

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: METALUX

Report Number: P201325

Luminaire Tested: **8LBLED-LD4-16-SYMF-UNV-L835-CD2-U**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P201325
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P28138)
Test Lab: INNOVATION CENTER-P2
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 8LBLEDD4-16-SYMF-UNV-L835-CD2-U
Description: 8 ft. Low Bay Linear, 16000 lm, Frst Sym lens, 3.5K
Light Source: (784) 3500K CCT, 80 CRI LEDS
2UT217098A8354C
Ballast/Driver: OSRAM
2x(OTi85W01280CC)

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 16677.1 lumens
Efficiency: N/A
Efficacy: 145.8 lumens/watt
Spacing Criteria (0/90/45): 1.17 / 1.99 / 1.87
Luminous Opening: Rectangular w/ Sides (W: 0.17' x L: 8' x H: 0.21')
CIE Type: Semi-Direct

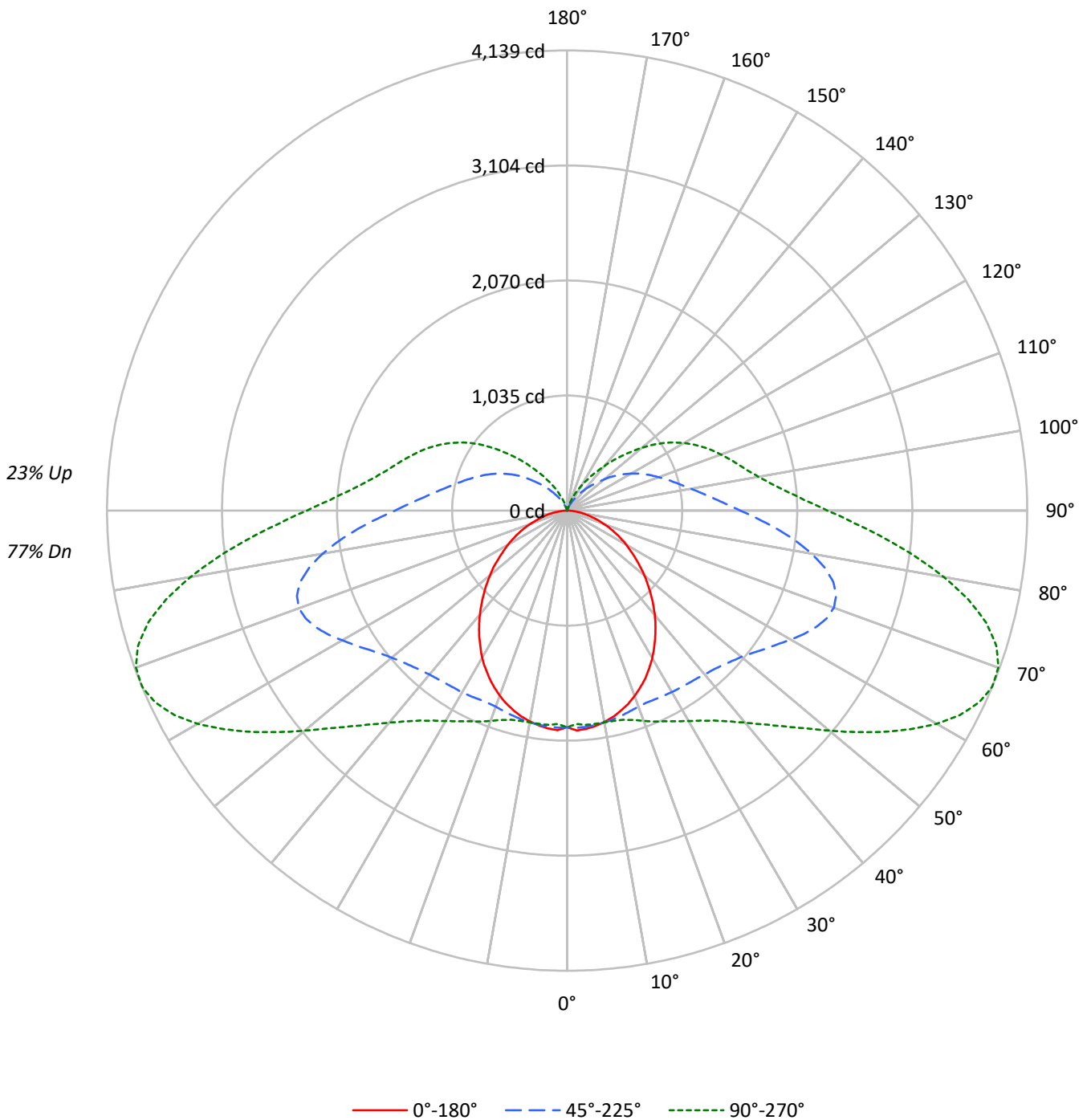
Input Watts (W): 114.4
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

Luminous Intensity Polar Plot





TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

| | | | | | | | | | | | | | | | | | | | | | |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| RF | 20 | | | | 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 | 114 | 114 | 114 | 114 | 108 | 108 | 108 | 108 | 98 | 98 | 98 | 89 | 89 | 89 | 81 | 81 | 81 | 77 | | | |
| 1 | 98 | 91 | 84 | 78 | 92 | 86 | 80 | 75 | 77 | 73 | 68 | 69 | 65 | 62 | 62 | 59 | 56 | 52 | | | |
| 2 | 86 | 75 | 66 | 59 | 81 | 71 | 63 | 56 | 64 | 57 | 51 | 57 | 51 | 47 | 50 | 46 | 42 | 38 | | | |
| 3 | 77 | 64 | 54 | 46 | 72 | 61 | 51 | 44 | 54 | 46 | 40 | 48 | 42 | 37 | 43 | 37 | 33 | 29 | | | |
| 4 | 70 | 55 | 45 | 37 | 65 | 52 | 43 | 36 | 47 | 39 | 32 | 42 | 35 | 30 | 37 | 31 | 27 | 23 | | | |
| 5 | 63 | 49 | 38 | 31 | 59 | 46 | 37 | 29 | 41 | 33 | 27 | 37 | 30 | 25 | 32 | 27 | 22 | 19 | | | |
| 6 | 58 | 43 | 33 | 26 | 55 | 41 | 32 | 25 | 37 | 29 | 23 | 33 | 26 | 21 | 29 | 23 | 19 | 16 | | | |
| 7 | 54 | 39 | 29 | 22 | 50 | 37 | 28 | 21 | 33 | 25 | 20 | 30 | 23 | 18 | 26 | 21 | 16 | 14 | | | |
| 8 | 50 | 35 | 26 | 19 | 47 | 33 | 25 | 19 | 30 | 22 | 17 | 27 | 20 | 16 | 24 | 18 | 14 | 12 | | | |
| 9 | 46 | 32 | 23 | 17 | 44 | 30 | 22 | 16 | 27 | 20 | 15 | 25 | 18 | 14 | 22 | 17 | 13 | 10 | | | |
| 10 | 43 | 29 | 21 | 15 | 41 | 28 | 20 | 15 | 25 | 18 | 14 | 23 | 17 | 12 | 20 | 15 | 11 | 9 | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|-------|-------|-------|
| 0° | 15698 | 15698 | 15698 |
| 5° | 15904 | 14106 | 15871 |
| 10° | 15717 | 12974 | 15682 |
| 15° | 15435 | 12185 | 15412 |
| 20° | 15069 | 11879 | 15045 |
| 25° | 14626 | 11761 | 14563 |
| 30° | 14030 | 11823 | 14016 |
| 35° | 13350 | 12111 | 13323 |
| 40° | 12621 | 12802 | 12563 |
| 45° | 11825 | 13910 | 11794 |
| 50° | 11017 | 15531 | 10983 |
| 55° | 10202 | 17536 | 10184 |
| 60° | 9475 | 19577 | 9497 |
| 65° | 8667 | 21222 | 8693 |
| 70° | 7814 | 21988 | 7814 |
| 75° | 6790 | 21515 | 6751 |
| 80° | 5669 | 19798 | 5612 |
| 85° | 4240 | 17388 | 4034 |



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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|---------|-----------|
| 0°-10° | 185.0 | 1.1 |
| 10°-20° | 538.1 | 3.2 |
| 20°-30° | 864.8 | 5.2 |
| 30°-40° | 1171.0 | 7.0 |
| 40°-50° | 1504.3 | 9.0 |
| 50°-60° | 1935.4 | 11.6 |
| 60°-70° | 2367.8 | 14.2 |
| 70°-80° | 2393.8 | 14.4 |
| 80°-90° | 1851.1 | 11.1 |
| 90°-100° | 1286.1 | 7.7 |
| 100°-110° | 960.6 | 5.8 |
| 110°-120° | 720.0 | 4.3 |
| 120°-130° | 484.8 | 2.9 |
| 130°-140° | 265.9 | 1.6 |
| 140°-150° | 113.3 | 0.7 |
| 150°-160° | 32.4 | 0.2 |
| 160°-170° | 2.8 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1587.8 | 9.5 |
| 0°-40° | 2758.8 | 16.5 |
| 0°-60° | 6198.5 | 37.2 |
| 0°-90° | 12811.2 | 76.8 |
| 90°-120° | 2966.6 | 17.8 |
| 90°-150° | 3830.6 | 23.0 |
| 90°-180° | 3866.0 | 23.2 |
| 0°-180° | 16677.1 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|------|------|------|------|------|------|------|
| 0° | 1948 | 1948 | 1948 | 1948 | 1948 | |
| 5° | 1971 | 1953 | 1934 | 1950 | 1967 | 187 |
| 15° | 1863 | 1907 | 1948 | 1907 | 1861 | 525 |
| 25° | 1665 | 1872 | 2091 | 1873 | 1658 | 765 |
| 35° | 1382 | 1897 | 2305 | 1899 | 1379 | 864 |
| 45° | 1065 | 1970 | 2741 | 1978 | 1062 | 822 |
| 55° | 753 | 2171 | 3469 | 2181 | 752 | 675 |
| 65° | 480 | 2474 | 4086 | 2489 | 481 | 477 |
| 75° | 239 | 2478 | 3904 | 2486 | 238 | 256 |
| 85° | 60 | 1895 | 2866 | 1889 | 57 | 65 |
| 90° | 1 | 1556 | 2341 | 1548 | 0 | 4 |
| 95° | 1 | 1313 | 1980 | 1307 | 0 | 1 |
| 105° | 1 | 993 | 1596 | 993 | 0 | 1 |
| 115° | 1 | 772 | 1351 | 772 | 0 | 1 |
| 125° | 1 | 554 | 1059 | 551 | 0 | 2 |
| 135° | 3 | 334 | 695 | 330 | 0 | 2 |
| 145° | 3 | 170 | 382 | 163 | 0 | 2 |
| 155° | 3 | 54 | 159 | 51 | 0 | 1 |
| 165° | 3 | 3 | 16 | 7 | 0 | 1 |
| 175° | 0 | 0 | 0 | 0 | 0 | 0 |
| 180° | 0 | 0 | 0 | 0 | 0 | 0 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 |
| 2.5° | 1979.5 | 1978.1 | 1969.6 | 1956.9 | 1951.2 | 1949.8 | 1948.4 | 1942.7 | 1941.3 | 1944.1 | 1955.4 |
| 5° | 1971.0 | 1969.6 | 1961.1 | 1948.4 | 1944.1 | 1942.7 | 1941.3 | 1937.0 | 1937.0 | 1941.3 | 1952.6 |
| 7.5° | 1954.0 | 1952.6 | 1944.1 | 1934.2 | 1930.0 | 1928.5 | 1928.5 | 1925.7 | 1925.7 | 1932.8 | 1945.5 |
| 10° | 1930.0 | 1928.5 | 1921.5 | 1913.0 | 1910.1 | 1910.1 | 1910.1 | 1908.7 | 1911.6 | 1920.0 | 1934.2 |
| 12.5° | 1901.6 | 1898.8 | 1893.1 | 1886.1 | 1886.1 | 1886.1 | 1887.5 | 1887.5 | 1891.7 | 1905.9 | 1922.9 |
| 15° | 1863.4 | 1864.8 | 1859.2 | 1853.5 | 1856.3 | 1857.7 | 1860.6 | 1863.4 | 1870.5 | 1887.5 | 1907.3 |
| 17.5° | 1823.8 | 1823.8 | 1819.5 | 1816.7 | 1822.3 | 1825.2 | 1829.4 | 1833.7 | 1846.4 | 1867.7 | 1890.3 |
| 20° | 1774.2 | 1775.6 | 1774.2 | 1775.6 | 1782.7 | 1786.9 | 1792.6 | 1802.5 | 1819.5 | 1849.3 | 1876.2 |
| 22.5° | 1720.4 | 1723.2 | 1723.2 | 1728.9 | 1740.2 | 1747.3 | 1754.4 | 1768.5 | 1792.6 | 1830.8 | 1869.1 |
| 25° | 1665.2 | 1663.8 | 1670.8 | 1680.8 | 1692.1 | 1702.0 | 1710.5 | 1731.7 | 1767.1 | 1818.1 | 1871.9 |
| 27.5° | 1598.6 | 1601.5 | 1611.4 | 1625.5 | 1642.5 | 1655.3 | 1668.0 | 1697.7 | 1748.7 | 1816.7 | 1879.0 |
| 30° | 1530.7 | 1534.9 | 1547.7 | 1567.5 | 1591.5 | 1608.5 | 1622.7 | 1669.4 | 1738.8 | 1816.7 | 1884.7 |
| 32.5° | 1457.0 | 1464.1 | 1481.1 | 1506.6 | 1540.6 | 1560.4 | 1583.0 | 1645.4 | 1730.3 | 1813.9 | 1890.3 |
| 35° | 1382.0 | 1390.5 | 1413.1 | 1444.3 | 1483.9 | 1508.0 | 1543.4 | 1626.9 | 1719.0 | 1811.0 | 1897.4 |
| 37.5° | 1305.5 | 1315.4 | 1340.9 | 1380.6 | 1431.5 | 1468.4 | 1510.8 | 1607.1 | 1710.5 | 1811.0 | 1907.3 |
| 40° | 1226.2 | 1237.6 | 1270.1 | 1315.4 | 1380.6 | 1428.7 | 1479.7 | 1587.3 | 1702.0 | 1812.4 | 1922.9 |
| 42.5° | 1145.5 | 1158.3 | 1197.9 | 1251.7 | 1336.7 | 1393.3 | 1449.9 | 1570.3 | 1696.3 | 1819.5 | 1942.7 |
| 45° | 1064.8 | 1081.8 | 1125.7 | 1190.8 | 1297.0 | 1356.5 | 1421.6 | 1554.7 | 1693.5 | 1832.3 | 1969.6 |
| 47.5° | 984.1 | 1003.9 | 1054.9 | 1132.8 | 1256.0 | 1326.8 | 1394.7 | 1542.0 | 1696.3 | 1849.3 | 2005.0 |
| 50° | 906.2 | 928.9 | 985.5 | 1080.4 | 1217.7 | 1294.2 | 1369.2 | 1533.5 | 1702.0 | 1874.7 | 2047.5 |
| 52.5° | 826.9 | 856.7 | 919.0 | 1033.7 | 1183.7 | 1264.5 | 1348.0 | 1527.8 | 1713.3 | 1908.7 | 2102.7 |
| 55° | 753.3 | 784.4 | 856.7 | 988.3 | 1151.2 | 1239.0 | 1328.2 | 1526.4 | 1733.1 | 1949.8 | 2170.7 |
| 57.5° | 678.2 | 716.5 | 795.8 | 944.4 | 1117.2 | 1213.5 | 1312.6 | 1529.2 | 1757.2 | 1993.7 | 2240.1 |
| 60° | 614.5 | 648.5 | 740.6 | 902.0 | 1087.5 | 1189.4 | 1298.4 | 1532.1 | 1782.7 | 2044.7 | 2320.8 |
| 62.5° | 546.6 | 583.4 | 692.4 | 860.9 | 1057.7 | 1168.2 | 1284.3 | 1536.3 | 1809.6 | 2097.0 | 2402.9 |
| 65° | 480.0 | 518.2 | 644.3 | 821.3 | 1028.0 | 1145.5 | 1267.3 | 1536.3 | 1830.8 | 2145.2 | 2473.7 |
| 67.5° | 416.3 | 457.4 | 596.1 | 778.8 | 994.0 | 1117.2 | 1246.1 | 1529.2 | 1843.6 | 2179.2 | 2528.9 |
| 70° | 355.4 | 400.7 | 549.4 | 733.5 | 957.2 | 1083.2 | 1216.3 | 1513.7 | 1842.2 | 2191.9 | 2553.0 |
| 72.5° | 294.5 | 346.9 | 498.4 | 688.2 | 917.5 | 1045.0 | 1180.9 | 1483.9 | 1822.3 | 2176.3 | 2537.4 |
| 75° | 239.3 | 295.9 | 453.1 | 642.8 | 872.2 | 999.7 | 1137.0 | 1438.6 | 1778.5 | 2128.2 | 2477.9 |
| 77.5° | 188.3 | 250.6 | 405.0 | 593.3 | 821.3 | 947.3 | 1081.8 | 1380.6 | 1709.1 | 2043.2 | 2373.2 |
| 80° | 140.2 | 209.6 | 359.7 | 543.7 | 766.0 | 889.2 | 1019.5 | 1306.9 | 1618.4 | 1928.5 | 2233.0 |
| 82.5° | 97.7 | 171.3 | 315.8 | 494.2 | 709.4 | 826.9 | 951.5 | 1219.1 | 1513.7 | 1795.4 | 2071.6 |
| 85° | 59.5 | 137.3 | 271.9 | 446.0 | 651.3 | 761.8 | 879.3 | 1127.1 | 1399.0 | 1651.0 | 1894.6 |
| 87.5° | 25.5 | 106.2 | 233.6 | 399.3 | 593.3 | 698.1 | 805.7 | 1039.3 | 1277.2 | 1500.9 | 1717.6 |
| 90° | 1.4 | 79.3 | 199.7 | 355.4 | 538.1 | 635.8 | 736.3 | 945.9 | 1165.3 | 1363.6 | 1556.1 |
| 92.5° | 0.0 | 68.0 | 179.8 | 328.5 | 499.8 | 590.5 | 683.9 | 876.5 | 1074.7 | 1251.7 | 1423.0 |
| 95° | 1.4 | 56.6 | 162.8 | 298.8 | 461.6 | 548.0 | 634.4 | 814.2 | 992.6 | 1155.4 | 1312.6 |
| 97.5° | 1.4 | 46.7 | 144.4 | 271.9 | 426.2 | 505.5 | 586.2 | 753.3 | 914.7 | 1069.1 | 1214.9 |
| 100° | 1.4 | 36.8 | 127.4 | 246.4 | 389.4 | 463.0 | 539.5 | 696.7 | 848.2 | 992.6 | 1129.9 |
| 102.5° | 1.4 | 26.9 | 113.3 | 222.3 | 355.4 | 424.8 | 495.6 | 644.3 | 787.3 | 926.0 | 1056.3 |
| 105° | 1.4 | 18.4 | 99.1 | 199.7 | 324.3 | 389.4 | 455.9 | 596.1 | 732.1 | 865.2 | 992.6 |
| 107.5° | 1.4 | 12.7 | 86.4 | 178.4 | 290.3 | 355.4 | 417.7 | 550.8 | 681.1 | 809.9 | 934.5 |
| 110° | 1.4 | 11.3 | 75.0 | 160.0 | 263.4 | 322.8 | 382.3 | 508.3 | 632.9 | 756.1 | 877.9 |



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CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|--------|-----|-----|------|-------|-------|-------|-------|-------|-------|-------|-------|
| 112.5° | 1.4 | 9.9 | 63.7 | 143.0 | 236.5 | 290.3 | 348.3 | 467.3 | 589.0 | 708.0 | 824.1 |
| 115° | 1.4 | 9.9 | 52.4 | 127.4 | 213.8 | 262.0 | 315.8 | 427.6 | 543.7 | 658.4 | 771.7 |
| 117.5° | 1.4 | 9.9 | 42.5 | 113.3 | 192.6 | 236.5 | 283.2 | 390.8 | 498.4 | 610.3 | 720.7 |
| 120° | 1.4 | 8.5 | 34.0 | 99.1 | 174.2 | 213.8 | 257.7 | 355.4 | 454.5 | 559.3 | 665.5 |
| 122.5° | 1.4 | 8.5 | 28.3 | 86.4 | 155.8 | 192.6 | 232.2 | 318.6 | 413.5 | 509.7 | 608.9 |
| 125° | 1.4 | 7.1 | 24.1 | 72.2 | 137.3 | 172.7 | 208.1 | 286.0 | 373.8 | 463.0 | 553.6 |
| 127.5° | 2.8 | 7.1 | 19.8 | 59.5 | 118.9 | 150.1 | 184.1 | 254.9 | 331.3 | 412.0 | 498.4 |
| 130° | 2.8 | 7.1 | 17.0 | 45.3 | 100.5 | 128.9 | 158.6 | 223.7 | 294.5 | 363.9 | 438.9 |
| 132.5° | 2.8 | 5.7 | 15.6 | 35.4 | 83.5 | 109.0 | 135.9 | 194.0 | 256.3 | 318.6 | 383.7 |
| 135° | 2.8 | 5.7 | 12.7 | 28.3 | 66.6 | 89.2 | 114.7 | 165.7 | 220.9 | 278.9 | 334.2 |
| 137.5° | 2.8 | 4.2 | 11.3 | 22.7 | 51.0 | 72.2 | 94.9 | 140.2 | 188.3 | 237.9 | 288.9 |
| 140° | 2.8 | 4.2 | 9.9 | 18.4 | 38.2 | 53.8 | 75.0 | 114.7 | 157.2 | 201.1 | 245.0 |
| 142.5° | 2.8 | 4.2 | 8.5 | 15.6 | 29.7 | 41.1 | 56.6 | 93.5 | 130.3 | 167.1 | 205.3 |
| 145° | 2.8 | 4.2 | 7.1 | 12.7 | 22.7 | 31.2 | 41.1 | 72.2 | 104.8 | 137.3 | 169.9 |
| 147.5° | 2.8 | 4.2 | 7.1 | 11.3 | 18.4 | 24.1 | 31.2 | 52.4 | 82.1 | 109.0 | 137.3 |
| 150° | 2.8 | 4.2 | 5.7 | 9.9 | 15.6 | 18.4 | 22.7 | 36.8 | 59.5 | 83.5 | 107.6 |
| 152.5° | 2.8 | 2.8 | 5.7 | 8.5 | 11.3 | 14.2 | 17.0 | 26.9 | 41.1 | 59.5 | 80.7 |
| 155° | 2.8 | 2.8 | 4.2 | 7.1 | 9.9 | 11.3 | 12.7 | 18.4 | 26.9 | 38.2 | 53.8 |
| 157.5° | 2.8 | 2.8 | 4.2 | 5.7 | 7.1 | 8.5 | 9.9 | 12.7 | 18.4 | 24.1 | 32.6 |
| 160° | 2.8 | 2.8 | 4.2 | 5.7 | 5.7 | 7.1 | 7.1 | 8.5 | 11.3 | 14.2 | 18.4 |
| 162.5° | 2.8 | 2.8 | 4.2 | 4.2 | 4.2 | 5.7 | 5.7 | 5.7 | 7.1 | 7.1 | 8.5 |
| 165° | 2.8 | 2.8 | 2.8 | 4.2 | 2.8 | 4.2 | 2.8 | 4.2 | 4.2 | 2.8 | 2.8 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P201325

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CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 |
| 2.5° | 1959.7 | 1949.8 | 1945.5 | 1939.9 | 1935.6 | 1932.8 | 1928.5 | 1925.7 | 1921.5 | 1921.5 | 1922.9 |
| 5° | 1956.9 | 1947.0 | 1944.1 | 1938.5 | 1935.6 | 1934.2 | 1931.4 | 1932.8 | 1932.8 | 1934.2 | 1932.8 |
| 7.5° | 1951.2 | 1942.7 | 1939.9 | 1937.0 | 1934.2 | 1932.8 | 1931.4 | 1934.2 | 1934.2 | 1935.6 | 1935.6 |
| 10° | 1941.3 | 1935.6 | 1935.6 | 1932.8 | 1931.4 | 1930.0 | 1927.1 | 1931.4 | 1931.4 | 1934.2 | 1932.8 |
| 12.5° | 1930.0 | 1928.5 | 1930.0 | 1931.4 | 1931.4 | 1930.0 | 1928.5 | 1934.2 | 1937.0 | 1937.0 | 1938.5 |
| 15° | 1917.2 | 1920.0 | 1927.1 | 1931.4 | 1934.2 | 1934.2 | 1937.0 | 1942.7 | 1947.0 | 1948.4 | 1948.4 |
| 17.5° | 1907.3 | 1914.4 | 1927.1 | 1938.5 | 1944.1 | 1947.0 | 1954.0 | 1965.4 | 1972.4 | 1973.9 | 1973.9 |
| 20° | 1900.2 | 1917.2 | 1939.9 | 1961.1 | 1968.2 | 1973.9 | 1988.0 | 2002.2 | 2012.1 | 2013.5 | 2013.5 |
| 22.5° | 1905.9 | 1934.2 | 1965.4 | 1989.4 | 1999.3 | 2006.4 | 2022.0 | 2040.4 | 2051.7 | 2053.2 | 2053.2 |
| 25° | 1920.0 | 1954.0 | 1989.4 | 2019.2 | 2030.5 | 2039.0 | 2056.0 | 2075.8 | 2087.1 | 2091.4 | 2090.0 |
| 27.5° | 1932.8 | 1973.9 | 2014.9 | 2048.9 | 2061.6 | 2073.0 | 2094.2 | 2116.9 | 2131.0 | 2135.3 | 2132.4 |
| 30° | 1944.1 | 1992.3 | 2039.0 | 2080.1 | 2097.0 | 2109.8 | 2135.3 | 2162.2 | 2180.6 | 2184.8 | 2180.6 |
| 32.5° | 1955.4 | 2013.5 | 2068.7 | 2116.9 | 2133.9 | 2152.3 | 2184.8 | 2216.0 | 2234.4 | 2240.1 | 2237.2 |
| 35° | 1971.0 | 2039.0 | 2104.1 | 2159.3 | 2182.0 | 2203.2 | 2241.5 | 2278.3 | 2300.9 | 2305.2 | 2300.9 |
| 37.5° | 1992.3 | 2071.6 | 2143.8 | 2213.2 | 2237.2 | 2267.0 | 2312.3 | 2356.2 | 2383.1 | 2388.7 | 2383.1 |
| 40° | 2019.2 | 2112.6 | 2197.6 | 2278.3 | 2310.9 | 2342.0 | 2397.2 | 2449.6 | 2479.4 | 2489.3 | 2485.0 |
| 42.5° | 2054.6 | 2163.6 | 2262.7 | 2359.0 | 2395.8 | 2435.5 | 2500.6 | 2561.5 | 2595.5 | 2606.8 | 2595.5 |
| 45° | 2098.5 | 2227.3 | 2342.0 | 2453.9 | 2496.3 | 2544.5 | 2622.4 | 2691.8 | 2731.4 | 2741.3 | 2731.4 |
| 47.5° | 2156.5 | 2302.4 | 2435.5 | 2564.3 | 2615.3 | 2671.9 | 2764.0 | 2843.3 | 2885.7 | 2897.1 | 2887.2 |
| 50° | 2218.8 | 2393.0 | 2545.9 | 2693.2 | 2756.9 | 2816.4 | 2924.0 | 3011.8 | 3057.1 | 3078.3 | 3059.9 |
| 52.5° | 2296.7 | 2492.1 | 2671.9 | 2836.2 | 2912.6 | 2983.4 | 3102.4 | 3198.7 | 3253.9 | 3272.3 | 3246.8 |
| 55° | 2390.2 | 2611.0 | 2812.1 | 3001.8 | 3078.3 | 3157.6 | 3289.3 | 3391.2 | 3449.3 | 3469.1 | 3450.7 |
| 57.5° | 2493.5 | 2737.1 | 2959.4 | 3159.0 | 3248.2 | 3328.9 | 3476.2 | 3582.4 | 3633.4 | 3658.9 | 3636.2 |
| 60° | 2601.1 | 2867.3 | 3108.0 | 3320.4 | 3418.1 | 3501.7 | 3651.8 | 3756.6 | 3810.4 | 3835.9 | 3814.6 |
| 62.5° | 2705.9 | 2993.4 | 3246.8 | 3467.7 | 3561.2 | 3653.2 | 3803.3 | 3903.8 | 3959.0 | 3981.7 | 3961.9 |
| 65° | 2796.5 | 3099.5 | 3360.1 | 3588.1 | 3684.3 | 3775.0 | 3916.6 | 4012.8 | 4070.9 | 4086.5 | 4072.3 |
| 67.5° | 2864.5 | 3171.8 | 3435.1 | 3660.3 | 3753.7 | 3844.3 | 3978.9 | 4068.1 | 4124.7 | 4138.9 | 4126.1 |
| 70° | 2895.7 | 3200.1 | 3460.6 | 3680.1 | 3772.1 | 3852.8 | 3980.3 | 4065.2 | 4119.0 | 4127.5 | 4117.6 |
| 72.5° | 2875.8 | 3171.8 | 3423.8 | 3633.4 | 3721.2 | 3792.0 | 3909.5 | 3990.2 | 4041.2 | 4048.2 | 4041.2 |
| 75° | 2802.2 | 3085.4 | 3323.3 | 3518.7 | 3600.8 | 3660.3 | 3772.1 | 3847.2 | 3898.2 | 3903.8 | 3895.3 |
| 77.5° | 2677.6 | 2941.0 | 3159.0 | 3347.3 | 3415.3 | 3473.4 | 3579.6 | 3646.1 | 3687.2 | 3695.7 | 3685.8 |
| 80° | 2510.5 | 2752.6 | 2948.0 | 3116.5 | 3181.7 | 3231.2 | 3334.6 | 3406.8 | 3429.5 | 3440.8 | 3426.6 |
| 82.5° | 2319.4 | 2536.0 | 2710.2 | 2863.1 | 2921.1 | 2982.0 | 3048.6 | 3115.1 | 3147.7 | 3157.6 | 3146.3 |
| 85° | 2114.0 | 2306.6 | 2460.9 | 2598.3 | 2649.3 | 2704.5 | 2762.5 | 2827.7 | 2856.0 | 2865.9 | 2854.6 |
| 87.5° | 1908.7 | 2078.6 | 2214.6 | 2336.3 | 2383.1 | 2432.6 | 2502.0 | 2536.0 | 2574.2 | 2585.6 | 2572.8 |
| 90° | 1724.6 | 1877.6 | 1999.3 | 2109.8 | 2153.7 | 2199.0 | 2252.8 | 2295.3 | 2330.7 | 2340.6 | 2329.3 |
| 92.5° | 1576.0 | 1713.3 | 1825.2 | 1924.3 | 1962.5 | 2005.0 | 2057.4 | 2098.5 | 2129.6 | 2139.5 | 2128.2 |
| 95° | 1452.8 | 1578.8 | 1683.6 | 1775.6 | 1812.4 | 1852.1 | 1910.1 | 1942.7 | 1971.0 | 1979.5 | 1971.0 |
| 97.5° | 1348.0 | 1466.9 | 1566.1 | 1655.3 | 1690.7 | 1727.5 | 1784.1 | 1816.7 | 1843.6 | 1850.7 | 1843.6 |
| 100° | 1256.0 | 1372.1 | 1469.8 | 1554.7 | 1590.1 | 1625.5 | 1680.8 | 1713.3 | 1738.8 | 1747.3 | 1738.8 |
| 102.5° | 1179.5 | 1291.4 | 1387.6 | 1474.0 | 1508.0 | 1543.4 | 1595.8 | 1634.0 | 1653.8 | 1663.8 | 1655.3 |
| 105° | 1112.9 | 1222.0 | 1318.3 | 1403.2 | 1438.6 | 1472.6 | 1526.4 | 1561.8 | 1584.5 | 1595.8 | 1585.9 |
| 107.5° | 1052.1 | 1159.7 | 1257.4 | 1339.5 | 1374.9 | 1408.9 | 1464.1 | 1499.5 | 1520.7 | 1533.5 | 1522.2 |
| 110° | 994.0 | 1100.2 | 1193.7 | 1278.6 | 1314.0 | 1349.4 | 1404.6 | 1440.0 | 1461.3 | 1472.6 | 1462.7 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|--------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 112.5° | 937.4 | 1040.7 | 1137.0 | 1219.1 | 1253.1 | 1288.5 | 1345.2 | 1382.0 | 1401.8 | 1414.5 | 1403.2 |
| 115° | 880.7 | 982.7 | 1076.1 | 1155.4 | 1189.4 | 1226.2 | 1281.4 | 1319.7 | 1340.9 | 1350.8 | 1339.5 |
| 117.5° | 825.5 | 923.2 | 1012.4 | 1090.3 | 1124.3 | 1159.7 | 1213.5 | 1251.7 | 1274.4 | 1284.3 | 1273.0 |
| 120° | 768.9 | 862.3 | 950.1 | 1020.9 | 1056.3 | 1088.9 | 1144.1 | 1180.9 | 1203.6 | 1213.5 | 1202.2 |
| 122.5° | 708.0 | 800.0 | 883.6 | 952.9 | 986.9 | 1018.1 | 1071.9 | 1108.7 | 1129.9 | 1139.9 | 1129.9 |
| 125° | 645.7 | 732.1 | 812.8 | 882.1 | 910.5 | 940.2 | 992.6 | 1028.0 | 1050.6 | 1059.1 | 1050.6 |
| 127.5° | 583.4 | 662.7 | 737.7 | 798.6 | 829.8 | 858.1 | 907.6 | 941.6 | 961.4 | 971.4 | 964.3 |
| 130° | 521.1 | 596.1 | 664.1 | 719.3 | 746.2 | 773.1 | 818.4 | 849.6 | 869.4 | 877.9 | 870.8 |
| 132.5° | 454.5 | 526.7 | 593.3 | 641.4 | 666.9 | 689.6 | 730.6 | 757.5 | 774.5 | 784.4 | 775.9 |
| 135° | 395.1 | 454.5 | 516.8 | 566.4 | 591.9 | 611.7 | 648.5 | 671.2 | 686.7 | 695.2 | 686.7 |
| 137.5° | 341.2 | 392.2 | 443.2 | 487.1 | 511.2 | 532.4 | 567.8 | 589.0 | 603.2 | 611.7 | 603.2 |
| 140° | 291.7 | 335.6 | 380.9 | 416.3 | 437.5 | 454.5 | 487.1 | 505.5 | 518.2 | 525.3 | 516.8 |
| 142.5° | 243.5 | 283.2 | 321.4 | 354.0 | 372.4 | 386.6 | 417.7 | 431.9 | 441.8 | 446.0 | 441.8 |
| 145° | 202.5 | 235.1 | 267.6 | 297.4 | 311.5 | 322.8 | 354.0 | 369.6 | 378.1 | 382.3 | 378.1 |
| 147.5° | 164.3 | 191.2 | 218.1 | 242.1 | 254.9 | 269.0 | 290.3 | 308.7 | 315.8 | 318.6 | 315.8 |
| 150° | 128.9 | 152.9 | 174.2 | 194.0 | 203.9 | 213.8 | 232.2 | 250.6 | 257.7 | 262.0 | 257.7 |
| 152.5° | 97.7 | 117.5 | 134.5 | 150.1 | 158.6 | 167.1 | 182.7 | 199.7 | 206.7 | 209.6 | 206.7 |
| 155° | 70.8 | 85.0 | 100.5 | 111.9 | 118.9 | 124.6 | 135.9 | 147.3 | 158.6 | 158.6 | 158.6 |
| 157.5° | 43.9 | 55.2 | 68.0 | 77.9 | 82.1 | 87.8 | 96.3 | 106.2 | 114.7 | 118.9 | 118.9 |
| 160° | 22.7 | 29.7 | 38.2 | 45.3 | 49.6 | 53.8 | 59.5 | 68.0 | 73.6 | 77.9 | 75.0 |
| 162.5° | 9.9 | 12.7 | 17.0 | 19.8 | 22.7 | 24.1 | 28.3 | 32.6 | 35.4 | 42.5 | 36.8 |
| 165° | 2.8 | 2.8 | 4.2 | 5.7 | 5.7 | 5.7 | 7.1 | 8.5 | 9.9 | 15.6 | 11.3 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLEDD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|--------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| 0° | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 |
| 2.5° | 1925.7 | 1930.0 | 1935.6 | 1938.5 | 1942.7 | 1945.5 | 1952.6 | 1961.1 | 1954.0 | 1944.1 | 1945.5 |
| 5° | 1932.8 | 1931.4 | 1935.6 | 1938.5 | 1941.3 | 1942.7 | 1949.8 | 1958.3 | 1949.8 | 1939.9 | 1939.9 |
| 7.5° | 1935.6 | 1934.2 | 1935.6 | 1937.0 | 1938.5 | 1938.5 | 1945.5 | 1952.6 | 1944.1 | 1931.4 | 1928.5 |
| 10° | 1931.4 | 1930.0 | 1931.4 | 1934.2 | 1934.2 | 1934.2 | 1938.5 | 1944.1 | 1934.2 | 1918.6 | 1913.0 |
| 12.5° | 1934.2 | 1930.0 | 1930.0 | 1931.4 | 1931.4 | 1928.5 | 1930.0 | 1934.2 | 1921.5 | 1904.5 | 1896.0 |
| 15° | 1944.1 | 1937.0 | 1934.2 | 1934.2 | 1931.4 | 1924.3 | 1921.5 | 1921.5 | 1907.3 | 1884.7 | 1873.3 |
| 17.5° | 1968.2 | 1956.9 | 1948.4 | 1944.1 | 1938.5 | 1925.7 | 1915.8 | 1910.1 | 1891.7 | 1866.2 | 1847.8 |
| 20° | 2005.0 | 1989.4 | 1976.7 | 1968.2 | 1961.1 | 1938.5 | 1918.6 | 1903.1 | 1877.6 | 1846.4 | 1822.3 |
| 22.5° | 2041.8 | 2024.8 | 2006.4 | 1997.9 | 1988.0 | 1962.5 | 1935.6 | 1908.7 | 1870.5 | 1828.0 | 1795.4 |
| 25° | 2077.2 | 2060.2 | 2039.0 | 2030.5 | 2017.8 | 1988.0 | 1954.0 | 1922.9 | 1873.3 | 1815.3 | 1768.5 |
| 27.5° | 2118.3 | 2097.0 | 2074.4 | 2061.6 | 2047.5 | 2013.5 | 1975.3 | 1937.0 | 1881.8 | 1815.3 | 1750.1 |
| 30° | 2165.0 | 2139.5 | 2109.8 | 2095.6 | 2078.6 | 2039.0 | 1992.3 | 1947.0 | 1887.5 | 1815.3 | 1740.2 |
| 32.5° | 2218.8 | 2189.1 | 2153.7 | 2133.9 | 2114.0 | 2067.3 | 2012.1 | 1959.7 | 1891.7 | 1813.9 | 1731.7 |
| 35° | 2281.1 | 2247.1 | 2204.7 | 2182.0 | 2157.9 | 2102.7 | 2037.6 | 1973.9 | 1898.8 | 1812.4 | 1720.4 |
| 37.5° | 2359.0 | 2319.4 | 2268.4 | 2240.1 | 2211.7 | 2146.6 | 2071.6 | 1995.1 | 1910.1 | 1813.9 | 1711.9 |
| 40° | 2452.5 | 2405.7 | 2346.3 | 2310.9 | 2276.9 | 2201.8 | 2112.6 | 2022.0 | 1925.7 | 1816.7 | 1703.4 |
| 42.5° | 2562.9 | 2506.3 | 2439.7 | 2398.6 | 2359.0 | 2265.5 | 2163.6 | 2056.0 | 1947.0 | 1822.3 | 1699.2 |
| 45° | 2694.6 | 2635.1 | 2550.2 | 2499.2 | 2455.3 | 2346.3 | 2228.7 | 2101.3 | 1978.1 | 1836.5 | 1697.7 |
| 47.5° | 2846.1 | 2771.0 | 2679.0 | 2619.5 | 2567.1 | 2441.1 | 2305.2 | 2157.9 | 2013.5 | 1854.9 | 1700.6 |
| 50° | 3016.0 | 2931.0 | 2824.9 | 2762.5 | 2697.4 | 2553.0 | 2395.8 | 2224.5 | 2058.8 | 1881.8 | 1707.7 |
| 52.5° | 3202.9 | 3109.5 | 2994.8 | 2921.1 | 2848.9 | 2681.8 | 2497.8 | 2309.4 | 2111.2 | 1915.8 | 1720.4 |
| 55° | 3396.9 | 3296.4 | 3168.9 | 3088.2 | 3007.5 | 2823.4 | 2618.1 | 2401.5 | 2180.6 | 1958.3 | 1741.6 |
| 57.5° | 3585.2 | 3481.9 | 3341.7 | 3259.6 | 3168.9 | 2973.5 | 2747.0 | 2502.0 | 2255.6 | 2007.8 | 1765.7 |
| 60° | 3759.4 | 3656.0 | 3514.4 | 3430.9 | 3331.8 | 3122.2 | 2878.7 | 2612.5 | 2333.5 | 2060.2 | 1794.0 |
| 62.5° | 3906.6 | 3807.5 | 3665.9 | 3581.0 | 3479.0 | 3262.4 | 3004.7 | 2720.1 | 2418.5 | 2115.5 | 1820.9 |
| 65° | 4015.7 | 3922.2 | 3784.9 | 3697.1 | 3599.4 | 3374.2 | 3110.9 | 2814.9 | 2489.3 | 2163.6 | 1845.0 |
| 67.5° | <i>4070.9</i> | <i>3983.1</i> | <i>3850.0</i> | <i>3766.5</i> | <i>3670.2</i> | <i>3446.5</i> | <i>3183.1</i> | <i>2878.7</i> | <i>2543.1</i> | <i>2197.6</i> | <i>1860.6</i> |
| 70° | 4065.2 | 3981.7 | 3857.1 | 3775.0 | 3682.9 | 3467.7 | 3208.6 | 2904.1 | 2567.1 | 2210.3 | 1857.7 |
| 72.5° | 3991.6 | 3908.1 | 3796.2 | 3716.9 | 3629.1 | 3428.1 | 3173.2 | 2881.5 | 2548.7 | 2190.5 | 1835.1 |
| 75° | 3845.8 | 3769.3 | 3656.0 | 3590.9 | 3511.6 | 3324.7 | 3081.1 | 2797.9 | 2486.4 | 2138.1 | 1788.4 |
| 77.5° | 3636.2 | 3578.1 | 3467.7 | 3406.8 | 3328.9 | 3156.2 | 2926.8 | 2671.9 | 2377.4 | 2050.3 | 1716.2 |
| 80° | 3379.9 | 3331.8 | 3224.2 | 3170.3 | 3093.9 | 2943.8 | 2745.6 | 2499.2 | 2233.0 | 1931.4 | 1622.7 |
| 82.5° | 3099.5 | 3044.3 | 2959.4 | 2909.8 | 2837.6 | 2703.1 | 2514.8 | 2313.7 | 2065.9 | 1795.4 | 1513.7 |
| 85° | 2809.3 | 2758.3 | 2680.4 | 2637.9 | 2574.2 | 2453.9 | 2285.4 | 2108.4 | 1888.9 | 1645.4 | 1396.1 |
| 87.5° | 2533.2 | 2483.6 | 2410.0 | 2371.7 | 2313.7 | 2206.1 | 2058.8 | 1903.1 | 1709.1 | 1500.9 | 1271.5 |
| 90° | 2293.9 | 2247.1 | 2177.8 | 2142.4 | 2090.0 | 1992.3 | 1859.2 | 1719.0 | 1547.7 | 1356.5 | 1159.7 |
| 92.5° | 2097.0 | 2054.6 | 1989.4 | 1955.4 | 1908.7 | 1819.5 | 1699.2 | 1571.7 | 1417.4 | 1251.7 | 1069.1 |
| 95° | 1941.3 | 1900.2 | 1842.2 | 1809.6 | 1765.7 | 1673.7 | 1567.5 | 1448.5 | 1306.9 | 1155.4 | 986.9 |
| 97.5° | 1815.3 | 1781.3 | 1717.6 | 1686.4 | 1651.0 | 1557.6 | 1461.3 | 1343.8 | 1212.1 | 1070.5 | 913.3 |
| 100° | 1713.3 | 1675.1 | 1617.0 | 1587.3 | 1550.5 | 1462.7 | 1365.0 | 1254.5 | 1127.1 | 992.6 | 846.7 |
| 102.5° | 1634.0 | 1594.4 | 1540.6 | 1506.6 | 1471.2 | 1382.0 | 1285.7 | 1178.1 | 1056.3 | 926.0 | 785.9 |
| 105° | 1563.2 | 1525.0 | 1471.2 | 1437.2 | 1401.8 | 1314.0 | 1222.0 | 1112.9 | 992.6 | 866.6 | 730.6 |
| 107.5° | 1496.7 | 1462.7 | 1408.9 | 1374.9 | 1339.5 | 1251.7 | 1159.7 | 1052.1 | 934.5 | 811.3 | 679.7 |
| 110° | 1440.0 | 1403.2 | 1346.6 | 1314.0 | 1275.8 | 1192.2 | 1100.2 | 995.4 | 877.9 | 757.5 | 631.5 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 112.5° | 1383.4 | 1343.8 | 1287.1 | 1254.5 | 1216.3 | 1132.8 | 1042.2 | 938.8 | 824.1 | 708.0 | 586.2 |
| 115° | 1321.1 | 1282.9 | 1223.4 | 1190.8 | 1152.6 | 1070.5 | 982.7 | 882.1 | 771.7 | 658.4 | 540.9 |
| 117.5° | 1254.5 | 1216.3 | 1156.8 | 1125.7 | 1088.9 | 1008.2 | 924.6 | 826.9 | 719.3 | 610.3 | 495.6 |
| 120° | 1182.3 | 1145.5 | 1088.9 | 1057.7 | 1022.3 | 944.4 | 863.7 | 766.0 | 664.1 | 559.3 | 453.1 |
| 122.5° | 1108.7 | 1073.3 | 1018.1 | 986.9 | 952.9 | 879.3 | 800.0 | 705.2 | 607.4 | 509.7 | 412.0 |
| 125° | 1029.4 | 994.0 | 941.6 | 911.9 | 877.9 | 807.1 | 730.6 | 641.4 | 550.8 | 463.0 | 369.6 |
| 127.5° | 937.4 | 909.1 | 858.1 | 828.3 | 797.2 | 734.9 | 661.3 | 580.5 | 497.0 | 412.0 | 328.5 |
| 130° | 849.6 | 819.8 | 771.7 | 744.8 | 717.9 | 661.3 | 596.1 | 518.2 | 436.1 | 362.5 | 287.4 |
| 132.5° | 757.5 | 730.6 | 689.6 | 666.9 | 642.8 | 591.9 | 525.3 | 448.9 | 379.5 | 315.8 | 249.2 |
| 135° | 671.2 | 648.5 | 611.7 | 591.9 | 567.8 | 514.0 | 451.7 | 388.0 | 329.9 | 273.3 | 213.8 |
| 137.5° | 590.5 | 567.8 | 533.8 | 512.6 | 487.1 | 438.9 | 388.0 | 335.6 | 281.8 | 233.6 | 181.2 |
| 140° | 505.5 | 487.1 | 455.9 | 437.5 | 414.9 | 373.8 | 331.3 | 281.8 | 239.3 | 195.4 | 150.1 |
| 142.5° | 433.3 | 417.7 | 386.6 | 369.6 | 349.7 | 315.8 | 276.1 | 237.9 | 199.7 | 161.4 | 123.2 |
| 145° | 371.0 | 355.4 | 321.4 | 308.7 | 290.3 | 260.5 | 228.0 | 194.0 | 162.8 | 130.3 | 99.1 |
| 147.5° | 310.1 | 291.7 | 262.0 | 250.6 | 236.5 | 211.0 | 185.5 | 158.6 | 131.7 | 103.4 | 76.5 |
| 150° | 253.5 | 232.2 | 208.1 | 201.1 | 186.9 | 167.1 | 145.8 | 123.2 | 101.9 | 79.3 | 55.2 |
| 152.5° | 199.7 | 181.2 | 161.4 | 154.3 | 143.0 | 130.3 | 111.9 | 93.5 | 76.5 | 55.2 | 38.2 |
| 155° | 148.7 | 134.5 | 118.9 | 114.7 | 106.2 | 96.3 | 80.7 | 66.6 | 51.0 | 36.8 | 26.9 |
| 157.5° | 104.8 | 93.5 | 82.1 | 79.3 | 73.6 | 65.1 | 52.4 | 41.1 | 32.6 | 24.1 | 18.4 |
| 160° | 65.1 | 58.1 | 49.6 | 46.7 | 42.5 | 36.8 | 28.3 | 24.1 | 19.8 | 15.6 | 11.3 |
| 162.5° | 31.2 | 26.9 | 24.1 | 22.7 | 19.8 | 17.0 | 15.6 | 12.7 | 11.3 | 9.9 | 8.5 |
| 165° | 11.3 | 11.3 | 11.3 | 9.9 | 9.9 | 9.9 | 9.9 | 8.5 | 7.1 | 7.1 | 5.7 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 | 1948.4 |
| 2.5° | 1947.0 | 1949.8 | 1949.8 | 1951.2 | 1955.4 | 1963.9 | 1975.3 | 1976.7 |
| 5° | 1941.3 | 1942.7 | 1942.7 | 1942.7 | 1947.0 | 1954.0 | 1965.4 | 1966.8 |
| 7.5° | 1928.5 | 1928.5 | 1928.5 | 1928.5 | 1932.8 | 1938.5 | 1948.4 | 1949.8 |
| 10° | 1911.6 | 1910.1 | 1910.1 | 1908.7 | 1911.6 | 1915.8 | 1927.1 | 1925.7 |
| 12.5° | 1890.3 | 1887.5 | 1886.1 | 1886.1 | 1884.7 | 1888.9 | 1896.0 | 1897.4 |
| 15° | 1866.2 | 1860.6 | 1857.7 | 1854.9 | 1853.5 | 1853.5 | 1862.0 | 1860.6 |
| 17.5° | 1837.9 | 1829.4 | 1825.2 | 1820.9 | 1815.3 | 1815.3 | 1820.9 | 1819.5 |
| 20° | 1805.4 | 1794.0 | 1786.9 | 1781.3 | 1772.8 | 1770.0 | 1772.8 | 1771.4 |
| 22.5° | 1772.8 | 1754.4 | 1747.3 | 1738.8 | 1726.1 | 1720.4 | 1719.0 | 1717.6 |
| 25° | 1734.6 | 1711.9 | 1702.0 | 1693.5 | 1675.1 | 1668.0 | 1660.9 | 1658.1 |
| 27.5° | 1700.6 | 1668.0 | 1655.3 | 1641.1 | 1619.9 | 1610.0 | 1598.6 | 1595.8 |
| 30° | 1670.8 | 1622.7 | 1602.9 | 1588.7 | 1561.8 | 1546.2 | 1532.1 | 1529.2 |
| 32.5° | 1648.2 | 1581.6 | 1554.7 | 1537.7 | 1500.9 | 1479.7 | 1461.3 | 1452.8 |
| 35° | 1628.4 | 1543.4 | 1508.0 | 1481.1 | 1437.2 | 1411.7 | 1386.2 | 1379.2 |
| 37.5° | 1610.0 | 1510.8 | 1464.1 | 1427.3 | 1377.7 | 1340.9 | 1312.6 | 1301.3 |
| 40° | 1591.5 | 1481.1 | 1424.5 | 1377.7 | 1312.6 | 1270.1 | 1234.7 | 1220.6 |
| 42.5° | 1574.6 | 1451.4 | 1390.5 | 1333.8 | 1248.9 | 1197.9 | 1159.7 | 1139.9 |
| 45° | 1559.0 | 1424.5 | 1357.9 | 1295.6 | 1186.6 | 1127.1 | 1080.4 | 1062.0 |
| 47.5° | 1547.7 | 1399.0 | 1325.3 | 1257.4 | 1128.5 | 1054.9 | 1006.8 | 982.7 |
| 50° | 1539.2 | 1374.9 | 1294.2 | 1219.1 | 1077.6 | 985.5 | 931.7 | 903.4 |
| 52.5° | 1534.9 | 1353.7 | 1265.9 | 1185.2 | 1030.8 | 919.0 | 855.2 | 834.0 |
| 55° | 1536.3 | 1336.7 | 1241.8 | 1154.0 | 986.9 | 855.2 | 784.4 | 751.9 |
| 57.5° | 1539.2 | 1321.1 | 1217.7 | 1122.9 | 943.0 | 792.9 | 713.6 | 679.7 |
| 60° | 1544.8 | 1308.4 | 1196.5 | 1093.1 | 902.0 | 739.1 | 648.5 | 615.9 |
| 62.5° | 1550.5 | 1297.0 | 1175.3 | 1064.8 | 862.3 | 689.6 | 583.4 | 546.6 |
| 65° | 1551.9 | 1280.0 | 1152.6 | 1036.5 | 822.7 | 640.0 | 516.8 | 481.4 |
| 67.5° | 1546.2 | 1258.8 | 1124.3 | 1003.9 | 781.6 | 591.9 | 454.5 | 417.7 |
| 70° | 1529.2 | 1230.5 | 1091.7 | 967.1 | 736.3 | 545.1 | 395.1 | 355.4 |
| 72.5° | 1498.1 | 1193.7 | 1053.5 | 926.0 | 692.4 | 495.6 | 341.2 | 293.1 |
| 75° | 1454.2 | 1148.3 | 1008.2 | 879.3 | 645.7 | 448.9 | 291.7 | 237.9 |
| 77.5° | 1394.7 | 1090.3 | 954.4 | 826.9 | 594.7 | 400.7 | 249.2 | 186.9 |
| 80° | 1318.3 | 1029.4 | 894.9 | 770.3 | 545.1 | 356.8 | 208.1 | 138.8 |
| 82.5° | 1227.6 | 960.0 | 831.2 | 712.2 | 498.4 | 311.5 | 169.9 | 96.3 |
| 85° | 1134.2 | 885.0 | 764.6 | 651.3 | 448.9 | 269.0 | 137.3 | 56.6 |
| 87.5° | 1042.2 | 809.9 | 700.9 | 596.1 | 397.9 | 230.8 | 106.2 | 22.7 |
| 90° | 951.5 | 737.7 | 634.4 | 536.7 | 354.0 | 195.4 | 79.3 | 0.0 |
| 92.5° | 876.5 | 683.9 | 590.5 | 497.0 | 325.7 | 177.0 | 68.0 | 0.0 |
| 95° | 809.9 | 632.9 | 543.7 | 457.4 | 295.9 | 160.0 | 56.6 | 0.0 |
| 97.5° | 749.0 | 584.8 | 502.7 | 420.5 | 269.0 | 141.6 | 46.7 | 0.0 |
| 100° | 691.0 | 536.7 | 460.2 | 386.6 | 243.5 | 126.0 | 35.4 | 0.0 |
| 102.5° | 640.0 | 494.2 | 422.0 | 349.7 | 218.1 | 110.4 | 25.5 | 0.0 |
| 105° | 590.5 | 453.1 | 386.6 | 317.2 | 195.4 | 96.3 | 15.6 | 0.0 |
| 107.5° | 546.6 | 414.9 | 351.2 | 287.4 | 174.2 | 83.5 | 9.9 | 0.0 |
| 110° | 504.1 | 379.5 | 317.2 | 259.1 | 155.8 | 72.2 | 8.5 | 0.0 |



TEST NUMBER: P201325

CATALOG NUMBER: 8LBLED-LD4-16-SYMF-UNV-L835-CD2-U

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|--------|-------|-------|--------|-------|-------|------|------|------|
| 112.5° | 464.4 | 345.5 | 287.4 | 232.2 | 140.2 | 60.9 | 8.5 | 0.0 |
| 115° | 423.4 | 312.9 | 259.1 | 209.6 | 124.6 | 49.6 | 7.1 | 0.0 |
| 117.5° | 388.0 | 281.8 | 233.6 | 191.2 | 109.0 | 39.6 | 7.1 | 0.0 |
| 120° | 352.6 | 254.9 | 212.4 | 171.3 | 94.9 | 29.7 | 7.1 | 0.0 |
| 122.5° | 317.2 | 230.8 | 189.7 | 152.9 | 82.1 | 24.1 | 5.7 | 0.0 |
| 125° | 284.6 | 205.3 | 168.5 | 133.1 | 68.0 | 21.2 | 5.7 | 0.0 |
| 127.5° | 252.0 | 179.8 | 145.8 | 114.7 | 53.8 | 18.4 | 4.2 | 0.0 |
| 130° | 219.5 | 154.3 | 124.6 | 96.3 | 41.1 | 15.6 | 4.2 | 0.0 |
| 132.5° | 189.7 | 130.3 | 104.8 | 79.3 | 32.6 | 12.7 | 2.8 | 0.0 |
| 135° | 160.0 | 109.0 | 86.4 | 62.3 | 25.5 | 11.3 | 2.8 | 0.0 |
| 137.5° | 134.5 | 89.2 | 68.0 | 46.7 | 21.2 | 8.5 | 2.8 | 0.0 |
| 140° | 110.4 | 70.8 | 51.0 | 35.4 | 17.0 | 7.1 | 1.4 | 0.0 |
| 142.5° | 87.8 | 52.4 | 38.2 | 26.9 | 14.2 | 5.7 | 1.4 | 0.0 |
| 145° | 68.0 | 38.2 | 28.3 | 21.2 | 12.7 | 4.2 | 1.4 | 0.0 |
| 147.5° | 49.6 | 29.7 | 22.7 | 18.4 | 9.9 | 4.2 | 1.4 | 0.0 |
| 150° | 35.4 | 22.7 | 18.4 | 14.2 | 7.1 | 2.8 | 1.4 | 0.0 |
| 152.5° | 26.9 | 17.0 | 14.2 | 11.3 | 5.7 | 2.8 | 1.4 | 0.0 |
| 155° | 19.8 | 12.7 | 11.3 | 8.5 | 4.2 | 2.8 | 1.4 | 0.0 |
| 157.5° | 14.2 | 9.9 | 8.5 | 5.7 | 4.2 | 2.8 | 1.4 | 0.0 |
| 160° | 8.5 | 7.1 | 5.7 | 4.2 | 2.8 | 1.4 | 1.4 | 0.0 |
| 162.5° | 7.1 | 4.2 | 4.2 | 4.2 | 2.8 | 1.4 | 1.4 | 0.0 |
| 165° | 4.2 | 2.8 | 2.8 | 2.8 | 1.4 | 1.4 | 1.4 | 0.0 |
| 167.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 170° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 172.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 175° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 177.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 180° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |

(END OF REPORT)