

Scaled data based on original data using

LM-41-14 Approved Method for Photometric Testing Of Indoor Fluorescent Luminaires

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: io LED

Report Number: P219535

Luminaire Tested: **LDSQ4B40D010 EU4B30509027 4LBSQLWWLI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P219535
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35471)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ4B40D010 EU4B30509027 4LBSQLWWLI
Description: PORTFOLIO 4 INCH SQUARE SINGLE WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 90CRI / 2700K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 2620.1 lumens
Efficiency: N/A
Efficacy: 60.9 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')

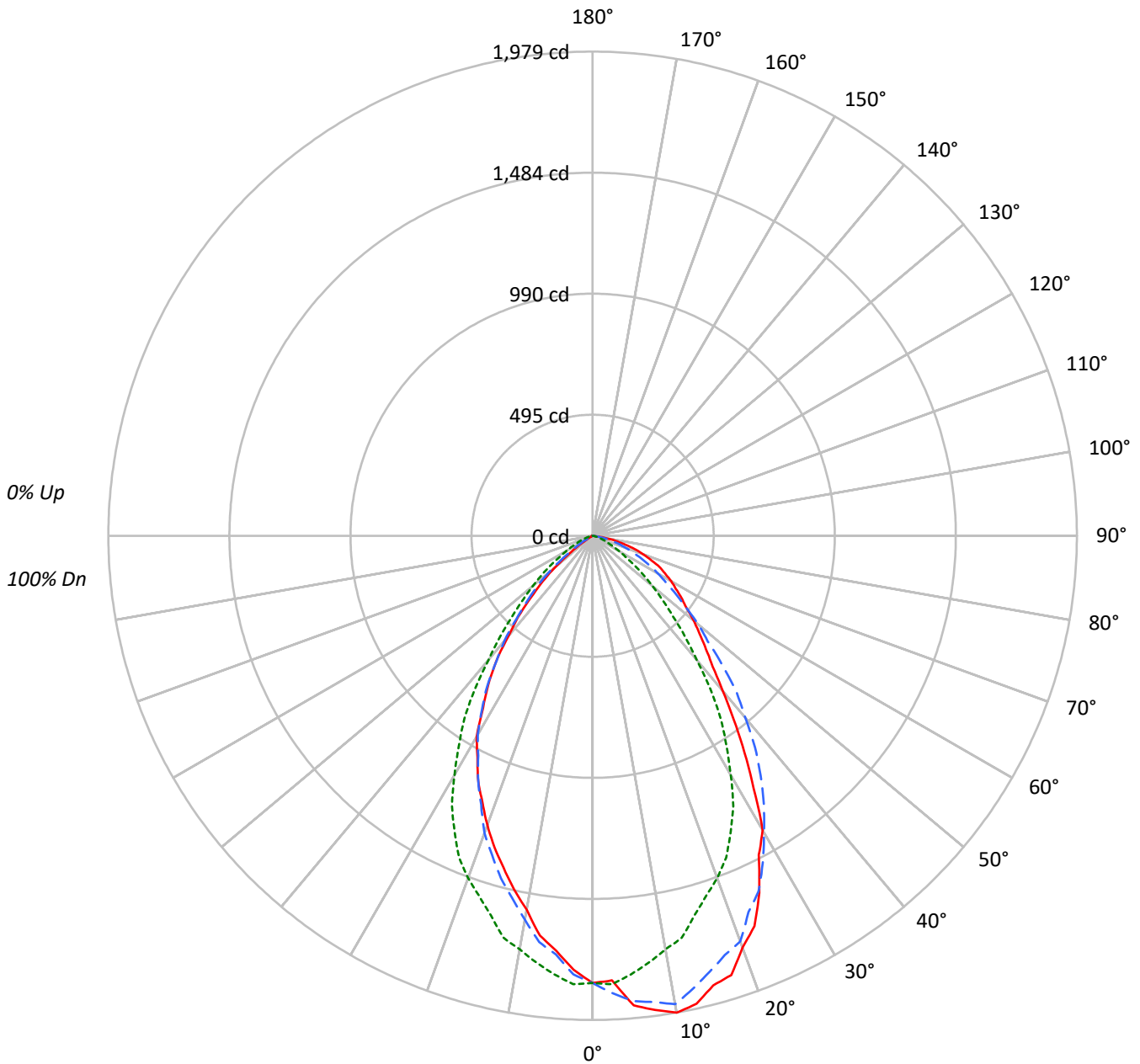
CIE Type: Direct
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P219535

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Luminous Intensity Polar Plot





TEST NUMBER: P219535

CATALOG NUMBER: LDSQ4B40D010 EU4B30509027 4LBSQLWWLI

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|----|
| RF | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 | | | | | | | | | 20 |
| RC | 80 | | | | | | | | | 50 | | | | | | | | | 30 | | | | | | | | | 10 | | | | | | | | | 0 |
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 | | | | | | | | | | | | | | | | |
| RCR | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 0 | 119 | 119 | 119 | 119 | 116 | 116 | 116 | 116 | 111 | 111 | 111 | 106 | 106 | 106 | 102 | 102 | 102 | 100 | | | | | | | | | | | | | | | | | | | |
| 1 | 112 | 108 | 105 | 102 | 109 | 106 | 103 | 101 | 102 | 100 | 98 | 98 | 96 | 95 | 95 | 93 | 92 | 90 | | | | | | | | | | | | | | | | | | | |
| 2 | 104 | 98 | 93 | 89 | 102 | 96 | 92 | 88 | 93 | 89 | 86 | 90 | 87 | 84 | 87 | 84 | 82 | 80 | | | | | | | | | | | | | | | | | | | |
| 3 | 97 | 89 | 83 | 78 | 95 | 88 | 82 | 77 | 85 | 80 | 76 | 82 | 78 | 75 | 80 | 77 | 74 | 72 | | | | | | | | | | | | | | | | | | | |
| 4 | 91 | 81 | 74 | 69 | 89 | 80 | 74 | 69 | 78 | 72 | 68 | 76 | 71 | 67 | 74 | 70 | 66 | 64 | | | | | | | | | | | | | | | | | | | |
| 5 | 85 | 75 | 67 | 62 | 83 | 74 | 67 | 62 | 72 | 66 | 61 | 70 | 65 | 60 | 68 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 6 | 80 | 69 | 61 | 56 | 78 | 68 | 61 | 56 | 66 | 60 | 55 | 65 | 59 | 55 | 63 | 58 | 54 | 53 | | | | | | | | | | | | | | | | | | | |
| 7 | 75 | 63 | 56 | 51 | 73 | 63 | 56 | 51 | 61 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 48 | | | | | | | | | | | | | | | | | | | |
| 8 | 70 | 59 | 52 | 47 | 69 | 58 | 51 | 46 | 57 | 51 | 46 | 56 | 50 | 46 | 55 | 50 | 46 | 44 | | | | | | | | | | | | | | | | | | | |
| 9 | 66 | 55 | 48 | 43 | 65 | 54 | 47 | 43 | 53 | 47 | 43 | 52 | 46 | 42 | 51 | 46 | 42 | 41 | | | | | | | | | | | | | | | | | | | |
| 10 | 62 | 51 | 44 | 40 | 61 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 48 | 43 | 39 | 38 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 177079 | 177079 | 177079 |
| 5° | 187343 | 174984 | 165609 |
| 10° | 194684 | 168813 | 152641 |
| 15° | 190797 | 161120 | 140901 |
| 20° | 184598 | 153423 | 129691 |
| 25° | 172189 | 142666 | 118306 |
| 30° | 155432 | 126259 | 105911 |
| 35° | 128043 | 108081 | 87869 |
| 40° | 104495 | 83427 | 67632 |
| 45° | 89778 | 63350 | 48650 |
| 50° | 81264 | 48228 | 30715 |
| 55° | 74771 | 34793 | 11113 |
| 60° | 71765 | 23773 | 1705 |
| 65° | 69341 | 16069 | 504 |
| 70° | 62087 | 11188 | 623 |
| 75° | 50867 | 5727 | 0 |
| 80° | 31799 | 2455 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P219535

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 171.3 | 6.5 |
| 10°-20° | 461.4 | 17.6 |
| 20°-30° | 616.1 | 23.5 |
| 30°-40° | 584.9 | 22.3 |
| 40°-50° | 404.3 | 15.4 |
| 50°-60° | 223.4 | 8.5 |
| 60°-70° | 110.9 | 4.2 |
| 70°-80° | 43.7 | 1.7 |
| 80°-90° | 4.2 | 0.2 |
| 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° | 1248.8 | 47.7 |
| 0°-40° | 1833.6 | 70.0 |
| 0°-60° | 2461.3 | 93.9 |
| 0°-90° | 2620.1 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2620.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1828 | 1828 | 1828 | 1828 | 1828 | |
| 5° | 1926 | 1909 | 1799 | 1718 | 1703 | 184 |
| 15° | 1902 | 1845 | 1606 | 1449 | 1405 | 538 |
| 25° | 1611 | 1604 | 1335 | 1107 | 1107 | 734 |
| 35° | 1083 | 1197 | 914 | 752 | 743 | 678 |
| 45° | 655 | 752 | 462 | 379 | 355 | 511 |
| 55° | 443 | 416 | 206 | 105 | 66 | 398 |
| 65° | 302 | 219 | 70 | 2 | 2 | 294 |
| 75° | 136 | 83 | 15 | 0 | 0 | 145 |
| 85° | 0 | 2 | 0 | 0 | 0 | 12 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P219535

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CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 |
| 2.5° | 1819.1 | 1869.5 | 1873.9 | 1869.5 | 1876.1 | 1873.9 | 1884.9 | 1873.9 | 1887.1 | 1867.3 | 1871.7 |
| 5° | 1926.5 | 1906.8 | 1948.4 | 1926.5 | 1926.5 | 1924.3 | 1917.7 | 1915.6 | 1924.3 | 1895.8 | 1909.0 |
| 7.5° | 1955.0 | 1983.5 | 2020.8 | 1974.7 | 1976.9 | 1976.9 | 1963.8 | 1959.4 | 1959.4 | 1906.8 | 1922.1 |
| 10° | 1979.1 | 1961.6 | 1981.3 | 1963.8 | 1979.1 | 1976.9 | 1985.7 | 1957.2 | 1976.9 | 1946.2 | 1944.0 |
| 12.5° | 1959.4 | 1952.8 | 1979.1 | 1950.6 | 1941.9 | 1944.0 | 1933.1 | 1926.5 | 1933.1 | 1898.0 | 1895.8 |
| 15° | 1902.4 | 1909.0 | 1948.4 | 1917.7 | 1913.4 | 1909.0 | 1895.8 | 1873.9 | 1891.4 | 1843.2 | 1845.4 |
| 17.5° | 1882.7 | 1871.7 | 1878.3 | 1852.0 | 1858.6 | 1854.2 | 1852.0 | 1832.3 | 1827.9 | 1797.2 | 1797.2 |
| 20° | 1790.6 | 1814.7 | 1814.7 | 1797.2 | 1797.2 | 1795.0 | 1766.5 | 1784.0 | 1764.3 | 1755.6 | 1764.3 |
| 22.5° | 1727.1 | 1729.3 | 1729.3 | 1713.9 | 1716.1 | 1707.3 | 1692.0 | 1681.0 | 1692.0 | 1681.0 | 1663.5 |
| 25° | 1610.9 | 1615.3 | 1641.6 | 1613.1 | 1608.7 | 1617.5 | 1604.3 | 1597.8 | 1595.6 | 1569.3 | 1604.3 |
| 27.5° | 1470.6 | 1514.5 | 1512.3 | 1501.3 | 1514.5 | 1496.9 | 1490.4 | 1492.6 | 1499.1 | 1496.9 | 1505.7 |
| 30° | 1389.5 | 1396.1 | 1402.7 | 1393.9 | 1396.1 | 1389.5 | 1389.5 | 1391.7 | 1409.3 | 1402.7 | 1400.5 |
| 32.5° | 1225.2 | 1247.1 | 1264.6 | 1264.6 | 1266.8 | 1273.4 | 1271.2 | 1317.2 | 1328.2 | 1306.3 | 1301.9 |
| 35° | 1082.7 | 1098.0 | 1113.4 | 1115.6 | 1144.1 | 1146.3 | 1148.5 | 1161.6 | 1192.3 | 1198.9 | 1196.7 |
| 37.5° | 946.8 | 962.2 | 966.5 | 986.3 | 1001.6 | 1017.0 | 1034.5 | 1052.0 | 1078.3 | 1100.2 | 1089.3 |
| 40° | 826.3 | 832.8 | 843.8 | 852.6 | 883.3 | 883.3 | 892.0 | 927.1 | 955.6 | 973.1 | 970.9 |
| 42.5° | 725.5 | 727.6 | 736.4 | 751.8 | 780.2 | 773.7 | 780.2 | 804.4 | 846.0 | 848.2 | 872.3 |
| 45° | 655.3 | 653.1 | 659.7 | 661.9 | 679.4 | 688.2 | 692.6 | 710.1 | 745.2 | 749.6 | 751.8 |
| 47.5° | 591.8 | 589.6 | 600.5 | 604.9 | 611.5 | 620.3 | 620.3 | 622.4 | 635.6 | 646.6 | 637.8 |
| 50° | 539.2 | 539.2 | 539.2 | 543.5 | 554.5 | 552.3 | 554.5 | 563.3 | 569.8 | 565.5 | 563.3 |
| 52.5° | 482.2 | 490.9 | 497.5 | 499.7 | 501.9 | 501.9 | 504.1 | 499.7 | 497.5 | 490.9 | 477.8 |
| 55° | 442.7 | 451.5 | 451.5 | 451.5 | 451.5 | 460.3 | 449.3 | 451.5 | 451.5 | 434.0 | 416.4 |
| 57.5° | 403.3 | 412.0 | 418.6 | 409.8 | 418.6 | 409.8 | 405.5 | 403.3 | 398.9 | 381.4 | 355.1 |
| 60° | 370.4 | 374.8 | 372.6 | 370.4 | 374.8 | 368.2 | 363.8 | 355.1 | 350.7 | 326.6 | 309.0 |
| 62.5° | 333.1 | 335.3 | 337.5 | 333.1 | 328.8 | 326.6 | 317.8 | 304.6 | 295.9 | 276.2 | 260.8 |
| 65° | 302.5 | 295.9 | 293.7 | 291.5 | 287.1 | 280.5 | 274.0 | 258.6 | 252.0 | 234.5 | 219.2 |
| 67.5° | 256.4 | 254.2 | 258.6 | 252.0 | 241.1 | 241.1 | 234.5 | 221.4 | 206.0 | 195.1 | 179.7 |
| 70° | 219.2 | 217.0 | 212.6 | 206.0 | 203.8 | 195.1 | 195.1 | 179.7 | 175.3 | 155.6 | 142.5 |
| 72.5° | 179.7 | 179.7 | 173.1 | 166.6 | 160.0 | 155.6 | 153.4 | 142.5 | 135.9 | 124.9 | 114.0 |
| 75° | 135.9 | 135.9 | 133.7 | 127.1 | 122.7 | 118.4 | 116.2 | 107.4 | 100.8 | 89.9 | 83.3 |
| 77.5° | 96.4 | 96.4 | 87.7 | 83.3 | 85.5 | 81.1 | 76.7 | 74.5 | 72.3 | 65.8 | 57.0 |
| 80° | 57.0 | 54.8 | 48.2 | 50.4 | 48.2 | 48.2 | 46.0 | 43.8 | 39.5 | 35.1 | 30.7 |
| 82.5° | 15.3 | 17.5 | 17.5 | 17.5 | 19.7 | 15.3 | 15.3 | 15.3 | 17.5 | 17.5 | 11.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 2.2 | 2.2 |
| 87.5° | 2.2 | 4.4 | 8.8 | 8.8 | 8.8 | 8.8 | 8.8 | 6.6 | 6.6 | 6.6 | 4.4 |
| 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):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 |
| 2.5° | 1849.8 | 1847.6 | 1849.8 | 1834.5 | 1869.5 | 1843.2 | 1838.8 | 1834.5 | 1849.8 | 1834.5 | 1812.5 |
| 5° | 1889.3 | 1867.3 | 1860.8 | 1854.2 | 1873.9 | 1843.2 | 1836.6 | 1838.8 | 1827.9 | 1799.4 | 1801.6 |
| 7.5° | 1902.4 | 1882.7 | 1862.9 | 1821.3 | 1838.8 | 1832.3 | 1814.7 | 1801.6 | 1784.0 | 1759.9 | 1755.6 |
| 10° | 1906.8 | 1884.9 | 1856.4 | 1843.2 | 1816.9 | 1808.2 | 1801.6 | 1779.7 | 1757.7 | 1716.1 | 1705.1 |
| 12.5° | 1893.6 | 1867.3 | 1832.3 | 1821.3 | 1801.6 | 1773.1 | 1757.7 | 1735.8 | 1716.1 | 1683.2 | 1659.1 |
| 15° | 1836.6 | 1814.7 | 1803.8 | 1766.5 | 1757.7 | 1740.2 | 1709.5 | 1678.8 | 1650.4 | 1606.5 | 1593.4 |
| 17.5° | 1770.9 | 1762.1 | 1751.2 | 1722.7 | 1720.5 | 1703.0 | 1674.5 | 1648.2 | 1610.9 | 1543.0 | 1521.0 |
| 20° | 1703.0 | 1703.0 | 1667.9 | 1656.9 | 1678.8 | 1643.8 | 1621.9 | 1597.8 | 1521.0 | 1488.2 | 1448.7 |
| 22.5° | 1652.5 | 1628.4 | 1608.7 | 1591.2 | 1593.4 | 1571.5 | 1540.8 | 1492.6 | 1464.1 | 1424.6 | 1378.6 |
| 25° | 1553.9 | 1562.7 | 1518.9 | 1512.3 | 1518.9 | 1468.4 | 1453.1 | 1413.7 | 1372.0 | 1334.7 | 1299.7 |
| 27.5° | 1492.6 | 1468.4 | 1440.0 | 1415.8 | 1415.8 | 1396.1 | 1352.3 | 1343.5 | 1280.0 | 1244.9 | 1201.1 |
| 30° | 1400.5 | 1383.0 | 1358.9 | 1323.8 | 1319.4 | 1304.1 | 1269.0 | 1247.1 | 1181.3 | 1128.7 | 1104.6 |
| 32.5° | 1284.3 | 1277.8 | 1258.0 | 1218.6 | 1205.4 | 1187.9 | 1144.1 | 1106.8 | 1076.1 | 1017.0 | 988.5 |
| 35° | 1201.1 | 1176.9 | 1135.3 | 1102.4 | 1091.5 | 1060.8 | 1025.7 | 999.4 | 966.5 | 913.9 | 876.7 |
| 37.5° | 1076.1 | 1052.0 | 1012.6 | 973.1 | 973.1 | 942.4 | 894.2 | 867.9 | 821.9 | 791.2 | 760.5 |
| 40° | 966.5 | 935.9 | 896.4 | 850.4 | 843.8 | 800.0 | 780.2 | 736.4 | 707.9 | 659.7 | 655.3 |
| 42.5° | 843.8 | 815.3 | 780.2 | 745.2 | 718.9 | 697.0 | 646.6 | 613.7 | 583.0 | 558.9 | 552.3 |
| 45° | 732.0 | 694.8 | 664.1 | 620.3 | 594.0 | 567.7 | 534.8 | 512.9 | 488.8 | 462.4 | 447.1 |
| 47.5° | 635.6 | 604.9 | 561.1 | 521.6 | 495.3 | 482.2 | 444.9 | 420.8 | 401.1 | 383.5 | 372.6 |
| 50° | 537.0 | 499.7 | 475.6 | 431.8 | 427.4 | 396.7 | 366.0 | 346.3 | 335.3 | 320.0 | 304.6 |
| 52.5° | 462.4 | 427.4 | 394.5 | 361.6 | 344.1 | 333.1 | 304.6 | 284.9 | 269.6 | 258.6 | 249.9 |
| 55° | 390.1 | 359.4 | 333.1 | 300.3 | 289.3 | 274.0 | 241.1 | 236.7 | 221.4 | 206.0 | 195.1 |
| 57.5° | 335.3 | 306.8 | 276.2 | 254.2 | 234.5 | 223.6 | 197.3 | 179.7 | 171.0 | 157.8 | 146.8 |
| 60° | 284.9 | 254.2 | 230.1 | 203.8 | 195.1 | 179.7 | 160.0 | 144.7 | 133.7 | 122.7 | 111.8 |
| 62.5° | 238.9 | 212.6 | 186.3 | 164.4 | 151.2 | 142.5 | 127.1 | 114.0 | 103.0 | 94.2 | 85.5 |
| 65° | 197.3 | 173.1 | 151.2 | 129.3 | 122.7 | 111.8 | 100.8 | 89.9 | 81.1 | 70.1 | 61.4 |
| 67.5° | 162.2 | 140.3 | 118.4 | 103.0 | 96.4 | 92.1 | 78.9 | 67.9 | 61.4 | 54.8 | 46.0 |
| 70° | 127.1 | 111.8 | 94.2 | 81.1 | 74.5 | 67.9 | 59.2 | 52.6 | 43.8 | 39.5 | 32.9 |
| 72.5° | 98.6 | 85.5 | 70.1 | 59.2 | 54.8 | 50.4 | 41.6 | 35.1 | 30.7 | 26.3 | 21.9 |
| 75° | 70.1 | 59.2 | 50.4 | 39.5 | 37.3 | 35.1 | 28.5 | 24.1 | 19.7 | 15.3 | 13.2 |
| 77.5° | 48.2 | 39.5 | 30.7 | 26.3 | 24.1 | 19.7 | 17.5 | 13.2 | 11.0 | 8.8 | 6.6 |
| 80° | 26.3 | 19.7 | 15.3 | 13.2 | 11.0 | 8.8 | 8.8 | 6.6 | 4.4 | 4.4 | 2.2 |
| 82.5° | 8.8 | 6.6 | 4.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 0.0 | 2.2 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 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 |



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CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 |
| 2.5° | 1825.7 | 1801.6 | 1808.2 | 1808.2 | 1803.8 | 1803.8 | 1799.4 | 1792.8 | 1795.0 | 1781.9 | 1753.4 |
| 5° | 1806.0 | 1775.3 | 1770.9 | 1775.3 | 1757.7 | 1753.4 | 1744.6 | 1757.7 | 1718.3 | 1733.6 | 1716.1 |
| 7.5° | 1749.0 | 1720.5 | 1713.9 | 1729.3 | 1707.3 | 1694.2 | 1692.0 | 1709.5 | 1674.5 | 1656.9 | 1637.2 |
| 10° | 1685.4 | 1674.5 | 1654.7 | 1643.8 | 1637.2 | 1639.4 | 1621.9 | 1599.9 | 1593.4 | 1589.0 | 1571.5 |
| 12.5° | 1628.4 | 1604.3 | 1586.8 | 1573.6 | 1569.3 | 1569.3 | 1540.8 | 1536.4 | 1516.7 | 1512.3 | 1486.0 |
| 15° | 1560.5 | 1532.0 | 1521.0 | 1503.5 | 1488.2 | 1496.9 | 1464.1 | 1455.3 | 1448.7 | 1420.2 | 1424.6 |
| 17.5° | 1501.3 | 1470.6 | 1444.3 | 1433.4 | 1420.2 | 1407.1 | 1376.4 | 1383.0 | 1367.6 | 1367.6 | 1328.2 |
| 20° | 1424.6 | 1391.7 | 1372.0 | 1350.1 | 1350.1 | 1332.6 | 1310.6 | 1312.8 | 1293.1 | 1273.4 | 1238.3 |
| 22.5° | 1343.5 | 1308.4 | 1284.3 | 1275.6 | 1253.7 | 1249.3 | 1223.0 | 1216.4 | 1190.1 | 1192.3 | 1161.6 |
| 25° | 1258.0 | 1223.0 | 1190.1 | 1192.3 | 1172.6 | 1163.8 | 1148.5 | 1117.8 | 1106.8 | 1093.7 | 1084.9 |
| 27.5° | 1157.2 | 1133.1 | 1104.6 | 1102.4 | 1065.2 | 1067.4 | 1047.6 | 1038.9 | 1012.6 | 1019.1 | 999.4 |
| 30° | 1065.2 | 1030.1 | 1003.8 | 997.2 | 981.9 | 977.5 | 946.8 | 933.7 | 938.1 | 920.5 | 909.6 |
| 32.5° | 970.9 | 918.3 | 907.4 | 894.2 | 885.4 | 874.5 | 852.6 | 861.3 | 841.6 | 846.0 | 828.5 |
| 35° | 846.0 | 824.1 | 795.6 | 795.6 | 786.8 | 778.1 | 762.7 | 771.5 | 751.8 | 743.0 | 725.5 |
| 37.5° | 740.8 | 721.1 | 692.6 | 701.3 | 686.0 | 672.9 | 659.7 | 661.9 | 644.4 | 642.2 | 624.6 |
| 40° | 626.8 | 615.9 | 596.1 | 596.1 | 585.2 | 585.2 | 578.6 | 572.0 | 561.1 | 547.9 | 528.2 |
| 42.5° | 519.4 | 510.7 | 501.9 | 504.1 | 488.8 | 501.9 | 484.4 | 495.3 | 460.3 | 458.1 | 444.9 |
| 45° | 440.5 | 420.8 | 423.0 | 414.2 | 405.5 | 409.8 | 394.5 | 398.9 | 379.2 | 374.8 | 361.6 |
| 47.5° | 357.2 | 350.7 | 337.5 | 333.1 | 333.1 | 326.6 | 320.0 | 317.8 | 309.0 | 298.1 | 280.5 |
| 50° | 293.7 | 269.6 | 265.2 | 258.6 | 254.2 | 254.2 | 245.5 | 232.3 | 234.5 | 223.6 | 206.0 |
| 52.5° | 230.1 | 210.4 | 201.6 | 199.4 | 190.7 | 186.3 | 175.3 | 166.6 | 160.0 | 155.6 | 144.7 |
| 55° | 177.5 | 160.0 | 149.0 | 149.0 | 135.9 | 135.9 | 120.5 | 114.0 | 105.2 | 96.4 | 89.9 |
| 57.5° | 133.7 | 124.9 | 114.0 | 105.2 | 100.8 | 89.9 | 81.1 | 70.1 | 63.6 | 50.4 | 41.6 |
| 60° | 100.8 | 92.1 | 81.1 | 74.5 | 70.1 | 59.2 | 48.2 | 39.5 | 24.1 | 19.7 | 17.5 |
| 62.5° | 74.5 | 65.8 | 54.8 | 50.4 | 46.0 | 37.3 | 26.3 | 13.2 | 6.6 | 6.6 | 6.6 |
| 65° | 54.8 | 43.8 | 35.1 | 30.7 | 26.3 | 19.7 | 8.8 | 4.4 | 2.2 | 2.2 | 2.2 |
| 67.5° | 37.3 | 28.5 | 19.7 | 17.5 | 13.2 | 6.6 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 70° | 24.1 | 17.5 | 8.8 | 6.6 | 4.4 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 72.5° | 15.3 | 8.8 | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 8.8 | 4.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 4.4 | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 2.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.2 | 2.2 | 2.2 |
| 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: P219535

CATALOG NUMBER: LDSQ4B40D010 EU4B30509027 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 | 1827.9 |
| 2.5° | 1784.0 | 1768.7 | 1777.5 | 1757.7 | 1766.5 | 1781.9 | 1770.9 | 1775.3 |
| 5° | 1722.7 | 1713.9 | 1703.0 | 1674.5 | 1696.4 | 1713.9 | 1705.1 | 1703.0 |
| 7.5° | 1656.9 | 1626.2 | 1641.6 | 1632.8 | 1628.4 | 1646.0 | 1626.2 | 1648.2 |
| 10° | 1589.0 | 1567.1 | 1564.9 | 1549.5 | 1549.5 | 1562.7 | 1564.9 | 1551.7 |
| 12.5° | 1488.2 | 1477.2 | 1477.2 | 1475.0 | 1472.8 | 1486.0 | 1488.2 | 1481.6 |
| 15° | 1415.8 | 1411.5 | 1400.5 | 1398.3 | 1385.2 | 1404.9 | 1407.1 | 1404.9 |
| 17.5° | 1328.2 | 1330.4 | 1319.4 | 1319.4 | 1328.2 | 1334.7 | 1317.2 | 1334.7 |
| 20° | 1269.0 | 1258.0 | 1253.7 | 1233.9 | 1244.9 | 1255.8 | 1255.8 | 1258.0 |
| 22.5° | 1183.5 | 1166.0 | 1172.6 | 1161.6 | 1155.0 | 1170.4 | 1170.4 | 1176.9 |
| 25° | 1087.1 | 1087.1 | 1091.5 | 1084.9 | 1089.3 | 1098.0 | 1091.5 | 1106.8 |
| 27.5° | 995.0 | 1003.8 | 1003.8 | 995.0 | 999.4 | 1025.7 | 1036.7 | 1019.1 |
| 30° | 909.6 | 911.7 | 918.3 | 913.9 | 927.1 | 935.9 | 933.7 | 946.8 |
| 32.5° | 813.1 | 824.1 | 828.5 | 821.9 | 826.3 | 846.0 | 835.0 | 832.8 |
| 35° | 738.6 | 718.9 | 716.7 | 718.9 | 727.6 | 732.0 | 727.6 | 743.0 |
| 37.5° | 631.2 | 624.6 | 615.9 | 618.1 | 624.6 | 633.4 | 637.8 | 648.7 |
| 40° | 528.2 | 519.4 | 519.4 | 517.2 | 510.7 | 534.8 | 534.8 | 534.8 |
| 42.5° | 438.3 | 436.1 | 425.2 | 425.2 | 434.0 | 440.5 | 436.1 | 451.5 |
| 45° | 359.4 | 350.7 | 344.1 | 344.1 | 350.7 | 350.7 | 357.2 | 355.1 |
| 47.5° | 282.7 | 274.0 | 276.2 | 269.6 | 276.2 | 284.9 | 274.0 | 276.2 |
| 50° | 212.6 | 212.6 | 208.2 | 212.6 | 210.4 | 212.6 | 208.2 | 203.8 |
| 52.5° | 144.7 | 164.4 | 166.6 | 157.8 | 138.1 | 120.5 | 109.6 | 118.4 |
| 55° | 83.3 | 74.5 | 74.5 | 72.3 | 67.9 | 65.8 | 59.2 | 65.8 |
| 57.5° | 41.6 | 37.3 | 37.3 | 37.3 | 35.1 | 32.9 | 28.5 | 28.5 |
| 60° | 17.5 | 15.3 | 15.3 | 13.2 | 11.0 | 8.8 | 6.6 | 8.8 |
| 62.5° | 6.6 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| 65° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 67.5° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 70° | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 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 |



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— 0°-180° - - 45°-225° - - - - 90°-270°













(END OF REPORT)