

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: PORTFOLIO

Report Number: P880578

Luminaire Tested: **LD4C45D010 EU4459030 4LBDWNH**

Issue Date: 10/4/2024

This test was performed under the Supervised Manufacturer's Testing Program. The results of this test have not been influenced by sources from within Cooper Lighting Solutions or from external interests.



Test Information

Test Method: LM-79-08
Report Number: P880578
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P251940)
Test Lab: INNOVATION CENTER
Issue Date: 10/4/2024
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: PORTFOLIO
Catalog Number: LD4C45D010 EU4459030 4LBDWNH
Description: 4 INCH 4500 LUMEN PORTFOLIO LED DOWNLIGHT WITH, 3000K, 90CRI LEDS
AND 4LBDWN TRIM WITH H FINISH
Light Source: -
Ballast/Driver: -

Luminaire Equipment: Sample No. Condition Description

Summary

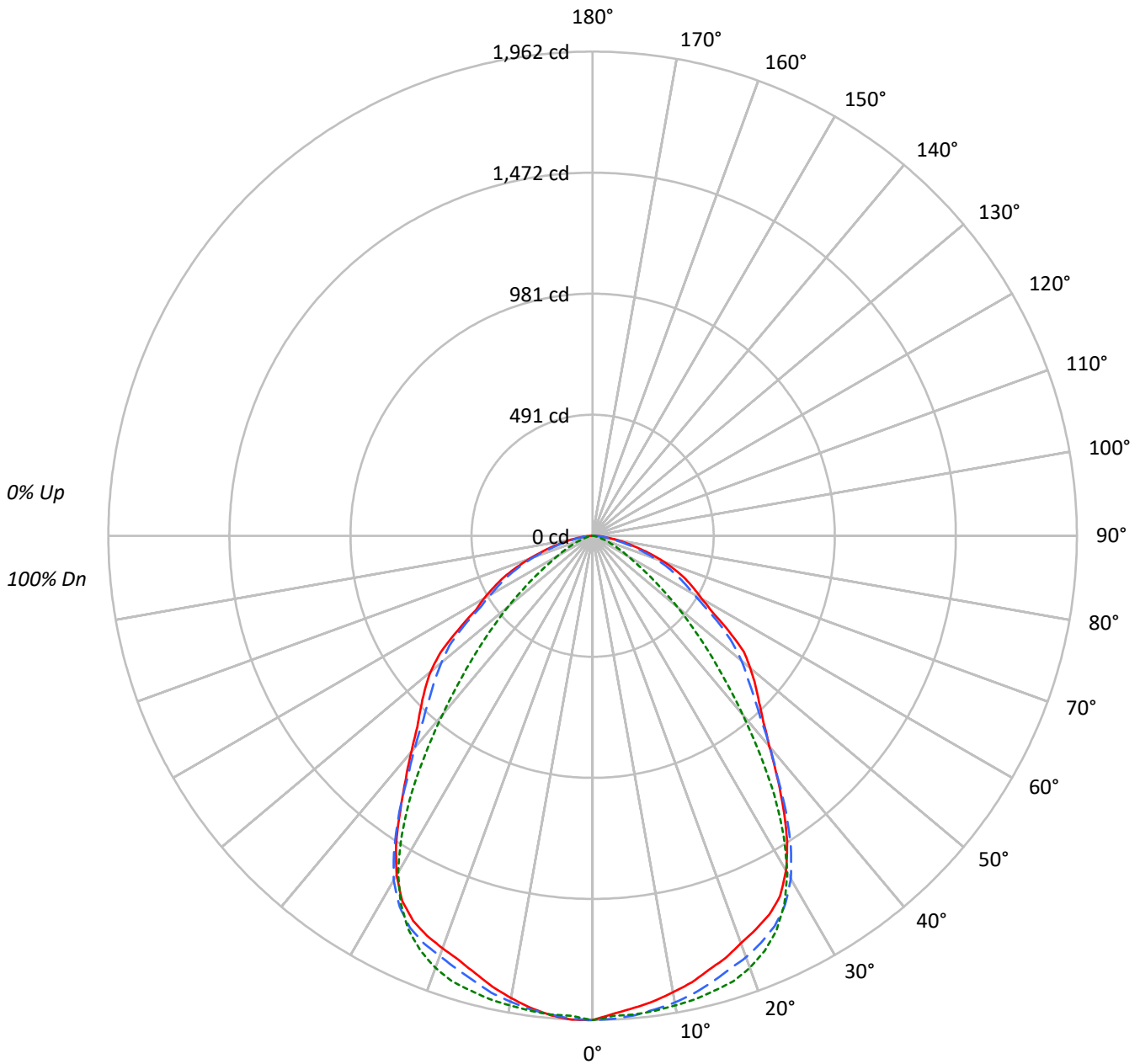
Lumens per Lamp: N/A
Luminaire Lumens: 3994.0 lumens
Efficiency: N/A
Efficacy: 80.5 lumens/watt
Spacing Criteria (0/90/45): 1.19 / 1.18 / 1.19
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 49.6
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: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

Luminous Intensity Polar Plot





TEST NUMBER: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

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 | 104 | 101 | 98 | 100 | 98 | 95 | 96 | 94 | 92 | 93 | 91 | 89 | 88 | | | | | | | | | | | | | | | | | | | |
| 2 | 102 | 95 | 89 | 84 | 100 | 93 | 88 | 83 | 90 | 85 | 81 | 87 | 83 | 80 | 84 | 81 | 78 | 76 | | | | | | | | | | | | | | | | | | | |
| 3 | 94 | 85 | 78 | 72 | 92 | 84 | 77 | 72 | 81 | 75 | 70 | 78 | 73 | 69 | 76 | 72 | 68 | 66 | | | | | | | | | | | | | | | | | | | |
| 4 | 87 | 77 | 69 | 63 | 85 | 75 | 68 | 62 | 73 | 67 | 62 | 71 | 65 | 61 | 69 | 64 | 60 | 58 | | | | | | | | | | | | | | | | | | | |
| 5 | 81 | 69 | 61 | 55 | 79 | 68 | 61 | 55 | 66 | 60 | 54 | 64 | 58 | 54 | 63 | 57 | 53 | 51 | | | | | | | | | | | | | | | | | | | |
| 6 | 75 | 63 | 55 | 49 | 73 | 62 | 55 | 49 | 60 | 54 | 49 | 59 | 53 | 48 | 57 | 52 | 48 | 46 | | | | | | | | | | | | | | | | | | | |
| 7 | 70 | 58 | 50 | 44 | 68 | 57 | 49 | 44 | 56 | 49 | 44 | 54 | 48 | 43 | 53 | 47 | 43 | 41 | | | | | | | | | | | | | | | | | | | |
| 8 | 66 | 53 | 45 | 40 | 64 | 52 | 45 | 40 | 51 | 44 | 40 | 50 | 44 | 39 | 49 | 43 | 39 | 37 | | | | | | | | | | | | | | | | | | | |
| 9 | 62 | 49 | 41 | 36 | 60 | 49 | 41 | 36 | 47 | 41 | 36 | 46 | 40 | 36 | 45 | 40 | 36 | 34 | | | | | | | | | | | | | | | | | | | |
| 10 | 58 | 46 | 38 | 33 | 57 | 45 | 38 | 33 | 44 | 38 | 33 | 43 | 37 | 33 | 42 | 37 | 33 | 31 | | | | | | | | | | | | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 241100 | 241100 | 241100 |
| 5° | 236817 | 240159 | 240529 |
| 10° | 234278 | 241064 | 237284 |
| 15° | 231557 | 242686 | 233465 |
| 20° | 229720 | 243552 | 232491 |
| 25° | 229601 | 239008 | 233275 |
| 30° | 222293 | 223584 | 225286 |
| 35° | 201958 | 192450 | 203758 |
| 40° | 178672 | 151537 | 183019 |
| 45° | 165749 | 115399 | 171013 |
| 50° | 159265 | 85414 | 163891 |
| 55° | 144213 | 58859 | 142264 |
| 60° | 125384 | 40050 | 124647 |
| 65° | 121133 | 28982 | 114970 |
| 70° | 109520 | 19540 | 97595 |
| 75° | 90235 | 12864 | 77371 |
| 80° | 72659 | 8561 | 57660 |
| 85° | 59625 | 4229 | 38200 |



TEST NUMBER: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 185.3 | 4.6 |
| 10°-20° | 529.7 | 13.3 |
| 20°-30° | 800.2 | 20.0 |
| 30°-40° | 837.5 | 21.0 |
| 40°-50° | 678.3 | 17.0 |
| 50°-60° | 493.4 | 12.4 |
| 60°-70° | 304.3 | 7.6 |
| 70°-80° | 137.5 | 3.4 |
| 80°-90° | 27.9 | 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° | 1515.2 | 37.9 |
| 0°-40° | 2352.7 | 58.9 |
| 0°-60° | 3524.3 | 88.2 |
| 0°-90° | 3994.0 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 3994.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1962 | 1962 | 1962 | 1962 | 1962 | |
| 5° | 1920 | 1950 | 1947 | 1947 | 1950 | 182 |
| 15° | 1821 | 1872 | 1908 | 1866 | 1836 | 515 |
| 25° | 1694 | 1745 | 1763 | 1751 | 1721 | 776 |
| 35° | 1347 | 1365 | 1283 | 1365 | 1359 | 839 |
| 45° | 954 | 924 | 664 | 936 | 984 | 742 |
| 55° | 673 | 631 | 275 | 637 | 664 | 601 |
| 65° | 417 | 374 | 100 | 368 | 396 | 408 |
| 75° | 190 | 163 | 27 | 142 | 163 | 206 |
| 85° | 42 | 33 | 3 | 24 | 27 | 49 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 |
| 2.5° | 1938.3 | 1938.3 | 1956.5 | 1977.5 | 1959.5 | 1941.3 | 1953.4 | 1947.4 | 1968.6 | 1968.6 | 1959.5 |
| 5° | 1920.3 | 1926.3 | 1941.3 | 1959.5 | 1944.5 | 1926.3 | 1941.3 | 1935.4 | 1956.5 | 1956.5 | 1950.4 |
| 7.5° | 1902.1 | 1905.1 | 1923.3 | 1944.5 | 1929.2 | 1911.2 | 1923.3 | 1920.3 | 1938.3 | 1941.3 | 1935.4 |
| 10° | 1878.0 | 1880.9 | 1899.1 | 1920.3 | 1905.1 | 1890.0 | 1902.1 | 1899.1 | 1923.3 | 1923.3 | 1920.3 |
| 12.5° | 1853.8 | 1856.8 | 1875.0 | 1893.0 | 1878.0 | 1862.9 | 1875.0 | 1875.0 | 1899.1 | 1902.1 | 1899.1 |
| 15° | 1820.6 | 1826.5 | 1841.8 | 1859.8 | 1850.9 | 1832.7 | 1844.7 | 1844.7 | 1865.9 | 1871.9 | 1871.9 |
| 17.5° | 1793.5 | 1796.5 | 1811.5 | 1829.7 | 1817.6 | 1802.4 | 1814.5 | 1814.5 | 1835.6 | 1841.8 | 1841.8 |
| 20° | 1757.1 | 1763.2 | 1778.3 | 1796.5 | 1787.4 | 1775.3 | 1784.4 | 1784.4 | 1808.5 | 1814.5 | 1817.6 |
| 22.5° | 1727.0 | 1733.0 | 1745.0 | 1769.4 | 1754.1 | 1745.0 | 1757.1 | 1754.1 | 1781.4 | 1784.4 | 1784.4 |
| 25° | 1693.8 | 1699.9 | 1714.9 | 1730.0 | 1720.9 | 1712.0 | 1720.9 | 1720.9 | 1742.1 | 1745.0 | 1745.0 |
| 27.5° | 1645.5 | 1648.5 | 1663.5 | 1678.7 | 1669.6 | 1657.6 | 1669.6 | 1666.7 | 1687.7 | 1690.8 | 1687.7 |
| 30° | 1567.0 | 1573.1 | 1579.0 | 1600.2 | 1591.1 | 1582.0 | 1594.1 | 1588.1 | 1609.3 | 1609.3 | 1606.1 |
| 32.5° | 1467.3 | 1467.3 | 1479.5 | 1494.5 | 1482.5 | 1476.3 | 1485.4 | 1488.4 | 1503.6 | 1503.6 | 1494.5 |
| 35° | 1346.6 | 1352.7 | 1361.6 | 1370.7 | 1361.6 | 1355.7 | 1364.8 | 1361.6 | 1379.8 | 1373.7 | 1364.8 |
| 37.5° | 1225.9 | 1228.8 | 1237.9 | 1250.0 | 1237.9 | 1228.8 | 1231.8 | 1228.8 | 1243.9 | 1243.9 | 1228.8 |
| 40° | 1114.1 | 1120.2 | 1126.2 | 1138.2 | 1126.2 | 1120.2 | 1123.2 | 1114.1 | 1132.3 | 1126.2 | 1117.1 |
| 42.5° | 1023.5 | 1026.4 | 1035.5 | 1041.7 | 1029.6 | 1026.4 | 1029.6 | 1023.5 | 1032.6 | 1026.4 | 1008.4 |
| 45° | 954.0 | 954.0 | 957.2 | 966.1 | 954.0 | 951.1 | 951.1 | 944.9 | 954.0 | 942.0 | 923.9 |
| 47.5° | 893.7 | 896.7 | 899.8 | 905.8 | 896.7 | 887.7 | 890.7 | 878.6 | 884.6 | 875.5 | 851.3 |
| 50° | 833.3 | 839.3 | 842.4 | 848.4 | 839.3 | 833.3 | 836.3 | 824.2 | 824.2 | 809.2 | 788.0 |
| 52.5° | 773.0 | 776.0 | 773.0 | 778.9 | 773.0 | 763.9 | 766.9 | 754.8 | 754.8 | 736.8 | 715.6 |
| 55° | 673.3 | 676.3 | 679.4 | 685.3 | 679.4 | 670.3 | 676.3 | 667.3 | 667.3 | 655.1 | 630.9 |
| 57.5° | 573.6 | 576.7 | 579.7 | 582.7 | 582.7 | 576.7 | 579.7 | 573.6 | 570.6 | 561.5 | 543.5 |
| 60° | 510.3 | 510.3 | 510.3 | 513.2 | 510.3 | 507.3 | 507.3 | 501.2 | 501.2 | 489.1 | 471.1 |
| 62.5° | 462.0 | 464.9 | 464.9 | 467.9 | 464.9 | 462.0 | 459.0 | 452.9 | 449.9 | 437.8 | 422.6 |
| 65° | 416.7 | 416.7 | 413.7 | 419.6 | 416.7 | 413.7 | 413.7 | 407.6 | 401.6 | 389.6 | 374.3 |
| 67.5° | 362.3 | 365.2 | 362.3 | 365.2 | 365.2 | 362.3 | 359.3 | 353.2 | 350.2 | 341.1 | 323.1 |
| 70° | 304.9 | 304.9 | 304.9 | 308.0 | 304.9 | 304.9 | 308.0 | 298.9 | 296.0 | 283.7 | 268.7 |
| 72.5° | 247.5 | 250.7 | 250.7 | 247.5 | 250.7 | 244.5 | 244.5 | 244.5 | 241.6 | 229.5 | 214.3 |
| 75° | 190.1 | 193.3 | 193.3 | 196.3 | 193.3 | 190.1 | 190.1 | 187.2 | 184.2 | 175.1 | 163.0 |
| 77.5° | 141.9 | 141.9 | 144.8 | 144.8 | 144.8 | 141.9 | 141.9 | 135.9 | 135.9 | 129.8 | 117.7 |
| 80° | 102.7 | 102.7 | 99.7 | 102.7 | 102.7 | 99.7 | 99.7 | 96.6 | 96.6 | 90.6 | 81.5 |
| 82.5° | 66.5 | 69.4 | 69.4 | 69.4 | 69.4 | 66.5 | 66.5 | 66.5 | 63.3 | 60.3 | 54.4 |
| 85° | 42.3 | 42.3 | 42.3 | 42.3 | 45.3 | 42.3 | 45.3 | 42.3 | 42.3 | 36.2 | 33.2 |
| 87.5° | 18.2 | 18.2 | 18.2 | 21.2 | 21.2 | 18.2 | 18.2 | 18.2 | 18.2 | 18.2 | 15.0 |
| 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: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 |
| 2.5° | 1959.5 | 1962.5 | 1953.4 | 1965.4 | 1956.5 | 1959.5 | 1962.5 | 1959.5 | 1947.4 | 1947.4 | 1980.7 |
| 5° | 1947.4 | 1953.4 | 1944.5 | 1959.5 | 1953.4 | 1953.4 | 1959.5 | 1956.5 | 1944.5 | 1947.4 | 1977.5 |
| 7.5° | 1935.4 | 1944.5 | 1938.3 | 1953.4 | 1944.5 | 1944.5 | 1950.4 | 1950.4 | 1938.3 | 1941.3 | 1968.6 |
| 10° | 1917.2 | 1929.2 | 1926.3 | 1941.3 | 1932.4 | 1932.4 | 1941.3 | 1941.3 | 1929.2 | 1932.4 | 1959.5 |
| 12.5° | 1902.1 | 1914.2 | 1911.2 | 1926.3 | 1920.3 | 1923.3 | 1926.3 | 1932.4 | 1917.2 | 1923.3 | 1947.4 |
| 15° | 1878.0 | 1890.0 | 1890.0 | 1905.1 | 1899.1 | 1905.1 | 1911.2 | 1920.3 | 1908.1 | 1908.1 | 1932.4 |
| 17.5° | 1850.9 | 1865.9 | 1865.9 | 1878.0 | 1878.0 | 1880.9 | 1893.0 | 1902.1 | 1890.0 | 1893.0 | 1914.2 |
| 20° | 1820.6 | 1838.8 | 1838.8 | 1853.8 | 1850.9 | 1856.8 | 1865.9 | 1875.0 | 1862.9 | 1862.9 | 1887.1 |
| 22.5° | 1790.3 | 1805.6 | 1808.5 | 1817.6 | 1817.6 | 1820.6 | 1829.7 | 1835.6 | 1820.6 | 1820.6 | 1844.7 |
| 25° | 1748.2 | 1763.2 | 1766.2 | 1772.3 | 1766.2 | 1766.2 | 1772.3 | 1778.3 | 1763.2 | 1763.2 | 1784.4 |
| 27.5° | 1690.8 | 1705.9 | 1705.9 | 1702.9 | 1696.8 | 1699.9 | 1696.8 | 1699.9 | 1684.7 | 1681.7 | 1702.9 |
| 30° | 1606.1 | 1615.2 | 1615.2 | 1612.3 | 1603.2 | 1603.2 | 1594.1 | 1597.2 | 1576.1 | 1576.1 | 1594.1 |
| 32.5° | 1491.6 | 1500.5 | 1494.5 | 1488.4 | 1476.3 | 1470.4 | 1464.3 | 1461.3 | 1440.1 | 1440.1 | 1461.3 |
| 35° | 1355.7 | 1361.6 | 1352.7 | 1340.6 | 1325.4 | 1316.3 | 1307.4 | 1295.3 | 1280.1 | 1283.2 | 1295.3 |
| 37.5° | 1216.8 | 1216.8 | 1204.7 | 1180.6 | 1168.5 | 1153.3 | 1138.2 | 1138.2 | 1114.1 | 1111.1 | 1120.2 |
| 40° | 1099.0 | 1087.0 | 1065.8 | 1032.6 | 1011.4 | 996.4 | 975.2 | 963.1 | 944.9 | 944.9 | 960.2 |
| 42.5° | 993.4 | 969.3 | 942.0 | 896.7 | 875.5 | 857.5 | 830.4 | 818.3 | 797.1 | 794.0 | 803.1 |
| 45° | 899.8 | 875.5 | 836.3 | 788.0 | 760.9 | 739.8 | 700.4 | 685.3 | 667.3 | 664.2 | 670.3 |
| 47.5° | 824.2 | 797.1 | 748.9 | 685.3 | 658.2 | 630.9 | 591.8 | 570.6 | 555.6 | 546.5 | 555.6 |
| 50° | 757.8 | 721.6 | 670.3 | 603.8 | 567.6 | 543.5 | 495.2 | 474.0 | 452.9 | 446.9 | 449.9 |
| 52.5° | 685.3 | 649.1 | 594.7 | 525.3 | 492.1 | 455.8 | 410.5 | 380.5 | 362.3 | 353.2 | 362.3 |
| 55° | 606.8 | 570.6 | 516.4 | 446.9 | 410.5 | 377.5 | 329.0 | 304.9 | 283.7 | 274.8 | 283.7 |
| 57.5° | 522.3 | 489.1 | 440.8 | 371.4 | 338.1 | 308.0 | 262.7 | 238.6 | 217.4 | 211.3 | 217.4 |
| 60° | 449.9 | 422.6 | 374.3 | 308.0 | 280.7 | 247.5 | 208.3 | 184.2 | 166.0 | 163.0 | 166.0 |
| 62.5° | 401.6 | 371.4 | 326.1 | 262.7 | 235.4 | 208.3 | 172.1 | 148.0 | 132.8 | 129.8 | 132.8 |
| 65° | 353.2 | 320.1 | 277.8 | 223.4 | 196.3 | 175.1 | 138.9 | 117.7 | 102.7 | 99.7 | 102.7 |
| 67.5° | 298.9 | 268.7 | 232.5 | 184.2 | 163.0 | 141.9 | 111.8 | 90.6 | 78.5 | 75.6 | 78.5 |
| 70° | 247.5 | 220.4 | 184.2 | 148.0 | 126.8 | 111.8 | 84.5 | 69.4 | 57.4 | 54.4 | 57.4 |
| 72.5° | 196.3 | 172.1 | 141.9 | 111.8 | 99.7 | 84.5 | 66.5 | 51.2 | 42.3 | 39.2 | 42.3 |
| 75° | 151.0 | 132.8 | 108.6 | 81.5 | 72.4 | 63.3 | 45.3 | 36.2 | 30.3 | 27.1 | 30.3 |
| 77.5° | 105.7 | 93.6 | 75.6 | 60.3 | 51.2 | 45.3 | 33.2 | 24.1 | 21.2 | 18.2 | 21.2 |
| 80° | 72.4 | 63.3 | 51.2 | 39.2 | 33.2 | 27.1 | 21.2 | 15.0 | 12.1 | 12.1 | 12.1 |
| 82.5° | 48.3 | 39.2 | 30.3 | 24.1 | 21.2 | 18.2 | 12.1 | 9.1 | 9.1 | 6.1 | 6.1 |
| 85° | 27.1 | 24.1 | 18.2 | 15.0 | 12.1 | 9.1 | 6.1 | 6.1 | 3.0 | 3.0 | 3.0 |
| 87.5° | 12.1 | 9.1 | 6.1 | 6.1 | 3.0 | 3.0 | 3.0 | 3.0 | 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: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 |
| 2.5° | 1971.6 | 1962.5 | 1974.5 | 1962.5 | 1956.5 | 1962.5 | 1956.5 | 1974.5 | 1959.5 | 1947.4 | 1959.5 |
| 5° | 1968.6 | 1956.5 | 1968.6 | 1959.5 | 1950.4 | 1953.4 | 1947.4 | 1965.4 | 1947.4 | 1938.3 | 1944.5 |
| 7.5° | 1962.5 | 1953.4 | 1959.5 | 1950.4 | 1941.3 | 1944.5 | 1938.3 | 1953.4 | 1935.4 | 1926.3 | 1932.4 |
| 10° | 1953.4 | 1944.5 | 1947.4 | 1941.3 | 1932.4 | 1932.4 | 1926.3 | 1938.3 | 1917.2 | 1905.1 | 1911.2 |
| 12.5° | 1941.3 | 1929.2 | 1935.4 | 1926.3 | 1914.2 | 1914.2 | 1908.1 | 1917.2 | 1896.0 | 1883.9 | 1887.1 |
| 15° | 1926.3 | 1914.2 | 1914.2 | 1905.1 | 1893.0 | 1893.0 | 1880.9 | 1890.0 | 1865.9 | 1853.8 | 1853.8 |
| 17.5° | 1908.1 | 1893.0 | 1893.0 | 1883.9 | 1868.9 | 1865.9 | 1856.8 | 1865.9 | 1838.8 | 1826.5 | 1826.5 |
| 20° | 1880.9 | 1868.9 | 1865.9 | 1859.8 | 1844.7 | 1841.8 | 1829.7 | 1832.7 | 1811.5 | 1802.4 | 1799.4 |
| 22.5° | 1844.7 | 1832.7 | 1835.6 | 1826.5 | 1814.5 | 1811.5 | 1799.4 | 1808.5 | 1787.4 | 1778.3 | 1781.4 |
| 25° | 1781.4 | 1775.3 | 1781.4 | 1778.3 | 1769.4 | 1769.4 | 1763.2 | 1769.4 | 1751.2 | 1745.0 | 1748.2 |
| 27.5° | 1708.8 | 1705.9 | 1708.8 | 1708.8 | 1702.9 | 1702.9 | 1702.9 | 1712.0 | 1693.8 | 1690.8 | 1690.8 |
| 30° | 1603.2 | 1603.2 | 1606.1 | 1609.3 | 1609.3 | 1615.2 | 1612.3 | 1624.3 | 1612.3 | 1606.1 | 1612.3 |
| 32.5° | 1464.3 | 1476.3 | 1485.4 | 1485.4 | 1485.4 | 1491.6 | 1497.5 | 1506.6 | 1494.5 | 1497.5 | 1497.5 |
| 35° | 1307.4 | 1316.3 | 1322.4 | 1337.5 | 1328.5 | 1349.5 | 1355.7 | 1367.7 | 1364.8 | 1370.7 | 1367.7 |
| 37.5° | 1132.3 | 1144.4 | 1156.4 | 1177.6 | 1174.4 | 1198.6 | 1210.6 | 1234.8 | 1228.8 | 1240.9 | 1246.8 |
| 40° | 969.3 | 987.3 | 1005.5 | 1020.5 | 1032.6 | 1056.7 | 1080.8 | 1111.1 | 1120.2 | 1129.1 | 1132.3 |
| 42.5° | 812.2 | 830.4 | 860.4 | 881.6 | 899.8 | 939.0 | 972.2 | 1008.4 | 1017.5 | 1035.5 | 1041.7 |
| 45° | 685.3 | 700.4 | 736.8 | 763.9 | 778.9 | 836.3 | 875.5 | 920.8 | 936.0 | 957.2 | 966.1 |
| 47.5° | 567.6 | 594.7 | 630.9 | 664.2 | 685.3 | 745.7 | 797.1 | 845.4 | 866.6 | 890.7 | 902.8 |
| 50° | 464.9 | 495.2 | 543.5 | 573.6 | 603.8 | 670.3 | 727.7 | 778.9 | 800.1 | 827.2 | 839.3 |
| 52.5° | 380.5 | 413.7 | 459.0 | 492.1 | 525.3 | 594.7 | 655.1 | 703.5 | 730.7 | 748.9 | 766.9 |
| 55° | 298.9 | 335.2 | 380.5 | 416.7 | 443.8 | 519.3 | 570.6 | 618.9 | 637.1 | 652.1 | 661.2 |
| 57.5° | 232.5 | 259.6 | 304.9 | 335.2 | 368.4 | 434.7 | 486.1 | 522.3 | 537.4 | 555.6 | 561.5 |
| 60° | 181.2 | 208.3 | 250.7 | 280.7 | 311.0 | 374.3 | 425.8 | 462.0 | 477.0 | 492.1 | 501.2 |
| 62.5° | 144.8 | 172.1 | 211.3 | 238.6 | 265.7 | 323.1 | 368.4 | 404.6 | 422.6 | 437.8 | 446.9 |
| 65° | 114.8 | 138.9 | 172.1 | 199.2 | 220.4 | 271.7 | 317.0 | 350.2 | 368.4 | 383.4 | 392.5 |
| 67.5° | 90.6 | 111.8 | 141.9 | 160.1 | 181.2 | 223.4 | 262.7 | 292.8 | 308.0 | 326.1 | 335.2 |
| 70° | 69.4 | 84.5 | 111.8 | 126.8 | 141.9 | 178.1 | 208.3 | 238.6 | 253.6 | 265.7 | 271.7 |
| 72.5° | 51.2 | 63.3 | 84.5 | 96.6 | 105.7 | 135.9 | 160.1 | 181.2 | 193.3 | 205.4 | 211.3 |
| 75° | 36.2 | 45.3 | 60.3 | 69.4 | 75.6 | 96.6 | 117.7 | 132.8 | 141.9 | 151.0 | 160.1 |
| 77.5° | 24.1 | 30.3 | 39.2 | 45.3 | 51.2 | 66.5 | 78.5 | 90.6 | 99.7 | 108.6 | 111.8 |
| 80° | 15.0 | 21.2 | 27.1 | 30.3 | 33.2 | 42.3 | 54.4 | 60.3 | 66.5 | 72.4 | 75.6 |
| 82.5° | 9.1 | 12.1 | 15.0 | 18.2 | 21.2 | 27.1 | 33.2 | 39.2 | 42.3 | 48.3 | 51.2 |
| 85° | 3.0 | 6.1 | 6.1 | 9.1 | 9.1 | 15.0 | 18.2 | 21.2 | 24.1 | 27.1 | 30.3 |
| 87.5° | 0.0 | 0.0 | 3.0 | 3.0 | 3.0 | 3.0 | 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
| 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: P880578

CATALOG NUMBER: LD4C45D010 EU4459030 4LBDWNH

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 | 1962.5 |
| 2.5° | 1971.6 | 1962.5 | 1956.5 | 1953.4 | 1974.5 | 1947.4 | 1959.5 | 1962.5 |
| 5° | 1959.5 | 1950.4 | 1944.5 | 1941.3 | 1959.5 | 1935.4 | 1944.5 | 1950.4 |
| 7.5° | 1941.3 | 1935.4 | 1926.3 | 1923.3 | 1941.3 | 1914.2 | 1926.3 | 1929.2 |
| 10° | 1920.3 | 1911.2 | 1905.1 | 1902.1 | 1917.2 | 1890.0 | 1902.1 | 1902.1 |
| 12.5° | 1893.0 | 1887.1 | 1875.0 | 1875.0 | 1887.1 | 1862.9 | 1871.9 | 1871.9 |
| 15° | 1856.8 | 1850.9 | 1838.8 | 1838.8 | 1850.9 | 1826.5 | 1835.6 | 1835.6 |
| 17.5° | 1826.5 | 1820.6 | 1811.5 | 1808.5 | 1820.6 | 1796.5 | 1805.6 | 1802.4 |
| 20° | 1802.4 | 1796.5 | 1784.4 | 1784.4 | 1793.5 | 1769.4 | 1778.3 | 1778.3 |
| 22.5° | 1781.4 | 1778.3 | 1766.2 | 1766.2 | 1778.3 | 1754.1 | 1760.3 | 1754.1 |
| 25° | 1748.2 | 1745.0 | 1733.0 | 1736.1 | 1742.1 | 1717.9 | 1727.0 | 1720.9 |
| 27.5° | 1693.8 | 1693.8 | 1681.7 | 1678.7 | 1687.7 | 1666.7 | 1672.6 | 1669.6 |
| 30° | 1609.3 | 1612.3 | 1597.2 | 1597.2 | 1600.2 | 1582.0 | 1591.1 | 1588.1 |
| 32.5° | 1494.5 | 1497.5 | 1485.4 | 1482.5 | 1491.6 | 1476.3 | 1482.5 | 1482.5 |
| 35° | 1367.7 | 1370.7 | 1361.6 | 1361.6 | 1370.7 | 1361.6 | 1361.6 | 1358.6 |
| 37.5° | 1240.9 | 1246.8 | 1240.9 | 1243.9 | 1250.0 | 1240.9 | 1246.8 | 1243.9 |
| 40° | 1138.2 | 1144.4 | 1135.3 | 1141.2 | 1147.3 | 1138.2 | 1147.3 | 1141.2 |
| 42.5° | 1044.6 | 1053.7 | 1047.6 | 1053.7 | 1059.7 | 1053.7 | 1059.7 | 1050.8 |
| 45° | 975.2 | 981.3 | 978.2 | 981.3 | 987.3 | 984.3 | 987.3 | 984.3 |
| 47.5° | 908.7 | 920.8 | 914.9 | 920.8 | 929.9 | 923.9 | 929.9 | 920.8 |
| 50° | 848.4 | 857.5 | 854.5 | 860.4 | 863.4 | 860.4 | 866.6 | 857.5 |
| 52.5° | 769.8 | 778.9 | 776.0 | 776.0 | 781.9 | 776.0 | 781.9 | 776.0 |
| 55° | 667.3 | 670.3 | 670.3 | 673.3 | 670.3 | 667.3 | 670.3 | 664.2 |
| 57.5° | 567.6 | 573.6 | 564.7 | 573.6 | 570.6 | 567.6 | 567.6 | 561.5 |
| 60° | 504.1 | 513.2 | 507.3 | 513.2 | 510.3 | 510.3 | 510.3 | 507.3 |
| 62.5° | 452.9 | 459.0 | 452.9 | 455.8 | 455.8 | 455.8 | 452.9 | 449.9 |
| 65° | 395.5 | 404.6 | 398.5 | 401.6 | 398.5 | 395.5 | 398.5 | 395.5 |
| 67.5° | 338.1 | 341.1 | 341.1 | 338.1 | 338.1 | 338.1 | 338.1 | 332.2 |
| 70° | 274.8 | 277.8 | 274.8 | 280.7 | 277.8 | 274.8 | 277.8 | 271.7 |
| 72.5° | 214.3 | 217.4 | 214.3 | 217.4 | 214.3 | 214.3 | 214.3 | 214.3 |
| 75° | 160.1 | 163.0 | 163.0 | 163.0 | 163.0 | 163.0 | 157.1 | 163.0 |
| 77.5° | 114.8 | 114.8 | 114.8 | 117.7 | 114.8 | 114.8 | 114.8 | 114.8 |
| 80° | 78.5 | 78.5 | 78.5 | 81.5 | 78.5 | 81.5 | 78.5 | 81.5 |
| 82.5° | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 | 51.2 |
| 85° | 27.1 | 30.3 | 30.3 | 27.1 | 27.1 | 27.1 | 27.1 | 27.1 |
| 87.5° | 6.1 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 | 3.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By 670246072 / DESKTOP-50001EG





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













(END OF REPORT)