

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: P959288

Luminaire Tested: **NAV-SB1A-735-U-SL3-HSS**

Issue Date: 1/21/2025

Test Information

Test Method: LM-79-08
Report Number: P959288
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2411-289-13)
Test Lab: INNOVATION CENTER
Issue Date: 1/21/2025
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-735-U-SL3-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 3500K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE III SPILL
LIGHT ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: -

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3704.4 lumens
Efficiency: N/A
Efficacy: 119.9 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type III - Medium
BUG Rating: B0 - U0 - G1

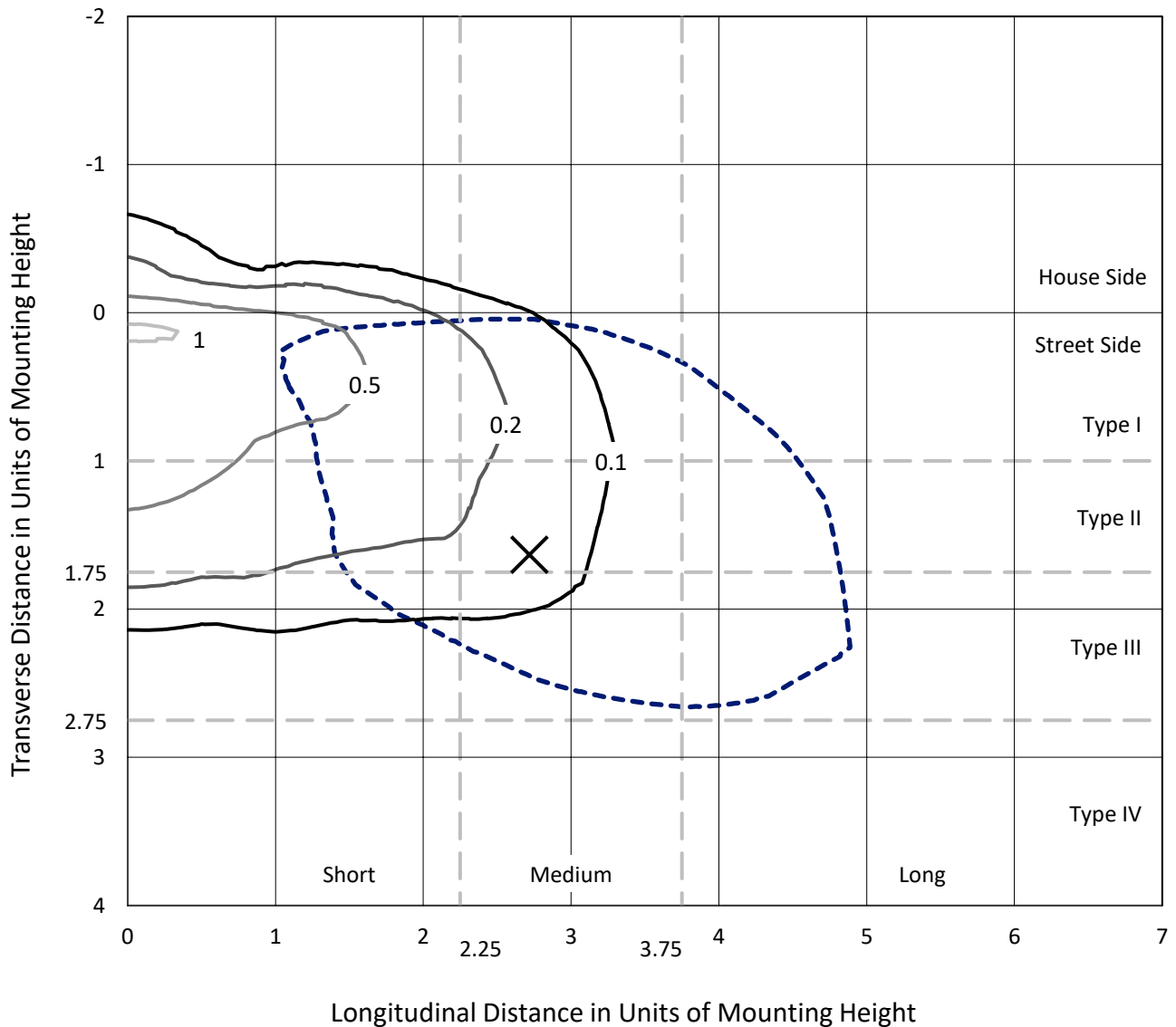
Input Watts (W): 30.9
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P959288
 CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

Iso-Footcandle Lines of Horizontal Illumination

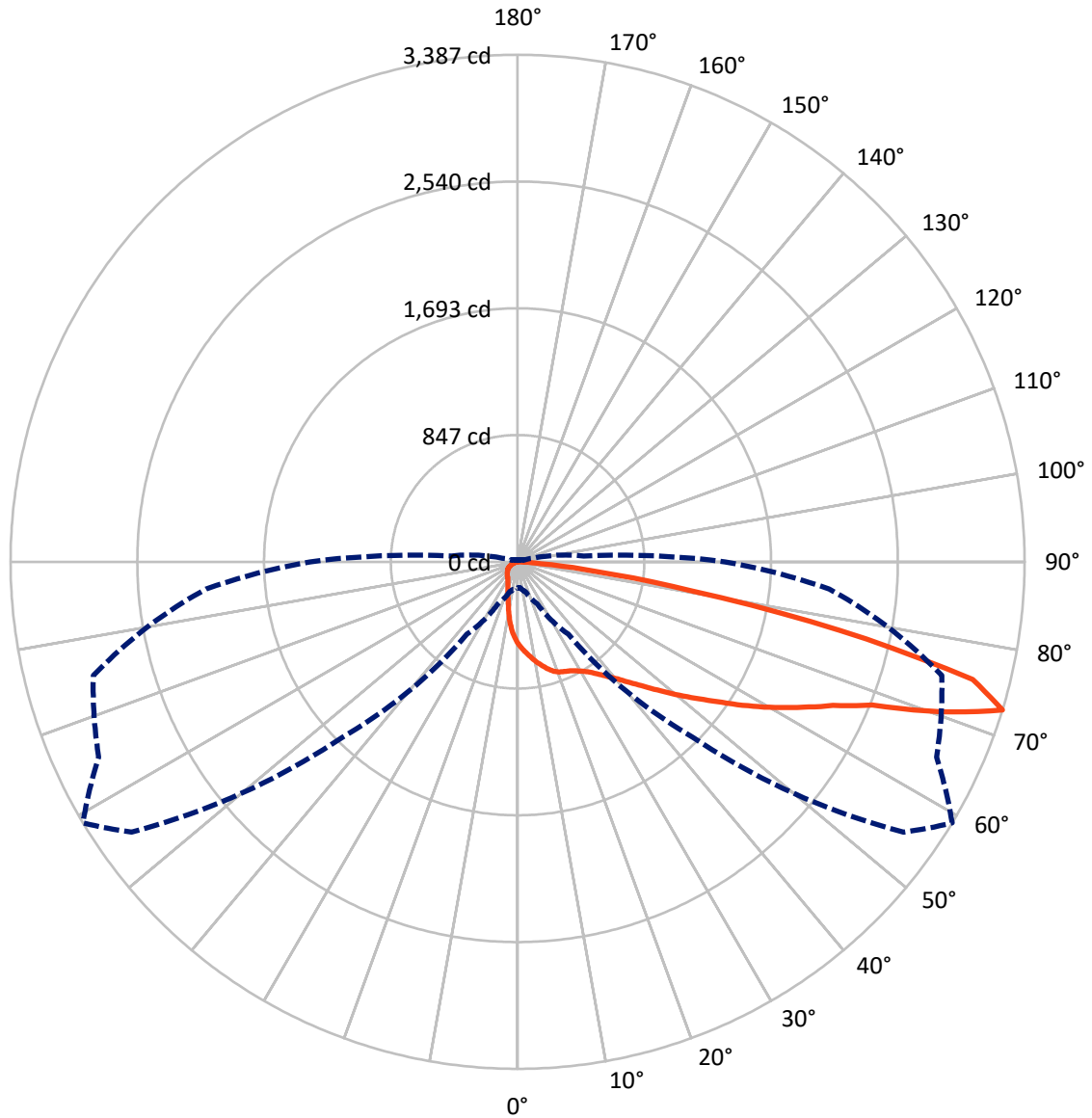
× Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 1.1 fc
 Type III - Medium - N/A

REPORT NUMBER: P959288
CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 59-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P959288
 CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

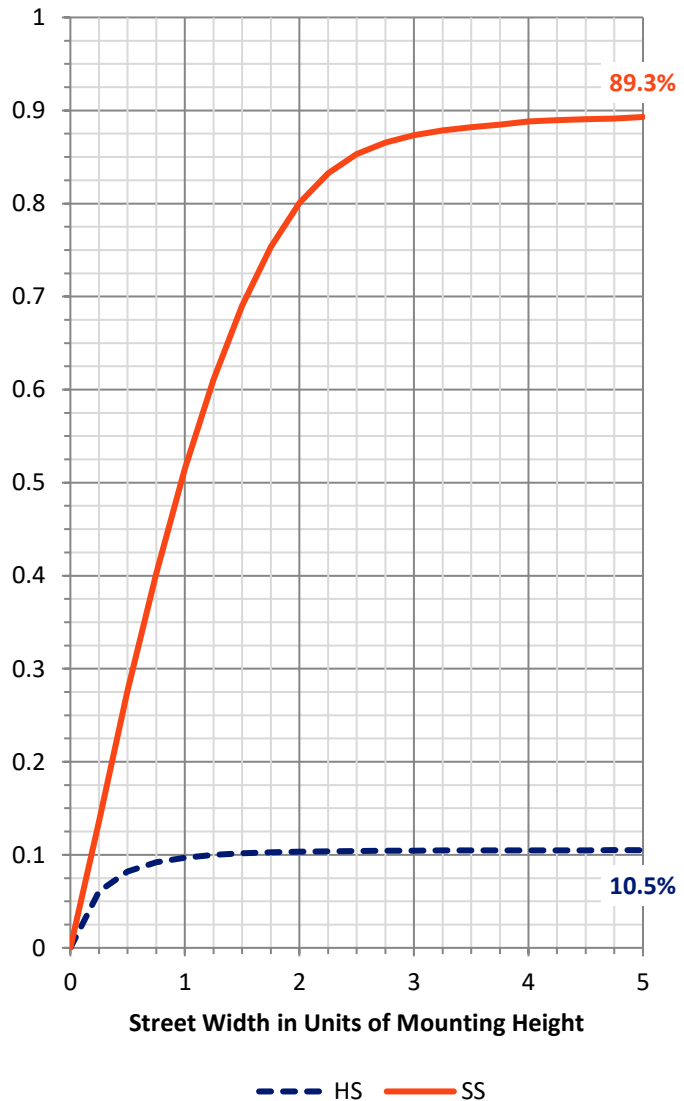
FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 391.3 | 0.0 | 391.3 |
| | % Fixture | 10.6 | 0.0 | 10.6 |
| Street Side | Lumens | 3313.1 | 0.0 | 3313.1 |
| | % Fixture | 89.4 | 0.0 | 89.4 |
| Total | Lumens | 3704.4 | 0.0 | 3704.4 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 49.6 | 1.3 |
| 10°-20° | 131.6 | 3.6 |
| 20°-30° | 208.6 | 5.6 |
| 30°-40° | 334.8 | 9.0 |
| 40°-50° | 534.8 | 14.4 |
| 50°-60° | 774.3 | 20.9 |
| 60°-70° | 918.8 | 24.8 |
| 70°-80° | 682.1 | 18.4 |
| 80°-90° | 69.7 | 1.9 |
| 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° | 3704.4 | 100.0 |
| 0°-180° | 3704.4 | 100.0 |

Coefficient of Utilization

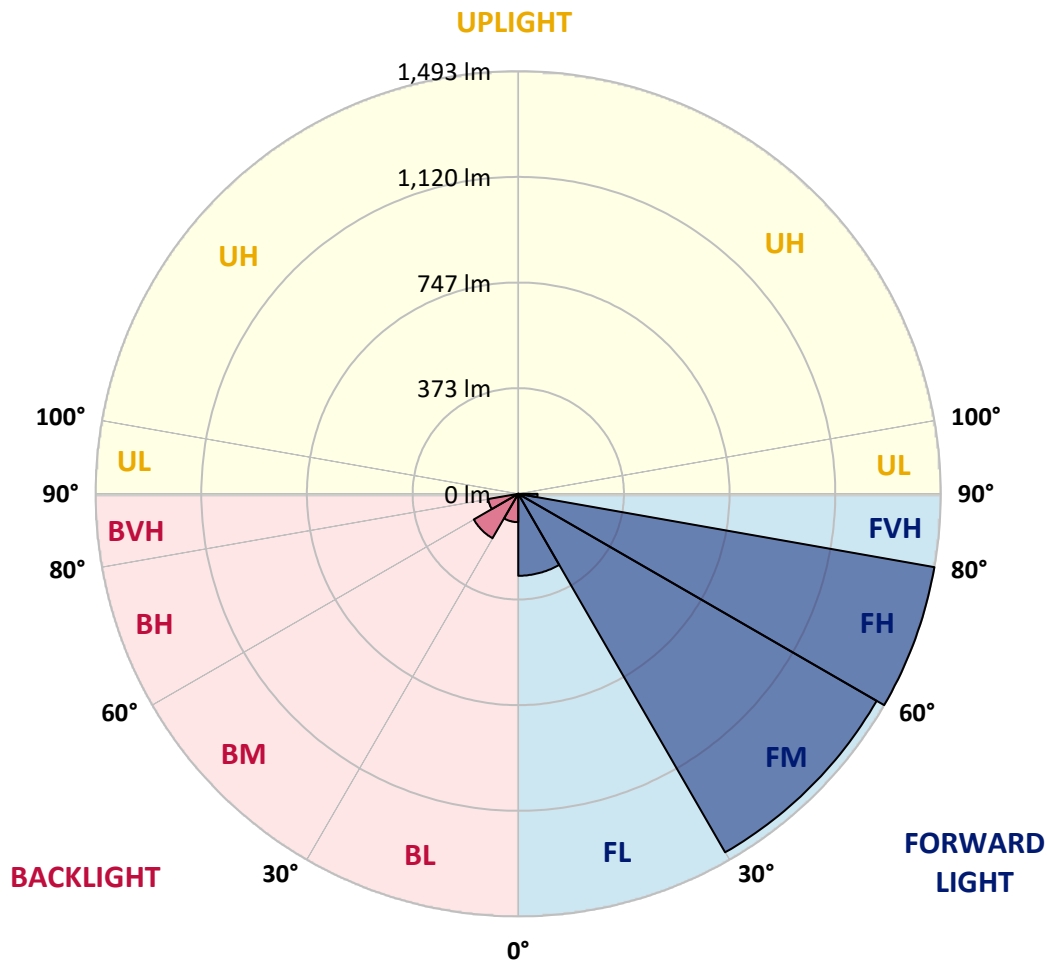


REPORT NUMBER: P959288
 CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 289.6 | 7.8 | | | |
| FM (30°-60°) | 1462.4 | 39.5 | | | |
| FH (60°-80°) | 1493.1 | 40.3 | | | G1/1800 |
| FVH (80°-90°) | 68.0 | 1.8 | | | G1/100 |
| BL (0°-30°) | 100.2 | 2.7 | B0/110 | | |
| BM (30°-60°) | 181.4 | 4.9 | B0/220 | | |
| BH (60°-80°) | 107.9 | 2.9 | B0/110 | | G0/110 |
| BVH (80°-90°) | 1.7 | 0.0 | | | G0/10 |
| UL (90°-100°) | 0.0 | 0.0 | | U0/0 | |
| UH (100°-180°) | 0.0 | 0.0 | | U0/0 | |

BUG Rating: B0-U0-G1
 Type III Medium



REPORT NUMBER: P959288
 CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 59° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 |
| 2.5° | 607.7 | 604.3 | 604.9 | 599.0 | 594.9 | 590.6 | 582.1 | 580.9 | 574.9 | 564.3 | 553.4 |
| 5° | 660.7 | 658.6 | 656.6 | 650.1 | 641.6 | 631.0 | 616.7 | 611.6 | 600.5 | 582.1 | 560.9 |
| 7.5° | 699.5 | 696.8 | 697.7 | 691.2 | 684.4 | 672.6 | 653.0 | 643.6 | 628.8 | 600.8 | 568.6 |
| 10° | 706.9 | 705.5 | 711.8 | 714.2 | 714.2 | 706.6 | 687.6 | 678.1 | 656.6 | 620.8 | 576.6 |
| 12.5° | 664.8 | 665.1 | 680.8 | 699.7 | 724.4 | 731.3 | 718.5 | 708.4 | 687.1 | 642.1 | 586.7 |
| 15° | 615.7 | 616.0 | 631.2 | 655.4 | 695.8 | 736.2 | 746.3 | 739.8 | 717.8 | 665.1 | 598.6 |
| 17.5° | 586.2 | 585.1 | 595.2 | 615.0 | 657.3 | 714.2 | 763.3 | 767.6 | 749.7 | 690.4 | 611.6 |
| 20° | 582.1 | 579.9 | 585.3 | 595.2 | 625.5 | 686.6 | 765.2 | 785.8 | 782.6 | 719.2 | 626.6 |
| 22.5° | 607.3 | 603.9 | 601.0 | 601.5 | 614.3 | 663.6 | 760.3 | 795.9 | 816.5 | 753.9 | 647.2 |
| 25° | 657.1 | 651.8 | 642.4 | 630.3 | 627.6 | 658.8 | 757.0 | 807.1 | 847.9 | 798.1 | 674.2 |
| 27.5° | 718.0 | 710.5 | 692.4 | 674.2 | 658.8 | 672.3 | 764.0 | 824.7 | 883.4 | 849.6 | 705.7 |
| 30° | 785.0 | 775.8 | 757.7 | 723.3 | 698.7 | 702.5 | 780.6 | 847.9 | 929.0 | 907.9 | 745.2 |
| 32.5° | 883.4 | 862.2 | 830.5 | 778.0 | 745.4 | 735.2 | 805.9 | 877.4 | 985.3 | 985.5 | 802.2 |
| 35° | 967.9 | 956.0 | 924.1 | 858.8 | 791.8 | 778.5 | 839.0 | 919.0 | 1063.4 | 1088.3 | 882.0 |
| 37.5° | 1023.3 | 1007.1 | 979.0 | 929.9 | 863.9 | 823.0 | 883.2 | 970.1 | 1146.2 | 1205.4 | 980.4 |
| 40° | 1085.2 | 1069.2 | 1032.0 | 985.7 | 947.5 | 899.4 | 939.1 | 1028.8 | 1236.8 | 1325.5 | 1093.0 |
| 42.5° | 1159.9 | 1139.1 | 1095.1 | 1045.3 | 1005.3 | 1000.0 | 1012.1 | 1102.1 | 1329.9 | 1456.1 | 1210.0 |
| 45° | 1247.7 | 1228.1 | 1177.5 | 1114.7 | 1079.6 | 1070.2 | 1104.0 | 1187.5 | 1433.7 | 1599.3 | 1328.2 |
| 47.5° | 1329.9 | 1307.2 | 1252.8 | 1195.5 | 1156.5 | 1126.8 | 1201.7 | 1288.3 | 1551.2 | 1749.1 | 1439.9 |
| 50° | 1399.8 | 1376.6 | 1326.8 | 1265.6 | 1239.2 | 1200.3 | 1297.8 | 1400.8 | 1667.8 | 1901.2 | 1542.0 |
| 52.5° | 1447.7 | 1427.1 | 1368.6 | 1327.1 | 1309.1 | 1289.6 | 1410.2 | 1520.0 | 1783.9 | 2040.5 | 1642.9 |
| 55° | 1436.8 | 1418.4 | 1366.9 | 1364.1 | 1362.8 | 1383.3 | 1544.7 | 1655.2 | 1902.1 | 2172.3 | 1743.2 |
| 57.5° | 1402.2 | 1381.4 | 1317.1 | 1361.4 | 1404.1 | 1467.1 | 1690.2 | 1815.1 | 2031.8 | 2296.6 | 1840.0 |
| 60° | 1300.4 | 1293.1 | 1254.0 | 1356.3 | 1421.6 | 1549.1 | 1856.7 | 1975.7 | 2172.1 | 2405.9 | 1925.9 |
| 62.5° | 1085.0 | 1091.2 | 1091.0 | 1366.9 | 1453.0 | 1642.4 | 2007.8 | 2138.1 | 2309.1 | 2511.1 | 2002.2 |
| 65° | 812.4 | 834.1 | 861.9 | 1271.1 | 1495.1 | 1809.0 | 2188.5 | 2314.4 | 2448.4 | 2633.4 | 2079.9 |
| 67.5° | 545.8 | 563.2 | 582.1 | 1042.8 | 1369.8 | 1984.1 | 2488.6 | 2556.0 | 2615.4 | 2769.1 | 2167.2 |
| 70° | 312.4 | 318.1 | 344.4 | 651.3 | 1056.0 | 1935.7 | 2977.4 | 3001.8 | 2864.2 | 2936.3 | 2230.8 |
| 72.5° | 175.1 | 173.1 | 208.0 | 309.0 | 590.1 | 1657.6 | 3148.6 | 3386.8 | 3087.0 | 2933.7 | 2088.8 |
| 75° | 117.1 | 117.3 | 143.2 | 195.0 | 230.0 | 1160.4 | 2713.3 | 3140.4 | 2953.4 | 2601.3 | 1706.7 |
| 77.5° | 79.8 | 82.5 | 105.2 | 150.7 | 106.4 | 566.2 | 1795.0 | 2199.9 | 2391.1 | 2008.8 | 1178.2 |
| 80° | 34.5 | 34.8 | 69.4 | 108.1 | 71.9 | 180.2 | 930.6 | 1178.5 | 1499.7 | 1128.0 | 466.8 |
| 82.5° | 17.9 | 20.3 | 44.3 | 69.9 | 45.2 | 63.1 | 439.7 | 514.9 | 629.2 | 331.1 | 95.7 |
| 85° | 6.3 | 7.5 | 27.4 | 34.3 | 22.8 | 22.4 | 153.1 | 156.0 | 133.2 | 49.8 | 26.3 |
| 87.5° | 0.0 | 1.2 | 10.7 | 8.5 | 2.9 | 2.7 | 18.1 | 15.3 | 12.1 | 7.0 | 8.7 |
| 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: P959288
 CATALOG NUMBER: NAV-SB1A-735-U-SL3-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 | 547.8 |
| 2.5° | 548.3 | 541.7 | 531.1 | 518.0 | 502.8 | 494.6 | 482.8 | 475.5 | 468.9 | 469.1 | 474.5 |
| 5° | 549.0 | 538.1 | 511.1 | 482.3 | 450.3 | 426.9 | 400.8 | 382.3 | 368.4 | 364.9 | 370.0 |
| 7.5° | 551.1 | 532.8 | 488.5 | 440.6 | 387.4 | 348.0 | 312.0 | 289.3 | 276.4 | 273.1 | 276.4 |
| 10° | 554.1 | 527.0 | 463.1 | 389.8 | 323.8 | 276.4 | 246.4 | 232.0 | 226.1 | 221.8 | 224.5 |
| 12.5° | 556.5 | 520.9 | 431.2 | 337.3 | 267.2 | 230.2 | 207.5 | 195.4 | 190.3 | 187.2 | 188.9 |
| 15° | 560.6 | 512.9 | 396.7 | 288.5 | 229.0 | 198.8 | 177.3 | 168.3 | 166.9 | 167.4 | 168.1 |
| 17.5° | 564.7 | 505.2 | 357.9 | 250.3 | 201.0 | 171.3 | 158.2 | 156.7 | 158.7 | 160.6 | 161.3 |
| 20° | 569.3 | 494.0 | 318.8 | 221.5 | 175.1 | 152.1 | 148.7 | 149.8 | 150.7 | 154.1 | 155.0 |
| 22.5° | 576.0 | 480.1 | 284.4 | 197.1 | 153.5 | 142.9 | 141.2 | 142.0 | 142.7 | 146.1 | 147.1 |
| 25° | 585.8 | 465.0 | 256.6 | 174.7 | 140.0 | 135.4 | 133.8 | 133.8 | 134.7 | 137.9 | 139.1 |
| 27.5° | 595.9 | 443.8 | 234.1 | 153.9 | 132.0 | 127.2 | 124.3 | 124.3 | 125.6 | 129.1 | 130.6 |
| 30° | 607.3 | 424.5 | 216.5 | 138.4 | 125.3 | 119.0 | 115.1 | 114.2 | 115.6 | 120.2 | 121.4 |
| 32.5° | 627.8 | 411.8 | 203.9 | 131.1 | 119.2 | 111.5 | 106.2 | 103.5 | 105.0 | 110.3 | 111.7 |
| 35° | 659.1 | 409.0 | 195.2 | 127.4 | 113.5 | 104.8 | 97.3 | 93.1 | 94.3 | 99.8 | 101.6 |
| 37.5° | 695.6 | 415.0 | 186.8 | 122.6 | 107.8 | 98.2 | 88.3 | 82.9 | 84.9 | 90.0 | 91.4 |
| 40° | 748.0 | 440.1 | 180.2 | 119.0 | 102.3 | 90.4 | 79.3 | 74.0 | 77.2 | 81.5 | 82.2 |
| 42.5° | 811.4 | 484.9 | 178.5 | 115.6 | 95.5 | 82.2 | 71.1 | 67.2 | 69.7 | 73.8 | 74.5 |
| 45° | 890.0 | 542.0 | 186.2 | 111.2 | 88.0 | 74.2 | 64.6 | 62.4 | 63.1 | 67.2 | 69.2 |
| 47.5° | 974.4 | 600.5 | 207.5 | 107.4 | 81.5 | 67.8 | 59.4 | 57.6 | 57.1 | 61.0 | 63.3 |
| 50° | 1059.7 | 652.5 | 232.7 | 104.4 | 76.9 | 62.4 | 55.7 | 53.2 | 52.0 | 54.4 | 55.4 |
| 52.5° | 1144.2 | 693.8 | 249.1 | 99.6 | 72.3 | 57.1 | 52.3 | 48.6 | 46.4 | 47.7 | 48.6 |
| 55° | 1229.8 | 730.1 | 250.1 | 92.4 | 68.0 | 53.7 | 48.9 | 44.8 | 42.1 | 42.1 | 42.5 |
| 57.5° | 1309.8 | 762.1 | 235.9 | 82.7 | 61.9 | 50.5 | 44.3 | 40.9 | 37.9 | 37.0 | 37.2 |
| 60° | 1380.7 | 785.8 | 212.1 | 71.9 | 56.6 | 46.4 | 39.7 | 37.0 | 33.4 | 31.5 | 31.0 |
| 62.5° | 1443.8 | 797.3 | 179.7 | 60.7 | 50.0 | 41.6 | 35.3 | 32.4 | 27.6 | 25.1 | 24.9 |
| 65° | 1497.3 | 785.6 | 145.9 | 50.3 | 44.5 | 36.3 | 30.2 | 27.4 | 22.0 | 19.1 | 19.1 |
| 67.5° | 1550.2 | 731.3 | 110.3 | 42.3 | 38.7 | 30.4 | 24.9 | 22.2 | 18.3 | 16.0 | 16.0 |
| 70° | 1557.0 | 617.5 | 77.2 | 35.6 | 32.2 | 23.5 | 20.1 | 18.3 | 15.0 | 12.8 | 12.6 |
| 72.5° | 1386.0 | 444.2 | 46.9 | 29.0 | 25.1 | 16.7 | 16.0 | 14.6 | 11.2 | 9.6 | 9.4 |
| 75° | 1107.9 | 272.3 | 27.6 | 21.7 | 16.7 | 11.9 | 11.9 | 10.4 | 7.5 | 6.3 | 6.3 |
| 77.5° | 765.7 | 142.5 | 16.2 | 14.0 | 9.9 | 7.0 | 7.8 | 6.3 | 3.6 | 2.9 | 2.9 |
| 80° | 306.7 | 54.2 | 8.7 | 6.6 | 4.6 | 3.2 | 2.7 | 1.4 | 0.7 | 0.5 | 0.7 |
| 82.5° | 61.2 | 14.2 | 2.9 | 1.7 | 1.7 | 0.7 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 15.7 | 3.2 | 0.7 | 0.5 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 4.8 | 0.0 | 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)