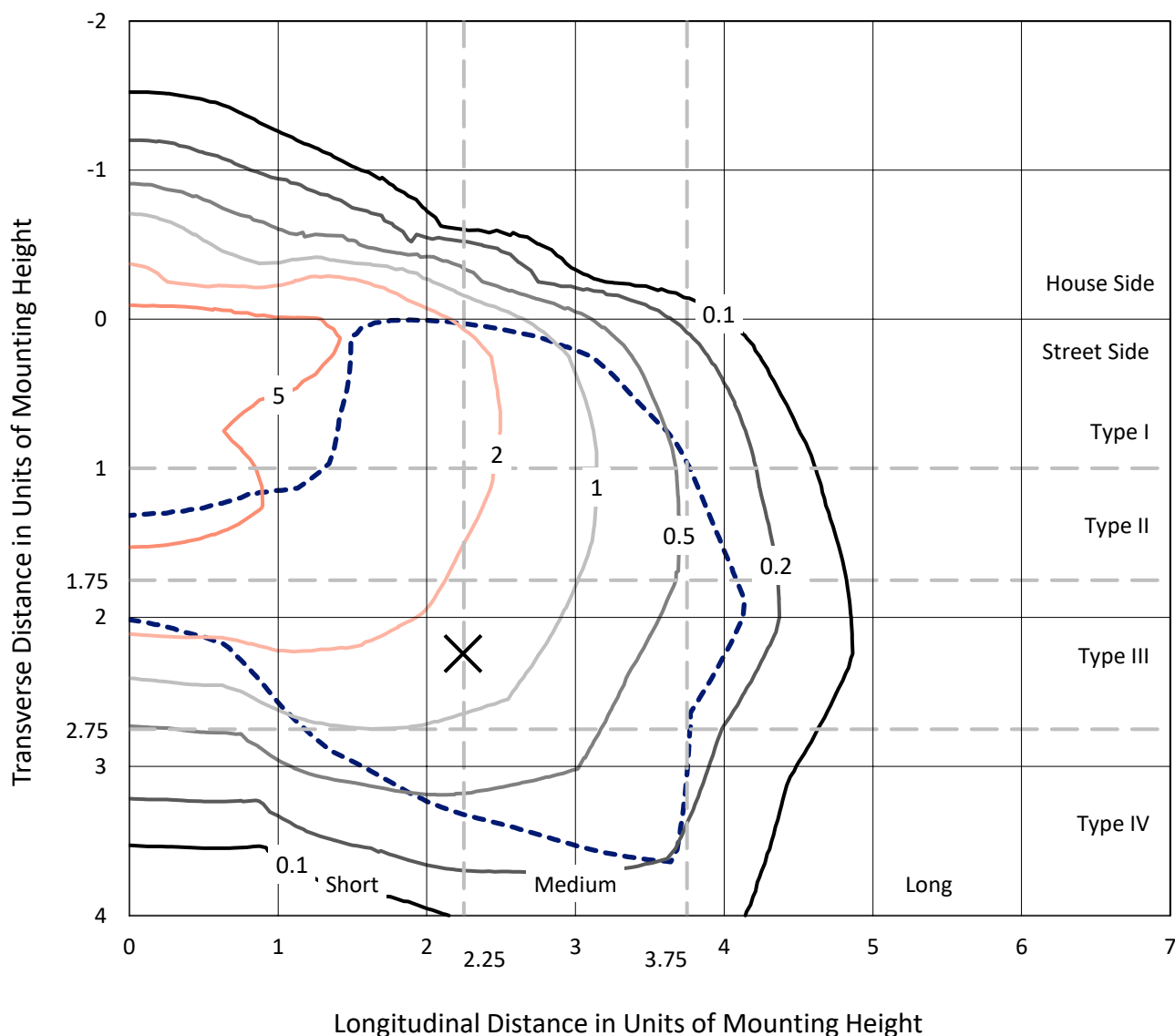
REPORT NUMBER: P969322

CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

## Iso-Footcandle Lines of Horizontal Illumination

× Max cd

--- 1/2 Max cd

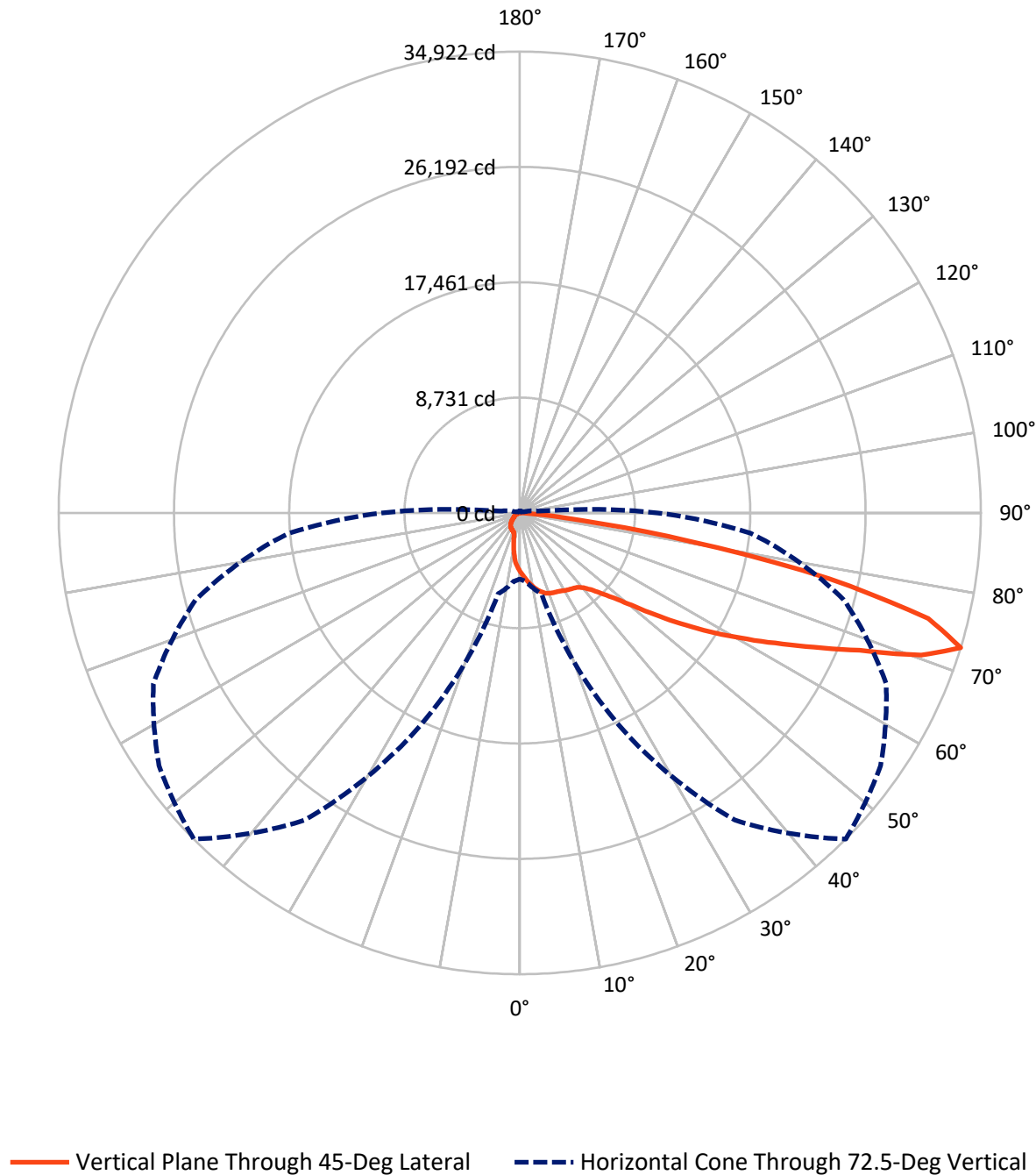


Based on 25 foot mounting height. Maximum calculated value = 9.8 fc

Type IV - Short - N/A

REPORT NUMBER: P969322  
CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P969322

CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

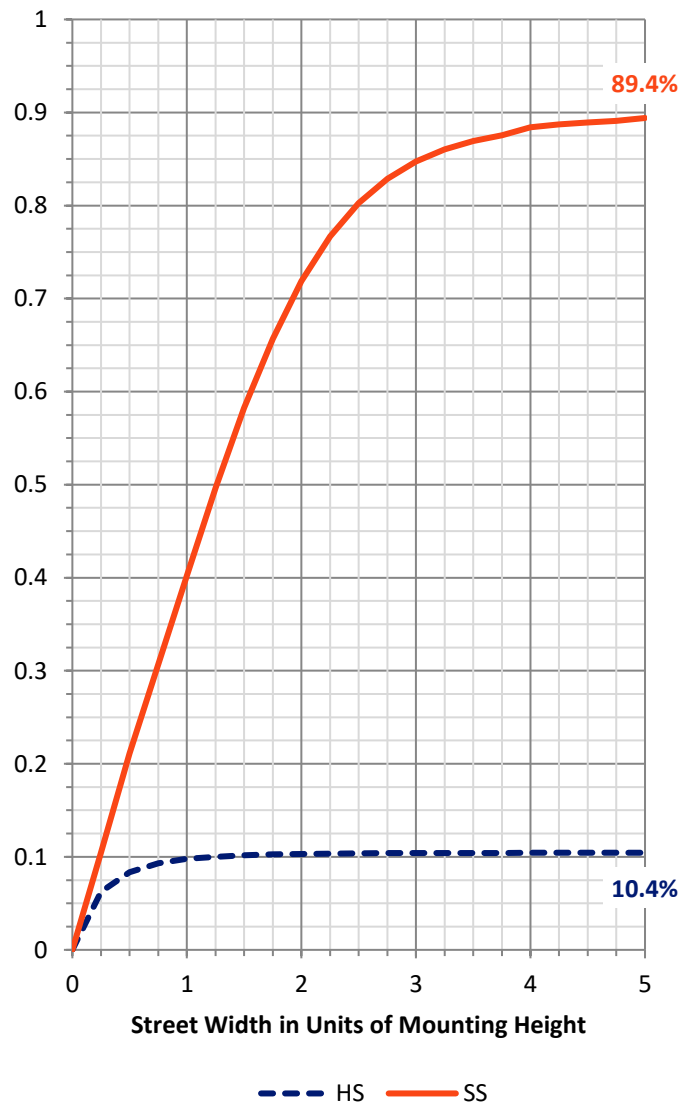
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total   |
|--------------------|-----------|----------|--------|---------|
| <b>House Side</b>  | Lumens    | 4264.4   | 0.0    | 4264.4  |
|                    | % Fixture | 10.5     | 0.0    | 10.5    |
| <b>Street Side</b> | Lumens    | 36321.5  | 0.0    | 36321.5 |
|                    | % Fixture | 89.5     | 0.0    | 89.5    |
| <b>Total</b>       | Lumens    | 40585.9  | 0.0    | 40585.9 |
|                    | % Fixture | 100.0    | 0.0    | 100.0   |

**ZONAL LUMENS:**

| Zone      | Lumens  | % Fixture |
|-----------|---------|-----------|
| 0°-10°    | 418.9   | 1.0       |
| 10°-20°   | 1224.3  | 3.0       |
| 20°-30°   | 2010.6  | 5.0       |
| 30°-40°   | 2851.5  | 7.0       |
| 40°-50°   | 4713.2  | 11.6      |
| 50°-60°   | 8466.7  | 20.9      |
| 60°-70°   | 11756.4 | 29.0      |
| 70°-80°   | 8527.8  | 21.0      |
| 80°-90°   | 616.5   | 1.5       |
| 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°    | 40585.9 | 100.0     |
| 0°-180°   | 40585.9 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P969322

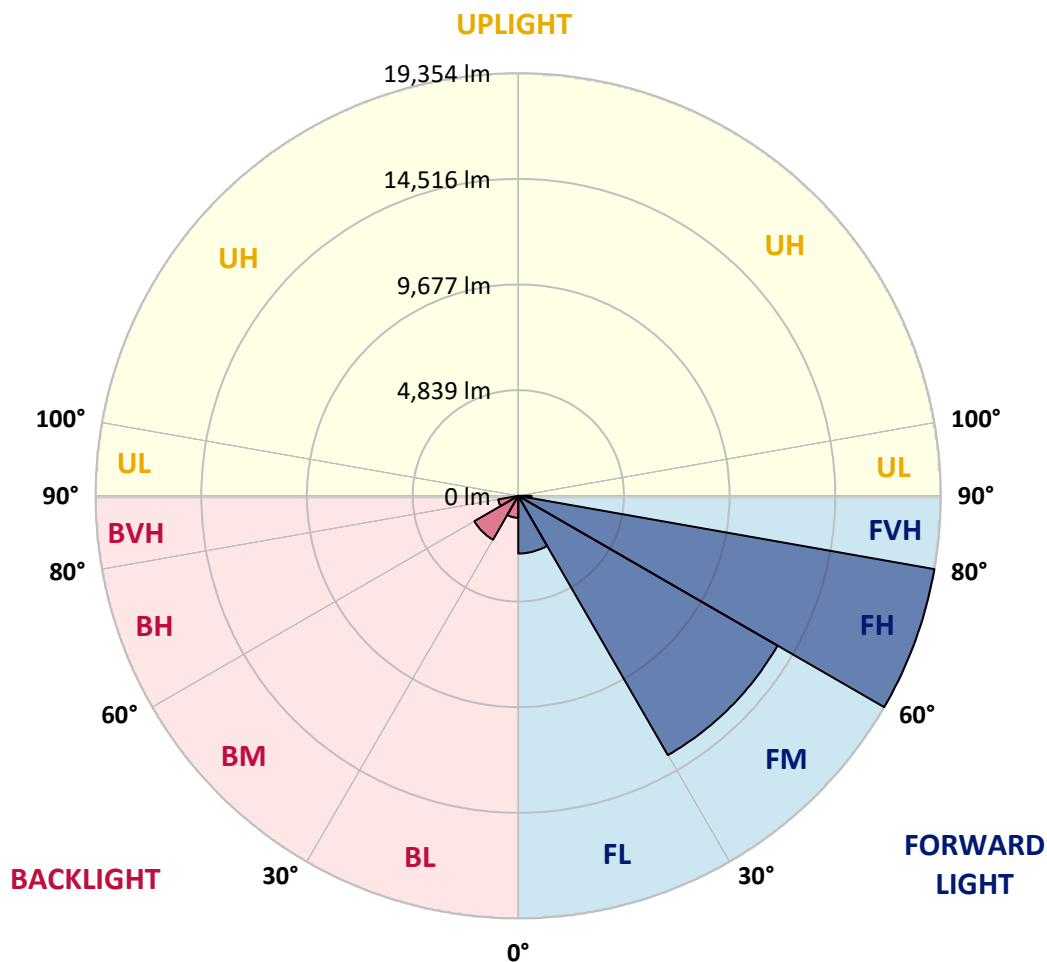
CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

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

| Zone |             | Lumens  | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|---------|-----------|-------------------------|------|---------|
|      |             |         |           | B                       | U    | G       |
| FL   | (0°-30°)    | 2643.8  | 6.5       |                         |      |         |
| FM   | (30°-60°)   | 13712.1 | 33.8      |                         |      |         |
| FH   | (60°-80°)   | 19354.3 | 47.7      |                         |      | G5      |
| FVH  | (80°-90°)   | 611.3   | 1.5       |                         |      | G4/750  |
| BL   | (0°-30°)    | 1010.1  | 2.5       | B3/2500                 |      |         |
| BM   | (30°-60°)   | 2319.3  | 5.7       | B2/2500                 |      |         |
| BH   | (60°-80°)   | 929.9   | 2.3       | B2/1000                 |      | G2/1000 |
| BVH  | (80°-90°)   | 5.2     | 0.0       |                         |      | G0/10   |
| 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 Short



REPORT NUMBER: P969322

CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°      | 5°      | 15°     | 25°     | 35°     | 45°     | 46°     | 55°     | 65°     | 75°     | 85°     |
|-------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| 0°    | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  | 4446.2  |
| 2.5°  | 4856.2  | 4864.5  | 4859.0  | 4825.8  | 4770.3  | 4739.9  | 4723.3  | 4667.8  | 4631.9  | 4568.1  | 4501.7  |
| 5°    | 5302.3  | 5335.5  | 5316.2  | 5249.6  | 5144.4  | 5069.5  | 5047.4  | 4933.8  | 4831.3  | 4712.2  | 4573.8  |
| 7.5°  | 5776.0  | 5792.6  | 5756.6  | 5670.7  | 5529.5  | 5402.1  | 5382.6  | 5224.7  | 5061.2  | 4878.4  | 4690.1  |
| 10°   | 6186.0  | 6205.3  | 6150.0  | 6025.4  | 5864.6  | 5706.8  | 5679.0  | 5504.6  | 5310.6  | 5086.2  | 4845.2  |
| 12.5° | 6529.6  | 6548.9  | 6476.9  | 6327.3  | 6150.0  | 5986.5  | 5958.8  | 5776.0  | 5562.7  | 5313.4  | 5014.2  |
| 15°   | 6789.9  | 6825.9  | 6728.9  | 6568.3  | 6377.1  | 6213.7  | 6199.8  | 6019.8  | 5812.1  | 5535.0  | 5216.4  |
| 17.5° | 6942.3  | 6978.3  | 6886.9  | 6692.9  | 6529.6  | 6391.0  | 6374.4  | 6224.8  | 6030.9  | 5764.9  | 5413.1  |
| 20°   | 6967.2  | 7000.4  | 6903.5  | 6734.6  | 6598.7  | 6487.9  | 6479.6  | 6371.6  | 6230.4  | 5975.4  | 5626.4  |
| 22.5° | 6892.4  | 6933.9  | 6845.4  | 6709.5  | 6615.4  | 6557.2  | 6546.2  | 6485.2  | 6404.8  | 6188.7  | 5825.9  |
| 25°   | 6814.8  | 6848.1  | 6781.6  | 6662.5  | 6612.6  | 6607.0  | 6615.4  | 6604.3  | 6587.7  | 6404.8  | 6058.6  |
| 27.5° | 6809.3  | 6845.4  | 6770.5  | 6657.0  | 6629.2  | 6687.4  | 6695.7  | 6748.4  | 6762.2  | 6601.5  | 6282.9  |
| 30°   | 6856.4  | 6881.3  | 6809.3  | 6690.2  | 6676.3  | 6809.3  | 6812.0  | 6906.2  | 6928.4  | 6767.8  | 6504.5  |
| 32.5° | 6958.9  | 6986.6  | 6914.5  | 6740.1  | 6720.6  | 6906.2  | 6914.5  | 7039.2  | 7075.3  | 6945.1  | 6737.3  |
| 35°   | 7199.9  | 7233.1  | 7150.1  | 6878.6  | 6809.3  | 6997.7  | 7022.6  | 7169.5  | 7241.4  | 7133.4  | 6978.3  |
| 37.5° | 7801.1  | 7704.1  | 7590.5  | 7158.4  | 7011.5  | 7141.7  | 7183.3  | 7355.1  | 7482.5  | 7357.9  | 7266.4  |
| 40°   | 9294.2  | 8989.5  | 8634.9  | 7634.8  | 7366.2  | 7449.2  | 7482.5  | 7654.2  | 7828.7  | 7706.9  | 7662.6  |
| 42.5° | 11535.3 | 11175.3 | 10604.5 | 8731.9  | 7900.8  | 7942.3  | 7967.3  | 8116.9  | 8363.4  | 8266.4  | 8277.6  |
| 45°   | 13532.8 | 13402.5 | 12820.8 | 10604.5 | 8900.9  | 8695.9  | 8726.3  | 8803.9  | 9166.8  | 9130.8  | 9202.9  |
| 47.5° | 15067.5 | 14992.7 | 14543.9 | 12754.3 | 10590.7 | 9618.4  | 9704.2  | 9740.3  | 10263.8 | 10391.2 | 10585.2 |
| 50°   | 16247.6 | 16219.9 | 15818.2 | 14665.8 | 12798.7 | 10978.6 | 11009.0 | 10931.4 | 11715.4 | 12031.2 | 12399.7 |
| 52.5° | 17361.2 | 17455.4 | 17159.0 | 16441.5 | 15156.1 | 12759.8 | 12754.3 | 12388.7 | 13446.9 | 13923.3 | 14552.2 |
| 55°   | 18366.9 | 18400.1 | 18430.5 | 18253.3 | 17527.5 | 14787.7 | 14735.0 | 14136.7 | 15455.3 | 15948.4 | 16629.9 |
| 57.5° | 19311.5 | 19325.4 | 19596.9 | 19959.7 | 19995.8 | 16965.1 | 16868.1 | 16150.6 | 17649.4 | 18001.2 | 18419.5 |
| 60°   | 19945.9 | 20009.6 | 20583.0 | 21591.4 | 22031.9 | 19211.8 | 19159.1 | 18427.8 | 19882.1 | 20045.6 | 19968.0 |
| 62.5° | 19031.7 | 19419.5 | 20865.6 | 22865.7 | 23954.5 | 21702.2 | 21677.3 | 20990.3 | 22231.3 | 22098.4 | 21433.6 |
| 65°   | 15405.4 | 16062.0 | 18605.1 | 23727.3 | 25841.0 | 24483.6 | 24519.6 | 23788.2 | 24644.3 | 24212.1 | 22624.7 |
| 67.5° | 10776.3 | 11468.9 | 14477.4 | 23796.6 | 27949.2 | 27749.7 | 27957.5 | 26810.6 | 27206.8 | 26237.1 | 22907.3 |
| 70°   | 7452.1  | 7809.4  | 9767.9  | 22306.2 | 29592.0 | 32248.7 | 32243.1 | 30522.8 | 29755.4 | 27159.6 | 21466.8 |
| 72.5° | 5011.4  | 5197.1  | 6343.9  | 17696.4 | 28384.1 | 34922.0 | 34761.2 | 33359.5 | 30614.2 | 25400.5 | 17538.6 |
| 75°   | 2113.8  | 2249.5  | 2936.5  | 9945.3  | 22455.7 | 31949.5 | 31514.5 | 29481.2 | 27201.2 | 20001.3 | 10942.5 |
| 77.5° | 670.5   | 728.6   | 1157.9  | 3559.8  | 12369.2 | 24015.4 | 23555.5 | 18411.2 | 18231.1 | 10033.9 | 4000.3  |
| 80°   | 318.6   | 371.3   | 651.0   | 1429.5  | 4867.3  | 13061.8 | 12998.0 | 8352.3  | 7842.6  | 2709.3  | 803.4   |
| 82.5° | 138.5   | 163.5   | 360.2   | 764.5   | 2177.4  | 4659.5  | 4753.7  | 2842.3  | 2352.0  | 1027.8  | 246.5   |
| 85°   | 44.3    | 58.2    | 166.3   | 351.8   | 919.7   | 1157.9  | 1144.1  | 676.0   | 947.4   | 559.5   | 85.9    |
| 87.5° | 0.0     | 0.0     | 55.5    | 80.4    | 94.2    | 66.5    | 74.8    | 58.2    | 263.2   | 155.2   | 30.4    |
| 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: P969322

CATALOG NUMBER: NAV-SB5D-735-U-T4W-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°     | 95°     | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|---------|---------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 4446.2  | 4446.2  | 4446.2 | 4446.2 | 4446.2 | 4446.2 | 4446.2 | 4446.2 | 4446.2 | 4446.2 | 4446.2 |
| 2.5°  | 4468.4  | 4424.1  | 4346.5 | 4274.6 | 4210.8 | 4147.0 | 4108.3 | 4052.8 | 4047.3 | 4047.3 | 4061.3 |
| 5°    | 4498.9  | 4426.9  | 4288.4 | 4141.5 | 3972.6 | 3811.9 | 3651.3 | 3496.1 | 3446.3 | 3410.2 | 3426.8 |
| 7.5°  | 4587.6  | 4474.0  | 4255.1 | 3975.4 | 3654.0 | 3302.1 | 3055.6 | 2789.6 | 2687.1 | 2631.8 | 2640.1 |
| 10°   | 4715.0  | 4559.8  | 4227.4 | 3737.0 | 3216.2 | 2737.1 | 2385.2 | 2097.0 | 1986.2 | 1939.2 | 1939.2 |
| 12.5° | 4856.2  | 4665.1  | 4177.6 | 3440.6 | 2737.1 | 2163.6 | 1820.1 | 1687.0 | 1670.4 | 1670.4 | 1670.4 |
| 15°   | 5025.3  | 4792.6  | 4091.7 | 3091.6 | 2235.6 | 1712.1 | 1590.1 | 1595.7 | 1612.3 | 1623.4 | 1623.4 |
| 17.5° | 5199.8  | 4928.3  | 3955.9 | 2701.0 | 1792.3 | 1540.3 | 1543.0 | 1551.3 | 1565.2 | 1576.2 | 1576.2 |
| 20°   | 5388.1  | 5064.0  | 3775.9 | 2285.4 | 1537.5 | 1490.5 | 1498.8 | 1507.1 | 1518.1 | 1523.7 | 1526.4 |
| 22.5° | 5590.3  | 5191.5  | 3562.6 | 1878.2 | 1451.6 | 1448.8 | 1451.6 | 1459.9 | 1473.7 | 1473.7 | 1479.3 |
| 25°   | 5806.4  | 5332.8  | 3318.7 | 1581.8 | 1407.3 | 1407.3 | 1412.9 | 1418.4 | 1429.5 | 1429.5 | 1432.2 |
| 27.5° | 6028.1  | 5462.9  | 3061.2 | 1426.7 | 1368.5 | 1365.7 | 1365.7 | 1374.0 | 1379.5 | 1382.3 | 1385.1 |
| 30°   | 6271.9  | 5615.4  | 2803.5 | 1393.5 | 1338.0 | 1324.2 | 1315.9 | 1321.4 | 1327.0 | 1329.7 | 1335.3 |
| 32.5° | 6521.2  | 5762.1  | 2573.6 | 1407.3 | 1307.6 | 1282.6 | 1254.9 | 1249.4 | 1249.4 | 1260.4 | 1268.7 |
| 35°   | 6798.2  | 5922.9  | 2396.2 | 1454.4 | 1291.0 | 1221.7 | 1177.3 | 1152.4 | 1155.2 | 1171.8 | 1180.1 |
| 37.5° | 7130.6  | 6116.8  | 2266.1 | 1496.0 | 1279.8 | 1152.4 | 1080.5 | 1049.9 | 1030.5 | 1049.9 | 1044.4 |
| 40°   | 7565.6  | 6402.0  | 2171.9 | 1529.2 | 1266.0 | 1072.0 | 975.1  | 925.3  | 889.3  | 900.4  | 894.8  |
| 42.5° | 8205.5  | 6850.9  | 2135.9 | 1532.0 | 1235.5 | 978.0  | 867.0  | 800.6  | 747.9  | 750.7  | 739.6  |
| 45°   | 9103.1  | 7560.1  | 2321.5 | 1496.0 | 1169.0 | 875.5  | 753.5  | 664.8  | 631.6  | 623.3  | 612.2  |
| 47.5° | 10333.1 | 8593.4  | 2750.9 | 1421.2 | 1072.0 | 775.7  | 642.7  | 568.0  | 542.9  | 529.1  | 520.8  |
| 50°   | 11981.4 | 9920.4  | 3227.3 | 1338.0 | 975.1  | 681.5  | 551.2  | 504.2  | 487.6  | 473.8  | 471.0  |
| 52.5° | 13892.8 | 11266.7 | 3617.9 | 1254.9 | 878.2  | 598.4  | 493.1  | 465.5  | 451.5  | 440.4  | 437.7  |
| 55°   | 15646.4 | 12194.7 | 3595.8 | 1166.2 | 784.0  | 531.9  | 451.5  | 434.9  | 418.3  | 407.2  | 401.7  |
| 57.5° | 16737.9 | 12324.9 | 2964.2 | 1069.3 | 676.0  | 479.3  | 412.8  | 401.7  | 382.3  | 368.5  | 365.7  |
| 60°   | 17239.4 | 11582.5 | 2077.7 | 941.9  | 568.0  | 429.4  | 371.3  | 365.7  | 340.7  | 321.3  | 315.8  |
| 62.5° | 17330.8 | 10202.8 | 1385.1 | 784.0  | 473.8  | 382.3  | 329.6  | 321.3  | 288.1  | 254.8  | 238.2  |
| 65°   | 16959.5 | 8230.4  | 958.5  | 612.2  | 404.5  | 332.4  | 282.6  | 266.0  | 229.9  | 196.7  | 185.6  |
| 67.5° | 15785.0 | 5778.7  | 667.6  | 440.4  | 343.5  | 263.2  | 224.4  | 218.8  | 191.2  | 163.5  | 155.2  |
| 70°   | 13632.5 | 3293.8  | 446.0  | 329.6  | 271.5  | 180.1  | 177.3  | 182.9  | 155.2  | 132.9  | 121.9  |
| 72.5° | 10452.2 | 1507.1  | 277.1  | 241.0  | 185.6  | 121.9  | 141.2  | 144.0  | 119.1  | 99.7   | 88.7   |
| 75°   | 6152.8  | 645.4   | 174.6  | 155.2  | 94.2   | 80.4   | 102.5  | 105.3  | 80.4   | 63.8   | 55.5   |
| 77.5° | 2094.3  | 243.7   | 110.8  | 91.4   | 47.0   | 44.3   | 66.5   | 66.5   | 44.3   | 24.9   | 19.4   |
| 80°   | 476.5   | 91.4    | 55.5   | 36.0   | 22.1   | 19.4   | 22.1   | 19.4   | 11.1   | 2.8    | 0.0    |
| 82.5° | 135.7   | 36.0    | 22.1   | 13.8   | 8.3    | 8.3    | 2.8    | 0.0    | 0.0    | 0.0    | 0.0    |
| 85°   | 38.7    | 16.6    | 5.5    | 5.5    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |
| 87.5° | 16.6    | 2.8     | 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)