

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: P196213

Luminaire Tested: **NAV-AF-01-D-UNV-SLL**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P196213
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P24264)
Test Lab: INNOVATION CENTER P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: LUMARK
Catalog Number: NAV-AF-01-D-UNV-SLL
Description: NAVION ROADWAY AND AREA LUMINAIRE
(1) 70 CRI, 4000K, 1050mA LIGHTSQUARE WITH 16 LEDS EACH AND SPILL LIGHT
ELIMINATOR LEFT OPTICS
Light Source: -
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 5519.8 lumens
Efficiency: N/A
Efficacy: 93.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 0.5' x H: 0')
IES Classification: Type IV - Short - Non-Cutoff
BUG Rating: B1 - U0 - G2

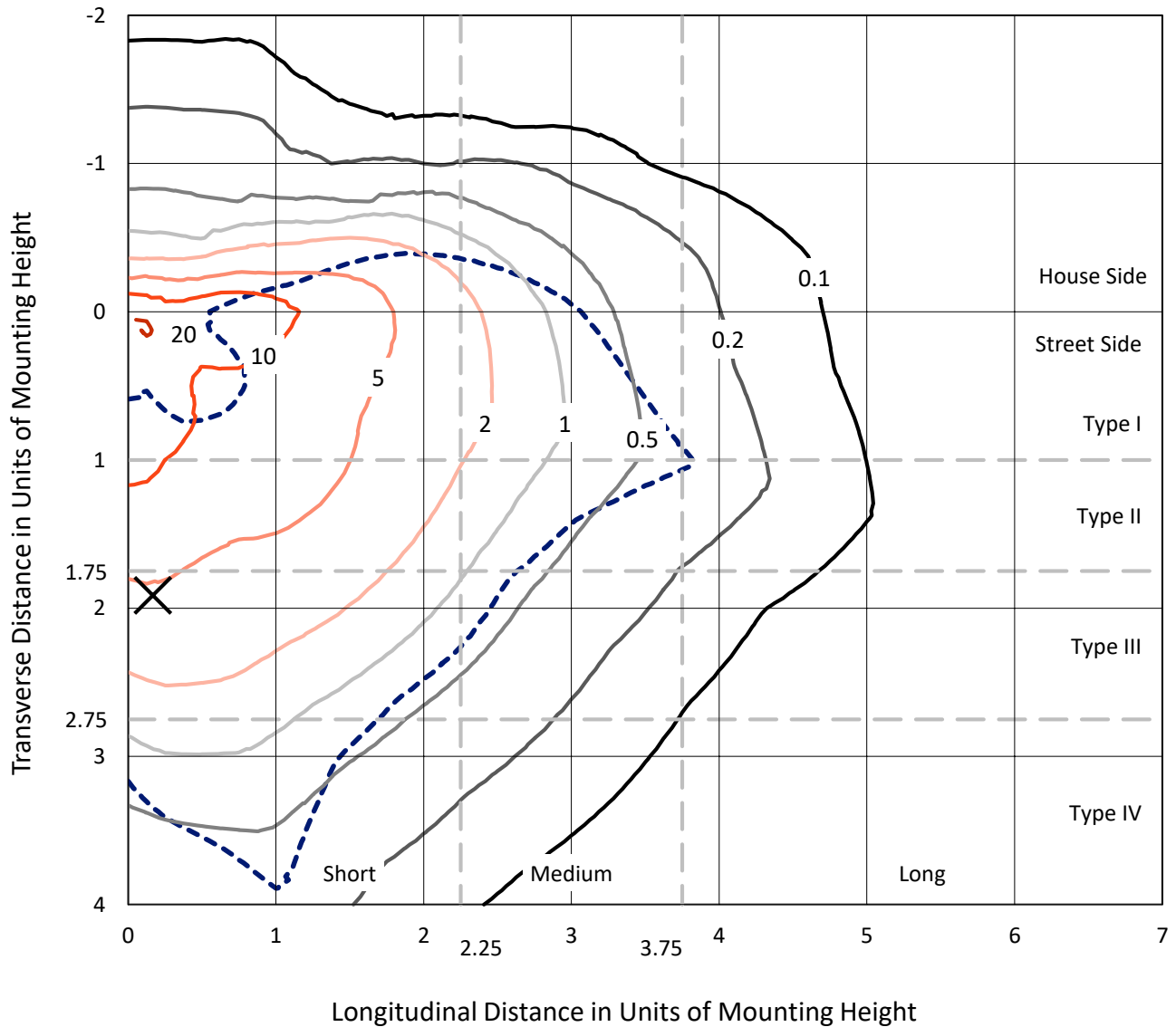
Input Watts (W): 59
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



REPORT NUMBER: P196213
 CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

Iso-Footcandle Lines of Horizontal Illumination

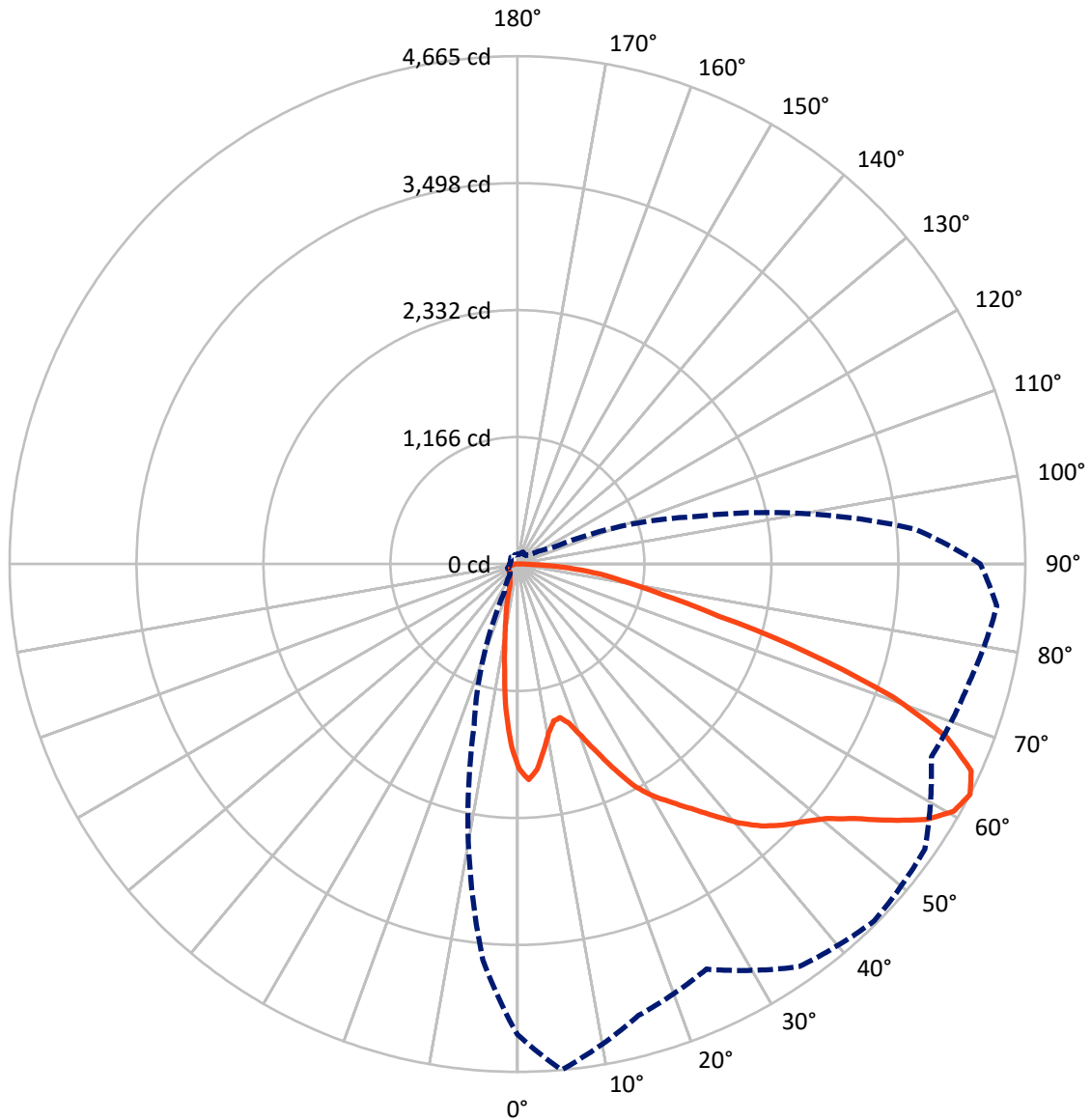
× Max cd
 - - - 1/2 Max cd



Based on 10 foot mounting height. Maximum calculated value = 21.6 fc
 Type IV - Short - Non-Cutoff

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Luminous Intensity Polar Plot



— Vertical Plane Through 5-Deg Lateral - - - Horizontal Cone Through 62.5-Deg Vertical

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CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|--------|
| House Side | Lumens | 977.8 | 0.0 | 977.8 |
| | % Fixture | 17.7 | 0.0 | 17.7 |
| Street Side | Lumens | 4542.0 | 0.0 | 4542.0 |
| | % Fixture | 82.3 | 0.0 | 82.3 |
| Total | Lumens | 5519.8 | 0.0 | 5519.8 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

Coefficient of Utilization

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 136.9 | 2.5 |
| 10°-20° | 250.0 | 4.5 |
| 20°-30° | 359.5 | 6.5 |
| 30°-40° | 550.6 | 10.0 |
| 40°-50° | 805.0 | 14.6 |
| 50°-60° | 1171.3 | 21.2 |
| 60°-70° | 1357.2 | 24.6 |
| 70°-80° | 707.5 | 12.8 |
| 80°-90° | 181.9 | 3.3 |
| 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° | 5519.8 | 100.0 |
| 0°-180° | 5519.8 | 100.0 |



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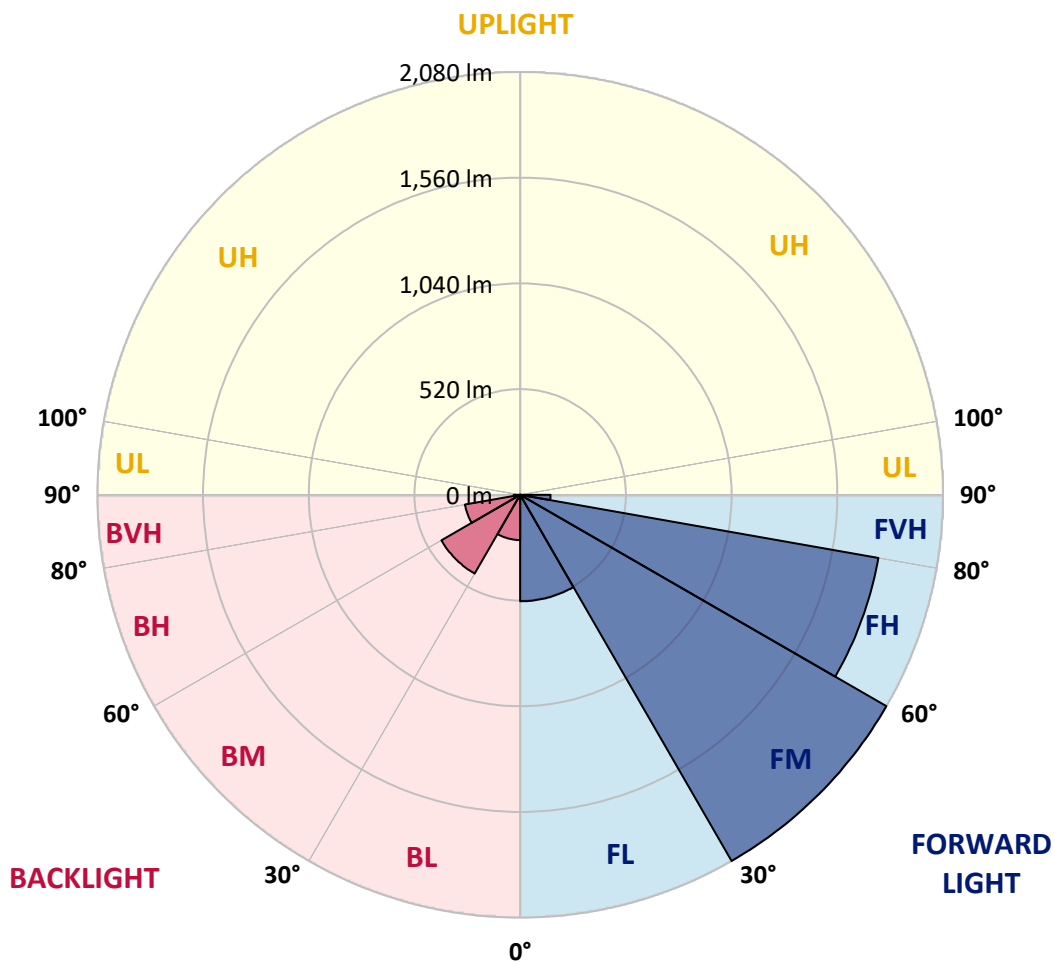
CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|------|-------------|--------|-----------|-------------------------|------|---------|
| | | | | B | U | G |
| FL | (0°-30°) | 523.9 | 9.5 | | | |
| FM | (30°-60°) | 2079.6 | 37.7 | | | |
| FH | (60°-80°) | 1788.9 | 32.4 | | | G1/1800 |
| FVH | (80°-90°) | 149.6 | 2.7 | | | G2/225 |
| BL | (0°-30°) | 222.5 | 4.0 | B1/500 | | |
| BM | (30°-60°) | 447.4 | 8.1 | B1/1000 | | |
| BH | (60°-80°) | 275.7 | 5.0 | B1/500 | | G1/500 |
| BVH | (80°-90°) | 32.2 | 0.6 | | | G1/100 |
| 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





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CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 45° | 55° | 65° | 75° | 85° | 90° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 |
| 2.5° | 1942.7 | 1983.9 | 2031.1 | 2092.8 | 2134.8 | 2151.6 | 2165.6 | 2142.0 | 2119.1 | 2076.3 | 2061.1 |
| 5° | 1814.6 | 1893.8 | 2023.9 | 2147.6 | 2256.4 | 2318.8 | 2338.1 | 2294.5 | 2216.8 | 2104.7 | 2045.5 |
| 7.5° | 1624.4 | 1729.0 | 1911.8 | 2094.0 | 2250.0 | 2354.1 | 2361.7 | 2275.2 | 2122.3 | 1938.7 | 1842.6 |
| 10° | 1458.4 | 1576.5 | 1788.2 | 1991.9 | 2157.2 | 2263.6 | 2242.8 | 2121.6 | 1937.1 | 1728.2 | 1619.6 |
| 12.5° | 1362.0 | 1480.0 | 1695.7 | 1902.6 | 2058.3 | 2098.8 | 2056.3 | 1954.2 | 1779.3 | 1570.0 | 1460.8 |
| 15° | 1341.5 | 1463.2 | 1662.9 | 1837.4 | 1933.9 | 1907.8 | 1865.9 | 1814.2 | 1689.7 | 1518.5 | 1412.8 |
| 17.5° | 1403.2 | 1539.2 | 1706.5 | 1802.1 | 1798.1 | 1735.7 | 1700.6 | 1710.6 | 1689.3 | 1574.4 | 1464.0 |
| 20° | 1530.0 | 1690.9 | 1817.4 | 1792.6 | 1690.1 | 1602.5 | 1582.1 | 1660.5 | 1758.6 | 1715.0 | 1593.7 |
| 22.5° | 1697.0 | 1880.2 | 1968.7 | 1820.2 | 1633.7 | 1539.2 | 1535.2 | 1657.7 | 1884.6 | 1927.4 | 1779.7 |
| 25° | 1885.4 | 2099.1 | 2121.2 | 1869.0 | 1627.7 | 1533.6 | 1530.0 | 1701.0 | 2036.3 | 2138.0 | 1988.3 |
| 27.5° | 2116.0 | 2320.1 | 2248.4 | 1934.3 | 1654.1 | 1550.1 | 1552.4 | 1774.6 | 2194.4 | 2346.0 | 2223.2 |
| 30° | 2289.7 | 2477.0 | 2326.9 | 1998.3 | 1696.6 | 1578.8 | 1584.9 | 1854.2 | 2279.6 | 2490.6 | 2410.9 |
| 32.5° | 2452.1 | 2611.0 | 2402.1 | 2061.6 | 1758.6 | 1621.7 | 1642.4 | 1953.4 | 2382.1 | 2614.7 | 2588.2 |
| 35° | 2631.8 | 2761.1 | 2485.8 | 2129.2 | 1847.4 | 1697.0 | 1726.9 | 2047.9 | 2483.7 | 2738.6 | 2763.9 |
| 37.5° | 2835.5 | 2932.8 | 2576.6 | 2224.8 | 1975.5 | 1836.2 | 1853.0 | 2144.4 | 2554.6 | 2875.9 | 2952.4 |
| 40° | 3047.7 | 3125.3 | 2675.8 | 2352.5 | 2161.6 | 2024.3 | 2032.3 | 2268.0 | 2610.3 | 3018.0 | 3135.3 |
| 42.5° | 3229.8 | 3290.2 | 2775.5 | 2510.9 | 2375.3 | 2216.0 | 2222.8 | 2401.3 | 2663.5 | 3140.5 | 3281.8 |
| 45° | 3375.4 | 3419.8 | 2869.6 | 2677.9 | 2603.4 | 2455.3 | 2453.8 | 2537.0 | 2734.7 | 3243.8 | 3394.3 |
| 47.5° | 3511.1 | 3534.7 | 2974.4 | 2840.3 | 2839.9 | 2763.5 | 2706.3 | 2697.1 | 2829.6 | 3330.6 | 3492.3 |
| 50° | 3666.4 | 3675.2 | 3112.9 | 3004.4 | 3128.9 | 3116.9 | 3011.3 | 2900.4 | 2952.4 | 3428.2 | 3595.2 |
| 52.5° | 3882.5 | 3882.9 | 3284.6 | 3164.5 | 3447.9 | 3485.9 | 3363.1 | 3130.5 | 3134.1 | 3618.4 | 3772.8 |
| 55° | 4136.6 | 4154.3 | 3508.3 | 3356.2 | 3781.6 | 3846.5 | 3730.8 | 3403.9 | 3395.1 | 3925.0 | 4061.0 |
| 57.5° | 4333.1 | 4426.4 | 3768.9 | 3596.0 | 4093.4 | 4177.8 | 4084.6 | 3687.2 | 3715.7 | 4241.2 | 4298.7 |
| 60° | 4388.4 | 4606.6 | 4028.6 | 3864.9 | 4357.2 | 4484.0 | 4389.2 | 3993.4 | 4029.4 | 4446.5 | 4367.2 |
| 62.5° | 4322.4 | 4664.6 | 4293.1 | 4105.8 | 4513.7 | 4635.3 | 4567.3 | 4193.9 | 4285.1 | 4420.0 | 4251.5 |
| 65° | 4126.7 | 4580.5 | 4522.9 | 4208.3 | 4423.6 | 4466.8 | 4448.8 | 4204.3 | 4424.1 | 4170.3 | 3931.7 |
| 67.5° | 3669.6 | 4256.3 | 4420.4 | 3989.4 | 4003.0 | 3956.6 | 3932.9 | 3918.5 | 4268.0 | 3767.2 | 3427.5 |
| 70° | 2984.5 | 3657.2 | 3931.7 | 3338.6 | 3237.7 | 3192.9 | 3115.3 | 3307.4 | 3836.1 | 3209.7 | 2820.7 |
| 72.5° | 2298.9 | 2797.9 | 3225.0 | 2531.0 | 2321.3 | 2336.5 | 2248.4 | 2528.9 | 3177.7 | 2481.4 | 2153.6 |
| 75° | 1632.5 | 1907.8 | 2574.2 | 1818.6 | 1540.9 | 1540.1 | 1533.2 | 1820.2 | 2507.4 | 1781.0 | 1575.7 |
| 77.5° | 1176.6 | 1373.5 | 2016.7 | 1217.1 | 1093.4 | 1107.4 | 1084.9 | 1237.1 | 1954.7 | 1281.1 | 1167.4 |
| 80° | 938.6 | 1016.9 | 1303.5 | 811.6 | 814.1 | 846.9 | 842.1 | 846.1 | 1285.8 | 927.7 | 872.9 |
| 82.5° | 674.3 | 772.0 | 996.6 | 622.0 | 538.3 | 573.2 | 579.9 | 627.6 | 907.3 | 655.9 | 575.5 |
| 85° | 345.8 | 470.7 | 916.9 | 538.7 | 336.6 | 279.0 | 321.0 | 495.1 | 788.0 | 393.0 | 280.6 |
| 87.5° | 67.2 | 130.4 | 672.0 | 299.3 | 151.3 | 76.4 | 126.0 | 209.7 | 458.3 | 71.2 | 34.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

CANDELA DISTRIBUTION (continued):

| | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° | 185° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 |
| 2.5° | 2035.1 | 1983.9 | 1935.8 | 1886.2 | 1847.8 | 1801.0 | 1755.0 | 1715.0 | 1676.1 | 1650.5 | 1658.5 |
| 5° | 1985.4 | 1860.6 | 1748.5 | 1644.5 | 1583.6 | 1510.4 | 1445.2 | 1390.4 | 1347.9 | 1320.7 | 1337.1 |
| 7.5° | 1759.4 | 1590.5 | 1442.8 | 1305.5 | 1219.1 | 1124.2 | 1048.2 | 994.5 | 961.7 | 943.3 | 970.2 |
| 10° | 1528.0 | 1338.3 | 1172.6 | 1029.8 | 944.5 | 864.1 | 795.2 | 738.4 | 694.4 | 673.6 | 684.4 |
| 12.5° | 1362.4 | 1151.4 | 977.7 | 881.7 | 808.4 | 736.4 | 665.1 | 598.7 | 542.7 | 517.1 | 511.9 |
| 15° | 1300.3 | 1051.0 | 873.7 | 766.4 | 693.6 | 615.1 | 538.3 | 467.1 | 413.8 | 391.8 | 387.0 |
| 17.5° | 1327.5 | 1029.4 | 812.0 | 685.2 | 579.5 | 484.3 | 397.8 | 330.6 | 291.3 | 279.0 | 280.2 |
| 20° | 1423.1 | 1037.4 | 762.4 | 601.5 | 471.1 | 358.2 | 271.8 | 225.4 | 208.5 | 205.7 | 208.9 |
| 22.5° | 1554.5 | 1070.2 | 726.4 | 529.5 | 375.4 | 260.5 | 202.1 | 180.1 | 175.7 | 175.3 | 178.5 |
| 25° | 1727.8 | 1134.2 | 702.4 | 465.4 | 296.6 | 206.5 | 176.0 | 163.7 | 160.1 | 160.9 | 164.1 |
| 27.5° | 1931.8 | 1215.5 | 686.8 | 410.2 | 243.8 | 184.1 | 164.5 | 153.6 | 150.1 | 150.9 | 153.2 |
| 30° | 2118.3 | 1286.7 | 663.6 | 368.6 | 218.9 | 176.0 | 158.0 | 147.3 | 142.5 | 142.5 | 144.0 |
| 32.5° | 2285.3 | 1348.4 | 636.4 | 337.4 | 196.1 | 158.0 | 143.3 | 134.8 | 131.2 | 132.5 | 133.3 |
| 35° | 2433.3 | 1380.8 | 615.1 | 319.0 | 177.7 | 145.7 | 130.8 | 122.0 | 117.2 | 118.0 | 119.3 |
| 37.5° | 2579.0 | 1393.2 | 601.1 | 308.9 | 164.5 | 138.1 | 124.5 | 117.2 | 112.0 | 111.3 | 110.9 |
| 40° | 2717.5 | 1390.4 | 587.9 | 306.2 | 155.7 | 132.5 | 120.5 | 114.1 | 108.8 | 107.6 | 107.3 |
| 42.5° | 2837.2 | 1381.2 | 575.5 | 298.6 | 149.7 | 128.5 | 117.2 | 111.7 | 106.5 | 104.9 | 104.0 |
| 45° | 2946.4 | 1375.6 | 561.9 | 284.6 | 152.9 | 126.8 | 115.7 | 109.7 | 104.9 | 102.8 | 102.1 |
| 47.5° | 3067.6 | 1395.5 | 546.7 | 269.3 | 152.1 | 127.3 | 115.7 | 108.8 | 104.0 | 102.1 | 101.3 |
| 50° | 3212.2 | 1463.2 | 527.8 | 248.6 | 144.8 | 136.1 | 115.3 | 107.6 | 103.2 | 102.1 | 100.5 |
| 52.5° | 3416.2 | 1572.9 | 501.9 | 221.7 | 139.3 | 145.3 | 114.9 | 105.7 | 102.1 | 100.0 | 98.1 |
| 55° | 3696.0 | 1682.5 | 468.2 | 193.3 | 130.4 | 138.9 | 115.7 | 103.2 | 99.2 | 97.3 | 94.8 |
| 57.5° | 3925.4 | 1765.7 | 425.9 | 169.7 | 122.4 | 131.2 | 114.5 | 100.5 | 96.1 | 94.0 | 92.1 |
| 60° | 3910.5 | 1773.8 | 385.4 | 154.5 | 117.6 | 118.0 | 117.2 | 98.4 | 93.3 | 91.7 | 90.0 |
| 62.5° | 3668.4 | 1674.9 | 347.8 | 146.9 | 114.1 | 107.6 | 119.7 | 96.1 | 90.4 | 88.9 | 87.7 |
| 65° | 3265.4 | 1444.8 | 327.8 | 146.9 | 110.9 | 102.1 | 104.4 | 92.9 | 87.7 | 86.0 | 85.2 |
| 67.5° | 2754.3 | 1161.0 | 308.9 | 150.1 | 106.5 | 98.1 | 94.8 | 89.6 | 84.8 | 83.3 | 82.4 |
| 70° | 2207.6 | 913.7 | 295.7 | 148.4 | 102.5 | 93.6 | 89.6 | 85.2 | 80.4 | 80.0 | 79.3 |
| 72.5° | 1731.8 | 734.0 | 289.8 | 148.4 | 96.5 | 88.5 | 84.5 | 81.2 | 76.4 | 76.0 | 74.9 |
| 75° | 1387.5 | 551.1 | 264.9 | 145.7 | 90.4 | 81.6 | 78.1 | 75.3 | 70.5 | 70.8 | 70.1 |
| 77.5° | 1074.6 | 389.8 | 221.4 | 131.2 | 82.9 | 74.1 | 71.2 | 69.3 | 63.6 | 64.0 | 64.0 |
| 80° | 840.5 | 253.7 | 171.7 | 108.8 | 74.1 | 65.3 | 63.2 | 61.7 | 55.6 | 56.5 | 56.5 |
| 82.5° | 575.9 | 150.9 | 124.5 | 87.7 | 63.6 | 55.6 | 55.2 | 52.8 | 46.4 | 46.9 | 47.7 |
| 85° | 314.6 | 99.2 | 82.9 | 64.9 | 50.0 | 45.2 | 44.4 | 43.3 | 37.2 | 37.2 | 37.6 |
| 87.5° | 58.0 | 53.2 | 48.8 | 42.9 | 33.7 | 32.4 | 31.2 | 32.4 | 28.0 | 27.2 | 27.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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CATALOG NUMBER: NAV-AF-01-D-UNV-SLL

CANDELA DISTRIBUTION (continued):

| | 195° | 205° | 215° | 225° | 235° | 245° | 255° | 265° | 270° | 275° | 285° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 | 1881.8 |
| 2.5° | 1639.7 | 1612.1 | 1592.8 | 1576.1 | 1535.7 | 1538.4 | 1544.0 | 1552.0 | 1526.9 | 1540.1 | 1556.4 |
| 5° | 1320.7 | 1297.9 | 1280.7 | 1253.9 | 1197.5 | 1177.4 | 1164.6 | 1159.0 | 1121.5 | 1129.4 | 1147.0 |
| 7.5° | 973.7 | 973.3 | 967.3 | 937.3 | 869.3 | 828.1 | 800.9 | 792.5 | 769.3 | 778.1 | 804.9 |
| 10° | 685.6 | 692.7 | 690.0 | 663.2 | 602.3 | 572.8 | 566.7 | 583.5 | 583.9 | 601.1 | 647.1 |
| 12.5° | 495.5 | 491.4 | 487.8 | 465.9 | 420.2 | 415.4 | 429.0 | 452.2 | 457.9 | 476.3 | 524.3 |
| 15° | 369.8 | 360.2 | 358.2 | 340.9 | 311.0 | 315.4 | 325.4 | 337.4 | 337.8 | 350.6 | 390.3 |
| 17.5° | 277.3 | 277.3 | 280.6 | 269.3 | 247.8 | 245.7 | 240.5 | 237.3 | 232.5 | 237.7 | 259.3 |
| 20° | 215.3 | 225.4 | 233.3 | 226.9 | 207.4 | 197.7 | 187.7 | 181.3 | 177.7 | 178.1 | 184.5 |
| 22.5° | 184.5 | 192.5 | 203.0 | 199.7 | 183.3 | 170.9 | 164.5 | 160.1 | 157.3 | 157.3 | 160.9 |
| 25° | 168.9 | 174.1 | 183.7 | 182.1 | 168.1 | 158.0 | 152.9 | 148.4 | 145.3 | 144.8 | 148.4 |
| 27.5° | 156.5 | 159.7 | 166.1 | 165.3 | 150.9 | 144.4 | 141.3 | 138.5 | 136.5 | 136.1 | 139.6 |
| 30° | 145.3 | 146.9 | 150.1 | 148.8 | 138.1 | 131.7 | 130.4 | 129.3 | 128.1 | 128.5 | 133.7 |
| 32.5° | 135.2 | 136.5 | 138.5 | 136.9 | 126.4 | 120.9 | 118.9 | 117.2 | 116.1 | 117.2 | 123.3 |
| 35° | 124.1 | 127.7 | 130.1 | 129.3 | 118.0 | 111.3 | 106.9 | 102.8 | 101.3 | 102.5 | 109.3 |
| 37.5° | 114.5 | 120.5 | 123.7 | 122.9 | 111.3 | 103.2 | 97.7 | 96.9 | 96.9 | 98.4 | 105.3 |
| 40° | 110.9 | 115.3 | 118.0 | 116.8 | 105.3 | 97.3 | 94.0 | 92.9 | 93.3 | 94.8 | 102.1 |
| 42.5° | 107.6 | 111.7 | 112.4 | 110.1 | 98.4 | 93.3 | 91.2 | 89.6 | 90.4 | 92.5 | 99.6 |
| 45° | 104.9 | 108.0 | 107.6 | 104.0 | 92.9 | 89.2 | 89.2 | 88.1 | 88.5 | 90.0 | 97.7 |
| 47.5° | 102.8 | 104.4 | 103.6 | 100.0 | 88.9 | 86.0 | 87.3 | 87.3 | 88.1 | 89.2 | 96.9 |
| 50° | 99.6 | 100.9 | 100.0 | 96.9 | 85.6 | 83.3 | 84.5 | 86.0 | 86.8 | 88.1 | 94.8 |
| 52.5° | 96.5 | 97.3 | 96.9 | 93.6 | 82.4 | 80.8 | 80.8 | 82.4 | 84.1 | 85.6 | 91.7 |
| 55° | 93.3 | 94.0 | 94.4 | 92.1 | 80.0 | 78.5 | 78.1 | 78.1 | 79.7 | 82.0 | 88.5 |
| 57.5° | 90.8 | 90.8 | 91.7 | 90.0 | 77.6 | 75.6 | 73.7 | 74.1 | 76.0 | 78.1 | 84.5 |
| 60° | 88.1 | 88.5 | 89.6 | 88.1 | 74.5 | 71.2 | 69.7 | 71.6 | 72.4 | 74.5 | 81.2 |
| 62.5° | 85.6 | 85.6 | 86.4 | 85.2 | 71.6 | 68.4 | 67.2 | 69.3 | 69.3 | 71.2 | 78.1 |
| 65° | 83.7 | 83.3 | 83.3 | 82.9 | 68.8 | 65.7 | 64.9 | 65.7 | 66.1 | 68.0 | 74.9 |
| 67.5° | 82.0 | 80.0 | 80.0 | 80.8 | 66.1 | 62.8 | 62.4 | 62.4 | 62.8 | 65.3 | 71.2 |
| 70° | 78.5 | 76.8 | 76.4 | 79.3 | 63.2 | 59.2 | 59.2 | 58.4 | 59.2 | 60.5 | 66.8 |
| 72.5° | 74.5 | 73.2 | 72.8 | 76.8 | 60.5 | 55.2 | 54.4 | 54.0 | 54.4 | 55.6 | 61.7 |
| 75° | 69.3 | 68.4 | 69.3 | 75.3 | 57.6 | 50.8 | 49.6 | 49.2 | 49.2 | 49.6 | 56.1 |
| 77.5° | 63.2 | 62.4 | 68.4 | 70.1 | 56.1 | 45.6 | 44.4 | 43.6 | 42.9 | 42.9 | 50.0 |
| 80° | 56.1 | 55.6 | 66.1 | 59.2 | 53.6 | 40.0 | 38.1 | 36.8 | 36.0 | 35.6 | 42.9 |
| 82.5° | 48.8 | 48.0 | 56.5 | 46.4 | 44.4 | 32.8 | 30.0 | 27.6 | 26.4 | 26.4 | 32.8 |
| 85° | 40.0 | 39.6 | 44.4 | 34.1 | 30.8 | 24.0 | 20.0 | 18.0 | 16.4 | 16.4 | 21.2 |
| 87.5° | 29.3 | 28.4 | 27.6 | 20.5 | 15.7 | 10.8 | 7.6 | 7.2 | 6.4 | 6.0 | 8.8 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



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| 42.5° | 105.3 | 115.3 | 126.8 | 231.3 | 495.8 | 1159.8 | 2681.9 | 3229.8 |
| 45° | 104.4 | 114.5 | 129.7 | 222.9 | 495.5 | 1181.0 | 2795.1 | 3375.4 |
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| 57.5° | 97.3 | 108.4 | 100.9 | 137.3 | 384.2 | 1622.9 | 3814.1 | 4333.1 |
| 60° | 106.1 | 93.3 | 96.9 | 125.6 | 330.6 | 1638.1 | 3822.9 | 4388.4 |
| 62.5° | 101.3 | 84.8 | 92.9 | 121.6 | 293.0 | 1538.8 | 3647.9 | 4322.4 |
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| 77.5° | 51.2 | 54.0 | 60.9 | 100.9 | 188.9 | 329.8 | 1119.0 | 1176.6 |
| 80° | 44.0 | 45.2 | 50.4 | 73.7 | 123.3 | 197.3 | 851.7 | 938.6 |
| 82.5° | 34.8 | 35.2 | 38.5 | 54.0 | 76.8 | 126.0 | 590.8 | 674.3 |
| 85° | 22.4 | 23.2 | 24.9 | 38.1 | 51.7 | 80.8 | 301.8 | 345.8 |
| 87.5° | 7.6 | 8.8 | 8.8 | 18.4 | 25.2 | 44.8 | 92.5 | 67.2 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

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