

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: P882573

Luminaire Tested: **NAV-SB2C-735-U-SL4-HSS**

Issue Date: 10/7/2024

Test Information

Test Method: LM-79-08
Report Number: P882573
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-SB2C-735-U-SL4-HSS
Description: NAVION ROADWAY AND AREA HIGH DENSITY LED LUMINAIRE
(2) 70 CRI, 3500K, 615mA LIGHTSQUARES WITH 26 LEDS EACH 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: 10655 lumens
Efficiency: N/A
Efficacy: 105.6 lumens/watt
Luminous Opening: Rectangular (W 0.5' x L: 1' x H: 0')
IES Classification: Type IV - Short
BUG Rating: B1 - U0 - G2

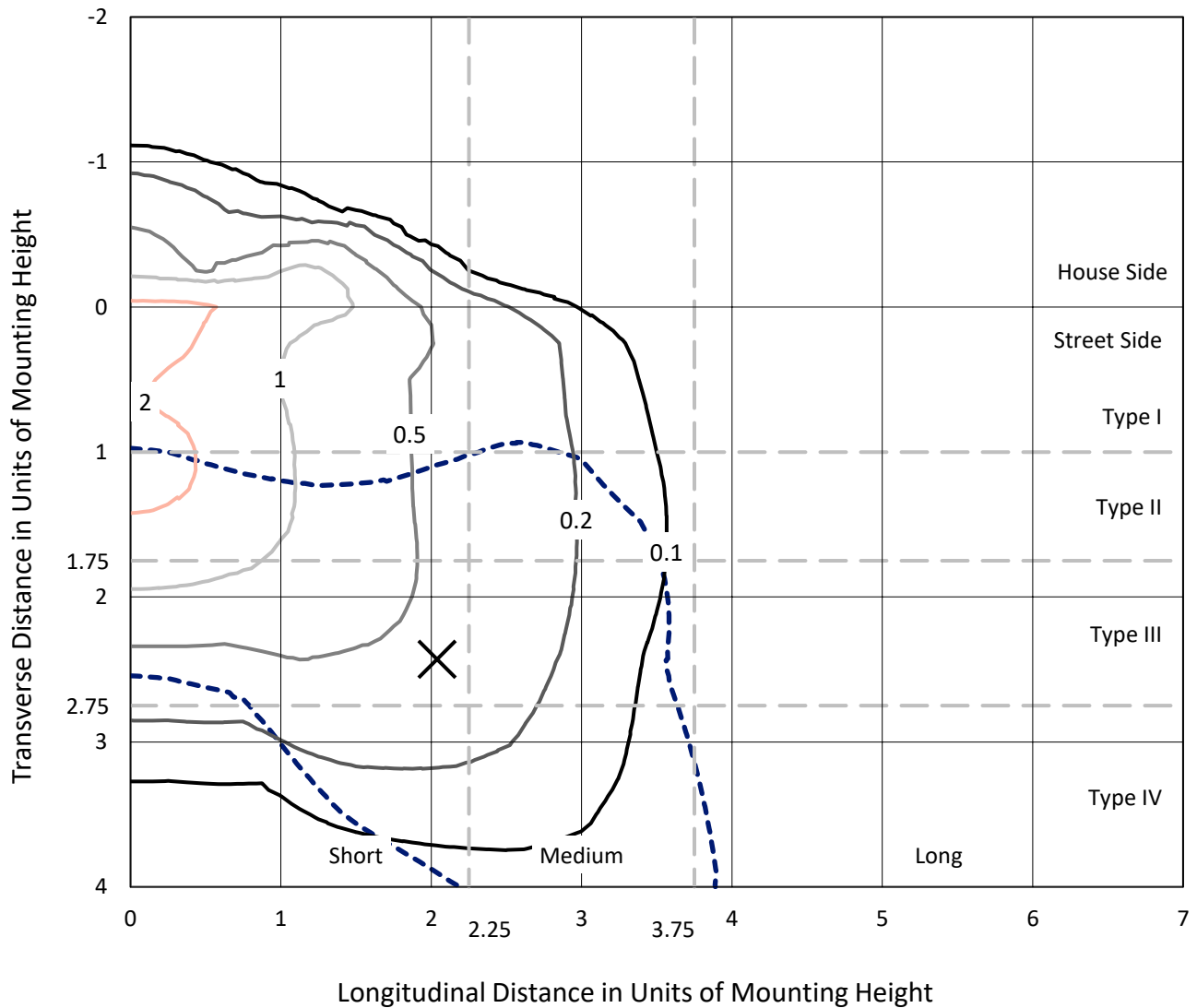
Input Watts (W): 100.9
Input Voltage (V): 120.0
Input Current (Ain): 0.857
Voltage Rise (V): NR
Power Factor: 0.994
Total Harmonic Distortion (THDi): 9.472
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT



REPORT NUMBER: P882573
 CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

Iso-Footcandle Lines of Horizontal Illumination

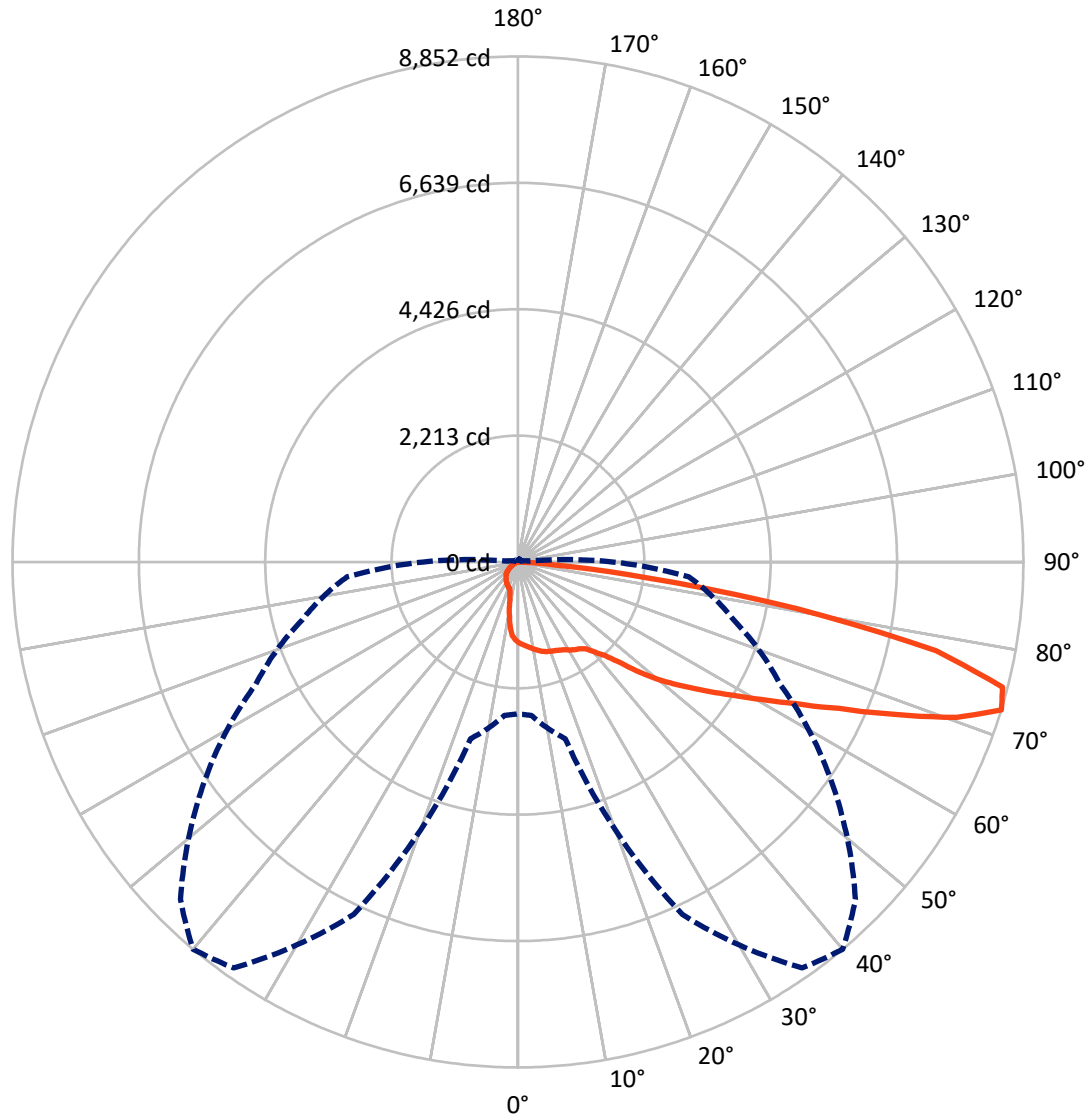
✕ Max cd
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 2.6 fc
 Type IV - Short - N/A

REPORT NUMBER: P882573
CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

Luminous Intensity Polar Plot



— Vertical Plane Through 40-Deg Lateral - - - Horizontal Cone Through 72.5-Deg Vertical

REPORT NUMBER: P882573

CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

FLUX DISTRIBUTION:

| | | Downward | Upward | Total |
|--------------------|-----------|----------|--------|---------|
| House Side | Lumens | 1376.0 | 0.0 | 1376.0 |
| | % Fixture | 12.9 | 0.0 | 12.9 |
| Street Side | Lumens | 9279.0 | 0.0 | 9279.0 |
| | % Fixture | 87.1 | 0.0 | 87.1 |
| Total | Lumens | 10655.0 | 0.0 | 10655.0 |
| | % Fixture | 100.0 | 0.0 | 100.0 |

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 128.8 | 1.2 |
| 10°-20° | 349.9 | 3.3 |
| 20°-30° | 566.2 | 5.3 |
| 30°-40° | 835.9 | 7.8 |
| 40°-50° | 1406.8 | 13.2 |
| 50°-60° | 2184.3 | 20.5 |
| 60°-70° | 2733.2 | 25.7 |
| 70°-80° | 2237.7 | 21.0 |
| 80°-90° | 212.2 | 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° | 10655.0 | 100.0 |
| 0°-180° | 10655.0 | 100.0 |

Coefficient of Utilization



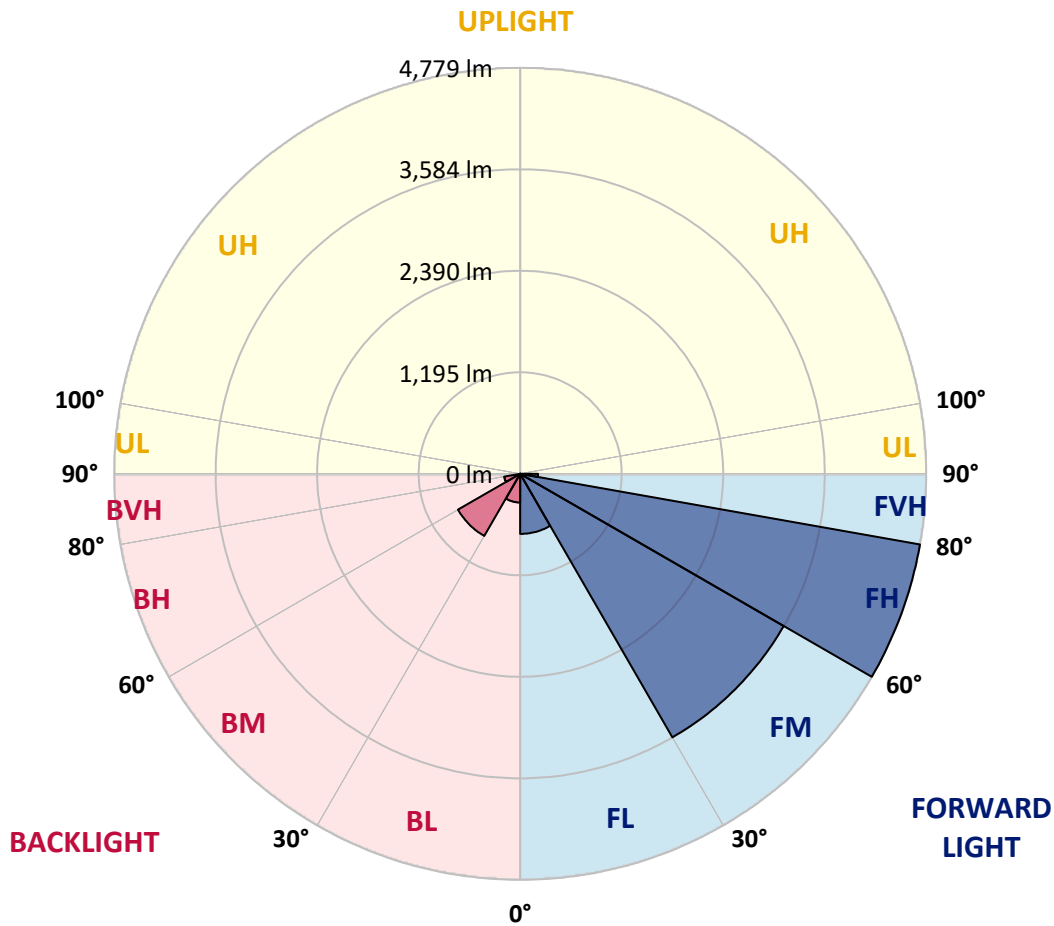
REPORT NUMBER: P882573
 CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:

| Zone | Lumens | % Fixture | Zone Rating/Lumen Limit | | |
|----------------|--------|-----------|-------------------------|------|---------|
| | | | B | U | G |
| FL (0°-30°) | 707.2 | 6.6 | | | |
| FM (30°-60°) | 3582.0 | 33.6 | | | |
| FH (60°-80°) | 4779.2 | 44.9 | | | G2/5000 |
| FVH (80°-90°) | 210.6 | 2.0 | | | G2/225 |
| BL (0°-30°) | 337.7 | 3.2 | B1/500 | | |
| BM (30°-60°) | 844.9 | 7.9 | B1/1000 | | |
| BH (60°-80°) | 191.7 | 1.8 | 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: P882573

CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 15° | 25° | 35° | 40° | 45° | 55° | 65° | 75° | 85° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 |
| 2.5° | 1453.3 | 1459.0 | 1455.7 | 1449.3 | 1447.7 | 1444.5 | 1440.5 | 1438.9 | 1433.3 | 1428.5 | 1422.8 |
| 5° | 1494.3 | 1499.9 | 1495.9 | 1487.0 | 1483.0 | 1479.0 | 1473.4 | 1468.6 | 1457.4 | 1446.9 | 1434.1 |
| 7.5° | 1539.2 | 1544.0 | 1539.2 | 1526.4 | 1519.9 | 1515.1 | 1507.1 | 1499.9 | 1487.0 | 1471.8 | 1455.7 |
| 10° | 1589.0 | 1593.0 | 1585.8 | 1568.9 | 1558.5 | 1551.2 | 1544.0 | 1536.0 | 1524.0 | 1507.1 | 1487.8 |
| 12.5° | 1635.5 | 1640.3 | 1629.1 | 1609.0 | 1597.0 | 1589.8 | 1581.7 | 1575.3 | 1563.3 | 1547.2 | 1527.2 |
| 15° | 1678.0 | 1685.3 | 1666.0 | 1644.3 | 1630.7 | 1625.1 | 1617.1 | 1613.0 | 1605.0 | 1593.8 | 1575.3 |
| 17.5° | 1710.1 | 1715.0 | 1694.9 | 1669.2 | 1654.0 | 1650.0 | 1644.3 | 1646.7 | 1645.1 | 1639.5 | 1627.5 |
| 20° | 1737.4 | 1740.6 | 1714.2 | 1682.9 | 1666.0 | 1666.8 | 1665.2 | 1673.2 | 1676.4 | 1676.4 | 1675.6 |
| 22.5° | 1771.1 | 1771.9 | 1738.2 | 1698.9 | 1678.8 | 1684.5 | 1686.9 | 1695.7 | 1702.1 | 1708.5 | 1723.0 |
| 25° | 1815.3 | 1813.7 | 1773.5 | 1719.8 | 1702.1 | 1710.1 | 1715.8 | 1719.0 | 1726.2 | 1736.6 | 1769.5 |
| 27.5° | 1881.1 | 1876.3 | 1824.9 | 1753.5 | 1732.6 | 1739.8 | 1750.3 | 1748.7 | 1745.5 | 1753.5 | 1808.9 |
| 30° | 1964.5 | 1958.1 | 1889.9 | 1800.8 | 1781.6 | 1788.0 | 1791.2 | 1776.8 | 1753.5 | 1760.7 | 1843.4 |
| 32.5° | 2097.0 | 2085.7 | 1991.0 | 1853.8 | 1824.1 | 1831.3 | 1827.3 | 1797.6 | 1763.1 | 1770.3 | 1877.9 |
| 35° | 2327.3 | 2300.0 | 2166.0 | 1964.5 | 1872.3 | 1864.2 | 1854.6 | 1825.7 | 1783.2 | 1775.9 | 1906.8 |
| 37.5° | 2816.8 | 2768.7 | 2539.9 | 2180.4 | 1981.4 | 1929.2 | 1899.5 | 1870.6 | 1804.8 | 1775.9 | 1939.7 |
| 40° | 3368.9 | 3320.0 | 3055.9 | 2541.5 | 2162.8 | 2074.5 | 2003.9 | 1923.6 | 1827.3 | 1786.4 | 1991.0 |
| 42.5° | 3945.1 | 3891.4 | 3620.1 | 2989.3 | 2422.0 | 2240.6 | 2109.0 | 1966.1 | 1864.2 | 1818.5 | 2059.2 |
| 45° | 4588.7 | 4521.3 | 4166.6 | 3456.4 | 2798.3 | 2516.7 | 2278.3 | 2053.6 | 1928.4 | 1875.5 | 2152.3 |
| 47.5° | 5267.7 | 5180.2 | 4711.5 | 3909.8 | 3203.6 | 2898.7 | 2588.1 | 2210.1 | 2023.1 | 1960.5 | 2278.3 |
| 50° | 5869.5 | 5782.9 | 5274.1 | 4384.1 | 3582.4 | 3262.2 | 2941.2 | 2426.8 | 2165.2 | 2080.9 | 2447.6 |
| 52.5° | 6302.1 | 6236.3 | 5786.1 | 4873.6 | 3976.4 | 3603.3 | 3261.4 | 2678.8 | 2344.9 | 2235.0 | 2647.5 |
| 55° | 6591.8 | 6531.6 | 6148.8 | 5337.5 | 4434.7 | 3978.8 | 3576.8 | 2952.4 | 2561.6 | 2419.6 | 2868.2 |
| 57.5° | 6767.5 | 6733.0 | 6411.2 | 5751.6 | 4888.9 | 4389.7 | 3937.9 | 3253.4 | 2816.8 | 2637.0 | 3114.5 |
| 60° | 6830.1 | 6802.1 | 6574.1 | 6146.4 | 5437.8 | 4883.3 | 4362.4 | 3592.8 | 3126.6 | 2884.2 | 3367.3 |
| 62.5° | 6663.2 | 6668.8 | 6691.3 | 6614.3 | 6016.4 | 5461.1 | 4871.2 | 4000.5 | 3470.0 | 3164.3 | 3604.9 |
| 65° | 5877.6 | 5924.1 | 6351.0 | 7132.7 | 6782.8 | 6184.9 | 5518.8 | 4498.1 | 3863.3 | 3482.9 | 3793.5 |
| 67.5° | 4866.4 | 4933.8 | 5465.1 | 7436.0 | 7599.7 | 7124.7 | 6420.9 | 5132.0 | 4331.9 | 3807.1 | 3864.9 |
| 70° | 3725.2 | 3797.5 | 4441.1 | 7372.6 | 8364.5 | 8151.9 | 7536.3 | 5938.6 | 4817.5 | 4031.8 | 3682.7 |
| 72.5° | 2658.7 | 2695.6 | 3202.8 | 6808.5 | 8678.3 | 8851.7 | 8358.1 | 6702.5 | 5065.4 | 3907.4 | 3003.8 |
| 75° | 1868.2 | 1861.8 | 2198.1 | 5482.7 | 8189.6 | 8766.6 | 8070.0 | 6289.3 | 4583.9 | 3104.1 | 1852.2 |
| 77.5° | 813.7 | 815.3 | 1097.8 | 3329.6 | 6536.4 | 7487.4 | 6708.2 | 3939.5 | 3195.6 | 1645.1 | 781.6 |
| 80° | 211.1 | 217.5 | 402.9 | 1325.7 | 3935.5 | 4941.8 | 4091.2 | 1731.8 | 1476.6 | 401.3 | 149.3 |
| 82.5° | 74.6 | 79.4 | 185.4 | 416.5 | 1451.7 | 2266.3 | 1821.7 | 553.7 | 385.2 | 114.8 | 40.1 |
| 85° | 21.7 | 25.7 | 99.5 | 127.6 | 300.1 | 640.4 | 442.2 | 107.5 | 94.7 | 59.4 | 10.4 |
| 87.5° | 0.0 | 3.2 | 20.1 | 17.7 | 17.7 | 12.0 | 22.5 | 12.0 | 15.2 | 7.2 | 3.2 |
| 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: P882573

CATALOG NUMBER: NAV-SB2C-735-U-SL4-HSS

CANDELA DISTRIBUTION (continued):

| | 90° | 95° | 105° | 115° | 125° | 135° | 145° | 155° | 165° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 | 1410.8 |
| 2.5° | 1418.0 | 1412.4 | 1400.4 | 1387.5 | 1375.5 | 1364.3 | 1361.1 | 1349.0 | 1343.4 | 1344.2 | 1343.4 |
| 5° | 1425.3 | 1414.8 | 1391.5 | 1363.5 | 1334.6 | 1301.7 | 1274.4 | 1235.9 | 1203.0 | 1198.9 | 1196.5 |
| 7.5° | 1444.5 | 1427.7 | 1389.9 | 1335.4 | 1263.1 | 1172.5 | 1088.2 | 1004.7 | 957.4 | 931.7 | 930.1 |
| 10° | 1474.2 | 1451.7 | 1394.0 | 1289.6 | 1136.4 | 974.2 | 846.6 | 741.5 | 687.7 | 662.9 | 658.1 |
| 12.5° | 1509.5 | 1484.6 | 1400.4 | 1211.8 | 972.6 | 760.0 | 621.9 | 557.7 | 546.5 | 544.9 | 544.1 |
| 15° | 1559.3 | 1532.0 | 1407.6 | 1106.7 | 795.3 | 578.6 | 515.2 | 516.0 | 524.8 | 529.7 | 528.9 |
| 17.5° | 1614.6 | 1587.4 | 1397.2 | 978.3 | 620.3 | 494.3 | 492.7 | 500.0 | 512.8 | 517.6 | 516.8 |
| 20° | 1670.8 | 1645.1 | 1360.3 | 827.4 | 501.6 | 471.1 | 477.5 | 485.5 | 498.4 | 504.8 | 504.8 |
| 22.5° | 1728.6 | 1706.1 | 1301.7 | 666.9 | 452.6 | 454.2 | 462.2 | 470.3 | 484.7 | 491.9 | 491.9 |
| 25° | 1790.4 | 1771.1 | 1223.8 | 534.5 | 431.7 | 436.6 | 447.0 | 456.6 | 471.9 | 480.7 | 480.7 |
| 27.5° | 1853.0 | 1838.5 | 1135.5 | 446.2 | 412.5 | 418.1 | 430.1 | 443.0 | 458.2 | 468.7 | 469.5 |
| 30° | 1921.2 | 1913.2 | 1064.9 | 413.3 | 394.0 | 398.8 | 412.5 | 426.9 | 443.8 | 456.6 | 458.2 |
| 32.5° | 1991.0 | 1989.4 | 1030.4 | 437.4 | 377.2 | 380.4 | 392.4 | 406.9 | 427.7 | 443.8 | 445.4 |
| 35° | 2060.0 | 2063.2 | 1010.4 | 505.6 | 371.6 | 362.7 | 370.8 | 383.6 | 408.5 | 428.5 | 431.7 |
| 37.5° | 2148.3 | 2156.3 | 1009.6 | 579.4 | 385.2 | 345.1 | 350.7 | 359.5 | 381.2 | 404.5 | 408.5 |
| 40° | 2279.9 | 2322.5 | 1060.9 | 642.8 | 409.3 | 329.0 | 330.6 | 332.2 | 343.5 | 362.7 | 369.2 |
| 42.5° | 2454.9 | 2579.3 | 1246.3 | 686.1 | 418.9 | 314.6 | 309.0 | 300.1 | 298.5 | 309.0 | 314.6 |
| 45° | 2672.4 | 2889.8 | 1572.1 | 710.2 | 409.3 | 298.5 | 283.3 | 260.0 | 251.2 | 258.4 | 258.4 |
| 47.5° | 2928.4 | 3230.1 | 1958.1 | 715.8 | 393.2 | 278.5 | 251.2 | 220.7 | 213.5 | 215.9 | 215.1 |
| 50° | 3177.9 | 3485.3 | 2297.6 | 669.3 | 366.7 | 252.8 | 215.9 | 190.2 | 185.4 | 186.2 | 186.2 |
| 52.5° | 3398.6 | 3572.8 | 2393.9 | 559.3 | 331.4 | 221.5 | 185.4 | 167.7 | 164.5 | 164.5 | 163.7 |
| 55° | 3544.7 | 3478.1 | 2134.7 | 427.7 | 287.3 | 189.4 | 158.9 | 150.1 | 148.5 | 147.7 | 146.1 |
| 57.5° | 3575.2 | 3169.9 | 1612.2 | 309.0 | 224.7 | 159.7 | 141.2 | 136.4 | 133.2 | 130.0 | 128.4 |
| 60° | 3466.0 | 2656.3 | 1026.4 | 215.9 | 168.5 | 136.4 | 125.2 | 122.0 | 115.6 | 109.1 | 106.7 |
| 62.5° | 3230.1 | 2006.3 | 568.2 | 150.1 | 135.6 | 116.4 | 110.7 | 106.7 | 94.7 | 84.3 | 81.1 |
| 65° | 2913.1 | 1333.8 | 251.2 | 117.2 | 110.7 | 97.9 | 94.7 | 89.1 | 74.6 | 62.6 | 60.2 |
| 67.5° | 2594.5 | 768.0 | 113.2 | 93.9 | 89.1 | 80.3 | 77.8 | 73.8 | 63.4 | 52.2 | 50.6 |
| 70° | 2231.0 | 389.2 | 77.8 | 74.6 | 69.0 | 61.0 | 63.4 | 62.6 | 52.2 | 42.5 | 40.9 |
| 72.5° | 1661.2 | 193.4 | 58.6 | 56.2 | 49.8 | 43.3 | 52.2 | 51.4 | 40.9 | 32.1 | 30.5 |
| 75° | 940.5 | 95.5 | 42.5 | 39.3 | 29.7 | 32.1 | 41.7 | 39.3 | 28.1 | 20.9 | 19.3 |
| 77.5° | 373.2 | 49.0 | 28.1 | 24.1 | 17.7 | 21.7 | 30.5 | 26.5 | 14.4 | 8.8 | 8.0 |
| 80° | 85.9 | 24.1 | 14.4 | 10.4 | 8.0 | 12.8 | 16.1 | 9.6 | 4.0 | 0.8 | 0.0 |
| 82.5° | 24.1 | 10.4 | 4.8 | 4.0 | 4.0 | 4.8 | 4.0 | 1.6 | 0.0 | 0.0 | 0.0 |
| 85° | 8.0 | 4.8 | 1.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 3.2 | 1.6 | 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)