

Scaled data based on original data using  
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-State  
Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions

Brand: HALO

Report Number: P1590481

Luminaire Tested: HCDLS1525CSD4TRH-ME-5000K

Issue Date: 9/4/2026

**Test Information**

Test Method: LM-79-2019  
Report Number: P1590481  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA ( A2603928A002)  
Test Lab: INNOVATION CENTER  
Issue Date: 9/4/2026  
Manufacturer: COOPER LIGHTING SOLUTIONS  
Product Line: HALO  
Catalog Number: HCDLS1525CSD4TRH-ME-5000K  
Description: 4" Selectable Round Trim+ Haze (Semi-specular) 2000 Lumens 5000K  
  
Light Source:  
Ballast/Driver: -

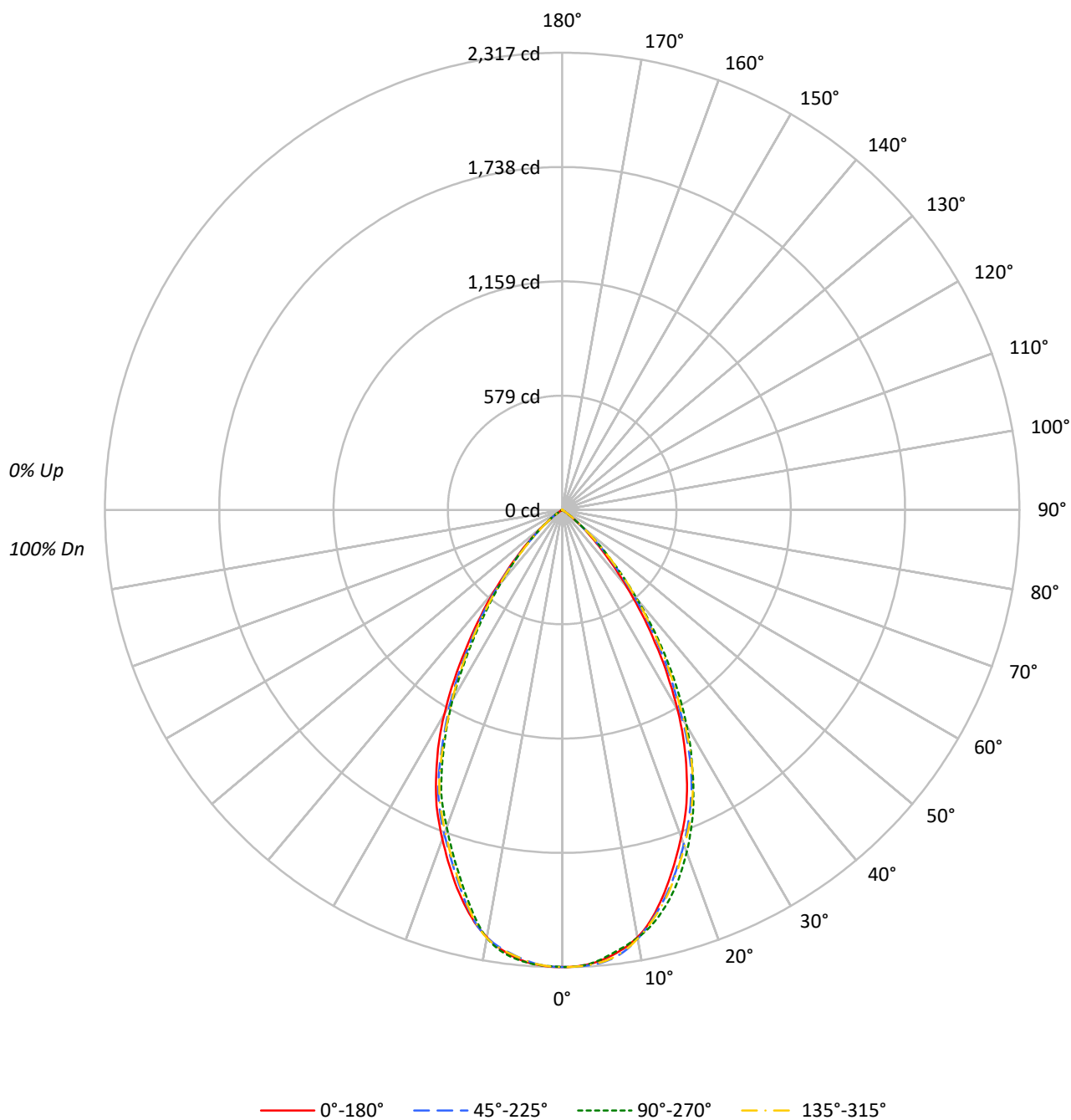
**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 2265.0 lumens  
Efficiency: N/A  
Efficacy: 108.4 lumens/watt  
Spacing Criteria (0/90/45): 0.91 / 0.91 / 0.91  
Luminous Opening: Circular (Dia: 0.33' x H: 0')  
CIE Type: Direct  
  
Input Watts (W): 20.9  
Input Voltage (V):  
Input Current (Ain): NR  
Voltage Rise (V): NR  
Power Factor:  
Total Harmonic Distortion (THDi):  
Frequency (hertz): 60  
Stabilization Time: HR  
Operation Time: HR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

### Luminous Intensity Polar Plot



TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:**

|     |     |     |     |     |     |     |     |     |  |     |     |     |  |  |     |     |     |  |  |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|-----|-----|-----|--|--|-----|-----|-----|--|--|-----|
| RF  | 20  |     |     |     | 20  |     |     |     |  | 20  |     |     |  |  | 20  |     |     |  |  | 20  |
| RC  | 80  |     |     |     | 70  |     |     |     |  | 50  |     |     |  |  | 30  |     |     |  |  | 0   |
| RW  | 70  | 50  | 30  | 10  | 70  | 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 |
| 1   | 113 | 110 | 108 | 106 | 111 | 108 | 106 | 104 |  | 104 | 102 | 101 |  |  | 100 | 99  | 98  |  |  | 97  |
| 2   | 107 | 102 | 98  | 95  | 105 | 101 | 97  | 94  |  | 97  | 94  | 91  |  |  | 94  | 92  | 90  |  |  | 92  |
| 3   | 102 | 95  | 90  | 86  | 100 | 94  | 89  | 85  |  | 91  | 87  | 84  |  |  | 88  | 85  | 82  |  |  | 86  |
| 4   | 96  | 88  | 82  | 78  | 94  | 87  | 82  | 78  |  | 85  | 80  | 77  |  |  | 83  | 79  | 76  |  |  | 81  |
| 5   | 91  | 82  | 76  | 72  | 89  | 81  | 76  | 71  |  | 79  | 74  | 71  |  |  | 78  | 73  | 70  |  |  | 76  |
| 6   | 86  | 77  | 71  | 66  | 85  | 76  | 70  | 66  |  | 74  | 69  | 65  |  |  | 73  | 68  | 65  |  |  | 72  |
| 7   | 82  | 72  | 66  | 61  | 80  | 71  | 65  | 61  |  | 70  | 65  | 61  |  |  | 69  | 64  | 60  |  |  | 67  |
| 8   | 77  | 67  | 61  | 57  | 76  | 67  | 61  | 57  |  | 66  | 60  | 56  |  |  | 65  | 60  | 56  |  |  | 64  |
| 9   | 73  | 63  | 57  | 53  | 72  | 63  | 57  | 53  |  | 62  | 56  | 53  |  |  | 61  | 56  | 53  |  |  | 60  |
| 10  | 70  | 60  | 54  | 50  | 69  | 59  | 53  | 50  |  | 58  | 53  | 49  |  |  | 58  | 53  | 49  |  |  | 57  |

**AVERAGE LUMINANCE (cd/sqm):**

|     | 0°     | 90°    | 180°   | 270°   |
|-----|--------|--------|--------|--------|
| 0°  | 285681 | 285681 | 285681 | 285681 |
| 5°  | 283553 | 282946 | 283875 | 284259 |
| 10° | 275421 | 275772 | 275371 | 275722 |
| 15° | 256019 | 263221 | 256900 | 250286 |
| 20° | 231546 | 242191 | 233042 | 224667 |
| 25° | 203492 | 214189 | 205942 | 196143 |
| 30° | 166497 | 179871 | 170101 | 157724 |
| 35° | 123624 | 139163 | 126244 | 114619 |
| 40° | 82456  | 95805  | 85757  | 77417  |
| 45° | 48371  | 58035  | 51162  | 47290  |
| 50° | 23660  | 27153  | 25349  | 24332  |
| 55° | 7720   | 8193   | 8215   | 8322   |
| 60° | 1801   | 1998   | 1850   | 2072   |
| 65° | 876    | 1022   | 934    | 1051   |
| 70° | 505    | 613    | 541    | 613    |
| 75° | 286    | 381    | 334    | 381    |
| 80° | 142    | 213    | 142    | 213    |
| 85° | 0      | 0      | 0      | 0      |

**MAXIMUM LUMINANCE 45°-90°:**

Horizontal Angle: 90°

Vertical Angle: 45°

Luminance: 58035 cd/sqm

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**ZONAL LUMENS:**

| Zone      | Lumens | % Fixture |
|-----------|--------|-----------|
| 0°-10°    | 216.0  | 9.5       |
| 10°-20°   | 560.9  | 24.8      |
| 20°-30°   | 685.2  | 30.3      |
| 30°-40°   | 522.0  | 23.0      |
| 40°-50°   | 232.8  | 10.3      |
| 50°-60°   | 42.1   | 1.9       |
| 60°-70°   | 3.7    | 0.2       |
| 70°-80°   | 0.8    | 0.0       |
| 80°-90°   | 0.0    | 0.0       |
| 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° | 0.4    | 0.0       |
| 150°-160° | 0.4    | 0.0       |
| 160°-170° | 0.3    | 0.0       |
| 170°-180° | 0.1    | 0.0       |
| 0°-30°    | 1462.1 | 64.6      |
| 0°-40°    | 1984.1 | 87.6      |
| 0°-60°    | 2259.0 | 99.7      |
| 0°-90°    | 2263.6 | 99.9      |
| 90°-120°  | 0.0    | 0.0       |
| 90°-150°  | 0.7    | 0.0       |
| 90°-180°  | 1.0    | 0.0       |
| 0°-180°   | 2265.0 | 100.0     |

**CANDELA DISTRIBUTION:**

|      | 0°   | 90°  | 180° | 270° | 360° | Flux |
|------|------|------|------|------|------|------|
| 0°   | 2316 | 2316 | 2316 | 2316 | 2316 |      |
| 5°   | 2290 | 2285 | 2293 | 2296 | 2290 | 216  |
| 15°  | 2005 | 2061 | 2012 | 1960 | 2005 | 559  |
| 25°  | 1495 | 1574 | 1513 | 1441 | 1495 | 680  |
| 35°  | 821  | 924  | 838  | 761  | 821  | 513  |
| 45°  | 277  | 333  | 293  | 271  | 277  | 221  |
| 55°  | 36   | 38   | 38   | 39   | 36   | 40   |
| 65°  | 3    | 4    | 3    | 4    | 3    | 3    |
| 75°  | 1    | 1    | 1    | 1    | 1    | 1    |
| 85°  | 0    | 0    | 0    | 0    | 0    | 0    |
| 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    | 0    | 0    | 0    |
| 145° | 0    | 1    | 1    | 0    | 0    | 0    |
| 155° | 1    | 1    | 1    | 1    | 1    | 0    |
| 165° | 1    | 1    | 1    | 1    | 1    | 0    |
| 175° | 1    | 1    | 1    | 1    | 1    | 0    |
| 180° | 1    | 1    | 1    | 1    | 1    |      |

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CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (FULL):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 0°    | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 |
| 0.5°  | 2316.5 | 2315.7 | 2315.9 | 2316.5 | 2315.7 | 2315.9 | 2316.9 | 2316.5 | 2316.5 | 2315.7 | 2315.7 |
| 1°    | 2315.5 | 2315.5 | 2315.9 | 2316.5 | 2315.7 | 2315.9 | 2316.3 | 2316.3 | 2315.7 | 2314.9 | 2314.9 |
| 1.5°  | 2314.3 | 2314.7 | 2315.5 | 2315.7 | 2314.9 | 2315.5 | 2315.7 | 2315.5 | 2314.9 | 2313.7 | 2313.7 |
| 2°    | 2312.7 | 2313.5 | 2314.9 | 2314.7 | 2313.5 | 2314.1 | 2314.9 | 2314.7 | 2313.3 | 2311.5 | 2311.9 |
| 2.5°  | 2310.6 | 2312.7 | 2313.9 | 2312.9 | 2311.5 | 2312.1 | 2314.1 | 2313.5 | 2311.3 | 2309.0 | 2309.4 |
| 3°    | 2308.4 | 2311.5 | 2312.5 | 2310.4 | 2308.4 | 2309.6 | 2312.1 | 2312.1 | 2309.0 | 2305.6 | 2306.0 |
| 3.5°  | 2304.7 | 2310.0 | 2310.8 | 2307.4 | 2304.3 | 2306.4 | 2309.8 | 2310.0 | 2306.4 | 2301.3 | 2301.7 |
| 4°    | 2300.7 | 2308.0 | 2309.2 | 2303.3 | 2298.8 | 2301.9 | 2307.6 | 2308.0 | 2302.5 | 2296.0 | 2296.6 |
| 4.5°  | 2295.6 | 2305.1 | 2306.6 | 2298.2 | 2292.3 | 2296.4 | 2304.1 | 2305.1 | 2298.2 | 2289.9 | 2290.9 |
| 5°    | 2290.1 | 2301.7 | 2302.5 | 2291.9 | 2285.2 | 2289.7 | 2299.9 | 2301.9 | 2292.7 | 2283.2 | 2284.6 |
| 5.5°  | 2283.8 | 2297.0 | 2298.0 | 2285.4 | 2277.5 | 2282.8 | 2294.8 | 2297.4 | 2287.0 | 2275.9 | 2278.1 |
| 6°    | 2277.3 | 2291.3 | 2292.5 | 2277.9 | 2269.4 | 2275.0 | 2289.1 | 2292.1 | 2280.1 | 2268.3 | 2271.0 |
| 6.5°  | 2269.8 | 2284.8 | 2286.2 | 2270.4 | 2261.0 | 2267.1 | 2282.4 | 2285.8 | 2272.4 | 2260.6 | 2263.9 |
| 7°    | 2261.8 | 2276.9 | 2278.3 | 2262.2 | 2252.9 | 2259.0 | 2274.6 | 2278.3 | 2264.1 | 2252.3 | 2256.5 |
| 7.5°  | 2253.1 | 2267.9 | 2269.4 | 2253.5 | 2244.7 | 2250.2 | 2266.1 | 2269.6 | 2255.7 | 2243.9 | 2248.6 |
| 8°    | 2244.3 | 2258.2 | 2259.2 | 2243.9 | 2236.4 | 2241.3 | 2256.3 | 2259.2 | 2245.8 | 2235.4 | 2240.5 |
| 8.5°  | 2234.2 | 2247.0 | 2248.0 | 2234.0 | 2228.1 | 2232.5 | 2245.3 | 2248.4 | 2235.2 | 2225.8 | 2231.5 |
| 9°    | 2223.4 | 2234.6 | 2235.4 | 2223.6 | 2219.5 | 2222.6 | 2233.1 | 2235.8 | 2224.0 | 2216.1 | 2221.8 |
| 9.5°  | 2211.4 | 2220.9 | 2222.0 | 2212.4 | 2211.0 | 2212.2 | 2220.3 | 2222.0 | 2212.2 | 2205.3 | 2211.2 |
| 10°   | 2199.0 | 2206.5 | 2207.3 | 2200.4 | 2201.8 | 2201.0 | 2206.3 | 2207.3 | 2198.6 | 2193.9 | 2199.2 |
| 10.5° | 2185.1 | 2190.8 | 2191.7 | 2187.6 | 2191.9 | 2189.6 | 2191.7 | 2191.2 | 2184.1 | 2180.3 | 2184.9 |
| 11°   | 2169.7 | 2174.4 | 2175.2 | 2174.0 | 2180.9 | 2177.0 | 2176.0 | 2175.2 | 2169.1 | 2166.0 | 2169.3 |
| 11.5° | 2152.8 | 2156.5 | 2158.5 | 2159.7 | 2169.1 | 2164.0 | 2159.9 | 2158.1 | 2152.8 | 2150.2 | 2151.8 |
| 12°   | 2133.9 | 2138.0 | 2141.0 | 2143.9 | 2156.7 | 2150.0 | 2143.6 | 2140.4 | 2135.5 | 2131.6 | 2131.4 |
| 12.5° | 2114.4 | 2118.8 | 2122.3 | 2128.6 | 2142.4 | 2134.5 | 2126.6 | 2122.1 | 2116.0 | 2111.7 | 2108.7 |
| 13°   | 2093.8 | 2099.5 | 2104.0 | 2111.9 | 2128.2 | 2119.2 | 2108.9 | 2102.6 | 2097.5 | 2091.0 | 2086.5 |
| 13.5° | 2072.5 | 2079.0 | 2085.1 | 2095.2 | 2112.5 | 2103.6 | 2090.8 | 2083.6 | 2076.9 | 2069.0 | 2063.1 |
| 14°   | 2050.3 | 2058.0 | 2065.9 | 2077.1 | 2095.8 | 2086.3 | 2072.3 | 2063.3 | 2056.2 | 2046.4 | 2038.7 |
| 14.5° | 2028.0 | 2036.9 | 2046.4 | 2059.2 | 2078.8 | 2068.8 | 2052.7 | 2043.2 | 2033.8 | 2023.0 | 2014.1 |
| 15°   | 2004.9 | 2015.3 | 2025.9 | 2040.3 | 2061.3 | 2050.1 | 2034.0 | 2022.5 | 2011.8 | 1999.3 | 1988.7 |
| 15.5° | 1981.2 | 1993.2 | 2005.5 | 2020.6 | 2043.0 | 2031.2 | 2013.5 | 2001.2 | 1989.4 | 1975.4 | 1963.2 |
| 16°   | 1957.8 | 1970.5 | 1984.2 | 1999.5 | 2023.4 | 2011.2 | 1992.9 | 1979.1 | 1966.2 | 1950.5 | 1938.2 |
| 16.5° | 1934.3 | 1948.2 | 1962.7 | 1979.1 | 2003.5 | 1990.8 | 1971.1 | 1956.7 | 1942.8 | 1926.0 | 1913.5 |
| 17°   | 1910.3 | 1925.5 | 1940.8 | 1957.8 | 1982.8 | 1969.6 | 1949.2 | 1934.0 | 1919.0 | 1901.6 | 1888.7 |
| 17.5° | 1885.7 | 1902.3 | 1917.9 | 1935.9 | 1961.6 | 1948.0 | 1927.3 | 1910.3 | 1895.0 | 1877.2 | 1864.0 |
| 18°   | 1861.1 | 1878.6 | 1894.9 | 1913.0 | 1938.9 | 1926.1 | 1904.2 | 1887.1 | 1871.4 | 1852.9 | 1839.5 |
| 18.5° | 1836.8 | 1854.6 | 1871.9 | 1890.1 | 1916.4 | 1903.2 | 1881.4 | 1864.1 | 1847.4 | 1828.5 | 1815.5 |
| 19°   | 1812.6 | 1830.6 | 1849.2 | 1867.1 | 1892.7 | 1880.1 | 1858.7 | 1840.7 | 1822.6 | 1804.8 | 1791.4 |
| 19.5° | 1788.5 | 1806.8 | 1826.1 | 1843.7 | 1869.6 | 1856.8 | 1835.9 | 1816.6 | 1798.8 | 1781.2 | 1769.9 |
| 20°   | 1764.0 | 1782.5 | 1802.7 | 1820.0 | 1845.1 | 1833.6 | 1813.0 | 1793.7 | 1775.4 | 1757.6 | 1746.8 |
| 20.5° | 1739.9 | 1759.1 | 1779.1 | 1796.3 | 1821.1 | 1809.9 | 1789.5 | 1771.1 | 1750.9 | 1734.0 | 1723.6 |
| 21°   | 1715.5 | 1734.4 | 1755.2 | 1771.7 | 1796.5 | 1785.2 | 1766.1 | 1747.5 | 1726.3 | 1710.4 | 1700.5 |
| 21.5° | 1691.3 | 1710.2 | 1731.6 | 1747.0 | 1770.2 | 1759.6 | 1742.7 | 1723.9 | 1701.7 | 1686.8 | 1677.3 |
| 22°   | 1665.9 | 1685.1 | 1706.7 | 1721.0 | 1743.9 | 1734.1 | 1719.4 | 1700.4 | 1677.2 | 1663.2 | 1651.8 |

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**CANDELA DISTRIBUTION (continued):**

|       | 0°     | 22.5°  | 45°    | 67.5°  | 90°    | 112.5° | 135°   | 157.5° | 180°   | 202.5° | 225°   |
|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1640.3 | 1660.8 | 1682.0 | 1696.0 | 1717.6 | 1708.5 | 1696.0 | 1676.8 | 1654.7 | 1637.0 | 1626.7 |
| 23°   | 1612.6 | 1634.4 | 1656.9 | 1668.1 | 1691.3 | 1682.9 | 1672.6 | 1650.7 | 1627.9 | 1609.2 | 1600.3 |
| 23.5° | 1585.0 | 1608.4 | 1631.4 | 1641.9 | 1665.0 | 1657.4 | 1646.1 | 1625.0 | 1600.2 | 1581.3 | 1572.4 |
| 24°   | 1555.8 | 1581.3 | 1604.6 | 1612.8 | 1634.4 | 1628.7 | 1620.2 | 1598.6 | 1571.6 | 1552.7 | 1542.1 |
| 24.5° | 1526.1 | 1553.1 | 1578.6 | 1584.8 | 1604.7 | 1600.1 | 1593.4 | 1571.1 | 1542.6 | 1522.2 | 1510.6 |
| 25°   | 1495.2 | 1524.0 | 1550.8 | 1554.4 | 1573.8 | 1570.6 | 1565.9 | 1543.3 | 1513.2 | 1491.3 | 1478.0 |
| 25.5° | 1464.9 | 1494.9 | 1522.7 | 1525.6 | 1543.7 | 1540.9 | 1537.4 | 1515.0 | 1483.3 | 1459.4 | 1443.8 |
| 26°   | 1434.1 | 1464.5 | 1493.2 | 1495.0 | 1513.3 | 1510.8 | 1508.5 | 1485.7 | 1453.4 | 1427.5 | 1407.9 |
| 26.5° | 1404.1 | 1433.8 | 1463.1 | 1464.3 | 1482.6 | 1480.1 | 1478.1 | 1454.7 | 1422.3 | 1394.7 | 1371.9 |
| 27°   | 1371.8 | 1402.6 | 1430.4 | 1433.3 | 1451.6 | 1448.9 | 1446.6 | 1423.6 | 1391.7 | 1361.3 | 1336.5 |
| 27.5° | 1340.0 | 1371.1 | 1396.5 | 1401.8 | 1421.7 | 1418.4 | 1414.4 | 1391.7 | 1360.9 | 1327.0 | 1302.1 |
| 28°   | 1307.0 | 1339.1 | 1361.4 | 1369.8 | 1391.0 | 1387.3 | 1379.5 | 1358.8 | 1328.8 | 1293.4 | 1268.1 |
| 28.5° | 1274.0 | 1304.5 | 1324.9 | 1336.7 | 1360.0 | 1355.0 | 1345.0 | 1325.0 | 1296.2 | 1259.0 | 1233.8 |
| 29°   | 1239.2 | 1271.5 | 1288.0 | 1303.8 | 1328.7 | 1323.4 | 1308.8 | 1290.0 | 1262.9 | 1225.3 | 1201.3 |
| 29.5° | 1205.2 | 1236.9 | 1249.8 | 1270.7 | 1296.6 | 1290.6 | 1272.0 | 1253.8 | 1228.8 | 1192.1 | 1168.6 |
| 30°   | 1169.0 | 1201.0 | 1212.5 | 1236.1 | 1262.9 | 1257.3 | 1233.6 | 1216.5 | 1194.3 | 1158.8 | 1135.8 |
| 30.5° | 1134.1 | 1163.6 | 1175.6 | 1200.3 | 1229.4 | 1222.5 | 1196.0 | 1178.8 | 1158.5 | 1125.1 | 1102.6 |
| 31°   | 1099.2 | 1127.4 | 1139.9 | 1164.8 | 1195.5 | 1188.2 | 1159.6 | 1141.2 | 1123.5 | 1092.4 | 1068.7 |
| 31.5° | 1064.7 | 1089.2 | 1105.0 | 1129.1 | 1161.7 | 1153.1 | 1124.1 | 1103.4 | 1087.2 | 1059.7 | 1034.9 |
| 32°   | 1029.7 | 1052.3 | 1071.2 | 1092.9 | 1127.4 | 1117.4 | 1089.9 | 1067.1 | 1052.9 | 1027.2 | 1000.5 |
| 32.5° | 996.1  | 1014.5 | 1037.4 | 1057.2 | 1094.3 | 1082.1 | 1055.7 | 1031.7 | 1015.7 | 994.0  | 966.5  |
| 33°   | 962.2  | 979.9  | 1005.1 | 1021.9 | 1061.0 | 1046.0 | 1023.6 | 996.9  | 979.5  | 961.8  | 931.9  |
| 33.5° | 928.2  | 943.2  | 972.1  | 986.4  | 1027.3 | 1010.5 | 990.8  | 963.1  | 943.2  | 928.2  | 897.0  |
| 34°   | 894.7  | 909.9  | 939.6  | 952.9  | 992.9  | 975.9  | 958.6  | 929.9  | 908.4  | 894.8  | 864.4  |
| 34.5° | 860.7  | 875.0  | 905.8  | 919.7  | 958.5  | 941.9  | 926.2  | 897.3  | 872.5  | 861.0  | 831.0  |
| 35°   | 821.0  | 841.6  | 872.4  | 887.4  | 924.2  | 908.5  | 893.6  | 865.6  | 838.4  | 826.4  | 799.9  |
| 35.5° | 789.5  | 809.5  | 840.0  | 855.9  | 890.1  | 875.6  | 860.6  | 832.7  | 805.2  | 792.7  | 769.5  |
| 36°   | 758.1  | 777.4  | 808.2  | 825.8  | 855.1  | 843.5  | 827.9  | 799.9  | 773.4  | 759.6  | 739.8  |
| 36.5° | 726.6  | 745.2  | 776.3  | 794.4  | 821.0  | 810.8  | 795.3  | 767.3  | 740.3  | 726.8  | 709.8  |
| 37°   | 695.2  | 713.1  | 744.4  | 763.0  | 786.9  | 779.2  | 762.9  | 735.2  | 708.9  | 695.0  | 681.2  |
| 37.5° | 662.6  | 680.9  | 712.6  | 731.7  | 753.5  | 748.0  | 731.0  | 702.4  | 678.3  | 663.2  | 651.8  |
| 38°   | 630.7  | 651.8  | 680.7  | 700.3  | 720.9  | 717.1  | 701.1  | 671.3  | 648.1  | 633.1  | 623.0  |
| 38.5° | 599.7  | 621.9  | 651.4  | 669.3  | 688.0  | 686.0  | 670.9  | 641.0  | 618.2  | 603.6  | 593.7  |
| 39°   | 570.1  | 593.6  | 623.1  | 639.5  | 656.5  | 656.8  | 642.4  | 611.4  | 589.4  | 574.9  | 565.6  |
| 39.5° | 540.7  | 564.9  | 594.1  | 609.5  | 625.4  | 626.3  | 614.0  | 583.2  | 560.8  | 545.6  | 537.5  |
| 40°   | 512.1  | 537.6  | 565.9  | 580.1  | 595.0  | 597.3  | 586.0  | 556.1  | 532.6  | 517.3  | 510.0  |
| 40.5° | 485.1  | 511.4  | 538.3  | 551.4  | 565.7  | 567.0  | 557.9  | 528.8  | 504.8  | 489.7  | 482.9  |
| 41°   | 458.6  | 484.8  | 510.7  | 523.5  | 536.5  | 538.6  | 530.3  | 502.7  | 477.7  | 462.9  | 457.0  |
| 41.5° | 432.6  | 459.0  | 482.9  | 496.2  | 508.8  | 510.0  | 503.0  | 477.2  | 451.8  | 436.6  | 432.2  |
| 42°   | 408.3  | 435.0  | 457.1  | 470.0  | 481.5  | 482.9  | 475.8  | 452.8  | 426.6  | 410.7  | 408.2  |
| 42.5° | 384.7  | 410.5  | 431.1  | 443.8  | 455.3  | 455.5  | 448.7  | 428.0  | 402.4  | 386.2  | 383.9  |
| 43°   | 361.6  | 386.6  | 405.9  | 417.2  | 429.4  | 429.4  | 422.6  | 404.3  | 379.2  | 362.7  | 360.5  |
| 43.5° | 338.9  | 362.6  | 381.1  | 391.6  | 403.9  | 403.2  | 397.2  | 380.6  | 355.9  | 339.9  | 337.0  |
| 44°   | 318.0  | 339.9  | 358.3  | 366.6  | 379.1  | 378.9  | 372.8  | 358.0  | 334.5  | 318.4  | 315.4  |
| 44.5° | 297.3  | 317.9  | 335.4  | 342.2  | 355.3  | 354.3  | 348.8  | 335.2  | 313.4  | 297.7  | 292.8  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 0°    | 22.5° | 45°   | 67.5° | 90°   | 112.5° | 135°  | 157.5° | 180°  | 202.5° | 225°  |
|-------|-------|-------|-------|-------|-------|--------|-------|--------|-------|--------|-------|
| 45°   | 277.3 | 297.0 | 313.6 | 318.5 | 332.7 | 331.1  | 326.0 | 313.7  | 293.3 | 277.6  | 271.8 |
| 45.5° | 258.2 | 276.2 | 292.5 | 295.1 | 309.7 | 307.7  | 303.9 | 292.7  | 273.9 | 258.4  | 251.2 |
| 46°   | 240.5 | 256.8 | 271.7 | 273.2 | 288.1 | 285.9  | 282.4 | 272.4  | 254.7 | 240.3  | 232.8 |
| 46.5° | 222.9 | 237.4 | 251.3 | 252.0 | 266.7 | 264.1  | 262.0 | 252.3  | 237.0 | 224.4  | 216.3 |
| 47°   | 206.5 | 220.0 | 231.7 | 232.0 | 247.1 | 243.6  | 241.5 | 233.4  | 221.2 | 208.6  | 199.8 |
| 47.5° | 190.5 | 202.4 | 212.6 | 212.5 | 229.0 | 225.7  | 223.8 | 216.7  | 205.5 | 192.8  | 183.4 |
| 48°   | 175.9 | 186.4 | 194.6 | 194.4 | 211.0 | 207.9  | 206.1 | 200.0  | 189.8 | 176.9  | 166.9 |
| 48.5° | 161.5 | 170.2 | 177.2 | 177.2 | 193.0 | 190.0  | 188.4 | 183.2  | 174.1 | 161.1  | 153.5 |
| 49°   | 148.3 | 155.8 | 160.6 | 161.3 | 174.9 | 172.2  | 170.7 | 166.5  | 158.4 | 147.9  | 141.3 |
| 49.5° | 135.7 | 141.9 | 144.8 | 146.1 | 157.0 | 154.4  | 153.1 | 149.9  | 144.9 | 135.3  | 130.0 |
| 50°   | 123.3 | 128.7 | 130.1 | 131.6 | 141.5 | 139.6  | 138.2 | 136.0  | 132.1 | 123.7  | 119.4 |
| 50.5° | 111.7 | 115.6 | 116.6 | 118.0 | 126.7 | 125.5  | 124.2 | 122.7  | 120.0 | 112.7  | 109.4 |
| 51°   | 101.1 | 104.2 | 104.2 | 105.4 | 113.4 | 112.7  | 111.4 | 110.2  | 108.3 | 102.5  | 100.0 |
| 51.5° | 90.8  | 93.1  | 92.5  | 93.7  | 100.7 | 100.4  | 99.6  | 98.5   | 97.5  | 92.9   | 91.3  |
| 52°   | 81.3  | 82.9  | 82.1  | 83.0  | 89.0  | 89.1   | 88.3  | 87.7   | 87.1  | 83.7   | 82.8  |
| 52.5° | 73.1  | 74.5  | 73.7  | 74.5  | 78.2  | 78.6   | 77.9  | 77.5   | 77.2  | 74.9   | 74.5  |
| 53°   | 64.8  | 66.2  | 65.4  | 66.0  | 68.3  | 69.0   | 68.4  | 68.0   | 67.9  | 66.5   | 66.5  |
| 53.5° | 56.6  | 57.8  | 57.1  | 57.4  | 59.2  | 59.8   | 59.6  | 59.2   | 59.5  | 58.6   | 59.0  |
| 54°   | 48.4  | 49.4  | 48.7  | 48.9  | 51.1  | 51.8   | 51.8  | 51.1   | 51.5  | 51.2   | 51.9  |
| 54.5° | 41.8  | 41.0  | 40.4  | 40.4  | 44.1  | 44.8   | 44.7  | 44.0   | 44.5  | 44.5   | 45.3  |
| 55°   | 35.9  | 35.2  | 34.7  | 34.8  | 38.1  | 38.7   | 38.6  | 38.0   | 38.2  | 38.3   | 39.2  |
| 55.5° | 30.6  | 29.8  | 29.3  | 29.2  | 32.6  | 33.2   | 33.1  | 32.5   | 32.6  | 32.9   | 33.7  |
| 56°   | 25.3  | 24.4  | 24.0  | 23.9  | 27.2  | 27.5   | 27.5  | 28.9   | 28.6  | 29.3   | 28.3  |
| 56.5° | 20.5  | 19.7  | 19.3  | 19.4  | 24.0  | 24.3   | 24.3  | 25.4   | 24.6  | 25.6   | 24.8  |
| 57°   | 16.6  | 16.0  | 15.7  | 15.9  | 20.9  | 21.2   | 21.2  | 21.8   | 20.6  | 21.9   | 21.5  |
| 57.5° | 13.7  | 13.3  | 13.0  | 13.3  | 17.7  | 18.1   | 18.0  | 18.3   | 16.6  | 18.2   | 18.1  |
| 58°   | 11.6  | 11.2  | 11.1  | 11.4  | 14.6  | 15.0   | 14.9  | 14.8   | 12.6  | 14.5   | 14.8  |
| 58.5° | 10.0  | 9.7   | 9.6   | 9.9   | 11.4  | 11.9   | 11.8  | 11.2   | 10.9  | 10.9   | 11.4  |
| 59°   | 8.8   | 8.5   | 8.5   | 8.7   | 10.1  | 10.5   | 10.3  | 9.8    | 9.5   | 9.5    | 9.8   |
| 59.5° | 8.0   | 7.8   | 7.8   | 8.0   | 9.0   | 9.3    | 9.2   | 8.7    | 8.4   | 8.4    | 8.7   |
| 60°   | 7.3   | 7.1   | 7.1   | 7.3   | 8.1   | 8.4    | 8.3   | 7.8    | 7.5   | 7.5    | 7.7   |
| 60.5° | 6.6   | 6.4   | 6.4   | 6.6   | 7.3   | 7.6    | 7.5   | 7.1    | 6.8   | 6.7    | 6.9   |
| 61°   | 5.8   | 5.7   | 5.7   | 5.9   | 6.6   | 6.9    | 6.8   | 6.4    | 6.1   | 6.1    | 6.3   |
| 61.5° | 5.3   | 5.2   | 5.2   | 5.4   | 6.1   | 6.3    | 6.2   | 5.8    | 5.6   | 5.5    | 5.7   |
| 62°   | 4.9   | 4.7   | 4.7   | 4.9   | 5.6   | 5.8    | 5.7   | 5.3    | 5.1   | 5.0    | 5.2   |
| 62.5° | 4.5   | 4.3   | 4.4   | 4.5   | 5.1   | 5.3    | 5.2   | 4.9    | 4.7   | 4.6    | 4.8   |
| 63°   | 4.1   | 4.0   | 4.0   | 4.2   | 4.7   | 4.9    | 4.8   | 4.5    | 4.3   | 4.3    | 4.4   |
| 63.5° | 3.8   | 3.7   | 3.7   | 3.9   | 4.4   | 4.6    | 4.5   | 4.2    | 4.0   | 3.9    | 4.0   |
| 64°   | 3.5   | 3.4   | 3.4   | 3.6   | 4.0   | 4.2    | 4.1   | 3.8    | 3.7   | 3.6    | 3.7   |
| 64.5° | 3.2   | 3.2   | 3.2   | 3.3   | 3.8   | 3.9    | 3.8   | 3.6    | 3.4   | 3.4    | 3.5   |
| 65°   | 3.0   | 2.9   | 2.9   | 3.1   | 3.5   | 3.7    | 3.5   | 3.3    | 3.2   | 3.1    | 3.2   |
| 65.5° | 2.8   | 2.7   | 2.7   | 2.9   | 3.2   | 3.4    | 3.3   | 3.1    | 2.9   | 2.9    | 3.0   |
| 66°   | 2.6   | 2.5   | 2.5   | 2.7   | 3.0   | 3.2    | 3.1   | 2.9    | 2.7   | 2.7    | 2.8   |
| 66.5° | 2.4   | 2.3   | 2.4   | 2.5   | 2.8   | 2.9    | 2.9   | 2.7    | 2.5   | 2.5    | 2.6   |
| 67°   | 2.2   | 2.2   | 2.2   | 2.3   | 2.6   | 2.7    | 2.7   | 2.5    | 2.4   | 2.3    | 2.4   |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|-------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 67.5° | 2.0 | 2.0   | 2.0 | 2.1   | 2.4 | 2.6    | 2.5  | 2.3    | 2.2  | 2.2    | 2.2  |
| 68°   | 1.9 | 1.9   | 1.9 | 2.0   | 2.3 | 2.4    | 2.3  | 2.1    | 2.0  | 2.0    | 2.1  |
| 68.5° | 1.8 | 1.7   | 1.8 | 1.9   | 2.1 | 2.2    | 2.1  | 2.0    | 1.9  | 1.9    | 1.9  |
| 69°   | 1.6 | 1.6   | 1.6 | 1.7   | 2.0 | 2.1    | 2.0  | 1.8    | 1.8  | 1.7    | 1.8  |
| 69.5° | 1.5 | 1.5   | 1.5 | 1.6   | 1.8 | 1.9    | 1.9  | 1.7    | 1.6  | 1.6    | 1.7  |
| 70°   | 1.4 | 1.4   | 1.4 | 1.5   | 1.7 | 1.8    | 1.7  | 1.6    | 1.5  | 1.5    | 1.6  |
| 70.5° | 1.3 | 1.3   | 1.3 | 1.4   | 1.6 | 1.7    | 1.6  | 1.5    | 1.4  | 1.4    | 1.4  |
| 71°   | 1.2 | 1.2   | 1.2 | 1.3   | 1.5 | 1.5    | 1.5  | 1.4    | 1.3  | 1.3    | 1.3  |
| 71.5° | 1.1 | 1.1   | 1.1 | 1.2   | 1.4 | 1.4    | 1.4  | 1.3    | 1.2  | 1.2    | 1.2  |
| 72°   | 1.0 | 1.0   | 1.0 | 1.1   | 1.3 | 1.3    | 1.3  | 1.2    | 1.1  | 1.1    | 1.1  |
| 72.5° | 0.9 | 0.9   | 0.9 | 1.0   | 1.2 | 1.2    | 1.2  | 1.1    | 1.0  | 1.0    | 1.1  |
| 73°   | 0.9 | 0.8   | 0.9 | 0.9   | 1.1 | 1.1    | 1.1  | 1.0    | 1.0  | 0.9    | 1.0  |
| 73.5° | 0.8 | 0.8   | 0.8 | 0.9   | 1.0 | 1.1    | 1.0  | 0.9    | 0.9  | 0.9    | 0.9  |
| 74°   | 0.7 | 0.7   | 0.7 | 0.8   | 0.9 | 1.0    | 0.9  | 0.9    | 0.8  | 0.8    | 0.8  |
| 74.5° | 0.7 | 0.6   | 0.7 | 0.7   | 0.8 | 0.9    | 0.9  | 0.8    | 0.7  | 0.7    | 0.8  |
| 75°   | 0.6 | 0.6   | 0.6 | 0.7   | 0.8 | 0.8    | 0.8  | 0.7    | 0.7  | 0.7    | 0.7  |
| 75.5° | 0.5 | 0.5   | 0.5 | 0.6   | 0.7 | 0.8    | 0.7  | 0.7    | 0.6  | 0.6    | 0.6  |
| 76°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.6 | 0.7    | 0.7  | 0.6    | 0.6  | 0.6    | 0.6  |
| 76.5° | 0.4 | 0.4   | 0.4 | 0.5   | 0.6 | 0.6    | 0.6  | 0.5    | 0.5  | 0.5    | 0.5  |
| 77°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.5 | 0.6    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 77.5° | 0.4 | 0.3   | 0.4 | 0.4   | 0.5 | 0.5    | 0.5  | 0.4    | 0.4  | 0.4    | 0.4  |
| 78°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.5    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 78.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.3    | 0.3  | 0.3    | 0.3  |
| 79°   | 0.2 | 0.2   | 0.2 | 0.3   | 0.3 | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 79.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.3 | 0.3    | 0.3  | 0.3    | 0.2  | 0.2    | 0.3  |
| 80°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.3 | 0.3    | 0.3  | 0.2    | 0.2  | 0.2    | 0.2  |
| 80.5° | 0.1 | 0.1   | 0.1 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 81°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.2 | 0.2    | 0.2  | 0.2    | 0.1  | 0.1    | 0.2  |
| 81.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.2 | 0.2    | 0.2  | 0.1    | 0.1  | 0.1    | 0.1  |
| 82°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 82.5° | 0.0 | 0.0   | 0.0 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 83°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.1 | 0.1    | 0.1  | 0.1    | 0.0  | 0.0    | 0.1  |
| 83.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.1    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 84°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 84.5° | 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  |
| 85.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 86°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 86.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 87°   | 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    | 0.0  | 0.0    | 0.0  |
| 88°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 89°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 89.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 90°    | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 90.5°  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 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    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 91.5°  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 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    | 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    | 0.1  | 0.1    | 0.0  |
| 93°    | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.1  | 0.1    | 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    | 0.0  | 0.0    | 0.0  |
| 97.5°  | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 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    | 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    | 0.0  |
| 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  |
| 111.5° | 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  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**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    | 0.0  |
| 113°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 113.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 114°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 114.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 116°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 116.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 118°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 118.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 119°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 119.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120.5° | 0.0 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 121°   | 0.1 | 0.0   | 0.0 | 0.0   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 121.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 122.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 123°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.0 | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 123.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.0 | 0.0    | 0.0  | 0.0    | 0.1  | 0.1    | 0.1  |
| 124°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 124.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 125°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 125.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 126°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 126.5° | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 127°   | 0.1 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 127.5° | 0.2 | 0.1   | 0.1 | 0.1   | 0.1 | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.2  |
| 128°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.1 | 0.1    | 0.1  | 0.2    | 0.2  | 0.2    | 0.2  |
| 128.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 129°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 129.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 130°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 130.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 131°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 131.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.2  | 0.2    | 0.2  | 0.3    | 0.3  |
| 132°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.2 | 0.2    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 132.5° | 0.2 | 0.2   | 0.2 | 0.2   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 133°   | 0.2 | 0.2   | 0.2 | 0.2   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 133.5° | 0.3 | 0.3   | 0.2 | 0.2   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 134°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 134.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 135°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.3 | 0.3    | 0.3  | 0.3    | 0.3  | 0.4    | 0.4  |
| 135.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.3 | 0.4    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 136°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 136.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 137°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 137.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 138°   | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.4    | 0.4  | 0.4    | 0.4  | 0.5    | 0.5  |
| 138.5° | 0.3 | 0.3   | 0.3 | 0.3   | 0.4 | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 139°   | 0.4 | 0.3   | 0.3 | 0.3   | 0.5 | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 139.5° | 0.4 | 0.4   | 0.3 | 0.3   | 0.5 | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 140°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.5 | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 140.5° | 0.4 | 0.4   | 0.4 | 0.4   | 0.5 | 0.5    | 0.5  | 0.5    | 0.5  | 0.5    | 0.6  |
| 141°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.5 | 0.5    | 0.5  | 0.6    | 0.6  | 0.6    | 0.6  |
| 141.5° | 0.4 | 0.4   | 0.4 | 0.4   | 0.6 | 0.6    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 142°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.6 | 0.6    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 142.5° | 0.4 | 0.4   | 0.4 | 0.4   | 0.6 | 0.6    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 143°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.6 | 0.6    | 0.6  | 0.6    | 0.6  | 0.6    | 0.7  |
| 143.5° | 0.4 | 0.4   | 0.4 | 0.4   | 0.6 | 0.6    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 144°   | 0.4 | 0.4   | 0.4 | 0.4   | 0.7 | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 144.5° | 0.4 | 0.4   | 0.4 | 0.4   | 0.7 | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 145°   | 0.5 | 0.4   | 0.4 | 0.4   | 0.7 | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 145.5° | 0.5 | 0.5   | 0.4 | 0.4   | 0.7 | 0.7    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 146°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.7 | 0.7    | 0.7  | 0.7    | 0.8  | 0.8    | 0.8  |
| 146.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.8 | 0.8    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 147°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.8 | 0.8    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 147.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.8 | 0.8    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 148°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.8 | 0.8    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 148.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.8 | 0.8    | 0.8  | 0.8    | 0.9  | 0.9    | 0.9  |
| 149°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 149.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 150°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 150.5° | 0.5 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 151°   | 0.5 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 151.5° | 0.6 | 0.5   | 0.5 | 0.5   | 0.9 | 0.9    | 0.9  | 0.9    | 1.0  | 1.0    | 1.0  |
| 152°   | 0.6 | 0.5   | 0.5 | 0.5   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 152.5° | 0.6 | 0.6   | 0.5 | 0.5   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 153°   | 0.6 | 0.6   | 0.5 | 0.5   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 153.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 154°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 154.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.0  | 1.0    | 1.1  | 1.1    | 1.1  |
| 155°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.0 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 155.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 156°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 156.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 157°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|--------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 157.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 158°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.2    | 1.1  |
| 158.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.2  | 1.2    | 1.2  |
| 159°   | 0.6 | 0.6   | 0.6 | 0.6   | 1.1 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 159.5° | 0.6 | 0.6   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 160°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 160.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 161°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 161.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 162°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 162.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 163°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 163.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 164°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 164.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 165°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 165.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 166°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 166.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 167°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 167.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 168°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 168.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 169°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 169.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.2 | 1.2    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 170°   | 0.7 | 0.7   | 0.6 | 0.6   | 1.1 | 1.1    | 1.2  | 1.2    | 1.2  | 1.2    | 1.2  |
| 170.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.1 | 1.1    | 1.2  | 1.2    | 1.2  | 1.1    | 1.1  |
| 171°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 171.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 172°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 172.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 173°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.1 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 173.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.0 | 1.1    | 1.1  | 1.1    | 1.1  | 1.1    | 1.1  |
| 174°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.1  | 1.1    | 1.1  | 1.1    | 1.0  |
| 174.5° | 0.7 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.1  | 1.1    | 1.1  | 1.0    | 1.0  |
| 175°   | 0.7 | 0.6   | 0.6 | 0.6   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 175.5° | 0.7 | 0.7   | 0.6 | 0.6   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 176°   | 0.7 | 0.7   | 0.7 | 0.7   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 176.5° | 0.7 | 0.7   | 0.7 | 0.7   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 177°   | 0.7 | 0.7   | 0.7 | 0.7   | 1.0 | 1.0    | 1.0  | 1.0    | 1.0  | 1.0    | 1.0  |
| 177.5° | 0.7 | 0.7   | 0.7 | 0.7   | 0.9 | 0.9    | 1.0  | 1.0    | 1.0  | 1.0    | 0.9  |
| 178°   | 0.8 | 0.8   | 0.8 | 0.7   | 0.9 | 0.9    | 1.0  | 1.0    | 0.9  | 0.9    | 0.9  |
| 178.5° | 0.8 | 0.8   | 0.8 | 0.8   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 179°   | 0.8 | 0.8   | 0.8 | 0.8   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |
| 179.5° | 0.8 | 0.8   | 0.8 | 0.8   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |



TEST NUMBER: P1590481  
CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

CANDELA DISTRIBUTION (continued):

|      | 0°  | 22.5° | 45° | 67.5° | 90° | 112.5° | 135° | 157.5° | 180° | 202.5° | 225° |
|------|-----|-------|-----|-------|-----|--------|------|--------|------|--------|------|
| 180° | 0.9 | 0.9   | 0.9 | 0.9   | 0.9 | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 0°    | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 | 2316.1 |
| 0.5°  | 2316.3 | 2314.7 | 2315.5 | 2316.3 | 2316.1 | 2316.5 |
| 1°    | 2315.7 | 2314.1 | 2314.9 | 2315.3 | 2315.1 | 2315.5 |
| 1.5°  | 2314.7 | 2313.1 | 2314.1 | 2313.9 | 2313.5 | 2314.3 |
| 2°    | 2313.5 | 2311.9 | 2312.3 | 2311.5 | 2311.3 | 2312.7 |
| 2.5°  | 2311.3 | 2310.4 | 2310.4 | 2309.0 | 2308.8 | 2310.6 |
| 3°    | 2309.2 | 2309.0 | 2308.4 | 2305.6 | 2304.7 | 2308.4 |
| 3.5°  | 2306.2 | 2306.6 | 2305.4 | 2301.5 | 2300.1 | 2304.7 |
| 4°    | 2302.7 | 2303.5 | 2301.9 | 2296.6 | 2295.0 | 2300.7 |
| 4.5°  | 2298.0 | 2300.1 | 2297.8 | 2291.3 | 2289.3 | 2295.6 |
| 5°    | 2293.1 | 2295.8 | 2293.4 | 2285.2 | 2282.8 | 2290.1 |
| 5.5°  | 2288.1 | 2291.1 | 2288.3 | 2279.1 | 2276.1 | 2283.8 |
| 6°    | 2282.2 | 2285.6 | 2282.8 | 2272.8 | 2268.7 | 2277.3 |
| 6.5°  | 2275.7 | 2279.7 | 2276.5 | 2266.3 | 2262.0 | 2269.8 |
| 7°    | 2268.7 | 2272.2 | 2269.8 | 2259.4 | 2254.3 | 2261.8 |
| 7.5°  | 2261.2 | 2264.3 | 2261.6 | 2252.5 | 2247.0 | 2253.1 |
| 8°    | 2252.7 | 2254.9 | 2252.9 | 2243.9 | 2238.8 | 2244.3 |
| 8.5°  | 2243.7 | 2244.3 | 2242.7 | 2235.6 | 2230.3 | 2234.2 |
| 9°    | 2232.9 | 2231.7 | 2231.3 | 2225.4 | 2220.7 | 2223.4 |
| 9.5°  | 2221.1 | 2217.9 | 2218.1 | 2214.4 | 2210.2 | 2211.4 |
| 10°   | 2207.3 | 2201.4 | 2202.8 | 2201.0 | 2198.6 | 2199.0 |
| 10.5° | 2191.4 | 2183.3 | 2185.1 | 2186.8 | 2185.5 | 2185.1 |
| 11°   | 2173.8 | 2162.8 | 2165.6 | 2169.7 | 2170.7 | 2169.7 |
| 11.5° | 2152.8 | 2139.8 | 2143.4 | 2150.4 | 2153.8 | 2152.8 |
| 12°   | 2130.6 | 2115.2 | 2119.8 | 2128.4 | 2134.1 | 2133.9 |
| 12.5° | 2106.8 | 2090.8 | 2095.2 | 2105.8 | 2112.9 | 2114.4 |
| 13°   | 2082.6 | 2064.9 | 2069.6 | 2081.6 | 2091.6 | 2093.8 |
| 13.5° | 2057.6 | 2039.9 | 2044.0 | 2056.8 | 2068.8 | 2072.5 |
| 14°   | 2032.1 | 2013.2 | 2018.0 | 2031.4 | 2044.8 | 2050.3 |
| 14.5° | 2006.0 | 1987.0 | 1991.8 | 2006.4 | 2020.6 | 2028.0 |
| 15°   | 1979.9 | 1960.0 | 1965.1 | 1980.0 | 1996.0 | 2004.9 |
| 15.5° | 1954.5 | 1934.3 | 1939.4 | 1955.3 | 1970.7 | 1981.2 |
| 16°   | 1929.3 | 1908.8 | 1914.3 | 1929.6 | 1945.6 | 1957.8 |
| 16.5° | 1903.8 | 1884.4 | 1889.4 | 1905.0 | 1921.8 | 1934.3 |
| 17°   | 1879.4 | 1859.0 | 1864.1 | 1880.5 | 1896.9 | 1910.3 |
| 17.5° | 1855.1 | 1834.1 | 1840.2 | 1855.7 | 1872.8 | 1885.7 |
| 18°   | 1831.0 | 1809.1 | 1815.2 | 1831.1 | 1847.7 | 1861.1 |
| 18.5° | 1806.1 | 1784.4 | 1790.5 | 1807.1 | 1823.2 | 1836.8 |
| 19°   | 1782.7 | 1760.0 | 1766.9 | 1782.8 | 1798.4 | 1812.6 |
| 19.5° | 1759.8 | 1735.0 | 1742.9 | 1759.1 | 1774.3 | 1788.5 |
| 20°   | 1736.9 | 1711.6 | 1719.8 | 1735.2 | 1749.6 | 1764.0 |
| 20.5° | 1714.1 | 1687.2 | 1695.8 | 1712.2 | 1725.6 | 1739.9 |
| 21°   | 1691.2 | 1664.0 | 1672.3 | 1687.8 | 1701.2 | 1715.5 |
| 21.5° | 1668.4 | 1639.8 | 1648.7 | 1663.9 | 1676.5 | 1691.3 |
| 22°   | 1644.9 | 1616.1 | 1625.1 | 1639.6 | 1652.4 | 1665.9 |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°   | 292.5° | 315°   | 337.5° | 360°   |
|-------|--------|--------|--------|--------|--------|--------|
| 22.5° | 1620.6 | 1591.6 | 1600.2 | 1615.4 | 1626.7 | 1640.3 |
| 23°   | 1594.1 | 1565.3 | 1573.5 | 1589.1 | 1599.4 | 1612.6 |
| 23.5° | 1565.4 | 1536.9 | 1545.6 | 1561.2 | 1572.2 | 1585.0 |
| 24°   | 1536.3 | 1506.3 | 1515.9 | 1531.5 | 1542.6 | 1555.8 |
| 24.5° | 1506.1 | 1472.8 | 1485.1 | 1499.5 | 1511.4 | 1526.1 |
| 25°   | 1474.5 | 1441.2 | 1452.8 | 1466.6 | 1478.7 | 1495.2 |
| 25.5° | 1441.4 | 1408.8 | 1420.1 | 1432.2 | 1446.1 | 1464.9 |
| 26°   | 1408.2 | 1376.7 | 1386.9 | 1396.9 | 1412.4 | 1434.1 |
| 26.5° | 1373.8 | 1343.2 | 1353.2 | 1361.5 | 1377.9 | 1404.1 |
| 27°   | 1338.4 | 1311.7 | 1319.1 | 1325.4 | 1341.9 | 1371.8 |
| 27.5° | 1302.5 | 1279.3 | 1283.8 | 1289.4 | 1306.7 | 1340.0 |
| 28°   | 1265.7 | 1245.9 | 1248.6 | 1254.0 | 1273.3 | 1307.0 |
| 28.5° | 1229.5 | 1212.3 | 1214.0 | 1218.8 | 1239.8 | 1274.0 |
| 29°   | 1194.3 | 1178.3 | 1179.4 | 1184.5 | 1207.0 | 1239.2 |
| 29.5° | 1159.7 | 1143.0 | 1144.7 | 1150.7 | 1174.7 | 1205.2 |
| 30°   | 1125.2 | 1107.4 | 1109.0 | 1117.5 | 1143.0 | 1169.0 |
| 30.5° | 1090.5 | 1070.4 | 1073.5 | 1084.1 | 1110.2 | 1134.1 |
| 31°   | 1056.9 | 1035.2 | 1038.1 | 1050.5 | 1077.6 | 1099.2 |
| 31.5° | 1023.1 | 998.9  | 1003.2 | 1017.2 | 1044.4 | 1064.7 |
| 32°   | 990.0  | 963.8  | 968.8  | 983.5  | 1010.1 | 1029.7 |
| 32.5° | 957.0  | 929.2  | 934.9  | 950.0  | 976.0  | 996.1  |
| 33°   | 923.8  | 895.3  | 901.9  | 916.3  | 941.5  | 962.2  |
| 33.5° | 890.4  | 860.6  | 869.5  | 881.9  | 906.5  | 928.2  |
| 34°   | 857.6  | 822.5  | 839.0  | 849.2  | 871.6  | 894.7  |
| 34.5° | 824.9  | 791.8  | 807.3  | 818.0  | 838.0  | 860.7  |
| 35°   | 793.3  | 761.2  | 775.6  | 786.9  | 806.2  | 821.0  |
| 35.5° | 761.4  | 730.6  | 743.8  | 755.7  | 774.4  | 789.5  |
| 36°   | 731.0  | 700.0  | 712.1  | 724.6  | 742.6  | 758.1  |
| 36.5° | 700.4  | 670.4  | 680.4  | 693.4  | 710.8  | 726.6  |
| 37°   | 670.2  | 641.1  | 650.2  | 664.1  | 679.0  | 695.2  |
| 37.5° | 640.5  | 612.6  | 620.5  | 635.1  | 649.4  | 662.6  |
| 38°   | 611.5  | 585.5  | 591.2  | 607.1  | 620.2  | 630.7  |
| 38.5° | 583.5  | 558.6  | 562.7  | 578.6  | 590.7  | 599.7  |
| 39°   | 556.0  | 532.7  | 536.9  | 551.1  | 562.3  | 570.1  |
| 39.5° | 528.8  | 506.4  | 510.6  | 523.0  | 533.6  | 540.7  |
| 40°   | 501.8  | 480.8  | 484.9  | 496.1  | 505.2  | 512.1  |
| 40.5° | 476.2  | 456.5  | 460.1  | 469.2  | 476.8  | 485.1  |
| 41°   | 451.1  | 433.0  | 436.5  | 443.2  | 450.1  | 458.6  |
| 41.5° | 426.9  | 410.3  | 413.1  | 418.2  | 423.3  | 432.6  |
| 42°   | 403.2  | 388.3  | 390.4  | 393.9  | 398.2  | 408.3  |
| 42.5° | 379.8  | 367.3  | 368.5  | 369.4  | 373.4  | 384.7  |
| 43°   | 357.6  | 346.9  | 347.1  | 347.4  | 350.3  | 361.6  |
| 43.5° | 336.2  | 326.9  | 326.5  | 324.6  | 327.5  | 338.9  |
| 44°   | 315.8  | 307.7  | 306.8  | 303.0  | 305.8  | 318.0  |
| 44.5° | 296.0  | 289.0  | 287.9  | 281.9  | 284.6  | 297.3  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270°  | 292.5° | 315°  | 337.5° | 360°  |
|-------|--------|-------|--------|-------|--------|-------|
| 45°   | 276.9  | 271.1 | 269.4  | 262.0 | 264.3  | 277.3 |
| 45.5° | 258.6  | 253.9 | 252.1  | 242.7 | 245.3  | 258.2 |
| 46°   | 241.1  | 237.5 | 235.4  | 224.5 | 227.1  | 240.5 |
| 46.5° | 224.6  | 221.4 | 219.3  | 207.2 | 209.5  | 222.9 |
| 47°   | 209.5  | 206.0 | 203.8  | 191.3 | 193.0  | 206.5 |
| 47.5° | 194.4  | 191.2 | 188.9  | 176.5 | 177.8  | 190.5 |
| 48°   | 179.3  | 177.0 | 174.7  | 162.5 | 163.8  | 175.9 |
| 48.5° | 164.3  | 163.8 | 161.3  | 149.8 | 150.7  | 161.5 |
| 49°   | 151.0  | 150.9 | 148.5  | 138.1 | 138.0  | 148.3 |
| 49.5° | 138.4  | 138.6 | 136.3  | 127.3 | 127.2  | 135.7 |
| 50°   | 126.9  | 126.8 | 124.5  | 116.9 | 116.5  | 123.3 |
| 50.5° | 115.7  | 115.5 | 113.6  | 107.2 | 106.7  | 111.7 |
| 51°   | 105.4  | 104.9 | 103.3  | 98.1  | 97.2   | 101.1 |
| 51.5° | 95.6   | 94.6  | 93.5   | 89.3  | 88.5   | 90.8  |
| 52°   | 86.4   | 85.1  | 84.1   | 80.8  | 80.9   | 81.3  |
| 52.5° | 77.4   | 77.0  | 76.3   | 73.3  | 73.1   | 73.1  |
| 53°   | 69.0   | 69.0  | 68.5   | 65.7  | 65.3   | 64.8  |
| 53.5° | 61.2   | 60.9  | 60.7   | 58.2  | 57.5   | 56.6  |
| 54°   | 53.7   | 52.9  | 52.9   | 50.7  | 49.7   | 48.4  |
| 54.5° | 46.7   | 44.8  | 45.1   | 44.3  | 43.1   | 41.8  |
| 55°   | 40.4   | 38.7  | 39.1   | 38.5  | 37.1   | 35.9  |
| 55.5° | 35.0   | 33.4  | 33.7   | 33.1  | 32.1   | 30.6  |
| 56°   | 29.6   | 28.0  | 28.3   | 27.8  | 26.8   | 25.3  |
| 56.5° | 26.0   | 23.0  | 23.5   | 22.9  | 21.9   | 20.5  |
| 57°   | 22.5   | 18.9  | 19.2   | 18.7  | 17.7   | 16.6  |
| 57.5° | 19.0   | 15.8  | 16.1   | 15.6  | 14.7   | 13.7  |
| 58°   | 15.5   | 13.4  | 13.8   | 13.3  | 12.5   | 11.6  |
| 58.5° | 12.0   | 11.6  | 12.0   | 11.6  | 10.8   | 10.0  |
| 59°   | 10.4   | 10.2  | 10.5   | 10.1  | 9.4    | 8.8   |
| 59.5° | 9.2    | 9.1   | 9.4    | 9.0   | 8.3    | 8.0   |
| 60°   | 8.2    | 8.4   | 8.4    | 8.3   | 7.7    | 7.3   |
| 60.5° | 7.4    | 7.7   | 7.8    | 7.7   | 7.0    | 6.6   |
| 61°   | 6.7    | 7.1   | 7.2    | 7.0   | 6.4    | 5.8   |
| 61.5° | 6.1    | 6.4   | 6.6    | 6.4   | 5.7    | 5.3   |
| 62°   | 5.6    | 5.8   | 6.0    | 5.7   | 5.2    | 4.9   |
| 62.5° | 5.1    | 5.3   | 5.5    | 5.2   | 4.8    | 4.5   |
| 63°   | 4.7    | 4.9   | 5.1    | 4.8   | 4.4    | 4.1   |
| 63.5° | 4.3    | 4.5   | 4.7    | 4.5   | 4.1    | 3.8   |
| 64°   | 4.0    | 4.2   | 4.3    | 4.1   | 3.7    | 3.5   |
| 64.5° | 3.7    | 3.9   | 4.0    | 3.8   | 3.5    | 3.2   |
| 65°   | 3.4    | 3.6   | 3.7    | 3.5   | 3.2    | 3.0   |
| 65.5° | 3.2    | 3.3   | 3.5    | 3.3   | 3.0    | 2.8   |
| 66°   | 3.0    | 3.1   | 3.2    | 3.1   | 2.7    | 2.6   |
| 66.5° | 2.8    | 2.9   | 3.0    | 2.8   | 2.6    | 2.4   |
| 67°   | 2.6    | 2.7   | 2.8    | 2.6   | 2.4    | 2.2   |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|       | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|-------|--------|------|--------|------|--------|------|
| 67.5° | 2.4    | 2.5  | 2.6    | 2.5  | 2.2    | 2.0  |
| 68°   | 2.2    | 2.3  | 2.4    | 2.3  | 2.0    | 1.9  |
| 68.5° | 2.1    | 2.2  | 2.3    | 2.1  | 1.9    | 1.8  |
| 69°   | 1.9    | 2.0  | 2.1    | 2.0  | 1.8    | 1.6  |
| 69.5° | 1.8    | 1.9  | 1.9    | 1.8  | 1.6    | 1.5  |
| 70°   | 1.7    | 1.7  | 1.8    | 1.7  | 1.5    | 1.4  |
| 70.5° | 1.5    | 1.6  | 1.7    | 1.6  | 1.4    | 1.3  |
| 71°   | 1.4    | 1.5  | 1.6    | 1.5  | 1.3    | 1.2  |
| 71.5° | 1.3    | 1.4  | 1.5    | 1.4  | 1.2    | 1.1  |
| 72°   | 1.2    | 1.3  | 1.3    | 1.3  | 1.1    | 1.0  |
| 72.5° | 1.1    | 1.2  | 1.2    | 1.2  | 1.0    | 0.9  |
| 73°   | 1.1    | 1.1  | 1.1    | 1.1  | 0.9    | 0.9  |
| 73.5° | 1.0    | 1.0  | 1.1    | 1.0  | 0.9    | 0.8  |
| 74°   | 0.9    | 0.9  | 1.0    | 0.9  | 0.8    | 0.7  |
| 74.5° | 0.8    | 0.9  | 0.9    | 0.8  | 0.7    | 0.7  |
| 75°   | 0.8    | 0.8  | 0.8    | 0.8  | 0.7    | 0.6  |
| 75.5° | 0.7    | 0.7  | 0.8    | 0.7  | 0.6    | 0.5  |
| 76°   | 0.6    | 0.7  | 0.7    | 0.6  | 0.6    | 0.5  |
| 76.5° | 0.6    | 0.6  | 0.6    | 0.6  | 0.5    | 0.4  |
| 77°   | 0.5    | 0.5  | 0.6    | 0.5  | 0.5    | 0.4  |
| 77.5° | 0.5    | 0.5  | 0.5    | 0.5  | 0.4    | 0.4  |
| 78°   | 0.4    | 0.4  | 0.5    | 0.4  | 0.4    | 0.3  |
| 78.5° | 0.4    | 0.4  | 0.4    | 0.4  | 0.3    | 0.3  |
| 79°   | 0.3    | 0.4  | 0.4    | 0.3  | 0.3    | 0.2  |
| 79.5° | 0.3    | 0.3  | 0.3    | 0.3  | 0.2    | 0.2  |
| 80°   | 0.3    | 0.3  | 0.3    | 0.3  | 0.2    | 0.2  |
| 80.5° | 0.2    | 0.2  | 0.3    | 0.2  | 0.2    | 0.1  |
| 81°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.1    | 0.1  |
| 81.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.1    | 0.1  |
| 82°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 82.5° | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.0  |
| 83°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.0    | 0.0  |
| 83.5° | 0.0    | 0.1  | 0.1    | 0.0  | 0.0    | 0.0  |
| 84°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 84.5° | 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  |
| 85.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 86°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 86.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 87°   | 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  |
| 88°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 88.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 89°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 89.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 90°    | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 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  |
| 111.5° | 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  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 112.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 113°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 113.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 114°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 114.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 115.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 116°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 116.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 117.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 118°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 118.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 119°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 119.5° | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120°   | 0.0    | 0.0  | 0.0    | 0.0  | 0.0    | 0.0  |
| 120.5° | 0.0    | 0.1  | 0.1    | 0.1  | 0.0    | 0.0  |
| 121°   | 0.0    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 121.5° | 0.0    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 122°   | 0.0    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 122.5° | 0.0    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 123°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 123.5° | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 124°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 124.5° | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 125°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 125.5° | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 126°   | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 126.5° | 0.1    | 0.1  | 0.1    | 0.1  | 0.1    | 0.1  |
| 127°   | 0.1    | 0.2  | 0.2    | 0.2  | 0.1    | 0.1  |
| 127.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 128°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 128.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 129°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 129.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 130°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 130.5° | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 131°   | 0.2    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 131.5° | 0.3    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 132°   | 0.3    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 132.5° | 0.3    | 0.2  | 0.2    | 0.2  | 0.2    | 0.2  |
| 133°   | 0.3    | 0.3  | 0.3    | 0.3  | 0.2    | 0.2  |
| 133.5° | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 134°   | 0.3    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 134.5° | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 135°   | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 135.5° | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 136°   | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 136.5° | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 137°   | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 137.5° | 0.4    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 138°   | 0.5    | 0.3  | 0.3    | 0.3  | 0.3    | 0.3  |
| 138.5° | 0.5    | 0.4  | 0.4    | 0.4  | 0.3    | 0.3  |
| 139°   | 0.5    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 139.5° | 0.5    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 140°   | 0.5    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 140.5° | 0.6    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 141°   | 0.6    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 141.5° | 0.6    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 142°   | 0.6    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 142.5° | 0.6    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 143°   | 0.7    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 143.5° | 0.7    | 0.4  | 0.4    | 0.4  | 0.4    | 0.4  |
| 144°   | 0.7    | 0.5  | 0.4    | 0.4  | 0.4    | 0.4  |
| 144.5° | 0.7    | 0.5  | 0.5    | 0.5  | 0.5    | 0.4  |
| 145°   | 0.7    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 145.5° | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 146°   | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 146.5° | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 147°   | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 147.5° | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 148°   | 0.8    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 148.5° | 0.9    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 149°   | 0.9    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 149.5° | 0.9    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 150°   | 0.9    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 150.5° | 0.9    | 0.5  | 0.5    | 0.5  | 0.5    | 0.5  |
| 151°   | 0.9    | 0.5  | 0.6    | 0.6  | 0.6    | 0.5  |
| 151.5° | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 152°   | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 152.5° | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 153°   | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 153.5° | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 154°   | 1.0    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 154.5° | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 155°   | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 155.5° | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 156°   | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 156.5° | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 157°   | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|        | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|--------|--------|------|--------|------|--------|------|
| 157.5° | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 158°   | 1.1    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 158.5° | 1.2    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 159°   | 1.2    | 0.6  | 0.6    | 0.6  | 0.6    | 0.6  |
| 159.5° | 1.2    | 0.6  | 0.6    | 0.6  | 0.7    | 0.6  |
| 160°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 160.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 161°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 161.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 162°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 162.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 163°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 163.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 164°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 164.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 165°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 165.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 166°   | 1.2    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 166.5° | 1.2    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 167°   | 1.2    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 167.5° | 1.2    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 168°   | 1.2    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 168.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 169°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 169.5° | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 170°   | 1.2    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 170.5° | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 171°   | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 171.5° | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 172°   | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 172.5° | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 173°   | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 173.5° | 1.1    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 174°   | 1.0    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 174.5° | 1.0    | 0.6  | 0.6    | 0.7  | 0.7    | 0.7  |
| 175°   | 1.0    | 0.6  | 0.7    | 0.7  | 0.7    | 0.7  |
| 175.5° | 1.0    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 176°   | 1.0    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 176.5° | 1.0    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 177°   | 1.0    | 0.7  | 0.7    | 0.7  | 0.7    | 0.7  |
| 177.5° | 0.9    | 0.7  | 0.8    | 0.8  | 0.8    | 0.7  |
| 178°   | 0.9    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 178.5° | 0.9    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 179°   | 0.9    | 0.8  | 0.8    | 0.8  | 0.8    | 0.8  |
| 179.5° | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.8  |



TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CANDELA DISTRIBUTION (continued):**

|      | 247.5° | 270° | 292.5° | 315° | 337.5° | 360° |
|------|--------|------|--------|------|--------|------|
| 180° | 0.9    | 0.9  | 0.9    | 0.9  | 0.9    | 0.9  |

TEST NUMBER: P1590481

CATALOG NUMBER: HCDLS1525CSD4TRH-ME-5000K

**CIE UGR TABLE:**

| Reflectances:   |      |                  |     |     |     |     |                |     |     |     |     |
|-----------------|------|------------------|-----|-----|-----|-----|----------------|-----|-----|-----|-----|
| Ceiling         |      | 0.7              | 0.7 | 0.5 | 0.5 | 0.3 | 0.7            | 0.7 | 0.5 | 0.5 | 0.3 |
| Wall            |      | 0.5              | 0.3 | 0.5 | 0.3 | 0.3 | 0.5            | 0.3 | 0.5 | 0.3 | 0.3 |
| Reference plane |      | 0.2              | 0.2 | 0.2 | 0.2 | 0.2 | 0.2            | 0.2 | 0.2 | 0.2 | 0.2 |
| Room Dimensions |      | Viewed crosswise |     |     |     |     | Viewed endwise |     |     |     |     |
| X=2H            | Y=2H | 5.2              | 6.2 | 5.5 | 6.5 | 6.8 | 6.2            | 7.2 | 6.5 | 7.5 | 7.8 |
|                 | 3H   | 5.1              | 6.0 | 5.5 | 6.3 | 6.7 | 6.1            | 7.0 | 6.5 | 7.3 | 7.7 |
|                 | 4H   | 5.0              | 5.9 | 5.4 | 6.2 | 6.6 | 6.0            | 6.9 | 6.4 | 7.2 | 7.6 |
|                 | 6H   | 4.9              | 5.7 | 5.3 | 6.1 | 6.5 | 5.9            | 6.7 | 6.4 | 7.1 | 7.5 |
|                 | 8H   | 4.9              | 5.6 | 5.3 | 6.0 | 6.4 | 5.9            | 6.6 | 6.3 | 7.0 | 7.4 |
|                 | 12H  | 4.8              | 5.5 | 5.3 | 5.9 | 6.3 | 5.8            | 6.5 | 6.3 | 6.9 | 7.3 |
| 4H              | 2H   | 5.0              | 5.8 | 5.4 | 6.2 | 6.6 | 6.0            | 6.8 | 6.4 | 7.2 | 7.6 |
|                 | 3H   | 4.9              | 5.6 | 5.4 | 6.0 | 6.4 | 5.9            | 6.6 | 6.3 | 7.0 | 7.4 |
|                 | 4H   | 4.9              | 5.5 | 5.3 | 5.9 | 6.3 | 5.8            | 6.4 | 6.3 | 6.9 | 7.3 |
|                 | 6H   | 4.8              | 5.3 | 5.2 | 5.7 | 6.2 | 5.7            | 6.3 | 6.2 | 6.7 | 7.2 |
|                 | 8H   | 4.7              | 5.2 | 5.2 | 5.6 | 6.1 | 5.7            | 6.2 | 6.2 | 6.6 | 7.1 |
|                 | 12H  | 4.6              | 5.0 | 5.1 | 5.5 | 6.0 | 5.6            | 6.0 | 6.1 | 6.5 | 7.0 |
| 8H              | 4H   | 4.7              | 5.2 | 5.2 | 5.6 | 6.1 | 5.7            | 6.2 | 6.1 | 6.6 | 7.1 |
|                 | 6H   | 4.6              | 5.0 | 5.1 | 5.5 | 6.0 | 5.6            | 6.0 | 6.1 | 6.5 | 6.9 |
|                 | 8H   | 4.5              | 4.9 | 5.1 | 5.4 | 5.9 | 5.5            | 5.8 | 6.0 | 6.4 | 6.9 |
|                 | 12H  | 4.5              | 4.8 | 5.0 | 5.3 | 5.8 | 5.4            | 5.7 | 6.0 | 6.2 | 6.8 |
| 12H             | 4H   | 4.6              | 5.1 | 5.1 | 5.5 | 6.0 | 5.6            | 6.0 | 6.1 | 6.5 | 7.0 |
|                 | 6H   | 4.5              | 4.9 | 5.1 | 5.3 | 5.9 | 5.5            | 5.8 | 6.0 | 6.3 | 6.9 |
|                 | 8H   | 4.5              | 4.8 | 5.0 | 5.3 | 5.8 | 5.4            | 5.7 | 6.0 | 6.2 | 6.8 |















































(END OF REPORT)