

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: P251714

Luminaire Tested: **LD4B40D010 EU4B30508035 4LBLWW1LI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P251714
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: LD4B40D010 EU4B30508035 4LBLWW1LI
Description: PORTFOLIO 4 INCH LENS WALLWASH RECESSED DOWNLIGHT, WITH SPECULAR CLEAR TRIM
Light Source: (1) HIGH LUMEN LED 80CRI / 3500K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 3389.0 lumens
Efficiency: N/A
Efficacy: 78.8 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

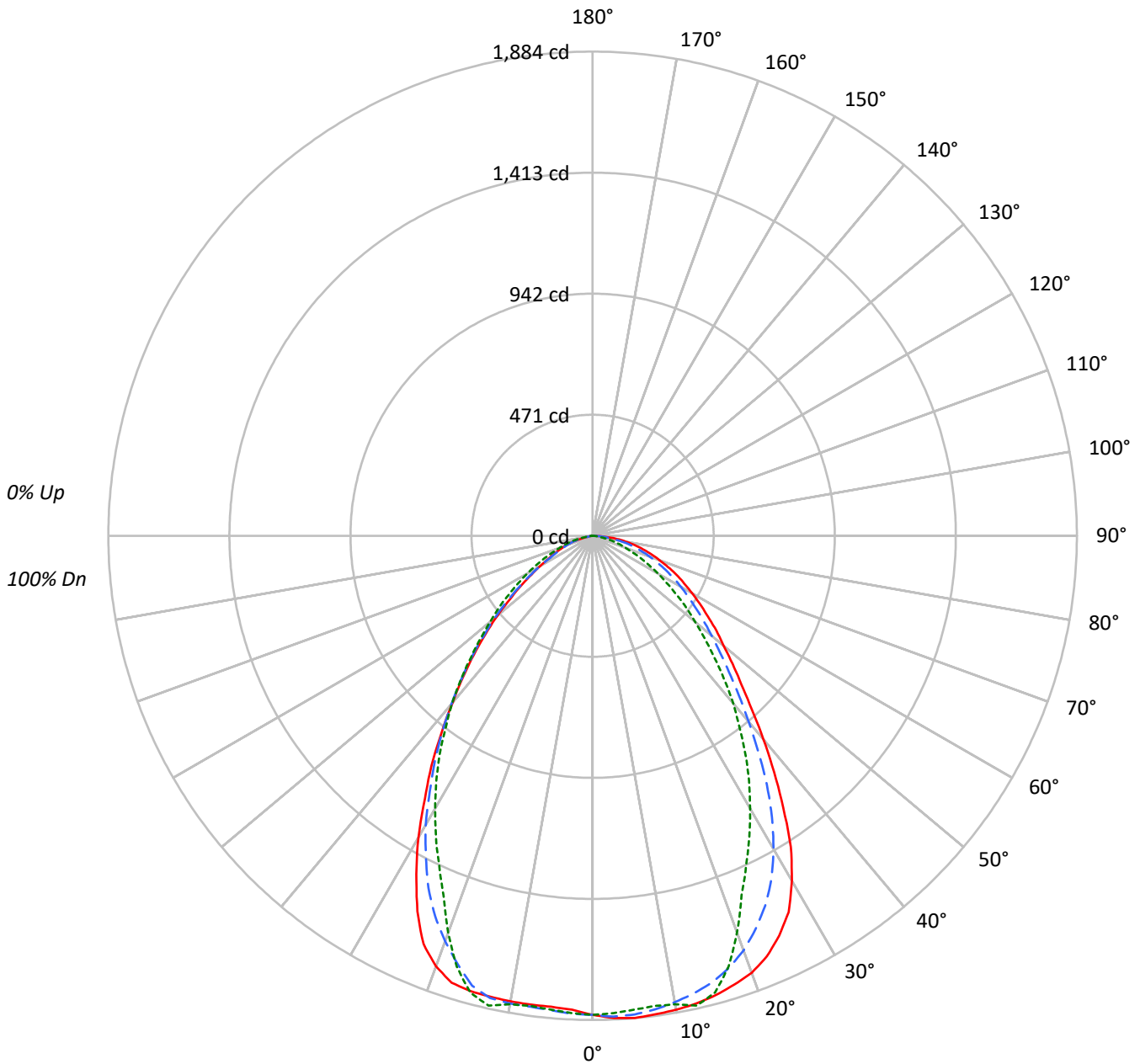
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P251714

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBLWW1LI

Luminous Intensity Polar Plot





TEST NUMBER: P251714

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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|-----|
| RF | 20 | | | | 20 | | | | 20 | | | | 20 | | | | 20 | | | | |
| RC | 80 | | | | 70 | | | | 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 | | | 100 |
| 1 | 111 | 107 | 103 | 100 | 108 | 105 | 102 | 99 | 101 | 98 | 96 | 97 | 95 | 93 | 93 | 91 | 90 | 88 | | | 88 |
| 2 | 103 | 96 | 90 | 85 | 100 | 94 | 89 | 84 | 90 | 86 | 82 | 87 | 84 | 80 | 84 | 81 | 79 | 77 | | | 77 |
| 3 | 95 | 86 | 79 | 74 | 93 | 84 | 78 | 73 | 82 | 76 | 72 | 79 | 74 | 70 | 77 | 73 | 69 | 67 | | | 67 |
| 4 | 88 | 78 | 70 | 64 | 86 | 76 | 69 | 64 | 74 | 68 | 63 | 72 | 67 | 62 | 70 | 65 | 62 | 60 | | | 60 |
| 5 | 82 | 71 | 63 | 57 | 80 | 70 | 62 | 57 | 68 | 61 | 56 | 66 | 60 | 56 | 64 | 59 | 55 | 53 | | | 53 |
| 6 | 76 | 65 | 57 | 51 | 75 | 64 | 56 | 51 | 62 | 55 | 50 | 60 | 54 | 50 | 59 | 54 | 50 | 48 | | | 48 |
| 7 | 71 | 59 | 51 | 46 | 70 | 59 | 51 | 46 | 57 | 50 | 46 | 56 | 50 | 45 | 54 | 49 | 45 | 43 | | | 43 |
| 8 | 67 | 55 | 47 | 42 | 65 | 54 | 47 | 42 | 53 | 46 | 41 | 52 | 46 | 41 | 51 | 45 | 41 | 39 | | | 39 |
| 9 | 63 | 51 | 43 | 38 | 62 | 50 | 43 | 38 | 49 | 43 | 38 | 48 | 42 | 38 | 47 | 42 | 38 | 36 | | | 36 |
| 10 | 59 | 47 | 40 | 35 | 58 | 47 | 40 | 35 | 46 | 39 | 35 | 45 | 39 | 35 | 44 | 39 | 35 | 33 | | | 33 |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 181701 | 181701 | 181701 |
| 5° | 184273 | 181064 | 179988 |
| 10° | 185315 | 183158 | 182069 |
| 15° | 186738 | 185629 | 185084 |
| 20° | 187689 | 170400 | 184858 |
| 25° | 184613 | 151987 | 173440 |
| 30° | 174429 | 137821 | 152586 |
| 35° | 153846 | 123269 | 130098 |
| 40° | 131472 | 108165 | 107821 |
| 45° | 112659 | 92316 | 90056 |
| 50° | 100720 | 78750 | 73368 |
| 55° | 92908 | 67354 | 58059 |
| 60° | 86855 | 57013 | 45825 |
| 65° | 83226 | 47274 | 37819 |
| 70° | 78674 | 38183 | 31943 |
| 75° | 76176 | 30877 | 22631 |
| 80° | 73635 | 16893 | 6118 |
| 85° | 64185 | 9169 | 3019 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 177.1 | 5.2 |
| 10°-20° | 509.6 | 15.0 |
| 20°-30° | 706.8 | 20.9 |
| 30°-40° | 697.6 | 20.6 |
| 40°-50° | 547.2 | 16.1 |
| 50°-60° | 379.0 | 11.2 |
| 60°-70° | 232.3 | 6.9 |
| 70°-80° | 116.1 | 3.4 |
| 80°-90° | 23.2 | 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° | 1393.5 | 41.1 |
| 0°-40° | 2091.2 | 61.7 |
| 0°-60° | 3017.4 | 89.0 |
| 0°-90° | 3389.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3389.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1864 | 1864 | 1864 | 1864 | 1864 | |
| 5° | 1884 | 1870 | 1851 | 1854 | 1840 | 179 |
| 15° | 1851 | 1799 | 1840 | 1812 | 1834 | 523 |
| 25° | 1717 | 1588 | 1413 | 1512 | 1613 | 786 |
| 35° | 1293 | 1181 | 1036 | 1069 | 1094 | 807 |
| 45° | 817 | 749 | 670 | 662 | 653 | 639 |
| 55° | 547 | 489 | 396 | 353 | 342 | 492 |
| 65° | 361 | 312 | 205 | 153 | 164 | 356 |
| 75° | 202 | 170 | 82 | 63 | 60 | 215 |
| 85° | 57 | 33 | 8 | 3 | 3 | 65 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P251714

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBLWW1LI

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 |
| 2.5° | 1878.1 | 1872.6 | 1869.9 | 1878.1 | 1875.4 | 1880.8 | 1878.1 | 1875.4 | 1869.9 | 1872.6 | 1872.6 |
| 5° | 1883.6 | 1875.4 | 1872.6 | 1878.1 | 1878.1 | 1883.6 | 1880.8 | 1875.4 | 1869.9 | 1872.6 | 1869.9 |
| 7.5° | 1878.1 | 1872.6 | 1872.6 | 1875.4 | 1872.6 | 1878.1 | 1872.6 | 1867.2 | 1861.7 | 1864.4 | 1859.0 |
| 10° | 1872.6 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1869.9 | 1864.4 | 1856.2 | 1848.0 | 1848.0 | 1842.6 |
| 12.5° | 1864.4 | 1856.2 | 1856.2 | 1859.0 | 1853.5 | 1859.0 | 1853.5 | 1839.8 | 1831.6 | 1828.9 | 1823.4 |
| 15° | 1850.8 | 1842.6 | 1842.6 | 1842.6 | 1837.1 | 1839.8 | 1831.6 | 1817.9 | 1807.0 | 1807.0 | 1798.8 |
| 17.5° | 1831.6 | 1823.4 | 1820.7 | 1820.7 | 1812.5 | 1815.2 | 1807.0 | 1793.3 | 1776.9 | 1771.5 | 1763.3 |
| 20° | 1809.7 | 1798.8 | 1793.3 | 1793.3 | 1785.1 | 1787.9 | 1776.9 | 1760.5 | 1738.7 | 1730.5 | 1716.8 |
| 22.5° | 1771.5 | 1766.0 | 1757.8 | 1755.1 | 1746.9 | 1744.1 | 1733.2 | 1711.3 | 1692.2 | 1678.5 | 1656.7 |
| 25° | 1716.8 | 1714.1 | 1705.9 | 1703.1 | 1692.2 | 1686.7 | 1675.8 | 1651.2 | 1632.1 | 1610.2 | 1588.3 |
| 27.5° | 1651.2 | 1640.3 | 1634.8 | 1626.6 | 1615.7 | 1612.9 | 1599.2 | 1577.4 | 1547.3 | 1533.6 | 1506.3 |
| 30° | 1550.0 | 1544.6 | 1539.1 | 1530.9 | 1520.0 | 1514.5 | 1506.3 | 1481.7 | 1457.1 | 1432.5 | 1407.9 |
| 32.5° | 1435.2 | 1424.3 | 1416.1 | 1418.8 | 1405.2 | 1399.7 | 1386.0 | 1364.1 | 1342.3 | 1325.9 | 1298.5 |
| 35° | 1293.1 | 1290.3 | 1287.6 | 1282.1 | 1271.2 | 1268.5 | 1257.5 | 1241.1 | 1216.5 | 1197.4 | 1181.0 |
| 37.5° | 1159.1 | 1150.9 | 1145.4 | 1145.4 | 1134.5 | 1134.5 | 1126.3 | 1107.2 | 1093.5 | 1079.8 | 1058.0 |
| 40° | 1033.4 | 1019.7 | 1019.7 | 1019.7 | 1008.8 | 1011.5 | 1006.0 | 986.9 | 973.2 | 956.8 | 943.1 |
| 42.5° | 915.8 | 910.3 | 907.6 | 902.1 | 896.7 | 896.7 | 891.2 | 880.3 | 866.6 | 855.7 | 842.0 |
| 45° | 817.4 | 814.7 | 811.9 | 809.2 | 803.7 | 801.0 | 798.3 | 781.9 | 773.7 | 762.7 | 749.0 |
| 47.5° | 738.1 | 732.6 | 729.9 | 727.2 | 721.7 | 719.0 | 713.5 | 702.6 | 694.4 | 683.4 | 672.5 |
| 50° | 664.3 | 661.6 | 658.8 | 658.8 | 653.4 | 650.6 | 645.2 | 637.0 | 623.3 | 617.8 | 604.2 |
| 52.5° | 606.9 | 601.4 | 596.0 | 596.0 | 590.5 | 590.5 | 582.3 | 574.1 | 560.4 | 555.0 | 544.0 |
| 55° | 546.8 | 544.0 | 541.3 | 541.3 | 535.8 | 533.1 | 530.3 | 519.4 | 508.5 | 500.3 | 489.3 |
| 57.5° | 494.8 | 492.1 | 489.3 | 489.3 | 483.9 | 481.1 | 478.4 | 470.2 | 459.3 | 453.8 | 440.1 |
| 60° | 445.6 | 445.6 | 442.9 | 440.1 | 437.4 | 434.7 | 431.9 | 423.7 | 415.5 | 407.3 | 396.4 |
| 62.5° | 401.9 | 399.1 | 396.4 | 393.7 | 393.7 | 390.9 | 388.2 | 377.3 | 371.8 | 363.6 | 352.7 |
| 65° | 360.9 | 355.4 | 355.4 | 352.7 | 352.7 | 349.9 | 347.2 | 336.3 | 330.8 | 322.6 | 311.6 |
| 67.5° | 317.1 | 314.4 | 311.6 | 311.6 | 308.9 | 308.9 | 306.2 | 298.0 | 289.8 | 284.3 | 273.4 |
| 70° | 276.1 | 276.1 | 273.4 | 273.4 | 270.6 | 267.9 | 267.9 | 262.4 | 254.2 | 246.0 | 235.1 |
| 72.5° | 240.6 | 237.8 | 235.1 | 235.1 | 232.4 | 232.4 | 229.6 | 224.2 | 218.7 | 213.2 | 199.6 |
| 75° | 202.3 | 199.6 | 199.6 | 199.6 | 196.8 | 196.8 | 194.1 | 188.6 | 183.2 | 177.7 | 169.5 |
| 77.5° | 166.8 | 166.8 | 164.0 | 164.0 | 161.3 | 161.3 | 161.3 | 155.8 | 150.4 | 144.9 | 134.0 |
| 80° | 131.2 | 131.2 | 131.2 | 128.5 | 125.8 | 125.8 | 125.8 | 120.3 | 114.8 | 109.4 | 101.1 |
| 82.5° | 95.7 | 92.9 | 92.9 | 90.2 | 87.5 | 87.5 | 87.5 | 82.0 | 79.3 | 71.1 | 65.6 |
| 85° | 57.4 | 54.7 | 54.7 | 51.9 | 49.2 | 49.2 | 49.2 | 46.5 | 41.0 | 38.3 | 32.8 |
| 87.5° | 21.9 | 21.9 | 21.9 | 21.9 | 21.9 | 19.1 | 19.1 | 16.4 | 16.4 | 13.7 | 13.7 |
| 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: P251714

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBLWW1LI

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 |
| 2.5° | 1872.6 | 1869.9 | 1869.9 | 1867.2 | 1869.9 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1859.0 | 1859.0 |
| 5° | 1867.2 | 1867.2 | 1864.4 | 1861.7 | 1864.4 | 1859.0 | 1861.7 | 1859.0 | 1859.0 | 1850.8 | 1850.8 |
| 7.5° | 1856.2 | 1853.5 | 1848.0 | 1845.3 | 1848.0 | 1845.3 | 1845.3 | 1845.3 | 1850.8 | 1845.3 | 1845.3 |
| 10° | 1837.1 | 1834.4 | 1828.9 | 1826.1 | 1826.1 | 1823.4 | 1828.9 | 1834.4 | 1845.3 | 1850.8 | 1861.7 |
| 12.5° | 1817.9 | 1812.5 | 1809.7 | 1809.7 | 1812.5 | 1812.5 | 1823.4 | 1837.1 | 1864.4 | 1872.6 | 1883.6 |
| 15° | 1793.3 | 1790.6 | 1790.6 | 1798.8 | 1809.7 | 1817.9 | 1839.8 | 1848.0 | 1850.8 | 1839.8 | 1834.4 |
| 17.5° | 1760.5 | 1760.5 | 1763.3 | 1771.5 | 1779.7 | 1779.7 | 1782.4 | 1776.9 | 1771.5 | 1757.8 | 1741.4 |
| 20° | 1705.9 | 1703.1 | 1697.7 | 1697.7 | 1697.7 | 1686.7 | 1692.2 | 1673.1 | 1659.4 | 1643.0 | 1618.4 |
| 22.5° | 1637.5 | 1623.9 | 1604.7 | 1591.0 | 1582.8 | 1577.4 | 1563.7 | 1541.8 | 1525.4 | 1514.5 | 1503.6 |
| 25° | 1563.7 | 1541.8 | 1514.5 | 1492.6 | 1479.0 | 1476.2 | 1457.1 | 1438.0 | 1427.0 | 1413.4 | 1407.9 |
| 27.5° | 1479.0 | 1454.4 | 1421.6 | 1399.7 | 1388.7 | 1380.5 | 1364.1 | 1345.0 | 1331.3 | 1320.4 | 1312.2 |
| 30° | 1380.5 | 1355.9 | 1328.6 | 1301.3 | 1290.3 | 1276.7 | 1260.3 | 1246.6 | 1232.9 | 1224.7 | 1219.3 |
| 32.5° | 1271.2 | 1246.6 | 1219.3 | 1200.1 | 1186.5 | 1175.5 | 1161.8 | 1148.2 | 1137.2 | 1131.8 | 1126.3 |
| 35° | 1159.1 | 1134.5 | 1112.6 | 1093.5 | 1082.6 | 1074.4 | 1063.4 | 1047.0 | 1038.8 | 1036.1 | 1030.6 |
| 37.5° | 1038.8 | 1022.4 | 1003.3 | 986.9 | 978.7 | 967.7 | 962.3 | 948.6 | 948.6 | 937.7 | 937.7 |
| 40° | 926.7 | 915.8 | 896.7 | 883.0 | 877.5 | 869.3 | 861.1 | 855.7 | 852.9 | 850.2 | 847.5 |
| 42.5° | 828.3 | 811.9 | 801.0 | 790.1 | 781.9 | 776.4 | 776.4 | 768.2 | 765.5 | 757.3 | 754.5 |
| 45° | 738.1 | 729.9 | 710.8 | 702.6 | 699.8 | 691.6 | 688.9 | 683.4 | 675.2 | 669.8 | 667.0 |
| 47.5° | 658.8 | 650.6 | 639.7 | 628.8 | 623.3 | 617.8 | 612.4 | 604.2 | 598.7 | 590.5 | 587.8 |
| 50° | 593.2 | 579.6 | 568.6 | 560.4 | 552.2 | 549.5 | 544.0 | 533.1 | 527.6 | 519.4 | 519.4 |
| 52.5° | 533.1 | 522.1 | 508.5 | 500.3 | 492.1 | 486.6 | 478.4 | 470.2 | 462.0 | 459.3 | 451.1 |
| 55° | 481.1 | 467.5 | 453.8 | 442.9 | 434.7 | 426.5 | 423.7 | 412.8 | 401.9 | 396.4 | 390.9 |
| 57.5° | 431.9 | 418.3 | 401.9 | 388.2 | 382.7 | 377.3 | 369.1 | 358.1 | 349.9 | 341.7 | 336.3 |
| 60° | 382.7 | 371.8 | 355.4 | 341.7 | 336.3 | 328.1 | 319.8 | 308.9 | 300.7 | 292.5 | 287.0 |
| 62.5° | 341.7 | 325.3 | 311.6 | 298.0 | 289.8 | 284.3 | 273.4 | 265.2 | 254.2 | 246.0 | 237.8 |
| 65° | 300.7 | 284.3 | 270.6 | 257.0 | 251.5 | 243.3 | 235.1 | 224.2 | 213.2 | 205.0 | 194.1 |
| 67.5° | 259.7 | 246.0 | 232.4 | 218.7 | 213.2 | 207.8 | 196.8 | 185.9 | 175.0 | 166.8 | 155.8 |
| 70° | 224.2 | 210.5 | 196.8 | 185.9 | 180.4 | 175.0 | 164.0 | 153.1 | 144.9 | 134.0 | 125.8 |
| 72.5° | 191.4 | 180.4 | 166.8 | 155.8 | 150.4 | 144.9 | 134.0 | 125.8 | 114.8 | 109.4 | 101.1 |
| 75° | 158.6 | 147.6 | 136.7 | 125.8 | 120.3 | 114.8 | 106.6 | 98.4 | 90.2 | 82.0 | 76.5 |
| 77.5° | 125.8 | 114.8 | 103.9 | 95.7 | 90.2 | 87.5 | 79.3 | 71.1 | 62.9 | 57.4 | 49.2 |
| 80° | 92.9 | 82.0 | 73.8 | 65.6 | 60.1 | 57.4 | 49.2 | 43.7 | 38.3 | 30.1 | 27.3 |
| 82.5° | 57.4 | 49.2 | 43.7 | 38.3 | 35.5 | 32.8 | 27.3 | 21.9 | 19.1 | 16.4 | 13.7 |
| 85° | 30.1 | 27.3 | 21.9 | 19.1 | 16.4 | 16.4 | 13.7 | 10.9 | 8.2 | 8.2 | 5.5 |
| 87.5° | 10.9 | 8.2 | 8.2 | 5.5 | 5.5 | 5.5 | 5.5 | 2.7 | 2.7 | 2.7 | 2.7 |
| 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: P251714

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBLWW1LI

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 |
| 2.5° | 1853.5 | 1856.2 | 1859.0 | 1861.7 | 1859.0 | 1859.0 | 1864.4 | 1853.5 | 1861.7 | 1861.7 | 1850.8 |
| 5° | 1848.0 | 1853.5 | 1850.8 | 1856.2 | 1850.8 | 1850.8 | 1853.5 | 1848.0 | 1853.5 | 1853.5 | 1845.3 |
| 7.5° | 1842.6 | 1848.0 | 1848.0 | 1850.8 | 1848.0 | 1848.0 | 1850.8 | 1842.6 | 1848.0 | 1848.0 | 1839.8 |
| 10° | 1867.2 | 1872.6 | 1869.9 | 1867.2 | 1859.0 | 1853.5 | 1856.2 | 1842.6 | 1848.0 | 1848.0 | 1839.8 |
| 12.5° | 1875.4 | 1872.6 | 1861.7 | 1856.2 | 1850.8 | 1845.3 | 1848.0 | 1837.1 | 1842.6 | 1842.6 | 1837.1 |
| 15° | 1820.7 | 1815.2 | 1807.0 | 1809.7 | 1804.3 | 1801.5 | 1807.0 | 1801.5 | 1812.5 | 1817.9 | 1812.5 |
| 17.5° | 1727.7 | 1725.0 | 1719.5 | 1719.5 | 1719.5 | 1722.3 | 1730.5 | 1730.5 | 1746.9 | 1757.8 | 1763.3 |
| 20° | 1607.4 | 1604.7 | 1607.4 | 1612.9 | 1615.7 | 1626.6 | 1645.7 | 1656.7 | 1678.5 | 1697.7 | 1711.3 |
| 22.5° | 1498.1 | 1503.6 | 1511.8 | 1522.7 | 1525.4 | 1539.1 | 1563.7 | 1574.6 | 1602.0 | 1623.9 | 1637.5 |
| 25° | 1405.2 | 1413.4 | 1418.8 | 1427.0 | 1429.8 | 1446.2 | 1468.0 | 1481.7 | 1511.8 | 1528.2 | 1544.6 |
| 27.5° | 1312.2 | 1323.1 | 1325.9 | 1336.8 | 1336.8 | 1353.2 | 1372.3 | 1386.0 | 1405.2 | 1421.6 | 1435.2 |
| 30° | 1222.0 | 1224.7 | 1232.9 | 1235.7 | 1241.1 | 1257.5 | 1268.5 | 1276.7 | 1298.5 | 1306.7 | 1314.9 |
| 32.5° | 1123.6 | 1134.5 | 1140.0 | 1142.7 | 1140.0 | 1153.6 | 1164.6 | 1170.0 | 1178.2 | 1189.2 | 1194.7 |
| 35° | 1030.6 | 1036.1 | 1038.8 | 1044.3 | 1047.0 | 1049.8 | 1055.2 | 1058.0 | 1068.9 | 1071.6 | 1074.4 |
| 37.5° | 937.7 | 945.9 | 943.1 | 945.9 | 945.9 | 948.6 | 954.1 | 951.3 | 959.5 | 962.3 | 959.5 |
| 40° | 844.7 | 844.7 | 850.2 | 847.5 | 850.2 | 847.5 | 852.9 | 852.9 | 852.9 | 855.7 | 852.9 |
| 42.5° | 751.8 | 754.5 | 751.8 | 757.3 | 751.8 | 754.5 | 754.5 | 751.8 | 754.5 | 751.8 | 751.8 |
| 45° | 667.0 | 667.0 | 667.0 | 667.0 | 661.6 | 661.6 | 667.0 | 664.3 | 661.6 | 658.8 | 656.1 |
| 47.5° | 585.0 | 587.8 | 582.3 | 585.0 | 582.3 | 579.6 | 576.8 | 576.8 | 574.1 | 568.6 | 565.9 |
| 50° | 516.7 | 511.2 | 508.5 | 511.2 | 508.5 | 505.7 | 503.0 | 497.5 | 494.8 | 489.3 | 486.6 |
| 52.5° | 448.3 | 442.9 | 437.4 | 437.4 | 434.7 | 429.2 | 426.5 | 421.0 | 418.3 | 412.8 | 412.8 |
| 55° | 388.2 | 382.7 | 377.3 | 374.5 | 369.1 | 363.6 | 360.9 | 355.4 | 352.7 | 347.2 | 341.7 |
| 57.5° | 330.8 | 322.6 | 317.1 | 314.4 | 311.6 | 303.4 | 300.7 | 295.2 | 289.8 | 284.3 | 281.6 |
| 60° | 278.8 | 270.6 | 262.4 | 259.7 | 257.0 | 248.8 | 246.0 | 237.8 | 235.1 | 229.6 | 226.9 |
| 62.5° | 229.6 | 224.2 | 213.2 | 210.5 | 205.0 | 199.6 | 191.4 | 188.6 | 185.9 | 188.6 | 188.6 |
| 65° | 185.9 | 177.7 | 169.5 | 166.8 | 161.3 | 155.8 | 153.1 | 150.4 | 153.1 | 153.1 | 155.8 |
| 67.5° | 147.6 | 139.4 | 131.2 | 131.2 | 128.5 | 123.0 | 123.0 | 123.0 | 125.8 | 125.8 | 128.5 |
| 70° | 117.6 | 112.1 | 106.6 | 103.9 | 103.9 | 101.1 | 103.9 | 103.9 | 106.6 | 106.6 | 106.6 |
| 72.5° | 92.9 | 90.2 | 87.5 | 84.7 | 84.7 | 84.7 | 84.7 | 84.7 | 84.7 | 84.7 | 87.5 |
| 75° | 71.1 | 68.3 | 65.6 | 65.6 | 62.9 | 62.9 | 62.9 | 62.9 | 62.9 | 62.9 | 60.1 |
| 77.5° | 46.5 | 43.7 | 41.0 | 41.0 | 38.3 | 35.5 | 35.5 | 32.8 | 32.8 | 32.8 | 32.8 |
| 80° | 24.6 | 21.9 | 19.1 | 16.4 | 16.4 | 13.7 | 13.7 | 13.7 | 13.7 | 10.9 | 10.9 |
| 82.5° | 10.9 | 8.2 | 8.2 | 8.2 | 8.2 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| 85° | 5.5 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 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: P251714

CATALOG NUMBER: LD4B40D010 EU4B30508035 4LBLWW1LI

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 | 1864.4 |
| 2.5° | 1856.2 | 1850.8 | 1856.2 | 1859.0 | 1853.5 | 1850.8 | 1856.2 | 1845.3 |
| 5° | 1853.5 | 1845.3 | 1848.0 | 1850.8 | 1845.3 | 1842.6 | 1848.0 | 1839.8 |
| 7.5° | 1848.0 | 1845.3 | 1848.0 | 1850.8 | 1842.6 | 1842.6 | 1848.0 | 1839.8 |
| 10° | 1848.0 | 1842.6 | 1845.3 | 1850.8 | 1845.3 | 1845.3 | 1850.8 | 1839.8 |
| 12.5° | 1845.3 | 1837.1 | 1845.3 | 1848.0 | 1842.6 | 1842.6 | 1848.0 | 1837.1 |
| 15° | 1826.1 | 1826.1 | 1828.9 | 1834.4 | 1831.6 | 1834.4 | 1842.6 | 1834.4 |
| 17.5° | 1785.1 | 1790.6 | 1801.5 | 1809.7 | 1815.2 | 1820.7 | 1828.9 | 1823.4 |
| 20° | 1735.9 | 1744.1 | 1757.8 | 1766.0 | 1776.9 | 1779.7 | 1793.3 | 1782.4 |
| 22.5° | 1659.4 | 1675.8 | 1686.7 | 1694.9 | 1703.1 | 1711.3 | 1722.3 | 1719.5 |
| 25° | 1566.4 | 1577.4 | 1585.6 | 1593.8 | 1604.7 | 1610.2 | 1615.7 | 1612.9 |
| 27.5° | 1454.4 | 1459.8 | 1470.8 | 1476.2 | 1481.7 | 1487.2 | 1498.1 | 1484.4 |
| 30° | 1331.3 | 1334.1 | 1339.5 | 1347.7 | 1347.7 | 1353.2 | 1358.7 | 1355.9 |
| 32.5° | 1205.6 | 1205.6 | 1211.1 | 1216.5 | 1213.8 | 1216.5 | 1227.5 | 1213.8 |
| 35° | 1082.6 | 1079.8 | 1088.0 | 1090.8 | 1090.8 | 1088.0 | 1096.2 | 1093.5 |
| 37.5° | 962.3 | 965.0 | 967.7 | 970.5 | 965.0 | 970.5 | 970.5 | 965.0 |
| 40° | 852.9 | 850.2 | 855.7 | 858.4 | 855.7 | 858.4 | 858.4 | 847.5 |
| 42.5° | 754.5 | 749.0 | 751.8 | 754.5 | 751.8 | 754.5 | 751.8 | 746.3 |
| 45° | 658.8 | 656.1 | 656.1 | 658.8 | 653.4 | 653.4 | 653.4 | 653.4 |
| 47.5° | 568.6 | 565.9 | 568.6 | 568.6 | 563.2 | 563.2 | 565.9 | 563.2 |
| 50° | 486.6 | 483.9 | 483.9 | 483.9 | 481.1 | 481.1 | 483.9 | 483.9 |
| 52.5° | 412.8 | 407.3 | 407.3 | 407.3 | 407.3 | 407.3 | 410.1 | 404.6 |
| 55° | 339.0 | 339.0 | 339.0 | 339.0 | 341.7 | 341.7 | 341.7 | 341.7 |
| 57.5° | 278.8 | 281.6 | 281.6 | 284.3 | 281.6 | 284.3 | 284.3 | 281.6 |
| 60° | 232.4 | 229.6 | 232.4 | 232.4 | 235.1 | 235.1 | 235.1 | 235.1 |
| 62.5° | 191.4 | 191.4 | 191.4 | 194.1 | 194.1 | 194.1 | 196.8 | 194.1 |
| 65° | 158.6 | 158.6 | 161.3 | 161.3 | 161.3 | 164.0 | 164.0 | 164.0 |
| 67.5° | 131.2 | 131.2 | 131.2 | 131.2 | 134.0 | 134.0 | 136.7 | 134.0 |
| 70° | 109.4 | 109.4 | 109.4 | 109.4 | 109.4 | 112.1 | 112.1 | 112.1 |
| 72.5° | 87.5 | 87.5 | 87.5 | 87.5 | 90.2 | 90.2 | 90.2 | 90.2 |
| 75° | 60.1 | 60.1 | 60.1 | 62.9 | 60.1 | 60.1 | 60.1 | 60.1 |
| 77.5° | 30.1 | 30.1 | 30.1 | 30.1 | 30.1 | 27.3 | 27.3 | 27.3 |
| 80° | 10.9 | 10.9 | 10.9 | 10.9 | 10.9 | 10.9 | 8.2 | 10.9 |
| 82.5° | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 2.7 |
| 85° | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 |
| 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)