

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: HALO

Report Number: P571719

Luminaire Tested: **RLS4099FSE1WHDM 3500K**

Issue Date: 9/21/2021

Test Information

Test Method: LM-41-14
Report Number: P571719
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (A2105753A001)
Test Lab:
Issue Date: 9/21/2021
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: HALO
Catalog Number: RLS4099FSE1WHDM 3500K
Description: 4 INCH SLOPE DM AT 9 Degrees TILT
Light Source: (1) HIGH LUMEN LED 90CRI / 3500K CCT
Ballast/Driver: -

Summary

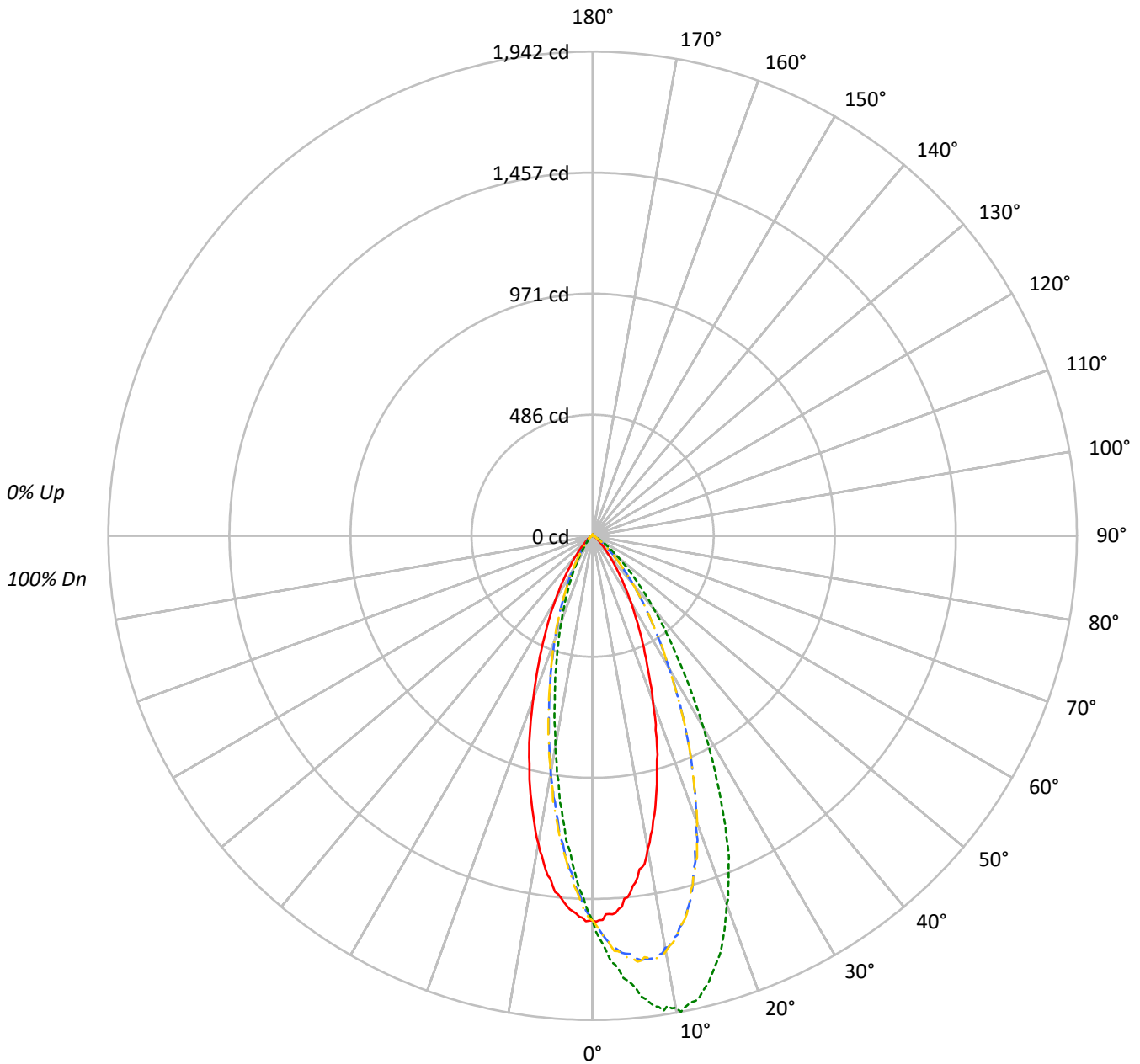
Lumens per Lamp: N/A
Luminaire Lumens: 986.0 lumens
Efficiency: N/A
Efficacy: 89.6 lumens/watt
Spacing Criteria (0/90/45): 0.61 / 0.76 / 0.7
Luminous Opening: Circular (Dia: 0.33' x H: 0')
CIE Type: Direct

Input Watts (W): 11
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: P571719
CATALOG NUMBER: RLS4099FSE1WHDM 3500K

Luminous Intensity Polar Plot





TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

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 | | | | | | | | |
| 1 | 113 | 111 | 108 | 106 | 111 | 108 | 106 | 104 | 104 | 102 | 101 | 100 | 99 | 98 | 97 | 96 | 95 | 93 | | | | | | | | |
| 2 | 108 | 103 | 99 | 95 | 105 | 101 | 97 | 94 | 98 | 95 | 92 | 95 | 92 | 90 | 92 | 90 | 88 | 86 | | | | | | | | |
| 3 | 102 | 96 | 91 | 87 | 100 | 94 | 90 | 86 | 92 | 88 | 85 | 89 | 86 | 83 | 87 | 84 | 82 | 80 | | | | | | | | |
| 4 | 97 | 90 | 84 | 80 | 95 | 88 | 83 | 79 | 86 | 82 | 78 | 84 | 81 | 78 | 82 | 79 | 77 | 75 | | | | | | | | |
| 5 | 92 | 84 | 78 | 74 | 91 | 83 | 78 | 74 | 81 | 77 | 73 | 80 | 76 | 72 | 78 | 75 | 72 | 70 | | | | | | | | |
| 6 | 88 | 79 | 73 | 69 | 86 | 78 | 73 | 69 | 77 | 72 | 68 | 75 | 71 | 68 | 74 | 70 | 67 | 66 | | | | | | | | |
| 7 | 84 | 75 | 69 | 65 | 82 | 74 | 68 | 64 | 73 | 68 | 64 | 71 | 67 | 64 | 70 | 66 | 63 | 62 | | | | | | | | |
| 8 | 80 | 71 | 65 | 61 | 79 | 70 | 64 | 61 | 69 | 64 | 60 | 68 | 63 | 60 | 67 | 63 | 60 | 58 | | | | | | | | |
| 9 | 76 | 67 | 61 | 57 | 75 | 66 | 61 | 57 | 66 | 60 | 57 | 65 | 60 | 57 | 64 | 60 | 57 | 55 | | | | | | | | |
| 10 | 73 | 64 | 58 | 54 | 72 | 63 | 58 | 54 | 62 | 57 | 54 | 62 | 57 | 54 | 61 | 57 | 54 | 52 | | | | | | | | |

AVERAGE LUMINANCE (cd/sqm):

| | 0° | 90° | 180° | 270° |
|-----|--------|--------|--------|--------|
| 0° | 194161 | 194161 | 194161 | 194161 |
| 5° | 184594 | 228077 | 184127 | 154755 |
| 10° | 162883 | 245704 | 160186 | 110118 |
| 15° | 129859 | 238638 | 127475 | 75112 |
| 20° | 94766 | 210345 | 93400 | 49419 |
| 25° | 66056 | 172728 | 65056 | 31605 |
| 30° | 44380 | 129145 | 43799 | 19095 |
| 35° | 28161 | 90322 | 27593 | 10969 |
| 40° | 17217 | 62215 | 16806 | 6719 |
| 45° | 10465 | 41469 | 10234 | 4805 |
| 50° | 6950 | 26138 | 6598 | 3857 |
| 55° | 5156 | 15534 | 4695 | 3160 |
| 60° | 4052 | 8180 | 3473 | 2593 |
| 65° | 3276 | 5479 | 2650 | 2085 |
| 70° | 2723 | 4048 | 2097 | 1656 |
| 75° | 2091 | 3258 | 1459 | 1216 |
| 80° | 1232 | 2029 | 580 | 1305 |
| 85° | 1444 | 289 | 578 | 1300 |



TEST NUMBER: P571719

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ZONAL LUMENS:

| Zone | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10° | 136.5 | 13.8 |
| 10°-20° | 299.8 | 30.4 |
| 20°-30° | 271.3 | 27.5 |
| 30°-40° | 159.0 | 16.1 |
| 40°-50° | 71.4 | 7.2 |
| 50°-60° | 28.1 | 2.9 |
| 60°-70° | 11.4 | 1.2 |
| 70°-80° | 4.5 | 0.5 |
| 80°-90° | 0.8 | 0.1 |
| 90°-100° | 0.0 | 0.0 |
| 100°-110° | 0.0 | 0.0 |
| 110°-120° | 0.0 | 0.0 |
| 120°-130° | 0.1 | 0.0 |
| 130°-140° | 0.2 | 0.0 |
| 140°-150° | 0.6 | 0.1 |
| 150°-160° | 1.0 | 0.1 |
| 160°-170° | 1.0 | 0.1 |
| 170°-180° | 0.4 | 0.0 |
| 0°-30° | 707.6 | 71.8 |
| 0°-40° | 866.6 | 87.9 |
| 0°-60° | 966.1 | 98.0 |
| 0°-90° | 982.7 | 99.7 |
| 90°-120° | 0.0 | 0.0 |
| 90°-150° | 0.9 | 0.1 |
| 90°-180° | 3.0 | 0.3 |
| 0°-180° | 986.0 | 100.0 |

CANDELA DISTRIBUTION:

| | 0° | 90° | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0° | 1543 | 1543 | 1543 | 1543 | 1543 | |
| 5° | 1461 | 1805 | 1458 | 1225 | 1461 | 134 |
| 15° | 997 | 1832 | 978 | 576 | 997 | 274 |
| 25° | 476 | 1244 | 468 | 228 | 476 | 219 |
| 35° | 183 | 588 | 180 | 71 | 183 | 117 |
| 45° | 59 | 233 | 58 | 27 | 59 | 48 |
| 55° | 24 | 71 | 21 | 14 | 24 | 22 |
| 65° | 11 | 18 | 9 | 7 | 11 | 11 |
| 75° | 4 | 7 | 3 | 2 | 4 | 5 |
| 85° | 1 | 0 | 0 | 1 | 1 | 1 |
| 90° | 0 | 0 | 0 | 0 | 0 | 0 |
| 95° | 0 | 0 | 0 | 0 | 0 | 0 |
| 105° | 0 | 0 | 0 | 0 | 0 | 0 |
| 115° | 0 | 0 | 0 | 0 | 0 | 0 |
| 125° | 0 | 0 | 0 | 0 | 0 | 0 |
| 135° | 0 | 0 | 0 | 1 | 0 | 0 |
| 145° | 1 | 0 | 1 | 3 | 1 | 1 |
| 155° | 3 | 1 | 2 | 4 | 3 | 1 |
| 165° | 4 | 2 | 3 | 5 | 4 | 1 |
| 175° | 5 | 4 | 4 | 5 | 5 | 0 |
| 180° | 5 | 5 | 5 | 5 | 5 | |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (FULL):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0° | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 |
| 0.5° | 1548.3 | 1560.1 | 1563.1 | 1569.0 | 1589.0 | 1560.3 | 1561.5 | 1546.4 | 1544.3 | 1533.0 | 1522.6 |
| 1° | 1542.0 | 1563.8 | 1582.7 | 1596.4 | 1615.6 | 1584.8 | 1582.7 | 1552.1 | 1546.1 | 1515.9 | 1504.4 |
| 1.5° | 1541.1 | 1578.0 | 1603.1 | 1617.2 | 1640.8 | 1610.3 | 1604.2 | 1566.0 | 1533.0 | 1498.6 | 1480.4 |
| 2° | 1519.7 | 1574.5 | 1623.4 | 1643.2 | 1674.3 | 1638.1 | 1616.7 | 1570.9 | 1528.9 | 1490.3 | 1445.0 |
| 2.5° | 1518.3 | 1569.3 | 1640.0 | 1678.9 | 1710.1 | 1670.3 | 1645.7 | 1577.2 | 1516.3 | 1470.4 | 1423.7 |
| 3° | 1520.4 | 1580.1 | 1652.2 | 1694.8 | 1722.2 | 1692.4 | 1667.5 | 1584.5 | 1508.6 | 1458.2 | 1396.3 |
| 3.5° | 1515.9 | 1586.6 | 1663.6 | 1713.4 | 1745.7 | 1705.0 | 1669.5 | 1576.2 | 1501.9 | 1421.2 | 1357.6 |
| 4° | 1500.0 | 1592.4 | 1677.4 | 1722.3 | 1778.8 | 1726.2 | 1680.1 | 1579.5 | 1487.7 | 1399.4 | 1337.2 |
| 4.5° | 1493.0 | 1588.3 | 1681.6 | 1757.7 | 1789.4 | 1746.8 | 1691.0 | 1585.1 | 1473.2 | 1384.8 | 1308.8 |
| 5° | 1461.2 | 1583.3 | 1683.8 | 1770.8 | 1805.4 | 1757.1 | 1709.0 | 1582.6 | 1457.5 | 1355.2 | 1277.6 |
| 5.5° | 1456.5 | 1575.5 | 1684.5 | 1783.3 | 1824.9 | 1768.8 | 1705.7 | 1568.0 | 1444.3 | 1325.3 | 1241.1 |
| 6° | 1440.3 | 1569.6 | 1705.4 | 1788.5 | 1858.2 | 1797.2 | 1717.7 | 1559.2 | 1436.0 | 1303.7 | 1220.4 |
| 6.5° | 1415.1 | 1568.9 | 1713.0 | 1803.6 | 1869.7 | 1811.9 | 1715.4 | 1548.2 | 1412.4 | 1277.4 | 1191.3 |
| 7° | 1401.8 | 1556.8 | 1711.8 | 1806.4 | 1887.0 | 1824.3 | 1703.3 | 1545.4 | 1387.0 | 1249.3 | 1148.6 |
| 7.5° | 1382.1 | 1545.7 | 1712.6 | 1824.2 | 1903.3 | 1829.8 | 1707.9 | 1536.6 | 1374.8 | 1220.1 | 1120.3 |
| 8° | 1350.9 | 1525.1 | 1712.4 | 1814.9 | 1908.9 | 1830.9 | 1710.4 | 1518.4 | 1352.0 | 1202.7 | 1078.9 |
| 8.5° | 1344.1 | 1511.4 | 1704.0 | 1824.9 | 1926.3 | 1840.1 | 1714.7 | 1504.9 | 1327.5 | 1174.9 | 1059.9 |
| 9° | 1332.2 | 1494.1 | 1701.0 | 1829.9 | 1910.1 | 1839.4 | 1711.6 | 1488.3 | 1300.0 | 1146.1 | 1019.0 |
| 9.5° | 1305.1 | 1484.6 | 1697.2 | 1829.8 | 1921.4 | 1839.1 | 1705.8 | 1470.4 | 1282.2 | 1116.8 | 997.1 |
| 10° | 1274.6 | 1459.6 | 1678.2 | 1827.5 | 1922.7 | 1829.2 | 1692.9 | 1460.5 | 1253.5 | 1085.0 | 965.2 |
| 10.5° | 1251.8 | 1449.2 | 1678.1 | 1816.8 | 1942.1 | 1832.9 | 1676.3 | 1443.9 | 1231.7 | 1052.0 | 931.8 |
| 11° | 1222.4 | 1441.1 | 1654.3 | 1813.1 | 1929.2 | 1840.3 | 1666.5 | 1419.8 | 1204.1 | 1030.2 | 901.3 |
| 11.5° | 1203.4 | 1417.4 | 1644.3 | 1806.8 | 1919.2 | 1824.1 | 1654.7 | 1397.6 | 1175.0 | 1001.5 | 870.0 |
| 12° | 1167.8 | 1394.6 | 1637.4 | 1786.9 | 1911.8 | 1800.2 | 1632.5 | 1370.8 | 1147.1 | 969.3 | 839.4 |
| 12.5° | 1144.7 | 1358.8 | 1609.6 | 1789.2 | 1910.1 | 1806.8 | 1609.4 | 1350.9 | 1119.2 | 940.7 | 811.3 |
| 13° | 1117.7 | 1342.5 | 1597.7 | 1761.8 | 1901.9 | 1779.6 | 1596.0 | 1327.4 | 1090.0 | 907.2 | 779.8 |
| 13.5° | 1087.6 | 1319.8 | 1575.1 | 1767.4 | 1882.7 | 1769.0 | 1583.1 | 1295.1 | 1066.4 | 878.4 | 751.1 |
| 14° | 1057.2 | 1289.2 | 1556.6 | 1733.8 | 1867.2 | 1763.5 | 1563.4 | 1277.5 | 1037.3 | 856.0 | 721.3 |
| 14.5° | 1029.5 | 1269.1 | 1536.0 | 1724.7 | 1852.9 | 1739.4 | 1534.6 | 1252.1 | 1010.5 | 829.2 | 695.7 |
| 15° | 996.7 | 1240.8 | 1515.1 | 1682.6 | 1831.6 | 1721.1 | 1509.6 | 1223.6 | 978.4 | 797.2 | 668.2 |
| 15.5° | 964.4 | 1212.5 | 1486.7 | 1670.7 | 1810.7 | 1691.7 | 1474.8 | 1195.3 | 948.8 | 770.5 | 643.0 |
| 16° | 936.2 | 1185.7 | 1457.7 | 1650.0 | 1790.2 | 1670.6 | 1458.1 | 1163.8 | 924.0 | 741.0 | 616.4 |
| 16.5° | 916.3 | 1166.2 | 1422.3 | 1624.4 | 1770.7 | 1648.9 | 1420.8 | 1134.9 | 895.9 | 713.2 | 595.2 |
| 17° | 880.7 | 1125.8 | 1390.9 | 1600.1 | 1751.7 | 1624.3 | 1403.2 | 1111.2 | 868.7 | 687.2 | 572.5 |
| 17.5° | 852.4 | 1096.8 | 1369.4 | 1576.5 | 1724.2 | 1603.9 | 1374.7 | 1083.8 | 839.1 | 657.4 | 545.6 |
| 18° | 818.5 | 1067.5 | 1326.1 | 1556.1 | 1693.6 | 1572.1 | 1355.8 | 1053.0 | 809.3 | 631.4 | 521.2 |
| 18.5° | 798.9 | 1037.0 | 1312.7 | 1524.9 | 1667.3 | 1543.4 | 1319.0 | 1021.5 | 779.6 | 607.5 | 501.7 |
| 19° | 767.9 | 1004.9 | 1292.5 | 1495.0 | 1633.4 | 1516.9 | 1282.4 | 994.8 | 752.1 | 585.8 | 482.3 |
| 19.5° | 734.0 | 975.5 | 1240.7 | 1458.7 | 1605.1 | 1490.8 | 1248.8 | 963.6 | 722.3 | 565.1 | 464.0 |
| 20° | 707.6 | 942.2 | 1212.9 | 1430.9 | 1570.6 | 1452.2 | 1226.6 | 935.6 | 697.4 | 539.8 | 445.1 |
| 20.5° | 682.6 | 916.7 | 1186.6 | 1401.7 | 1554.4 | 1422.3 | 1192.3 | 906.2 | 671.2 | 516.3 | 424.3 |
| 21° | 657.7 | 883.3 | 1153.8 | 1365.4 | 1515.8 | 1391.0 | 1162.9 | 873.1 | 646.7 | 494.2 | 404.3 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-------|-------|--------|--------|--------|--------|--------|--------|-------|--------|-------|
| 22.5° | 581.7 | 793.0 | 1059.9 | 1270.3 | 1426.0 | 1297.5 | 1057.4 | 784.4 | 573.6 | 435.1 | 354.0 |
| 23° | 558.8 | 766.7 | 1024.8 | 1236.4 | 1398.9 | 1260.7 | 1025.6 | 753.9 | 552.5 | 419.8 | 340.1 |
| 23.5° | 537.5 | 737.9 | 996.4 | 1207.2 | 1358.1 | 1220.2 | 997.6 | 727.7 | 531.0 | 401.7 | 322.4 |
| 24° | 515.6 | 709.1 | 965.2 | 1170.3 | 1317.1 | 1188.7 | 965.4 | 703.7 | 508.7 | 384.2 | 306.2 |
| 24.5° | 495.9 | 680.5 | 933.7 | 1139.0 | 1284.9 | 1167.0 | 933.6 | 675.6 | 487.1 | 368.0 | 290.3 |
| 25° | 475.7 | 653.5 | 900.4 | 1103.1 | 1243.9 | 1126.2 | 905.5 | 650.6 | 468.5 | 352.9 | 275.9 |
| 25.5° | 458.7 | 629.2 | 869.1 | 1069.0 | 1207.3 | 1086.5 | 873.4 | 620.3 | 447.6 | 334.8 | 263.2 |
| 26° | 434.6 | 607.7 | 839.9 | 1040.0 | 1170.5 | 1047.0 | 841.5 | 600.3 | 430.6 | 316.8 | 251.2 |
| 26.5° | 419.0 | 581.0 | 811.5 | 997.3 | 1134.8 | 1014.4 | 810.2 | 575.9 | 411.8 | 304.8 | 238.7 |
| 27° | 400.3 | 559.3 | 778.8 | 965.9 | 1094.6 | 982.2 | 780.1 | 552.2 | 395.4 | 291.2 | 226.9 |
| 27.5° | 382.7 | 538.1 | 756.1 | 935.4 | 1061.4 | 949.9 | 750.1 | 528.7 | 380.1 | 277.1 | 215.2 |
| 28° | 366.1 | 517.1 | 719.1 | 902.9 | 1028.7 | 920.3 | 721.5 | 506.8 | 362.6 | 261.9 | 203.6 |
| 28.5° | 350.4 | 498.7 | 693.6 | 869.4 | 987.6 | 892.9 | 692.7 | 485.8 | 346.3 | 248.5 | 192.3 |
| 29° | 335.9 | 474.6 | 667.5 | 837.0 | 957.4 | 860.5 | 664.4 | 467.9 | 330.6 | 236.3 | 183.0 |
| 29.5° | 322.2 | 452.8 | 640.1 | 805.7 | 921.8 | 821.7 | 638.5 | 449.8 | 315.5 | 226.8 | 172.9 |
| 30° | 305.4 | 436.4 | 612.3 | 773.2 | 888.7 | 793.3 | 614.5 | 430.0 | 301.4 | 216.0 | 163.2 |
| 30.5° | 291.0 | 417.0 | 586.2 | 748.8 | 854.9 | 762.9 | 588.2 | 409.5 | 286.2 | 203.9 | 154.5 |
| 31° | 278.8 | 398.5 | 564.9 | 716.1 | 825.9 | 733.6 | 566.2 | 394.5 | 272.6 | 192.6 | 147.0 |
| 31.5° | 265.2 | 381.3 | 543.6 | 687.3 | 792.1 | 703.4 | 548.2 | 377.8 | 259.7 | 182.5 | 138.7 |
| 32° | 250.6 | 364.4 | 523.3 | 658.7 | 760.0 | 677.7 | 524.4 | 362.0 | 246.8 | 172.1 | 131.0 |
| 32.5° | 238.9 | 348.2 | 500.1 | 634.5 | 730.0 | 651.3 | 504.1 | 346.1 | 235.2 | 162.3 | 123.4 |
| 33° | 226.1 | 332.0 | 477.7 | 606.7 | 700.7 | 626.9 | 481.5 | 329.8 | 222.2 | 152.0 | 116.1 |
| 33.5° | 215.8 | 316.2 | 458.9 | 582.5 | 670.9 | 599.9 | 462.2 | 312.6 | 210.1 | 142.9 | 109.8 |
| 34° | 204.5 | 302.6 | 441.6 | 557.3 | 643.4 | 571.1 | 440.2 | 297.7 | 199.6 | 135.2 | 103.9 |
| 34.5° | 194.2 | 290.0 | 419.3 | 535.7 | 615.6 | 547.2 | 421.1 | 284.8 | 189.2 | 128.6 | 98.0 |
| 35° | 183.3 | 276.3 | 402.7 | 513.3 | 587.9 | 529.0 | 402.9 | 272.4 | 179.6 | 121.0 | 92.1 |
| 35.5° | 174.1 | 262.6 | 382.7 | 490.7 | 564.9 | 508.1 | 385.4 | 256.6 | 169.9 | 114.0 | 86.5 |
| 36° | 165.0 | 250.7 | 365.6 | 472.4 | 543.3 | 488.1 | 370.0 | 245.2 | 161.4 | 107.8 | 81.2 |
| 36.5° | 156.1 | 238.9 | 351.1 | 452.2 | 520.0 | 467.2 | 353.2 | 234.1 | 152.2 | 101.6 | 76.5 |
| 37° | 146.8 | 226.5 | 334.9 | 432.5 | 496.5 | 443.9 | 336.6 | 222.4 | 144.5 | 95.9 | 72.4 |
| 37.5° | 139.1 | 215.1 | 319.2 | 413.0 | 476.0 | 424.1 | 319.9 | 211.6 | 136.5 | 90.2 | 67.8 |
| 38° | 131.0 | 204.4 | 303.2 | 394.3 | 456.7 | 405.1 | 304.1 | 199.9 | 128.3 | 84.9 | 64.3 |
| 38.5° | 124.3 | 192.9 | 287.5 | 376.5 | 436.4 | 385.1 | 288.0 | 188.1 | 121.5 | 79.8 | 60.4 |
| 39° | 118.0 | 182.9 | 274.0 | 359.4 | 415.0 | 366.7 | 274.3 | 178.7 | 114.9 | 75.1 | 57.3 |
| 39.5° | 111.3 | 173.0 | 260.3 | 343.3 | 394.8 | 350.7 | 261.3 | 169.2 | 108.6 | 70.6 | 54.2 |
| 40° | 104.8 | 163.5 | 247.4 | 326.4 | 378.7 | 333.8 | 247.0 | 159.4 | 102.3 | 66.4 | 51.2 |
| 40.5° | 98.3 | 154.6 | 234.8 | 311.5 | 361.8 | 317.9 | 233.7 | 150.8 | 96.2 | 62.7 | 48.7 |
| 41° | 93.0 | 146.3 | 223.3 | 295.7 | 344.6 | 302.0 | 221.8 | 143.8 | 91.0 | 59.3 | 46.1 |
| 41.5° | 87.9 | 138.5 | 211.9 | 281.0 | 328.0 | 287.7 | 210.9 | 135.5 | 86.0 | 56.2 | 43.5 |
| 42° | 82.6 | 130.5 | 200.8 | 267.4 | 313.8 | 274.3 | 198.9 | 127.5 | 81.1 | 53.1 | 41.3 |
| 42.5° | 78.1 | 123.1 | 190.4 | 254.8 | 298.1 | 260.3 | 188.4 | 119.6 | 76.6 | 50.1 | 39.3 |
| 43° | 73.8 | 116.2 | 179.4 | 242.2 | 283.0 | 247.3 | 178.7 | 113.3 | 72.1 | 47.4 | 37.3 |
| 43.5° | 70.0 | 109.5 | 169.1 | 229.0 | 271.7 | 234.6 | 168.8 | 107.0 | 68.0 | 44.9 | 35.5 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|------|-------|-------|-------|-------|--------|-------|--------|------|--------|------|
| 45° | 58.8 | 91.2 | 141.6 | 195.5 | 233.0 | 197.9 | 141.4 | 89.4 | 57.5 | 38.4 | 30.8 |
| 45.5° | 55.7 | 85.8 | 133.4 | 184.6 | 221.5 | 188.2 | 132.8 | 84.1 | 54.3 | 36.5 | 29.5 |
| 46° | 52.5 | 80.8 | 125.9 | 174.6 | 209.7 | 178.4 | 124.8 | 79.1 | 51.7 | 34.7 | 28.4 |
| 46.5° | 50.0 | 76.2 | 118.9 | 165.0 | 198.4 | 169.1 | 118.0 | 74.3 | 48.8 | 33.4 | 27.4 |
| 47° | 47.5 | 71.3 | 111.6 | 155.8 | 187.7 | 159.9 | 111.2 | 69.9 | 46.5 | 31.9 | 26.3 |
| 47.5° | 45.4 | 67.2 | 104.7 | 147.5 | 177.9 | 151.4 | 104.6 | 65.7 | 43.8 | 30.4 | 25.3 |
| 48° | 43.1 | 63.6 | 98.4 | 139.1 | 168.3 | 142.5 | 98.2 | 62.0 | 41.5 | 29.1 | 24.2 |
| 48.5° | 41.1 | 60.2 | 92.1 | 130.9 | 159.8 | 134.4 | 91.8 | 58.7 | 39.4 | 27.9 | 23.4 |
| 49° | 39.2 | 57.0 | 86.6 | 123.4 | 150.7 | 126.4 | 86.5 | 55.6 | 37.4 | 26.7 | 22.6 |
| 49.5° | 37.3 | 53.9 | 81.3 | 116.7 | 142.2 | 119.7 | 81.4 | 52.7 | 35.5 | 25.6 | 21.9 |
| 50° | 35.5 | 50.7 | 76.4 | 109.8 | 133.5 | 112.3 | 76.3 | 49.7 | 33.7 | 24.6 | 21.3 |
| 50.5° | 34.1 | 47.8 | 71.9 | 103.2 | 126.1 | 105.3 | 71.8 | 47.0 | 32.1 | 23.6 | 20.7 |
| 51° | 32.7 | 45.4 | 67.7 | 96.9 | 118.4 | 99.3 | 67.1 | 44.3 | 30.5 | 22.7 | 20.1 |
| 51.5° | 31.3 | 43.2 | 63.8 | 90.7 | 111.4 | 93.6 | 62.9 | 41.9 | 29.2 | 21.8 | 19.2 |
| 52° | 30.0 | 41.0 | 59.9 | 85.4 | 105.0 | 88.1 | 59.3 | 39.7 | 27.8 | 21.2 | 18.6 |
| 52.5° | 28.7 | 38.8 | 56.4 | 80.2 | 98.6 | 82.3 | 56.0 | 37.5 | 26.6 | 20.2 | 17.9 |
| 53° | 27.6 | 36.9 | 53.3 | 75.4 | 92.4 | 77.0 | 52.7 | 35.5 | 25.5 | 19.5 | 17.3 |
| 53.5° | 26.4 | 35.3 | 50.1 | 70.6 | 86.7 | 72.1 | 49.7 | 33.6 | 24.4 | 19.0 | 16.9 |
| 54° | 25.5 | 33.6 | 47.0 | 66.2 | 80.9 | 67.6 | 47.0 | 31.8 | 23.2 | 18.2 | 16.1 |
| 54.5° | 24.5 | 32.0 | 44.4 | 62.1 | 75.9 | 63.3 | 44.1 | 30.2 | 22.3 | 17.7 | 15.8 |
| 55° | 23.5 | 30.6 | 42.0 | 58.7 | 70.8 | 59.3 | 41.2 | 28.4 | 21.4 | 16.9 | 15.1 |
| 55.5° | 22.6 | 29.2 | 39.9 | 55.3 | 65.9 | 55.2 | 38.3 | 26.7 | 20.4 | 16.4 | 14.7 |
| 56° | 22.0 | 27.8 | 37.6 | 51.5 | 60.9 | 50.8 | 35.4 | 25.1 | 19.6 | 15.8 | 14.1 |
| 56.5° | 21.1 | 26.3 | 34.9 | 47.3 | 56.0 | 46.6 | 32.8 | 23.6 | 18.7 | 15.0 | 13.7 |
| 57° | 20.2 | 24.8 | 32.3 | 43.4 | 51.0 | 42.6 | 30.4 | 22.5 | 17.9 | 14.6 | 13.1 |
| 57.5° | 19.5 | 23.6 | 30.2 | 39.9 | 46.3 | 39.5 | 28.6 | 21.4 | 17.1 | 13.9 | 12.7 |
| 58° | 18.8 | 22.6 | 28.4 | 36.7 | 42.9 | 36.8 | 26.8 | 20.5 | 16.3 | 13.5 | 12.1 |
| 58.5° | 18.1 | 21.8 | 27.0 | 34.2 | 39.7 | 34.3 | 25.4 | 19.6 | 15.8 | 12.9 | 11.8 |
| 59° | 17.4 | 20.9 | 25.8 | 32.2 | 37.0 | 32.1 | 24.1 | 18.9 | 15.0 | 12.6 | 11.1 |
| 59.5° | 16.7 | 20.0 | 24.6 | 30.3 | 34.6 | 30.2 | 22.8 | 18.0 | 14.4 | 12.0 | 10.8 |
| 60° | 16.1 | 19.2 | 23.3 | 28.7 | 32.5 | 28.4 | 21.7 | 17.1 | 13.8 | 11.6 | 10.3 |
| 60.5° | 15.5 | 18.5 | 22.4 | 27.0 | 30.5 | 26.8 | 20.7 | 16.5 | 13.2 | 11.1 | 9.9 |
| 61° | 15.0 | 17.7 | 21.4 | 25.6 | 28.7 | 25.3 | 19.7 | 15.9 | 12.7 | 10.7 | 9.6 |
| 61.5° | 14.4 | 17.0 | 20.6 | 24.2 | 27.0 | 23.9 | 18.8 | 14.9 | 12.1 | 10.2 | 9.1 |
| 62° | 13.8 | 16.3 | 19.6 | 22.9 | 25.3 | 22.5 | 17.8 | 14.3 | 11.8 | 9.8 | 8.8 |
| 62.5° | 13.4 | 15.7 | 18.8 | 22.0 | 23.8 | 21.5 | 17.1 | 13.8 | 11.1 | 9.6 | 8.6 |
| 63° | 12.9 | 15.0 | 18.0 | 20.9 | 22.5 | 20.3 | 16.2 | 13.1 | 10.9 | 9.0 | 8.1 |
| 63.5° | 12.4 | 14.4 | 17.2 | 19.9 | 21.5 | 19.2 | 15.5 | 12.6 | 10.2 | 8.7 | 7.7 |
| 64° | 11.9 | 13.7 | 16.5 | 19.0 | 20.4 | 18.3 | 14.9 | 11.9 | 9.8 | 8.2 | 7.6 |
| 64.5° | 11.4 | 13.3 | 15.9 | 18.1 | 19.4 | 17.5 | 14.1 | 11.7 | 9.3 | 7.9 | 7.1 |
| 65° | 11.0 | 12.9 | 15.2 | 17.4 | 18.4 | 16.6 | 13.5 | 11.0 | 8.9 | 7.8 | 6.8 |
| 65.5° | 10.6 | 12.4 | 14.5 | 16.6 | 17.5 | 16.0 | 13.1 | 10.7 | 8.7 | 7.3 | 6.7 |
| 66° | 10.2 | 11.9 | 13.9 | 15.9 | 16.6 | 15.0 | 12.3 | 10.1 | 8.1 | 7.0 | 6.2 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-----|-------|------|-------|------|--------|------|--------|------|--------|------|
| 67.5° | 9.0 | 10.6 | 12.4 | 13.9 | 14.2 | 13.1 | 10.9 | 8.8 | 7.0 | 6.1 | 5.6 |
| 68° | 8.7 | 10.2 | 11.9 | 13.2 | 13.5 | 12.3 | 10.3 | 8.7 | 6.8 | 5.8 | 5.3 |
| 68.5° | 8.4 | 9.8 | 11.4 | 12.6 | 13.0 | 12.0 | 9.9 | 8.0 | 6.7 | 5.7 | 5.0 |
| 69° | 8.1 | 9.4 | 11.0 | 12.0 | 12.3 | 11.3 | 9.3 | 7.7 | 6.3 | 5.5 | 5.0 |
| 69.5° | 7.8 | 9.0 | 10.5 | 11.6 | 11.7 | 10.9 | 9.0 | 7.4 | 5.9 | 5.1 | 5.0 |
| 70° | 7.4 | 8.7 | 10.1 | 11.0 | 11.0 | 10.1 | 8.7 | 7.0 | 5.7 | 4.8 | 4.9 |
| 70.5° | 7.2 | 8.3 | 9.6 | 10.6 | 10.5 | 9.7 | 8.2 | 6.8 | 5.6 | 4.8 | 4.1 |
| 71° | 6.9 | 8.0 | 9.3 | 10.2 | 10.0 | 9.2 | 7.8 | 6.6 | 5.2 | 4.8 | 3.8 |
| 71.5° | 6.6 | 7.7 | 8.9 | 9.7 | 9.6 | 8.8 | 7.6 | 6.0 | 4.9 | 4.0 | 3.7 |
| 72° | 6.3 | 7.4 | 8.5 | 9.3 | 9.0 | 8.3 | 7.1 | 5.7 | 5.0 | 3.7 | 3.6 |
| 72.5° | 5.9 | 7.2 | 8.2 | 8.9 | 8.7 | 7.9 | 6.7 | 5.7 | 5.0 | 3.7 | 3.0 |
| 73° | 5.6 | 6.8 | 7.8 | 8.4 | 8.1 | 7.6 | 6.5 | 5.2 | 3.9 | 3.5 | 2.7 |
| 73.5° | 5.3 | 6.5 | 7.5 | 8.0 | 7.9 | 7.2 | 6.0 | 5.0 | 3.7 | 3.0 | 2.6 |
| 74° | 4.9 | 6.1 | 7.1 | 7.6 | 7.3 | 6.8 | 5.8 | 4.8 | 3.5 | 2.7 | 2.4 |
| 74.5° | 4.5 | 5.7 | 6.7 | 7.3 | 6.9 | 6.4 | 5.5 | 4.8 | 3.4 | 2.5 | 2.0 |
| 75° | 4.3 | 5.3 | 6.4 | 6.8 | 6.7 | 5.9 | 5.1 | 3.9 | 3.0 | 2.4 | 1.7 |
| 75.5° | 4.0 | 5.1 | 6.0 | 6.5 | 6.0 | 5.7 | 4.9 | 3.6 | 2.7 | 2.0 | 1.7 |
| 76° | 3.7 | 4.7 | 5.7 | 6.2 | 5.7 | 5.2 | 4.9 | 3.5 | 2.6 | 1.7 | 1.7 |
| 76.5° | 3.4 | 4.4 | 5.3 | 5.7 | 5.4 | 4.9 | 4.0 | 3.2 | 2.3 | 1.6 | 1.7 |
| 77° | 3.1 | 4.0 | 4.9 | 5.3 | 5.0 | 4.8 | 3.7 | 2.9 | 1.9 | 1.5 | 1.7 |
| 77.5° | 2.8 | 3.7 | 4.5 | 5.1 | 4.9 | 4.5 | 3.6 | 2.6 | 1.7 | 1.5 | 1.7 |
| 78° | 2.5 | 3.4 | 4.2 | 4.7 | 4.7 | 3.8 | 3.1 | 2.6 | 1.7 | 1.3 | 1.7 |
| 78.5° | 2.3 | 3.0 | 3.8 | 4.3 | 3.9 | 3.6 | 2.8 | 2.0 | 1.6 | 1.1 | 1.6 |
| 79° | 2.2 | 2.7 | 3.5 | 3.9 | 3.6 | 3.1 | 2.6 | 1.7 | 1.0 | 1.0 | 1.3 |
| 79.5° | 1.9 | 2.4 | 3.1 | 3.5 | 3.2 | 2.7 | 2.2 | 1.6 | 0.9 | 1.0 | 1.1 |
| 80° | 1.7 | 2.2 | 2.8 | 3.2 | 2.8 | 2.6 | 1.9 | 1.5 | 0.8 | 0.9 | 1.0 |
| 80.5° | 1.6 | 2.0 | 2.5 | 2.9 | 2.5 | 2.1 | 1.6 | 1.1 | 0.7 | 0.9 | 1.0 |
| 81° | 1.6 | 1.7 | 2.2 | 2.6 | 2.0 | 1.8 | 1.5 | 0.9 | 0.8 | 0.8 | 0.8 |
| 81.5° | 1.6 | 1.5 | 2.0 | 2.2 | 1.8 | 1.5 | 1.2 | 0.7 | 0.7 | 0.7 | 0.8 |
| 82° | 1.5 | 1.3 | 1.7 | 2.0 | 1.6 | 1.4 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 |
| 82.5° | 1.4 | 1.2 | 1.5 | 1.7 | 1.2 | 1.0 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| 83° | 1.2 | 1.1 | 1.3 | 1.5 | 0.9 | 0.8 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 |
| 83.5° | 1.3 | 1.1 | 1.1 | 1.3 | 0.7 | 0.6 | 0.5 | 0.6 | 0.7 | 0.7 | 0.6 |
| 84° | 1.2 | 1.1 | 0.9 | 1.0 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 |
| 84.5° | 1.1 | 1.0 | 0.9 | 0.8 | 0.5 | 0.3 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 |
| 85° | 1.0 | 0.9 | 0.9 | 0.8 | 0.2 | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 |
| 85.5° | 0.9 | 0.8 | 0.8 | 0.8 | 0.1 | 0.2 | 0.5 | 0.4 | 0.2 | 0.4 | 0.4 |
| 86° | 0.8 | 0.8 | 0.8 | 0.8 | 0.1 | 0.2 | 0.5 | 0.4 | 0.1 | 0.3 | 0.3 |
| 86.5° | 0.7 | 0.8 | 0.7 | 0.6 | 0.1 | 0.1 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 |
| 87° | 0.7 | 0.6 | 0.6 | 0.6 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.0 |
| 87.5° | 0.6 | 0.6 | 0.5 | 0.6 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88° | 0.5 | 0.4 | 0.5 | 0.4 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 88.5° | 0.4 | 0.3 | 0.4 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90° | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 90.5° | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 91° | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 91.5° | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92° | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 93° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 93.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 94° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 94.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 96° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 96.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 97° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 97.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 |
| 98° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 99° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 99.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 101° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 101.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 103° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 103.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 104° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 104.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 106° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 106.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 108° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 108.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 109° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 109.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 111° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 112.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 113° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 113.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 114° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 114.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 115° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 115.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 116° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 116.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 117° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 117.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 118° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| 118.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 119° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| 119.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 |
| 120° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 120.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 121.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 122.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 123.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 124.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 125° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 |
| 125.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 126.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 127.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| 128.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 |
| 129° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 |
| 129.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 130° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 130.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| 131° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| 131.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 |
| 132° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 |
| 132.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 |
| 133° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 |
| 133.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 135° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 |
| 135.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 |
| 136° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 |
| 136.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 |
| 137° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.6 |
| 137.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.5 |
| 138° | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.5 |
| 138.5° | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 |
| 139° | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.6 |
| 139.5° | 0.4 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.5 | 0.7 |
| 140° | 0.5 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.6 | 0.7 |
| 140.5° | 0.6 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.5 | 0.8 |
| 141° | 0.7 | 0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.2 | 0.4 | 0.6 | 0.8 |
| 141.5° | 0.6 | 0.3 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 0.2 | 0.4 | 0.6 | 0.8 |
| 142° | 0.6 | 0.4 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 |
| 142.5° | 0.6 | 0.3 | 0.1 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 |
| 143° | 0.6 | 0.5 | 0.2 | 0.0 | 0.2 | 0.2 | 0.3 | 0.3 | 0.6 | 0.6 | 1.0 |
| 143.5° | 0.6 | 0.6 | 0.3 | 0.0 | 0.2 | 0.2 | 0.3 | 0.4 | 0.6 | 0.8 | 1.0 |
| 144° | 0.6 | 0.6 | 0.4 | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.8 | 1.1 |
| 144.5° | 0.7 | 0.7 | 0.3 | 0.1 | 0.3 | 0.2 | 0.3 | 0.3 | 0.6 | 0.9 | 1.1 |
| 145° | 0.7 | 0.7 | 0.3 | 0.2 | 0.3 | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 | 1.2 |
| 145.5° | 0.8 | 0.7 | 0.5 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.6 | 0.9 | 1.2 |
| 146° | 0.8 | 0.7 | 0.6 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.2 |
| 146.5° | 0.8 | 0.7 | 0.6 | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.8 | 1.0 | 1.3 |
| 147° | 1.0 | 0.7 | 0.6 | 0.3 | 0.3 | 0.4 | 0.4 | 0.6 | 0.8 | 1.0 | 1.4 |
| 147.5° | 1.1 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.8 | 1.2 | 1.4 |
| 148° | 1.2 | 0.8 | 0.6 | 0.5 | 0.3 | 0.4 | 0.4 | 0.6 | 0.8 | 1.2 | 1.4 |
| 148.5° | 1.5 | 0.7 | 0.8 | 0.6 | 0.3 | 0.4 | 0.4 | 0.6 | 0.9 | 1.2 | 1.5 |
| 149° | 1.7 | 0.7 | 0.8 | 0.6 | 0.4 | 0.5 | 0.5 | 0.6 | 0.9 | 1.2 | 1.7 |
| 149.5° | 1.7 | 0.8 | 0.7 | 0.7 | 0.4 | 0.5 | 0.5 | 0.7 | 1.0 | 1.3 | 1.7 |
| 150° | 1.7 | 0.9 | 0.7 | 0.7 | 0.5 | 0.5 | 0.6 | 0.7 | 1.0 | 1.4 | 1.7 |
| 150.5° | 1.7 | 1.0 | 0.7 | 0.6 | 0.5 | 0.5 | 0.6 | 0.8 | 1.1 | 1.5 | 1.8 |
| 151° | 1.7 | 1.0 | 0.7 | 0.6 | 0.5 | 0.5 | 0.6 | 0.8 | 1.1 | 1.5 | 1.9 |
| 151.5° | 1.7 | 1.2 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.8 | 1.2 | 1.5 | 2.0 |
| 152° | 1.7 | 1.5 | 0.7 | 0.6 | 0.5 | 0.5 | 0.7 | 0.8 | 1.2 | 1.5 | 2.0 |
| 152.5° | 1.9 | 1.7 | 0.8 | 0.6 | 0.7 | 0.6 | 0.7 | 0.9 | 1.2 | 1.7 | 2.1 |
| 153° | 1.9 | 1.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 1.0 | 1.3 | 1.7 | 2.2 |
| 153.5° | 2.1 | 1.7 | 1.0 | 0.7 | 0.7 | 0.7 | 0.7 | 1.0 | 1.4 | 1.8 | 2.3 |
| 154° | 2.3 | 1.7 | 1.1 | 0.8 | 0.7 | 0.7 | 0.7 | 1.0 | 1.4 | 1.9 | 2.3 |
| 154.5° | 2.6 | 1.7 | 1.3 | 0.9 | 0.8 | 0.7 | 0.9 | 1.0 | 1.6 | 1.9 | 2.4 |
| 155° | 2.6 | 1.7 | 1.5 | 0.9 | 0.9 | 0.8 | 0.9 | 1.2 | 1.6 | 2.0 | 2.4 |
| 155.5° | 2.6 | 1.7 | 1.5 | 1.0 | 0.9 | 0.8 | 0.9 | 1.2 | 1.6 | 2.1 | 2.5 |
| 156° | 2.6 | 1.9 | 1.7 | 1.1 | 0.9 | 0.9 | 1.0 | 1.2 | 1.6 | 2.2 | 2.6 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 157.5° | 2.8 | 2.4 | 1.7 | 1.6 | 1.0 | 1.0 | 1.0 | 1.4 | 1.8 | 2.4 | 2.9 |
| 158° | 2.9 | 2.6 | 1.7 | 1.6 | 1.1 | 1.1 | 1.2 | 1.4 | 1.9 | 2.4 | 3.0 |
| 158.5° | 3.0 | 2.8 | 1.8 | 1.6 | 1.1 | 1.0 | 1.2 | 1.4 | 2.0 | 2.6 | 3.1 |
| 159° | 3.1 | 2.8 | 1.8 | 1.6 | 1.2 | 1.2 | 1.2 | 1.5 | 2.1 | 2.6 | 3.2 |
| 159.5° | 3.2 | 2.7 | 1.9 | 1.7 | 1.3 | 1.2 | 1.2 | 1.6 | 2.1 | 2.8 | 3.3 |
| 160° | 3.6 | 2.8 | 2.0 | 1.7 | 1.3 | 1.3 | 1.3 | 1.6 | 2.2 | 2.8 | 3.4 |
| 160.5° | 3.7 | 2.8 | 2.2 | 1.7 | 1.3 | 1.4 | 1.4 | 1.7 | 2.3 | 2.9 | 3.5 |
| 161° | 3.7 | 2.8 | 2.5 | 1.9 | 1.4 | 1.4 | 1.4 | 1.7 | 2.4 | 3.0 | 3.6 |
| 161.5° | 3.7 | 3.0 | 2.6 | 2.0 | 1.4 | 1.4 | 1.5 | 1.8 | 2.5 | 3.1 | 3.7 |
| 162° | 3.7 | 3.0 | 2.6 | 2.0 | 1.5 | 1.4 | 1.6 | 1.9 | 2.5 | 3.2 | 3.8 |
| 162.5° | 3.7 | 3.1 | 2.6 | 2.0 | 1.6 | 1.6 | 1.6 | 2.0 | 2.7 | 3.3 | 3.9 |
| 163° | 3.9 | 3.3 | 2.6 | 2.2 | 1.6 | 1.6 | 1.8 | 2.1 | 2.7 | 3.3 | 3.9 |
| 163.5° | 3.9 | 3.5 | 2.6 | 2.7 | 1.6 | 1.6 | 1.8 | 2.1 | 2.8 | 3.3 | 4.0 |
| 164° | 3.9 | 3.7 | 2.7 | 2.7 | 1.7 | 1.7 | 1.9 | 2.3 | 2.9 | 3.5 | 4.2 |
| 164.5° | 4.0 | 3.7 | 2.8 | 2.7 | 1.8 | 1.9 | 2.0 | 2.3 | 3.0 | 3.5 | 4.2 |
| 165° | 4.2 | 3.7 | 2.9 | 2.7 | 1.9 | 1.9 | 2.0 | 2.3 | 3.0 | 3.7 | 4.2 |
| 165.5° | 4.7 | 3.7 | 3.0 | 2.7 | 2.0 | 1.9 | 2.1 | 2.4 | 3.1 | 3.7 | 4.4 |
| 166° | 5.0 | 3.7 | 3.2 | 2.7 | 2.0 | 2.1 | 2.2 | 2.5 | 3.2 | 3.9 | 4.5 |
| 166.5° | 5.0 | 3.8 | 3.3 | 2.7 | 2.1 | 2.1 | 2.3 | 2.6 | 3.3 | 4.0 | 4.5 |
| 167° | 5.0 | 3.9 | 3.6 | 2.9 | 2.2 | 2.3 | 2.3 | 2.6 | 3.4 | 4.0 | 4.6 |
| 167.5° | 5.0 | 3.9 | 3.7 | 2.9 | 2.2 | 2.3 | 2.4 | 2.8 | 3.4 | 4.1 | 4.7 |
| 168° | 5.0 | 3.9 | 3.7 | 3.0 | 2.4 | 2.4 | 2.4 | 2.9 | 3.5 | 4.2 | 4.8 |
| 168.5° | 5.0 | 4.0 | 3.7 | 3.1 | 2.4 | 2.4 | 2.6 | 3.0 | 3.7 | 4.2 | 4.8 |
| 169° | 5.0 | 4.1 | 3.7 | 3.3 | 2.5 | 2.5 | 2.6 | 3.1 | 3.7 | 4.2 | 4.8 |
| 169.5° | 5.0 | 4.6 | 3.7 | 3.5 | 2.6 | 2.6 | 2.7 | 3.2 | 3.8 | 4.3 | 4.9 |
| 170° | 5.0 | 4.8 | 3.8 | 3.6 | 2.7 | 2.6 | 2.8 | 3.2 | 3.8 | 4.4 | 5.0 |
| 170.5° | 5.0 | 4.9 | 3.9 | 3.8 | 2.7 | 2.8 | 2.9 | 3.3 | 3.9 | 4.4 | 5.1 |
| 171° | 5.0 | 4.9 | 3.9 | 3.7 | 2.9 | 2.8 | 2.9 | 3.4 | 3.9 | 4.5 | 5.1 |
| 171.5° | 5.0 | 4.9 | 3.9 | 3.7 | 2.9 | 2.9 | 3.0 | 3.5 | 4.0 | 4.6 | 5.0 |
| 172° | 5.0 | 4.9 | 4.1 | 3.7 | 3.0 | 2.9 | 3.1 | 3.5 | 4.1 | 4.7 | 5.0 |
| 172.5° | 5.0 | 4.9 | 4.2 | 3.7 | 3.2 | 3.1 | 3.1 | 3.6 | 4.1 | 4.7 | 5.0 |
| 173° | 5.0 | 4.9 | 4.4 | 3.8 | 3.3 | 3.2 | 3.3 | 3.7 | 4.3 | 4.8 | 5.0 |
| 173.5° | 5.0 | 4.9 | 4.7 | 3.8 | 3.4 | 3.3 | 3.3 | 3.9 | 4.3 | 4.9 | 5.0 |
| 174° | 5.0 | 4.9 | 4.9 | 3.8 | 3.4 | 3.4 | 3.5 | 3.9 | 4.4 | 4.9 | 5.0 |
| 174.5° | 5.0 | 4.9 | 5.0 | 3.8 | 3.5 | 3.4 | 3.6 | 4.0 | 4.5 | 4.9 | 5.0 |
| 175° | 5.0 | 4.9 | 5.0 | 3.8 | 3.6 | 3.6 | 3.5 | 4.0 | 4.5 | 4.9 | 5.0 |
| 175.5° | 5.0 | 4.9 | 5.0 | 3.9 | 3.7 | 3.6 | 3.6 | 4.0 | 4.5 | 4.9 | 5.0 |
| 176° | 5.0 | 4.9 | 5.0 | 3.9 | 3.7 | 3.7 | 3.7 | 4.1 | 4.6 | 4.9 | 5.0 |
| 176.5° | 5.0 | 4.9 | 5.0 | 4.0 | 3.7 | 3.8 | 3.8 | 4.1 | 4.6 | 4.9 | 5.0 |
| 177° | 5.1 | 4.9 | 5.0 | 4.0 | 3.9 | 3.8 | 3.8 | 4.2 | 4.5 | 4.9 | 5.0 |
| 177.5° | 5.0 | 5.0 | 5.0 | 4.0 | 3.8 | 3.8 | 3.9 | 4.2 | 4.5 | 4.8 | 5.0 |
| 178° | 4.9 | 4.9 | 4.9 | 4.0 | 3.9 | 3.8 | 4.0 | 4.3 | 4.5 | 4.8 | 5.0 |
| 178.5° | 4.7 | 4.9 | 4.8 | 4.0 | 3.9 | 4.0 | 3.9 | 4.3 | 4.5 | 4.8 | 5.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 0° | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 180° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|--------|--------|--------|--------|--------|
| 0° | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 | 1542.8 |
| 0.5° | 1510.9 | 1516.9 | 1508.6 | 1534.7 | 1530.6 | 1548.3 |
| 1° | 1485.7 | 1487.6 | 1475.1 | 1515.4 | 1519.9 | 1542.0 |
| 1.5° | 1451.8 | 1447.9 | 1445.5 | 1490.9 | 1506.6 | 1541.1 |
| 2° | 1426.3 | 1424.1 | 1415.1 | 1458.9 | 1486.8 | 1519.7 |
| 2.5° | 1379.8 | 1391.6 | 1381.7 | 1429.9 | 1474.0 | 1518.3 |
| 3° | 1354.0 | 1353.8 | 1349.1 | 1406.6 | 1443.6 | 1520.4 |
| 3.5° | 1319.9 | 1320.0 | 1320.9 | 1372.9 | 1417.9 | 1515.9 |
| 4° | 1290.3 | 1275.1 | 1286.9 | 1350.4 | 1396.1 | 1500.0 |
| 4.5° | 1256.2 | 1250.4 | 1251.3 | 1315.4 | 1376.0 | 1493.0 |
| 5° | 1228.4 | 1225.0 | 1217.9 | 1286.6 | 1358.1 | 1461.2 |
| 5.5° | 1194.6 | 1173.8 | 1184.3 | 1258.7 | 1332.3 | 1456.5 |
| 6° | 1161.3 | 1141.3 | 1154.0 | 1228.9 | 1303.7 | 1440.3 |
| 6.5° | 1124.0 | 1101.7 | 1112.7 | 1197.9 | 1284.6 | 1415.1 |
| 7° | 1087.4 | 1075.3 | 1078.3 | 1162.5 | 1264.0 | 1401.8 |
| 7.5° | 1055.5 | 1032.2 | 1043.2 | 1132.2 | 1228.5 | 1382.1 |
| 8° | 1016.7 | 986.9 | 1010.1 | 1101.9 | 1201.1 | 1350.9 |
| 8.5° | 989.1 | 967.9 | 981.2 | 1073.9 | 1178.5 | 1344.1 |
| 9° | 954.4 | 922.7 | 950.9 | 1027.7 | 1150.1 | 1332.2 |
| 9.5° | 917.6 | 894.3 | 918.3 | 1000.5 | 1114.1 | 1305.1 |
| 10° | 887.8 | 861.7 | 880.3 | 970.2 | 1092.2 | 1274.6 |
| 10.5° | 857.9 | 821.8 | 849.0 | 934.8 | 1059.7 | 1251.8 |
| 11° | 826.0 | 792.0 | 814.4 | 908.8 | 1027.9 | 1222.4 |
| 11.5° | 794.1 | 765.9 | 783.0 | 880.0 | 1004.7 | 1203.4 |
| 12° | 762.3 | 737.5 | 757.2 | 845.3 | 970.2 | 1167.8 |
| 12.5° | 734.2 | 708.1 | 727.2 | 819.3 | 943.4 | 1144.7 |
| 13° | 704.8 | 676.3 | 696.6 | 788.3 | 914.3 | 1117.7 |
| 13.5° | 675.0 | 650.2 | 671.5 | 760.9 | 884.3 | 1087.6 |
| 14° | 650.9 | 624.0 | 642.6 | 728.6 | 847.1 | 1057.2 |
| 14.5° | 623.8 | 601.8 | 613.0 | 702.8 | 826.3 | 1029.5 |
| 15° | 600.1 | 576.5 | 596.4 | 679.8 | 794.6 | 996.7 |
| 15.5° | 573.8 | 549.2 | 566.6 | 646.6 | 763.2 | 964.4 |
| 16° | 546.1 | 528.5 | 547.3 | 622.7 | 737.8 | 936.2 |
| 16.5° | 523.9 | 505.1 | 522.9 | 600.4 | 716.0 | 916.3 |
| 17° | 502.7 | 486.7 | 500.5 | 572.9 | 690.1 | 880.7 |
| 17.5° | 485.6 | 463.1 | 477.5 | 553.9 | 664.3 | 852.4 |
| 18° | 463.3 | 441.3 | 456.6 | 530.1 | 636.6 | 818.5 |
| 18.5° | 442.3 | 423.5 | 439.3 | 508.6 | 612.4 | 798.9 |
| 19° | 422.4 | 401.6 | 422.8 | 489.1 | 587.8 | 767.9 |
| 19.5° | 405.4 | 386.0 | 402.8 | 464.5 | 563.7 | 734.0 |
| 20° | 389.1 | 369.0 | 382.1 | 447.0 | 543.5 | 707.6 |
| 20.5° | 371.3 | 349.8 | 364.8 | 427.1 | 520.3 | 682.6 |
| 21° | 355.5 | 335.1 | 348.9 | 410.7 | 496.8 | 657.7 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|-------|--------|-------|--------|-------|
| 22.5° | 306.4 | 291.3 | 303.5 | 354.0 | 437.8 | 581.7 |
| 23° | 292.7 | 277.7 | 286.0 | 337.8 | 421.8 | 558.8 |
| 23.5° | 279.3 | 266.7 | 271.4 | 322.3 | 405.1 | 537.5 |
| 24° | 265.8 | 251.6 | 259.5 | 305.5 | 386.3 | 515.6 |
| 24.5° | 251.8 | 239.3 | 247.5 | 292.9 | 369.8 | 495.9 |
| 25° | 239.4 | 227.6 | 234.4 | 280.0 | 353.9 | 475.7 |
| 25.5° | 228.9 | 215.6 | 225.3 | 264.1 | 337.8 | 458.7 |
| 26° | 215.5 | 204.9 | 212.5 | 252.9 | 320.3 | 434.6 |
| 26.5° | 204.7 | 193.2 | 201.8 | 241.2 | 305.2 | 419.0 |
| 27° | 194.4 | 183.0 | 191.9 | 225.4 | 291.8 | 400.3 |
| 27.5° | 184.9 | 173.5 | 181.7 | 216.1 | 277.5 | 382.7 |
| 28° | 175.2 | 163.3 | 172.9 | 206.1 | 265.6 | 366.1 |
| 28.5° | 165.9 | 155.9 | 164.6 | 195.0 | 251.5 | 350.4 |
| 29° | 156.8 | 147.3 | 155.9 | 184.1 | 238.9 | 335.9 |
| 29.5° | 149.0 | 138.4 | 146.7 | 173.9 | 227.0 | 322.2 |
| 30° | 140.2 | 131.4 | 139.1 | 165.3 | 215.1 | 305.4 |
| 30.5° | 132.7 | 124.1 | 131.5 | 155.7 | 204.4 | 291.0 |
| 31° | 125.6 | 116.6 | 123.6 | 146.3 | 193.9 | 278.8 |
| 31.5° | 117.9 | 109.7 | 116.5 | 139.5 | 182.1 | 265.2 |
| 32° | 111.5 | 103.4 | 109.9 | 132.3 | 172.0 | 250.6 |
| 32.5° | 106.0 | 97.2 | 103.9 | 124.4 | 163.6 | 238.9 |
| 33° | 99.6 | 91.4 | 97.5 | 118.0 | 154.7 | 226.1 |
| 33.5° | 93.5 | 85.9 | 91.7 | 111.0 | 146.3 | 215.8 |
| 34° | 88.1 | 81.3 | 86.2 | 104.5 | 138.0 | 204.5 |
| 34.5° | 83.3 | 75.9 | 81.3 | 98.5 | 129.8 | 194.2 |
| 35° | 78.1 | 71.4 | 76.5 | 91.9 | 122.2 | 183.3 |
| 35.5° | 73.5 | 67.2 | 71.8 | 86.3 | 115.1 | 174.1 |
| 36° | 68.9 | 63.5 | 67.8 | 81.9 | 108.7 | 165.0 |
| 36.5° | 64.6 | 59.8 | 64.0 | 77.2 | 102.3 | 156.1 |
| 37° | 61.0 | 56.5 | 60.3 | 72.9 | 96.4 | 146.8 |
| 37.5° | 57.6 | 53.3 | 57.0 | 68.7 | 90.9 | 139.1 |
| 38° | 54.5 | 50.3 | 53.8 | 64.6 | 85.7 | 131.0 |
| 38.5° | 51.3 | 47.6 | 50.6 | 61.3 | 81.0 | 124.3 |
| 39° | 48.5 | 45.1 | 47.7 | 58.0 | 76.5 | 118.0 |
| 39.5° | 46.0 | 42.9 | 45.2 | 54.9 | 71.9 | 111.3 |
| 40° | 43.8 | 40.9 | 42.9 | 51.6 | 68.1 | 104.8 |
| 40.5° | 41.2 | 39.1 | 41.0 | 48.4 | 64.4 | 98.3 |
| 41° | 39.3 | 37.2 | 39.1 | 46.0 | 60.9 | 93.0 |
| 41.5° | 37.3 | 35.5 | 37.3 | 43.7 | 57.6 | 87.9 |
| 42° | 35.6 | 34.0 | 35.6 | 41.1 | 54.4 | 82.6 |
| 42.5° | 33.9 | 32.7 | 34.1 | 39.4 | 51.4 | 78.1 |
| 43° | 32.4 | 31.4 | 32.7 | 37.8 | 48.7 | 73.8 |
| 43.5° | 31.0 | 30.2 | 31.5 | 36.1 | 46.5 | 70.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 45° | 27.4 | 27.0 | 28.1 | 32.0 | 40.3 | 58.8 |
| 45.5° | 26.4 | 25.9 | 27.1 | 30.7 | 38.4 | 55.7 |
| 46° | 25.3 | 25.2 | 26.2 | 29.6 | 36.8 | 52.5 |
| 46.5° | 24.4 | 24.2 | 25.3 | 28.6 | 35.2 | 50.0 |
| 47° | 23.5 | 23.4 | 24.4 | 27.6 | 33.7 | 47.5 |
| 47.5° | 22.8 | 22.8 | 23.7 | 26.6 | 32.3 | 45.4 |
| 48° | 22.0 | 22.2 | 23.0 | 25.8 | 31.1 | 43.1 |
| 48.5° | 21.3 | 21.6 | 22.4 | 24.9 | 29.9 | 41.1 |
| 49° | 20.8 | 20.8 | 21.7 | 24.2 | 28.9 | 39.2 |
| 49.5° | 20.0 | 20.2 | 21.1 | 23.2 | 27.7 | 37.3 |
| 50° | 19.4 | 19.7 | 20.5 | 22.7 | 26.7 | 35.5 |
| 50.5° | 18.9 | 19.1 | 19.9 | 22.1 | 25.8 | 34.1 |
| 51° | 18.2 | 18.6 | 19.3 | 21.5 | 24.9 | 32.7 |
| 51.5° | 17.6 | 18.0 | 18.8 | 20.7 | 24.1 | 31.3 |
| 52° | 17.0 | 17.4 | 18.2 | 20.2 | 23.1 | 30.0 |
| 52.5° | 16.6 | 16.9 | 17.7 | 19.5 | 22.4 | 28.7 |
| 53° | 15.9 | 16.4 | 17.2 | 19.1 | 21.9 | 27.6 |
| 53.5° | 15.5 | 15.9 | 16.6 | 18.5 | 21.1 | 26.4 |
| 54° | 15.0 | 15.4 | 16.0 | 17.9 | 20.4 | 25.5 |
| 54.5° | 14.5 | 14.8 | 15.6 | 17.3 | 19.8 | 24.5 |
| 55° | 14.0 | 14.4 | 15.1 | 16.7 | 19.2 | 23.5 |
| 55.5° | 13.8 | 13.9 | 14.6 | 16.2 | 18.6 | 22.6 |
| 56° | 13.2 | 13.6 | 14.2 | 15.8 | 18.0 | 22.0 |
| 56.5° | 12.8 | 13.1 | 13.8 | 15.3 | 17.5 | 21.1 |
| 57° | 12.2 | 12.7 | 13.4 | 14.9 | 16.9 | 20.2 |
| 57.5° | 11.8 | 12.3 | 13.0 | 14.3 | 16.2 | 19.5 |
| 58° | 11.3 | 11.8 | 12.5 | 13.8 | 15.7 | 18.8 |
| 58.5° | 10.9 | 11.5 | 12.1 | 13.3 | 15.2 | 18.1 |
| 59° | 10.5 | 11.1 | 11.7 | 12.8 | 14.6 | 17.4 |
| 59.5° | 10.0 | 10.7 | 11.4 | 12.4 | 14.2 | 16.7 |
| 60° | 9.7 | 10.3 | 11.0 | 12.0 | 13.6 | 16.1 |
| 60.5° | 9.4 | 9.9 | 10.6 | 11.6 | 13.2 | 15.5 |
| 61° | 9.0 | 9.6 | 10.2 | 11.2 | 12.7 | 15.0 |
| 61.5° | 8.8 | 9.3 | 9.9 | 10.9 | 12.4 | 14.4 |
| 62° | 8.2 | 8.9 | 9.5 | 10.5 | 11.9 | 13.8 |
| 62.5° | 7.9 | 8.6 | 9.1 | 10.1 | 11.5 | 13.4 |
| 63° | 7.6 | 8.2 | 8.8 | 9.8 | 11.0 | 12.9 |
| 63.5° | 7.3 | 7.9 | 8.4 | 9.5 | 10.6 | 12.4 |
| 64° | 6.9 | 7.5 | 8.1 | 9.0 | 10.2 | 11.9 |
| 64.5° | 6.6 | 7.2 | 7.8 | 8.7 | 9.9 | 11.4 |
| 65° | 6.5 | 7.0 | 7.4 | 8.3 | 9.7 | 11.0 |
| 65.5° | 6.1 | 6.7 | 7.1 | 8.0 | 9.3 | 10.6 |
| 66° | 5.8 | 6.5 | 6.9 | 7.7 | 8.9 | 10.2 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 5.0 | 5.8 | 6.1 | 6.8 | 8.0 | 9.0 |
| 68° | 4.9 | 5.5 | 5.8 | 6.5 | 7.6 | 8.7 |
| 68.5° | 4.9 | 5.3 | 5.6 | 6.3 | 7.3 | 8.4 |
| 69° | 4.9 | 5.2 | 5.4 | 6.0 | 7.0 | 8.1 |
| 69.5° | 4.4 | 4.8 | 5.2 | 5.8 | 6.7 | 7.8 |
| 70° | 3.8 | 4.5 | 4.9 | 5.4 | 6.4 | 7.4 |
| 70.5° | 3.6 | 4.2 | 4.6 | 5.3 | 6.0 | 7.2 |
| 71° | 3.6 | 3.9 | 4.3 | 5.0 | 5.7 | 6.9 |
| 71.5° | 3.1 | 3.6 | 4.0 | 4.6 | 5.5 | 6.6 |
| 72° | 2.7 | 3.3 | 3.6 | 4.4 | 5.2 | 6.3 |
| 72.5° | 2.5 | 3.1 | 3.4 | 4.1 | 4.9 | 5.9 |
| 73° | 2.6 | 2.9 | 3.2 | 3.7 | 4.6 | 5.6 |
| 73.5° | 2.1 | 2.8 | 3.0 | 3.5 | 4.3 | 5.3 |
| 74° | 2.0 | 2.6 | 2.8 | 3.2 | 4.0 | 4.9 |
| 74.5° | 1.9 | 2.6 | 2.7 | 3.0 | 3.7 | 4.5 |
| 75° | 1.7 | 2.5 | 2.5 | 2.7 | 3.4 | 4.3 |
| 75.5° | 1.7 | 2.5 | 2.5 | 2.6 | 3.1 | 4.0 |
| 76° | 1.7 | 2.4 | 2.5 | 2.4 | 2.9 | 3.7 |
| 76.5° | 1.7 | 2.4 | 2.5 | 2.3 | 2.6 | 3.4 |
| 77° | 1.7 | 2.3 | 2.3 | 2.3 | 2.5 | 3.1 |
| 77.5° | 1.7 | 2.2 | 2.3 | 2.3 | 2.3 | 2.8 |
| 78° | 1.7 | 2.2 | 2.3 | 2.2 | 2.1 | 2.5 |
| 78.5° | 1.7 | 2.0 | 2.2 | 2.0 | 1.9 | 2.3 |
| 79° | 1.5 | 2.0 | 2.0 | 2.0 | 1.9 | 2.2 |
| 79.5° | 1.2 | 1.9 | 1.9 | 2.0 | 1.8 | 1.9 |
| 80° | 1.0 | 1.8 | 1.9 | 1.9 | 1.7 | 1.7 |
| 80.5° | 1.0 | 1.7 | 1.7 | 1.8 | 1.7 | 1.6 |
| 81° | 0.9 | 1.6 | 1.7 | 1.8 | 1.7 | 1.6 |
| 81.5° | 0.8 | 1.6 | 1.6 | 1.6 | 1.7 | 1.6 |
| 82° | 0.6 | 1.4 | 1.5 | 1.6 | 1.5 | 1.5 |
| 82.5° | 0.6 | 1.4 | 1.4 | 1.5 | 1.4 | 1.4 |
| 83° | 0.7 | 1.4 | 1.4 | 1.4 | 1.4 | 1.2 |
| 83.5° | 0.6 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 |
| 84° | 0.6 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 |
| 84.5° | 0.6 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 |
| 85° | 0.6 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 |
| 85.5° | 0.4 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 |
| 86° | 0.3 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 |
| 86.5° | 0.1 | 0.7 | 0.6 | 0.7 | 0.8 | 0.7 |
| 87° | 0.0 | 0.5 | 0.5 | 0.7 | 0.6 | 0.7 |
| 87.5° | 0.0 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 |
| 88° | 0.0 | 0.3 | 0.3 | 0.3 | 0.5 | 0.5 |
| 88.5° | 0.0 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 90° | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 |
| 90.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 91° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 91.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 92.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 93° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 93.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 94° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 94.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 95.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 96° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 96.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 97° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 97.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 98.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 99° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 99.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 100.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 101° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 101.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 102.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 103° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 103.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 104° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 104.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 105.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 106° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 106.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 107.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 108° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 108.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 109° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 109.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 110.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 111° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 112.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 113° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 113.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 114° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 114.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 115.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 116° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 116.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 117° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 117.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 118° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 118.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 119° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 119.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 120.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 121° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 121.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 122.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 123° | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 123.5° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 124° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 124.5° | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125° | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 125.5° | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| 126° | 0.2 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| 126.5° | 0.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 127° | 0.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 127.5° | 0.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 128° | 0.2 | 0.3 | 0.1 | 0.0 | 0.0 | 0.0 |
| 128.5° | 0.3 | 0.4 | 0.1 | 0.0 | 0.0 | 0.0 |
| 129° | 0.3 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 |
| 129.5° | 0.3 | 0.4 | 0.3 | 0.1 | 0.0 | 0.0 |
| 130° | 0.4 | 0.4 | 0.3 | 0.1 | 0.0 | 0.0 |
| 130.5° | 0.4 | 0.6 | 0.4 | 0.2 | 0.0 | 0.0 |
| 131° | 0.3 | 0.7 | 0.5 | 0.4 | 0.0 | 0.0 |
| 131.5° | 0.4 | 0.6 | 0.6 | 0.3 | 0.0 | 0.0 |
| 132° | 0.4 | 0.7 | 0.6 | 0.3 | 0.0 | 0.0 |
| 132.5° | 0.4 | 0.7 | 0.8 | 0.3 | 0.0 | 0.0 |
| 133° | 0.4 | 0.7 | 0.8 | 0.4 | 0.1 | 0.0 |
| 133.5° | 0.5 | 0.7 | 0.8 | 0.5 | 0.1 | 0.0 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 135° | 0.6 | 0.8 | 0.8 | 0.8 | 0.2 | 0.0 |
| 135.5° | 0.6 | 0.8 | 0.8 | 0.8 | 0.2 | 0.0 |
| 136° | 0.7 | 0.8 | 0.8 | 0.8 | 0.3 | 0.0 |
| 136.5° | 0.6 | 0.9 | 0.8 | 0.8 | 0.3 | 0.0 |
| 137° | 0.7 | 1.0 | 0.8 | 0.8 | 0.5 | 0.0 |
| 137.5° | 0.6 | 1.0 | 0.9 | 0.8 | 0.6 | 0.0 |
| 138° | 0.8 | 1.1 | 1.0 | 0.8 | 0.6 | 0.2 |
| 138.5° | 0.8 | 1.3 | 1.0 | 0.8 | 0.6 | 0.2 |
| 139° | 0.8 | 1.6 | 1.3 | 0.8 | 0.6 | 0.3 |
| 139.5° | 0.8 | 1.6 | 1.5 | 0.8 | 0.6 | 0.4 |
| 140° | 1.0 | 1.6 | 1.6 | 0.8 | 0.6 | 0.5 |
| 140.5° | 1.0 | 1.6 | 1.7 | 1.0 | 0.6 | 0.6 |
| 141° | 1.0 | 1.6 | 1.7 | 1.0 | 0.7 | 0.7 |
| 141.5° | 1.0 | 1.7 | 1.7 | 1.1 | 0.6 | 0.6 |
| 142° | 1.2 | 1.7 | 1.7 | 1.4 | 0.8 | 0.6 |
| 142.5° | 1.2 | 1.9 | 1.8 | 1.6 | 0.8 | 0.6 |
| 143° | 1.2 | 1.9 | 1.8 | 1.6 | 0.9 | 0.6 |
| 143.5° | 1.2 | 2.1 | 1.8 | 1.6 | 1.0 | 0.6 |
| 144° | 1.3 | 2.2 | 2.0 | 1.6 | 1.0 | 0.6 |
| 144.5° | 1.4 | 2.6 | 2.1 | 1.6 | 1.2 | 0.7 |
| 145° | 1.4 | 2.6 | 2.5 | 1.7 | 1.4 | 0.7 |
| 145.5° | 1.5 | 2.7 | 2.6 | 1.8 | 1.6 | 0.8 |
| 146° | 1.6 | 2.7 | 2.6 | 2.0 | 1.6 | 0.8 |
| 146.5° | 1.5 | 2.7 | 2.6 | 2.0 | 1.5 | 0.8 |
| 147° | 1.7 | 2.7 | 2.6 | 2.2 | 1.6 | 1.0 |
| 147.5° | 1.8 | 2.8 | 2.6 | 2.4 | 1.6 | 1.1 |
| 148° | 1.9 | 2.9 | 2.7 | 2.5 | 1.7 | 1.2 |
| 148.5° | 1.9 | 3.0 | 2.9 | 2.7 | 1.7 | 1.5 |
| 149° | 1.9 | 3.1 | 2.9 | 2.7 | 1.9 | 1.7 |
| 149.5° | 2.0 | 3.3 | 3.0 | 2.7 | 2.0 | 1.7 |
| 150° | 2.1 | 3.6 | 3.1 | 2.7 | 2.1 | 1.7 |
| 150.5° | 2.2 | 3.7 | 3.4 | 2.9 | 2.4 | 1.7 |
| 151° | 2.2 | 3.7 | 3.7 | 2.9 | 2.7 | 1.7 |
| 151.5° | 2.3 | 3.7 | 3.7 | 3.0 | 2.7 | 1.7 |
| 152° | 2.4 | 3.7 | 3.6 | 3.1 | 2.7 | 1.7 |
| 152.5° | 2.4 | 3.7 | 3.7 | 3.2 | 2.7 | 1.9 |
| 153° | 2.5 | 3.9 | 3.7 | 3.4 | 2.7 | 1.9 |
| 153.5° | 2.6 | 3.9 | 3.8 | 3.6 | 2.7 | 2.1 |
| 154° | 2.7 | 3.9 | 3.9 | 3.6 | 2.8 | 2.3 |
| 154.5° | 2.8 | 4.1 | 3.9 | 3.6 | 2.9 | 2.6 |
| 155° | 2.7 | 4.3 | 4.0 | 3.7 | 3.0 | 2.6 |
| 155.5° | 2.9 | 4.7 | 4.1 | 3.7 | 3.2 | 2.6 |
| 156° | 3.0 | 5.0 | 4.3 | 3.8 | 3.4 | 2.6 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 157.5° | 3.3 | 5.1 | 5.0 | 4.1 | 3.6 | 2.8 |
| 158° | 3.3 | 5.1 | 5.0 | 4.6 | 3.6 | 2.9 |
| 158.5° | 3.5 | 5.1 | 4.9 | 4.9 | 3.7 | 3.0 |
| 159° | 3.6 | 5.1 | 4.9 | 5.0 | 3.8 | 3.1 |
| 159.5° | 3.6 | 5.1 | 4.9 | 5.0 | 3.8 | 3.2 |
| 160° | 3.8 | 5.1 | 4.9 | 5.0 | 3.9 | 3.6 |
| 160.5° | 3.8 | 5.1 | 4.9 | 5.0 | 3.9 | 3.7 |
| 161° | 4.0 | 5.1 | 4.9 | 5.0 | 4.1 | 3.7 |
| 161.5° | 4.2 | 5.1 | 4.9 | 5.0 | 4.6 | 3.7 |
| 162° | 4.2 | 5.1 | 4.9 | 5.0 | 5.0 | 3.7 |
| 162.5° | 4.3 | 5.1 | 4.9 | 5.0 | 5.0 | 3.7 |
| 163° | 4.4 | 5.1 | 4.9 | 5.0 | 5.0 | 3.9 |
| 163.5° | 4.5 | 5.1 | 4.9 | 5.0 | 5.0 | 3.9 |
| 164° | 4.6 | 5.1 | 4.9 | 5.0 | 5.0 | 3.9 |
| 164.5° | 4.6 | 5.1 | 4.9 | 5.0 | 5.0 | 4.0 |
| 165° | 4.7 | 5.1 | 4.9 | 5.0 | 5.0 | 4.2 |
| 165.5° | 4.8 | 5.1 | 4.9 | 5.0 | 5.0 | 4.7 |
| 166° | 4.9 | 5.1 | 4.9 | 5.0 | 5.0 | 5.0 |
| 166.5° | 5.0 | 5.1 | 4.9 | 5.1 | 5.0 | 5.0 |
| 167° | 5.0 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 167.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 168° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 168.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 169° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 169.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 170° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 170.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 171° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 171.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 172° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 172.5° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 173° | 4.9 | 5.1 | 5.0 | 5.1 | 5.0 | 5.0 |
| 173.5° | 4.9 | 4.9 | 5.0 | 5.1 | 5.0 | 5.0 |
| 174° | 4.9 | 4.9 | 5.0 | 5.1 | 5.0 | 5.0 |
| 174.5° | 4.9 | 4.7 | 5.1 | 5.1 | 5.0 | 5.0 |
| 175° | 4.9 | 4.7 | 5.0 | 5.1 | 5.0 | 5.0 |
| 175.5° | 4.9 | 4.5 | 4.8 | 5.1 | 5.0 | 5.0 |
| 176° | 4.9 | 4.5 | 4.7 | 5.1 | 5.0 | 5.0 |
| 176.5° | 4.9 | 4.4 | 4.7 | 5.0 | 5.0 | 5.0 |
| 177° | 4.9 | 4.3 | 4.5 | 4.8 | 5.0 | 5.1 |
| 177.5° | 4.9 | 4.3 | 4.5 | 4.8 | 4.8 | 5.0 |
| 178° | 4.9 | 4.3 | 4.3 | 4.6 | 4.8 | 4.9 |
| 178.5° | 4.9 | 4.1 | 4.2 | 4.4 | 4.6 | 4.7 |



TEST NUMBER: P571719

CATALOG NUMBER: RLS4099FSE1WHDM 3500K

CANDELA DISTRIBUTION (continued):

| | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|------|--------|------|--------|------|--------|------|
| 180° | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 | 4.7 |



Report Generated By 670245859 / DESKTOP-HRDQ47P





— 0°-180° - - 45°-225° - - - - 90°-270° - · - · 135°-315°







| | | | | | | | | | | | |
|-------|-------|-------|--------|--------|--------|--------|--------|-------|-------|-------|-------|
| 21.5° | 631.2 | 857.8 | 1126.6 | 1337.2 | 1488.2 | 1357.2 | 1123.8 | 849.7 | 619.7 | 476.1 | 385.8 |
| 22° | 605.3 | 823.5 | 1089.8 | 1303.1 | 1456.4 | 1331.2 | 1090.2 | 815.2 | 598.2 | 455.1 | 368.9 |



| | | | | | | | | | | | |
|-------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|
| 44° | 66.2 | 103.2 | 159.8 | 217.0 | 257.3 | 222.2 | 159.5 | 100.8 | 64.0 | 42.6 | 33.8 |
| 44.5° | 62.4 | 97.2 | 150.5 | 206.1 | 242.5 | 209.9 | 150.2 | 95.3 | 60.7 | 40.5 | 32.3 |



| | | | | | | | | | | | |
|-------|-----|------|------|------|------|------|------|-----|-----|-----|-----|
| 66.5° | 9.8 | 11.5 | 13.4 | 15.1 | 15.7 | 14.3 | 11.9 | 9.7 | 7.8 | 6.7 | 6.0 |
| 67° | 9.4 | 11.1 | 12.9 | 14.5 | 15.2 | 13.7 | 11.3 | 9.2 | 7.7 | 6.6 | 5.7 |



| | | | | | | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 89° | 0.3 | 0.3 | 0.4 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 89.5° | 0.2 | 0.3 | 0.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



| | | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 111.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 112° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |



| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 134° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 |
| 134.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 |



| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 156.5° | 2.6 | 2.0 | 1.7 | 1.3 | 0.9 | 0.8 | 1.0 | 1.2 | 1.7 | 2.2 | 2.8 |
| 157° | 2.6 | 2.2 | 1.6 | 1.5 | 1.0 | 1.0 | 1.0 | 1.3 | 1.8 | 2.3 | 2.8 |



| | | | | | | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 179° | 4.7 | 4.9 | 4.9 | 4.0 | 4.1 | 4.0 | 4.0 | 4.3 | 4.5 | 4.7 | 5.0 |
| 179.5° | 4.7 | 4.8 | 5.0 | 4.2 | 4.0 | 4.0 | 4.1 | 4.3 | 4.6 | 4.7 | 5.0 |





| | | | | | | |
|-------|-------|-------|-------|-------|-------|-------|
| 21.5° | 335.6 | 319.5 | 333.6 | 391.9 | 480.8 | 631.2 |
| 22° | 321.2 | 305.1 | 319.0 | 372.5 | 460.0 | 605.3 |



| | | | | | | |
|-------|------|------|------|------|------|------|
| 44° | 29.9 | 29.2 | 30.3 | 34.5 | 44.1 | 66.2 |
| 44.5° | 28.6 | 28.0 | 29.2 | 33.2 | 42.0 | 62.4 |



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 66.5° | 5.6 | 6.2 | 6.6 | 7.4 | 8.6 | 9.8 |
| 67° | 5.2 | 5.9 | 6.4 | 7.1 | 8.3 | 9.4 |



| | | | | | | |
|-------|-----|-----|-----|-----|-----|-----|
| 89° | 0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.3 |
| 89.5° | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |



| | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|
| 111.5° | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 112° | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |



| | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|
| 134° | 0.5 | 0.7 | 0.8 | 0.5 | 0.1 | 0.0 |
| 134.5° | 0.5 | 0.7 | 0.8 | 0.7 | 0.2 | 0.0 |



| | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|
| 156.5° | 3.1 | 5.1 | 4.7 | 3.9 | 3.7 | 2.6 |
| 157° | 3.1 | 5.1 | 4.9 | 4.0 | 3.7 | 2.6 |



| | | | | | | |
|--------|-----|-----|-----|-----|-----|-----|
| 179° | 4.9 | 4.1 | 4.1 | 4.4 | 4.6 | 4.7 |
| 179.5° | 4.9 | 4.1 | 4.2 | 4.4 | 4.5 | 4.7 |



(END OF REPORT)