

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: P219541

Luminaire Tested: **LDSQ4B40D010 EU4B30509730 4LBSQLWWLI**

Issue Date: 3/3/2020

Test Information

Test Method: LM-41-14
Report Number: P219541
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (P35471)
Test Lab: INNOVATION CENTER-P3
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: io LED
Catalog Number: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI
Description: PORTFOLIO 4 INCH SQUARE SINGLE 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: 2381.2 lumens
Efficiency: N/A
Efficacy: 55.4 lumens/watt
Spacing Criteria (0/90/45): 1.01 / 1 / 1.06
Luminous Opening: Rectangular (W 0.33' x L: 0.33' x H: 0')
CIE Type: Direct

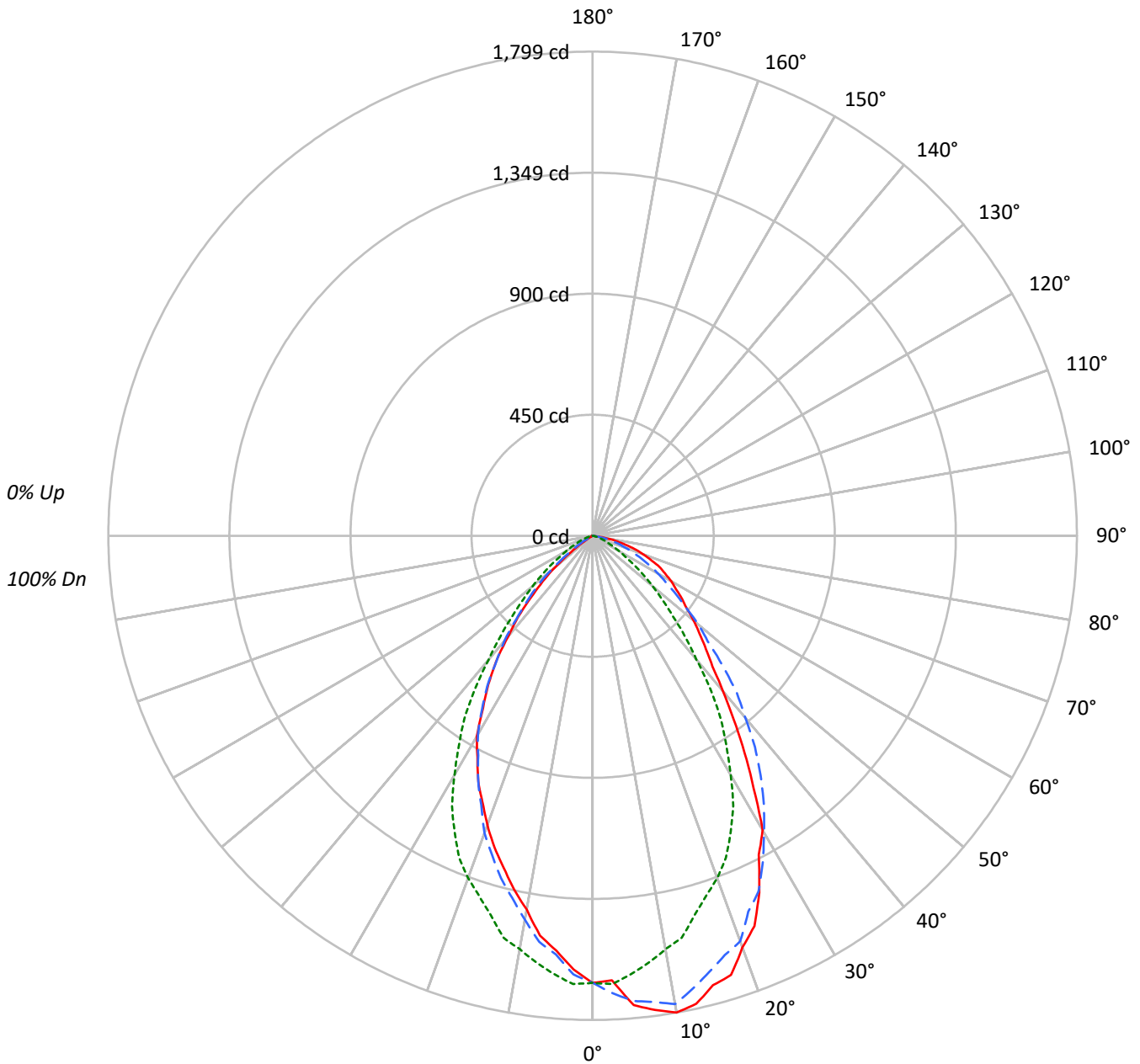
Input Watts (W): 43.02
Input Voltage (V): NR
Input Current (A_{in}): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



TEST NUMBER: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

Luminous Intensity Polar Plot





TEST NUMBER: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

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

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° |
|-----|--------|--------|--------|
| 0° | 160929 | 160929 | 160929 |
| 5° | 170267 | 159026 | 150507 |
| 10° | 176938 | 153428 | 138731 |
| 15° | 173406 | 146438 | 128054 |
| 20° | 167773 | 139433 | 117866 |
| 25° | 156487 | 129669 | 107521 |
| 30° | 141271 | 114748 | 96257 |
| 35° | 116371 | 98229 | 79863 |
| 40° | 94960 | 75827 | 61460 |
| 45° | 81599 | 57582 | 44211 |
| 50° | 73849 | 43827 | 27912 |
| 55° | 67964 | 31618 | 10100 |
| 60° | 65217 | 21603 | 1550 |
| 65° | 63014 | 14602 | 458 |
| 70° | 56422 | 10168 | 566 |
| 75° | 46226 | 5203 | 0 |
| 80° | 28898 | 2232 | 0 |
| 85° | 0 | 0 | 0 |



TEST NUMBER: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 155.6 | 6.5 |
| 10°-20° | 419.3 | 17.6 |
| 20°-30° | 559.9 | 23.5 |
| 30°-40° | 531.6 | 22.3 |
| 40°-50° | 367.4 | 15.4 |
| 50°-60° | 203.0 | 8.5 |
| 60°-70° | 100.8 | 4.2 |
| 70°-80° | 39.7 | 1.7 |
| 80°-90° | 3.8 | 0.2 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.0 | 0.0 |
| 130°-140° | 0.0 | 0.0 |
| 140°-150° | 0.0 | 0.0 |
| 150°-160° | 0.0 | 0.0 |
| 160°-170° | 0.0 | 0.0 |
| 170°-180° | 0.0 | 0.0 |
| 0°-30° | 1134.9 | 47.7 |
| 0°-40° | 1666.5 | 70.0 |
| 0°-60° | 2236.9 | 93.9 |
| 0°-90° | 2381.2 | 100.0 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.0 | 0.0 |
| 90°-180° | 0.0 | 0.0 |
| 0°-180° | 2381.2 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 45° | 90° | 135° | 180° | Flux |
|-----|------|------|------|------|------|------|
| 0° | 1661 | 1661 | 1661 | 1661 | 1661 | |
| 5° | 1751 | 1735 | 1635 | 1562 | 1548 | 168 |
| 15° | 1729 | 1677 | 1460 | 1317 | 1277 | 489 |
| 25° | 1464 | 1458 | 1213 | 1006 | 1006 | 667 |
| 35° | 984 | 1088 | 831 | 683 | 675 | 616 |
| 45° | 596 | 683 | 420 | 345 | 323 | 465 |
| 55° | 402 | 378 | 187 | 96 | 60 | 362 |
| 65° | 275 | 199 | 64 | 2 | 2 | 267 |
| 75° | 124 | 76 | 14 | 0 | 0 | 132 |
| 85° | 0 | 2 | 0 | 0 | 0 | 11 |
| 90° | 0 | 0 | 0 | 0 | 0 | |



TEST NUMBER: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

CANDELA DISTRIBUTION (FULL):

| | 0° | 5° | 10° | 15° | 20° | 22.5° | 25° | 30° | 35° | 40° | 45° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 |
| 2.5° | 1653.3 | 1699.1 | 1703.1 | 1699.1 | 1705.1 | 1703.1 | 1713.0 | 1703.1 | 1715.0 | 1697.1 | 1701.1 |
| 5° | 1750.9 | 1732.9 | 1770.8 | 1750.9 | 1750.9 | 1748.9 | 1742.9 | 1740.9 | 1748.9 | 1723.0 | 1734.9 |
| 7.5° | 1776.8 | 1802.7 | 1836.5 | 1794.7 | 1796.7 | 1796.7 | 1784.7 | 1780.8 | 1780.8 | 1732.9 | 1746.9 |
| 10° | 1798.7 | 1782.7 | 1800.7 | 1784.7 | 1798.7 | 1796.7 | 1804.7 | 1778.8 | 1796.7 | 1768.8 | 1766.8 |
| 12.5° | 1780.8 | 1774.8 | 1798.7 | 1772.8 | 1764.8 | 1766.8 | 1756.9 | 1750.9 | 1756.9 | 1725.0 | 1723.0 |
| 15° | 1729.0 | 1734.9 | 1770.8 | 1742.9 | 1738.9 | 1734.9 | 1723.0 | 1703.1 | 1719.0 | 1675.2 | 1677.2 |
| 17.5° | 1711.0 | 1701.1 | 1707.1 | 1683.2 | 1689.1 | 1685.1 | 1683.2 | 1665.2 | 1661.2 | 1633.4 | 1633.4 |
| 20° | 1627.4 | 1649.3 | 1649.3 | 1633.4 | 1633.4 | 1631.4 | 1605.5 | 1621.4 | 1603.5 | 1595.5 | 1603.5 |
| 22.5° | 1569.6 | 1571.6 | 1571.6 | 1557.7 | 1559.7 | 1551.7 | 1537.7 | 1527.8 | 1537.7 | 1527.8 | 1511.8 |
| 25° | 1464.0 | 1468.0 | 1491.9 | 1466.0 | 1462.1 | 1470.0 | 1458.1 | 1452.1 | 1450.1 | 1426.2 | 1458.1 |
| 27.5° | 1336.6 | 1376.4 | 1374.4 | 1364.4 | 1376.4 | 1360.5 | 1354.5 | 1356.5 | 1362.5 | 1360.5 | 1368.4 |
| 30° | 1262.9 | 1268.8 | 1274.8 | 1266.8 | 1268.8 | 1262.9 | 1262.9 | 1264.9 | 1280.8 | 1274.8 | 1272.8 |
| 32.5° | 1113.5 | 1133.4 | 1149.3 | 1149.3 | 1151.3 | 1157.3 | 1155.3 | 1197.1 | 1207.1 | 1187.2 | 1183.2 |
| 35° | 984.0 | 997.9 | 1011.9 | 1013.9 | 1039.8 | 1041.8 | 1043.8 | 1055.7 | 1083.6 | 1089.6 | 1087.6 |
| 37.5° | 860.5 | 874.4 | 878.4 | 896.4 | 910.3 | 924.2 | 940.2 | 956.1 | 980.0 | 999.9 | 990.0 |
| 40° | 750.9 | 756.9 | 766.9 | 774.8 | 802.7 | 802.7 | 810.7 | 842.6 | 868.5 | 884.4 | 882.4 |
| 42.5° | 659.3 | 661.3 | 669.3 | 683.2 | 709.1 | 703.1 | 709.1 | 731.0 | 768.9 | 770.9 | 792.8 |
| 45° | 595.6 | 593.6 | 599.6 | 601.6 | 617.5 | 625.5 | 629.4 | 645.4 | 677.2 | 681.2 | 683.2 |
| 47.5° | 537.8 | 535.8 | 545.8 | 549.8 | 555.7 | 563.7 | 563.7 | 565.7 | 577.6 | 587.6 | 579.6 |
| 50° | 490.0 | 490.0 | 490.0 | 494.0 | 503.9 | 502.0 | 503.9 | 511.9 | 517.9 | 513.9 | 511.9 |
| 52.5° | 438.2 | 446.2 | 452.2 | 454.2 | 456.1 | 456.1 | 458.1 | 454.2 | 452.2 | 446.2 | 434.2 |
| 55° | 402.4 | 410.3 | 410.3 | 410.3 | 410.3 | 418.3 | 408.3 | 410.3 | 410.3 | 394.4 | 378.5 |
| 57.5° | 366.5 | 374.5 | 380.5 | 372.5 | 380.5 | 372.5 | 368.5 | 366.5 | 362.5 | 346.6 | 322.7 |
| 60° | 336.6 | 340.6 | 338.6 | 336.6 | 340.6 | 334.6 | 330.7 | 322.7 | 318.7 | 296.8 | 280.9 |
| 62.5° | 302.8 | 304.8 | 306.8 | 302.8 | 298.8 | 296.8 | 288.8 | 276.9 | 268.9 | 251.0 | 237.0 |
| 65° | 274.9 | 268.9 | 266.9 | 264.9 | 260.9 | 255.0 | 249.0 | 235.0 | 229.1 | 213.1 | 199.2 |
| 67.5° | 233.1 | 231.1 | 235.0 | 229.1 | 219.1 | 219.1 | 213.1 | 201.2 | 187.2 | 177.3 | 163.3 |
| 70° | 199.2 | 197.2 | 193.2 | 187.2 | 185.2 | 177.3 | 177.3 | 163.3 | 159.4 | 141.4 | 129.5 |
| 72.5° | 163.3 | 163.3 | 157.4 | 151.4 | 145.4 | 141.4 | 139.4 | 129.5 | 123.5 | 113.5 | 103.6 |
| 75° | 123.5 | 123.5 | 121.5 | 115.5 | 111.5 | 107.6 | 105.6 | 97.6 | 91.6 | 81.7 | 75.7 |
| 77.5° | 87.6 | 87.6 | 79.7 | 75.7 | 77.7 | 73.7 | 69.7 | 67.7 | 65.7 | 59.8 | 51.8 |
| 80° | 51.8 | 49.8 | 43.8 | 45.8 | 43.8 | 43.8 | 41.8 | 39.8 | 35.9 | 31.9 | 27.9 |
| 82.5° | 13.9 | 15.9 | 15.9 | 15.9 | 17.9 | 13.9 | 13.9 | 13.9 | 15.9 | 15.9 | 10.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| 87.5° | 2.0 | 4.0 | 8.0 | 8.0 | 8.0 | 8.0 | 8.0 | 6.0 | 6.0 | 6.0 | 4.0 |
| 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: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

| | 50° | 55° | 60° | 65° | 67.5° | 70° | 75° | 80° | 85° | 90° | 95° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 |
| 2.5° | 1681.2 | 1679.2 | 1681.2 | 1667.2 | 1699.1 | 1675.2 | 1671.2 | 1667.2 | 1681.2 | 1667.2 | 1647.3 |
| 5° | 1717.0 | 1697.1 | 1691.1 | 1685.1 | 1703.1 | 1675.2 | 1669.2 | 1671.2 | 1661.2 | 1635.3 | 1637.3 |
| 7.5° | 1729.0 | 1711.0 | 1693.1 | 1655.3 | 1671.2 | 1665.2 | 1649.3 | 1637.3 | 1621.4 | 1599.5 | 1595.5 |
| 10° | 1732.9 | 1713.0 | 1687.1 | 1675.2 | 1651.3 | 1643.3 | 1637.3 | 1617.4 | 1597.5 | 1559.7 | 1549.7 |
| 12.5° | 1721.0 | 1697.1 | 1665.2 | 1655.3 | 1637.3 | 1611.4 | 1597.5 | 1577.6 | 1559.7 | 1529.8 | 1507.9 |
| 15° | 1669.2 | 1649.3 | 1639.3 | 1605.5 | 1597.5 | 1581.6 | 1553.7 | 1525.8 | 1499.9 | 1460.1 | 1448.1 |
| 17.5° | 1609.5 | 1601.5 | 1591.5 | 1565.6 | 1563.6 | 1547.7 | 1521.8 | 1497.9 | 1464.0 | 1402.3 | 1382.4 |
| 20° | 1547.7 | 1547.7 | 1515.8 | 1505.9 | 1525.8 | 1493.9 | 1474.0 | 1452.1 | 1382.4 | 1352.5 | 1316.6 |
| 22.5° | 1501.9 | 1480.0 | 1462.1 | 1446.1 | 1448.1 | 1428.2 | 1400.3 | 1356.5 | 1330.6 | 1294.7 | 1252.9 |
| 25° | 1412.3 | 1420.2 | 1380.4 | 1374.4 | 1380.4 | 1334.6 | 1320.6 | 1284.8 | 1246.9 | 1213.1 | 1181.2 |
| 27.5° | 1356.5 | 1334.6 | 1308.7 | 1286.8 | 1286.8 | 1268.8 | 1229.0 | 1221.0 | 1163.3 | 1131.4 | 1091.6 |
| 30° | 1272.8 | 1256.9 | 1235.0 | 1203.1 | 1199.1 | 1185.2 | 1153.3 | 1133.4 | 1073.6 | 1025.8 | 1003.9 |
| 32.5° | 1167.3 | 1161.3 | 1143.3 | 1107.5 | 1095.5 | 1079.6 | 1039.8 | 1005.9 | 978.0 | 924.2 | 898.3 |
| 35° | 1091.6 | 1069.6 | 1031.8 | 1001.9 | 992.0 | 964.1 | 932.2 | 908.3 | 878.4 | 830.6 | 796.8 |
| 37.5° | 978.0 | 956.1 | 920.3 | 884.4 | 884.4 | 856.5 | 812.7 | 788.8 | 747.0 | 719.1 | 691.2 |
| 40° | 878.4 | 850.5 | 814.7 | 772.9 | 766.9 | 727.0 | 709.1 | 669.3 | 643.4 | 599.6 | 595.6 |
| 42.5° | 766.9 | 741.0 | 709.1 | 677.2 | 653.3 | 633.4 | 587.6 | 557.7 | 529.8 | 507.9 | 502.0 |
| 45° | 665.3 | 631.4 | 603.5 | 563.7 | 539.8 | 515.9 | 486.0 | 466.1 | 444.2 | 420.3 | 406.3 |
| 47.5° | 577.6 | 549.8 | 509.9 | 474.1 | 450.2 | 438.2 | 404.4 | 382.4 | 364.5 | 348.6 | 338.6 |
| 50° | 488.0 | 454.2 | 432.2 | 392.4 | 388.4 | 360.5 | 332.6 | 314.7 | 304.8 | 290.8 | 276.9 |
| 52.5° | 420.3 | 388.4 | 358.5 | 328.7 | 312.7 | 302.8 | 276.9 | 258.9 | 245.0 | 235.0 | 227.1 |
| 55° | 354.6 | 326.7 | 302.8 | 272.9 | 262.9 | 249.0 | 219.1 | 215.1 | 201.2 | 187.2 | 177.3 |
| 57.5° | 304.8 | 278.9 | 251.0 | 231.1 | 213.1 | 203.2 | 179.3 | 163.3 | 155.4 | 143.4 | 133.5 |
| 60° | 258.9 | 231.1 | 209.1 | 185.2 | 177.3 | 163.3 | 145.4 | 131.5 | 121.5 | 111.5 | 101.6 |
| 62.5° | 217.1 | 193.2 | 169.3 | 149.4 | 137.4 | 129.5 | 115.5 | 103.6 | 93.6 | 85.7 | 77.7 |
| 65° | 179.3 | 157.4 | 137.4 | 117.5 | 111.5 | 101.6 | 91.6 | 81.7 | 73.7 | 63.7 | 55.8 |
| 67.5° | 147.4 | 127.5 | 107.6 | 93.6 | 87.6 | 83.7 | 71.7 | 61.7 | 55.8 | 49.8 | 41.8 |
| 70° | 115.5 | 101.6 | 85.7 | 73.7 | 67.7 | 61.7 | 53.8 | 47.8 | 39.8 | 35.9 | 29.9 |
| 72.5° | 89.6 | 77.7 | 63.7 | 53.8 | 49.8 | 45.8 | 37.8 | 31.9 | 27.9 | 23.9 | 19.9 |
| 75° | 63.7 | 53.8 | 45.8 | 35.9 | 33.9 | 31.9 | 25.9 | 21.9 | 17.9 | 13.9 | 12.0 |
| 77.5° | 43.8 | 35.9 | 27.9 | 23.9 | 21.9 | 17.9 | 15.9 | 12.0 | 10.0 | 8.0 | 6.0 |
| 80° | 23.9 | 17.9 | 13.9 | 12.0 | 10.0 | 8.0 | 8.0 | 6.0 | 4.0 | 4.0 | 2.0 |
| 82.5° | 8.0 | 6.0 | 4.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 0.0 | 2.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 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: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

| | 100° | 105° | 110° | 112.5° | 115° | 120° | 125° | 130° | 135° | 140° | 145° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 |
| 2.5° | 1659.2 | 1637.3 | 1643.3 | 1643.3 | 1639.3 | 1639.3 | 1635.3 | 1629.4 | 1631.4 | 1619.4 | 1593.5 |
| 5° | 1641.3 | 1613.4 | 1609.5 | 1613.4 | 1597.5 | 1593.5 | 1585.5 | 1597.5 | 1561.6 | 1575.6 | 1559.7 |
| 7.5° | 1589.5 | 1563.6 | 1557.7 | 1571.6 | 1551.7 | 1539.7 | 1537.7 | 1553.7 | 1521.8 | 1505.9 | 1487.9 |
| 10° | 1531.8 | 1521.8 | 1503.9 | 1493.9 | 1487.9 | 1489.9 | 1474.0 | 1454.1 | 1448.1 | 1444.1 | 1428.2 |
| 12.5° | 1480.0 | 1458.1 | 1442.1 | 1430.2 | 1426.2 | 1426.2 | 1400.3 | 1396.3 | 1378.4 | 1374.4 | 1350.5 |
| 15° | 1418.2 | 1392.3 | 1382.4 | 1366.4 | 1352.5 | 1360.5 | 1330.6 | 1322.6 | 1316.6 | 1290.7 | 1294.7 |
| 17.5° | 1364.4 | 1336.6 | 1312.7 | 1302.7 | 1290.7 | 1278.8 | 1250.9 | 1256.9 | 1242.9 | 1242.9 | 1207.1 |
| 20° | 1294.7 | 1264.9 | 1246.9 | 1227.0 | 1227.0 | 1211.1 | 1191.2 | 1193.1 | 1175.2 | 1157.3 | 1125.4 |
| 22.5° | 1221.0 | 1189.2 | 1167.3 | 1159.3 | 1139.4 | 1135.4 | 1111.5 | 1105.5 | 1081.6 | 1083.6 | 1055.7 |
| 25° | 1143.3 | 1111.5 | 1081.6 | 1083.6 | 1065.7 | 1057.7 | 1043.8 | 1015.9 | 1005.9 | 994.0 | 986.0 |
| 27.5° | 1051.7 | 1029.8 | 1003.9 | 1001.9 | 968.1 | 970.1 | 952.1 | 944.2 | 920.3 | 926.2 | 908.3 |
| 30° | 968.1 | 936.2 | 912.3 | 906.3 | 892.4 | 888.4 | 860.5 | 848.5 | 852.5 | 836.6 | 826.6 |
| 32.5° | 882.4 | 834.6 | 824.6 | 812.7 | 804.7 | 794.8 | 774.8 | 782.8 | 764.9 | 768.9 | 752.9 |
| 35° | 768.9 | 749.0 | 723.1 | 723.1 | 715.1 | 707.1 | 693.2 | 701.1 | 683.2 | 675.3 | 659.3 |
| 37.5° | 673.3 | 655.3 | 629.4 | 637.4 | 623.5 | 611.5 | 599.6 | 601.6 | 585.6 | 583.6 | 567.7 |
| 40° | 569.7 | 559.7 | 541.8 | 541.8 | 531.8 | 531.8 | 525.9 | 519.9 | 509.9 | 498.0 | 480.0 |
| 42.5° | 472.1 | 464.1 | 456.1 | 458.1 | 444.2 | 456.1 | 440.2 | 450.2 | 418.3 | 416.3 | 404.4 |
| 45° | 400.4 | 382.4 | 384.4 | 376.5 | 368.5 | 372.5 | 358.5 | 362.5 | 344.6 | 340.6 | 328.7 |
| 47.5° | 324.7 | 318.7 | 306.8 | 302.8 | 302.8 | 296.8 | 290.8 | 288.8 | 280.9 | 270.9 | 255.0 |
| 50° | 266.9 | 245.0 | 241.0 | 235.0 | 231.1 | 231.1 | 223.1 | 211.1 | 213.1 | 203.2 | 187.2 |
| 52.5° | 209.1 | 191.2 | 183.3 | 181.3 | 173.3 | 169.3 | 159.4 | 151.4 | 145.4 | 141.4 | 131.5 |
| 55° | 161.3 | 145.4 | 135.4 | 135.4 | 123.5 | 123.5 | 109.6 | 103.6 | 95.6 | 87.6 | 81.7 |
| 57.5° | 121.5 | 113.5 | 103.6 | 95.6 | 91.6 | 81.7 | 73.7 | 63.7 | 57.8 | 45.8 | 37.8 |
| 60° | 91.6 | 83.7 | 73.7 | 67.7 | 63.7 | 53.8 | 43.8 | 35.9 | 21.9 | 17.9 | 15.9 |
| 62.5° | 67.7 | 59.8 | 49.8 | 45.8 | 41.8 | 33.9 | 23.9 | 12.0 | 6.0 | 6.0 | 6.0 |
| 65° | 49.8 | 39.8 | 31.9 | 27.9 | 23.9 | 17.9 | 8.0 | 4.0 | 2.0 | 2.0 | 2.0 |
| 67.5° | 33.9 | 25.9 | 17.9 | 15.9 | 12.0 | 6.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 70° | 21.9 | 15.9 | 8.0 | 6.0 | 4.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 72.5° | 13.9 | 8.0 | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 8.0 | 4.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 4.0 | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 2.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | 2.0 | 2.0 |
| 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: P219541

CATALOG NUMBER: LDSQ4B40D010 EU4B30509730 4LBSQLWWLI

CANDELA DISTRIBUTION (continued):

| | 150° | 155° | 157.5° | 160° | 165° | 170° | 175° | 180° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 | 1661.2 |
| 2.5° | 1621.4 | 1607.5 | 1615.4 | 1597.5 | 1605.5 | 1619.4 | 1609.5 | 1613.4 |
| 5° | 1565.6 | 1557.7 | 1547.7 | 1521.8 | 1541.7 | 1557.7 | 1549.7 | 1547.7 |
| 7.5° | 1505.9 | 1478.0 | 1491.9 | 1484.0 | 1480.0 | 1495.9 | 1478.0 | 1497.9 |
| 10° | 1444.1 | 1424.2 | 1422.2 | 1408.3 | 1408.3 | 1420.2 | 1422.2 | 1410.3 |
| 12.5° | 1352.5 | 1342.5 | 1342.5 | 1340.5 | 1338.6 | 1350.5 | 1352.5 | 1346.5 |
| 15° | 1286.8 | 1282.8 | 1272.8 | 1270.8 | 1258.9 | 1276.8 | 1278.8 | 1276.8 |
| 17.5° | 1207.1 | 1209.1 | 1199.1 | 1199.1 | 1207.1 | 1213.1 | 1197.1 | 1213.1 |
| 20° | 1153.3 | 1143.3 | 1139.4 | 1121.4 | 1131.4 | 1141.4 | 1141.4 | 1143.3 |
| 22.5° | 1075.6 | 1059.7 | 1065.7 | 1055.7 | 1049.7 | 1063.7 | 1063.7 | 1069.6 |
| 25° | 988.0 | 988.0 | 992.0 | 986.0 | 990.0 | 997.9 | 992.0 | 1005.9 |
| 27.5° | 904.3 | 912.3 | 912.3 | 904.3 | 908.3 | 932.2 | 942.2 | 926.2 |
| 30° | 826.6 | 828.6 | 834.6 | 830.6 | 842.6 | 850.5 | 848.5 | 860.5 |
| 32.5° | 739.0 | 749.0 | 752.9 | 747.0 | 750.9 | 768.9 | 758.9 | 756.9 |
| 35° | 671.3 | 653.3 | 651.3 | 653.3 | 661.3 | 665.3 | 661.3 | 675.3 |
| 37.5° | 573.7 | 567.7 | 559.7 | 561.7 | 567.7 | 575.7 | 579.6 | 589.6 |
| 40° | 480.0 | 472.1 | 472.1 | 470.1 | 464.1 | 486.0 | 486.0 | 486.0 |
| 42.5° | 398.4 | 396.4 | 386.4 | 386.4 | 394.4 | 400.4 | 396.4 | 410.3 |
| 45° | 326.7 | 318.7 | 312.7 | 312.7 | 318.7 | 318.7 | 324.7 | 322.7 |
| 47.5° | 257.0 | 249.0 | 251.0 | 245.0 | 251.0 | 258.9 | 249.0 | 251.0 |
| 50° | 193.2 | 193.2 | 189.2 | 193.2 | 191.2 | 193.2 | 189.2 | 185.2 |
| 52.5° | 131.5 | 149.4 | 151.4 | 143.4 | 125.5 | 109.6 | 99.6 | 107.6 |
| 55° | 75.7 | 67.7 | 67.7 | 65.7 | 61.7 | 59.8 | 53.8 | 59.8 |
| 57.5° | 37.8 | 33.9 | 33.9 | 33.9 | 31.9 | 29.9 | 25.9 | 25.9 |
| 60° | 15.9 | 13.9 | 13.9 | 12.0 | 10.0 | 8.0 | 6.0 | 8.0 |
| 62.5° | 6.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 | 4.0 |
| 65° | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 67.5° | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 70° | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 |
| 72.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 75° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 77.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 80° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 82.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 85° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 87.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



Report Generated By E9808895 / USPTCWHP6082093





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













(END OF REPORT)