

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: P838152

Luminaire Tested: **ORLG-24-4-INS-ASY2R-LD4-3STD-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: P838152  
Test Lab: INNOVATION CENTER(G2)  
Issue Date: 5/21/2024  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: FAIL-SAFE  
Catalog Number: ORLG-24-4-INS-ASY2R-LD4-3STD-20-120-EDD-90  
Description: 2FT x 4FT ORL LED LUMINAIRE WITH asymmetric/symmetric lens v2 and  
RFI grid  
Light Source: 2000K CCT, 90 CRI LEDS  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

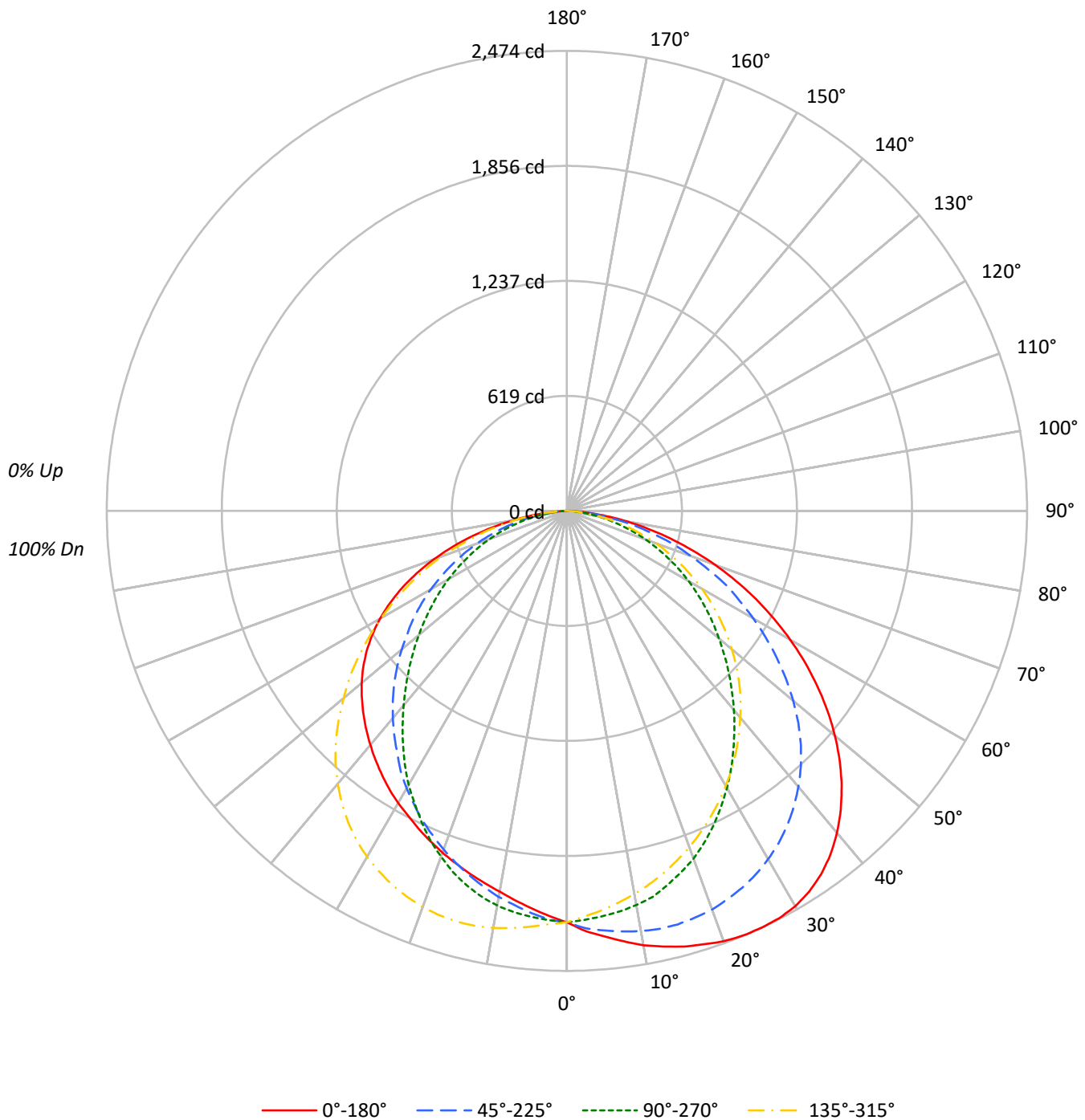
Lumens per Lamp: N/A  
Luminaire Lumens: 6490.6 lumens  
Efficiency: N/A  
Efficacy: 65.0 lumens/watt  
Spacing Criteria (0/90/45): 1.43 / 1.16 / 1.4  
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')  
CIE Type: Direct

Input Watts (W): 99.9  
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  | 30  | 10  | 50  | 30 | 10 |
| RCR |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |
| 0   | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 |    |    |
| 1   | 109 | 104 | 100 | 96  | 106 | 102 | 98  | 94  | 97  | 94  | 91  | 94  | 91  | 89  | 90  | 88  | 86  | 84  |    |    |
| 2   | 99  | 91  | 84  | 78  | 96  | 89  | 82  | 77  | 85  | 80  | 75  | 82  | 77  | 73  | 79  | 75  | 72  | 70  |    |    |
| 3   | 90  | 79  | 71  | 65  | 88  | 78  | 70  | 64  | 75  | 68  | 63  | 72  | 66  | 62  | 69  | 65  | 61  | 59  |    |    |
| 4   | 82  | 70  | 61  | 55  | 80  | 69  | 61  | 54  | 66  | 59  | 53  | 64  | 58  | 53  | 62  | 56  | 52  | 50  |    |    |
| 5   | 76  | 63  | 54  | 47  | 74  | 62  | 53  | 47  | 59  | 52  | 46  | 57  | 51  | 46  | 56  | 50  | 45  | 43  |    |    |
| 6   | 70  | 56  | 47  | 41  | 68  | 55  | 47  | 41  | 54  | 46  | 40  | 52  | 45  | 40  | 50  | 44  | 40  | 38  |    |    |
| 7   | 65  | 51  | 42  | 36  | 63  | 50  | 42  | 36  | 49  | 41  | 36  | 47  | 40  | 35  | 46  | 40  | 35  | 33  |    |    |
| 8   | 60  | 47  | 38  | 32  | 59  | 46  | 38  | 32  | 45  | 37  | 32  | 43  | 37  | 32  | 42  | 36  | 31  | 29  |    |    |
| 9   | 56  | 43  | 34  | 29  | 55  | 42  | 34  | 29  | 41  | 34  | 29  | 40  | 33  | 28  | 39  | 33  | 28  | 26  |    |    |
| 10  | 53  | 39  | 31  | 26  | 51  | 39  | 31  | 26  | 38  | 31  | 26  | 37  | 30  | 26  | 36  | 30  | 26  | 24  |    |    |

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

|     | 0°   | 90°  | 180° | 270° |
|-----|------|------|------|------|
| 0°  | 2977 | 2977 | 2977 | 2977 |
| 5°  | 3102 | 2955 | 2900 | 2960 |
| 10° | 3240 | 2940 | 2841 | 2944 |
| 15° | 3379 | 2903 | 2813 | 2903 |
| 20° | 3527 | 2850 | 2800 | 2834 |
| 25° | 3673 | 2770 | 2800 | 2742 |
| 30° | 3815 | 2674 | 2819 | 2644 |
| 35° | 3916 | 2564 | 2847 | 2523 |
| 40° | 3968 | 2454 | 2887 | 2398 |
| 45° | 3976 | 2342 | 2943 | 2283 |
| 50° | 3938 | 2235 | 3015 | 2175 |
| 55° | 3857 | 2135 | 3082 | 2076 |
| 60° | 3736 | 2032 | 3123 | 1979 |
| 65° | 3569 | 1912 | 3107 | 1868 |
| 70° | 3333 | 1772 | 2996 | 1740 |
| 75° | 2999 | 1580 | 2750 | 1572 |
| 80° | 2543 | 1323 | 2311 | 1344 |
| 85° | 1769 | 877  | 1467 | 900  |

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 210.0  | 3.2       |
| 10°-20°   | 608.2  | 9.4       |
| 20°-30°   | 932.1  | 14.4      |
| 30°-40°   | 1133.4 | 17.5      |
| 40°-50°   | 1178.3 | 18.2      |
| 50°-60°   | 1064.3 | 16.4      |
| 60°-70°   | 809.2  | 12.5      |
| 70°-80°   | 451.1  | 7.0       |
| 80°-90°   | 103.9  | 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°    | 1750.4 | 27.0      |
| 0°-40°    | 2883.8 | 44.4      |
| 0°-60°    | 5126.4 | 79.0      |
| 0°-90°    | 6490.6 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 6490.6 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 90°  | 180° | 270° | 360° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 2212 | 2212 | 2212 | 2212 | 2212 |      |
| 5°  | 2297 | 2188 | 2147 | 2192 | 2297 | 221  |
| 15° | 2426 | 2084 | 2019 | 2084 | 2426 | 688  |
| 25° | 2474 | 1866 | 1886 | 1847 | 2474 | 1143 |
| 35° | 2384 | 1561 | 1733 | 1536 | 2384 | 1489 |
| 45° | 2090 | 1231 | 1547 | 1200 | 2090 | 1609 |
| 55° | 1644 | 910  | 1314 | 885  | 1644 | 1468 |
| 65° | 1121 | 601  | 976  | 587  | 1121 | 1108 |
| 75° | 577  | 304  | 529  | 302  | 577  | 613  |
| 85° | 115  | 57   | 95   | 58   | 115  | 144  |
| 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°    | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 |
| 2.5°  | 2261.3 | 2228.3 | 2228.8 | 2257.7 | 2235.5 | 2246.4 | 2215.4 | 2227.3 | 2223.6 | 2226.2 | 2200.9 |
| 5°    | 2296.9 | 2261.3 | 2260.8 | 2285.6 | 2260.8 | 2265.4 | 2226.2 | 2234.0 | 2222.6 | 2215.4 | 2188.0 |
| 7.5°  | 2334.6 | 2299.0 | 2295.4 | 2317.1 | 2284.5 | 2280.9 | 2237.6 | 2237.6 | 2216.9 | 2198.9 | 2173.1 |
| 10°   | 2371.8 | 2335.1 | 2330.5 | 2347.0 | 2306.7 | 2294.9 | 2242.2 | 2234.0 | 2206.6 | 2179.8 | 2151.9 |
| 12.5° | 2399.6 | 2362.5 | 2358.9 | 2369.2 | 2323.8 | 2302.1 | 2242.2 | 2226.2 | 2186.0 | 2148.3 | 2126.6 |
| 15°   | 2425.9 | 2387.7 | 2377.9 | 2383.1 | 2331.0 | 2302.1 | 2235.0 | 2210.2 | 2158.6 | 2109.1 | 2083.8 |
| 17.5° | 2444.5 | 2407.9 | 2398.1 | 2397.6 | 2334.6 | 2293.3 | 2219.5 | 2185.5 | 2123.5 | 2063.7 | 2038.4 |
| 20°   | 2463.1 | 2426.5 | 2414.1 | 2404.8 | 2333.6 | 2281.4 | 2196.8 | 2150.9 | 2078.6 | 2011.6 | 1990.4 |
| 22.5° | 2472.4 | 2434.7 | 2421.3 | 2407.4 | 2326.9 | 2259.8 | 2168.9 | 2110.6 | 2028.1 | 1948.1 | 1930.5 |
| 25°   | 2473.9 | 2435.2 | 2420.8 | 2400.7 | 2313.4 | 2234.0 | 2132.8 | 2062.1 | 1969.8 | 1881.0 | 1866.0 |
| 27.5° | 2469.8 | 2427.5 | 2413.0 | 2388.8 | 2293.3 | 2202.5 | 2090.0 | 2006.9 | 1907.8 | 1809.8 | 1793.8 |
| 30°   | 2455.4 | 2412.5 | 2398.6 | 2367.1 | 2264.9 | 2163.8 | 2043.0 | 1945.5 | 1839.2 | 1735.0 | 1721.0 |
| 32.5° | 2426.5 | 2384.7 | 2373.3 | 2341.8 | 2234.0 | 2118.9 | 1988.3 | 1879.4 | 1763.3 | 1663.7 | 1643.1 |
| 35°   | 2384.1 | 2342.3 | 2335.1 | 2302.1 | 2190.6 | 2065.2 | 1928.5 | 1807.2 | 1682.8 | 1581.2 | 1561.0 |
| 37.5° | 2328.9 | 2293.8 | 2283.0 | 2250.5 | 2139.5 | 2004.3 | 1859.8 | 1728.8 | 1600.8 | 1491.4 | 1479.0 |
| 40°   | 2259.3 | 2226.2 | 2218.0 | 2189.1 | 2080.2 | 1936.7 | 1785.5 | 1647.7 | 1516.1 | 1414.5 | 1396.9 |
| 42.5° | 2179.8 | 2148.8 | 2144.2 | 2114.2 | 2006.9 | 1861.9 | 1705.0 | 1563.6 | 1427.9 | 1329.9 | 1312.3 |
| 45°   | 2089.5 | 2059.5 | 2058.5 | 2030.1 | 1926.9 | 1778.8 | 1620.4 | 1478.5 | 1341.7 | 1240.1 | 1230.8 |
| 47.5° | 1989.9 | 1963.0 | 1963.0 | 1936.7 | 1837.6 | 1687.5 | 1533.2 | 1389.7 | 1255.0 | 1165.2 | 1148.7 |
| 50°   | 1881.5 | 1856.2 | 1848.5 | 1835.6 | 1739.1 | 1587.9 | 1441.3 | 1303.0 | 1169.4 | 1083.7 | 1067.7 |
| 52.5° | 1765.9 | 1744.2 | 1749.4 | 1725.7 | 1632.3 | 1484.2 | 1348.4 | 1205.5 | 1083.2 | 1005.3 | 989.3  |
| 55°   | 1644.1 | 1613.2 | 1617.8 | 1609.0 | 1520.8 | 1377.3 | 1244.2 | 1125.0 | 998.6  | 925.3  | 910.3  |
| 57.5° | 1517.7 | 1477.4 | 1494.0 | 1488.8 | 1402.1 | 1267.9 | 1148.7 | 1033.6 | 914.4  | 846.8  | 832.4  |
| 60°   | 1388.2 | 1349.5 | 1366.5 | 1361.8 | 1280.3 | 1158.5 | 1050.2 | 943.3  | 830.8  | 769.4  | 755.0  |
| 62.5° | 1255.0 | 1219.4 | 1234.9 | 1231.3 | 1156.5 | 1046.5 | 952.1  | 854.1  | 746.7  | 691.5  | 678.1  |
| 65°   | 1120.9 | 1086.8 | 1100.7 | 1098.1 | 1029.0 | 945.4  | 851.5  | 761.7  | 662.1  | 614.1  | 600.7  |
| 67.5° | 983.6  | 952.1  | 965.0  | 965.0  | 901.5  | 821.5  | 750.3  | 668.3  | 579.0  | 537.7  | 525.3  |
| 70°   | 847.3  | 817.9  | 829.3  | 828.3  | 774.6  | 709.6  | 648.2  | 574.9  | 494.9  | 460.8  | 450.5  |
| 72.5° | 710.1  | 684.3  | 694.6  | 693.6  | 648.7  | 606.9  | 546.0  | 482.5  | 412.8  | 385.5  | 376.2  |
| 75°   | 576.9  | 552.7  | 562.5  | 561.5  | 524.8  | 485.6  | 444.8  | 392.2  | 332.3  | 313.2  | 304.0  |
| 77.5° | 450.0  | 425.2  | 433.5  | 433.5  | 406.6  | 378.3  | 345.8  | 305.0  | 262.7  | 242.0  | 235.3  |
| 80°   | 328.2  | 316.3  | 312.2  | 312.7  | 294.7  | 276.1  | 259.6  | 220.4  | 189.4  | 175.5  | 170.8  |
| 82.5° | 215.7  | 205.9  | 201.8  | 202.8  | 192.5  | 181.1  | 170.8  | 143.5  | 122.8  | 114.6  | 112.0  |
| 85°   | 114.6  | 107.3  | 103.7  | 106.3  | 104.2  | 98.0   | 92.9   | 74.3   | 61.4   | 58.3   | 56.8   |
| 87.5° | 36.1   | 31.5   | 28.9   | 38.2   | 32.5   | 28.9   | 27.9   | 22.2   | 17.0   | 17.0   | 16.5   |
| 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°    | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 |
| 2.5°  | 2209.2 | 2209.2 | 2189.1 | 2184.4 | 2182.4 | 2184.9 | 2164.8 | 2161.2 | 2190.1 | 2180.3 | 2158.1 |
| 5°    | 2191.7 | 2190.6 | 2162.2 | 2157.1 | 2157.1 | 2154.0 | 2131.3 | 2126.1 | 2155.0 | 2146.8 | 2122.5 |
| 7.5°  | 2170.0 | 2166.9 | 2133.3 | 2129.7 | 2124.6 | 2122.5 | 2097.2 | 2093.6 | 2118.4 | 2113.2 | 2090.5 |
| 10°   | 2143.7 | 2140.6 | 2100.8 | 2098.2 | 2092.6 | 2088.4 | 2064.7 | 2062.1 | 2087.4 | 2079.2 | 2061.1 |
| 12.5° | 2109.1 | 2103.4 | 2062.6 | 2060.1 | 2055.4 | 2053.9 | 2030.6 | 2029.6 | 2057.5 | 2049.2 | 2030.1 |
| 15°   | 2063.7 | 2059.0 | 2013.6 | 2014.6 | 2015.2 | 2015.2 | 1996.6 | 1995.6 | 2022.9 | 2019.3 | 1998.7 |
| 17.5° | 2013.6 | 2007.4 | 1964.1 | 1967.2 | 1970.8 | 1974.9 | 1960.5 | 1963.0 | 1991.9 | 1987.3 | 1968.7 |
| 20°   | 1956.9 | 1950.7 | 1908.3 | 1917.1 | 1924.9 | 1933.1 | 1923.8 | 1931.0 | 1957.9 | 1955.8 | 1941.9 |
| 22.5° | 1893.4 | 1887.2 | 1848.0 | 1861.4 | 1874.3 | 1889.8 | 1885.6 | 1893.9 | 1922.3 | 1921.8 | 1909.4 |
| 25°   | 1816.0 | 1817.5 | 1782.9 | 1799.5 | 1821.1 | 1842.8 | 1844.4 | 1857.8 | 1889.2 | 1886.2 | 1874.8 |
| 27.5° | 1743.7 | 1745.8 | 1709.1 | 1737.0 | 1765.9 | 1793.8 | 1800.5 | 1819.1 | 1851.1 | 1848.5 | 1838.7 |
| 30°   | 1667.9 | 1670.4 | 1634.8 | 1673.0 | 1708.1 | 1742.2 | 1756.6 | 1781.9 | 1814.4 | 1814.4 | 1804.1 |
| 32.5° | 1588.9 | 1593.6 | 1556.4 | 1607.5 | 1648.3 | 1688.0 | 1713.3 | 1739.6 | 1776.8 | 1775.7 | 1766.9 |
| 35°   | 1507.9 | 1513.0 | 1479.0 | 1544.0 | 1584.8 | 1633.3 | 1664.8 | 1699.9 | 1732.9 | 1733.4 | 1726.7 |
| 37.5° | 1425.3 | 1431.5 | 1400.6 | 1471.8 | 1518.2 | 1575.5 | 1615.7 | 1650.8 | 1687.5 | 1689.5 | 1683.3 |
| 40°   | 1343.3 | 1350.0 | 1323.1 | 1391.8 | 1450.6 | 1514.6 | 1561.0 | 1602.3 | 1642.6 | 1643.6 | 1639.5 |
| 42.5° | 1261.2 | 1268.4 | 1248.3 | 1315.4 | 1382.0 | 1450.6 | 1505.3 | 1552.3 | 1593.6 | 1596.1 | 1591.5 |
| 45°   | 1181.2 | 1187.4 | 1173.0 | 1246.3 | 1310.2 | 1385.1 | 1448.0 | 1501.2 | 1543.0 | 1546.6 | 1545.0 |
| 47.5° | 1101.8 | 1107.4 | 1094.5 | 1161.6 | 1235.4 | 1314.9 | 1387.7 | 1446.5 | 1490.9 | 1495.0 | 1494.0 |
| 50°   | 1023.8 | 1028.5 | 1014.5 | 1084.7 | 1158.0 | 1242.6 | 1318.5 | 1386.6 | 1436.2 | 1440.3 | 1439.8 |
| 52.5° | 946.4  | 951.1  | 939.2  | 1013.0 | 1079.6 | 1168.8 | 1251.4 | 1325.2 | 1374.2 | 1380.4 | 1381.5 |
| 55°   | 871.6  | 873.7  | 864.4  | 935.1  | 999.6  | 1093.0 | 1187.9 | 1259.7 | 1308.7 | 1313.9 | 1317.0 |
| 57.5° | 796.8  | 797.3  | 789.6  | 857.2  | 919.1  | 1014.5 | 1114.1 | 1189.5 | 1235.9 | 1241.1 | 1245.7 |
| 60°   | 722.5  | 721.9  | 713.2  | 778.7  | 838.1  | 932.5  | 1036.2 | 1111.0 | 1155.9 | 1160.6 | 1166.8 |
| 62.5° | 648.7  | 647.1  | 639.4  | 699.8  | 755.5  | 848.9  | 953.1  | 1025.4 | 1068.2 | 1071.3 | 1079.6 |
| 65°   | 575.4  | 573.8  | 566.6  | 622.4  | 672.9  | 762.2  | 864.4  | 933.0  | 971.7  | 975.8  | 974.3  |
| 67.5° | 503.1  | 500.0  | 494.4  | 544.4  | 590.4  | 672.9  | 771.0  | 836.5  | 868.5  | 872.1  | 881.9  |
| 70°   | 430.9  | 427.3  | 414.4  | 467.5  | 507.8  | 581.6  | 672.9  | 731.2  | 758.1  | 761.7  | 760.1  |
| 72.5° | 359.7  | 356.1  | 342.1  | 391.2  | 425.2  | 489.7  | 571.3  | 619.8  | 643.0  | 646.1  | 646.1  |
| 75°   | 290.5  | 288.5  | 279.7  | 316.9  | 345.2  | 397.9  | 467.0  | 507.3  | 525.3  | 528.9  | 527.9  |
| 77.5° | 224.0  | 222.4  | 213.6  | 245.6  | 267.8  | 307.0  | 362.8  | 394.3  | 407.7  | 411.8  | 420.6  |
| 80°   | 160.5  | 160.0  | 146.0  | 177.5  | 187.3  | 220.4  | 261.1  | 285.4  | 292.6  | 298.3  | 304.5  |
| 82.5° | 102.7  | 103.2  | 89.3   | 116.1  | 120.2  | 141.4  | 166.7  | 181.6  | 186.8  | 191.5  | 196.1  |
| 85°   | 50.1   | 52.1   | 44.4   | 61.4   | 61.9   | 72.8   | 83.6   | 89.3   | 91.3   | 95.0   | 99.1   |
| 87.5° | 12.9   | 15.0   | 8.3    | 17.5   | 15.5   | 20.1   | 23.2   | 24.8   | 24.3   | 26.8   | 28.4   |
| 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°    | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 |
| 2.5°  | 2165.3 | 2181.8 | 2173.6 | 2200.4 | 2210.7 | 2194.2 | 2223.1 | 2223.6 | 2203.0 | 2227.3 | 2240.7 |
| 5°    | 2131.8 | 2148.8 | 2143.7 | 2171.5 | 2184.4 | 2170.0 | 2205.1 | 2211.8 | 2191.7 | 2219.0 | 2240.7 |
| 7.5°  | 2097.7 | 2117.9 | 2111.1 | 2139.5 | 2155.0 | 2143.7 | 2181.3 | 2192.2 | 2176.7 | 2206.6 | 2235.5 |
| 10°   | 2068.3 | 2085.3 | 2078.1 | 2108.1 | 2121.5 | 2112.2 | 2149.3 | 2169.5 | 2155.0 | 2191.7 | 2226.2 |
| 12.5° | 2039.4 | 2053.4 | 2045.1 | 2069.9 | 2082.8 | 2070.9 | 2116.3 | 2134.9 | 2124.6 | 2162.8 | 2207.1 |
| 15°   | 2002.3 | 2017.7 | 2006.4 | 2028.6 | 2038.4 | 2028.1 | 2065.2 | 2097.2 | 2084.3 | 2126.1 | 2175.1 |
| 17.5° | 1973.9 | 1982.7 | 1967.2 | 1984.7 | 1990.4 | 1976.5 | 2014.1 | 2045.6 | 2036.3 | 2081.7 | 2138.5 |
| 20°   | 1942.4 | 1949.6 | 1928.0 | 1937.8 | 1937.2 | 1919.7 | 1954.3 | 1985.2 | 1979.0 | 2029.1 | 2093.6 |
| 22.5° | 1907.3 | 1910.9 | 1885.6 | 1887.7 | 1886.7 | 1857.8 | 1888.7 | 1920.2 | 1917.6 | 1968.2 | 2040.5 |
| 25°   | 1870.2 | 1870.7 | 1838.2 | 1837.1 | 1825.8 | 1791.7 | 1819.1 | 1854.7 | 1846.9 | 1901.6 | 1977.5 |
| 27.5° | 1833.5 | 1828.4 | 1789.1 | 1779.8 | 1761.8 | 1721.0 | 1745.3 | 1777.3 | 1772.6 | 1826.3 | 1910.4 |
| 30°   | 1794.3 | 1787.6 | 1739.6 | 1722.6 | 1696.2 | 1649.3 | 1669.4 | 1699.3 | 1701.9 | 1748.9 | 1837.1 |
| 32.5° | 1757.1 | 1740.1 | 1687.0 | 1662.2 | 1629.2 | 1574.5 | 1585.3 | 1615.7 | 1619.9 | 1667.3 | 1758.2 |
| 35°   | 1709.1 | 1697.8 | 1632.3 | 1589.9 | 1557.4 | 1497.6 | 1508.9 | 1530.1 | 1536.3 | 1582.7 | 1675.1 |
| 37.5° | 1663.7 | 1645.7 | 1576.0 | 1524.4 | 1482.6 | 1419.6 | 1422.7 | 1444.4 | 1450.6 | 1497.6 | 1588.9 |
| 40°   | 1616.8 | 1591.0 | 1516.1 | 1455.8 | 1407.8 | 1341.7 | 1338.1 | 1360.8 | 1365.5 | 1411.4 | 1494.0 |
| 42.5° | 1566.7 | 1535.8 | 1451.6 | 1385.6 | 1330.4 | 1263.3 | 1256.1 | 1275.7 | 1280.8 | 1325.7 | 1406.7 |
| 45°   | 1516.1 | 1479.0 | 1385.6 | 1313.3 | 1253.0 | 1184.3 | 1177.1 | 1192.1 | 1199.8 | 1242.1 | 1320.0 |
| 47.5° | 1462.5 | 1419.1 | 1317.5 | 1237.0 | 1174.5 | 1105.9 | 1097.1 | 1112.1 | 1118.3 | 1160.1 | 1233.9 |
| 50°   | 1406.2 | 1353.6 | 1247.3 | 1158.5 | 1096.6 | 1029.0 | 1016.1 | 1033.6 | 1039.3 | 1078.5 | 1150.8 |
| 52.5° | 1344.3 | 1286.0 | 1172.5 | 1079.6 | 1017.6 | 953.1  | 937.7  | 954.7  | 961.4  | 999.6  | 1066.2 |
| 55°   | 1278.8 | 1215.8 | 1097.1 | 1006.8 | 939.7  | 876.8  | 863.9  | 870.6  | 885.0  | 921.1  | 983.1  |
| 57.5° | 1205.0 | 1142.5 | 1017.6 | 925.8  | 861.3  | 800.9  | 790.1  | 796.3  | 809.7  | 844.8  | 900.5  |
| 60°   | 1126.5 | 1060.5 | 936.6  | 844.8  | 782.3  | 725.0  | 715.2  | 720.9  | 735.4  | 767.4  | 819.0  |
| 62.5° | 1049.1 | 974.8  | 853.0  | 761.7  | 704.9  | 651.8  | 649.2  | 647.1  | 660.5  | 691.5  | 736.9  |
| 65°   | 955.2  | 884.0  | 765.8  | 679.1  | 627.5  | 579.5  | 569.2  | 573.8  | 586.7  | 615.1  | 662.6  |
| 67.5° | 854.6  | 790.1  | 676.5  | 596.6  | 550.6  | 507.8  | 499.0  | 501.1  | 514.5  | 539.3  | 580.6  |
| 70°   | 747.8  | 691.0  | 585.2  | 513.5  | 474.8  | 434.5  | 428.8  | 429.4  | 442.3  | 463.9  | 500.0  |
| 72.5° | 635.8  | 584.7  | 492.8  | 431.4  | 399.4  | 370.5  | 365.4  | 359.2  | 371.0  | 389.6  | 420.6  |
| 75°   | 521.7  | 476.8  | 401.0  | 350.9  | 325.6  | 301.4  | 296.7  | 290.5  | 302.4  | 318.4  | 342.7  |
| 77.5° | 406.6  | 370.5  | 311.7  | 273.0  | 253.4  | 235.3  | 231.2  | 224.5  | 236.3  | 248.2  | 267.3  |
| 80°   | 294.1  | 267.8  | 232.7  | 192.0  | 185.3  | 173.4  | 169.3  | 162.0  | 173.4  | 181.1  | 195.6  |
| 82.5° | 189.9  | 172.4  | 152.2  | 123.9  | 122.8  | 114.0  | 112.0  | 103.7  | 114.0  | 118.7  | 129.5  |
| 85°   | 96.0   | 87.7   | 82.6   | 63.0   | 65.0   | 59.3   | 58.8   | 50.1   | 58.3   | 60.4   | 66.6   |
| 87.5° | 27.4   | 28.9   | 25.8   | 15.5   | 19.6   | 18.6   | 18.6   | 13.4   | 18.6   | 18.6   | 21.2   |
| 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: P838152

CATALOG NUMBER: ORLG-24-4-INS-ASY2R-LD4-3STD-20-120-EDD-90

**CANDELA DISTRIBUTION (continued):**

|       | 295°   | 305°   | 315°   | 325°   | 335°   | 345°   | 355°   | 360°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 | 2212.3 |
| 2.5°  | 2214.4 | 2223.1 | 2225.2 | 2224.7 | 2230.4 | 2261.3 | 2251.0 | 2261.3 |
| 5°    | 2219.5 | 2239.1 | 2244.3 | 2251.5 | 2260.8 | 2295.9 | 2284.5 | 2296.9 |
| 7.5°  | 2222.6 | 2252.0 | 2263.4 | 2277.3 | 2292.3 | 2331.5 | 2322.2 | 2334.6 |
| 10°   | 2222.6 | 2260.8 | 2277.3 | 2300.5 | 2320.7 | 2366.1 | 2357.3 | 2371.8 |
| 12.5° | 2213.3 | 2262.4 | 2285.6 | 2318.1 | 2343.9 | 2392.9 | 2389.3 | 2399.6 |
| 15°   | 2194.2 | 2254.6 | 2286.6 | 2328.4 | 2360.4 | 2415.1 | 2413.6 | 2425.9 |
| 17.5° | 2168.4 | 2241.2 | 2279.9 | 2332.5 | 2372.8 | 2434.2 | 2437.8 | 2444.5 |
| 20°   | 2135.9 | 2215.9 | 2266.5 | 2331.0 | 2381.6 | 2449.2 | 2453.8 | 2463.1 |
| 22.5° | 2093.1 | 2185.5 | 2246.4 | 2324.3 | 2382.6 | 2455.4 | 2463.6 | 2472.4 |
| 25°   | 2042.5 | 2148.8 | 2220.0 | 2311.4 | 2377.4 | 2454.8 | 2466.2 | 2473.9 |
| 27.5° | 1984.7 | 2101.3 | 2186.5 | 2290.7 | 2363.0 | 2446.6 | 2460.5 | 2469.8 |
| 30°   | 1917.6 | 2050.8 | 2148.3 | 2263.9 | 2343.4 | 2431.1 | 2446.1 | 2455.4 |
| 32.5° | 1848.5 | 1995.0 | 2102.9 | 2229.3 | 2315.0 | 2406.3 | 2419.2 | 2426.5 |
| 35°   | 1773.1 | 1927.4 | 2048.2 | 2184.9 | 2278.3 | 2366.6 | 2376.4 | 2384.1 |
| 37.5° | 1691.1 | 1854.2 | 1985.7 | 2134.9 | 2226.7 | 2311.4 | 2320.1 | 2328.9 |
| 40°   | 1606.5 | 1777.3 | 1915.6 | 2073.5 | 2165.3 | 2243.8 | 2253.1 | 2259.3 |
| 42.5° | 1521.3 | 1692.1 | 1840.7 | 2001.2 | 2092.6 | 2167.9 | 2173.6 | 2179.8 |
| 45°   | 1435.1 | 1603.9 | 1756.6 | 1921.2 | 2011.6 | 2082.2 | 2084.3 | 2089.5 |
| 47.5° | 1347.4 | 1512.5 | 1664.3 | 1829.9 | 1919.2 | 1983.7 | 1985.7 | 1989.9 |
| 50°   | 1259.2 | 1421.2 | 1565.7 | 1731.3 | 1818.5 | 1886.7 | 1877.4 | 1881.5 |
| 52.5° | 1172.5 | 1325.2 | 1472.8 | 1625.0 | 1711.2 | 1771.6 | 1774.2 | 1765.9 |
| 55°   | 1087.3 | 1231.3 | 1367.0 | 1513.6 | 1595.6 | 1642.6 | 1641.0 | 1644.1 |
| 57.5° | 1001.1 | 1136.3 | 1260.7 | 1394.9 | 1474.9 | 1519.2 | 1528.5 | 1517.7 |
| 60°   | 913.4  | 1040.4 | 1151.8 | 1273.1 | 1350.5 | 1387.7 | 1398.5 | 1388.2 |
| 62.5° | 826.2  | 942.8  | 1044.0 | 1149.8 | 1221.5 | 1267.4 | 1266.4 | 1255.0 |
| 65°   | 739.0  | 844.8  | 935.1  | 1024.9 | 1087.3 | 1133.2 | 1131.2 | 1120.9 |
| 67.5° | 658.5  | 745.7  | 826.7  | 899.5  | 953.7  | 985.1  | 996.0  | 983.6  |
| 70°   | 569.7  | 645.1  | 716.3  | 774.6  | 819.5  | 847.9  | 858.2  | 847.3  |
| 72.5° | 481.0  | 544.9  | 595.0  | 651.3  | 685.8  | 709.6  | 720.4  | 710.1  |
| 75°   | 393.2  | 445.9  | 486.6  | 530.5  | 554.8  | 574.9  | 587.3  | 576.9  |
| 77.5° | 308.1  | 348.8  | 381.4  | 413.4  | 441.2  | 445.9  | 456.7  | 450.0  |
| 80°   | 227.1  | 256.5  | 280.2  | 301.4  | 321.5  | 323.6  | 332.3  | 328.2  |
| 82.5° | 151.2  | 170.8  | 177.0  | 199.2  | 212.1  | 210.0  | 218.8  | 215.7  |
| 85°   | 80.0   | 91.9   | 102.7  | 109.4  | 116.6  | 109.9  | 117.7  | 114.6  |
| 87.5° | 26.8   | 28.4   | 24.8   | 35.1   | 38.7   | 33.0   | 37.7   | 36.1   |
| 90°   | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    | 0.0    |

(END OF REPORT)