

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: P251737

Luminaire Tested: **LD4B50D010TE EU4B30509730 4LBLWW1LI**

Issue Date: 3/3/2020

**Test Information**

Test Method: LM-41-14  
Report Number: P251737  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G1-1712-453-11)  
Test Lab: INNOVATION CENTER(G1)  
Issue Date: 3/3/2020  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: io LED  
Catalog Number: LD4B50D010TE EU4B30509730 4LBLWW1LI  
Description: PORTFOLIO 4 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM  
Light Source: (1) HIGH LUMEN LED 97CRI / 3000K CCT  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 3140.0 lumens  
Efficiency: N/A  
Efficacy: 53.4 lumens/watt  
Spacing Criteria (0/90/45): 1.16 / 1.03 / 1.12  
Luminous Opening: Circular (Dia: 0.38' x H: 0')  
CIE Type: Direct

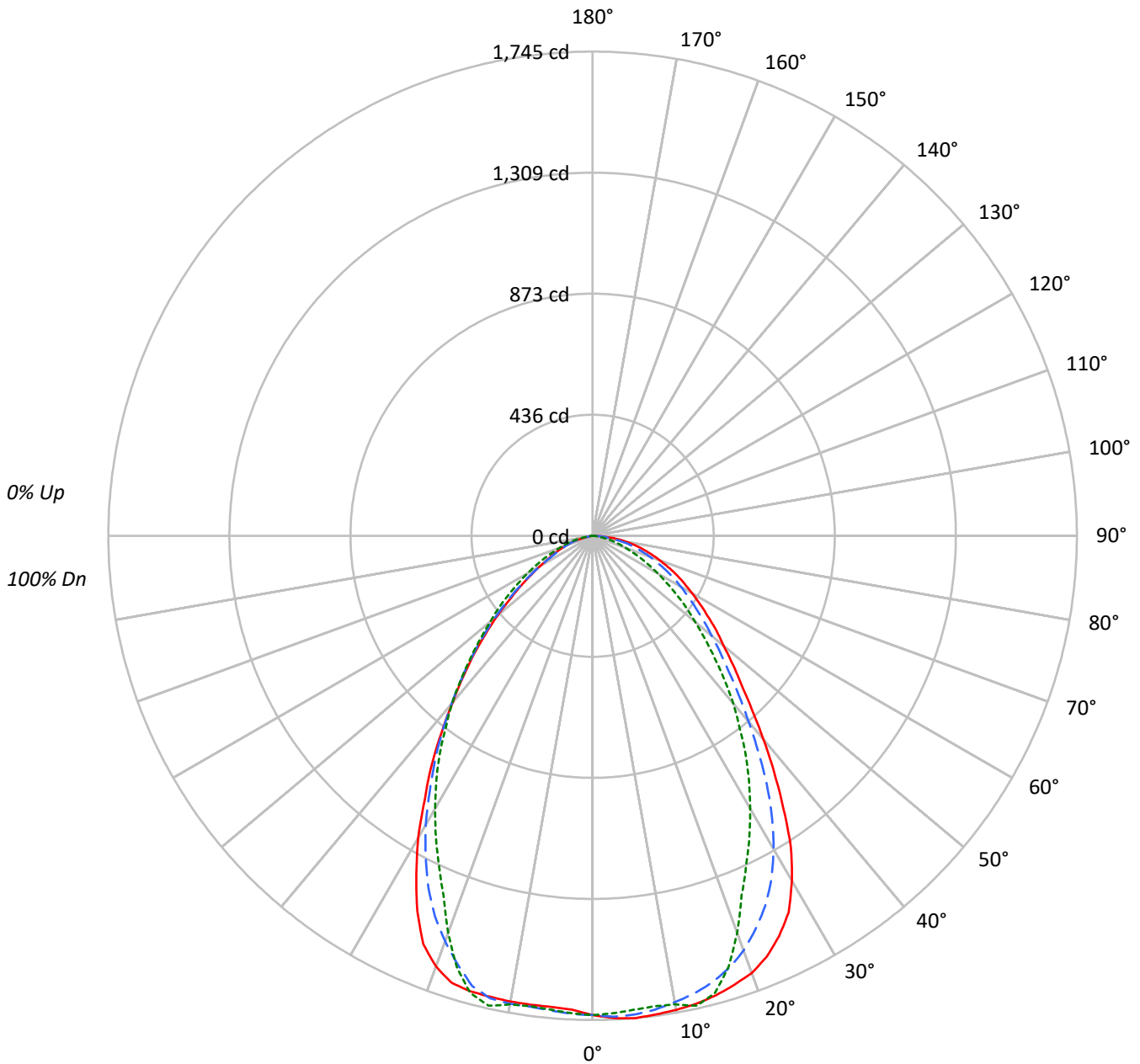
Input Watts (W): 58.77  
Input Voltage (V): NR  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 25 FT



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### Luminous Intensity Polar Plot





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

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|---|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|---|
| RF  | 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   | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99  | 101 | 98  | 96  | 97  | 95  | 93  | 93  | 91  | 90  | 88  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 2   | 103 | 96  | 90  | 85  | 100 | 94  | 89  | 84  | 90  | 86  | 82  | 87  | 84  | 80  | 84  | 81  | 79  | 77  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 3   | 95  | 86  | 79  | 74  | 93  | 84  | 78  | 73  | 82  | 76  | 72  | 79  | 74  | 70  | 77  | 73  | 69  | 67  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 4   | 88  | 78  | 70  | 64  | 86  | 76  | 69  | 64  | 74  | 68  | 63  | 72  | 67  | 62  | 70  | 65  | 62  | 60  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 5   | 82  | 71  | 63  | 57  | 80  | 70  | 62  | 57  | 68  | 61  | 56  | 66  | 60  | 56  | 64  | 59  | 55  | 53  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 6   | 76  | 65  | 57  | 51  | 75  | 64  | 56  | 51  | 62  | 55  | 50  | 60  | 54  | 50  | 59  | 54  | 50  | 48  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 7   | 71  | 59  | 51  | 46  | 70  | 59  | 51  | 46  | 57  | 50  | 46  | 56  | 50  | 45  | 54  | 49  | 45  | 43  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 8   | 67  | 55  | 47  | 42  | 65  | 54  | 47  | 42  | 53  | 46  | 41  | 52  | 46  | 41  | 51  | 45  | 41  | 39  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 9   | 63  | 51  | 43  | 38  | 62  | 50  | 43  | 38  | 49  | 43  | 38  | 48  | 42  | 38  | 47  | 42  | 38  | 36  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |
| 10  | 59  | 47  | 40  | 35  | 58  | 47  | 40  | 35  | 46  | 39  | 35  | 45  | 39  | 35  | 44  | 39  | 35  | 33  |    |    |   |  |  |  |  |  |  |    |  |  |  |  |  |  |  |  |   |

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

|     | 0°     | 90°    | 180°   |
|-----|--------|--------|--------|
| 0°  | 168349 | 168349 | 168349 |
| 5°  | 170734 | 167759 | 166762 |
| 10° | 171698 | 169699 | 168690 |
| 15° | 173017 | 171987 | 171483 |
| 20° | 173905 | 157882 | 171282 |
| 25° | 171053 | 140815 | 160697 |
| 30° | 161623 | 127693 | 141378 |
| 35° | 142543 | 114215 | 120545 |
| 40° | 121803 | 100213 | 99895  |
| 45° | 104376 | 85535  | 83440  |
| 50° | 93321  | 72974  | 67970  |
| 55° | 86078  | 62409  | 53794  |
| 60° | 80481  | 52822  | 42453  |
| 65° | 77091  | 43815  | 35052  |
| 70° | 72890  | 35362  | 29578  |
| 75° | 70565  | 28618  | 20974  |
| 80° | 68247  | 15659  | 5669   |
| 85° | 59489  | 8498   | 2796   |



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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 164.1  | 5.2       |
| 10°-20°   | 472.1  | 15.0      |
| 20°-30°   | 654.9  | 20.9      |
| 30°-40°   | 646.4  | 20.6      |
| 40°-50°   | 507.0  | 16.1      |
| 50°-60°   | 351.2  | 11.2      |
| 60°-70°   | 215.2  | 6.9       |
| 70°-80°   | 107.6  | 3.4       |
| 80°-90°   | 21.5   | 0.7       |
| 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°    | 1291.1 | 41.1      |
| 0°-40°    | 1937.5 | 61.7      |
| 0°-60°    | 2795.7 | 89.0      |
| 0°-90°    | 3140.0 | 100.0     |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.0    | 0.0       |
| 90°-180°  | 0.0    | 0.0       |
| 0°-180°   | 3140.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|     | 0°   | 45°  | 90°  | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0°  | 1727 | 1727 | 1727 | 1727 | 1727 |      |
| 5°  | 1745 | 1732 | 1715 | 1717 | 1705 | 166  |
| 15° | 1715 | 1667 | 1705 | 1679 | 1700 | 484  |
| 25° | 1591 | 1472 | 1310 | 1401 | 1494 | 728  |
| 35° | 1198 | 1094 | 960  | 990  | 1013 | 748  |
| 45° | 757  | 694  | 621  | 613  | 605  | 592  |
| 55° | 507  | 453  | 367  | 327  | 317  | 456  |
| 65° | 334  | 289  | 190  | 142  | 152  | 330  |
| 75° | 187  | 157  | 76   | 58   | 56   | 199  |
| 85° | 53   | 30   | 8    | 2    | 2    | 61   |
| 90° | 0    | 0    | 0    | 0    | 0    |      |



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**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 5°     | 10°    | 15°    | 20°    | 22.5°  | 25°    | 30°    | 35°    | 40°    | 45°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 |
| 2.5°  | 1740.1 | 1735.0 | 1732.5 | 1740.1 | 1737.6 | 1742.6 | 1740.1 | 1737.6 | 1732.5 | 1735.0 | 1735.0 |
| 5°    | 1745.2 | 1737.6 | 1735.0 | 1740.1 | 1740.1 | 1745.2 | 1742.6 | 1737.6 | 1732.5 | 1735.0 | 1732.5 |
| 7.5°  | 1740.1 | 1735.0 | 1735.0 | 1737.6 | 1735.0 | 1740.1 | 1735.0 | 1730.0 | 1724.9 | 1727.4 | 1722.4 |
| 10°   | 1735.0 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1732.5 | 1727.4 | 1719.8 | 1712.2 | 1712.2 | 1707.2 |
| 12.5° | 1727.4 | 1719.8 | 1719.8 | 1722.4 | 1717.3 | 1722.4 | 1717.3 | 1704.6 | 1697.0 | 1694.5 | 1689.4 |
| 15°   | 1714.8 | 1707.2 | 1707.2 | 1707.2 | 1702.1 | 1704.6 | 1697.0 | 1684.4 | 1674.2 | 1674.2 | 1666.6 |
| 17.5° | 1697.0 | 1689.4 | 1686.9 | 1686.9 | 1679.3 | 1681.8 | 1674.2 | 1661.6 | 1646.4 | 1641.3 | 1633.7 |
| 20°   | 1676.8 | 1666.6 | 1661.6 | 1661.6 | 1654.0 | 1656.5 | 1646.4 | 1631.2 | 1610.9 | 1603.3 | 1590.7 |
| 22.5° | 1641.3 | 1636.3 | 1628.7 | 1626.1 | 1618.5 | 1616.0 | 1605.9 | 1585.6 | 1567.9 | 1555.2 | 1534.9 |
| 25°   | 1590.7 | 1588.1 | 1580.5 | 1578.0 | 1567.9 | 1562.8 | 1552.7 | 1529.9 | 1512.1 | 1491.9 | 1471.6 |
| 27.5° | 1529.9 | 1519.7 | 1514.7 | 1507.1 | 1496.9 | 1494.4 | 1481.7 | 1461.5 | 1433.6 | 1421.0 | 1395.6 |
| 30°   | 1436.2 | 1431.1 | 1426.0 | 1418.4 | 1408.3 | 1403.2 | 1395.6 | 1372.8 | 1350.0 | 1327.2 | 1304.4 |
| 32.5° | 1329.8 | 1319.6 | 1312.0 | 1314.6 | 1301.9 | 1296.8 | 1284.2 | 1263.9 | 1243.7 | 1228.5 | 1203.1 |
| 35°   | 1198.1 | 1195.5 | 1193.0 | 1187.9 | 1177.8 | 1175.3 | 1165.1 | 1149.9 | 1127.1 | 1109.4 | 1094.2 |
| 37.5° | 1073.9 | 1066.4 | 1061.3 | 1061.3 | 1051.2 | 1051.2 | 1043.6 | 1025.8 | 1013.2 | 1000.5 | 980.2  |
| 40°   | 957.4  | 944.8  | 944.8  | 944.8  | 934.6  | 937.2  | 932.1  | 914.4  | 901.7  | 886.5  | 873.9  |
| 42.5° | 848.5  | 843.5  | 840.9  | 835.9  | 830.8  | 830.8  | 825.7  | 815.6  | 802.9  | 792.8  | 780.1  |
| 45°   | 757.3  | 754.8  | 752.3  | 749.7  | 744.7  | 742.1  | 739.6  | 724.4  | 716.8  | 706.7  | 694.0  |
| 47.5° | 683.9  | 678.8  | 676.3  | 673.8  | 668.7  | 666.2  | 661.1  | 651.0  | 643.4  | 633.2  | 623.1  |
| 50°   | 615.5  | 613.0  | 610.4  | 610.4  | 605.4  | 602.8  | 597.8  | 590.2  | 577.5  | 572.4  | 559.8  |
| 52.5° | 562.3  | 557.2  | 552.2  | 552.2  | 547.1  | 547.1  | 539.5  | 531.9  | 519.2  | 514.2  | 504.0  |
| 55°   | 506.6  | 504.0  | 501.5  | 501.5  | 496.4  | 493.9  | 491.4  | 481.3  | 471.1  | 463.5  | 453.4  |
| 57.5° | 458.5  | 455.9  | 453.4  | 453.4  | 448.3  | 445.8  | 443.3  | 435.7  | 425.5  | 420.5  | 407.8  |
| 60°   | 412.9  | 412.9  | 410.3  | 407.8  | 405.3  | 402.7  | 400.2  | 392.6  | 385.0  | 377.4  | 367.3  |
| 62.5° | 372.3  | 369.8  | 367.3  | 364.7  | 364.7  | 362.2  | 359.7  | 349.5  | 344.5  | 336.9  | 326.7  |
| 65°   | 334.3  | 329.3  | 329.3  | 326.7  | 326.7  | 324.2  | 321.7  | 311.5  | 306.5  | 298.9  | 288.8  |
| 67.5° | 293.8  | 291.3  | 288.8  | 288.8  | 286.2  | 286.2  | 283.7  | 276.1  | 268.5  | 263.4  | 253.3  |
| 70°   | 255.8  | 255.8  | 253.3  | 253.3  | 250.8  | 248.2  | 248.2  | 243.2  | 235.6  | 228.0  | 217.8  |
| 72.5° | 222.9  | 220.4  | 217.8  | 217.8  | 215.3  | 215.3  | 212.8  | 207.7  | 202.6  | 197.6  | 184.9  |
| 75°   | 187.4  | 184.9  | 184.9  | 184.9  | 182.4  | 182.4  | 179.8  | 174.8  | 169.7  | 164.6  | 157.0  |
| 77.5° | 154.5  | 154.5  | 152.0  | 152.0  | 149.4  | 149.4  | 149.4  | 144.4  | 139.3  | 134.2  | 124.1  |
| 80°   | 121.6  | 121.6  | 121.6  | 119.0  | 116.5  | 116.5  | 116.5  | 111.4  | 106.4  | 101.3  | 93.7   |
| 82.5° | 88.7   | 86.1   | 86.1   | 83.6   | 81.1   | 81.1   | 81.1   | 76.0   | 73.5   | 65.9   | 60.8   |
| 85°   | 53.2   | 50.7   | 50.7   | 48.1   | 45.6   | 45.6   | 45.6   | 43.1   | 38.0   | 35.5   | 30.4   |
| 87.5° | 20.3   | 20.3   | 20.3   | 20.3   | 20.3   | 17.7   | 17.7   | 15.2   | 15.2   | 12.7   | 12.7   |
| 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):**

|       | 50°    | 55°    | 60°    | 65°    | 67.5°  | 70°    | 75°    | 80°    | 85°    | 90°    | 95°    |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 |
| 2.5°  | 1735.0 | 1732.5 | 1732.5 | 1730.0 | 1732.5 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1722.4 | 1722.4 |
| 5°    | 1730.0 | 1730.0 | 1727.4 | 1724.9 | 1727.4 | 1722.4 | 1724.9 | 1722.4 | 1722.4 | 1714.8 | 1714.8 |
| 7.5°  | 1719.8 | 1717.3 | 1712.2 | 1709.7 | 1712.2 | 1709.7 | 1709.7 | 1709.7 | 1714.8 | 1709.7 | 1709.7 |
| 10°   | 1702.1 | 1699.6 | 1694.5 | 1692.0 | 1692.0 | 1689.4 | 1694.5 | 1699.6 | 1709.7 | 1714.8 | 1724.9 |
| 12.5° | 1684.4 | 1679.3 | 1676.8 | 1676.8 | 1679.3 | 1679.3 | 1689.4 | 1702.1 | 1727.4 | 1735.0 | 1745.2 |
| 15°   | 1661.6 | 1659.0 | 1659.0 | 1666.6 | 1676.8 | 1684.4 | 1704.6 | 1712.2 | 1714.8 | 1704.6 | 1699.6 |
| 17.5° | 1631.2 | 1631.2 | 1633.7 | 1641.3 | 1648.9 | 1648.9 | 1651.5 | 1646.4 | 1641.3 | 1628.7 | 1613.5 |
| 20°   | 1580.5 | 1578.0 | 1572.9 | 1572.9 | 1572.9 | 1562.8 | 1567.9 | 1550.1 | 1537.5 | 1522.3 | 1499.5 |
| 22.5° | 1517.2 | 1504.5 | 1486.8 | 1474.1 | 1466.5 | 1461.5 | 1448.8 | 1428.6 | 1413.4 | 1403.2 | 1393.1 |
| 25°   | 1448.8 | 1428.6 | 1403.2 | 1383.0 | 1370.3 | 1367.8 | 1350.0 | 1332.3 | 1322.2 | 1309.5 | 1304.4 |
| 27.5° | 1370.3 | 1347.5 | 1317.1 | 1296.8 | 1286.7 | 1279.1 | 1263.9 | 1246.2 | 1233.5 | 1223.4 | 1215.8 |
| 30°   | 1279.1 | 1256.3 | 1231.0 | 1205.7 | 1195.5 | 1182.9 | 1167.7 | 1155.0 | 1142.3 | 1134.7 | 1129.7 |
| 32.5° | 1177.8 | 1155.0 | 1129.7 | 1111.9 | 1099.3 | 1089.1 | 1076.5 | 1063.8 | 1053.7 | 1048.6 | 1043.6 |
| 35°   | 1073.9 | 1051.2 | 1030.9 | 1013.2 | 1003.0 | 995.4  | 985.3  | 970.1  | 962.5  | 960.0  | 954.9  |
| 37.5° | 962.5  | 947.3  | 929.6  | 914.4  | 906.8  | 896.6  | 891.6  | 878.9  | 878.9  | 868.8  | 868.8  |
| 40°   | 858.7  | 848.5  | 830.8  | 818.1  | 813.1  | 805.5  | 797.9  | 792.8  | 790.3  | 787.7  | 785.2  |
| 42.5° | 767.5  | 752.3  | 742.1  | 732.0  | 724.4  | 719.3  | 719.3  | 711.7  | 709.2  | 701.6  | 699.1  |
| 45°   | 683.9  | 676.3  | 658.6  | 651.0  | 648.4  | 640.8  | 638.3  | 633.2  | 625.6  | 620.6  | 618.0  |
| 47.5° | 610.4  | 602.8  | 592.7  | 582.6  | 577.5  | 572.4  | 567.4  | 559.8  | 554.7  | 547.1  | 544.6  |
| 50°   | 549.6  | 537.0  | 526.8  | 519.2  | 511.6  | 509.1  | 504.0  | 493.9  | 488.8  | 481.3  | 481.3  |
| 52.5° | 493.9  | 483.8  | 471.1  | 463.5  | 455.9  | 450.9  | 443.3  | 435.7  | 428.1  | 425.5  | 417.9  |
| 55°   | 445.8  | 433.1  | 420.5  | 410.3  | 402.7  | 395.1  | 392.6  | 382.5  | 372.3  | 367.3  | 362.2  |
| 57.5° | 400.2  | 387.5  | 372.3  | 359.7  | 354.6  | 349.5  | 341.9  | 331.8  | 324.2  | 316.6  | 311.5  |
| 60°   | 354.6  | 344.5  | 329.3  | 316.6  | 311.5  | 303.9  | 296.3  | 286.2  | 278.6  | 271.0  | 266.0  |
| 62.5° | 316.6  | 301.4  | 288.8  | 276.1  | 268.5  | 263.4  | 253.3  | 245.7  | 235.6  | 228.0  | 220.4  |
| 65°   | 278.6  | 263.4  | 250.8  | 238.1  | 233.0  | 225.4  | 217.8  | 207.7  | 197.6  | 190.0  | 179.8  |
| 67.5° | 240.6  | 228.0  | 215.3  | 202.6  | 197.6  | 192.5  | 182.4  | 172.2  | 162.1  | 154.5  | 144.4  |
| 70°   | 207.7  | 195.0  | 182.4  | 172.2  | 167.2  | 162.1  | 152.0  | 141.8  | 134.2  | 124.1  | 116.5  |
| 72.5° | 177.3  | 167.2  | 154.5  | 144.4  | 139.3  | 134.2  | 124.1  | 116.5  | 106.4  | 101.3  | 93.7   |
| 75°   | 146.9  | 136.8  | 126.6  | 116.5  | 111.4  | 106.4  | 98.8   | 91.2   | 83.6   | 76.0   | 70.9   |
| 77.5° | 116.5  | 106.4  | 96.3   | 88.7   | 83.6   | 81.1   | 73.5   | 65.9   | 58.3   | 53.2   | 45.6   |
| 80°   | 86.1   | 76.0   | 68.4   | 60.8   | 55.7   | 53.2   | 45.6   | 40.5   | 35.5   | 27.9   | 25.3   |
| 82.5° | 53.2   | 45.6   | 40.5   | 35.5   | 32.9   | 30.4   | 25.3   | 20.3   | 17.7   | 15.2   | 12.7   |
| 85°   | 27.9   | 25.3   | 20.3   | 17.7   | 15.2   | 15.2   | 12.7   | 10.1   | 7.6    | 7.6    | 5.1    |
| 87.5° | 10.1   | 7.6    | 7.6    | 5.1    | 5.1    | 5.1    | 5.1    | 2.5    | 2.5    | 2.5    | 2.5    |
| 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: P251737

CATALOG NUMBER: LD4B50D010TE EU4B30509730 4LBLWW1LI

**CANDELA DISTRIBUTION (continued):**

|       | 100°   | 105°   | 110°   | 112.5° | 115°   | 120°   | 125°   | 130°   | 135°   | 140°   | 145°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 |
| 2.5°  | 1717.3 | 1719.8 | 1722.4 | 1724.9 | 1722.4 | 1722.4 | 1727.4 | 1717.3 | 1724.9 | 1724.9 | 1714.8 |
| 5°    | 1712.2 | 1717.3 | 1714.8 | 1719.8 | 1714.8 | 1714.8 | 1717.3 | 1712.2 | 1717.3 | 1717.3 | 1709.7 |
| 7.5°  | 1707.2 | 1712.2 | 1712.2 | 1714.8 | 1712.2 | 1712.2 | 1714.8 | 1707.2 | 1712.2 | 1712.2 | 1704.6 |
| 10°   | 1730.0 | 1735.0 | 1732.5 | 1730.0 | 1722.4 | 1717.3 | 1719.8 | 1707.2 | 1712.2 | 1712.2 | 1704.6 |
| 12.5° | 1737.6 | 1735.0 | 1724.9 | 1719.8 | 1714.8 | 1709.7 | 1712.2 | 1702.1 | 1707.2 | 1707.2 | 1702.1 |
| 15°   | 1686.9 | 1681.8 | 1674.2 | 1676.8 | 1671.7 | 1669.2 | 1674.2 | 1669.2 | 1679.3 | 1684.4 | 1679.3 |
| 17.5° | 1600.8 | 1598.3 | 1593.2 | 1593.2 | 1593.2 | 1595.7 | 1603.3 | 1603.3 | 1618.5 | 1628.7 | 1633.7 |
| 20°   | 1489.3 | 1486.8 | 1489.3 | 1494.4 | 1496.9 | 1507.1 | 1524.8 | 1534.9 | 1555.2 | 1572.9 | 1585.6 |
| 22.5° | 1388.0 | 1393.1 | 1400.7 | 1410.8 | 1413.4 | 1426.0 | 1448.8 | 1459.0 | 1484.3 | 1504.5 | 1517.2 |
| 25°   | 1301.9 | 1309.5 | 1314.6 | 1322.2 | 1324.7 | 1339.9 | 1360.2 | 1372.8 | 1400.7 | 1415.9 | 1431.1 |
| 27.5° | 1215.8 | 1225.9 | 1228.5 | 1238.6 | 1238.6 | 1253.8 | 1271.5 | 1284.2 | 1301.9 | 1317.1 | 1329.8 |
| 30°   | 1132.2 | 1134.7 | 1142.3 | 1144.9 | 1149.9 | 1165.1 | 1175.3 | 1182.9 | 1203.1 | 1210.7 | 1218.3 |
| 32.5° | 1041.0 | 1051.2 | 1056.2 | 1058.8 | 1056.2 | 1068.9 | 1079.0 | 1084.1 | 1091.7 | 1101.8 | 1106.9 |
| 35°   | 954.9  | 960.0  | 962.5  | 967.6  | 970.1  | 972.6  | 977.7  | 980.2  | 990.4  | 992.9  | 995.4  |
| 37.5° | 868.8  | 876.4  | 873.9  | 876.4  | 876.4  | 878.9  | 884.0  | 881.4  | 889.0  | 891.6  | 889.0  |
| 40°   | 782.7  | 782.7  | 787.7  | 785.2  | 787.7  | 785.2  | 790.3  | 790.3  | 790.3  | 792.8  | 790.3  |
| 42.5° | 696.5  | 699.1  | 696.5  | 701.6  | 696.5  | 699.1  | 699.1  | 696.5  | 699.1  | 696.5  | 696.5  |
| 45°   | 618.0  | 618.0  | 618.0  | 618.0  | 613.0  | 613.0  | 618.0  | 615.5  | 613.0  | 610.4  | 607.9  |
| 47.5° | 542.0  | 544.6  | 539.5  | 542.0  | 539.5  | 537.0  | 534.4  | 534.4  | 531.9  | 526.8  | 524.3  |
| 50°   | 478.7  | 473.7  | 471.1  | 473.7  | 471.1  | 468.6  | 466.1  | 461.0  | 458.5  | 453.4  | 450.9  |
| 52.5° | 415.4  | 410.3  | 405.3  | 405.3  | 402.7  | 397.7  | 395.1  | 390.1  | 387.5  | 382.5  | 382.5  |
| 55°   | 359.7  | 354.6  | 349.5  | 347.0  | 341.9  | 336.9  | 334.3  | 329.3  | 326.7  | 321.7  | 316.6  |
| 57.5° | 306.5  | 298.9  | 293.8  | 291.3  | 288.8  | 281.2  | 278.6  | 273.6  | 268.5  | 263.4  | 260.9  |
| 60°   | 258.4  | 250.8  | 243.2  | 240.6  | 238.1  | 230.5  | 228.0  | 220.4  | 217.8  | 212.8  | 210.2  |
| 62.5° | 212.8  | 207.7  | 197.6  | 195.0  | 190.0  | 184.9  | 177.3  | 174.8  | 172.2  | 174.8  | 174.8  |
| 65°   | 172.2  | 164.6  | 157.0  | 154.5  | 149.4  | 144.4  | 141.8  | 139.3  | 141.8  | 141.8  | 144.4  |
| 67.5° | 136.8  | 129.2  | 121.6  | 121.6  | 119.0  | 114.0  | 114.0  | 114.0  | 116.5  | 116.5  | 119.0  |
| 70°   | 108.9  | 103.8  | 98.8   | 96.3   | 96.3   | 93.7   | 96.3   | 96.3   | 98.8   | 98.8   | 98.8   |
| 72.5° | 86.1   | 83.6   | 81.1   | 78.5   | 78.5   | 78.5   | 78.5   | 78.5   | 78.5   | 78.5   | 81.1   |
| 75°   | 65.9   | 63.3   | 60.8   | 60.8   | 58.3   | 58.3   | 58.3   | 58.3   | 58.3   | 58.3   | 55.7   |
| 77.5° | 43.1   | 40.5   | 38.0   | 38.0   | 35.5   | 32.9   | 32.9   | 30.4   | 30.4   | 30.4   | 30.4   |
| 80°   | 22.8   | 20.3   | 17.7   | 15.2   | 15.2   | 12.7   | 12.7   | 12.7   | 12.7   | 10.1   | 10.1   |
| 82.5° | 10.1   | 7.6    | 7.6    | 7.6    | 7.6    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    |
| 85°   | 5.1    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    |
| 87.5° | 0.0    | 0.0    | 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    |





TEST NUMBER: P251737

CATALOG NUMBER: LD4B50D010TE EU4B30509730 4LBLWW1LI

**CANDELA DISTRIBUTION (continued):**

|       | 150°   | 155°   | 157.5° | 160°   | 165°   | 170°   | 175°   | 180°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 | 1727.4 |
| 2.5°  | 1719.8 | 1714.8 | 1719.8 | 1722.4 | 1717.3 | 1714.8 | 1719.8 | 1709.7 |
| 5°    | 1717.3 | 1709.7 | 1712.2 | 1714.8 | 1709.7 | 1707.2 | 1712.2 | 1704.6 |
| 7.5°  | 1712.2 | 1709.7 | 1712.2 | 1714.8 | 1707.2 | 1707.2 | 1712.2 | 1704.6 |
| 10°   | 1712.2 | 1707.2 | 1709.7 | 1714.8 | 1709.7 | 1709.7 | 1714.8 | 1704.6 |
| 12.5° | 1709.7 | 1702.1 | 1709.7 | 1712.2 | 1707.2 | 1707.2 | 1712.2 | 1702.1 |
| 15°   | 1692.0 | 1692.0 | 1694.5 | 1699.6 | 1697.0 | 1699.6 | 1707.2 | 1699.6 |
| 17.5° | 1654.0 | 1659.0 | 1669.2 | 1676.8 | 1681.8 | 1686.9 | 1694.5 | 1689.4 |
| 20°   | 1608.4 | 1616.0 | 1628.7 | 1636.3 | 1646.4 | 1648.9 | 1661.6 | 1651.5 |
| 22.5° | 1537.5 | 1552.7 | 1562.8 | 1570.4 | 1578.0 | 1585.6 | 1595.7 | 1593.2 |
| 25°   | 1451.4 | 1461.5 | 1469.1 | 1476.7 | 1486.8 | 1491.9 | 1496.9 | 1494.4 |
| 27.5° | 1347.5 | 1352.6 | 1362.7 | 1367.8 | 1372.8 | 1377.9 | 1388.0 | 1375.4 |
| 30°   | 1233.5 | 1236.1 | 1241.1 | 1248.7 | 1248.7 | 1253.8 | 1258.9 | 1256.3 |
| 32.5° | 1117.0 | 1117.0 | 1122.1 | 1127.1 | 1124.6 | 1127.1 | 1137.3 | 1124.6 |
| 35°   | 1003.0 | 1000.5 | 1008.1 | 1010.6 | 1010.6 | 1008.1 | 1015.7 | 1013.2 |
| 37.5° | 891.6  | 894.1  | 896.6  | 899.2  | 894.1  | 899.2  | 899.2  | 894.1  |
| 40°   | 790.3  | 787.7  | 792.8  | 795.3  | 792.8  | 795.3  | 795.3  | 785.2  |
| 42.5° | 699.1  | 694.0  | 696.5  | 699.1  | 696.5  | 699.1  | 696.5  | 691.5  |
| 45°   | 610.4  | 607.9  | 607.9  | 610.4  | 605.4  | 605.4  | 605.4  | 605.4  |
| 47.5° | 526.8  | 524.3  | 526.8  | 526.8  | 521.8  | 521.8  | 524.3  | 521.8  |
| 50°   | 450.9  | 448.3  | 448.3  | 448.3  | 445.8  | 445.8  | 448.3  | 448.3  |
| 52.5° | 382.5  | 377.4  | 377.4  | 377.4  | 377.4  | 377.4  | 379.9  | 374.9  |
| 55°   | 314.1  | 314.1  | 314.1  | 314.1  | 316.6  | 316.6  | 316.6  | 316.6  |
| 57.5° | 258.4  | 260.9  | 260.9  | 263.4  | 260.9  | 263.4  | 263.4  | 260.9  |
| 60°   | 215.3  | 212.8  | 215.3  | 215.3  | 217.8  | 217.8  | 217.8  | 217.8  |
| 62.5° | 177.3  | 177.3  | 177.3  | 179.8  | 179.8  | 179.8  | 182.4  | 179.8  |
| 65°   | 146.9  | 146.9  | 149.4  | 149.4  | 149.4  | 152.0  | 152.0  | 152.0  |
| 67.5° | 121.6  | 121.6  | 121.6  | 121.6  | 124.1  | 124.1  | 126.6  | 124.1  |
| 70°   | 101.3  | 101.3  | 101.3  | 101.3  | 101.3  | 103.8  | 103.8  | 103.8  |
| 72.5° | 81.1   | 81.1   | 81.1   | 81.1   | 83.6   | 83.6   | 83.6   | 83.6   |
| 75°   | 55.7   | 55.7   | 55.7   | 58.3   | 55.7   | 55.7   | 55.7   | 55.7   |
| 77.5° | 27.9   | 27.9   | 27.9   | 27.9   | 27.9   | 25.3   | 25.3   | 25.3   |
| 80°   | 10.1   | 10.1   | 10.1   | 10.1   | 10.1   | 10.1   | 7.6    | 10.1   |
| 82.5° | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 5.1    | 2.5    |
| 85°   | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    | 2.5    |
| 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)