

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: FAIL-SAFE

Report Number: P837943

Luminaire Tested: **ORLG-24-2-INS-ASY2R-LD4-5HI-20-120-EDD-90**

Issue Date: 5/21/2024

Cooper Lighting Solutions Photometric Lab  
1121 Highway 74 South  
Peachtree City, GA 30269

**Test Information**

Test Method: LM-79-08  
Report Number: P837943  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-2-INS-ASY2R-LD4-5HI-20-120-EDD-90  
Description: 2FT x 2FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and RFI grid  
Light Source: 2000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

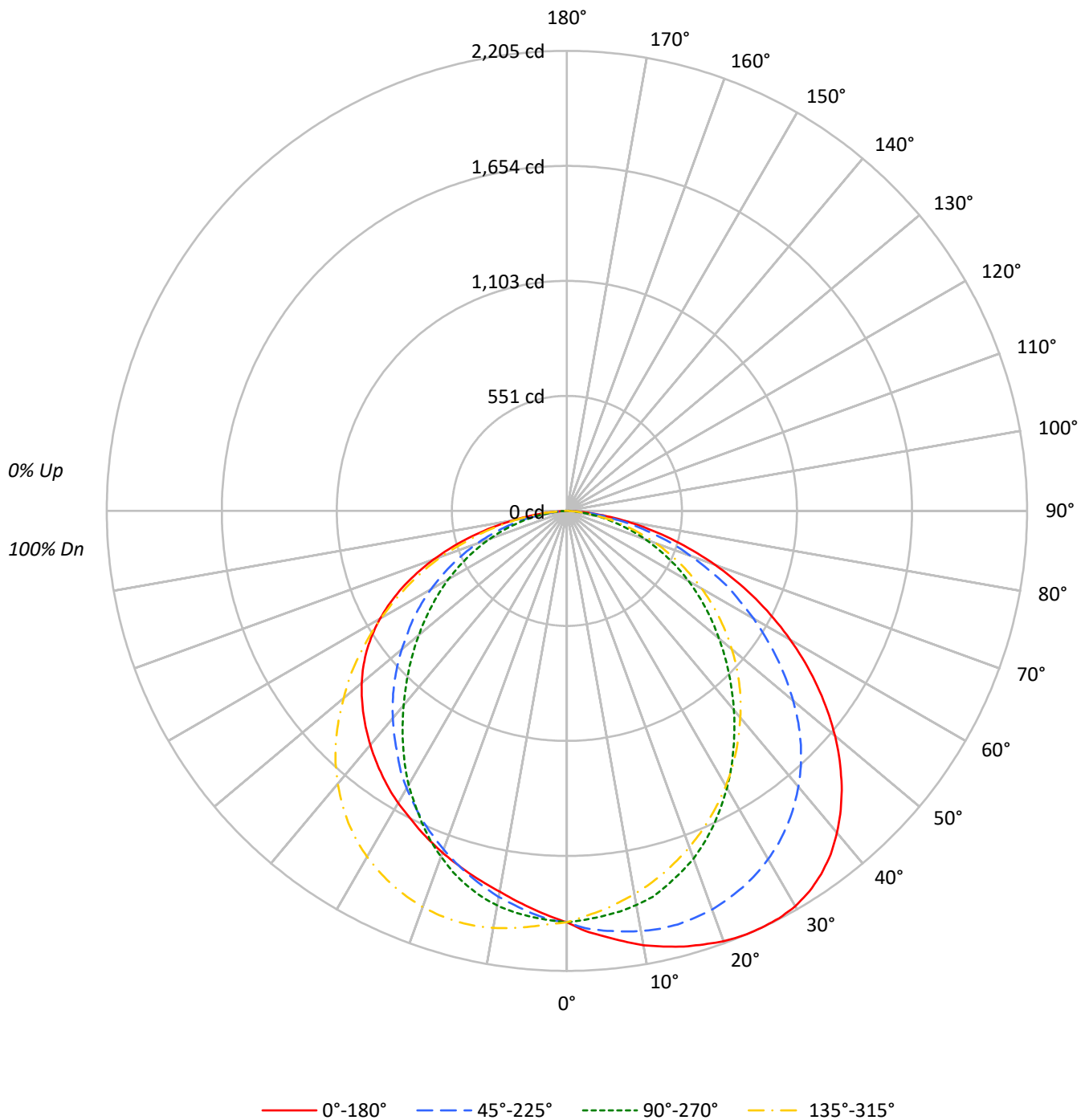
Lumens per Lamp: N/A  
Luminaire Lumens: 5785.1 lumens  
Efficiency: N/A  
Efficacy: 52.6 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 2' x H: 0')  
CIE Type: Direct

Input Watts (W): 110  
Input Voltage (V): 120  
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

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### Luminous Intensity Polar Plot



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**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     | 20  |     |     |  | 20  |     |     |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     | 50  |     |     |  | 30  |     |     |  | 10  |
| RW  | 70  | 50  | 30  | 10  | 70  | 50  | 30  | 10  | 50  | 30  | 10  |  | 50  | 30  | 10  |  | 50  |
| RCR |     |     |     |     |     |     |     |     |     |     |     |  |     |     |     |  |     |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 |  | 106 | 106 | 106 |  | 102 |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  |  | 94  | 91  | 89  |  | 90  |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  |  | 82  | 77  | 73  |  | 79  |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  |  | 72  | 66  | 62  |  | 69  |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  |  | 64  | 58  | 53  |  | 62  |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  |  | 57  | 51  | 46  |  | 56  |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  |  | 52  | 45  | 40  |  | 50  |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  |  | 47  | 40  | 35  |  | 46  |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  |  | 43  | 37  | 32  |  | 42  |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  |  | 40  | 33  | 28  |  | 39  |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  |  | 37  | 30  | 26  |  | 36  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°   | 90°  | 180° | 270° |
|-----|------|------|------|------|
| 0°  | 5306 | 5306 | 5306 | 5306 |
| 5°  | 5530 | 5268 | 5169 | 5277 |
| 10° | 5776 | 5241 | 5064 | 5249 |
| 15° | 6024 | 5174 | 5014 | 5176 |
| 20° | 6287 | 5080 | 4992 | 5051 |
| 25° | 6547 | 4938 | 4992 | 4888 |
| 30° | 6800 | 4767 | 5025 | 4713 |
| 35° | 6981 | 4571 | 5075 | 4498 |
| 40° | 7074 | 4374 | 5146 | 4275 |
| 45° | 7088 | 4175 | 5246 | 4070 |
| 50° | 7021 | 3984 | 5374 | 3878 |
| 55° | 6875 | 3807 | 5494 | 3701 |
| 60° | 6659 | 3622 | 5568 | 3527 |
| 65° | 6361 | 3409 | 5538 | 3330 |
| 70° | 5943 | 3159 | 5342 | 3102 |
| 75° | 5346 | 2817 | 4902 | 2802 |
| 80° | 4533 | 2359 | 4121 | 2394 |
| 85° | 3152 | 1562 | 2612 | 1606 |

Classified

Scaled Data Report

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 187.2  | 3.2       |
| 10°-20°   | 542.1  | 9.4       |
| 20°-30°   | 830.8  | 14.4      |
| 30°-40°   | 1010.2 | 17.5      |
| 40°-50°   | 1050.2 | 18.2      |
| 50°-60°   | 948.6  | 16.4      |
| 60°-70°   | 721.2  | 12.5      |
| 70°-80°   | 402.1  | 7.0       |
| 80°-90°   | 92.6   | 1.6       |
| 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°-30°    | 1560.2 | 27.0      |
| 0°-40°    | 2570.4 | 44.4      |
| 0°-60°    | 4569.3 | 79.0      |
| 0°-90°    | 5785.1 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 5785.1 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1972 | 1972 | 1972 | 1972 | 1972 |      |
| 5°  | 2047 | 1950 | 1913 | 1954 | 2047 | 197  |
| 15° | 2162 | 1857 | 1800 | 1858 | 2162 | 613  |
| 25° | 2205 | 1663 | 1681 | 1646 | 2205 | 1018 |
| 35° | 2125 | 1391 | 1545 | 1369 | 2125 | 1327 |
| 45° | 1862 | 1097 | 1378 | 1069 | 1862 | 1434 |
| 55° | 1465 | 811  | 1171 | 789  | 1465 | 1308 |
| 65° | 999  | 535  | 870  | 523  | 999  | 987  |
| 75° | 514  | 271  | 472  | 270  | 514  | 546  |
| 85° | 102  | 51   | 85   | 52   | 102  | 129  |
| 90° | 0    | 0    | 0    | 0    | 0    |      |

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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 15°    | 25°    | 35°    | 45°    | 55°    | 65°    | 75°    | 85°    | 90°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 |
| 2.5°  | 2015.5 | 1986.1 | 1986.6 | 2012.3 | 1992.5 | 2002.2 | 1974.6 | 1985.2 | 1982.0 | 1984.3 | 1961.7 |
| 5°    | 2047.3 | 2015.5 | 2015.1 | 2037.2 | 2015.1 | 2019.2 | 1984.3 | 1991.2 | 1981.0 | 1974.6 | 1950.2 |
| 7.5°  | 2080.9 | 2049.1 | 2045.9 | 2065.2 | 2036.2 | 2033.0 | 1994.4 | 1994.4 | 1976.0 | 1959.9 | 1936.9 |
| 10°   | 2114.0 | 2081.3 | 2077.2 | 2091.9 | 2056.0 | 2045.4 | 1998.5 | 1991.2 | 1966.8 | 1942.9 | 1918.0 |
| 12.5° | 2138.8 | 2105.7 | 2102.5 | 2111.7 | 2071.2 | 2051.9 | 1998.5 | 1984.3 | 1948.4 | 1914.8 | 1895.5 |
| 15°   | 2162.3 | 2128.2 | 2119.5 | 2124.1 | 2077.6 | 2051.9 | 1992.1 | 1970.0 | 1924.0 | 1879.9 | 1857.3 |
| 17.5° | 2178.8 | 2146.2 | 2137.4 | 2137.0 | 2080.9 | 2044.1 | 1978.3 | 1947.9 | 1892.7 | 1839.4 | 1816.8 |
| 20°   | 2195.4 | 2162.7 | 2151.7 | 2143.4 | 2079.9 | 2033.5 | 1958.1 | 1917.1 | 1852.7 | 1792.9 | 1774.1 |
| 22.5° | 2203.7 | 2170.1 | 2158.1 | 2145.7 | 2074.0 | 2014.2 | 1933.2 | 1881.2 | 1807.6 | 1736.3 | 1720.7 |
| 25°   | 2205.0 | 2170.6 | 2157.7 | 2139.7 | 2062.0 | 1991.2 | 1901.0 | 1838.0 | 1755.7 | 1676.6 | 1663.2 |
| 27.5° | 2201.4 | 2163.7 | 2150.8 | 2129.2 | 2044.1 | 1963.1 | 1862.8 | 1788.8 | 1700.5 | 1613.1 | 1598.8 |
| 30°   | 2188.5 | 2150.3 | 2137.9 | 2109.8 | 2018.8 | 1928.6 | 1821.0 | 1734.0 | 1639.3 | 1546.4 | 1534.0 |
| 32.5° | 2162.7 | 2125.5 | 2115.4 | 2087.3 | 1991.2 | 1888.6 | 1772.2 | 1675.2 | 1571.7 | 1482.9 | 1464.5 |
| 35°   | 2125.0 | 2087.8 | 2081.3 | 2051.9 | 1952.5 | 1840.8 | 1718.9 | 1610.8 | 1499.9 | 1409.3 | 1391.4 |
| 37.5° | 2075.8 | 2044.5 | 2034.9 | 2005.9 | 1907.0 | 1786.5 | 1657.7 | 1540.9 | 1426.8 | 1329.3 | 1318.2 |
| 40°   | 2013.7 | 1984.3 | 1976.9 | 1951.2 | 1854.1 | 1726.2 | 1591.5 | 1468.7 | 1351.4 | 1260.8 | 1245.1 |
| 42.5° | 1942.9 | 1915.3 | 1911.1 | 1884.5 | 1788.8 | 1659.5 | 1519.7 | 1393.7 | 1272.7 | 1185.3 | 1169.7 |
| 45°   | 1862.4 | 1835.7 | 1834.8 | 1809.5 | 1717.5 | 1585.5 | 1444.3 | 1317.8 | 1195.9 | 1105.3 | 1097.0 |
| 47.5° | 1773.6 | 1749.7 | 1749.7 | 1726.2 | 1637.9 | 1504.1 | 1366.5 | 1238.7 | 1118.6 | 1038.6 | 1023.9 |
| 50°   | 1677.0 | 1654.5 | 1647.6 | 1636.1 | 1550.1 | 1415.3 | 1284.7 | 1161.4 | 1042.3 | 965.9  | 951.7  |
| 52.5° | 1574.0 | 1554.7 | 1559.3 | 1538.1 | 1454.9 | 1322.8 | 1201.9 | 1074.5 | 965.5  | 896.0  | 881.7  |
| 55°   | 1465.4 | 1437.8 | 1442.0 | 1434.2 | 1355.5 | 1227.6 | 1109.0 | 1002.7 | 890.0  | 824.7  | 811.4  |
| 57.5° | 1352.7 | 1316.9 | 1331.6 | 1327.0 | 1249.7 | 1130.1 | 1023.9 | 921.3  | 815.0  | 754.8  | 741.9  |
| 60°   | 1237.3 | 1202.8 | 1218.0 | 1213.8 | 1141.2 | 1032.6 | 936.0  | 840.8  | 740.5  | 685.8  | 672.9  |
| 62.5° | 1118.6 | 1086.9 | 1100.7 | 1097.5 | 1030.8 | 932.8  | 848.6  | 761.2  | 665.6  | 616.3  | 604.4  |
| 65°   | 999.0  | 968.7  | 981.1  | 978.8  | 917.2  | 842.6  | 758.9  | 678.9  | 590.1  | 547.4  | 535.4  |
| 67.5° | 876.7  | 848.6  | 860.1  | 860.1  | 803.6  | 732.3  | 668.8  | 595.6  | 516.1  | 479.3  | 468.2  |
| 70°   | 755.3  | 729.0  | 739.2  | 738.2  | 690.4  | 632.4  | 577.7  | 512.4  | 441.1  | 410.7  | 401.5  |
| 72.5° | 632.9  | 609.9  | 619.1  | 618.2  | 578.2  | 540.9  | 486.6  | 430.1  | 368.0  | 343.6  | 335.3  |
| 75°   | 514.2  | 492.6  | 501.4  | 500.4  | 467.8  | 432.8  | 396.5  | 349.6  | 296.2  | 279.2  | 270.9  |
| 77.5° | 401.1  | 379.0  | 386.4  | 386.4  | 362.4  | 337.2  | 308.2  | 271.8  | 234.1  | 215.7  | 209.7  |
| 80°   | 292.5  | 282.0  | 278.3  | 278.7  | 262.6  | 246.1  | 231.4  | 196.4  | 168.8  | 156.4  | 152.2  |
| 82.5° | 192.3  | 183.5  | 179.8  | 180.8  | 171.6  | 161.4  | 152.2  | 127.9  | 109.5  | 102.1  | 99.8   |
| 85°   | 102.1  | 95.7   | 92.5   | 94.8   | 92.9   | 87.4   | 82.8   | 66.2   | 54.7   | 52.0   | 50.6   |
| 87.5° | 32.2   | 28.1   | 25.8   | 34.0   | 29.0   | 25.8   | 24.8   | 19.8   | 15.2   | 15.2   | 14.7   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 95°    | 105°   | 115°   | 125°   | 135°   | 145°   | 155°   | 165°   | 175°   | 180°   | 185°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 |
| 2.5°  | 1969.1 | 1969.1 | 1951.2 | 1947.0 | 1945.2 | 1947.5 | 1929.5 | 1926.3 | 1952.1 | 1943.3 | 1923.6 |
| 5°    | 1953.5 | 1952.5 | 1927.2 | 1922.6 | 1922.6 | 1919.9 | 1899.6 | 1895.0 | 1920.8 | 1913.4 | 1891.8 |
| 7.5°  | 1934.1 | 1931.4 | 1901.5 | 1898.3 | 1893.7 | 1891.8 | 1869.3 | 1866.1 | 1888.1 | 1883.5 | 1863.3 |
| 10°   | 1910.7 | 1907.9 | 1872.5 | 1870.2 | 1865.1 | 1861.5 | 1840.3 | 1838.0 | 1860.5 | 1853.2 | 1837.1 |
| 12.5° | 1879.9 | 1874.8 | 1838.5 | 1836.2 | 1832.0 | 1830.6 | 1809.9 | 1809.0 | 1833.9 | 1826.5 | 1809.5 |
| 15°   | 1839.4 | 1835.2 | 1794.8 | 1795.7 | 1796.1 | 1796.1 | 1779.6 | 1778.7 | 1803.0 | 1799.8 | 1781.4 |
| 17.5° | 1794.8 | 1789.2 | 1750.6 | 1753.4 | 1756.6 | 1760.3 | 1747.4 | 1749.7 | 1775.4 | 1771.3 | 1754.7 |
| 20°   | 1744.2 | 1738.6 | 1700.9 | 1708.8 | 1715.7 | 1723.0 | 1714.7 | 1721.2 | 1745.1 | 1743.2 | 1730.8 |
| 22.5° | 1687.6 | 1682.1 | 1647.1 | 1659.1 | 1670.6 | 1684.4 | 1680.7 | 1688.1 | 1713.4 | 1712.9 | 1701.9 |
| 25°   | 1618.6 | 1620.0 | 1589.2 | 1603.9 | 1623.2 | 1642.5 | 1643.9 | 1655.9 | 1683.9 | 1681.2 | 1671.0 |
| 27.5° | 1554.2 | 1556.0 | 1523.4 | 1548.2 | 1574.0 | 1598.8 | 1604.8 | 1621.4 | 1649.9 | 1647.6 | 1638.8 |
| 30°   | 1486.6 | 1488.9 | 1457.2 | 1491.2 | 1522.5 | 1552.8 | 1565.7 | 1588.2 | 1617.2 | 1617.2 | 1608.0 |
| 32.5° | 1416.2 | 1420.4 | 1387.2 | 1432.8 | 1469.1 | 1504.5 | 1527.1 | 1550.5 | 1583.6 | 1582.7 | 1574.9 |
| 35°   | 1344.0 | 1348.6 | 1318.2 | 1376.2 | 1412.5 | 1455.8 | 1483.8 | 1515.1 | 1544.5 | 1545.0 | 1539.0 |
| 37.5° | 1270.4 | 1275.9 | 1248.3 | 1311.8 | 1353.2 | 1404.3 | 1440.1 | 1471.4 | 1504.1 | 1505.9 | 1500.4 |
| 40°   | 1197.3 | 1203.3 | 1179.3 | 1240.5 | 1292.9 | 1350.0 | 1391.4 | 1428.2 | 1464.1 | 1465.0 | 1461.3 |
| 42.5° | 1124.1 | 1130.6 | 1112.6 | 1172.4 | 1231.8 | 1292.9 | 1341.7 | 1383.6 | 1420.4 | 1422.7 | 1418.5 |
| 45°   | 1052.8 | 1058.4 | 1045.5 | 1110.8 | 1167.8 | 1234.5 | 1290.6 | 1338.0 | 1375.3 | 1378.5 | 1377.1 |
| 47.5° | 982.0  | 987.1  | 975.6  | 1035.4 | 1101.1 | 1172.0 | 1236.8 | 1289.3 | 1328.8 | 1332.5 | 1331.6 |
| 50°   | 912.6  | 916.7  | 904.3  | 966.8  | 1032.2 | 1107.6 | 1175.2 | 1235.9 | 1280.1 | 1283.7 | 1283.3 |
| 52.5° | 843.6  | 847.7  | 837.1  | 902.9  | 962.2  | 1041.8 | 1115.4 | 1181.2 | 1224.9 | 1230.4 | 1231.3 |
| 55°   | 776.9  | 778.7  | 770.4  | 833.4  | 890.9  | 974.2  | 1058.8 | 1122.8 | 1166.5 | 1171.1 | 1173.8 |
| 57.5° | 710.2  | 710.6  | 703.7  | 764.0  | 819.2  | 904.3  | 993.1  | 1060.2 | 1101.6 | 1106.2 | 1110.3 |
| 60°   | 643.9  | 643.5  | 635.7  | 694.1  | 747.0  | 831.1  | 923.6  | 990.3  | 1030.3 | 1034.5 | 1040.0 |
| 62.5° | 578.2  | 576.8  | 569.9  | 623.7  | 673.4  | 756.6  | 849.5  | 913.9  | 952.1  | 954.9  | 962.2  |
| 65°   | 512.9  | 511.5  | 505.0  | 554.7  | 599.8  | 679.4  | 770.4  | 831.6  | 866.1  | 869.8  | 868.4  |
| 67.5° | 448.5  | 445.7  | 440.6  | 485.3  | 526.2  | 599.8  | 687.2  | 745.6  | 774.1  | 777.3  | 786.1  |
| 70°   | 384.1  | 380.8  | 369.3  | 416.7  | 452.6  | 518.4  | 599.8  | 651.8  | 675.7  | 678.9  | 677.5  |
| 72.5° | 320.6  | 317.4  | 305.0  | 348.6  | 379.0  | 436.5  | 509.2  | 552.4  | 573.1  | 575.9  | 575.9  |
| 75°   | 259.0  | 257.1  | 249.3  | 282.4  | 307.7  | 354.6  | 416.3  | 452.1  | 468.2  | 471.5  | 470.5  |
| 77.5° | 199.6  | 198.2  | 190.4  | 218.9  | 238.7  | 273.7  | 323.4  | 351.4  | 363.4  | 367.0  | 374.9  |
| 80°   | 143.0  | 142.6  | 130.2  | 158.2  | 167.0  | 196.4  | 232.7  | 254.4  | 260.8  | 265.9  | 271.4  |
| 82.5° | 91.5   | 92.0   | 79.6   | 103.5  | 107.2  | 126.0  | 148.6  | 161.9  | 166.5  | 170.6  | 174.8  |
| 85°   | 44.6   | 46.5   | 39.6   | 54.7   | 55.2   | 64.9   | 74.5   | 79.6   | 81.4   | 84.6   | 88.3   |
| 87.5° | 11.5   | 13.3   | 7.4    | 15.6   | 13.8   | 17.9   | 20.7   | 22.1   | 21.6   | 23.9   | 25.3   |
| 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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**CANDELA DISTRIBUTION (continued):**

|       | 195°   | 205°   | 215°   | 225°   | 235°   | 245°   | 255°   | 265°   | 270°   | 275°   | 285°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 |
| 2.5°  | 1930.0 | 1944.7 | 1937.4 | 1961.3 | 1970.5 | 1955.8 | 1981.5 | 1982.0 | 1963.6 | 1985.2 | 1997.1 |
| 5°    | 1900.1 | 1915.3 | 1910.7 | 1935.5 | 1947.0 | 1934.1 | 1965.4 | 1971.4 | 1953.5 | 1977.8 | 1997.1 |
| 7.5°  | 1869.7 | 1887.7 | 1881.7 | 1907.0 | 1920.8 | 1910.7 | 1944.3 | 1953.9 | 1940.1 | 1966.8 | 1992.5 |
| 10°   | 1843.5 | 1858.7 | 1852.3 | 1878.9 | 1890.9 | 1882.6 | 1915.7 | 1933.7 | 1920.8 | 1953.5 | 1984.3 |
| 12.5° | 1817.8 | 1830.2 | 1822.8 | 1844.9 | 1856.4 | 1845.8 | 1886.3 | 1902.9 | 1893.7 | 1927.7 | 1967.2 |
| 15°   | 1784.6 | 1798.4 | 1788.3 | 1808.1 | 1816.8 | 1807.6 | 1840.8 | 1869.3 | 1857.8 | 1895.0 | 1938.7 |
| 17.5° | 1759.3 | 1767.2 | 1753.4 | 1769.0 | 1774.1 | 1761.6 | 1795.2 | 1823.3 | 1815.0 | 1855.5 | 1906.1 |
| 20°   | 1731.3 | 1737.7 | 1718.4 | 1727.2 | 1726.7 | 1711.1 | 1741.9 | 1769.5 | 1763.9 | 1808.6 | 1866.1 |
| 22.5° | 1700.0 | 1703.2 | 1680.7 | 1682.5 | 1681.6 | 1655.9 | 1683.5 | 1711.5 | 1709.2 | 1754.3 | 1818.7 |
| 25°   | 1666.9 | 1667.4 | 1638.4 | 1637.5 | 1627.3 | 1597.0 | 1621.4 | 1653.1 | 1646.2 | 1695.0 | 1762.6 |
| 27.5° | 1634.2 | 1629.6 | 1594.7 | 1586.4 | 1570.3 | 1534.0 | 1555.6 | 1584.1 | 1580.0 | 1627.8 | 1702.8 |
| 30°   | 1599.3 | 1593.3 | 1550.5 | 1535.3 | 1511.9 | 1470.0 | 1488.0 | 1514.6 | 1516.9 | 1558.8 | 1637.5 |
| 32.5° | 1566.2 | 1551.0 | 1503.6 | 1481.5 | 1452.1 | 1403.3 | 1413.0 | 1440.1 | 1443.8 | 1486.1 | 1567.1 |
| 35°   | 1523.4 | 1513.3 | 1454.9 | 1417.1 | 1388.2 | 1334.8 | 1344.9 | 1363.8 | 1369.3 | 1410.7 | 1493.0 |
| 37.5° | 1482.9 | 1466.8 | 1404.7 | 1358.7 | 1321.5 | 1265.4 | 1268.1 | 1287.4 | 1292.9 | 1334.8 | 1416.2 |
| 40°   | 1441.1 | 1418.1 | 1351.4 | 1297.5 | 1254.8 | 1195.9 | 1192.7 | 1212.9 | 1217.1 | 1258.0 | 1331.6 |
| 42.5° | 1396.4 | 1368.8 | 1293.9 | 1235.0 | 1185.8 | 1126.0 | 1119.5 | 1137.0 | 1141.6 | 1181.6 | 1253.9 |
| 45°   | 1351.4 | 1318.2 | 1235.0 | 1170.6 | 1116.8 | 1055.6 | 1049.2 | 1062.5 | 1069.4 | 1107.1 | 1176.6 |
| 47.5° | 1303.5 | 1264.9 | 1174.3 | 1102.5 | 1046.9 | 985.7  | 977.9  | 991.2  | 996.7  | 1034.0 | 1099.8 |
| 50°   | 1253.4 | 1206.5 | 1111.7 | 1032.6 | 977.4  | 917.2  | 905.7  | 921.3  | 926.4  | 961.3  | 1025.7 |
| 52.5° | 1198.2 | 1146.2 | 1045.0 | 962.2  | 907.0  | 849.5  | 835.7  | 850.9  | 856.9  | 890.9  | 950.3  |
| 55°   | 1139.8 | 1083.7 | 977.9  | 897.4  | 837.6  | 781.5  | 770.0  | 776.0  | 788.8  | 821.0  | 876.2  |
| 57.5° | 1074.0 | 1018.4 | 907.0  | 825.2  | 767.7  | 713.9  | 704.2  | 709.7  | 721.7  | 753.0  | 802.6  |
| 60°   | 1004.1 | 945.2  | 834.8  | 753.0  | 697.3  | 646.2  | 637.5  | 642.6  | 655.4  | 684.0  | 730.0  |
| 62.5° | 935.1  | 868.9  | 760.3  | 678.9  | 628.3  | 580.9  | 578.6  | 576.8  | 588.7  | 616.3  | 656.8  |
| 65°   | 851.4  | 787.9  | 682.6  | 605.3  | 559.3  | 516.5  | 507.3  | 511.5  | 523.0  | 548.3  | 590.6  |
| 67.5° | 761.7  | 704.2  | 603.0  | 531.7  | 490.8  | 452.6  | 444.8  | 446.6  | 458.6  | 480.7  | 517.5  |
| 70°   | 666.5  | 615.9  | 521.6  | 457.7  | 423.2  | 387.3  | 382.2  | 382.7  | 394.2  | 413.5  | 445.7  |
| 72.5° | 566.7  | 521.1  | 439.3  | 384.5  | 356.0  | 330.3  | 325.7  | 320.1  | 330.7  | 347.3  | 374.9  |
| 75°   | 465.0  | 425.0  | 357.4  | 312.8  | 290.2  | 268.6  | 264.5  | 259.0  | 269.5  | 283.8  | 305.4  |
| 77.5° | 362.4  | 330.3  | 277.8  | 243.3  | 225.8  | 209.7  | 206.1  | 200.1  | 210.7  | 221.2  | 238.3  |
| 80°   | 262.2  | 238.7  | 207.4  | 171.1  | 165.1  | 154.5  | 150.9  | 144.4  | 154.5  | 161.4  | 174.3  |
| 82.5° | 169.3  | 153.6  | 135.7  | 110.4  | 109.5  | 101.7  | 99.8   | 92.5   | 101.7  | 105.8  | 115.4  |
| 85°   | 85.6   | 78.2   | 73.6   | 56.1   | 58.0   | 52.9   | 52.4   | 44.6   | 52.0   | 53.8   | 59.3   |
| 87.5° | 24.4   | 25.8   | 23.0   | 13.8   | 17.5   | 16.6   | 16.6   | 12.0   | 16.6   | 16.6   | 18.9   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

TEST NUMBER: P837943

CATALOG NUMBER: ORLG-24-2-INS-ASY2R-LD4-5HI-20-120-EDD-90

**CANDELA DISTRIBUTION (continued):**

|       | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 | 1971.8 |
| 2.5°  | 1973.7 | 1981.5 | 1983.3 | 1982.9 | 1987.9 | 2015.5 | 2006.3 | 2015.5 |
| 5°    | 1978.3 | 1995.8 | 2000.4 | 2006.8 | 2015.1 | 2046.4 | 2036.2 | 2047.3 |
| 7.5°  | 1981.0 | 2007.3 | 2017.4 | 2029.8 | 2043.1 | 2078.1 | 2069.8 | 2080.9 |
| 10°   | 1981.0 | 2015.1 | 2029.8 | 2050.5 | 2068.4 | 2108.9 | 2101.1 | 2114.0 |
| 12.5° | 1972.8 | 2016.5 | 2037.2 | 2066.1 | 2089.1 | 2132.8 | 2129.6 | 2138.8 |
| 15°   | 1955.8 | 2009.6 | 2038.1 | 2075.3 | 2103.9 | 2152.6 | 2151.2 | 2162.3 |
| 17.5° | 1932.8 | 1997.6 | 2032.1 | 2079.0 | 2114.9 | 2169.6 | 2172.9 | 2178.8 |
| 20°   | 1903.8 | 1975.1 | 2020.1 | 2077.6 | 2122.7 | 2183.0 | 2187.1 | 2195.4 |
| 22.5° | 1865.6 | 1947.9 | 2002.2 | 2071.7 | 2123.6 | 2188.5 | 2195.8 | 2203.7 |
| 25°   | 1820.5 | 1915.3 | 1978.7 | 2060.2 | 2119.0 | 2188.0 | 2198.1 | 2205.0 |
| 27.5° | 1769.0 | 1873.0 | 1948.9 | 2041.8 | 2106.2 | 2180.7 | 2193.1 | 2201.4 |
| 30°   | 1709.2 | 1827.9 | 1914.8 | 2017.8 | 2088.7 | 2166.9 | 2180.2 | 2188.5 |
| 32.5° | 1647.6 | 1778.2 | 1874.3 | 1987.0 | 2063.4 | 2144.8 | 2156.3 | 2162.7 |
| 35°   | 1580.4 | 1718.0 | 1825.6 | 1947.5 | 2030.7 | 2109.4 | 2118.1 | 2125.0 |
| 37.5° | 1507.3 | 1652.6 | 1769.9 | 1902.9 | 1984.7 | 2060.2 | 2068.0 | 2075.8 |
| 40°   | 1431.9 | 1584.1 | 1707.4 | 1848.1 | 1930.0 | 1999.9 | 2008.2 | 2013.7 |
| 42.5° | 1356.0 | 1508.2 | 1640.7 | 1783.7 | 1865.1 | 1932.3 | 1937.4 | 1942.9 |
| 45°   | 1279.1 | 1429.6 | 1565.7 | 1712.4 | 1792.9 | 1855.9 | 1857.8 | 1862.4 |
| 47.5° | 1201.0 | 1348.1 | 1483.4 | 1631.0 | 1710.6 | 1768.1 | 1769.9 | 1773.6 |
| 50°   | 1122.3 | 1266.7 | 1395.5 | 1543.2 | 1620.9 | 1681.6 | 1673.3 | 1677.0 |
| 52.5° | 1045.0 | 1181.2 | 1312.7 | 1448.4 | 1525.2 | 1579.0 | 1581.3 | 1574.0 |
| 55°   | 969.1  | 1097.5 | 1218.4 | 1349.1 | 1422.2 | 1464.1 | 1462.7 | 1465.4 |
| 57.5° | 892.3  | 1012.8 | 1123.7 | 1243.3 | 1314.6 | 1354.1 | 1362.4 | 1352.7 |
| 60°   | 814.1  | 927.3  | 1026.6 | 1134.7 | 1203.7 | 1236.8 | 1246.5 | 1237.3 |
| 62.5° | 736.4  | 840.3  | 930.5  | 1024.8 | 1088.7 | 1129.7 | 1128.7 | 1118.6 |
| 65°   | 658.7  | 753.0  | 833.4  | 913.5  | 969.1  | 1010.1 | 1008.2 | 999.0  |
| 67.5° | 586.9  | 664.6  | 736.9  | 801.7  | 850.0  | 878.1  | 887.7  | 876.7  |
| 70°   | 507.8  | 575.0  | 638.4  | 690.4  | 730.4  | 755.7  | 764.9  | 755.3  |
| 72.5° | 428.7  | 485.7  | 530.3  | 580.5  | 611.3  | 632.4  | 642.1  | 632.9  |
| 75°   | 350.5  | 397.4  | 433.7  | 472.8  | 494.5  | 512.4  | 523.4  | 514.2  |
| 77.5° | 274.6  | 310.9  | 339.9  | 368.4  | 393.3  | 397.4  | 407.1  | 401.1  |
| 80°   | 202.4  | 228.6  | 249.8  | 268.6  | 286.6  | 288.4  | 296.2  | 292.5  |
| 82.5° | 134.8  | 152.2  | 157.8  | 177.5  | 189.0  | 187.2  | 195.0  | 192.3  |
| 85°   | 71.3   | 81.9   | 91.5   | 97.5   | 104.0  | 98.0   | 104.9  | 102.1  |
| 87.5° | 23.9   | 25.3   | 22.1   | 31.3   | 34.5   | 29.4   | 33.6   | 32.2   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)