

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: P881583

Luminaire Tested: **NAV-SB1A-760-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P881583
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G2-2405-108-10)
Test Lab: INNOVATION CENTER
Issue Date: 10/7/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-SB1A-760-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(1) 70 CRI, 5700K, 350mA LIGHTSQUARE WITH 26 LEDS AND TYPE IV SPILL LIGHT
ELIMINATOR OPTICS WITH HOUSE SIDE SHIELD
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3379 lumens
Efficiency: N/A
Efficacy: 109.4 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G1

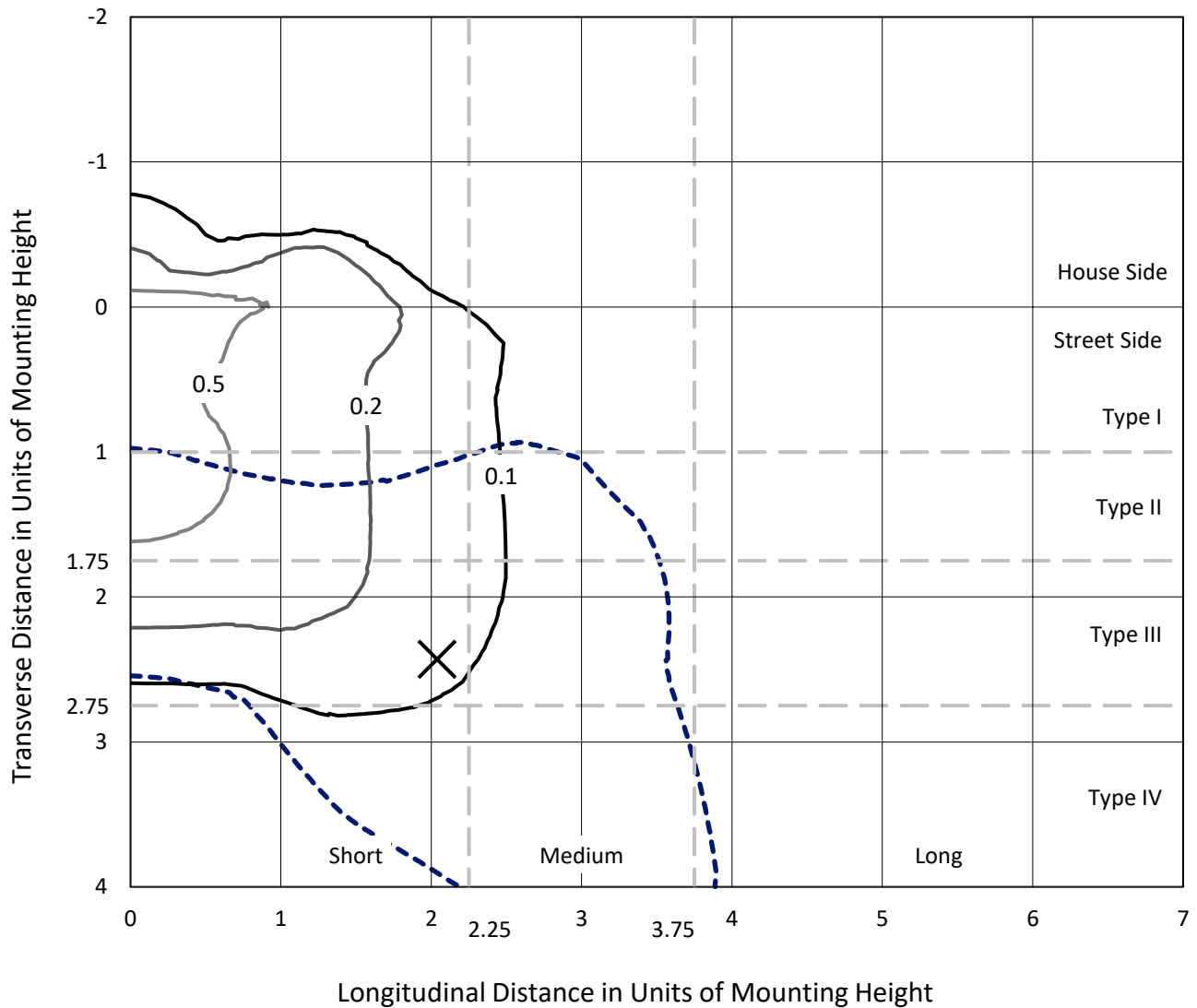
Input Watts (W): 30.9
Input Voltage (V): 120.0
Input Current (Ain): 0.263
Voltage Rise (V): NR
Power Factor: 0.995
Total Harmonic Distortion (THDi): 6.356
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P881583
 CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

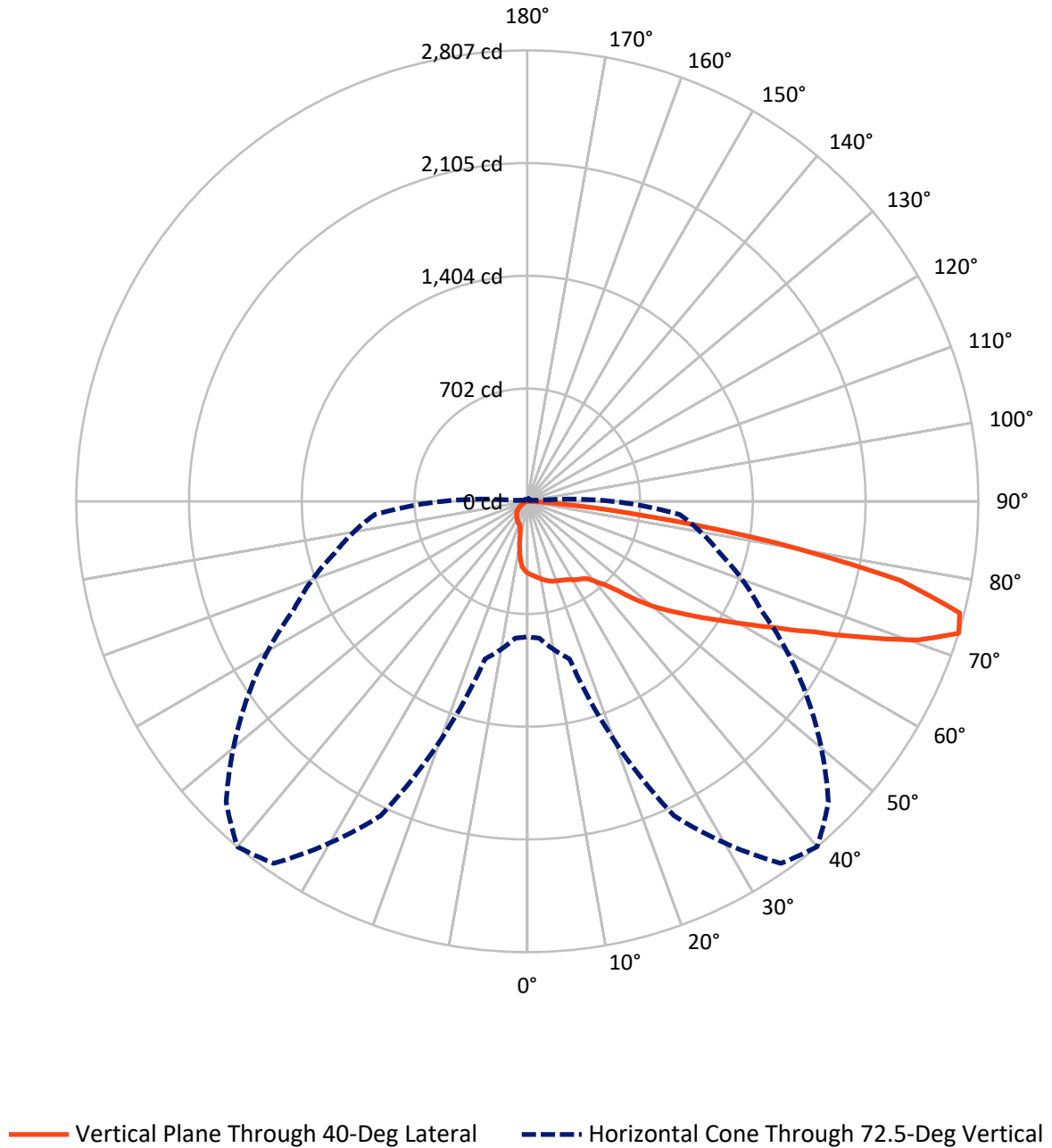
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 0.8 fc
 Type IV - Short - N/A

REPORT NUMBER: P881583
CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

Luminous Intensity Polar Plot



REPORT NUMBER: P881583

CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 436.4 | 0.0 | 436.4 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 2942.6 | 0.0 | 2942.6 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 3379.0 | 0.0 | 3379.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 40.9 | 1.2 |
| 10°-20° | 111.0 | 3.3 |
| 20°-30° | 179.5 | 5.3 |
| 30°-40° | 265.1 | 7.8 |
| 40°-50° | 446.1 | 13.2 |
| 50°-60° | 692.7 | 20.5 |
| 60°-70° | 866.8 | 25.7 |
| 70°-80° | 709.6 | 21.0 |
| 80°-90° | 67.3 | 2.0 |
| 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° | 3379.0 | 100.0 |
| 0°-180° | 3379.0 | 100.0 |

Coefficient of Utilization



REPORT NUMBER: P881583

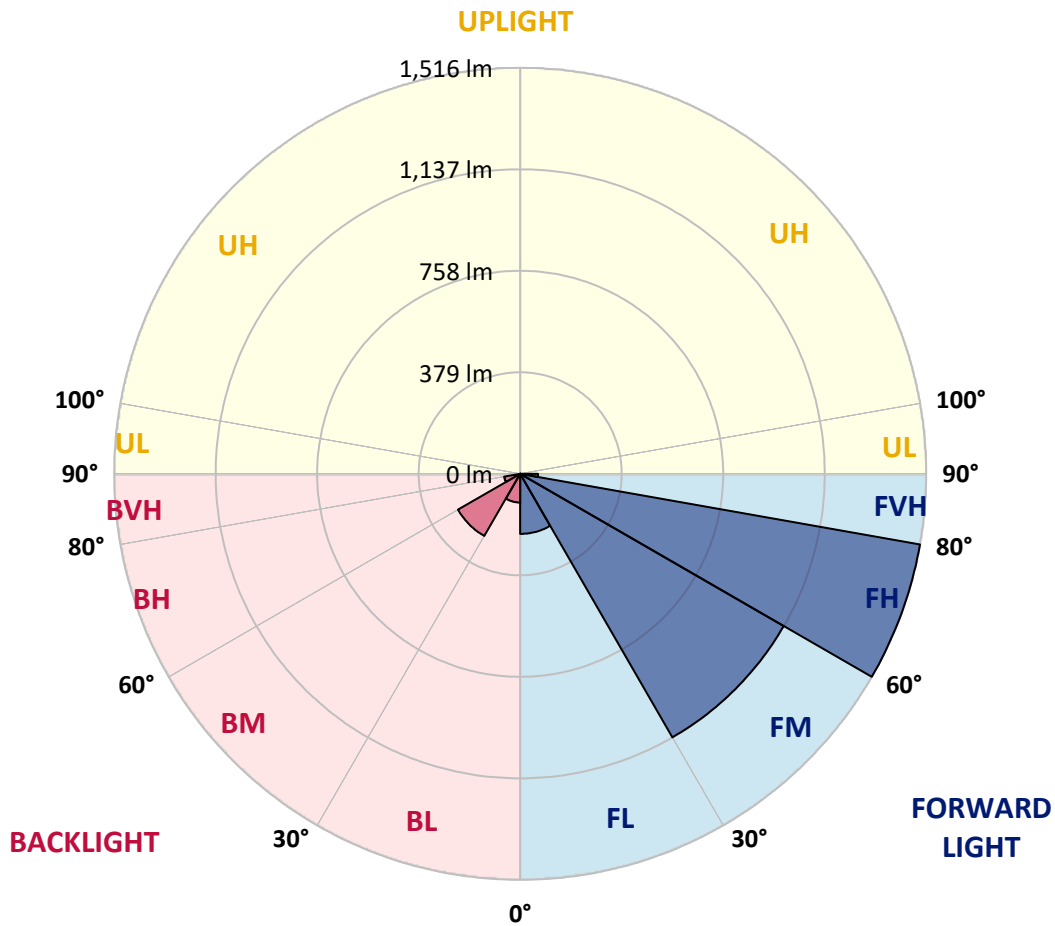
CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 224.3 | 6.6 | | | |
| FM (30°-60°) | 1136.0 | 33.6 | | | |
| FH (60°-80°) | 1515.6 | 44.9 | | | G1/1800 |
| FVH (80°-90°) | 66.8 | 2.0 | | | G1/100 |
| BL (0°-30°) | 107.1 | 3.2 | B0/110 | | |
| BM (30°-60°) | 268.0 | 7.9 | B1/1000 | | |
| BH (60°-80°) | 60.8 | 1.8 | B0/110 | | G0/110 |
| BVH (80°-90°) | 0.5 | 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-G1

Type IV Short



REPORT NUMBER: P881583

CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 |
| 2.5° | 460.9 | 462.7 | 461.7 | 459.6 | 459.1 | 458.1 | 456.8 | 456.3 | 454.5 | 453.0 | 451.2 |
| 5° | 473.9 | 475.7 | 474.4 | 471.6 | 470.3 | 469.0 | 467.3 | 465.7 | 462.2 | 458.9 | 454.8 |
| 7.5° | 488.1 | 489.7 | 488.1 | 484.1 | 482.0 | 480.5 | 477.9 | 475.7 | 471.6 | 466.7 | 461.7 |
| 10° | 503.9 | 505.2 | 502.9 | 497.5 | 494.2 | 491.9 | 489.7 | 487.1 | 483.3 | 477.9 | 471.8 |
| 12.5° | 518.7 | 520.2 | 516.6 | 510.3 | 506.5 | 504.2 | 501.6 | 499.6 | 495.8 | 490.7 | 484.3 |
| 15° | 532.2 | 534.4 | 528.3 | 521.5 | 517.1 | 515.4 | 512.8 | 511.5 | 509.0 | 505.4 | 499.6 |
| 17.5° | 542.3 | 543.9 | 537.5 | 529.4 | 524.5 | 523.2 | 521.5 | 522.2 | 521.7 | 519.9 | 516.1 |
| 20° | 551.0 | 552.0 | 543.6 | 533.7 | 528.3 | 528.6 | 528.1 | 530.6 | 531.6 | 531.6 | 531.4 |
| 22.5° | 561.7 | 561.9 | 551.2 | 538.8 | 532.4 | 534.2 | 535.0 | 537.8 | 539.8 | 541.8 | 546.4 |
| 25° | 575.7 | 575.2 | 562.4 | 545.4 | 539.8 | 542.3 | 544.1 | 545.1 | 547.4 | 550.7 | 561.2 |
| 27.5° | 596.5 | 595.0 | 578.7 | 556.1 | 549.5 | 551.8 | 555.1 | 554.6 | 553.5 | 556.1 | 573.6 |
| 30° | 623.0 | 621.0 | 599.3 | 571.1 | 565.0 | 567.0 | 568.0 | 563.5 | 556.1 | 558.4 | 584.6 |
| 32.5° | 665.0 | 661.4 | 631.4 | 587.9 | 578.5 | 580.8 | 579.5 | 570.1 | 559.1 | 561.4 | 595.5 |
| 35° | 738.0 | 729.4 | 686.9 | 623.0 | 593.7 | 591.2 | 588.1 | 579.0 | 565.5 | 563.2 | 604.7 |
| 37.5° | 893.3 | 878.0 | 805.5 | 691.5 | 628.4 | 611.8 | 602.4 | 593.2 | 572.4 | 563.2 | 615.1 |
| 40° | 1068.4 | 1052.9 | 969.1 | 806.0 | 685.9 | 657.9 | 635.5 | 610.0 | 579.5 | 566.5 | 631.4 |
| 42.5° | 1251.1 | 1234.1 | 1148.0 | 948.0 | 768.1 | 710.6 | 668.8 | 623.5 | 591.2 | 576.7 | 653.0 |
| 45° | 1455.2 | 1433.8 | 1321.4 | 1096.1 | 887.4 | 798.1 | 722.5 | 651.3 | 611.6 | 594.8 | 682.6 |
| 47.5° | 1670.5 | 1642.8 | 1494.2 | 1239.9 | 1016.0 | 919.2 | 820.8 | 700.9 | 641.6 | 621.7 | 722.5 |
| 50° | 1861.4 | 1833.9 | 1672.6 | 1390.3 | 1136.1 | 1034.5 | 932.7 | 769.6 | 686.6 | 659.9 | 776.2 |
| 52.5° | 1998.6 | 1977.7 | 1834.9 | 1545.6 | 1261.0 | 1142.7 | 1034.3 | 849.5 | 743.6 | 708.8 | 839.6 |
| 55° | 2090.4 | 2071.4 | 1950.0 | 1692.7 | 1406.4 | 1261.8 | 1134.3 | 936.3 | 812.4 | 767.3 | 909.6 |
| 57.5° | 2146.2 | 2135.2 | 2033.2 | 1824.0 | 1550.4 | 1392.1 | 1248.8 | 1031.7 | 893.3 | 836.3 | 987.7 |
| 60° | 2166.0 | 2157.1 | 2084.8 | 1949.2 | 1724.5 | 1548.6 | 1383.4 | 1139.4 | 991.5 | 914.7 | 1067.9 |
| 62.5° | 2113.1 | 2114.9 | 2122.0 | 2097.6 | 1908.0 | 1731.9 | 1544.8 | 1268.7 | 1100.4 | 1003.5 | 1143.2 |
| 65° | 1863.9 | 1878.7 | 2014.1 | 2262.0 | 2151.0 | 1961.4 | 1750.2 | 1426.5 | 1225.2 | 1104.5 | 1203.0 |
| 67.5° | 1543.3 | 1564.7 | 1733.1 | 2358.2 | 2410.1 | 2259.4 | 2036.2 | 1627.5 | 1373.8 | 1207.3 | 1225.7 |
| 70° | 1181.4 | 1204.3 | 1408.4 | 2338.1 | 2652.6 | 2585.2 | 2390.0 | 1883.3 | 1527.7 | 1278.6 | 1167.9 |
| 72.5° | 843.2 | 854.9 | 1015.7 | 2159.2 | 2752.1 | 2807.1 | 2650.6 | 2125.6 | 1606.4 | 1239.1 | 952.6 |
| 75° | 592.5 | 590.4 | 697.1 | 1738.7 | 2597.1 | 2780.1 | 2559.2 | 1994.5 | 1453.7 | 984.4 | 587.4 |
| 77.5° | 258.1 | 258.6 | 348.2 | 1055.9 | 2072.9 | 2374.5 | 2127.3 | 1249.3 | 1013.4 | 521.7 | 247.9 |
| 80° | 66.9 | 69.0 | 127.8 | 420.4 | 1248.1 | 1567.2 | 1297.4 | 549.2 | 468.3 | 127.2 | 47.3 |
| 82.5° | 23.7 | 25.2 | 58.8 | 132.1 | 460.4 | 718.7 | 577.7 | 175.6 | 122.2 | 36.4 | 12.7 |
| 85° | 6.9 | 8.1 | 31.6 | 40.5 | 95.2 | 203.1 | 140.2 | 34.1 | 30.0 | 18.8 | 3.3 |
| 87.5° | 0.0 | 1.0 | 6.4 | 5.6 | 5.6 | 3.8 | 7.1 | 3.8 | 4.8 | 2.3 | 1.0 |
| 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: P881583

CATALOG NUMBER: NAV-SB1A-760-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| 0° | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 | 447.4 |
| 2.5° | 449.7 | 447.9 | 444.1 | 440.0 | 436.2 | 432.6 | 431.6 | 427.8 | 426.0 | 426.3 | 426.0 |
| 5° | 452.0 | 448.7 | 441.3 | 432.4 | 423.2 | 412.8 | 404.1 | 391.9 | 381.5 | 380.2 | 379.5 |
| 7.5° | 458.1 | 452.8 | 440.8 | 423.5 | 400.6 | 371.8 | 345.1 | 318.6 | 303.6 | 295.5 | 295.0 |
| 10° | 467.5 | 460.4 | 442.1 | 409.0 | 360.4 | 309.0 | 268.5 | 235.2 | 218.1 | 210.2 | 208.7 |
| 12.5° | 478.7 | 470.8 | 444.1 | 384.3 | 308.5 | 241.0 | 197.2 | 176.9 | 173.3 | 172.8 | 172.5 |
| 15° | 494.5 | 485.8 | 446.4 | 351.0 | 252.2 | 183.5 | 163.4 | 163.6 | 166.4 | 168.0 | 167.7 |
| 17.5° | 512.0 | 503.4 | 443.1 | 310.2 | 196.7 | 156.8 | 156.3 | 158.6 | 162.6 | 164.2 | 163.9 |
| 20° | 529.9 | 521.7 | 431.4 | 262.4 | 159.1 | 149.4 | 151.4 | 154.0 | 158.0 | 160.1 | 160.1 |
| 22.5° | 548.2 | 541.1 | 412.8 | 211.5 | 143.5 | 144.0 | 146.6 | 149.1 | 153.7 | 156.0 | 156.0 |
| 25° | 567.8 | 561.7 | 388.1 | 169.5 | 136.9 | 138.4 | 141.8 | 144.8 | 149.6 | 152.4 | 152.4 |
| 27.5° | 587.6 | 583.1 | 360.1 | 141.5 | 130.8 | 132.6 | 136.4 | 140.5 | 145.3 | 148.6 | 148.9 |
| 30° | 609.3 | 606.7 | 337.7 | 131.1 | 125.0 | 126.5 | 130.8 | 135.4 | 140.7 | 144.8 | 145.3 |
| 32.5° | 631.4 | 630.9 | 326.8 | 138.7 | 119.6 | 120.6 | 124.4 | 129.0 | 135.6 | 140.7 | 141.2 |
| 35° | 653.3 | 654.3 | 320.4 | 160.3 | 117.8 | 115.0 | 117.6 | 121.6 | 129.5 | 135.9 | 136.9 |
| 37.5° | 681.3 | 683.8 | 320.2 | 183.7 | 122.2 | 109.4 | 111.2 | 114.0 | 120.9 | 128.3 | 129.5 |
| 40° | 723.0 | 736.5 | 336.4 | 203.9 | 129.8 | 104.3 | 104.9 | 105.4 | 108.9 | 115.0 | 117.1 |
| 42.5° | 778.5 | 818.0 | 395.2 | 217.6 | 132.8 | 99.8 | 98.0 | 95.2 | 94.7 | 98.0 | 99.8 |
| 45° | 847.5 | 916.4 | 498.6 | 225.2 | 129.8 | 94.7 | 89.8 | 82.5 | 79.7 | 81.9 | 81.9 |
| 47.5° | 928.7 | 1024.4 | 621.0 | 227.0 | 124.7 | 88.3 | 79.7 | 70.0 | 67.7 | 68.5 | 68.2 |
| 50° | 1007.8 | 1105.3 | 728.6 | 212.3 | 116.3 | 80.2 | 68.5 | 60.3 | 58.8 | 59.0 | 59.0 |
| 52.5° | 1077.8 | 1133.0 | 759.2 | 177.4 | 105.1 | 70.2 | 58.8 | 53.2 | 52.2 | 52.2 | 51.9 |
| 55° | 1124.1 | 1103.0 | 677.0 | 135.6 | 91.1 | 60.1 | 50.4 | 47.6 | 47.1 | 46.8 | 46.3 |
| 57.5° | 1133.8 | 1005.3 | 511.3 | 98.0 | 71.3 | 50.6 | 44.8 | 43.3 | 42.2 | 41.2 | 40.7 |
| 60° | 1099.2 | 842.4 | 325.5 | 68.5 | 53.4 | 43.3 | 39.7 | 38.7 | 36.6 | 34.6 | 33.8 |
| 62.5° | 1024.4 | 636.2 | 180.2 | 47.6 | 43.0 | 36.9 | 35.1 | 33.8 | 30.0 | 26.7 | 25.7 |
| 65° | 923.8 | 423.0 | 79.7 | 37.2 | 35.1 | 31.0 | 30.0 | 28.2 | 23.7 | 19.9 | 19.1 |
| 67.5° | 822.8 | 243.6 | 35.9 | 29.8 | 28.2 | 25.4 | 24.7 | 23.4 | 20.1 | 16.5 | 16.0 |
| 70° | 707.5 | 123.4 | 24.7 | 23.7 | 21.9 | 19.3 | 20.1 | 19.9 | 16.5 | 13.5 | 13.0 |
| 72.5° | 526.8 | 61.3 | 18.6 | 17.8 | 15.8 | 13.7 | 16.5 | 16.3 | 13.0 | 10.2 | 9.7 |
| 75° | 298.3 | 30.3 | 13.5 | 12.5 | 9.4 | 10.2 | 13.2 | 12.5 | 8.9 | 6.6 | 6.1 |
| 77.5° | 118.3 | 15.5 | 8.9 | 7.6 | 5.6 | 6.9 | 9.7 | 8.4 | 4.6 | 2.8 | 2.5 |
| 80° | 27.2 | 7.6 | 4.6 | 3.3 | 2.5 | 4.1 | 5.1 | 3.1 | 1.3 | 0.3 | 0.0 |
| 82.5° | 7.6 | 3.3 | 1.5 | 1.3 | 1.3 | 1.5 | 1.3 | 0.5 | 0.0 | 0.0 | 0.0 |
| 85° | 2.5 | 1.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 1.0 | 0.5 | 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)