

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: P960950

Luminaire Tested: **NAV-SB1D-750-U-T4FT-HSS**

Issue Date: 1/21/2025

### Test Information

Test Method: LM-79-08  
Report Number: P960950  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-25)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/21/2025  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: LUMARK  
Catalog Number: NAV-SB1D-750-U-T4FT-HSS  
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE  
(1) 70 CRI, 5000K, 900mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV FORWARD  
THROW OPTICS WITH HOUSE SIDE SHIELD  
Light Source: -  
Ballast/Driver: -

### Summary

Lumens per Lamp: N/A  
Luminaire Lumens: 8357.8 lumens  
Efficiency: N/A  
Efficacy: 105.0 lumens/watt  
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')  
IES Classification: Type IV - Short  
BUG Rating: B1 - U0 - G2

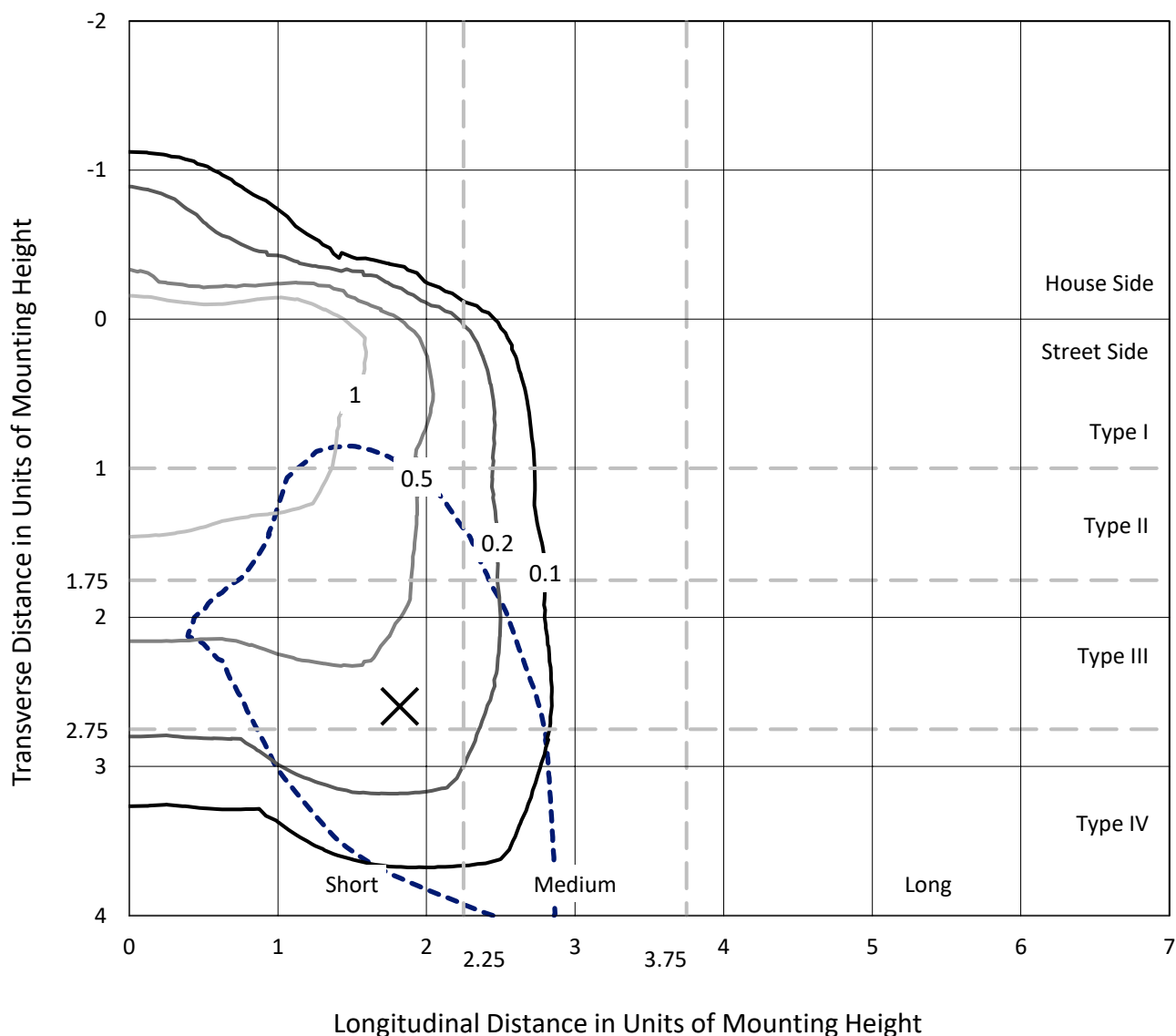
Input Watts (W): 79.6  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



REPORT NUMBER: P960950  
CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

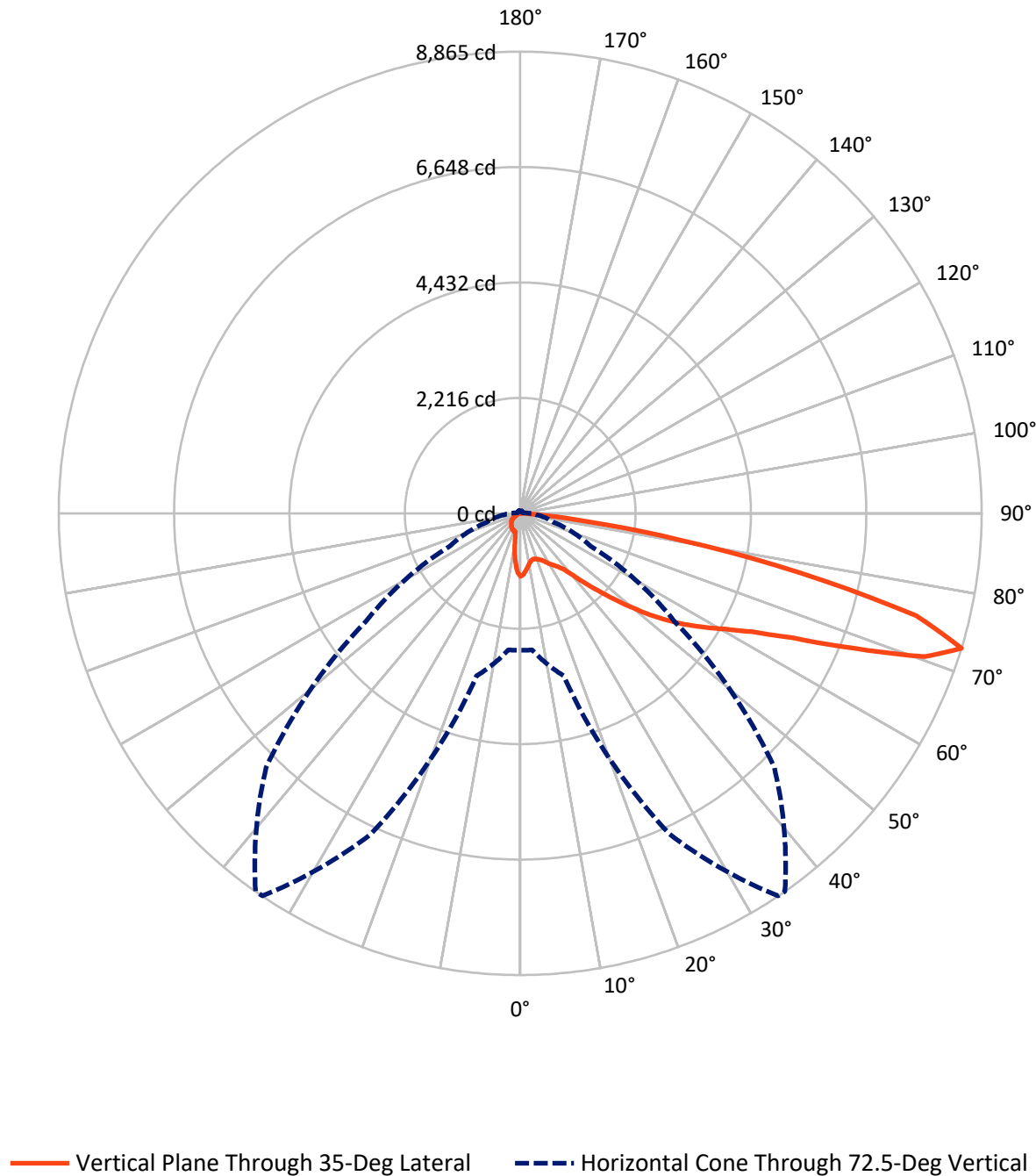
## Iso-Footcandle Lines of Horizontal Illumination

× Max cd  
- - - 1/2 Max cd



REPORT NUMBER: P960950  
CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

## Luminous Intensity Polar Plot



REPORT NUMBER: P960950

CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

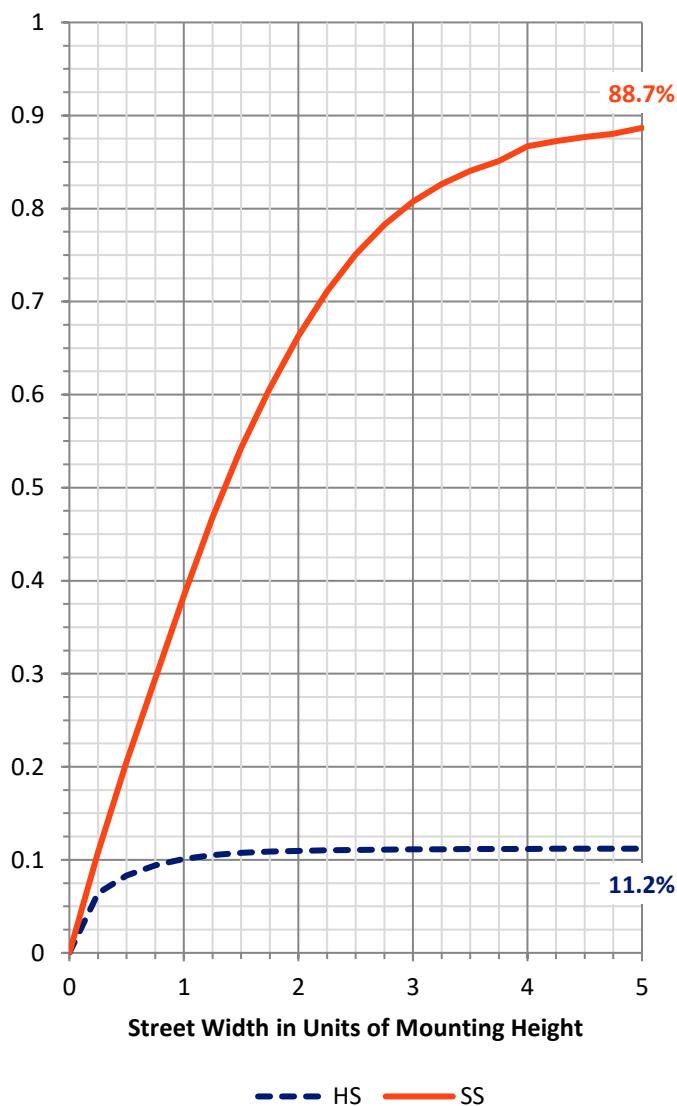
**FLUX DISTRIBUTION:**

|                    |           | Downward | Upward | Total  |
|--------------------|-----------|----------|--------|--------|
| <b>House Side</b>  | Lumens    | 940.6    | 0.0    | 940.6  |
|                    | % Fixture | 11.3     | 0.0    | 11.3   |
| <b>Street Side</b> | Lumens    | 7417.2   | 0.0    | 7417.2 |
|                    | % Fixture | 88.7     | 0.0    | 88.7   |
| <b>Total</b>       | Lumens    | 8357.8   | 0.0    | 8357.8 |
|                    | % Fixture | 100.0    | 0.0    | 100.0  |

**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 99.5   | 1.2       |
| 10°-20°   | 232.9  | 2.8       |
| 20°-30°   | 378.3  | 4.5       |
| 30°-40°   | 631.1  | 7.6       |
| 40°-50°   | 1194.1 | 14.3      |
| 50°-60°   | 1897.5 | 22.7      |
| 60°-70°   | 2347.3 | 28.1      |
| 70°-80°   | 1459.1 | 17.5      |
| 80°-90°   | 117.9  | 1.4       |
| 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°    | 8357.8 | 100.0     |
| 0°-180°   | 8357.8 | 100.0     |

**Coefficient of Utilization**



REPORT NUMBER: P960950

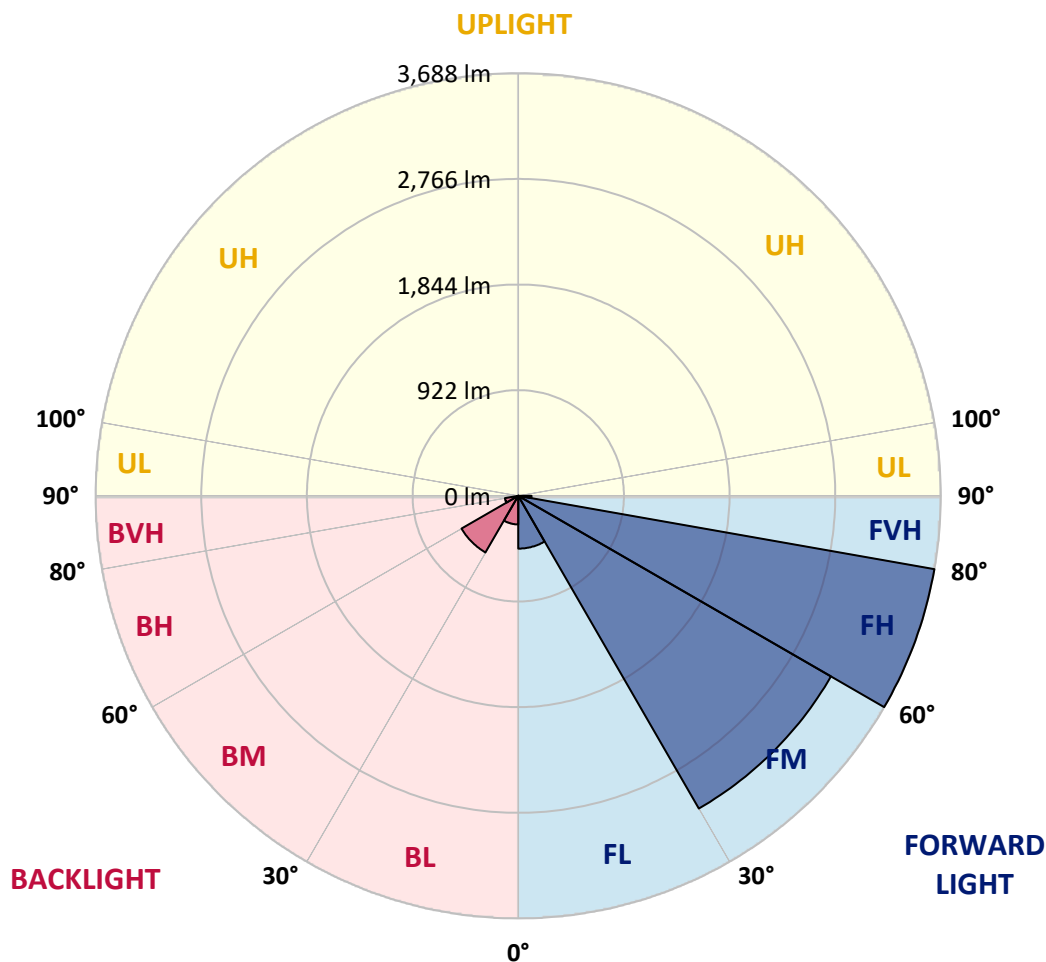
CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

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

| Zone |             | Lumens | % Fixture | Zone Rating/Lumen Limit |      |         |
|------|-------------|--------|-----------|-------------------------|------|---------|
|      |             |        |           | B                       | U    | G       |
| FL   | (0°-30°)    | 460.7  | 5.5       |                         |      |         |
| FM   | (30°-60°)   | 3151.7 | 37.7      |                         |      |         |
| FH   | (60°-80°)   | 3688.4 | 44.1      |                         |      | G2/5000 |
| FVH  | (80°-90°)   | 116.3  | 1.4       |                         |      | G2/225  |
| BL   | (0°-30°)    | 249.9  | 3.0       | B1/500                  |      |         |
| BM   | (30°-60°)   | 571.0  | 6.8       | B1/1000                 |      |         |
| BH   | (60°-80°)   | 118.0  | 1.4       | B1/500                  |      | G1/500  |
| BVH  | (80°-90°)   | 1.6    | 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-G2**

Type IV Short



REPORT NUMBER: P960950

CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 34°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 |
| 2.5°  | 1157.4 | 1167.3 | 1169.1 | 1172.2 | 1172.2 | 1175.8 | 1181.9 | 1190.5 | 1204.6 | 1212.0 | 1216.9 |
| 5°    | 1066.8 | 1074.2 | 1083.3 | 1090.7 | 1104.7 | 1106.6 | 1130.5 | 1153.7 | 1186.2 | 1210.7 | 1227.8 |
| 7.5°  | 975.6  | 984.1  | 996.4  | 1014.1 | 1032.5 | 1038.0 | 1074.2 | 1113.4 | 1164.8 | 1210.7 | 1239.5 |
| 10°   | 911.2  | 911.8  | 922.9  | 940.6  | 970.1  | 976.8  | 1020.9 | 1076.6 | 1140.9 | 1203.4 | 1250.5 |
| 12.5° | 875.1  | 879.4  | 884.3  | 897.8  | 926.0  | 930.3  | 977.4  | 1042.9 | 1117.0 | 1199.0 | 1263.4 |
| 15°   | 875.1  | 878.2  | 881.3  | 888.0  | 910.6  | 914.3  | 955.9  | 1021.5 | 1104.7 | 1200.9 | 1284.2 |
| 17.5° | 884.3  | 889.2  | 886.7  | 894.7  | 918.6  | 921.1  | 957.8  | 1015.4 | 1104.1 | 1212.6 | 1316.1 |
| 20°   | 906.3  | 910.0  | 905.2  | 910.0  | 933.9  | 938.8  | 976.8  | 1027.0 | 1114.6 | 1232.8 | 1355.9 |
| 22.5° | 941.3  | 943.1  | 931.4  | 935.1  | 959.6  | 965.8  | 1009.8 | 1060.1 | 1139.7 | 1265.3 | 1409.2 |
| 25°   | 985.3  | 989.0  | 971.3  | 975.6  | 998.9  | 1006.1 | 1057.0 | 1109.7 | 1179.5 | 1309.9 | 1477.1 |
| 27.5° | 1036.2 | 1038.0 | 1022.7 | 1022.1 | 1052.1 | 1062.5 | 1114.0 | 1171.0 | 1232.8 | 1366.2 | 1562.8 |
| 30°   | 1094.4 | 1099.8 | 1085.2 | 1082.7 | 1120.7 | 1129.2 | 1180.1 | 1246.2 | 1311.2 | 1450.8 | 1684.7 |
| 32.5° | 1140.3 | 1144.6 | 1136.0 | 1142.2 | 1180.7 | 1187.5 | 1260.3 | 1352.8 | 1434.3 | 1570.8 | 1850.6 |
| 35°   | 1206.4 | 1208.9 | 1189.3 | 1200.3 | 1244.5 | 1261.6 | 1369.9 | 1502.2 | 1589.2 | 1721.5 | 2067.4 |
| 37.5° | 1445.9 | 1445.9 | 1362.6 | 1308.1 | 1350.3 | 1365.6 | 1520.0 | 1690.2 | 1780.2 | 1923.5 | 2340.6 |
| 40°   | 1777.1 | 1771.7 | 1649.8 | 1538.3 | 1532.9 | 1562.8 | 1733.7 | 1927.2 | 2027.0 | 2166.0 | 2648.0 |
| 42.5° | 2130.6 | 2122.0 | 1956.0 | 1845.8 | 1827.4 | 1837.8 | 1980.5 | 2219.3 | 2321.0 | 2461.8 | 2978.8 |
| 45°   | 2444.1 | 2441.7 | 2289.7 | 2141.5 | 2108.5 | 2141.5 | 2288.5 | 2561.1 | 2633.9 | 2782.2 | 3308.8 |
| 47.5° | 2706.8 | 2706.8 | 2596.0 | 2499.3 | 2482.0 | 2501.6 | 2705.6 | 2940.1 | 2933.4 | 3123.3 | 3630.3 |
| 50°   | 3009.3 | 3006.9 | 2901.6 | 2860.0 | 2877.7 | 2905.3 | 3185.7 | 3339.4 | 3243.3 | 3458.2 | 3917.6 |
| 52.5° | 3221.3 | 3235.9 | 3199.8 | 3193.1 | 3283.7 | 3331.5 | 3673.2 | 3730.2 | 3520.7 | 3776.1 | 4132.5 |
| 55°   | 3389.1 | 3406.2 | 3447.8 | 3494.9 | 3669.5 | 3732.0 | 4145.3 | 4100.6 | 3752.8 | 4051.6 | 4256.2 |
| 57.5° | 3626.7 | 3602.2 | 3666.4 | 3759.5 | 4041.9 | 4117.2 | 4602.9 | 4450.3 | 3939.6 | 4275.2 | 4269.6 |
| 60°   | 3915.1 | 3918.8 | 3929.7 | 4047.4 | 4413.5 | 4510.3 | 5053.6 | 4781.0 | 4059.6 | 4412.3 | 4120.3 |
| 62.5° | 4261.7 | 4267.2 | 4289.9 | 4470.5 | 4912.7 | 5003.9 | 5533.7 | 5051.7 | 4114.8 | 4373.8 | 3734.4 |
| 65°   | 4237.9 | 4261.1 | 4514.0 | 5132.0 | 5671.4 | 5761.5 | 6094.0 | 5241.5 | 4031.4 | 4021.1 | 3040.6 |
| 67.5° | 3860.6 | 3898.6 | 4321.7 | 5921.9 | 6815.4 | 6915.9 | 6771.4 | 5279.0 | 3672.0 | 3127.0 | 1983.6 |
| 70°   | 3365.8 | 3379.2 | 3888.1 | 6632.4 | 8140.0 | 8241.7 | 7377.6 | 4868.0 | 2786.5 | 1744.1 | 888.6  |
| 72.5° | 2628.4 | 2631.5 | 3228.5 | 6797.1 | 8859.0 | 8864.5 | 6901.7 | 3613.7 | 1498.6 | 669.9  | 308.6  |
| 75°   | 1877.6 | 1859.2 | 2162.4 | 5512.2 | 7794.1 | 7856.5 | 5174.2 | 1695.1 | 572.6  | 316.6  | 153.8  |
| 77.5° | 1006.8 | 1027.0 | 1223.5 | 3269.0 | 5384.2 | 5490.8 | 2823.2 | 488.7  | 291.5  | 215.6  | 101.7  |
| 80°   | 311.1  | 328.2  | 501.5  | 1496.7 | 3049.8 | 3114.1 | 1046.6 | 217.4  | 203.4  | 153.8  | 66.7   |
| 82.5° | 98.0   | 101.7  | 233.9  | 628.9  | 1265.9 | 1295.2 | 303.1  | 123.1  | 139.0  | 101.7  | 39.2   |
| 85°   | 28.2   | 28.8   | 104.1  | 234.5  | 312.9  | 319.1  | 85.1   | 47.8   | 79.6   | 63.0   | 20.2   |
| 87.5° | 3.1    | 9.8    | 39.2   | 39.2   | 27.6   | 27.0   | 9.2    | 10.5   | 22.7   | 8.0    | 3.7    |
| 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: P960950

CATALOG NUMBER: NAV-SB1D-750-U-T4FT-HSS

**CANDELA DISTRIBUTION (continued):**

|       | 90°    | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 | 1211.3 |
| 2.5°  | 1213.8 | 1214.4 | 1206.4 | 1193.0 | 1178.2 | 1166.0 | 1150.7 | 1138.5 | 1129.9 | 1127.4 | 1131.7 |
| 5°    | 1222.3 | 1218.1 | 1195.5 | 1154.4 | 1105.4 | 1063.1 | 1016.0 | 978.7  | 954.2  | 943.7  | 947.4  |
| 7.5°  | 1235.2 | 1222.9 | 1173.3 | 1092.5 | 998.9  | 915.5  | 831.1  | 765.5  | 723.9  | 703.0  | 706.1  |
| 10°   | 1246.2 | 1221.7 | 1136.6 | 1003.1 | 859.8  | 733.7  | 619.7  | 540.8  | 496.6  | 475.8  | 476.4  |
| 12.5° | 1256.6 | 1221.1 | 1088.9 | 897.2  | 703.0  | 548.7  | 442.8  | 403.5  | 391.3  | 387.0  | 385.8  |
| 15°   | 1276.2 | 1222.9 | 1028.8 | 775.9  | 546.8  | 414.6  | 376.0  | 375.4  | 377.8  | 376.6  | 376.0  |
| 17.5° | 1303.2 | 1224.8 | 960.8  | 647.3  | 422.0  | 365.6  | 363.8  | 369.3  | 373.0  | 371.2  | 370.5  |
| 20°   | 1338.1 | 1232.2 | 888.6  | 519.9  | 362.5  | 353.3  | 357.6  | 362.5  | 365.6  | 362.5  | 361.9  |
| 22.5° | 1387.1 | 1245.0 | 809.6  | 417.7  | 343.6  | 346.0  | 349.7  | 355.2  | 358.2  | 353.9  | 353.3  |
| 25°   | 1447.1 | 1265.3 | 731.8  | 363.2  | 334.4  | 337.4  | 343.0  | 349.1  | 352.7  | 348.5  | 347.9  |
| 27.5° | 1524.9 | 1297.6 | 660.2  | 350.9  | 325.2  | 327.0  | 335.0  | 344.2  | 349.1  | 343.6  | 343.6  |
| 30°   | 1637.5 | 1350.9 | 598.3  | 356.4  | 319.7  | 315.4  | 326.4  | 339.3  | 344.8  | 339.9  | 339.3  |
| 32.5° | 1787.0 | 1426.3 | 560.4  | 365.0  | 317.2  | 302.0  | 312.3  | 328.8  | 338.0  | 335.0  | 335.0  |
| 35°   | 1983.0 | 1540.8 | 545.6  | 374.7  | 315.4  | 287.8  | 295.2  | 312.9  | 328.8  | 331.9  | 331.9  |
| 37.5° | 2220.6 | 1700.1 | 549.9  | 379.0  | 309.9  | 276.2  | 279.8  | 295.2  | 316.0  | 325.8  | 328.2  |
| 40°   | 2490.6 | 1885.6 | 574.4  | 374.7  | 303.7  | 266.4  | 267.0  | 278.6  | 297.0  | 311.7  | 316.6  |
| 42.5° | 2769.2 | 2102.4 | 619.7  | 358.9  | 298.3  | 257.8  | 255.9  | 263.9  | 276.2  | 286.6  | 290.9  |
| 45°   | 3034.4 | 2325.3 | 664.5  | 336.8  | 291.5  | 249.3  | 245.0  | 248.0  | 250.5  | 254.7  | 257.2  |
| 47.5° | 3266.0 | 2482.0 | 651.6  | 316.6  | 282.3  | 239.4  | 232.1  | 230.8  | 223.6  | 222.9  | 222.3  |
| 50°   | 3425.8 | 2516.4 | 578.7  | 296.4  | 268.9  | 228.5  | 216.8  | 209.4  | 196.6  | 190.4  | 191.1  |
| 52.5° | 3476.6 | 2381.0 | 472.7  | 276.2  | 246.8  | 213.7  | 197.2  | 185.5  | 169.6  | 164.1  | 163.5  |
| 55°   | 3409.3 | 2115.8 | 377.8  | 251.7  | 216.2  | 194.1  | 175.8  | 160.4  | 147.6  | 140.8  | 140.8  |
| 57.5° | 3244.5 | 1778.4 | 298.9  | 222.9  | 183.7  | 172.1  | 153.8  | 138.4  | 127.4  | 120.6  | 119.4  |
| 60°   | 2971.4 | 1412.2 | 236.4  | 188.6  | 156.8  | 148.2  | 129.3  | 119.4  | 109.6  | 101.7  | 99.8   |
| 62.5° | 2556.8 | 1008.0 | 185.5  | 149.4  | 131.1  | 121.3  | 110.2  | 102.9  | 91.2   | 80.3   | 78.4   |
| 65°   | 1995.2 | 616.6  | 143.3  | 109.6  | 105.4  | 100.4  | 93.7   | 86.9   | 72.9   | 61.8   | 60.1   |
| 67.5° | 1258.5 | 292.1  | 102.3  | 82.7   | 83.3   | 80.9   | 77.8   | 72.3   | 61.8   | 52.1   | 50.8   |
| 70°   | 554.2  | 141.4  | 67.3   | 63.0   | 61.8   | 61.8   | 64.3   | 62.4   | 52.7   | 43.5   | 41.6   |
| 72.5° | 188.6  | 76.0   | 50.2   | 47.8   | 44.7   | 44.1   | 53.9   | 52.1   | 42.2   | 33.7   | 31.9   |
| 75°   | 98.6   | 50.8   | 36.7   | 34.3   | 27.0   | 32.5   | 42.8   | 40.4   | 30.0   | 22.0   | 20.2   |
| 77.5° | 64.3   | 36.2   | 25.1   | 22.0   | 15.3   | 21.4   | 31.9   | 28.2   | 17.7   | 11.1   | 9.8    |
| 80°   | 40.4   | 23.9   | 14.7   | 10.5   | 7.4    | 11.7   | 17.1   | 12.2   | 6.8    | 2.5    | 1.8    |
| 82.5° | 21.4   | 12.2   | 5.5    | 3.7    | 3.1    | 3.7    | 4.3    | 3.1    | 1.2    | 0.0    | 0.0    |
| 85°   | 8.6    | 4.3    | 1.8    | 1.2    | 0.6    | 0.0    | 1.2    | 0.6    | 0.0    | 0.0    | 0.0    |
| 87.5° | 3.1    | 0.6    | 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)